

**Policy Justification for the Protection of the
Blueberry Lake Watershed,
Temagami, Ontario**

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Introduction

Blueberry Lake is small, beautiful lake surrounded by pristine forest with centuries-old trees that pre-date the first European settlements in the Ottawa valley. In the heart of historic Temagami, Blueberry Lake is only eight kilometers east of the Town of Temagami, Ontario, a short portage away from Cassels Lake, where it has remained surprisingly remote and undiscovered. The Blueberry Lake Watershed is Temagami in a microcosm - its tremendous variety of pristine environments in such a small area gives it unique biodiversity and recreational values. Some special features include giant cedars and yellow birch, red, white, and jack pine forest, bogs with carnivorous pitcher plants and sundew, and a pine forest that burned in a 1996 forest fire.

Logging in the area around Blueberry Lake began in 1946 when Gillies Bros. & Co. built a sawmill on the shore of Cassels Lake, across from what is now called White Bear Forest. Most of the forest surrounding the Blueberry Lake Watershed was logged in the 1940's, but the vast majority of the Watershed escaped the logging. Only a small portion of the west shore of Blueberry Lake was logged at the time. The portage trail between Cassels Lake and Blueberry Lake was used as a winter road to haul pine cut from the west shore and areas north of Blueberry, down to Cassels Lake, to be floated to the mill in the spring. At that time logs were carried on horse-drawn sleds, and pine trees were cut using two-man cross-cut saws. In the following decades gas chainsaws replaced the muscle-powered crosscut saws, and horses were replaced by skidders. The old-growth forest that remains in the Watershed probably survived due to a combination of luck and steep topography that made logging difficult - at the time there was plenty of pine in other nearby areas that was easier to extract.

Currently, however, Temagami's old-growth pine forests are controversial. Many people want to cut the last old growth forests to create jobs in communities that traditionally have depended on lumbering. Corporations with head offices in Toronto and Montreal see them as a source of short-term profits. But others see the forest as a long-term investment; a source of employment for towns that, like Temagami, now earn most of their revenues from tourism. This conflict between the tourism industry, forest industry, the native aboriginals, and environmentalists has existed for decades. Until recently, forest industry has logged most any forest they desired. During the last decade, however, protection of the last fragments of old-growth red and eastern white pine has taken on greater urgency and importance to a variety of stakeholders.

For example, in 1989, Temagami was the site of the largest act of civil disobedience in Ontario's history as a province, with 289 protestors arrested for blocking road-building equipment on the Red Squirrel Road. At that time it was the largest single act of civil disobedience in the history of Canada. This campaign began with the Teme-Augama Anishnabai fighting destructive forest practices and asking for more control over their lands, but was quickly joined by conservation groups like the Temagami Wilderness Society. The non-violent protests saved the Obabika North or Shish Kong old-growth pine stand, the largest old growth red and eastern white pine stand remaining in the world. It also led to the closing of the last sawmill still operating in Temagami.

Much of the forest north of Blueberry Lake (harvest block #49) is scheduled to be logged in the next five years. Due to its unique ecological features and its close proximity to the Town of Temagami, however, conservation groups have challenged this decision to log. In particular, Earthroots engaged the Ministry of Natural Resources in the issues resolution process as described in section 3.4 of the Forest Management Planning Manual (1995). This report is based on correspondence between Ancient Forest Exploration & Research and the MNR detailing the policies that are relevant to the conservation of the Blueberry Lake Watershed as stated in local, regional, and provincial policy documents.

Sustainability

Policy: “The sustainability of forest ecosystems is the primary focus of Ontario’s forest management program.” (*Ontario Forest Management Planning Manual 1995*)

Fact: “Suitable pine timber...[from] the Sudbury and Nipissing licences is becoming depleted and suitable pine timber on the open market is becoming increasingly scarce” (Goulard 1996).

Perhaps the MNR continues to allow logging in the few remaining old-growth white and red pine forests because even after more than a century of harvesting these species, they are not able to sustain the pine supply from second-growth forests. If the MNR can provide the required supply of white and red pine timber in a sustainable manner from second-growth forests, why must the few remaining old-growth pine stands be logged?

Endangered Ecosystems

Policy: “Forest ecosystem types should not be candidates for harvest where this practice threatens or jeopardizes their long-term health and vigor.” (*Ontario Forest Management Planning Manual 1995*)

Policy: We need “to ensure that current biological diversity of forests is not significantly changed and, where necessary and practical, is restored.” (*Ontario Forest Management Planning Manual 1995*)

Policy: We “need to prevent the over-exploitation of the area’s resources and values.” (*Temagami Land Use Plan 1996*)

Fact: Old-growth red and eastern white pine forests are endangered ecosystems throughout their range (Quinby 1993, Noss 1995, Noss et al. 1995, Quinby 1996).

These forests are not just endangered, they are one of “the 21 major ecosystem types that stood out as most endangered in the United States...an appealing rule is that not one more acre of any diminished ecosystem type be destroyed; that is, stop all logging of old-growth forest” (Noss 1995). Addressing the situation in Ontario, the Ontario Environmental Assessment Board (1994) stated that “less than 1% of Ontario's original white pine forest remains. We do not

quarrel with this estimate; it is clear that not much original white pine forest is left. We are persuaded that steps need to be taken to protect it”.

Does the MNR not agree that an endangered ecosystem is one that is jeopardized in terms of its long-term health and vigor? Does the MNR not agree that the biological diversity of the original old-growth red and eastern white pine forests has been significantly changed? Does the MNR not agree that the original red and eastern white pine forests of Ontario have been over-exploited?

Fact: “Late seral stages of most of the commercially targeted species in the GLSL forests are at present significantly under-represented relative to their historic levels...Remnant pockets of natural forest...should be set aside as part of the protected landscape network” (Johnson 1998).

Does the MNR not agree that the biological diversity of some additional (aside from white and red pine) GLSL forest types that occur in the TMU has been significantly changed? Does the MNR not agree that some other GLSL forest types that are found in the TMU have been over-exploited?

Restoration

Policy: We will “increase amount of white and red pine forest towards pre-settlement levels.” (*Temagami Land Use Plan 1996*)

Fact: To increase white and red pine forest in Temagami to pre-settlement levels, an increase of between 116,300 ha and 158,600 ha is required (Quinby 1997).

How does the MNR expect to increase white and red pine forest in Temagami by a minimum of 116,300 ha if it allows the logging of half of Temagami’s remaining old-growth white and red pine stands? What is currently being done to achieve this pine forest restoration?

Ecological Management

Policy: “Base [white and red pine forest] management on natural ecology” (*Temagami Land Use Plan (1996)*)

Fact: “In terms of basing management on natural ecology, ...our growing, but still limited, knowledge of natural processes also limit us in this regard” (TCPC 1996) and currently, there is no long-term scientific program within MNR to improve our understanding of the natural ecology of white and red pine forest.

How does the MNR propose to base the management of Temagami’s white and red pine forest on natural ecology if it does not have a research program designed to obtain the required knowledge to carry out such management?

Representation and Protected Areas

Policy 5a: “To maintain the full spectrum of the Planning Area’s geological, ecological and species diversity in a system of protected areas.”

from the *Temagami Land Use Plan*
(1996)

Policy 5b: “The track record of MNR is to achieve a protection level of 65% province-wide in old growth protection through forest management and other land use planning activities. Using this as a guideline, it is expected that the old growth red and white pine forested areas in the Temagami Planning Area will achieve this rate of protection.”

from *Government Response to the 1996 Temagami Land Use Plan* (1997)

Fact 5a: For the 4E4 gap analysis, “forest communities in an area...were described by the dominant tree species” (Geomatics 1992).

Fact 5b: “A dominant plant community...may occupy more than one environmental matrix position [however]...for the purposes of this study [the 4E4 gap analysis], a single matrix position has been determined for each representative community” (Geomatics 1992).

Fact 5c: “It has not been possible within the scope of this project [the 4E4 gap analysis] to evaluate and compare the biophysiological units and individual vegetation associations present in each site examined. Each site was evaluated *in toto* and the significance noted in the biophysical matrices” (Geomatics 1992).

Fact 5d: For the 4E4 gap analysis, “field visits [were]...a minor component of this study but could have been expanded considerably” (Geomatics 1992).

Fact 5e: “Eight of the 14 biophysiological units reported for Site District 4E4 are not represented in any of the candidate areas” (Geomatics 1992).

Fact 5f: “In 12 of the 17 candidate areas, a very high proportion of the plant communities present are not represented elsewhere...[in] Site District 4E4” (Geomatics 1992).

Fact 5g: “The multiplicity and interconnection of candidate areas [in 4E4] is currently very poor...In addition, buffering of natural areas...is not currently a part of MNR resource management” (Geomatics 1992).

Fact 5h: “white and red pine [communities]...actually encompass a large range of ecosystem types” (TCPC 1996).

Fact 5i: Nine of the TMU’s 14 landform types are not included within any of the TMU’s 12 representative old-growth white and red pine forest protected areas (Lee et al. 1999).

Fact 5j: Although Cartan (1996) stated that old-growth red and white pine “sites [in the TMU] were assessed using field checks and 12 were found to be the best representative sites”, none of these field data have been published by the MNR and made public.

Fact 5k: The full spectrum of the natural heritage in the Temagami Site District (4E4) is not yet fully represented (MNR 1997).

Since there is still much to be done to complete the protected areas system in the TMU including some very basic field work, why does the MNR not take a conservative approach to logging in instances where some allocated areas may have significant natural heritage value? What is the MNR doing to complete the protected areas system of the TMU? We are currently conducting research that will help to complete the protected areas system for the TMU. If the MNR delays logging in the BLWA for three years AFER could complete these valuable research studies.

Policy 9: “Aquatic diversity needs to be formally organized and better represented in the province’s system of natural heritage areas...[it] has been included in the system incidentally...Aquatic diversity can be described, in general terms, at five levels of organization: drainage basins and watersheds, waterbodies, biological communities, species of aquatic organisms, and genetic diversity” (MNR 1997).

from *Nature’s Best, Ontario’s Parks and Protected Areas: A Framework and Action Plan* (1997)

We haven’t even begun to systematically represent the range of aquatic ecosystems in Ontario. Other than the BLWA, none of the other 12 protected representative old-growth white and red pine areas completely surround a lake except for the Rabbit Lake Reserve and that lake is less than 20% of the size of Blueberry Lake. A primary principle of biodiversity conservation is to err on the conservative side.

Adaptive Management and Research

Policy 6a: “Management practices must be flexible to allow for new information as it becomes available.”

from the *Ontario Forest Management Planning Manual* (1995)

Policy 6b: “Best available science, public involvement, local knowledge, and appropriate inventory must work together to produce effective decisions.”

from the *Ontario Forest Management Planning Manual*
(1995)

Policy 6c: “the Ministry of Natural Resources...[shall] work to identify additional significant tourism and recreational values”.

from *Government Response to the 1996 Temagami Land Use Plan* (1997)

Policy 6d: “Processes for identifying natural heritage values and protecting those values take place independently, and some time may elapse before final protection decisions are

made. Therefore, natural heritage areas identified on public lands should be provided interim protection while land use issues are being resolved through the Ministry's planning processes. Interim protection will ensure natural heritage values are maintained while land use planning processes determine whether and how values might be protected. Interim protection may be afforded by deferral of forest management activities through the forest management planning process".

from *Nature's Best, Ontario's Parks and Protected Areas: A Framework and Action Plan* (1997)

Policy 6e: "old growth...[will] additionally be protected through the identification of areas-of-concern".

from the *Temagami Land Use Plan* (1996)

Clearly, MNR's policy allows for, and in some instances seems to encourage, the application of new information for refining resource management including the addition of natural heritage sites. Policy allows for interim protection through a variety of forest management mechanisms. All indications are that the BLWA has significant natural heritage value. Why is the MNR resisting a three-year delay of logging in order to carryout additional studies?

Policy 7: The "terrestrial science methodologies used to identify and measure adequacy of representation need to be updated to incorporate the best available science" (MNR 1997).

from *Nature's Best, Ontario's Parks and Protected Areas: A Framework and Action Plan* (1997)

Fact 7a: Referring to the landform types used by the MNR for natural heritage planning in Site Region 4E, Noble (1983) stated that "the delineation of these units [is] based on patterns of landform and vegetation [and that]...Because of limitations...this study is admittedly crude and should not be considered as an accurate concise, detailed biophysiological analysis of Site Region 4E...In essence, at this reconnaissance scale, subjective decisions have to be made".

Fact 7b: Using MNR's Maycock matrix, "the precise determination of the environmental matrix position for a community is somewhat subjective, and can vary depending on the author. Microclimate and site moisture are especially difficult variables to determine" (Geomatics 1992).

Both the MNR and consultants agree that a new method of biodiversity assessment for central Ontario is needed. The research conducted by Ancient Forest Exploration & Research (AFER) is designed to improve the current focus only on landforms and FRI community types (see accompanying research report). This involves a continuation of current studies to add the sampling of the red pine-dominated FRI community type and riparian habitats. The BLWA is a necessity to complete this additional sampling. Why is the MNR not supportive of our efforts to help refine current biodiversity assessment methods?

Partnerships

Policy 8a: “Opportunities will be sought for our partners and stakeholders to play a greater role in meeting shared program objectives.”

from *Nature's Best, Ontario's Parks and Protected Areas: A Framework and Action Plan* (1997)

Policy 8b: “Since significant resources are required to undertake data collection, research, and monitoring, there is a need to establish priorities for these activities and to encourage partnerships and cooperative ventures with government and non-government organizations, universities and public interest groups.”

from *Nature's Best, Ontario's Parks and Protected Areas: A Framework and Action Plan* (1997)

AFER has invested close to \$200,000 into natural heritage science research in the TMU over the last two years, and is prepared to commit even more funding over the next three years to continue these studies. This research will add significantly to the completion of the protected areas system in the TMU and will help to refine the current biodiversity assessment methods. AFER needs the BLWA to do this. Why is the MNR actively avoiding a cooperative relationship with AFER?

As I have stated previously, AFER would like the proposed logging in the BLWA to be delayed by at least three years in order to build on current studies and to conduct a study to compare the BLWA with other similar areas.

Continuation of current studies (see accompanying research report)

There are two reasons why AFER needs to continue to collect data in the BLWA over the next few years. First, we need to sample in the “red pine” FRI community type for its comparative value in the context of the two FRI communities we have already sampled over the last two field seasons. These other two are the “white pine-red pine” and the “white pine-red pine-white birch” FRI community types. In order to better understand the influence of slope position and aspect on forest community composition, we need the comparative value of the related but more dissimilar red pine FRI community type. In other words, samples from the red pine type will help us to get a better sense of when the FRI community type discriminates communities best and when stratification by slope position and aspect discriminates best. Pristine red pine-dominated stands occur in the BLWA, the White Bear Reserve and the Rabbit Lake Reserve. In fact, a portion of the red pine stand in the BLWA is included in the proposed next five-year plan.

We also need to sample in riparian areas, immediately adjacent to streams as they have a high plant diversity and we have not yet sampled in these habitats. The BLWA has more riparian habitat than any either the White Bear Reserve or the Rabbit Lake Reserve.

A Comparative Regional Analysis of the Natural Heritage Value of the Blueberry Lake Watershed

This study will include GIS analysis of landscape-level ecological features as well as field work for sampling stand and within-stand level features for areas with features and values similar to those of the BLWA. Aquatic diversity will be addressed to the extent possible. AFER is

prepared to dedicate up to three field seasons of data collection to this effort including associated data analysis and report production. The results of this study will be reviewed by a panel of natural heritage experts to evaluate the natural heritage significance of the BLWA. If the panel finds that the BLWA should be protected due to its significant natural heritage value, then I would expect MNR to consider further discussion including possibilities for modified management options such as a no-harvest, “area of concern” designation for the BLWA.

Based on last year’s revenue (which we expect for the next three years as well) our projected funding for this study is approximately \$200,000 (including \$100,000 in-kind labour value). We plan to approach additional funding sources which we hope will generate matching funds to bring the project funding total to about \$400,000 over three years.

In this letter and in the accompanying research report I have provided a significant amount of detail regarding AFER’s research objectives and methodologies. Also in this letter, I have provided you with numerous policy rationales to use in granting AFER’s request. The events and decisions that unfold during this particular issue resolution process will make an interesting case study for publication in a resource management and policy journal. Particularly in the wake of the recent forest management court decision against the MNR. Both Tim Gray (Wildlands League) and Jerry DeMarco (Sierra Legal Defense Fund) will also have a significant interest in this article perhaps as co-authors.

I hope that this journal article will show how the MNR’s forest management process works to the benefit of all stakeholders. This includes the often unheard voice of the Ontario public who have indicated time and again through public opinion polls that they want all remaining old-growth white and red pine forests in Temagami to be protected.

I am committed to an open and honest interaction as we pursue a reasonable resolution to this issue. I appreciate your efforts to resolve this in an equitable fashion.

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(see next page for references)

References

- Cartan, W. M. 1996. Affidavit of William Michael Cartan. In: *Algonquin Wildlands League and Friends of Temagami v. Minister of Natural Resources*. Toronto, Ontario: Ontario Court (General Division) Divisional Court, Court File No. 539/96, Attorney General for Ontario.
- Geomatics International. 1992. *Assessment of Representation Needs of Natural Areas and Features in the Southern Boreal Forest, Site Region 4E, Site District 4E4*. Prepared for the Ontario Ministry of Natural Resources by Geomatics International, Guelph, Ontario. 74 pp.
- Goulard, M. 1996. Affidavit of Marc Goulard. In: *Algonquin Wildlands League and Friends of Temagami v. Minister of Natural Resources*. Toronto, Ontario: Ontario Court (General Division) Divisional Court, Court File No. 539/96, Attorney General for Ontario.
- Johnson, L. 1998. Great Lakes-St. Lawrence Forest Stewardship Council Regional Initiative. Wildlands League, Toronto, Ontario. 58 pp.
- Lee, T., E. Davies and S. Hewittson. 1999. The Relationship Between Old-Growth White and Red Pine Forests and their Landforms in Temagami, Ontario (draft report). *Research Report No. 19*, Ancient Forest Exploration & Research, Toronto and Powassan, Ontario. 17 pp.
- Noble, T. W. 1983. *Life Science Report, Site Region 4E, Northeastern Region*. Consulting Report prepared for the Ontario Ministry of Natural Resources, Parks and Natural Heritage Branch, North York, Ontario.
- Noss, R. F. 1995. What should endangered ecosystems mean to the Wildlands Project? *Wild Earth* 5(4):20-29.
- Noss, R. F., E. T. LaRoe III, and J. M. Scott. 1995. *Endangered Ecosystems of the United States: A Preliminary Assessment of Loss and Degradation*. Biological Report 28, U.S. Dept. Interior, National Biological Service, Washington, D.C.
- Ontario Environmental Assessment Board. 1994. *Reasons for Decision and Decision: Class Environmental Assessment by the Ministry of Natural Resources for Timber Management on Crown Lands in Ontario*. EA-87-02, Ministry of Environment, Toronto, Ontario.
- Ontario Ministry of Natural Resources (MNR). 1995. *Forest Management Planning Manual for Ontario's Crown Forests*. Ontario Forest Research Institute, OMNR, Sault Ste. Marie, Ontario.

- Ontario Ministry of Natural Resources (MNR). 1996. *Response of the Government of Ontario to the Temagami Comprehensive Planning Council Recommendations*. Queen's Park, Toronto, Ontario.
- Ontario Ministry of Natural Resources (MNR). 1997. *Nature's Best: Ontario's Parks and Protected Areas, A Framework and Action Plan*. Lands and Natural Heritage Branch, The Natural Heritage Section, Peterborough, Ontario. 37 pp.
- Quinby, P. A. 1993. Old-growth eastern white pine forest: An endangered ecosystem. *Forest Landscape Baselines No. 2*, Ancient Forest Exploration & Research, Powassan, Ontario. 4 pp.
- Quinby, P. A. 1996. Status of Old-Growth Red Pine Forests in Eastern North America: A Preliminary Assessment. *Forest Landscape Baselines No. 13*, Ancient Forest Exploration & Research, Toronto, Ontario. 4 pp.
- Quinby, P. A. 1997. Restoring the Provincial Forest Ecosystem in Temagami, Ontario. *Research Report No. 10*, Ancient Forest Exploration & Research, Toronto and Powassan, Ontario. 17 pp.
- Temagami Comprehensive Planning Council (TCPC). 1996. *Report of the Comprehensive Planning Council on land use for the Temagami Comprehensive Planning Area*. Comprehensive Planning Council, Ministry of Natural Resources, Temagami, Ontario.