

# METEOR LAKE OUTWASH FANS CONSERVATION RESERVE



## ENHANCED STATEMENT OF CONSERVATION INTEREST VERSION 1.0



DECEMBER 2004

## APPROVAL STATEMENT

I am pleased to approve this Enhanced Statement of Conservation Interest for the Meteor Lake Outwash Fans Conservation Reserve.

The management direction for this conservation reserve is in the form of an Enhanced Statement of Conservation Interest. The Enhanced Statement of Conservation Interest defines the area that is being planned, the purpose for which the conservation reserve has been proposed, and it outlines the Ministry of Natural Resources' intent for the protected area. This Enhanced Statement of Conservation Interest will provide guidance for the management of the conservation reserve and the basis for the ongoing monitoring of activities.

Direction for establishing, planning and managing conservation reserves is defined under the *Public Lands Act* and current policy. "Ontario's network of natural heritage areas has been established to protect and conserve areas representative of the diversity and the natural regions of the province, including species, habitats, features and ecological systems which comprise that natural diversity" (OMNR, 1997). Detailed direction and defined management will be incorporated into this Enhanced Statement of Conservation Interest as well as public consultation.

The direction herein is consistent with the Ministry of Natural Resources' *Ontario's Living Legacy Land Use Strategy* (OMNR, 1999). Decisions made at this time further clarify the permitted uses within the Meteor Lake Outwash Fans Conservation Reserve. The site has been regulated under the *Public Lands Act* and the public was informed and consulted during the preparation and review of this Enhanced Statement of Conservation Interest.

The Meteor Lake Outwash Fans Conservation Reserve will be managed under the jurisdiction of the Timmins District Ministry of Natural Resources under the supervision of the Watershed Area Supervisor as designated by the District Manager.

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## 1.0 INTRODUCTION

In 1999, *Ontario's Living Legacy (OLL) Land Use Strategy* identified 378 natural areas that contribute to the representation of the spectrum of the province's ecosystems and natural features, including both biological and geological features, while minimizing impacts on other land uses. Protecting areas, species, habitats, special features and ecological systems is essential to the sustainable management of natural resources in the Province of Ontario. By ensuring representative sites are retained in their natural state, these areas can continue to contribute to Ontario's natural environment for present and future generations (PL 3.03.05; OMNR, 1997).

Conservation reserves have been established to preserve sensitive areas requiring protection from incompatible uses to ensure their values will endure over time. This designation permits many traditional land uses to continue while excluding activities such as commercial timber harvest, mining, and hydroelectric development that negatively impact the conservation reserve.

The 3,552 hectare Meteor Lake Outwash Fans Conservation Reserve is located south of the settlement of Westree and Highway 560 and east of Highway 144 in the Territorial District of Sudbury in northeastern Ontario. The Meteor Lake Outwash Fans Conservation Reserve (Map 8.1) captures unique geological historical features with the inclusion of the outwash fans and dune complexes. These outwash fans are provincially significant due to their exceptional development and the ease of interpretation of the recessional sequence of subaquatic outwash fans (Kor and Krisjansson, 1997). Wind (i.e. eolian processes) has created the dune complexes in the western portion of the site by reworking the fine sand distal portions of the outwash fans. The northern portion of the Meteor Lake Outwash Fans Conservation Reserve encompassing these sensitive dune complexes has been identified as a Special Management Area to provide additional protection beyond what is stated in the *Land Use Strategy*.

An approved Statement of Conservation Interest (SCI), an Enhanced Statement of Conservation Interest (Enhanced SCI), or a Resource Management Plan (RMP) will guide the management and administration of each conservation reserve. Due to the dune complex Special Management Area, the management of Meteor Lake Outwash Fans Conservation Reserve will be guided by an Enhanced SCI.

## 2.0 GOALS AND OBJECTIVES

### 2.1 Goal

This Enhanced Statement of Conservation Interest will be used Enhanced SCI is to identify needs and guide key management activities towards the protecting site-specific values and the overall ecological integrity of the Meteor Lake Outwash Fans Conservation Reserve. The management direction will protect the site's natural heritage values and demonstrate its compatibility within the larger sustainable landscape. This direction will comply with the land use intent as stated by the *Ontario's Living Legacy Land Use Strategy* (OMNR, 1997; OMNR, 1999).

### 2.2 Objectives

#### 2.2.1 Short Term Objectives

The short-term objectives of this Enhanced SCI are:

- To define the purpose of Meteor Lake Outwash Fans Conservation Reserve;



- To define the management intent for Meteor Lake Outwash Fans Conservation Reserve; and,
- To create public awareness of the values within Meteor Lake Outwash Fans Conservation Reserve and promote responsible stewardship of the protected area and surrounding lands.

This will be accomplished by:

- Identifying the state of the resource with respect to the protection of natural heritage values and current land use activities occurring within the Meteor Lake Outwash Fans Conservation Reserve; and,
- Determining land-use compatibilities, thus creating the best management strategy to protect the integrity of identified values.

### 2.2.2 Long Term Objectives

The Enhanced Statement of Conservation Interest (SCI) will determine the long-term management goals of the conservation reserve by identifying tourism and recreational use opportunities, research needs, client services and marketing strategies. By comparing scientific values found within Meteor Lake Outwash Fans Conservation Reserve to provincial benchmarks, representative targets (e.g. future forest conditions) can be determined for this site. Further monitoring or research needed to identify and to maintain the integrity of these characteristics can then be established.

The Enhanced SCI will also provide direction to evaluate proposed new uses or economic ventures. To accomplish this, the Test of Compatibility shall be undertaken to determine the positive or negative impact(s) of the suggested use(s) on the protected values and administrative needs of the conservation reserve (OMNR, 1997). The Test of Compatibility will provide the rationale for decision-making within the entire site, and further clarify permitted uses for the Special Management Area, within the Meteor Lake Outwash Fans Conservation Reserve.

## 3.0 MANAGEMENT PLANNING

### 3.1 Planning Context

#### 3.1.1 Planning Area

The planning area is the regulated boundary of Meteor Lake Outwash Fans Conservation Reserve as well as any associated forest reserve (Map 8.1). An area of existing mining tenure on the eastern peninsula of Meteor Lake has been designated as a “forest reserve”. Although outside the regulated boundary of the conservation reserve at this time, it has been included in the planning area. A forest reserve is a land-use designation applied to areas that were initially identified for inclusion in the conservation reserve but where subsequent detailed examination determined that there were existing mining claims or leases.

The planning area will form the area directly influenced by this Enhanced Statement of Conservation Interest. The management direction within this Enhanced SCI will recognize the protection of values within the planning area, however, to fully protect values within the conservation reserve additional consideration within larger land use or resource management plans may be required. Any strategies noted within this plan related to the site’s boundary or beyond will need to be presented for consideration within a larger planning context.



### 3.1.2 Management Planning Context

The need to complete the parks and protected areas system has long been recognized as an important component for ecological sustainability within the Province of Ontario (OMNR, 2000). This was reaffirmed in 1997 when the *Lands for Life* planning process was announced. Previous gap analysis studies were used to propose where candidate areas would protect additional representative life and earth science features. The Meteor Lake Outwash Fans was identified as a candidate earth science features site and appeared in *Ontario's Living Legacy Land Use Strategy* as C1587 (OMNR, 1999).

Conservation reserves are governed under Section 4 of the *Public Lands Act* and their lands and waters, as described in the Schedules, shall not be used for mining, commercial forest harvest, hydro-electric power development, the extraction of aggregates or peat or other industrial purposes (OMNR, 1997).

Permitted uses in conservation reserves follow the direction expressed in the *Land Use Strategy* while ensuring prior commitments made by Timmins District, Ministry of Natural Resources are met (OMNR, 1999). In time, the *Land Use Strategy* will be superseded by MNR's online *Crown Land Use Atlas*.

The Permitted Uses Table (Appendix B) illustrates the variety of uses that could potentially occur in a conservation reserve. In cases where a use already occurs, it will be permitted to continue as per the *Land Use Strategy* (OMNR, 1997). Where a permitted use does not already exist in a specific conservation reserve, the permitted use would be considered a new use and subjected to the Test of Compatibility. Most recreational (e.g. hiking, boating, bird watching, hunting, fishing) and non-industrial resource uses (e.g. fur harvesting and bait harvesting) traditionally enjoyed in the area are permitted to continue.

Reflective of the management intent for Meteor Lake Outwash Fans Conservation Reserve, future uses or developments proposed for this conservation reserve will be reviewed using the *Procedural Guideline B - Land Uses - Test of Compatibility* found in *Policy PL3.03.05* (OMNR, 1997). The Test of Compatibility is conducted to weigh the future use against the potential impacts to site values. This Enhanced SCI will clarify uses permitted for the Special Management Area within Meteor Lake Outwash Fans Conservation Reserve. Proposed uses and/or developments may also be screened using *A Reference Manual for MNR Class Environmental Assessments: Resource Stewardship and Facility Development Projects* (OMNR 2003a).

Consideration for proposals pertaining to the development/ use of cultural resources may be screened through *Conserving a Future For Our Past: Archaeology, Land Use Planning & Development In Ontario, Section 3* (Ministry of Citizenship, Culture and Recreation, 1997). Where necessary, the Ministry of Natural Resources will establish Area of Concern (AOC) descriptions and prescriptions for cultural heritage resources within forest management planning (FMPs).

These planning tools will help refine the review process once the proposal satisfies the direction and intent of the *Public Lands Act*, associated policies and this planning document.



### 3.2 Planning Process

The management direction for Meteor Lake Outwash Fans Conservation Reserve must include as a minimum, regulation, provision of public information, stewardship, and security. It also states the delegation of authorization, clarification on permitted uses and ongoing monitoring and compliance. Management of conservation reserves is the responsibility of the Ministry of Natural Resources at the District level, and will be done in accordance with *Policy PL 3.03.05* (OMNR, 1997) and an approved management document.

A Statement of Conservation Interest is the minimum level of management direction established for any conservation reserve. If during the planning process major issues arise and/or it is recognized that decisions will need to be made beyond what is directed in the *Land Use Strategy*, a Statement of Conservation Interest increases to an Enhanced Statement of Conservation Interest, or a Resource Management Plan. In either case, specific permitted uses will be passed through the Test of Compatibility and decisions on current and/or future uses may be made beyond what is directed in the *Land Use Strategy*. Due to Meteor Lake Outwash Fans Conservation Reserve's sensitive dune complexes, the Test of Compatibility will be applied to clarify whether existing permitted uses positively or negatively impact the dune complexes located within the Special Management Area. This elevates the management direction to an Enhanced SCI.

This Enhanced SCI will govern the lands and waters within the regulated boundary of the conservation reserve and its associated forest reserve. To ensure Ministry of Natural Resources protection objectives are being fully met within the conservation reserve, the surrounding landscape and related activities must consider the site's objectives and heritage values.

A Terms of Reference was written to help guide the completion of the management planning for the Meteor Lake Outwash Fans Conservation Reserve Enhanced SCI. First Nations and the public were notified when the management planning for this conservation reserve began and were invited to provide comments or express concerns from November 15<sup>th</sup>, 2002 to mid-January 2003. Notification occurred via mail-out to the First Nations and stakeholders. As well, an advertisement was placed in five local newspapers (Timmins Daily Press, Timmins Times, Sudbury Star, Sudbury Le Voyageur, Sudbury Northern Life) during the week of November 11<sup>th</sup>, 2002. During the consultation period, the MNR received 10 responses from the public though none dealt with new permitted uses or development proposals for the conservation reserve. Significant issues focused on fisheries, permitted uses, historical information, forestry and requests to remain on the mailing list.

Meteor Lake Outwash Fans Conservation Reserve Enhanced SCI has received minimal public reaction, and as the management direction was elevated from SCI to Enhanced SCI to clarify permitted uses, this planning process is exempt from posting on the Electronic Bulletin Registry (EBR), under Section 30 of the Environmental Bill of Rights.

Members of the public, First Nation groups and stakeholders who responded to the first planning consultation period were provided the opportunity to review a draft version of the Enhanced Statement of Conservation Interest during the draft review period November 15 to December 19, 2003. In the same review period an advertisement was placed in the same five



newspapers. During this consultation period we received 7 responses including information requests and questions regarding mining and forestry.

Upon approval of the final Enhanced SCI by the Timmins District Manager and the Northeast Regional Director, public notification will occur via mail-out to interested stakeholders and a notice will appear in the same five local newspapers: Timmins Daily Press, Timmins Times, Sudbury Star, Sudbury Le Voyageur, and Sudbury Northern Life.

Where future reviews and revisions are necessary, public and First Nation consultation will occur and notification on the Environmental Bill of Rights Registry will be required. The Ministry of Natural Resources Timmins District will be responsible for ensuring this occurs.

## 4.0 BACKGROUND INFORMATION

### 4.1 Location and Site Description

#### 4.1.1 Location and Access

Meteor Lake Outwash Fans Conservation Reserve site is located approximately 144 kilometers north of Sudbury, between the settlements of Westree, Felix and Ruel (Table 1). The eastern boundary of the Conservation Reserve follows the western shore of Opikinimika Lake and the eastern edge of Meteor Lake; the western boundary follows Hennessy road and the Opikinimika River; the northern boundary is partially vectored and follows Hennessy creek; and the southern boundary is partially vectored and follows an unnamed tertiary road.

**Table 1:** Location and Administrative Details for Meteor Lake Outwash Fans Conservation Reserve

<b>MNR Administrative Region/District/Area</b>	Northeast/ Timmins/ Watershed
<b>Total Area</b>	3,552 hectares
<b>Regulation Date</b>	December 20, 2002
<b>First Nations Interests</b>	Mattagami and Sagamok (traditional territory)
<b>OBM Map Sheets</b>	46524, 47524, 47523
<b>Canada Map Series</b>	Map 41-P/6
<b>UTM Coordinates Centroid</b>	4673, 52405 (NAD 27 – Zone 17)
<b>Territorial District</b>	Sudbury
<b>Municipality</b>	Nil
<b>Township</b>	Beulah, Hennessy, Moffat, Blewett
<b>Status</b>	100% Crown land and waters
<b>Sustainable Forest License</b>	ShiningTree Forest Sustainable Forest License area, #542321

Access to the site is provided by four existing roads and a few trails. One primary forest access road, known as Hennessy Road, lines the northwestern boundary while three tertiary forest access roads, one of which forms a small section of the southeastern boundary and two others, allow access to the western portion of the site. Hennessy Road and its branching tertiary roads provide access to the conservation reserve's western side. South of the site a tertiary road branching from Amyot Road grants access to the southern tip of Meteor Lake. A snowmobile trail passes down the middle of Opikinimika and Meteor lakes and provides winter access (OMNR, 2002d). A few ATV/snowmobile trails lead to Pheasant, Jen and Beulah #16 lakes.



One mining claim occupies the most northerly peninsula of Meteor Lake; consequently, this area is designated as a forest reserve, and is not within the regulated boundary of the Conservation Reserve.

#### 4.1.2 Physical Site Description

Meteor Lake Outwash Fans Conservation Reserve is 3,552 hectares in size. It falls within two Site Regions (3E and 4E), and two Site Districts (3E-5 and 4E-3) (Appendix A; Map 8.2). The Meteor Lake Outwash Fans Conservation Reserve lies within three tertiary watersheds and two basins (Map 8.2). The northern portion of the site lies within the Moose River Basin, tertiary watershed 4LA, and the southern portion is found within the Lake Huron Basin, tertiary watersheds 2DA, and 2CF. The height of land between Meteor Lake and Opikinimika Lake delineates the two basins and forces waters from Meteor Lake to flow south to Lake Huron while waters from Opikinimika Lake flow north to James Bay. Meteor and Pheasant lakes are part of the headwaters for the 2DA watershed (Stokes et al., 1999). The maximum elevation of the site is 430m above sea level (ASL) and the minimum is 400m ASL giving the site a relief +/- 30m.

Key values are those values that make this site unique and have led to its designation as a conservation reserve. The key values within the Meteor Lake Outwash Fans Conservation Reserve include:

- provincially significant outwash fans and
- exceptional dunes complexes.

The landform features represent glacier recession a short time prior to the events leading to the Chapleau Moraines. These outwash fans are provincially significant due to their exceptional development and the ease of interpretation of the recessional sequence of these subaquatic outwash fans. The distal portions of sequential outwash fans, underlain for the most part by silty fine sand, have been reworked by eolian processes (i.e. wind) and have formed the dunes in the western portion of the site (Kor and Kristjansson, 1997).

#### 4.1.3 Administrative Description

The legal description of the Meteor Lake Outwash Fans Conservation Reserve has been regulated as Schedule 129 in Ontario Regulation 313/02 made under the *Public Lands Act* on November 20, 2002 amending Ontario Regulation 805/94.

## 4.2 Site History

Historically, the area where the Meteor Lake Outwash Fans Conservation Reserve is located would have been ice-free approximately 9,000 years ago and would have been inhabited by Ontario's Aboriginal people shortly thereafter. Today, only one Ojibway settlement remains at the Mattagami Reserve (OMNR, 1983). The Opikinimika peninsula was likely an area where First Nations had camps, since islands in the lake have known cultural value. These islands are located outside the conservation reserve. Further investigations of First Nations' use may be needed.

Fur trading was the first commercial activity in the area and began in 1794 when the Northwest Company established Fort Mattagami (OMNR, 1983). European presence in the area occurred around 1910 when the Canadian National Railway went through the settlements of Gogama, Ruel and Felix, though nearby areas had European settlements in the late 1800's. The settlements in the area such as Westree, Shining Tree and Gogama, were built when logging



and prospecting became the main industries in the early 1920s (Department of Lands and Forests, 1964).

In the late 1890's and the beginning of the 20<sup>th</sup> century, there was considerable exploration and development of placer gold deposits (Ferguson and Freeman, 1978). This work predates that of the more famous gold camps of Timmins and Kirkland Lake. Prospectors working their way up the Vermilion River from Sudbury and Wanapitei encountered placer gold at several locations with one of the most significant occurrences found associated with glacial stream channels at Meteor Lake (Coleman, 1900). Test pits were dug throughout the area encompassed by the Meteor Lake Outwash Fans Conservation Reserve, remnants of which can still be seen today. A permanent camp including a bunkhouse, cookhouse, office, sawmill, three boilers and several large pumps were established on a north-south trending peninsula in the northeast part of Meteor Lake. Sluicing operations were established on the peninsula and consisted of 11-12 foot long sluice boxes, connected in series for gold recovery. The largest pit from which the gold bearing gravel was dug was 40 feet long, 24 feet deep and 10 feet in width. Remains from this early venture can still be seen. Since that time several attempts have been made to exploit the placer gold but without success.

#### 4.3 Inventories

Three inventories have been prepared for the Meteor Lake Outwash Fans Conservation Reserve:

- Earth science checklist by Ontario Parks (Kristjansson, 2002);
- Recreation inventory checklist by Timmins District MNR (James, 2002); and,
- Life science checklist by MNR Northeast Region (Joyce et al., 2002).

### 5.0 STATE OF THE RESOURCE

Ontario's natural heritage contributes to the economic, social and environmental well-being and health of the province and its people. Protecting areas of natural heritage is therefore important for many reasons, such as maintaining ecosystem health and providing habitat in order to maintain species diversity and genetic variability. Protected areas also provide scientific and educational benefits. They generate tourism, thereby bolstering local and regional economies, and provide places where people can enjoy and appreciate Ontario's natural diversity.

#### 5.1 Representation

The Meteor Lake Outwash Fans Conservation Reserve has been identified to protect a provincially significant outwash fan near Meteor Lake and an exceptional earth science feature through the dune complex west of Opikinimika Lake. The Meteor Lake Outwash Fans Conservation Reserve has provincial significance and is considered an important representative feature of Ontario's glacial history and earth science diversity.

##### 5.1.1 Life Science

Meteor Lake Outwash Fans Conservation Reserve contains 152 landform/vegetation combinations (Joyce et al., 2002) dominated by mature, well-stocked mixed white birch and black spruce stands (Photo 1; Photo 2). 13 Forest Ecosystem Classifications are contained within the site and Ecosite 6 (Black Spruce, Poplar and Jack Pine) is the dominant landform/vegetation type (Taylor et al., 2000). Other species present within the site, but not in abundance, include balsam fir, white spruce and cedar. The southern portion of the site contains hard and soft maple and yellow birch, while the northern portion of the site has old growth stands of black spruce and larch (Joyce et al., 2002).





**Photo 1:** Jack pine mixedwood stand on sand dunes in the northwestern corner of site (John Thompson, June 2001)



**Photo 2:** White birch mixedwood stands near Meteor and Jen lakes (John Thompson, June 2001)

Meteor Lake Outwash Fans Conservation Reserve also contains non-forest vegetation communities including 22 wetland landform:vegetation combinations (e.g. open bogs, shoreline fens and treed bogs; Photo 3) (Joyce et al., 2002). The site also includes pioneer communities of mosses and lichens associated with rock outcrops, and sand dunes (OMNR, 2001; Thompson, 2001).



**Photo 3:** Wetland in west central portion of the site (John Thompson, June 2001)



### *5.1.2 Earth Science*

Continental ice sheets have glaciated northern Ontario a number of times during the Pleistocene epoch. Only deposits related to the last cycle of glaciation and deglaciation appear to be preserved in the Westree area where the Meteor Lake Outwash Fans Conservation Reserve is located. A variety of deposits including till, ice contact stratified drift, outwash and glacial lake sediments are representative (Road and Hallett, 1979). Following deglaciation, approximately 9,000 years ago, the post-glacial period was initiated. Since the beginning of post-glacial time, wind (i.e. eolian) and stream/river (i.e. fluvial) activity has exerted an influence on the regional landscape. Sandy source areas have been reworked into sand dune fields, and alluvial plains have been formed in the areas adjacent to streams and rivers. Also, organic deposits including peat and muck have accumulated in poorly-drained areas throughout the region. Specifically, referring to the surficial geology, areas within the conservation reserve are immediately underlain by bedrock terrain (i.e. bedrock-drift complex), ice-contact stratified drift deposits, eolian deposits and organic deposits.

Based on mapping of the bedrock geology of northeastern Ontario, the Meteor Lake Outwash Fans Conservation Reserve appears to be underlain by massive to foliated and foliated to gneissic, granitic rocks of Superior Province, Precambrian Shield.

In the extreme northwest, central, and south central parts of Meteor Lake Outwash Fans Conservation Reserve, relatively extensive areas of bedrock-drift complex were found. A thin, but relatively continuous glacial drift cover (possibly a gravelly sand till) is generally characteristic of delineated areas of bedrock-drift complex (Kristjansson, 2001).

Ice-contact stratified drift deposits immediately underlie a portion of the east part of the northeast quadrant and most of the southeast quadrant of the conservation reserve. These deposits are classified on a morphological basis as esker-kame-kettle complex and subaquatic outwash fan. Areas of ridged, eskerform and hummocky, kamiform topography are associated with areas of undulating to planar outwash. The esker forms represent the subglacial conduits or feeder channels, which transported sediment to the ice margin and the areas of undulating to planar outwash represent the apex and/or proximal portions of the subaquatic outwash fans. The repetition of this form pattern in the upglacier direction suggests the sequential meltback of the ice margin as well as the incremental formation of this spectacular, recessional sequence of subaquatic outwash fans (Kristjansson, 2001).





**Photo 4:** Sand dunes in northwestern portion of the site  
(John Thompson, June 2001)

Eolian (i.e. wind) deposits immediately underlie most of the northwest quadrant, part of the northeast quadrant and much of the southwest quadrant of the Meteor Lake Outwash Fans Conservation Reserve. Numerous, relatively well-developed sand dunes, likely consisting of massive, laminated and cross-stratified fine sand are characteristic of all delineated areas of eolian deposits. Numerous exceptionally well-developed parabolic sand dunes are present in the north half of the northwest quadrant (Photo 4). Well-developed, steep slipfaces with essentially linear to curvilinear arms extending, in some cases, as much as several hundred meters in the upwind direction are characteristic of these dune forms. Where individual parabolic dunes merge with, or override, other parabolic dunes, a variety of irregular-shaped, complex dune forms have been produced. For example, at least two dune ridges, which appear to have been formed through a process of dune elongation and/or dune coalescence, are present in this northwest part of the conservation reserve. The height of the dune ridges is estimated to be at least 30 meters and the length of the longest ridge approaches 2 kilometers. The dune forms present in the north half of the northwest quadrant are especially prevalent, highly interpretable, and spectacular (Kristjansson, 2001).

A number of relatively extensive areas of organic deposits, representing the accumulation of organic sediment in various poorly-drained environments during post-glacial time, are present in this conservation reserve. There are relatively extensive areas of organic deposits associated with the Opikinimika River in the extreme southwest, with low-lying areas in the central west and with the lake in the extreme northeast of the conservation reserve (Kristjansson, 2001).

Ice-contact stratified drift deposits and eolian deposits dominate the surficial geology of the conservation reserve (Photo 5). The Meteor Lake Outwash Fans Conservation Reserve is considered provincially significant due to the exceptional development and ease of interpretation of the landforms associated with these deposits, (Kristjansson, 2001).





**Photo 5:** Ice contact topography  
(John Thompson, June 2001)

### 5.1.3 Quality of Present Representation

The quality of the representation or the current characteristics of the natural features found within the conservation reserve are as important as the overall representative features that are being protected. A number of criteria are considered in evaluating a site including: diversity, ecological factors, condition, special features and current land use activities.

#### a) Diversity

Diversity is the measure of the site's life and earth science heterogeneity. It is based on the number and range (variety) of the natural landscape features and landforms of earth science values and the richness and evenness of the life science component.

The strongest characteristic of this site is its high diversity in its landforms, vegetation and hydrology. The site lies between two forest regions, Boreal and Great Lakes-St. Lawrence and between two River Basins, the Moose River Basin whose waters flow north to Hudson Bay and the Lake Huron Basin whose waters flow south to Lake Huron. As a result, this unique site is complex and diverse, both from an earth science and life science perspective (Joyce et al., 2002).

The Meteor Lake Outwash Fans Conservation Reserve's diversity is also noticeable through its rich landscape diversity with four different landform types including eskers, kettles and dunes (Kristjansson, 2002). Jack pine and fragile mosses grow on the sandy dunes and various combinations of vegetation ranges from white birch to poplar mixedwood stands on the eskers and in the kames. The lake and wetland communities host different species of wildlife and vegetation, for example, black spruce mixedwood stands are found in depressed wet areas.

#### b) Ecological Factors

Ecological factors refer to current design of the conservation reserve including its size, shape and the ability of the site to maintain itself over time (Thompson, 1999). The ability of a site to buffer the core areas from adjacent land uses, its general location and location within the greater managed ecosystem will influence the site's viability over time and be important factors in maintaining overall ecosystem health.

A site's boundaries should be created to include the greatest diversity of life and earth science features to provide the maximum ecological integrity possible. It should be ecologically self-



contained, bounded by natural features and include adequate area to buffer the core ecosystems from adjacent land-use activities (OMNR, 1992).

The Meteor Lake Outwash Fans Conservation Reserve is a good size at 3,552 hectares. Most of its boundaries are natural (i.e. lakes, streams) and protect the site from adjacent land uses; thereby, ensuring core values are protected.

#### c) Condition

Condition is the degree of past human and natural disturbances observed or recorded for the site. As few disturbances have occurred within its boundaries, Meteor Lake Outwash Fans Conservation Reserve remains pristine.

Access to the site is provided by the forest access road which forms part of the western boundary and the access point on the south point of Meteor Lake. Due to the remoteness of Meteor Lake Outwash Fans Conservation Reserve, only a few ATV and/or snowmobile trails exist and provide access to other lakes within the site. Lakes in Beulah Township, west of Meteor Lake, have only been accessed in the past 10-15 years. These ATV/snowmobile trails are approximately 1 metre wide and found on areas where plenty of vegetation exists to stabilize the soil, consequently, soil and vegetation disruption by these trails has been minimal.

Meteor Lake Outwash Fans Conservation Reserve is considered to have low sensitivity to the permitted uses except on the dune complexes within the Special Management Area. The coral and reindeer lichen covering parts of the dune complex are considered to be very fragile. These sand dunes are sensitive to activities, such as hiking, ATVing, mining activities, aggregate extraction and road/trail construction, which would impact the morphological integrity of these earth science features (Kristjansson, 2001). Considering the anticipated dominance of a silty fine sand substrate and the presence of numerous steep slopes, the potential for erosional impacts following the removal or alteration of the vegetation cover is moderate to high (Kor and Kristjansson, 1997).

Natural fire disturbance last occurred within this site in 1935 (Map 8.3), following which the area regenerated naturally to jack pine (OMNR, 2001). There may be areas of natural wind throw activity not known and/or identified within the area.

Limited harvesting has occurred near Meteor Lake Outwash Fans Conservation Reserve and a portion of these disturbances are still visible along the western edge of the site. The largest harvest block was 42 hectares in 1994 (OMNR, 2001). These past harvest areas are not close to the earth science features the site is striving to protect and consequently do not compromise the integrity of the site's earth science features. The area surrounding the site has largely been logged within the past 3 years. In 1999, a harvest block was cut along the southern boundary prior to the official site regulation and boundary mapping. The site was site prepared in 1999 and planted in 2000. No tending has occurred on site.

#### d) Special Features

Special features may include interesting landscapes, habitats or vistas, Species at Risk (SAR) and other earth and life science features such as broader landscape elements that contribute to the natural heritage richness of Ontario. For Meteor Lake Outwash Fans Conservation



Reserve, the special features include the provincially significant outwash fans near Meteor Lake and the sand dune complexes.

Meteor Lake is a natural lake trout lake with many spawning shoals, supporting a fairly large population of healthy lake trout. Provincially endangered bald eagles also use the area. Documented provincially endangered bald eagle nesting locations are outside the regulated boundary and bald eagles may use lakes within Meteor Lake Outwash Fans Conservation Reserve for feeding.

#### e) Current Land Use Activities

Current land uses include hunting and fishing, commercial fur harvesting, commercial hunting and commercial baitfish harvesting. There is no baitfish harvesting in Beulah Township.

### 5.2 Social/Economic Interest

This section addresses the contribution of the Meteor Lake Outwash Fans Conservation Reserve to the local economy and society through the opportunities it represents and their importance.

#### 5.2.1 Local Communities

The Meteor Lake Outwash Fans Conservation Reserve is south of the settlement of Westree and near the settlements of Felix and Ruel. This area provides recreational/commercial opportunities for the residents of and visitors to the area.

During the fishing and hunting seasons, tourism provides economic benefits to the settlement of Westree, the community of Shining Tree and to the local outfitters from visitors staying at the lodge, and buying goods at the local convenience store, food at the restaurant and fuel at the gas station.

#### 5.2.2 First Nations

First Nations may have, from time to time, used Meteor or Opikinimika lakes to hunt and/or trap. There are no identified Aboriginal campsites or any other indication of extensive time spent by First Nations within the conservation reserve. The Meteor Lake Outwash Fans Conservation Reserve lies partially within the Nishnawbe-Aski Nation (NAN) territory, James Bay Treaty #9 and within the Robinson-Huron Treaty Area, Treaty #61. Mattagami First Nation, Sagamok First Nation and Wahnapiitae First Nation have expressed interest in this site.

Existing Aboriginal treaty rights to hunt, trap, fish and gather within the traditional treaty area will not be affected by the establishment of this conservation reserve.

#### 5.2.3 Ministry of Northern Development and Mines and the Mining Industry

In March 2002, the Ministry of Northern Development and Mines and the Ministry of Natural Resources came to a joint decision regarding mining issues and *Ontario's Living Legacy* sites. All existing mining claims, leases, licenses of occupation and patents within forest reserves of Ontario's Living Legacy sites remain protected under the *Mining Act* but excluded from the regulated area. The intent is the forest reserve will be added to the regulated boundary of the conservation reserve if a claim or lease is retired through normal process. No new exploration will be permitted on Crown land within OLL sites in the future.



#### *5.2.4 Other Government Agencies, Departments or Crown Corporations*

Ministry of Natural Resources Timmins District is working with the East Fire Region – Timmins Fire Management Headquarters to develop a fire management direction that protects the values found within the conservation reserve. The current fire management strategy identifies the Meteor Lake Outwash Fans Conservation Reserve within the intensive zone. Within the intensive zone, full suppression mandates that every fire must receive a response and is actioned aggressively. Further clarification is required to determine how to protect the sensitive dune complexes within Meteor Lake Outwash Fans Conservation Reserve, such as prohibiting the utilization of motorized vehicles on the sensitive dune complexes.

The Ministry of Northern Development and Mines has reviewed this document.

#### *5.2.5 Non Government Organizations and other Industry Interests*

Non government organizations Partnership for Public Lands (PPL), Ontario Federation of Anglers & Hunters (OFAH) and Felix Cottagers' Association have identified an interest in the Meteor Lake Outwash Fans Conservation Reserve.

### **5.3 Natural Heritage Stewardship**

The Meteor Lake Outwash Fans Conservation Reserve contributes to the Province of Ontario's natural heritage by preserving earth science/glacial history, and providing educational and recreational opportunities. This conservation reserve also offers a historical preservation opportunity as the area may have been an important component of native culture and/or history prior to European contact. The Meteor Lake Outwash Fans Conservation Reserve also offers scientists, educators and recreationalists opportunities to learn about the site and enjoy its value.

The Meteor Lake Outwash Fans Conservation Reserve contains a provincially significant outwash fan and dune complexes, which in turn contribute to the natural heritage earth science representation. Life science representation exists in 152 combinations of landform/vegetation as well as 9 wetland classifications. A complete inventory of the flora would identify other species that inhabit the site. The conservation reserve also contributes to the recreational opportunities of the parks and protected areas system with its trails and excellent trout lakes. Currently there are no monitoring or research programs in place for this conservation reserve.

The waters within the Meteor Lake Outwash Fans Conservation Reserve are of good quality and no known aquatic contaminants exist.

By allocating these lands to the parks and protected areas system through regulation, the province has ensured permanent protection for the conservation reserve and its values from industrial activities that may exist in the larger general use or more extensively managed landscape.

### **5.4 Fisheries and Wildlife**

Meteor Lake has been highly exploited by anglers in the winter (OMNR, 1990). As a result, in 1994, Meteor Lake was one of a number of MNR Timmins District lake trout lakes which had the winter lake trout fishing season shortened. Lake trout fishing is permitted from February 15 to March 15 and again from the third Saturday in May to September 30. As the only natural lake trout lake identified within the Conservation Reserve, Meteor Lake was the only lake within the



Meteor Lake Outwash Fans Conservation Reserve where the winter fishing season was shortened.

In 1984, the Gogama District of the Ministry of Natural Resources initiated a six year project. Opikinimika Lake was one of 2 lakes chosen in an attempt to establish a naturally reproducing population of lake trout. Between 1984 and 1987, 18,000 fingerlings were released into Opikinimika Lake to compensate for losses due to predation and natural mortality. An assessment towards the completion of the project was conducted to determine the success and no lake trout were caught. Between April 25<sup>th</sup> and May 4<sup>th</sup>, 1987, Gogama District undertook an adult walleye transfer project to establish a self supporting walleye population in Otterpelt and Donnegana Lakes using Opikinimika Lake as the donor lake. A total of 142 walleye were caught. Otterpelt Lake received a total of 104 adult walleye while 14 were transferred to Donnegana Lake. The fishing pressure on Opikinimika Lake is light to moderate (OMNR, 2002e). Hennessy Creek, fed by Opikinimika Lake, contains northern pike, perch and creek chub fish species.



**Photo 6:** Meteor Lake  
(John Thompson, June 2001)



**Photo 7:** Opikinimika Lake  
(John Thompson, June 2001)



**Table 2: Lake Descriptions**

Lake Names	Description	Location/Access	Fish Species	Other species
<b>Meteor</b> (aka Raven, Pigwagamissi, Pijiwagamising) (OMNR, 2002d; Photo 6)	250 ha cold water natural lake trout lake; flows south into Raven Creek; shores are mostly cobblestone beaches; max depth 150 feet.	Summer: by vehicle from Amyot road, unmaintained trail to southern tip, by fly-in or by portaging from Opikinimika Lake. Winter: locally maintained snowmobile trail.	Walleye, lake trout, cisco, herring, common sucker, long nose sucker. Northern pike were present, however unreported since 1995. Stocked in 1970s. Managed for lake trout with 23 known spawning sites. * 1965, 1966, 1967, 1971, 1972, 1973, 1981, 1989, 2003.	Crayfish, various minnows, leeches, toads; Pondweed, water lily, cattails, bulrushes.
<b>Opikinimika</b> (aka Opickinimika, Opinimika, Obicunimagunk, Seven Mile) (OMNR, 2002e; Photo 7)	658 ha cool water natural walleye lake; shoreline: rock outcrops, rock rubble beaches with a few sandy beaches; max depth 225 feet.	Boat via Opikinimika River.	Natural walleye lake; Northern pike, yellow perch, walleye, whitefish, cisco, lingcod and white sucker.  *1968.	Minnows, beetles, shadflies, snails, clams; Bullrushes, cattails, pondweed, lily pads.
<b>Pheasant</b> (aka Clem's Lake) (OMNR, 2002f)	4.5 ha cold water; water's flows into Meteor Lake; depth 10 - 40 feet.	Short portage from Meteor Lake.	Stocked with brook trout every 2 years. *1971.	Minnows, freshwater shrimp; Arrowhead.
<b>Leo's</b> (OMNR, 2002c)	2.5 ha cold water.	200 foot trail from Opikinimika Lake.	Stocked with brook trout (since late 1970s). *1971.	Labrador tea.
<b>Jen</b> (OMNR, 2002b; Photo 8)	9.5 ha cold water kettle lake; depth 10 - 40 feet.		Stocked with brook trout, not self supporting population; white sucker. *1979.	Minnows, insect larvae, frogs; Arrowheads, cutgrass, cattails, pondweed.
<b>Jens</b> (aka Lower Jen or Jen 2) (Photo 8)	6 ha cold water kettle lake.		Stocked with brook trout every 2 years.	
<b>Beulah #19</b> (OMNR, 2002a)	2 ha cold water kettle lake, max depth 30 feet.		Not stocked due to shallowness and smallness.	Insect larvae, minnows.
<b>Beulah # 16</b> (aka Heerschap Lake, Gravelle Lake) (Photo 9)	17 ha cold water kettle lake.		Illegally stocked in early 1990s with trout by MNR partners. Stocked odd-years with speckled trout.	

\* Surveyed starting



The site also has many unnamed and unsurveyed lakes such as Hennessy #4, #6, #7 and Beulah #1, #13, #14, #15, #16, #19, #21, #32.

Management of fish and other aquatic species within the Meteor Lake Outwash Fans Conservation Reserve is consistent with management strategies in the Gogama District Fisheries Management Plan (OMNR, 1990). Future studies should be considered for the unnamed and unsurveyed lakes within the protected area.



**Photo 8:** Meteor, Jen, Jens, Beulah #15 and #32 lakes  
(John Thompson, June 2001)



**Photo 9:** Meteor, Gravelle and Beulah #13, #14 and #15 lakes  
(John Thompson, June 2001)



Meteor Lake Outwash Fans Conservation Reserve is found within Wildlife Management Unit (WMU) 40. Game and furbearer species which live or use the area include furbearers (e.g. beaver, lynx, marten and mink), large mammals (e.g. moose and black bear) and birds (e.g. ruffed and spruce grouse).

Moose aquatic feeding areas have been identified along waterways in the surrounding area through surveys conducted in 1981, 1982 and 1998. Winter moose concentration surveys have been done in 1985 to 1990. No documented occurrences have been identified within Meteor Lake Outwash Fans Conservation Reserve. Bald eagles, a provincially endangered species, have been spotted in the area flying over both Opikinimika and Meteor lakes. An osprey nest is located outside the boundary of the site and is known to make use of the area.

Three commercial trappers, one commercial baitfish harvester and three bear hunting outfitters use the area to trap, hunt or harvest baitfish. One bear management area containing portions of Meteor Lake Outwash Fans Conservation Reserve remains unallocated. Mattagami and Sagamok First Nations also use the area for hunting and fur harvesting.

### **5.5 Cultural Heritage Stewardship**

There are no known cultural heritage values within the Meteor Lake Outwash Fans Conservation Reserve though no detailed research has been conducted as of this date to document possible cultural heritage values. The area has been occupied for almost a century and the possibility of heritage values being present does exist.

### **5.6 Land Use/Current or Past Development**

Mining and surface rights have been withdrawn from staking within the conservation reserve boundaries under the Mining Act (RSO 1990 Chapter M.14). No new claims can be staked within the conservation reserve boundary.

Meteor Lake Outwash Fans Conservation Reserve contains one mining claim, which has been designated as forest reserve. Current mining tenure is held on the edge of Meteor Lake and access to this mining claim can only be gained from Meteor Lake.

Policies for the forest reserve are similar to the policies for new conservation reserves, except that mining and related access will be allowed in a forest reserve.

There are no patent lands nested within the site but there is one recreational outpost camp held under Land Use Permit on the edge of Opikinimika Lake. Three additional Land Use Permits exist just outside the site and their owners access the site for recreational purposes. A roads and ATV/snowmobile trail system exists in the conservation reserve.

### **5.7 Commercial Use**

The commercial use of the site includes hunting, baitfish harvesting and fur harvesting. Other commercial uses such as forestry, hydroelectric development, mining activities and aggregate operations do not occur within this site and are no longer permitted within the conservation reserve.



## 5.8 Tourism/Recreational Use/Opportunities

Current recreational uses and opportunities that may be found within the Meteor Lake Outwash Fans Conservation Reserve include hiking, bird watching, wildlife viewing, camping, boating, berry picking and snowmobiling (James, 2002).

One outfitter exists on the edge of Opikinimika Lake and caters to hunting and fishing enthusiasts. There are currently no new proposals for recreational or tourism uses for this site.

Under Management Guidelines for future proposals, an evaluation of any proposal will include the following:

- Ensure natural heritage values identified herein are protected and the Test of Compatibility from PL 3.03.05 (OMNR, 1997) is used;
- Different options are proposed for the development including the null option; and,
- No change in use to be considered without public and Aboriginal consultation.

## 5.9 Client services

Visitor services will respond to inquires about the basic level of information such as natural heritage representation and appreciation, wildlife viewing opportunities, access and boundaries. The role of Meteor Lake Outwash Fans Conservation Reserve within the greater provincial parks and protected area system will be addressed when meeting with clients.

## 6.0 MANAGEMENT GUIDELINES

### 6.1 Management Planning Strategies

Once established, protected areas will be managed to retain and/or restore natural features, processes and systems. They will also meet previous commitments identified in *Ontario's Living Legacy Land Use Strategy* and provide opportunities for compatible research, education and outdoor recreation activities (OMNR, 1999). The management of this conservation reserve will meet the goal of protecting the natural heritage features while permitting compatible activities to continue by screening proposals through the Test of Compatibility. Some types of proposed development would require the Test of Compatibility to be conducted to ensure life science and earth science features would not be negatively impacted. These types of assessments would occur on a case-by-case basis by Watershed Area Team, Timmins District MNR. Management strategies will also be consistent with the objectives of increasing public awareness, promoting responsible stewardship, providing marketing opportunities, and identifying inventory, monitoring, assessment and reporting potential.

### 6.2 "State of the Resource" Management Strategies

The following section will describe specific management strategies to maintain, protect and enhance the existing natural heritage values and land use activities of the Meteor Lake Outwash Fans Conservation Reserve. The Special Management Area will be addressed separately in section 6.3. Management and protection of the site will be under the Timmins District MNR, Watershed Area Supervisor. A complete list of permitted activities can be found in the permitted use tables (Appendix B).

#### 6.2.1 Natural Heritage Stewardship

Natural heritage values will be managed in such a way as to mitigate and prevent damage to either the earth or life science values. All earth science and life science features will be protected by defining compatible uses, enforcing regulations and monitoring and mitigating



issues. The trails that currently exist within the site have already been cleared and are wide enough for their current purpose (ATV and snowmobile). No additional construction, maintenance, or further upgrade to trails will be permitted.

The MNR recognizes fire as an essential process in the maintenance and renewal of ecological and ecosystem health of conservation reserves. In accordance with existing Conservation Reserve Policy and the Forest Fire Management Strategy for Ontario, forest fire protection will be carried out as on surrounding lands except within the sensitive dune complexes (see Section 6.3.1 Natural Heritage Stewardship).

Whenever feasible, the MNR fire program will endeavour to use "light on the land" techniques, which do not unduly disturb the landscape, in this conservation reserve. Examples of "Light on the land" techniques may include, and are not limited to:

- Using natural openings for helicopter pads;
- Ensuring camp locations are built outside the conservation reserve; and/or,
- Limiting the use of heavy equipment within the conservation reserve.

Fire and resource managers will identify those areas in which, and the specific conditions under which prescribed fires may be used to meet ecological or resource management objectives. These management objectives will be developed with public consultation prior to any prescribed burning, and reflected in future refinements of this Enhanced SCI. Plans for any prescribed burning will be developed in accordance with the MNR Prescribed Burn Planning Manual, and the Class Environmental Assessment for Provincial Parks and Conservation Reserves (approval pending; OMNR 2003b).

The introduction of exotic and/or invasive species will not be permitted. Programs may be developed to control forest insects and diseases in the conservation reserve where these threaten significant heritage, aesthetics, or economic values. Where control is desirable and possible, it will be directed as narrowly as possible to the specific insect, disease or plant. Where action is necessary, biological control will be the preferred option whenever feasible.

Vegetation communities should not be disturbed any further through unnecessary clearing or fuelwood collection or any other use. Natural succession will be allowed to occur through passive management.

The collection/removal of native vegetation and parts thereof will not be permitted. However, subject to the Test of Compatibility, the Area Supervisor may authorize the collection of plants and/or parts for the purposes of rehabilitating degraded sites within the reserve if required and for research or scientific study.

For this site to continue to contribute to the Province of Ontario's earth science/glacial history, the permitted uses need to be enforced. The site should be promoted for its educational opportunities. The role of this landform as a provincial benchmark should be studied further and studies should be conducted to determine possible rare, vulnerable or threatened species habitat. Natural forest succession could be monitored to determine the natural climax community.



Timmins District MNR will provide leadership and direction for maintaining the integrity of this site as a natural heritage area. Research, protection, education and interpretation of natural heritage features of the site will be encouraged and fostered through local and regional natural heritage programs and initiatives.

#### *6.2.2 Fisheries and Wildlife*

Fish and wildlife resources will continue to be managed in accordance with policies and regulations prevailing in the area and under the direction of the Area Supervisor. Provincial legislation and policies will dictate management and enforcement objectives for this conservation reserve.

Existing fur harvesting, hunting, sport fishing and baitfish harvesting will be permitted to continue by local outfitters and the general public. Existing access by snowmobile, ATV, vehicle, aircraft and boat are still permitted. New commercial outfitting, outpost, hunting camps or trap cabins will not be permitted within the boundaries of the conservation reserve.

Lake surveys should be conducted for the unnamed lakes within the conservation reserve. This may add to fisheries values (i.e. trout fishing) already present within the site.

#### *6.2.3 Cultural Heritage Values*

It is not known if cultural heritage values exist in the Meteor Lake Outwash Fans Conservation Reserve, however, if values are confirmed, management would be consistent with *Conserving a Future For Our Past: Archaeology, Land Use Planning & Development In Ontario* (Ministry of Citizenship, Culture and Recreation, 1997). Research and studies should be conducted to determine the potential and/or existence of cultural or archeological resources. Since the Meteor Lake Outwash Fans Conservation Reserve has been accessible for over a century by water, there is a high possibility that cultural or historical resources do exist.

#### *6.2.4 Social/Economic Interest*

The economic contribution of the Meteor Lake Outwash Fans Conservation Reserve to the local communities may be increased by implementing marketing strategies that draw tourism to the area.

Socially, this area provides recreational opportunities for the local people and tourists to enjoy for their own health and well-being. The people of Ontario will generally benefit from this conservation reserve through direct enjoyment of the area or through the knowledge that a component of our earth science and glacial history has been preserved. Other interest groups, such as colleges and universities, can benefit from this conservation reserve as a place to study natural features and processes.

#### *6.2.5 Land Use/Past and Existing Development*

No road realignments, telecommunications and resource networks will be allowed to cross Meteor Lake Outwash Fans Conservation Reserve and interrupt its natural state.

The sale of land and creation of new recreation camps will not be permitted within the conservation reserve.



The settlements of Westree and Ruel, the community of Shining Tree and the Felix Cottager's Association could be approached to help improve stewardship of the Meteor Lake Outwash Fans Conservation Reserve, specifically to educate the public regarding the sensitivity of the sand dune complex.

#### 6.2.6 Commercial Activities

Commercial activities such as fur harvesting, baitfish harvesting and bear management areas will be managed according to prescriptions in the *Land Use Strategy* (OMNR, 1999). Trapline and baitfish harvesting operations will be permitted to continue since there are no demonstrated conflicts between these activities and the values being protected. Existing bear management areas will be permitted to continue, including license transfer; however, new operations will not be permitted as per the *Land Use Strategy* (OMNR, 1999).

Commercial forest harvest, hydroelectric development, mining activities and aggregate extraction are not permitted within the conservation reserve.

#### 6.2.7 Tourism/Recreation

The tourism and recreation opportunities present in the Meteor Lake Outwash Fans Conservation Reserve will be managed by permitting current activities to continue unless shown to have significant impact on site values as outlined in the *Land Use Strategy* (OMNR, 1999).

There is one existing tourist outfitters facility located within this conservation reserve; this facility will be permitted to continue its existing activities. Timmins District MNR will work with the local outfitters to ensure values within the site are protected.

#### 6.2.8 Forest Reserve

Under *Ontario's Living Legacy Land Use Strategy*, mining and related access will be allowed in a forest reserve (OMNR, 1999). For those activities that could negatively influence the natural heritage values within the forest reserve and/or the adjacent conservation reserve, the district will work with the proponent to identify and mitigate potential mining or natural heritage concerns.

#### 6.2.9 Client Services

Under the direction of the Watershed Area Supervisor, Timmins District staff will respond to public, non-government organizations (NGOs), industry and MNR partner requests for basic information on Meteor Lake Outwash Fans Conservation Reserve. Interpretative pamphlets may be developed and made available at local convenience stores in Westree and Shining Tree.

### 6.3 Special Management Area: Sensitive Dune Complex Management Strategies

The sensitive dune complex in the northwestern portion of the site requires tailored management. The Special Management Area is defined by the northern, eastern and western boundaries south to the southern Moffat and Hennessey Township boundaries (Map 8.4). Moving from west to east along the township boundary, the southern boundary will follow the northern edge of Opikinimika Lake to the eastern boundary. The dune complexes will be further protected within the Meteor Lake Outwash Fans Conservation Reserve through specific management necessary to ensure the long-term protection of these sensitive earth science features.



Management strategies within the sensitive dune complex will remain consistent to the rest of the site with the following exceptions:

### *6.3.1 Natural Heritage Stewardship*

These dunes are exceptionally well-developed parabolic sand dunes with steep slipfaces and linear to curvilinear arms extending, in some cases, as much as several hundred meters in the upwind direction. The height of the dune ridges is estimated to be at least 30 meters and the length of the longest ridge approaches 2 kilometers. The dune complex will not be subjected to future trail developments. The vegetation community will be disturbed as little as possible to ensure its integrity and long term protection.

The sensitivity of the dune complex has been demonstrated through the Test of Compatibility and motorized activities and potential new uses such as trails and development of infrastructure will not be permitted within the Special Management Area. These uses would compromise the integrity of the dune complex.

Due to the sensitivity of the dune complex, the objective for forest fire protection will be to restrict motorized vehicles, if at all possible. Burn-off operations and/or indirect attack will be carried out as on surrounding lands in accordance with planning and approval processes. To increase our ability in protecting the dune complex, further analysis is needed to determine:

- The impact of forest fire suppression on the dune complex,
- The extent of fire disturbance acceptable, and
- What fire disturbance is beneficial or detrimental to the dune complex.

Further assessment of the site is necessary. Funding should be requested to fill current data gaps. In depth earth science, life science and accurate dune measurements are required in order to determine the overall size and complexity of the site. Updated aerial photographs and photos depicting the current condition of the site should be taken. Current access to the dunes should be examined and plotted using a GPS. Additional funds should be requested for future monitoring of the site and developing educational material to create user awareness with respect to this dune ecosystem.

### *6.3.2 Land Use/Past or Existing Developments*

Land Uses and past or existing developments will be addressed in the same way for the Special Management Area as they are addressed throughout the rest of the conservation reserve as per Section 6.2.5 Land Use/Past and Existing Development, however, no new roads/trails will be created within the Special Management Area.

### *6.3.3 Tourism/Recreation*

Tourism and recreation will be managed in the Special Management Areas as it is in the rest of the conservation reserve as per Section 6.2.7 Tourism and Recreation. In the case of new roads/trails and infrastructure, and motorized activities, these will not be permitted as described in the above Natural Heritage Stewardship section (6.3.1).

## **6.4 Promoting Inventory, Monitoring, Assessment, Reporting and Research**

The Meteor Lake Outwash Fans Conservation Reserve provides educational opportunities through its existence. Scientific research by qualified individuals or institutions, which contributes to the knowledge of natural and cultural history and to environmental and



recreational management, will be encouraged. Requests or applications to conduct research will be filtered through the Timmins District MNR Watershed Area Team, to ensure that the studies are non-invasive and that no values will be damaged in the research process. Research programs will be subject to ministry policies and other legislation.

Approved research activities and facilities will be compatible with the protection objective. Permanent plots or observation stations may be established for long-term trials. The Ministry of Natural Resources may approve the removal of any natural or cultural specimen by qualified researchers. Any materials removed will remain the property of the Ministry of Natural Resources. Any site that is disturbed will be rehabilitated as closely as possible to its original state.

Other specific research projects that could be undertaken may include: the effects of human disturbance on the landform, determination of the existence of any rare, vulnerable or threatened species, vegetation climax community, or wind throw and harvest area re-growth.

### **6.5 Implementation and Plan Review**

This Enhanced Statement of Conservation Interest will take effect immediately following approval by the Northeast Regional Director. Implementation activities will primarily involve monitoring to ensure adherence to the management direction. Other implementation activities may include creating a fact sheet or pamphlet to be placed at the MNR Gogama Area office, and responding to any inquiries about the site. Implementation of this Enhanced Statement of Conservation Interest and management of the conservation reserve are the responsibility of the Watershed Area Supervisor and area staff in Gogama. Compliance activities will be identified and prioritized in the Timmins District Annual Compliance Operation Plan.

This Enhanced Statement of Conservation Interest should be reviewed in 5 years to determine if it is providing adequate direction and protection for the natural heritage values. If changes in management direction are needed at any time, the significance of the changes will be evaluated. Minor changes, which do not alter the overall protection objectives, may be considered and approved by the Area Supervisor without further public consultation and the plan will be amended accordingly. In assessing major changes, the need for a more detailed Resource Management Plan (RMP) will be considered. Where a management plan is not considered necessary or feasible, a major amendment may be considered with public consultation. The Regional Director will be required to approve major amendments. The Enhanced SCI or future RMP, if required, plus the *Crown Land Use Atlas* will be amended to reflect any changes in management direction.

Inventory, monitoring, assessment, and reporting should be ongoing and findings should be amended to the Enhanced Statement of Conservation Interest as the studies are completed or at the time of the 5 year review. After the initial review, and dependent on study findings, a new schedule for review will be determined. Additional planning will be linked to the inventory, monitoring, assessment, reporting and/or research findings and any new information. Adaptive management strategies will be used when new information has a significant effect on the current Enhanced Statement of Conservation Interest.



## **6.6 Marketing**

The Meteor Lake Outwash Fans Conservation Reserve will be marketed as a distinctive protected area containing a provincially significant outwash fan and dune complex. Fact sheets may be prepared to inform the public about these values, the permitted uses and the restrictions, which will then become available at the Gogama Area MNR office as well as at convenience stores in Westree and Shining Tree. Marketing efforts to increase use are not an objective and will be kept to a minimum.

Presently the site is marketed minimally by the local outfitters as an excellent area for trout fishing.



## 7.0 REFERENCES

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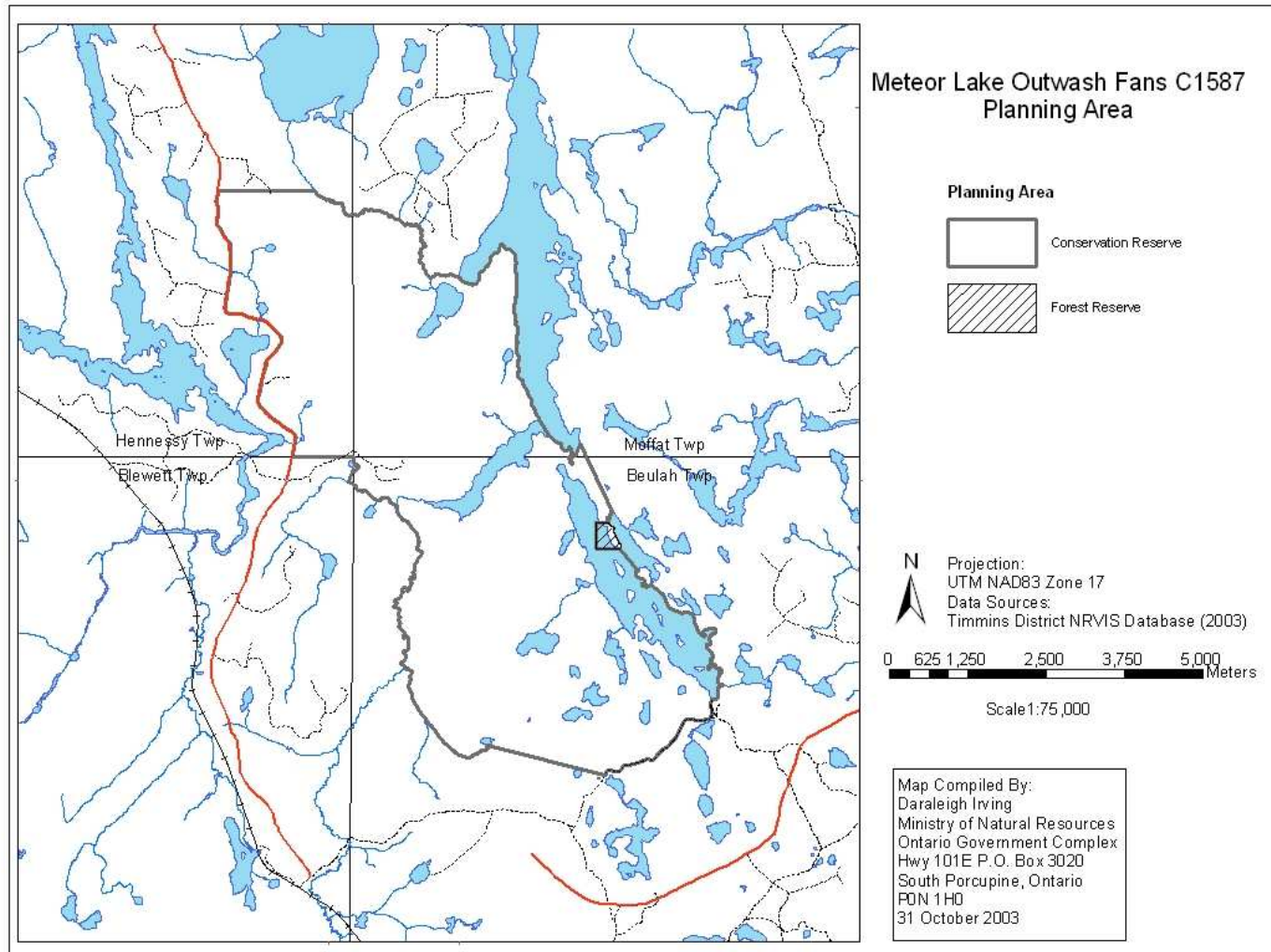
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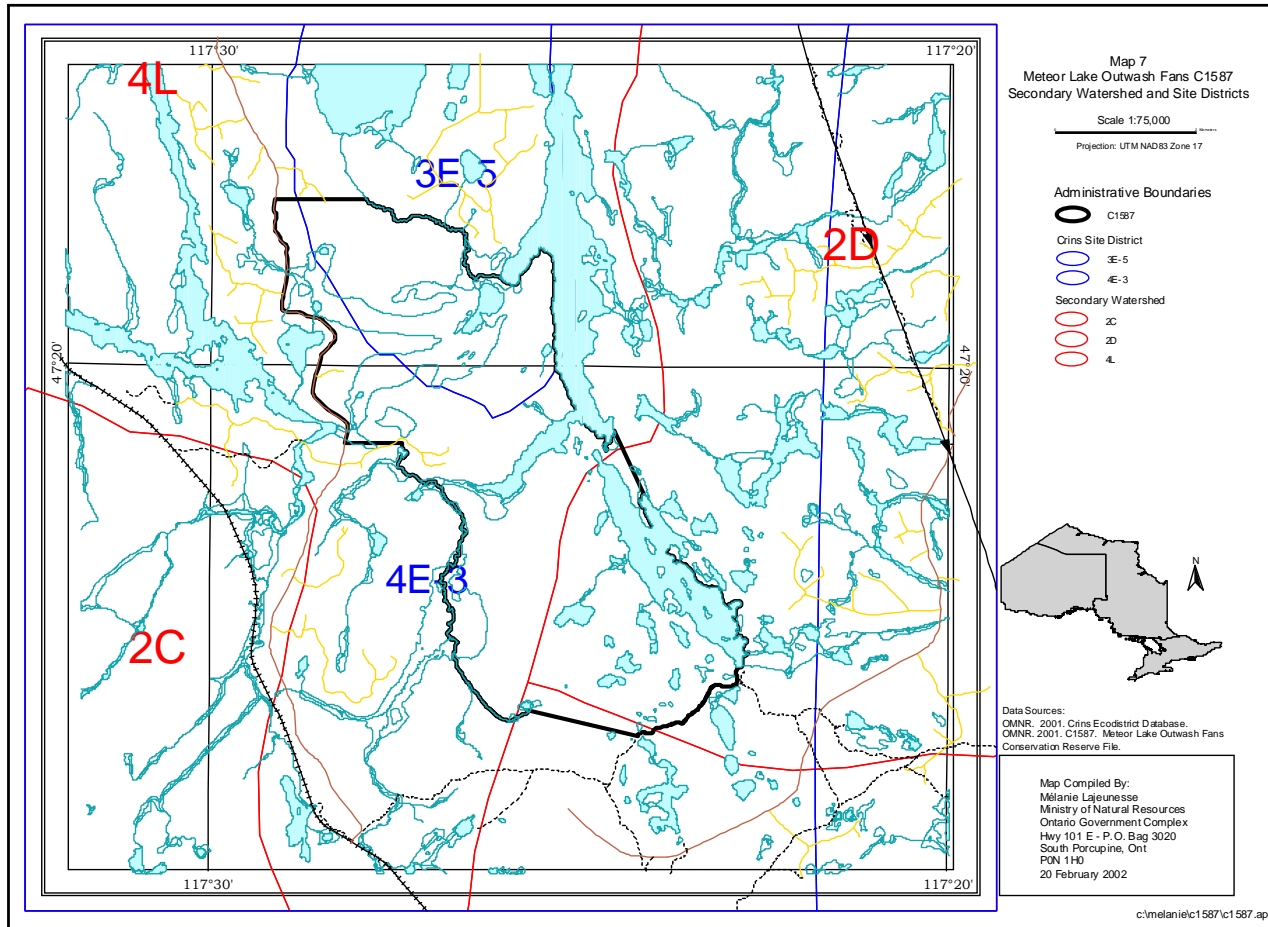


### 8.0 MAPS

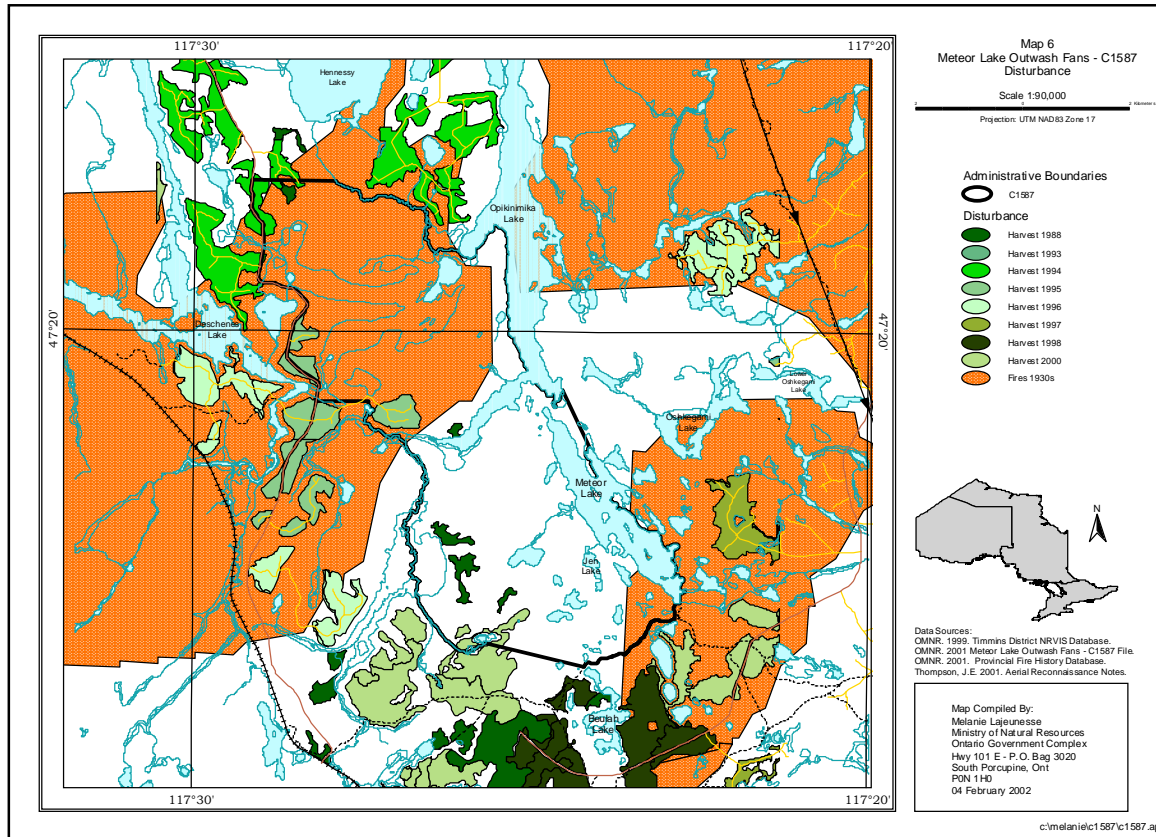
#### 8.1 Planning Area



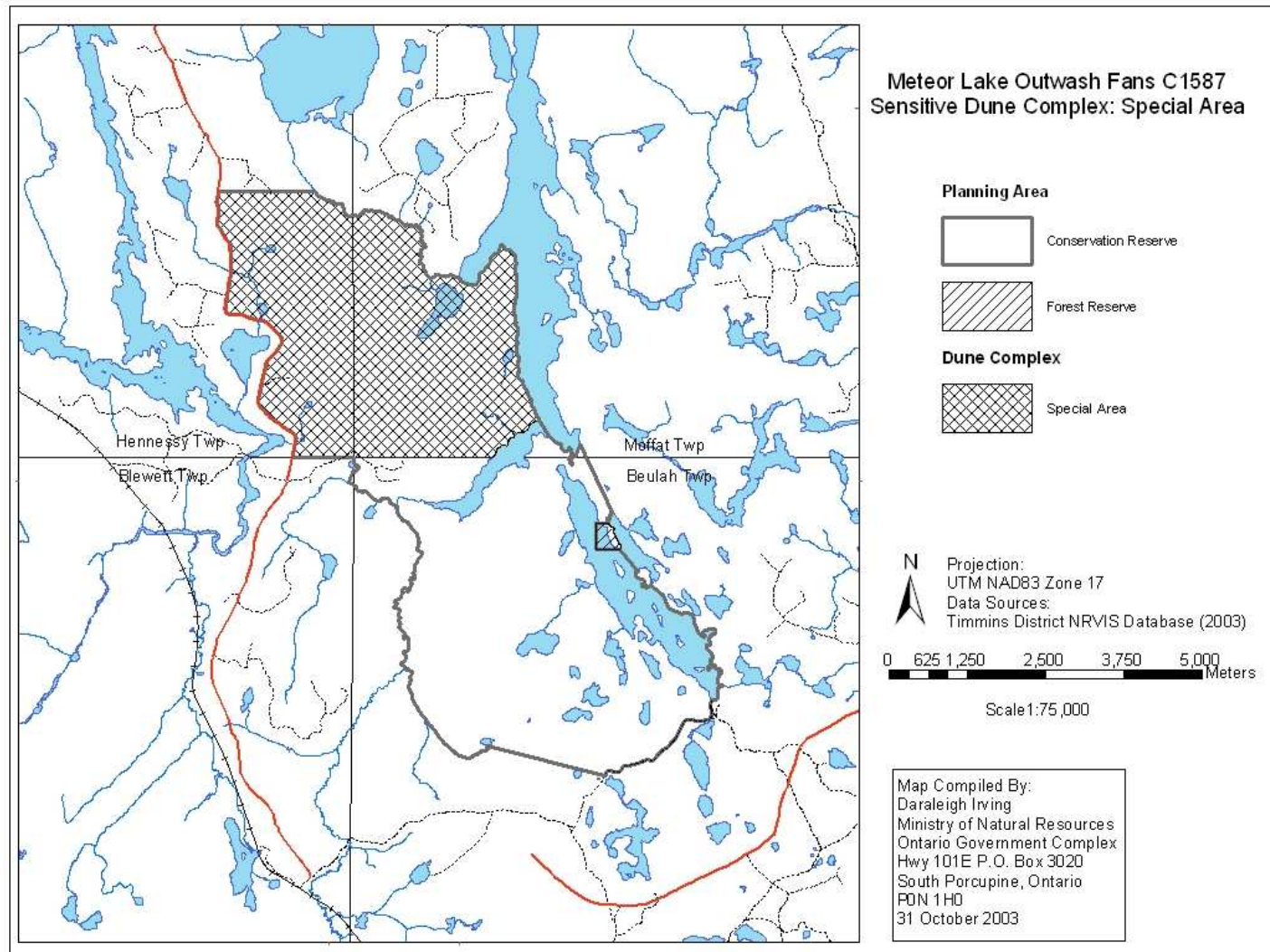
### 8.2 Crins Site District and Watershed Designations



### 8.3 Disturbance



### 8.4 Sensitive Dune Complex: Special Management Area



## 9.0 APPENDICES

### 9.1 Appendix A: Physical Site Description

#### Physical Site Description

Site Region	Lake Abitibi Site Region – 3E	Lake Temagami Site Region – 4E
Forest Climate*	Mid-humid (Hills, 1959).	Mid-humid (Hills, 1959).
Characteristics	Spruce, fir, poplar, birch on moderately sloping terrain; red and white pine on sandy ridges; American elm and cedar in valleys; gentle rolling bedrock covered by deep deposits of silt and sand (Hills, 1959).	Pine on well-drained soils; red pine on shallow exposed ridges; white pine on deeper and more retentive sites; jack pine on previously burned sites; localized areas of poor to medium quality hard maple, red maple and yellow birch (Hills, 1959).
Site District	Foley Site District – 3E-5	Mississagi Site District – 4E-3
Characteristics	Gently rolling plains of thinly covered rock knobs, sandy outwash and silty depressions; generally acidic (granite rock) overlain by low-base and low lime materials (Poser, 1992).	Gently rolling plain of stony sandy till over bedrock with frequent flats and ridges of water-laid sand; granite origin (acidic soils) with local areas of low-base materials (Poser, 1992).
Climate	Continental climate with warm short summers and cold long winters (OMNR, 1983).	Humid low boreal eco-climatic (OMNR, 1983).
Precipitation	50-100 mm (maximums occur in summer) (Hills, 1959).	60-100 mm (maximums occur in summer) (Hills, 1959).
Mean Annual Temperatures	-1 to 1°C; mean July peak of 17°C (Hills, 1959).	0 to 3°C; mean July peak of 20°C (Hills, 1959).
Frost-free Period	June to August (Hills, 1959).	Mid-May to early September (Hills, 1959).
Topography	Rolling with numerous flats along rivers and lake edges (Rowe, 1977).	Gently to moderately rolling with rugged and broken sections (Rowe, 1977).
Soils	Humoferric podzol* soils on well-drained sites; organic peat soils on poorly-drained depressions (Rowe, 1977).	Typically humoferric podzols * (Rowe, 1977).
Forest Region	Boreal Forest	Great Lakes- St. Lawrence Forest
Vegetation	Dominated by: black and white spruce, larch, balsam fir, jack pine, cedar, red and white pine; Poplar and white birch with patches of yellow birch, sugar maple and black ash (Rowe, 1977).	White and red pines, eastern hemlock, sugar maple, red maple, red oak, basswood, cedar, white elm, largetooth aspen, beech, butternut, white oak, black spruce, balsam fir, jack pine, poplar, white birch and yellow birch (Rowe, 1977).



Forest Section	Missinabi-Cabonga Forest Section	Temagami Forest Section
Vegetation	Same coniferous species as Boreal Forest Region; higher concentration of yellow birch and soft maple in isolated patches (Rowe, 1977).	Does not contain as many deciduous species as its region; white pine with scattered white birch and white spruce; mixture of white birch, pine and spruce, with balsam fir, trembling and largetooth aspens; red pine on ridge bluffs; jack pine on dry sandy or rocky sites; scattered occurrences of tolerant hardwoods, yellow birch, and sugar maple; black spruce with larch and eastern white cedar on lowlands, poorly drained depressions and swamps (Rowe, 1977).

\* Humoferric podzols are non-calcareous with parent materials generally ranging from fine sand to gravelly sand till. The organic peat soils are humic and fibric. Drainage is rapid through the podzolic soils and poor in the area of organic peat soils. The indicated soil types and drainage contribute to poor agricultural suitability (OMAFRA, 1986). It is believed the topographic, drainage and soil characteristics of the conservation reserve are generally consistent with the indicated site district descriptions. A glossary of terms is located in Appendix C.



**9.2 Appendix B: Conservation Reserves Policy**

**CONSERVATION RESERVES POLICY  
AS AMENDED BY THE ONTARIO LIVING LEGACY LAND USE STRATEGY**

September 26, 2000

**Introductory Notes:**

- According to conservation reserve policy, and statements made in the Ontario's Living Legacy Land Use Strategy (LUS), all uses within conservation reserves are subject to a "test of compatibility", that is, the use must be compatible with the conservation of the ecological features for which the site was identified (e.g., landforms, vegetation communities, hydrology, species, etc);
- The following detailed clarification of conservation reserve policies should be read in the context of the general policies, and notes on Aboriginal rights, that are outlined at the beginning of the paper.

**Definitions:**

- *Existing Policy:* Statements of policy for conservation reserves established prior to the OLL-LUS, primarily as outlined in the Conservation Reserve Policy and Procedure, February 1997.
- *OLL-Land Use Strategy Policy:* Statements of policy in the LUS applicable to the recommended conservation reserves in the OLL planning area.
- *Policy Clarification:* Statements that clarify policy direction with respect to new and/or existing OLL conservation reserves within the OLL planning area.

Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
<b>INDUSTRIAL ACTIVITIES</b>			
Commercial timber harvest	Not permitted	Not permitted	Consistent with existing policy
Cutting of trees by leaseholders, cottagers and other property owners for fuelwood and other small-scale uses	No explicit policy	No policy stated	The cutting of trees for non-commercial purposes may be authorized by permit subject to a review and determination of the impact that such cutting would have on natural heritage values. This flexibility is intended only for leaseholders, cottagers and other property owners who do not have road access to their property. Intended uses of trees cut include fuelwood, dock stringers and other occasional, small-scale uses. This is not intended to allow large-scale cutting for building structures (log homes, etc).
Timber salvage/sunken log retrieval	No explicit policy	No policy stated	If provided for in an SCI or RMP, standing, fallen or sunken trees may be removed for resource management purposes. Such trees may be marketed if economical.
Mineral exploration	Not permitted	Not permitted	Consistent with existing policy.



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
Mining	Not permitted	Not permitted	Consistent with existing policy.
Extraction of peat, soil, aggregate, other materials	Not permitted	No policy stated; existing policy applies	
Forest renewal	Forest renewal is not directly addressed in existing policy as it is an activity associated with commercial timber harvesting which is not permitted in conservation reserves.	Not directly addressed	<p>This issue arises where a new conservation reserve was cut recently, and there is a question as to whether the forest company should carry out planned forest renewal work.</p> <p>MNR's position is that the companies have harvested the areas, and have an obligation to proceed with renewal, unless this requirement is waived by MNR. If renewal is to occur, the work should normally be carried out by the forest company.</p> <p>Any possible renewal should be reviewed to determine the nature of the renewal proposal and the possible implications for protected area values. Renewal can be conducted where it will be of net benefit to the protected area. To the greatest extent possible, the renewal should be designed to replicate natural conditions (e.g., if planting is carried out, the more random the planting, the better), although the company cannot be expected to carry out renewal that would be beyond the cost of normal renewal activities. Tending should be considered on a case-by-case basis and be driven by the desired outcome of renewal.</p>



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
			In all cases of proposed renewal activities, there must be prior review and approval of the proposals by appropriate silvicultural and program staff responsible for the management of the protected area, in order to determine what actions would best support the long-term ecological integrity of the area.
Hydro power generation	Not permitted	Not permitted	
Communication corridors	Existing use permitted to continue; new corridors to be discouraged through planning.	No policy stated; existing policy applies	The intent of the policy is to actively discourage these uses, but it is recognized that in some circumstances there will be no alternatives; this will be determined through planning.
Energy transmission corridors	Existing use permitted to continue; new corridors to be discouraged through planning.	No policy stated; existing policy applies	The intent of the policy is to actively discourage these uses, but it is recognized that in some circumstances there will be no alternatives; this will be determined through planning.
Transportation corridors	Existing use permitted to continue; new corridors to be discouraged through planning.	No policy stated; existing policy applies	The intent of the policy is to actively discourage these uses, but it is recognized that in some circumstances there will be no alternatives; this will be determined through planning.
Resource access roads	Existing resource access roads can continue to be used. New resource access roads will not be permitted.	Existing forest access roads may occur within areas identified as recommended conservation reserves. These roads may be essential for continued access beyond the recommended conservation reserve for forest management or recreational purposes. Where alternative access does not exist or road relocation is not feasible, these roads will continue to be available for access.  Continued use will include maintenance and may include future upgrading.	MNR has made a commitment through the Ontario Forest Accord that, in the case of new linear shaped conservation reserves, provision will be made for the timely implementation of a limited number of crossings to provide access to timber harvest areas that would otherwise be uneconomical to access. These crossings should be identified by December 31, 1999. Once the protected areas are in regulation, decisions on crossings will normally be made as part of the management planning process.



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
		New resource access roads will not be permitted with the exception of necessary access to existing mining claims and leases or for future mineral exploration and/or development.	New roads for resource extraction will not be permitted, except for those identified in Forest Management Plans before March 31, 1999 and for which no viable alternative exists.
Private access roads	No explicit policy	<p>No explicit policy</p> <p>The general policy on honouring "existing commitments" applies to commitments made to private access roads prior to 29 March 1999.</p>	<p>New private access roads, including additions to existing roads, will not be permitted except where there are existing commitments.</p> <p>The maintenance of existing private access roads will be permitted, however, the upgrading of existing private access roads will not be permitted.</p> <p>Where MNR made a commitment, prior to March 29, 1999, to permit a private access road within a recommended protected area, the road proposal will be subject to completion of a public planning process. The Field Environmental Planning Procedure from the Small Scale Class E.A. is recommended as a suitable process. In addition, the Ministry will concurrently prepare an Interim Management Statement (IMS) or a Statement of Conservation Interest (SCI), depending on whether the area in question is a park or a conservation reserve.</p>
<b>RECREATIONAL ACTIVITIES</b>			
Sport fishing	Existing and new uses permitted	Existing and new uses permitted	The Ontario fishing regulations will continue to govern fishing in conservation reserves.
Sport hunting	Existing and new uses permitted	Existing and new uses permitted	
Facility development	Existing facilities/use may be permitted. New facilities may be considered.	No policy stated; existing policy applies	
Non-trail snowmobiling	Use may be permitted for direct retrieval of game only	No policy stated; existing policy applies	
Non-trail ATV use	Use may be permitted for direct retrieval of game only	No policy stated; existing policy applies.	
Motorized boating	Existing and new uses permitted	No policy stated; existing policy applies	



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
Camping	Use may be permitted	No policy stated; existing policy applies	
Trails: - hiking - snowmobiling - cycling  - horse riding - cross-country skiing	Existing use permitted to continue. New trails may be permitted.	Existing authorized trails can continue unless there are significant demonstrated conflicts. New trails can be considered through planning.	LUS is consistent with existing policy
Private recreation camps	Existing camps permitted to continue. New camps will not be permitted. Transfer requests will be considered in the context of an SCI or RMP for the conservation reserve	Existing authorized recreation camps permitted to continue, and may be eligible for enhanced tenure, but not for purchase of land.	<p>As the LUS is silent on establishment of new seasonal recreation camps, the existing policy will apply (new camps not permitted).</p> <p>In conservation reserves in the OLL planning area, existing private recreational camps, including hunt camps, are eligible for enhanced tenure, but not purchase of lands. Enhanced tenure is defined as anything beyond the term and form of current tenure.</p> <p>Enhanced tenure is not guaranteed. If lands were needed to protect significant natural or recreational values, enhanced tenure would not be granted.</p> <p>A decision to grant enhanced tenure, or to transfer recreational camps will be addressed through a screening process, and preferably in the context of a Statement of Conservation Interest.</p> <p>In the absence of an SCI, decisions arising from the application of screening criteria will be limited to an extension of the term only (up to 10 years) and will not include any change in the nature of the tenure from that existing at the time of the request.</p>



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
			<p>Requests for the transfer of recreation camp tenure may be approved subject to the application of the screening criteria.</p> <p>If an existing recreation camp holder wishes to relinquish their tenure and to sell any existing improvements, MNR will consider purchase of the improvements.</p>
<b>COMMERCIAL ACTIVITIES</b>			
Fishing	Existing use may be permitted to continue. New operations may be permitted.	Existing use permitted to continue, unless there are significant demonstrated conflicts. New operations can be considered subject to the 'test of compatibility'.	<p>The LUS is consistent with existing policy.</p> <p>The existing policy and the LUS are both silent, however, on transfer requests. Under existing policy, requests for transfer will be considered within the context of the SCI or RMP prepared for the conservation reserve. For the new conservation reserves recommended in the LUS, transfer requests will be dealt with on an ongoing basis, and not deferred until completion of a SCI or RMP.</p>
Bait-fish harvesting	Existing use permitted to continue. Transfer requests will be considered in the context of the SCI or RMP for each conservation reserve. New operations may be permitted.	Existing use permitted to continue, unless there are significant demonstrated conflicts. New operations can be considered subject to the 'test of compatibility'.	The LUS is consistent with existing policy. The LUS is silent, however, on transfer requests; Requests for transfer will be dealt with on an ongoing basis, and not deferred until completion of a SCI or RMP.
Commercial fur trapping	Existing use permitted to continue. Transfer requests will be considered in the context of the SCI or RMP for each conservation reserve. New traplines may be permitted.	Existing use permitted to continue unless there are significant demonstrated conflicts. New operations can be considered, subject to the "test of compatibility".	<p>The LUS is consistent with existing policy. The LUS is silent, however, on transfer requests. Requests for transfer will be dealt with on an ongoing basis, and not deferred until completion of a SCI or RMP.</p> <p>As part of the determination of whether new trapping would be permitted, the associated trails that would be required should be considered.</p>



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
Trapping cabin	Existing use permitted to continue. New cabins not permitted	Existing policy applies	<p>Repair and replacement of existing cabins should normally be permitted, as long as the scale and function are not significantly altered.</p> <p>The relocation of existing cabins may be permitted if consistent with the protection of natural heritage values and other uses/activities.</p>
Outpost camps/tourism facilities	Existing outpost camps permitted to continue. Transfer requests will be considered in the context of an SCI or RMP for the conservation reserve. New outpost camps not permitted	Existing authorized tourism facilities can continue unless there are significant demonstrated conflicts. The operators of tourism facilities can apply to upgrade tenure from LUP to lease. New tourism facilities can be considered during planning for a conservation reserve.	<p>The LUS differs from existing policy in several areas: LUS implies more than outpost camps in discussion of tourism facilities (for eg., main base lodges) new tourism facilities can be considered through planning permit holders can apply to upgrade tenure from LUP to lease</p> <p>In addition, the LUS is silent on transfer requests. Requests for transfer will be dealt with on an ongoing basis, and not deferred until completion of an SCI or RMP.</p>
Commercial bear hunting (tourist operators providing bear-hunting services to non-resident hunters)	Existing use permitted to continue. Transfer requests will be considered in the context of the SCI or RMP for the conservation reserve. New operations not permitted.	Existing use permitted. New operations not permitted.	The LUS is consistent with existing policy. The LUS is silent, however, on transfer requests. Requests for transfer will be considered on an ongoing basis, and not deferred until completion of a SCI or RMP. Bear management areas that have never been active should not be activated. Where BMAs have lapsed, their use should not be reinstated.
Wild rice harvesting	Existing use permitted to continue. New operations may be considered.	Existing use permitted to continue, unless there are significant demonstrated conflicts. New operations can be considered, subject to the 'test of compatibility'.	The LUS is consistent with existing policy. The LUS is silent, however, on transfer requests. Requests for transfer will be considered on an ongoing basis, and not deferred until completion of a SCI or RMP.
Food harvesting	Existing use may be permitted to continue. New operations can be considered.	No policy stated. Existing policy applies.	
<b>RESOURCE MANAGEMENT ACTIVITIES</b>			
Resource inventory	Existing and new inventory activity permitted	No policy stated; existing policy applies	



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
Resource monitoring	Existing and new monitoring activity permitted	No policy stated; Existing policy applies	
Fire protection	Forest fire protection will be carried out in accordance with approved Fire Management Strategies unless alternative direction for fire suppression or fire management is approved through an SCI or RMP	No policy stated; existing policy applies	Regional fire management strategies vary across the province. Where aggressive fire suppression is undertaken, a 'light-on-the-land' approach to fire management in conservation reserves is desirable (i.e., minimal use of heavy equipment, trenching, camp construction, tree cutting, etc.). If habitat regeneration becomes an issue in future, prescribed burning could be considered on a per-site basis.
Insect and disease	Control of insects and diseases will be addressed on a site basis	No policy stated; existing policy applies	
Featured species management	Existing and new featured species management may be permitted	No policy stated; existing policy applies. Some area-specific policies address this activity.	New featured species management activity will not be permitted until a SCI or RMP is prepared. Existing habitat management practices will be reviewed to ensure that they are consistent with the protection of identified natural heritage values.
<b>OTHER ACTIVITIES</b>			
Research	Research will be encouraged to provide a better understanding of the natural values protected by a conservation reserve and to advance their protection, planning and management.	No policy stated; existing policy applies.	
Collecting	Collecting is not permitted	No policy stated; existing policy applies.	Collecting may be permitted as part of an authorized research project. The issuance of permits will be considered on a per-site basis.
Food gathering	Existing and new use are permitted	No policy stated; existing policy applies.	
Land disposition	Sale and lease of lands is not permitted. Permitted uses may be authorized by land use occupational authority excluding a sale or lease. Where incompatible uses are currently permitted through land use occupational authority, such	Sale of lands is not permitted with the exception of some types of minor dispositions (for eg., the sale of road allowances in front of an existing cottage, the sale of small parcels of land to provide adequate area for the installation of a septic system) where it does not detrimentally affect the values	Commitments to sell or lease Crown land within new conservation reserves in the OLL planning area made prior to the release of the proposed LUS will proceed, subject to meeting all other necessary requirements.



Issue and Activity	Existing Policy	OLL: Land Use Strategy Policy	Policy Clarification
	uses will be phased out either by cancellation of occupational authority or acquisition as funds are available.	an area is intended to protect. Renewals of existing leases or land use permits are permitted. Requests for transfer of tenure will be considered in the context of the SCI or RMP. New leases or land use permits will be allowed for approved activities.	
Habitat management for wildlife	No explicit policy	No policy stated	Specific management prescriptions will be identified in SCIs and RMPs. No new habitat management will be permitted until an SCI or RMP is prepared. Existing habitat management practices will be reviewed to ensure that they are consistent with the protection of identified natural heritage values.



### 9.3 Appendix C: Glossary of Terms

#### Glossary of Terms

- Fibric: Characterized by an accumulation of partly decomposed organic matter derived mainly from mosses, leaves, twigs and woody materials; some of the original structures difficult to recognize; materials may be partly mingled with mineral particles by soil fauna as in a MODER, or it may be a partly decomposed mat permeated by fungal hyphae as in a MOR.
- Humic: Characterized by an accumulation of decomposed organic matter in which the original structures are indiscernible; differs from the Fibric layer by having greater humification, is chiefly due to the action of organisms; it may be sharply delineated from the mineral soil as in a MOR where humification is chiefly dependent upon fungal activity, or it may be partially incorporated into the mineral soil as in a MODER.
- Non-Calcareous: Soil not containing sufficient calcium carbonate, often with magnesium carbonate, to effervesce visibly when treated with cold 0.1 N hydrochloric acid.
- Podzol: An order of soils having podzolic B horizons (Bh, Bhf, or Bf) in which amorphous combinations of organic matter (dominantly fulvic acid), Al, and usually Fe are accumulated. The sola are acid and the B horizons have a high pH-dependent charge.
- Site Districts: Contained within Site Regions and are characterized by physiographic similarities and by the successional trends exhibited by the predominant vegetation types on those physiographic features.
- Site Regions: Characterizes broad climatic patterns, mainly temperature, precipitations and functions thereof.

