Introduction

The Crown lands of northern Ontario are crisscrossed with a mosaic of interconnected canoe routes first used by aboriginal hunters and gatherers and later mapped by explorers, fur traders, geologists, government surveyors and even pioneer settlers. These traditional and historical waterway routes have existed for millennia and continue to be used by today's recreational canoeists. They are an integral part of the province's landscape and represent the very essence of our Canadian identity.

Currently, no regulatory system exists in Ontario for the uniform protection of Crown land canoe routes. A growing demand for the province's natural resources and hydroelectric power and the associated development of new roads and railways coupled with recent legislative changes such as the federal government's recent decision to drastically alter the *Navigable Waters Protection Act* have combined to threaten the integrity of this valuable recreational resource.

In this age of government cutbacks of human and financial resources, it falls to those who treasure our shrinking wilderness to become pro-active in the stewardship of the province's Crown land canoe routes and their associated land-based components. The time has come to develop a strategy to protect and preserve this important aspect of our historical and cultural heritage.

Definition of a Canoe Route

A canoe route is a travel corridor defined by a series of interconnected lakes, rivers, creeks and streams linked together by portage trails, interspersed with campsites along the watercourses and accessible by float plane or from nearby road or railway access points. Canoe routes are used primarily by self-propelled (*viz.*, non-mechanized) watercraft and are often classified as either 'frontcountry' or 'backcountry' according to their degree of remoteness.

Portages are necessary to avoid impassable stretches of a waterway, to travel upstream safely and to cross overland from one watercourse to another. Campsites and access points are integral components of the infrastructure of a canoe route as are viewscapes, viewpoints, scenic vistas, swimming beaches, wildlife viewing, cultural and historical heritage sites. Less tangible, but equally important, is the perception of pristine wilderness experienced when travelling a canoe route in a remote area unblemished by roads, structures or other signs of civilization.

Our Shrinking Wilderness

The term 'wilderness' holds different meanings for different people. In Western industrialized societies, the most common concept of wilderness areas is that of physical places on the planet where the forces of nature have evolved, and continue to evolve, relatively uninfluenced or adversely affected by humans. In Canada, the popular misconception that the country's wilderness is limitless and will last forever still persists in many quarters. The Sierra Club of Canada warns this is not the case:

Wild areas, and the wildlife that lives in them, are increasingly under threat across Canada, from industrial resource extraction, climate change and development pressures. While early settlers in Canada wrote of eking out existences in our vast wilderness areas, today almost half of these natural areas have been degraded, fragmented and impaired by industrial use or out rightly converted to cities, towns and farms.

In an effort to raise awareness on sustainable management, conservation and manageable development of all types of forests, the United Nations General Assembly declared 2011 as the International Year of Forests (IYF). To celebrate this special year, the Royal Canadian Mint released a special \$2.00 ('toonie') coin collection to highlight Canada's boreal forest with the following explanation:

Canada's own boreal forest is the world's largest ecosystem, one of its last untouched swaths of forest, and a habitat that covers roughly 58% of our country's massive landmass. Some 15% of our total population—including 80% of members of Canada's First Nations—live within the boreal forest, along with countless species of flora and fauna. Three billion birds flock to the boreal forest every year to breed and fledge their young. It is also home to dozens of mammal, hundreds of fish, thousands of plant, and tens of thousands of insect species.

Our boreal forest's size and qualities as a habitat make it an indispensable resource for the conservation of Canadian wildlife: its soil absorbs and holds more carbon per hectare than any other ecosystem in the world. By keeping carbon, a harmful greenhouse gas, from escaping into the atmosphere, our boreal forest is helping to manage negative environmental impacts on a global scale, and preserving habitats for living beings everywhere.

Much of Northern Ontario's boreal forest is already fragmented by a network of roads most of which are associated with resource extraction activities past and present. Even the Far North is no longer immune to the relentless quest for new sources of the province's natural resources. Recently, there has been a surge in mining claims staked throughout Ontario. Escalated mining activity in the area known as the Ring of Fire and development of new forest management units (FMUs) such as the Whitefeather Forest have shattered what was once a natural, pristine habitat of many sensitive species found in few other places in the world. As new roads, railways and hydroelectric transmission lines creep further north and penetrate what were previously inaccessible wilderness areas, backcountry Crown land canoe routes lose their backcountry remoteness and are downgraded to frontcountry status.

This paper does not propose an increase in the number or size of existing protected places nor does it propose any restriction on existing or future resource extraction activities including road and rail development. Rather, it suggests the need to create a set of uniform, province-wide regulatory measures to ensure the protection and preservation of all existing Crown land canoe routes while economic development continues to evolve. To achieve this goal, the first step must be their formal identification and recognition.

Identification & Recognition of Existing Canoe Routes

The Ontario Ministry of Natural Resources & Forestry (MNRF) acknowledges the cultural, historical, tourism and recreational value of traditional and historical canoe routes that lie on the province's Crown lands. Interpretations of what is meant by an 'existing' canoe route vary from one MNRF administrative district to another and even amongst personnel who work in the same district or regional office. For example, one MNRF land use planner opined that an existing canoe route is "one for which portages, campsites, access points and other associated structures or features are already physically established on the landscape". Interestingly, this definition completely ignores the main physical component of a canoe route, viz., the watercourse itself. Another MNRF source claims "canoe routes, including camping areas and portages, are normally those identified by traditional use" without any explanation of what constitutes the extent of use, how it should be measured and exactly who are the users.

The responsibility for recognizing and recording information regarding existing canoe routes and their associated land-based components rests with individual MNRF administrative districts each of which determines how to manage its own values data. Unfortunately, there is no uniform, province-wide standard for identifying, evaluating, recognizing, classifying and tracking canoe routes nor, for that matter, is there any agreement as to what exactly constitutes a canoe route.

The ambiguous distinctions between a 'designated' and an 'undesignated' canoe route and between one that is 'verified' versus 'unverified' vary between MNRF administrative districts are further confused by issues such as degree of remoteness, frequency of use and regularity of maintenance.

Information about an existing canoe route recognized by an MNRF administrative district is entered into the Natural Resources Values Information System (NRVIS), a geospatial database used by the MNRF to collect, maintain and analyze land and natural resource data. To enter information about a value such a canoe route into NRVIS requires that it be identified and documented as prescribed in the *Forest Information Manual* (FIM), ideally using data collection methods and standards prescribed by the MNRF.

Section 3.0 of FIM defines 'values' as:

features, benefits, or conditions of the forest that are linked to a geographic area, that are of interest from various points of view and that FMUst be considered in forest management planning. Examples of values include cross-country ski trails, spawning areas, moose calving sites, raptor nests, seed orchards, tourism outpost camps, registered trapline areas, canoe routes, archaeological sites, and evaluated wetlands.

According to the same Section 3.0 of FIM,

Values information can be provided by any person or party at any time. Information about values normally comes from the MNRF or other government staff; licensees and their operators; nongovernment organizations (NGOs); third parties; other resource users; and the public.

Section 3.1.1 of FIM directs that,

MNRF must enter and update values information received from licensees and other sources into the MNRF's values information database (housed in a corporate data repository or information management system such as the Natural Resources and Values Information System - NRVIS). Currently, no mechanism exists for the publication and distribution of canoe route data entered into NRVIS nor is there any informal process by which this information can be readily reviewed. Individual stakeholders or interested members of the public must initiate a formal request to meet with the appropriate personnel of each different MNRF administrative district to discuss their concerns about the accuracy and completeness of canoe route values data entered into NRVIS.

The most common outcome of such an encounter is the revelation that a canoe route that has been identified, recognized and entered into NRVIS for one FMU or MNRF administrative district is not included in NRVIS for an adjacent FMU, MNRF administrative district or adjacent protected place such as a provincial park or a conservation reserve. This interruption in connectivity spoils an appreciation of the extent and importance of such a route and tends to diminish the perception of its overall value.

Where information regarding an existing canoe route is found to be entered incorrectly or missing from NRVIS, a request to correct its location or for its inclusion is often met with resistance even when there is overwhelming documentary evidence to authenticate its existence,

location and current level of use. Some MNRF personnel argue that a canoe route cannot be recognized if it is overgrown and not usable while others insist that any canoe route not already entered into NRVIS or one that existed in the past but which has fallen into disuse and abandonment must be treated as a new value and must first be subjected to an environmental impact assessment (EA) before it can be recognized, developed, maintained or improved. Others claim that a waterway that is only seasonally navigable due to fluctuating water levels cannot qualify as a canoe route.

Despite the emphatic direction provided by FIM, some MNRF personnel still resist recognizing a canoe route value identified by a third party by insisting their Ministry reserves the exclusive prerogative to first confirm and verify its existence before it can be entered into NRVIS. In his 2010-2011 Annual Report, the Environmental Commissioner of Ontario (ECO) condemned this delay in the process of recognizing a value by stating:

Canoe routes and portages in Ontario are important, not only as recreational values, but also as cultural and historical values. It is reasonable to believe that Aboriginal peoples used the same routes and portages that recreational canoe enthusiasts use today. From a geographic perspective, there may only be one logical route between two lakes, regardless of maintenance over past years.

MNRF tolerates many disturbances on Crown land, including forestry and mining, and these activities are often at conflict with recreational canoeing activities. While the NRVIS database contains many landscape values and features, it is unreasonable for MNRF to deny the existence of traditional canoe routes strictly because they are simply not in the ministry's database. In **this reporting year**, the ECO received two applications for review in which members of the public expressed concern and frustration with MNRF's process for confirming identified values (*i.e.*, canoe routes and cougar habitat) in forest management planning (for additional information, refer to Part 3.4 of this Annual Report). The ECO expressed the belief that MNRF should ensure traditional canoe routes and portages are protected because they are an important part of our cultural legacy.

A Class Environmental Assessment for MNRF Resource Stewardship and Facility Development Projects (Resource Class EA) is already in place to provide coverage for the planning, design, construction, operation, maintenance, rehabilitation and retirement or decommissioning of stewardship and facility development projects conducted solely by the MNRF or in cooperation with its partners. This includes both existing (viz., "those identified by traditional use") and new canoe routes as specified in Section 2.2.8:

Canoe route development projects include the provision of access points and portages, and supporting facilities such as campsites, and garbage and sewage disposal (e.g. privies along canoe routes), on Crown land outside of provincial parks and conservation reserves. Canoe routes, including camping areas and portages, are normally those identified by traditional use, but could also involve the development of new routes. Projects may also consist of changes in campsite locations and portage alignments, and general upgrading of routes according to the design and operational standards of MNRF.

The degree of usage of existing Crown land canoe routes is inextricably tied to two factors: the availability of accurate, detailed canoe route maps and the regular maintenance and improvement of land-based features such as portages, campsites and access points. The MNRF no longer

provides these services and should be encouraged to permit other willing stakeholders to assume stewardship of Crown land canoe routes without tying them up in a lengthy bureaucratic process.

The Issue of Navigability

Some forest planners hold that a waterway not previously identified in NRVIS as a traditional or historical canoe route cannot be recognized as such unless it is navigable--a term whose definition varies from one government ministry to another. Others claim that an intermittent waterway that is only seasonally navigable cannot be considered a viable canoe route.

Transport Canada defines 'navigable water' as:

any body of water capable of being navigated by floating vessels of any description for the purpose of transportation, commerce or recreation. This includes both inland and coastal waters. The final authority to determine the navigability of a waterway rests with the Minister of Transport or his/her designated representative.

The question of navigability and whether a canoe route is considered navigable was addressed in a 1989 Ontario High Court decision in which a 1983 precedent was cited as the litmus test to determine the navigability of a waterway. In rendering his scholarly judgment in the 1983 case, Justice Henry itemized the following criteria to establish the navigability of a waterway:

- Navigability in law requires that the waterway be navigable in fact. It must be capable in its natural state of being traversed by large or small craft of some sort.
- Navigable also means floatable in the sense that the river or stream is used or is capable of use for floating logs or log rafts or booms.
- A river may be navigable over part of its course and not navigable over other parts.
- To be navigable, a river need not in fact be used for navigation so long as it is realistically capable of being so used.
- A river is not navigable if it is used only for private purposes or if it is used for purposes which do not require transportation along the river (*e.g.*, fishing).
- Navigation need not be continuous but may fluctuate with the seasons.

Protection of Existing Canoe Routes

Canoe routes that lie on Crown land within a provincial park or a conservation reserve are protected and managed by Ontario Parks according to either a management direction or a more detailed management plan developed under authority of the *Provincial Parks and Conservation Reserves Act* (PPCRA) and dictated by the *Protected Areas Planning Manual* (PAPM).

Canoe routes that lie on Crown land outside protected places in the Far North and in the Living Legacy (OLL) planning area of central and mid-northern Ontario do not enjoy the same degree of protection as those that lie within protected places. They are subject to competing values and land uses and are prone to the impacts of resource extraction activities and the associated development of permanent roads and railways as well as other structures or facilities such as hydroelectric generating stations, transmission lines and the shoreline development of cottages and resource-based tourism facilities.

Directions for the management of each Forest Reserve (FR), Enhanced Management Area (EMA) and General Use Area (GUA) in the OLL planning area are defined in the *Crown Land Use Policy Atlas* (CLUPA) which presents 'policy reports' specific to each land use area. These

reports can be accessed on the internet using the interactive map browser; amendments are listed separately. Each policy report defines the uses and activities that may or may not occur on the respective land use area including recreational activities such as canoeing. Some policy reports define the degree of protection that must be afforded canoe routes; most do not address this issue.

The *Guide for Crown Land Use Planning* published in April 2011 provides mandatory direction for future land use planning exercises. It replaces the 1997 paper, *A Land Use Planning System for Ontario's Natural Resources*, and earlier guidelines for Crown land use planning.

Values data stored in NRVIS are used in forest management planning and published in a series of large-scale values maps that are part of every forest management plan (FMP) as prescribed by the *Forest Management Planning Manual* (FMPM). Identified canoe routes and associated land based values that are recognized by the MNRF and entered into NRVIS are included on the values maps of each FMP and, where applicable, transferred to the relevant operational maps.

Section 3.1.1 of FIM states,

The MNRF will also ensure that the best available values information is provided to planning teams for forest management planning purposes and made available throughout the planning process. The maps and information must include the values within the forest management unit for which the plan is being written, as well as values that are adjacent to the forest management unit that may be affected by forest operations.

Values maps can only reflect the completeness and accuracy of data stored in NRVIS. In the past, their publication during the development of each successive FMP provided the only opportunity for stakeholders and the general public to examine and question the validity, completeness and accuracy of canoe route values data in NRVIS.

Since 2008, draft and final versions of each new FMP have been posted on the MNRF web site where values maps and operational maps can be examined and each successive *Annual Work Schedule* (AWS) can be monitored. Final (*viz.*, approved) versions of earlier FMPs are also available for public scrutiny on the Scholar's Portal web site. Wider distribution and the ready availability of this information has made forest management planning more transparent and augmented the constituency of stakeholders who are able to participate in the public consultation processes involved with the development and management of each FMP.

To protect ecological integrity and biodiversity, each FMP provides prescriptions for the protection of a variety of identified values such as water quality, fisheries, large mammal and fur bearing animal habitats, birds of prey stick nests and heron rookeries to name but a few. Each prescription is published in the Supplementary Documentation section of a FMP as an *Area of Concern* (AOC). Direction for the protection of these values is set forth as standards, guidelines and best management practices or a combination of these protective measures in a suite of 'guides' including the *Forest Management Guide for Conserving Biodiversity at the Stand and Site Scales* (commonly known as the *Stand and Site Guide*) which replaced thirty-six previous guides in 2009.

A 'standard' provides mandatory direction that must be followed as written; there is no room for interpretation on the part of forest managers. A 'guideline' also provides mandatory direction, but requires professional judgment for it to be applied appropriately at the local level. It may be

expressed as a range of values or it may need to be implemented in different ways based on site conditions or circumstances. A list of 'best management practices' is not a set of mandatory directions, but rather a list of examples of practices that a forest manager may choose to use. A 'toolbox' of best management practices is not intended to be exhaustive; forest managers may develop and implement other ideas or strategies. There is no requirement to use any of the best management practice examples provided as some may not be applicable to local circumstances.

Unfortunately, no guide exists for the protection of Crown land canoe route values and the extent of protection currently provided them varies widely from one FMP to another and even between successive FMPs for the same FMU. Most FMPs define a canoe route solely as the shoreline component of the travelled watercourse. Associated land-based values such as access points, portage trails, campsites, scenic vistas and their viewpoints and sites of cultural, historical and natural interest are treated separately and severally, if at all.

By far, the greatest threat to the integrity of an existing Crown land canoe route and its associated land-based values occurs if the pertinent information is not entered into NRVIS and, by extension, does not appear on the appropriate values and operational maps of a FMP. Such an omission is compounded by the proposal in the *Stand and Site Guide* which, under certain circumstances, permits cut-to-shore harvesting practices that were not permitted in past FMPs.

It is interesting to note that the only specific mention of canoe routes in the *Stand and Site Guide* is for the limited protection of portage trails. Sole reliance on information in NRVIS fails to consider the distinct possibility that data about a particular value may be incomplete. It is entirely possible that the value may exist in locations not previously identified and consequently will not be awarded the protection it deserves. The only way to avoid this situation is to design an AOC for all occurrences of the value on a FMU regardless of whether they are recorded in NRVIS. This is particularly true for canoe routes and their related land-based features such as portages and interior (backcountry) campsites.

Even when information regarding a value is entered into NRVIS and is successfully transferred to the appropriate values and operational maps, many forest planners are reluctant to create a prescription for its protection on the argument that an AOC is not necessary unless the value in question will be impacted by planned or contingency operations during the lifetime of the FMP. Such a stance dictates repeated returns to the bargaining table by concerned stakeholders with the establishment of every new, updated version or amendment of a FMP and deserves closer examination.

Forest planners apply the term, 'Area of Concern' variously to describe the prescription that is developed for the protection of a particular value and to describe the physical boundaries of the area to which the prescription applies on both values and operational maps as well as in the field. Which definition they are using when they are unwilling to include an AOC for the protection of a value that is currently not threatened by planned operations or road development is not always clear. Are they reluctant to devise an AOC for a value whose existence and location has not been entered into NRVIS? Or, are they reluctant to create an AOC that means spending time marking values and operational maps with a value they don't feel is being threatened?

The FMPM stipulates what is to be done if a recognized value cannot be located on the ground during layout operations. If a value such as a portage cannot be found, it is deemed to no longer exist and the relevant AOC developed for its protection is no longer applicable. Most operators exercise due diligence in attempting to locate a value prior to the commencement of harvesting operations; some even invoke the 'precautionary principle' by flagging or ribboning the approximate location of the value in question when its exact location cannot be determined. Less conscientious operators find this *proviso* a convenient excuse to avoid wasting time and effort to locate a value they consider to be of little or no importance and which would curtail maximum harvesting benefits. Such arbitrary decisions only serve to further threaten the preservation of canoe routes that exist on Crown land.

Protection of Shorelines & Viewscapes

In most FMPs, the shoreline along a watercourse that constitutes a recognized canoe route is designated as a no-harvest riparian reserve of fixed or variable width measured from a definable starting point. To maintain the perception of wilderness and the sense of remoteness, a few FMPs extend the reserve inland to protect the visual aesthetics of viewscapes or viewsheds while others add time-sensitive operational restrictions to mitigate aural (*viz.*, noise) disturbances created by road construction, harvesting and silviculture activities and associated vehicular traffic.

Many FMPs subdivide the shoreline of a canoe route into a no-cut reserve immediately adjacent to the shoreline backed by a modified harvest zone within which limited harvesting and tending operations, temporary operational roads, landings and aggregate extraction may occur. In some FMPs, a multi-tier system of canoe route classification, with different degrees of shoreline protection, has been developed based on the perceived degree of value, current level of use, remoteness, accessibility or seasonal navigability. In a few cases, canoe routes are afforded different levels of protection due to conflicting directions provided in CLUPA for adjacent planning areas that lie, in whole or in part, on a single FMU. The level of shoreline protection of a particular canoe route often changes as it passes from one FMU to an adjacent FMU.

Some canoe route AOCs simply mirror riparian reserves developed for the protection of other values such as water quality or fisheries. Measuring the starting point of a riparian reserve from the high water mark or from the first occurrence of woody vegetation (i.e., Labrador Tea or leatherleaf) does little to protect wetland complexes that exist along shorelines and often extend a considerable distance inland. Recently, there has been a growing trend towards measuring shoreline reserves from the first occurrence of standing timber, and stipulating the minimum diameter, height, or density of standing, windfirm trees from which measurement should begin.

Regardless of the starting point from which a canoe route riparian reserve is measured, the most common variable-width reserves are graduated slopes in successive increments of 15 degrees; a few FMPs employ increments of 0-30, 31-45 and 45+ degrees. The most frequently-used horizontal or linear measurements of reserves are 30-, 50-, 70- and 90-metres for slopes of 0-15, 16-30, 31-45 and 45+ degrees, respectively. The most generous variable-width, slope-based shoreline reserves contained in current FMPs offer linear measurements of 70, 90 and 120m.

Forest management planners argue that the lack of harvest and renewal operations in a shoreline reserve results in the long term degradation of the shoreline as a result of forest succession

which, in turn, eventually leads to a decadent forest condition that will be susceptible to blowdown. Be that as it may, an adequate shoreline reserve that, left in its natural state, minimizes the risk of immediate blowdown and increases the distance from planned forest operations lessens the potential for unauthorized or unplanned access to the value the AOC is designed to protect—a benefit that is often overlooked.

Every AOC imposes conditions on existing and planned primary, secondary (branch) and tertiary (operational) roads and, in some cases, on mechanized operational practices such as skidding. Most shoreline reserves are absolute in banning forestry operations, aggregate removal and the development of landings, however, the rules are bent in favour of expediency when it comes to road crossings of the AOC with the associated crossing of an adjacent waterway that an AOC is supposed to protect. Some AOCs limit the width of the road right-of-way (ROW) of an approved water crossing on each side of the waterway for the entire width of the AOC; others limit the number of crossings within the AOC to all but a single road.

Protection of Portages

Portage trails are critical links to the connectivity of the navigable sections of a canoe route and can be categorized by their location. The majority lie along the shoreline of a waterway; a few lie across midstream islands; the remainder cross overland from one watercourse to another.

Harvesting of trees on islands is rarely undertaken and most portages that parallel a waterway lie within the shoreline reserve provided. Thus, the majority of portages already enjoy some degree of protection. Only the few that lie beyond the bounds of established shoreline reserves require a separate measure of protection. These include all overland portages as well as portions of those that parallel the shoreline of a waterway but which lie in part too close to the inland extent of the shoreline reserve or stray outside of it altogether.

If the width of a shoreline reserve is adequate, portages that parallel a waterway will be protected and only those that cross overland from one water body to another will require special attention. However, a single prescription for all portage trails that dictates a fixed, no-cut reserve on each side of a trail could also be applied to extend a shoreline reserve inland where a portion of the trail lies too close to the extent of the shoreline reserve or lies, in part, outside of it altogether.

Most portages that lie outside a shoreline reserve are afforded little more protection than insistence that the trail not be widened or improved, that skidding across the trail be minimized and that debris be removed from the trail after harvesting operations are completed. A growing number of AOCs provide for a treed buffer on each side of a portage trail and limit the number, location and design of road crossings, the width of the ROW and what activities may, or may not, occur within the prescribed area of protection. Some AOCs specify that road grade levels and the trail approaches to the road must be designed and constructed so as not to inhibit safe use of a portage; others specify that signage must be erected to alert trail users to the dangers of vehicular traffic and to warn motorists of the existence of the trail crossing where pedestrian traffic may be encountered.

In the case of portage trails, the use of the term 'crossing' in forest management planning creates some confusion. More often than not, no apparent difference is made between road crossings

over an AOC designed to protect the integrity of the trail and skidding practices within clear cuts that may extend across the entire length of the trail. Construction of a road across a portage often results in blockage and even destruction of the original trail necessitating lengthy and dangerous detours along the road ROW. The aftermath of clear-cutting operations often leaves the original trail obscured and uncontrolled new growth hinders passage. Skidding across a trail leaves ruts which makes portaging difficult and unsafe especially when they fill with accumulated rainwater.

The *Stand and Site Guide Background and Rationale for Direction* provides the following limited guideline for the protection of portages and trapline trails that lie both outside and within AOCs:

Reasonable efforts (e.g., clearing of logging debris, avoid steep ditching) will be made to ensure that recreational portage routes and trails used for accessing and working traplines are passable following forest management operations. Direction is provided to ensure that recreational portage routes and trails used for accessing and working traplines are passable following forest management operations. This replaces direction that was previously in the Code of Practice for Timber Management Operations in Riparian Areas, which was included in that appended to that document to address Term and Condition 76 in the Decision of the Environmental Assessment Board for the Class Environmental Assessment by the Ontario Ministry of Natural Resources on Timber Management on Crown Lands in Ontario (1994). This direction is included in the roads section of this guide but will also apply to any harvest areas that may affect the passability of recreational portage routes and trails used for accessing and working traplines. Reasonable efforts are intentionally not defined in the direction and are intended to be tailored to individual circumstances. The two examples provided (clearing of logging debris and avoidance of steep ditching) are not an exhaustive list of what may be reasonable.

Section 3.5.5 of the *Management Guidelines for Forestry and Resource-Based Tourism* (known commonly as the *Tourism Guide*) states that efforts should be made to minimize disturbance when crossing a trail or a portage with heavy equipment or when conducting forestry operations close to a trail. The Guideline offers suggestions as to how to achieve this objective:

- Buffers along trails may be desired to maintain views from the trail.
- Landings should be placed away from view of the trail.
- Skidding on trails should be avoided unless it is to avoid crossing the trail with a road.
- Trails may be relocated temporarily during forestry operations.
- Roads crossing trails or portages can incorporate an 'S' bend in their design to minimize the view down the road into the cutovers.
- Care must be taken to ensure safety concerns are addressed (i.e. signs warning pedestrian and vehicle travellers of the crossing).
- Trails must be kept free of debris and barriers to travel (i.e. ditches).

Application of these techniques is limited to trails and portages identified by a member of the resource-based tourism industry as being integral to the operation of a tourism business and do not apply universally to all trails and portages that exist on the province's Crown forests.

The Forest Management Guide for Cultural Heritage Values (commonly known as the Cultural Heritage Guide) provides guidance for the protection of cultural heritage landscape values including recreational trails, portages and other traditional travel corridors. One of its guidelines stipulates the AOC designed to protect such cultural features should be "the value plus an appropriate buffer to protect the context of the cultural feature". Further, it suggests that for some features a narrower reserve but an additional area of modified operations (e.g., partial harvest)

may be an appropriate prescription. For example, a portage [or] trail. . . might have a reserve and a partial harvest zone around the reserve. The question of how wide a reserve should be in order to survive was considered by the team that prepared the current Guide. They recognized the uncertainties related to the windfirmness, survival and non-disturbance of reserves but chose not to resolve the issue.

In order for a reserve to be effective in protecting the value, it is important that the integrity of the reserve remain until the surrounding forest has regenerated. A live and intact reserve meets this objective. There will be unusual events (*e.g.* windstorms, forest firests) that may cause changes to some reserves, but it should not be the normal situation. Information on windfirmness of standing reserves would be helpful in future considerations of the next version of this Guide.

Under Section 65(4) of the *Public Lands Act*, where public lands over which a portage has existed or exists has been sold or otherwise disposed of, any person travelling on waters connected by the portage has the legal right to pass over and along the portage with the person's effects without permission or payment to the owner of the lands.

Protection of Campsites

Backcountry campsites favoured by recreational canoeists are traditionally located in clearings on dry, level, breezy terrain along the shoreline of a canoe route or adjacent to a portage landing and, as such, enjoy whatever protection is provided by the shoreline reserve. However, campsites that are protected by shoreline reserves as little as 30m in width and measured from the high water mark or from the first occurrence of woody vegetation lack the depth needed to provide shade shelter and privacy for primitive human waste disposal sites (*i.e.*, latrines or biffies). In order to ensure existing campsites can provide these basic necessities, they all need to be afforded separate consideration for their protection whether their existence and location has been established or not. Only a few FMPs currently contain an AOC specifically designed for the protection of all existing interior or backcountry campsites.

In the lexicon of digital cartography, a campsite is a semicircular 'polygon' that radiates a measured dimension from a definable 'point' such as the primary fire ring or a privy. Forest management planners often refuse to invoke the precautionary principle outlined in FIM in order to provide protection to campsites whose existence and precise location has not been identified, confirmed and recognized, *viz.*, entered into NRVIS.

Whether the existence of a campsite has been identified and recognized by the MNRF as a value worthy of protection as prescribed in FIM is not the issue nor is it a question of whether a particular campsite is currently in a usable state. Campsites, like portages, exist in a constantly fluctuating state of usability, alteration and even temporary abandonment due to natural occurrences such as blowdowns and forest fires.

Protection of Tourism Values

Many canoe routes involve water bodies on which are located resource-based tourism establishments licensed by the Ministry of Tourism, Culture & Sport (*i.e.*, lodges, outpost cabins, hunting camps). Many of these facilities are remote or semi-remote (*viz.*, not accessible by road) and can only be accessed by rail, canoe, all-terrain vehicle (ATV) or float plane. The MNRF

recognizes the importance of these operations as part of the province's tourism infrastructure and has developed a mechanism to provide protection of the visual and aural aesthetics associated with the 'tourism lakes' on which they are located.

The provisions of a *Resource Stewardship Agreement* (RSA) negotiated between a licensed resource-based tourism operator and a sustainable forest licence (SFL) holder are designed to mitigate the impact of forestry operations in the immediate vicinity of a tourism facility and often involve restricting road access to the water body on which it is located. The degree of protection afforded tourism aesthetics--both visual and aural--depends on the terms of each individual RSA and varies from one FMP to another but invariably exceeds that provided for a canoe route. Viewscape protection on tourism lakes often extends as far back from the shoreline as the visible horizon or skyline.

FMPs often depict all recreational trails including canoe routes on the *Resource Uses Values Map* using a single, solid line. This practice makes it difficult to discern which of the trails are actually canoe routes. There is a growing trend to portray canoe routes separately on the *Resource-Based Tourism Values Map* using a dashed line for the water-based portion and a dotted line for portage trails. Their inclusion on this map permits verification of the accuracy and completeness of canoe route data stored in NRVIS and recognizes their potential as a provincial tourism attraction.

Under authority of Section 52(1) of the *Public Lands Act*, the manager of a MNRF administrative district may impose travel restrictions on public roads to protect remote resource-based tourism facilities as well as identified or suspected sites of sensitive natural, cultural or archeological value. Imposition of travel bans often ignores the fact that these roads can also provide access to and egress from waterways that are integral parts of recognized canoe routes.

The Changing Face of Forest Management

In 2010-11, management of the province's Crown forests radically changed. What had originally been the exclusive purview of the then MNR was now to be shared with the Ministry of Northern Development and Mines (MNDM) which was changed to the Ministry of Northern Development, Mines and Forestry (MNDMF). While the MNR was to remain the lead Ministry in managing the province's Crown forests, the *Ontario Forest Tenure Modernization Act* (OFTMA) empowered the MNDMF to establish a local forest management corporation (LFMC)--a Crown agency governed by a locally-based board of directors that will be responsible for sustainably managing Crown forests and overseeing the marketing and sale of Crown forest resources.

In May, 2011, the MNDMF announced it was working with First Nations, local communities and forest industry partners to design and establish the first LFMC. The Nawiinginokiima Forest Management Corporation was created to sustainably manage the Crown forests in the Big Pic, Nagagami and White River forests in the Marathon area, provide economic opportunities for aboriginal peoples, market and sell and timber and negotiate the price of wood fibre.

Implementation of the OFTMA and involvement of the MNDMF added more players to forest management and created an inherent policy conflict between the MNR which was supposed to protect Crown land values and the MNDMF which actively promoted development of the mining

and forestry industries. It further complicated negotiations for the development of a guide or the conservation of Crown land canoe routes and their related land-based values.

On October 20, 2011, the MNDM (no longer stylized as the MNDMF) announced that the MNR (now identified as the MNRF) had once again become "the lead ministry for promoting a strong, prosperous and healthy forest industry" and that it (the MNDM) was in the process of transitioning its web site content to the MNRF web site to reflect these changes. The MNDM announcement stated that its Forestry Division provides leadership on forest products industry sector revitalization and transformation initiatives and acts as an advocate for business and economic functions within the forest industry. This included responsibilities for industrial strategies, competitiveness measures and international trade to support a strong, prosperous and healthy industry.

Getting Started

The first step towards development of a set of measures for the uniform protection and preservation of all existing Crown land canoe routes and their land-based components must be to examine the level of protection currently provided in each FMP for these values. Currently, 43 FMUs exist on Ontario's Crown Forests. Established under authority of the *Crown Forest Sustainability Act* (CFSA), each FMU has an approved FMP in effect or under development.

A Survey of Areas of Concern for Canoe Routes & Related Land-Based Values on Ontario Forest Management Units developed by The Wabakimi Project contains details of each pertinent AOC including its identifier, a description of the value, the dimensions of the AOC, applicable operational prescriptions and conditions on primary, secondary (branch) and tertiary (operational) roads. Information is presented in table format and updated as new FMPs and their amendments are developed and approved.

The Survey provides a bird's-eye view of the level of protection currently afforded Crown land canoe routes and their land-based attributes in each FMP. It clearly demonstrates the disparity, and in some cases, the total absence of protective measures for these values across Ontario's forests and presents a baseline from which to negotiate their improved protection during each successive forest management planning exercise.

Moving Forward

Under the province's forest management planning process, the struggle to gain recognition and improved protective measures for existing Crown land canoe routes and their land-based values is an endless cycle of negotiations as new FMPs are created every ten years for each FMU.

Unless a particular value is protected by an existing guide, there is no guarantee that any prescriptive measure for its protection will be carried forward from an existing FMP into the next successive ten-year plan or, for that matter, from the first five years (Phase I) into the second five years (Phase II) of a FMP. Implementation of new directions such as those included in the *Stand and Site Guide* necessitates review of every successive FMP phase further exacerbating the need for more monitoring and negotiations.

Delay in the preparation and approval of a new FMP necessitates the creation of a contingency plan or extension of an existing plan to bridge the gap between the expiration of a FMP and the

implementation of a new, replacement FMP. Currently, contingency plans and plan extensions are in place for several FMUs which increases the need for additional surveillance.

Monitoring and participating in each stage of the development and review of every draft, final and contingency plan is laborious and time-consuming. Values maps and operational maps must be meticulously scrutinized to ensure information related to canoe routes and their land-based components stored in NRVIS is accurately and completely portrayed. AOCs must be reviewed to ensure that the prescriptions provided are what was agreed upon during negotiations and that this information is also correctly and completely depicted on values and operational maps. AWSs and amendments for each approved FMP as well as the Ontario Ministry of the Environment's *Environmental Bill of Rights* (EBR) Environmental Registry must be closely monitored for any change of direction that impacts Crown land canoe routes. With each change in direction, the Survey must be updated. Keeping up with these changes is more than one individual or group of individuals can manage.

While no single organization speaks for the protection and preservation of the province's Crown land canoe routes, there are volunteer groups and non-government organizations (NGOs) that do participate in forest management planning processes to negotiate for improved protective measures and actively engage in the identification, documentation, maintenance and improvement of these routes. A few of these volunteer groups are worth mentioning.

Since 2004, volunteers of The Wabakimi Project have explored, inventoried, rehabilitated and mapped the traditional and historical canoe routes that lie on the Crown lands adjacent to Wabakimi Provincial Park. These routes lie on four FMUs that abut the park boundary—the Caribou, English River, Ogoki and Lake Nipigon Forests--and organizers continue to participate in forest management planning exercises for each.

In 2014, Friends of Wabakimi, was created as a non-profit corporation to assume responsibility for development and maintenance of the canoe route maps inaugurated by The Wabakimi Project and to advocate for the preservation and improved protection of canoe routes within the Wabakimi Area for future generations of visitors.

The Geraldton Composite High School Outers Wilderness Canoe Club (GCHS) focusses on the Crown land canoe routes east of Wabakimi Provincial Park that lie on the Ogoki, Kenogami and Lake Nipigon Forests. One of the few remaining school-based clubs of its kind in Ontario, the GCHS Outers Club maintains and maps area canoe routes and works closely with the MNRF and forest managers for their recognition and improved protection.

The Friends of Temagami (FOT) is a volunteer advocacy organization that monitors the canoe routes in the Greater Temagami Area that encompasses over 700,000ha and includes five backcountry provincial parks and eight conservation reserves. These protected areas cover only one-sixth of the region; over 500,000ha is Crown land stretching from the Wanapitei River and Wanapitei Lake in the west to the Ottawa River in the east, Lake Nipissing to the south and Lake Timiskaming to the north. Its members actively participate in forest management planning exercises for the Temagami, Timiskaming, Sudbury and Nipissing Forests and mount volunteer expeditions to develop, maintain and improve identified canoes routes.

Volunteer groups such as these continue to work diligently in selected areas of the province for improved protection of Crown land canoe routes and to be actively engaged in their rehabilitation, maintenance and improvement but their efforts exist in isolation from each other. There is an urgent need for a single, unified voice to represent recreationalists who value and enjoy the province's wilderness canoeing opportunities and to speak for the protection and preservation of all existing Crown land canoe routes. There are two choices: either an existing organization must accept this responsibility or an altogether new organization must be formed.

The Next Steps

Once an organization representing paddlers assumes the lead, development of a set of measures for the protection of Crown land canoe routes and their related land-based values can move forward. The organization will collaborate in the development of strategies and a timetable that will lead to creation of these measures

From the outset, First Nation communities and representatives of the forestry, mining and tourism industries, and government agencies such as the Ministry of Northern Development and Mines (MNDM), the Ministry of the Environment (MOE) and the Ministry of Tourism, Culture & Sports (MTCS) must be involved. NGOs such as the Wilderness Canoe Association and the Wildlands League, the Ontario chapter of the Canadian Parks and Wilderness Society (CPAWS), need to be consulted and their support gained. They have the requisite expertise and resources to help with development of these measures.

In order to prepare a set of protective measures, information must be gathered and support solicited from the general public and from the paddling community including non-residents who visit the province to use Crown land canoe routes. Use of social media and creation of an interactive web site that regularly publishes a newsletter will help reach the widest possible constituency of stakeholders to keep them informed of on-going developments and collect comments. Signatures collected on a petition will prove support for the development and implementation of these measures.

In Search of an Acceptable Solution

Introduction of the *Stand and Site Guide* in 2010 marked a major step in the MNRF's effort to reorganize and reduce more than thirty forest management guides into a suite of five comprehensive guides. Any proposal to create an altogether new, separate guide for the protection of Crown land canoe routes and their land-based components flies in the face of this trend. It would be more practical and prudent to first consider modification of the existing guides to address protection of one or more of these values. The ideal time to accomplish this would be during the scheduled review and possible revision of each of these existing guides. Condition 38(c) of *Declaration Order MNRF-71* regarding MNRF's *Class Environmental Assessment Approval for Forest Management on Crown Lands in Ontario*, requires each forest management guide including the *Cultural Heritage Guide* and the *Tourism Guide* be reviewed within five years of approval and at least every five years thereafter.

The *Cultural Heritage Guide* is designed to protect four cultural heritage values that exist on the landscape from potentially adverse impacts by forest management activities. These values

include recreational and portage trails but do not include shorelines, viewscapes or existing, backcountry campsites along recognized canoe routes.

The *Tourism Guide* provides the means to protect viewscapes and portage trails but measures are limited to the shorelines of the water body on which a resource-based tourism establishment exists as well as related portages and trails identified by a licensed resource-based tourism operator during negotiation of a RSA.

As they exist, neither the *Cultural Heritage Guide* nor the *Tourism Guide* can wholly protect and preserve all of the canoe routes and their land-based components that exist on Ontario's forests. Unless the scope of either or both of these guides is expanded to include shorelines beyond the limits of those involved with resource-based tourism establishments, there will still be a significant gap in protective measures that needs to be filled.

The Issue of Financing

Development of a set of protective measures will entail considerable time, effort and expense. The MNRF has neither the human nor financial resources to bear the burden alone. While some expenses can be avoided through the efforts of volunteers, sources of funding will have to be secured to offset other costs.

Grants for projects such as development of these protective measures are available from government agencies, foundations, trusts, corporations and NGOs. Many of these sources will only fund charitable organizations that have been approved by, and registered with, the Canada Revenue Agency. Appeals for financial support from these sources or from individuals will be more successful if tax-deductible receipts can be issued to acknowledge monetary donations or gifts in kind.

An organization or association representing paddlers can be a source of revenue in itself. Annual membership fees are a reliable and renewable source of income. Other revenues can be generated through licensed lotteries, raffles and draws, the sale of donated goods as well as social events for which tickets are sold or pledges collected. Development of the protective measures will move forward more quickly if the organization created to represent paddlers in this effort is a registered, not-for-profit, charitable organization.

Summary

This paper was prepared to raise awareness of the current state of Ontario's Crown land canoe routes and to propose the creation of a set of standards, guidelines and best management practices for their future protection. Such measures would eliminate the endless cycle of negotiations related to development of each final and contingency FMP and provide uniform treatment of this important historical and cultural heritage and recreational value from one FMP to another across the province.

What sets a canoeing expedition apart is that it purifies you more rapidly and inescapably than any other. Travel a thousand miles by train and you are a brute; pedal five hundred on a bicycle and you remain basically a bourgeois; paddle a hundred in a canoe and you are already a child of nature.

Pierre Elliott Trudeau (1919 - 2000)

from "Exhaustion and Fulfillment: The Ascetic in a Canoe" (1964)