



Halls & Hawks Lake Property Owner's Association

LAKE MANAGEMENT PLAN EXECUTIVE SUMMARY

Big Hawk Lake Landing, Compartment 91, R.R.2 • Minden, Ontario K0M 2K0 • www.halls-hawk-lakes.com July 2006

What is a Lake Management Plan?

Lake Planning is a community-based process that considers the interests of all stakeholders on the lake, including shoreline residents, commercial operators, crown land managers and lake users. The purpose of the Lake Plan is to recognize and protect the unique character of Halls and Hawks Lakes and to recommend official plan and stewardship approaches to ensure long-term protection, maintenance and restoration of natural, social and physical features.

A Lake Plan is intended to identify, reflect and respond to the character and physical capabilities of an individual water body and shoreline community



What is the Halls & Hawks Lakes Property Owner's Association (HHLPOA) Lake Management Plan?

The Halls & Hawks Lakes Management Plan (LMP) identifies the significant social, natural and physical features that make our lakes and the surrounding watershed desirable places to live, visit and own cottages. This plan describes a series of objectives that will ensure the sustainability and healthy existence of our lakes for future generations. These land use and stewardship actions focus on the lakes' health, beauty, wildlife, recreational and development opportunities, and directly support the mission statement of the LMP.

Some recommendations will be made to the Township of Algonquin Highlands with respect to enhancing land use policies and tools to protect the special features of our lakes and community, and to ensure that development is sustainable. The recommendations also include stewardship and educational programs designed to protect the values important to protecting the area's superior quality of life.

LMP Mission Statement

- To protect and enhance all elements contributing to the Quality of Life in the Halls, Big Hawk and Little Hawk lakes community.
- To identify government-managed issues that affect the Quality of Life and to influence their resolution.
- To foster educational, social and stewardship programs that support the spirit of the Lake Plan.

How was the HHLPOA Lake Management Plan Developed?

In May 2004, the Board of Directors of HHLPOA formed a committee to develop a Lake Management Plan. The purpose of the LMP is to identify the significant social, natural and physical features that make the lakes and surrounding areas a desirable place for people to live, visit and earn a sustainable livelihood.

This Plan recommends a series of actions that will ensure the long-term sustainability and healthy existence of the lakes for future generations. These actions encompass the lakes' health, beauty, wildlife habitat and recreational opportunities as well as opportunities for residential and commercial development.

The LMP Committee members included the following individuals:

- Carole Russell
- Elaine Burbidge
- George Legate
- Diane Thomas
- Helen Perkins

Randy French from French Planning Services was engaged to provide professional consulting assistance to the Committee. Incorporated in 1998, French Planning Services Inc., provides a full-range of planning services including private and Crown land use planning, resource management, environmental impact assessments, fish and wildlife inventories, as well as group facilitation. French Planning Services has also developed a process specifically designed for development

Lake Planning Process

STEP 1

Initial Preparation

Confirm the framework for the project and establish a Steering Committee.

STEP 2

Collect Background Information

Collect information on the Social, Natural, Physical Elements and Land Use. Identify and confirm issues relevant to the protection of the health and character of our Lakes with residents and stakeholders.

STEP 3

Prepare Background Report and Executive Summary

Develop the Lake Management Plan, using the template from French Planning Services. Include observations, recommendations and an action plan. Develop an Executive Summary for distribution to residents and stakeholders.

STEP 4

Approval

Seek approval from HHLPOA and initiate implementation of Action Plans.

Background information was collected from many sources, including the Ministry of Natural Resources, Ministry of the Environment, the Trent Severn, Township of Algonquin Highlands, Upper Tier Municipalities (Counties, Regions, Districts), Conservation Authorities, Ministry of Northern Development and Mines (MNDM), and the Department of Fisheries and Oceans (DFO).

The collection of this information enabled us to compare what was important to our residents against the Social, Natural, Physical and Land Use characteristics of our Lakes. Focus was given to gaps between values and characteristics, and efforts were placed on identifying actions to address the gaps.

of a Lake Plan. This process, described above, had been successfully used by other lake associations and was adopted as the de facto approach for HHLPOA.

Funding and In-Kind Support

HHLPOA is extremely grateful to the organizations and individuals who recognized the value of lake planning by providing funds to support the work effort in developing our Lake Management Plan. Specifically, we are grateful to:

- The Ontario Trillium Foundation for providing \$6,000
- The Township of Algonquin Highlands for providing \$1,000
- HHLPOA for providing \$6,500
- HHLPOA Members for donating \$3,500

We are also extremely grateful to Genesee Survey Services, Inc. who developed our survey, reported the results, and formatted the Lake Management Plan document and the Executive Summary. The value of this contribution is estimated to be \$40,000. Volunteer work by individuals, with an estimated value of \$75,000, focused on:

- Development of a Feasibility Study and Project Plan
- Survey administration and distribution
- Workshop preparation and organization
- Research for and authoring of the Description of our Lakes, Social Elements, and Land Use sections of the Plan
- Communications
- Compilation of all sections into one document.

Special Places

Indian Pass	Little Hawk Serpent
Halls Island	Crab Rapids
Indian Face Rock en route to Crab Falls	Gull Rock
Blueberry Island	Blueberry Mountain
Log Chute	Government House
Buttermilk Falls	Scott's Point,
Portages in/out of Lakes	The Narrows
"Our" cottage	Saskatchewan River
Diving Rocks	Islands and Rock faces on Sherborne
Totem Pole	Beach at head of Little Hawk

List of Information Collected:

Social Elements

- Camping
- Boating
- Landscapes
- Aesthetics
- Special Places
- Noise and Light Abatement

Natural Elements

- Water Quality
- The Shoreline
- Wetlands
- Streams
- Fish Community
- Wild Life and Wild Life Habitat
- Invasive Species
- Rare Species and Species at Risk

Physical Elements

- Physiography and Soils
- Floodplains
- Minerals and Aggregates
- Narrow Waterbodies
- Steep Slopes and Cliffs

Land Use

- Crown Land
- Private Properties

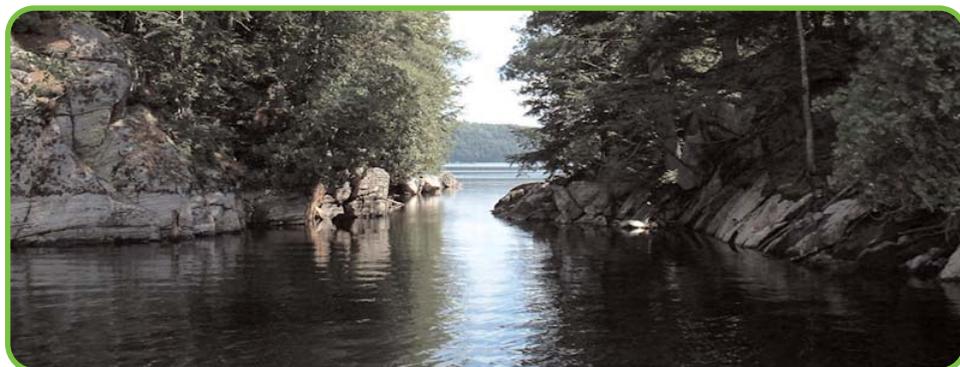
Our Vision is a place where water quality, wildlife habitat, natural beauty, recreational opportunities, peace and tranquility are maintained and improved for present and future generations to enjoy.

Our Vision

A vision statement provides guidance for what the lakes should be and look like in the future. It describes a common objective that is important to all community members. The following Vision Statement reflects the values and vision that residents, commercial operators and government stakeholders share for our lakes.

These values are consistent with the Constitution and By-laws of HHLPOA. In general terms, the goals and targets of HHLPOA are to protect the character of the lakes, promote and encourage the conservation of natural resources, the safe and responsible operation of water crafts, encouragement of economic and social growth supported by appropriate regulation, communication and education and working with local governments to implement the Lake Management Plan. The following principles and targets were established by the Lake Management Plan Committee and helped to provide a focal point and a structure in the preparation and implementation of the Plan.

Indian Pass between Little Hawk and Big Hawk



Principles and Targets

INCLUSIVENESS

The development process used to create the Plan must be inclusive of all Stakeholders (commercial, residential and day users) and will solicit input and feedback wherever possible

PROTECT LAKE CHARACTER

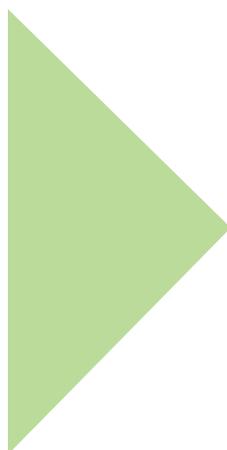
The natural, social and historic character of the lake must be protected, enhanced and rehabilitated

FOCUS THE PLAN ON END RESULTS

The Plan will focus on end results and balance a range of means to achieve those results such as regulation, communication and education

IMPLEMENTATION APPROACH

Implementation will favour educational processes and voluntary compliance over legislative and regulatory constraints



WATER QUALITY

FISH AND WILDLIFE

SHORELINES

TREES & VISTAS

DEVELOPMENT

CHARACTER

SOCIAL LIFE

Summary of Resident and Stakeholder Feedback

One of the guiding principles used to collect information from Stakeholders was that of Inclusiveness. To achieve that target, two types of data collection processes were used: surveys and workshops.

A Stakeholders' Workshop was held in October 2004 and attended by municipal politicians, municipal employees, a representative of the MOE, Friends of the Frost Centre, and local commercial operators. The purpose of the Stakeholders' Workshop was to gather thoughts about the planning process, discuss values and concerns, identify sources of information, and determine the level of interest in participating in the plan's preparation. The workshop proceedings are included in Appendix 1 of the Lake Plan.

Two Residents' Workshops were held. The first, in August 2004, was designed to promote discussion among permanent and seasonal residents, and to identify the important features and values on our lakes that support their high quality of life. Discussion also focused on issues that impact the values and features of the lake. The second workshop was held in August 2005. The objective of this workshop was to validate our findings and solicit input into the recommendations being developed. The proceedings from both workshops are provided in Appendix 1 of the Lake Plan.

Three surveys were distributed in July 2004: Residential, Commercial and Day Use. Surveys were sent to every shoreline / back lot resident, commercial operator, and distributed to day users. Their purpose was to identify the ideas, perspectives, issues, concerns and aspirations of the Halls and Hawks Lakes residents and commercial operators. The survey obtained information on property size, buildings, features, and use, resident occupancy, activities, observations, perceptions, and concerns.

The results from the workshops and the surveys were consistent in the identification of the things they most wanted to protect:

- Water Quality
- Privacy / Aesthetics
- Quietness
- Closeness to Nature
- Dark Skies
- Natural Shoreline
- Crown Land
- Wildlife
- Safety on both Land and Water

and the things that they wanted to limit or prevent or decrease:

- Algae
- Development
- Light pollution
- Fluctuating water levels
- Commercial canoeing groups
- Condos and timeshares
- Commercial property turned into condos
- Boat wake by enforcing speed limits

Below are the statistics in number of surveys mailed and returned. A 33% response rate for the Residential Survey is excellent for a mail-in paper survey. The average for this type of survey is between 20% and 25%.

	RESIDENTIAL SURVEY	COMMERCIAL SURVEY	FRIENDS SURVEY
Mailed .....	.687	.5	.15
Returned address unknown .....	.25	.0	.0
Subtotal .....	.662	.5	.15
Completed and mailed .....	.220	.0	.13
No lake selected .....	.3	.0	.0
Response rate .....	.33%	.0%	.87%

Through the survey and the workshops, the property owners from Big Hawk Lake, Halls Lake and Little Hawk Lake have expressed their vision—to preserve a way of life they value and cherish **and they are serious and passionate about it**. The natural environment, rural living, and social elements are the reasons they want to live here. The Lake Plan documents their vision and gives them a voice to promote a continued improvement in the quality of life and environment through land use regulation, stewardship and education programs.

Most respondents enjoy the water and the natural environment on their lakes.

- Swimming (92%)
- Reading (84%)
- Nature appreciation (83%)
- Canoeing (81%)
- Boating (79%)
- Socializing (71%)
- Fishing (62%)
- Hiking (60%)

Special Characteristics of the HHLPOA Watershed

Lake Description and History

Halls and Big and Little Hawk Lakes are located in what is today Haliburton County in the amalgamated Algonquin Highlands Township. This area is situated just north of the 45th parallel on the rocky topography of the Precambrian Shield in the Great Lakes–St. Lawrence Forest Region of Ontario. A mixed-tree forest and many lakes and waterways characterize it. This geography has significantly influenced the historical development of the area.



Historic Log Chute
Big Hawk Lake

The early-recorded names of the lakes reflect their aboriginal history. Hall's, first recorded as Kahwahsheweunahgog or Kawashabeemagog Lake, both of which mean 'Lake of Deep Waters,' is thought to have been renamed to commemorate Mr. Hall, an early trapper, who while camping along the lake, met his demise in a disagreement with a passing band of Indians. Big and Little Hawk lakes endured an evolution of names as outlined below.

History of Name Changes

Date	Big Hawk Lake	Little Hawk Lake
1861	Caykaquabekong	Peepewahbekonk
1875		Peepewawan
1879	Kaykakeewahbekong	Peepewaubelling
1905	Kekkekewabi	Pipikewabi
1939		Kawbe
1945	Big Hawk	Little Hawk

Physical Characteristics of our Lakes

	Halls Lake	Big Hawk	Little Hawk
Mean Depth	28m (93 ft)	18m (55 ft)	31m (100/5 ft)
Max Depth	80.5m (264 ft)	59m (180 ft)	93m (285 ft)
Perimeter	13.27 km	40.67 km	19.63 km

Land Use

Halls Lake has the greatest surface area of the three lakes, Big Hawk Lake the largest perimeter, and Little Hawk Lake the greatest maximum depth. Big and Little Hawk Lakes tend to have fewer fertile low-lying areas surrounding them than Halls Lake and more steep granite shoreline. Properties around Halls Lake have year-round road access so the shoreline is more developed, with approximately 95% of the shoreline and back lands in private ownership. On the other hand, surrounding 50% or more of the Hawk Lakes is crown land. Where there is no development, the area around both lakes consists of dense coniferous and/or deciduous vegetation

Historically much of the land on the two Hawk Lakes has remained Crown Land. Most of the back lands and approximately half the shoreline of the Hawk Lakes is Crown Land. The Public Lands Act states that 25% of all Crown shorelines will be set aside for public recreation and access. On the other hand, 95% of the shoreline and back lands on Halls Lake are privately owned with only 5% as Crown Land. The Ministry of Natural Resources, pursuant to the Public Lands Act, administers Crown Land. All land use planning decisions on private lands are under the authority of the local municipality, pursuant to the Planning Act and Municipal Act.

The Watershed and Water Levels

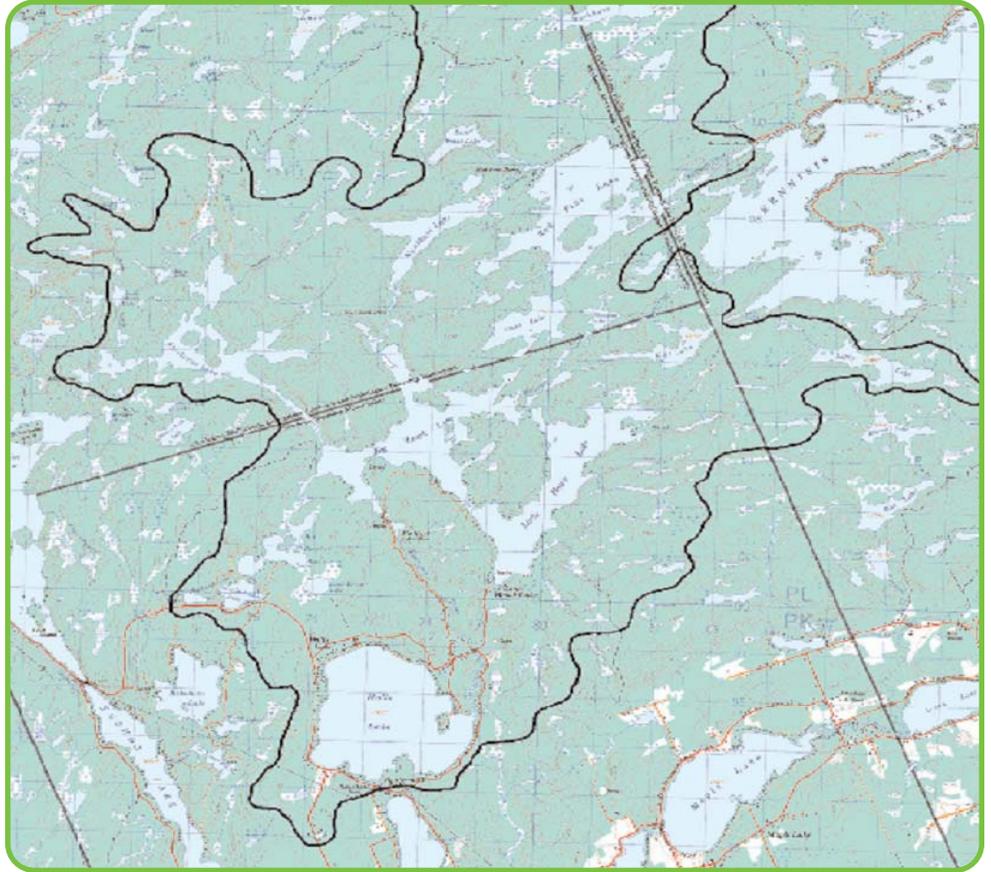
There are many lakes that make up the watershed of the area. Many of these are small, uninhabited lakes located in the former Frost Centre and designated as Crown Land. Halls and the two Hawk Lakes are part of the Gull River Watershed, which is a component of the larger Trent River basin.

Big Hawk and Little Hawk Lakes receive inflow water from Clear and Nunikani Lakes as well as several other tributaries and streams which flow into these lakes from other upstream waters. Sherborne Lake to the north, also known as Trout Lake by locals, is a popular fishing and canoeing/camping lake and is a significant water source for the Hawk Lakes. Halls Lake represents the most southwesterly lake in the 24,000 hectares of mostly crown land in the former Frost Centre area.

There is dramatic water level fluctuation in the three lakes, particularly Big and Little Hawk Lakes, due to their role as reservoir lakes for the Trent Canal System.

Special Characteristics of the HHLPOA Watershed *(continued)*

Halls and Hawk
Watershed



Halls and the Hawk Lakes, as part of that reservoir system, have their water flows regulated by a series of dams. Two of these dams, one at the foot of Nunikani (Crab) Lake and the other at the foot of Big Hawk Lake, control the majority of the inflow and outflow of water and the subsequent water level of the two Hawk Lakes. Current surveys to establish the location of the original road allowance along the lakeshore indicate that the building of the dams raised the median water level approximately 1.5 metres over the original level. The water flows from Big Hawk into Halls Lake and exits into Boshkung Lake at Buttermilk Falls where there is a third dam.

The water level in Halls Lake reaches a peak level in mid-May, rising an average of 2.5 metres over the winter low. As the season progresses the water is lowered--through both evaporation and the dam system-- approximately 1.5 meters over the summer months. It drops back to its winter low in October.

The situation is much more dramatic on the two Hawk Lakes. As the Trent-Severn Waterway authorities adjust water levels based on a percentage of water volume in the respective reservoir lakes, both Big and Little Hawk Lakes, because of their relative depth and large volume, rise and fall considerably over the year. Water levels in the Hawks rise an average of just over 4 metres in mid-May from the winter low. During July and August, water levels average 2.5 – 3.5 metres over the low point in the fall and winter

The fall drawdown and the higher summer water levels impact the shoreline area and have a negative effect on certain plants and fish dependent on this habitat. The dams prevent the required movement of aquatic life between the river and the lakes.

Special Characteristics of the HHLPOA Watershed *(continued)*

SOCIAL ELEMENTS

Camping

- It takes a great deal of time to detect and document an area of ecological concern.
- Many interrelated shareholders must demonstrate considerable political will to organize themselves to collectively address an issue and solve a problem.
- Implementing a solution, which requires necessary changes in law and governance at various governmental levels, is a time-consuming process.
- It is generally agreed that the establishment of the Land Use Model has addressed the concerns expressed and has been extremely beneficial to the environment.
- The exercise in promoting a more environmentally friendly strategy for canoeing and camping has been a success.

Boating

- Residents had definite preferences concerning safe and considerate boat operation but were unwilling to support strong action to support enforcement or bans on these activities.

Landscapes, Aesthetics and Special Places

- The esthetic character of the Halls and Hawk Lakes are based upon the large tracts of undeveloped private and public lands.
- Other than the cleared area associated with Hwy. 35 on Halls Lake, the visual tree line on all lakes is unbroken by manmade structures.
- Cleared shorelines and structures visible from the lake negatively impact the lake esthetics on the three lakes.

Noise and Light Abatement

- Creating a dark skies environment was a high priority for Halls/Hawk residents.
- A dark sky environment is created by minimizing the number, intensity, and use of outdoor lighting.
- Low cut off outdoor lighting minimizes light impact on the environment but is currently hard to find.
- The Township of Algonquin Highlands mentions its support for achieving dark skies in its Official Plan but has no specific bylaw concerning outdoor lighting.
- Taking steps to ensure a quiet environment on the Halls/Hawk Lakes was one of the highest priorities of the community with over 97 per cent of survey respondents supporting an organized effort to maintain peace and quiet.
- The Township of Algonquin Highlands has a clear and well written bylaw that reflects our residents' values.
- The Township is prepared to enforce the bylaw, providing residents follow a process.
- Residents are unaware of the contents of the bylaw or of the required process (noted above.)
- Some anomalies were noted in the survey data whereby desire for quiet was not matched with a desire to ban noisy activities.

Special Characteristics of the HHLPOA Watershed *(continued)*

NATURAL ELEMENTS

Water Quality

- The lakes are situated on the Canadian Shield with shallow acidic soils and granite substrata.
- The lakes are oligotrophic; characterized by clear, cold deep waters with low nutrient concentrations, low productivity, high oxygen concentrations dominated by cold water species such as lake trout.
- Many residents have noticed an increase in algae growth.
- Natural changes in water quality occur over time but human intervention can accelerate these changes.
- Little Hawk Lake is especially susceptible to acidification.
- Water quality testing has been performed sporadically since 1968, but due to a lack of accurate sampling and consistent data it is impossible to determine a long-range health assessment of the lakes.

The Shoreline

- Halls and Hawk Lakes' watershed is a matrix of mixed and coniferous forests and the shoreline is dominated by steep, rocky ridges, glacial till deposits, small pockets of wetland and sandy soil deposits, and little aquatic vegetation. Historically, the watershed was covered with old-growth Eastern White Pine and Eastern Hemlock tree species, some exceeding 400 years. Intensive logging in the late 1800s and early 1900s removed these stands, replacing them with younger, mixed forests dominated by white pine, yellow birch, red and sugar maple, poplar and balsam fir tree species.
- Shoreline and aquatic vegetation is important for maintaining water quality and the protection of fish and wildlife habitat, as well as the esthetics of the landscape.
- The Official Plan states that 7.5 metres (25 feet) from the highwater mark of the shoreline must be maintained as natural.
- The littoral zone in Halls, Little Hawk and Big Hawk lakes has been subjected to many disturbances, including

shoreline development, dam construction, artificial water levels, increased recreational activities, vegetation removal, acid precipitation, and increased sediment runoff, over the past century, and the alteration of the lake area continues to have a negative impact on its long-term health.

Wetlands

- Wetlands on or surrounding Big Hawk, Little Hawk and Halls lakes have not been inventoried or evaluated for provincial significance.
- Shoreline wetlands are few on these lakes, therefore they are particularly significant to the health of the area. Water levels affect the wetlands. Inland wetlands are many.

Streams

- There are at least 37 permanent or intermittent cool water streams and one river, with several inflow and out-flow connections, associated with Big Hawk, Little Hawk and Halls lakes.
- The majority of streams that flow into Big Hawk and Little Hawk lakes occur on Crown land, and those streams connected with Halls Lake occur on privately-owned land.
- There is a lack of data, including fish inventories and environmental parameters, and a need for site-specific information to be able to properly classify the streams that flow into Big Hawk, Little Hawk and Halls Lake. Currently, all streams are classified as cool water.
- MNR is supportive of potential research or volunteer efforts for the collection of water quality information and species inventories in these streams.

Special Characteristics of the HHLPOA Watershed *(continued)*

NATURAL ELEMENTS

Fish Community

- Historically and currently, the three lakes support a cold water fishery. All three lakes are dominated by lake trout and the “Haliburton lake trout” strain is only found in Halls Lake, with a warm water component comprised of smallmouth bass.
- The water level management regimes may be negatively impacting fish spawning beds—winter kill and desiccation of eggs, as well as other important littoral habitats. An earlier fall draw-down may address these issues. Unfortunately, no recent assessment has been initiated and due to the natural ecology of some fish, they are often stressed by multiple and compounded stresses.
- There is a lack of information regarding species inventory, community index, and spawning and habitat requirements in streams.

Wild Life and Wild Life Habitat

- There is a wide variety of wildlife on Halls and Hawk lakes.
- There is an abundance of ducks and other waterfowl (including loons, wood ducks, Great Blue Herons and common and hooded mergansers) but their habitat has not been identified.
- Fall draw-down of the lake water level in October may be contributing to the regional declines of the turtle populations.
- Two deer yards are located in the area, including the “Hinden Deer Yard” (which engulfs much of the western half of the watershed), and a smaller deer yard (located south-east of Halls Lake).
- There are two significant large moose wintering habitats within the Halls and Hawk lakes’ watershed, but no mineral licks have been verified.
- The Minden MNR Area Office, Bancroft District, conducts a black bear population index program each year, and a public advisory program about bears.

Invasive Species

- Invasive species, such as rock bass, spiny flea and purple loosestrife, have invaded Halls and Hawk lakes, as well as the highly competitive rainbow smelt in Halls Lake.
- Invasive and exotic species pose a serious threat to the lakes’ health, as well as the ecological, social and economic stability of the community. Exotics species out-compete local, native species and threaten already stressed rare and species at risk species, which reduces biodiversity via uncontrolled dumping of ballast waters, baitfish harvest and lack of education.

Rare Species and Species at Risk

- There are several rare species for the Haliburton area including two rare bats, one provincially significant flora, and five species at risk species for the Halls and Hawk lakes’ area, and three more for Haliburton County.
- The Blanding’s turtle inhabits Halls and Hawk lakes, and based upon data from the Herpetological Atlas’ post-1983 records, the spotted turtle has been identified in the watershed (occurrence not yet verified by MNR biologists). This turtle species is listed as species at risk in Ontario. The Blanding’s turtle is provincially threatened.
- Currently, nesting locations for the Red-shouldered Hawk are unknown for Halls and Hawk lakes. Raptors, especially the Red-shouldered Hawk, require large, untouched wooded areas to nest and hunt, and they are highly susceptible to human disturbances.

Special Characteristics of the HHLPOA Watershed *(continued)*

PHYSICAL ELEMENTS

Physiography and Soils

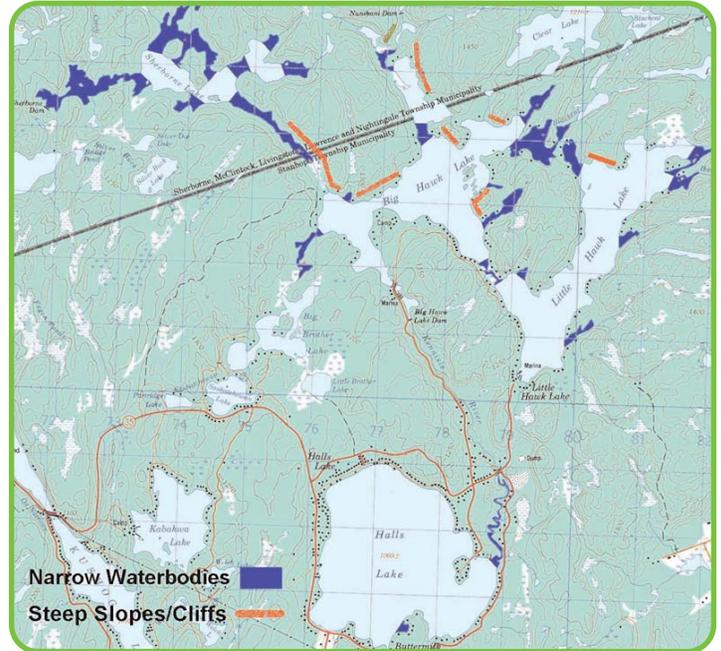
- The Halls-Hawk Lake watershed lies on the Canadian Shield and the lack of limestone in the immediate surficial geology provides minimal natural buffering for the affects of acid rain.
- The overall thin soil cover of rock, silt and fine sand makes many areas susceptible to erosion if disturbed, and stabilization is difficult due to topography and minimal depth of overburden (depth of soil).
- The shape of Little Hawk Lake could be described as a glacial trough and there appears to be a spillway from Big Hawk Lake to Halls Lake that follows the Kennisis River. The shape and depth of Halls Lake appears to be created from the swirling action of melt water from the retreat of the glaciers.

Floodplains

- The Official Plan does not identify any areas subject to flooding.
- There are areas zoned Environmental Protection which identify the low-lying wetlands that surround the lake, which are the areas likely subject to flooding.
- Due to the steep nature of shorelines, there is likely little need to require further study.

Minerals and Aggregates

- There are scattered deposits of sand and gravel throughout the watershed along the shorelines of lakes and rivers.
- Only a small area at the mouth of the Kennisis River at Halls Lake is recognized as a primary significance for aggregate protection, and there are three active pits in this area.
- All new pits and quarries must proceed by official plan and zoning bylaw amendments and public notice is required.



Narrow Waterbodies

- Areas along the southeast shoreline of Little Hawk Lake, as well as the Kennisis River, should be considered narrow and decreased densities for new shoreline development proposed.

Steep Slopes and Cliffs

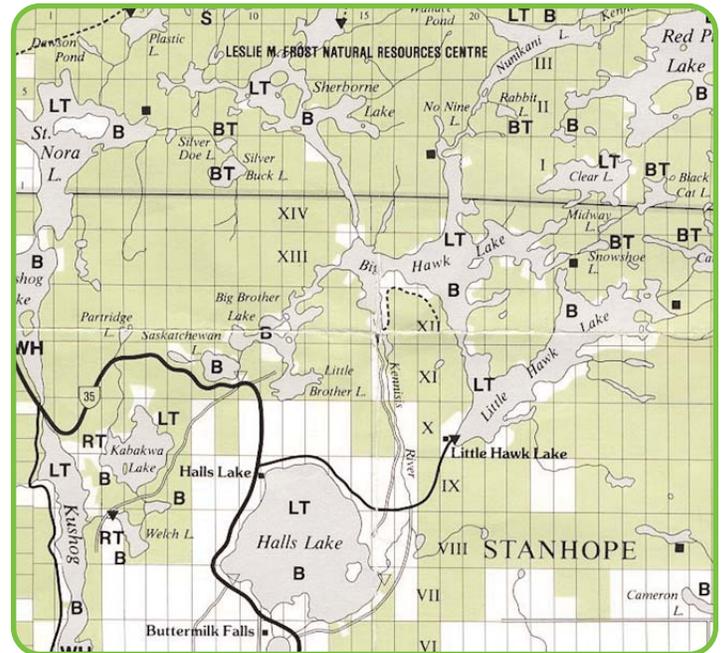
- All three lakes are surrounded by steeply rolling lands, and many areas have greater than 20 per cent slopes.
- There are many cliff faces that contribute to the remote character and scenic beauty of the area and these areas are primarily located on Crown land.

Special Characteristics of the HHLPOA Watershed (continued)

LAND USE

Crown Land

- There is an abundance of overlaying Crown land policies that complicate the interpretation of Crown land management direction.
- > 25% of Big and Little Hawk lake shorelines are Crown land and the Public Lands Act will not prevent the disposition of shoreline areas. The OLL prohibits the disposition of Crowns for new cottages or hunt camps but does not restrict new commercial tourism.
- Statements of Conservation Interest have not been approved for the Clear Lake Conservation Reserve or the Dawson Ponds and Plastic Lake Conservation Reserve. These documents will provide further management direction on the use of these areas and should be reviewed by the association.
- Forestry operations are prohibited with 30 metres of the shoreline of Little and Big Hawk lakes, Nunikani Lake and Sherborne Lake.
- Commercial timber harvest and mineral exploration and development is prohibited within 30 metres of the shoreline of Little and Big Hawk lakes, Nunikani Lake and Sherborne Lake, and within the Conservation Reserves, and can occur within the skyline (viewscape) of Little and Big Hawk lakes and has the potential to impact the natural and remote esthetics of the lakes.
- Only one area is allocated for selective forestry operations in the vicinity of Little and Big Hawk, Sherborne and Nunikani lakes between 2006 and 2011, and this area is located on the western shores of Sherborne Lake. Monitoring of these operations by the MNR and the Sustainable Forest License (SFL) holder is essential to the protection of the Skyline Use Area and remote values.
- The Clear Lake Conservation Reserve contains a provincially significant old growth stand of eastern hemlock and white pine that is better than stands in Algonquin Park.



Note – Green areas are Crown lands and White areas are private lands

- Blackcat Lake is a “meromictic” lake and its bottom sediments are well preserved and are significant in the study of past ecosystems. Clear Lake and Blackcat Lake contain “pure” populations of Northern Redbelly Dace.
- Commercial hydro development and commercial tourism are permitted throughout the EMA, regardless of location, and there are no guiding policies that provide direction on assessment of impact.
- Work permits are required for docks, boathouses, dredging, filling, construction of bridges or water crossings, pursuant to the Public Lands Act.
- Approvals for dams and water crossings is required by the Lakes and Rivers Improvement Act.

Special Characteristics of the HHLPOA Watershed *(continued)*

LAND USE

Private Properties

- A large number of existing private properties could potentially be severed based on current 200' (60 meter) frontage requirements. An increase in minimum frontage for new lots from 200 feet to 400 feet (120 meter) would significantly reduce the number of potential severances.
- A large number of existing cottages do not conform to new bylaw setback requirements, particularly shoreline setbacks. A “grandfathering” provision permits their continued use if legal prior to passage of the bylaw.
- Current bylaws permit up to 30 per cent of property to be covered by dwellings, and there are no limitations on the size or height of the dwellings. We are concerned that building of ‘monster cottages’ is increasing, changing the nature of the lakes’ community.

Back Lots

- Although virtually all existing back lots are owned by the adjacent property owners and are currently vacant, they could be sold and further developed leading to increased density.
- Possible construction of new roads could lead to further back lot development—we don’t want Stage 6 development (urban development).

Residential Occupancy

- Seasonal to permanent use is increasing on Halls Lake (10-per cent).
- Increased occupancy increases phosphorus loading and decreases water quality.
- Our lakes are already at capacity for septic, therefore the bylaws should restrict any further development.
- Neither the official plan nor the bylaw address interval ownership of private lands (e.g., time-share.) Although currently not an issue in our area, if ever introduced it could significantly increase occupancy rates.

Commercial Resorts and Camps

- Current zoning permits considerable latitude in the use of properties zoned C3 Recreation Commercial. The official plan indicates one would require an amendment to the plan for any “change in use” for these types of properties.
- Existing commercial properties, such as Camp Kawabi could potentially be sold and converted to higher density development such as time-share/fractional ownership condos or resort-type usage.

Septic Systems

- Very little information is known about the current status of septic systems on our lakes. Based on past performance, it is vital that follow-up be done post-inspection to ensure compliance.
- BOS has advised that as a result of the survey, a number of property owners voluntarily upgraded their systems.

Action Plan

This Executive Summary of the Lake Management Plan is a “living document” and it will be updated on an annual basis as priorities shift and as new information becomes available and will be posted on our website. This will be particularly applicable in the Action Plan, where priorities are yet to be determined, discussions with Algonquin Highlands will continue, and resourcing constraints will reflect the speed and degree to which this Plan will be implemented.

The Action Plan is divided into 8 Programs:

1. Communication & Networking
2. Education
3. Lake Stewardship
4. Watershed Stewardship
5. Shoreline Stewardship
6. Social Stewardship
(includes Aesthetics, Dark Skies & Safety)
7. Crown Land Stewardship
8. Land Use (Private) Stewardship

All of the actions recommended in the Lake Management Plan have been allocated to one of the programs and aligned as closely as possible to one of the top 10 priorities identified in the Stakeholder workshops and surveys. With the exception of Clean Air, all top ten priorities have action items aligned to them.



Buttermilk Falls

Communication & Networking Program

Water Quality

1. Encourage and support the other lakes in the watershed (particularly Sherborne, Clear, Red Pine, Saskatchewan, and Big/Little Brother) to collaborate on matters of mutual benefit including education, advocacy and other stewardship opportunities.
2. Include in our plan those lakes that have no residents (Nunikani, Cat, Black Cat) as well as Sherborne and Clear lakes, which have expressed interest in this process
3. Promote the creation of a Gull River Watershed Council and a management plan.

Privacy/Aesthetics

Quietness

1. That the Association continually communicates to its member’s desire for a peaceful environment with the objective that all residents understand this fundamental community priority.

Closeness to Nature

Dark Skies

Natural Shoreline

Crown Land

Wildlife

1. Promptly report the identification and location of endangered or threatened species to the Natural Heritage Information Centre—the MNR Area Office.

Safety on Land and Water

Action Plan

Education Program

Water Quality

1. Develop an education program to encourage cottage owners, campers and others to become good stewards of the land by promoting awareness about the impact of their activities on water quality. These may include newsletter articles, website links, workshops and presentations at the Annual General Meeting.

Privacy/Aesthetics

Quietness

1. That residents be educated on the basic contents of the Township's noise bylaw as well as the process to follow when reporting infractions.

Closeness to Nature

1. All streams should be mapped and everyone should be cognizant of any development that occurs along the banks.
2. An education program promoting awareness of wetlands sensitivity and protection should be prepared that includes the significance of wetland habitats for "species at risk" conservation.

Dark Skies

1. The Association should provide educational materials and reinforcement concerning the need to reduce nighttime lighting and use appropriate lighting.

Natural Shoreline

1. Develop an education program to inform property owners about landscape alternatives to manicured lawns, paved driveways and other impervious features, non-native species, and sandy beaches to help reduce undesirable and inhospitable artificial landscapes along the shoreline. Educate property owners about the benefits of natural areas and provide information on how to restore degraded areas.
2. Support and educate others about the municipal "No Tree Cutting" or "Tree Preservation" forestry bylaw to ensure that private lots retain a percentage of their natural vegetation

Crown Land

Wildlife

1. Educational literature that promotes the protection of wildlife habitat and shorelines should be distributed to property owners. Lakefront owners should be encouraged to maintain or return a significant portion of their shoreline to natural vegetation to encourage nesting and suitable habitats for other species.
2. Develop an education program regarding the protection of rare species' habitat and provide examples of how to naturalize private property to encourage rare species establishment.

Safety on Land and Water

Action Plan

Social Stewardship (Dark Skies, Safety, Aesthetics) Lake Stewardship • Watershed Stewardship Shoreline Stewardship • Crown Land Stewardship

Water Quality	<ol style="list-style-type: none">1. Continue a comprehensive water quality monitoring program through MOE's Lake Partner program. An annual report of water quality testing results should be prepared by the association and sent to all property owners on the lake.
Privacy/Aesthetics	
Quietness	<ol style="list-style-type: none">1. That the HHLPOA continue to support residents in noise-related issues, and when necessary organize residents to terminate persistently noisy situations.
Closeness to Nature	<ol style="list-style-type: none">1. Qualitative and quantitative data needs to be collected to identify and assess the specific features that contribute to the health of the lake system, determine the health of each stream, and classify each stream in terms of community indices2. The streams that flow into Halls and Hawk Lakes need to be "officially" named prior to inventories.3. A wetland evaluation should be initiated to inventory the wetlands abutting Little Hawk Lake and those found within the sub-watersheds (immediate surrounding area.)4. MNR should continue the practice of not stocking fish because stocking doesn't seem to be working for the Halls and Hawk lakes' fish community. The real stressors should be identified, assessed and monitored.5. The Association should provide volunteers to the MNR in order to assist with the annual active bass nest and lake trout spawning surveys—a netting index per species to collect the data necessary for lake assessment and management strategy improvements.6. Discourage sport fish tournaments. Restrict Rock Bass derbies to July and August—after bass spawning season.7. Although not a key priority, a thorough species inventory could be initiated by the Association, in partnership with the MNR, to identify native, rare and exotic species and estimate relative abundance indices for the lake as well as identify important habitat sites for protection along the shoreline.8. The MNR should conduct a follow-up survey of the impact of the early draw-down of the lake level on lake trout.
Dark Skies	<ol style="list-style-type: none">1. The Association should conduct nighttime light inventories. From these inventories, baselines can be established and yearly progress tracked. As well, specific strategies should be developed to eliminate light pollution "hot spots."
Natural Shoreline	<ol style="list-style-type: none">1. In the Littoral Zone consider in-water rehabilitation with the assistance of the Conservation Authorities or MNR by adding downed native logs and other woody debris, as well as carefully placed rocks near the shoreline, to create micro-habitats for aquatic species and to protect the natural substrate2. In the Riparian Zone create a buffer of native plants, shrubs and trees between the water line and lawn, to discourage erosion and prevent sediment runoff3. In the Upland Zone replant native trees to buffer strong winds, maintain cool water temperatures, protect slope gradient and erosion, and provide habitats for native species.

Action Plan

Social Stewardship (Dark Skies, Safety, Aesthetics) Lake Stewardship • Watershed Stewardship Shoreline Stewardship • Crown Land Stewardship

(continued)

Crown Land

1. Participate in the approval process for the Statements of Conservation interest for Clear Lake, Dawsons Pond and Plastic Lake Conservation Reserves. Prepare a letter to the MNR District Manager (Bancroft) requesting notice of any planning process and expressing an interest to participate and support the preservation of these areas.
2. Participate in future Forest Management Planning processes to consider a Skyline Land Use area for forestry operations surrounding Little and Big Hawk lakes to protect their remote setting. Involvement by the association will also help to consider appropriate areas allocated for forestry operations in the 2011-2021 Forest Management Plan.
3. Identify areas with cliff faces on the Schedule to the Township's official plan as significant local areas to be protected from incompatible development.
4. Ensure that any Crown land disposition or resource management activity within these areas protects their great scenic value.
5. Encourage retention of Crown lands in watershed.
6. Association should acquire Crown land for association uses
7. Provide education regarding, and promote, land trusts. Offer tax benefit information in the Association's newsletter.

Wildlife

1. A program should be established to locate significant wildlife habitat including the nesting sites of loons, ducks, colonial birds, Great Blue Heron and other waterfowl, and turtle nesting sites.
2. A thorough inventory of rare and species at risk needs to be prepared, especially for reptiles (turtles and snakes), invertebrates, fish and birds, which are negatively impacted by shoreline alteration.

Safety on Land and Water

1. Post signs restricting speed limit and wake in the narrows (approximately 150 feet into Little Hawk and 100 feet into Big Hawk.)
2. Develop a Code of Conduct for operating watercraft and ATVs. Publish and post the code so it is available to residents and visitors. In order for the code to be presented as the desire of the majority, it is recommended that the code be presented to the HHLPOA board for subsequent vote by the general membership.
3. Forming a 'neighbourhood watch' to support enforcement bylaws.
4. The HHLPOA must monitor the ongoing implementation of the Canoeing plan and any changes in government policy and legislation that could impact on related recreational activities.
5. The HHLPOA must remain proactive with other major stakeholders in ensuring that adequate funding be maintained by both municipal governments and the MNR to preserve the current Land Use Model and support.
6. Support activities that encourage safe, courteous low impact use of the area throughout the year. There is minimal public access to the three lakes, which should be maintained. We need to support the maintenance of the privately owned docks for public access. These are critical to access the lakes. Commercial operators that provide public access provide essential service to property owners.

Action Plan

Land Use

Water Quality

1. We need to be involved in resource planning and development by municipalities and other government agencies.

Privacy/Aesthetics

1. Recommend we request an amendment to the bylaw from 200 feet (60 metres) to 400 feet (120 metres).
2. Association should assign a Land Use Steward to monitor and promote bylaw and official plan amendments.
3. Seek an amendment to the bylaw to limit maximum square footage and impose height restrictions on dwellings.
4. Request notification of all applications for severance, minor variances, zoning changes.
5. For Back lots:
 - a. Consider amendments to bylaws to discourage development on existing back lot properties and minimize creation of new back lots.
 - b. Request notification of severance applications, zoning change applications, creation of new roads, etc.
6. Encourage the municipality to develop a strategy in relation to interval ownership of private lands.
7. Request notification of any investigation into or proposed changes from current usage, including legal changes from traditional usage.
8. Lake capacity must be studied for any higher density development proposals (Included in Official Plan requirements—requires emphasis).
9. Request amendments to Official Plan to permit only low density development or apply existing cottage equivalency factor to commercial property development.
10. BOS has indicated that they cannot provide reports for individual lakes. Their report will be submitted to the township early in 2006. Request notification of receipt and desired particularization of reports from the township at that time.
11. The association should lobby the municipality to ensure there is follow-up on substandard septic systems.
12. Pursue participation with other associations to form a regional council (such as Gull River Council) to lobby the provincial government for changes to provincial laws that would prohibit the sale of residential properties unless the septic system passes inspection.

Quietness

1. The Association encourages the Township of Algonquin Highlands to add bylaws aimed at light abatement. Specifically that:
 - a. A property owner may only light his/her property. Light that illuminates or is directed at adjoining properties, be they public or private, would be prohibited.
 - b. All lighting located within 50 ft (12m) of open water should be a low cut off type.

Action Plan

Land Use

(continued)

Closeness to Nature

1. Official Plans and Zoning bylaws should identify the location of all permanent and intermittent warm water and cold water streams including policy to control and protect them against development impacts.
2. Advocating for and supporting bylaws that allow low impact use.
3. Local official plans and zoning bylaws must identify the location of wetlands and provide appropriate policy to ensure their protection, including the enforcement of environmental/lake impact assessments for new development proposals in provincially significant wetlands as well as the associated adjacent lands.
4. Encourage the Township of Algonquin Highlands to increase minimum lot frontage requirements for new lots that front on a narrow waterbody.

Dark Skies

Natural Shoreline

1. Encourage the Township to ensure that during construction new development protects the integrity of the shorelines by minimizing the loss of native vegetation and substrates, and prevents runoff into the lake.
2. Encourage municipalities to adopt Official Plan Policy regarding the retention of natural shorelines through the creation of shoreline activity protection areas, promote the planting of trees and shrubs and the use of environmentally friendly in-water materials for docks, and minimize shoreline activity areas to 25 per cent of the lot frontage. Promote awareness and support and encourage adherence/enforcement of the Official Plan natural shoreline policy.
3. Municipal planning documents should require the mandatory protection of shoreline buffer areas. There should be a mandatory 15 metres of vegetative, "non-disturbance" buffer along the shoreline of native vegetation. A larger buffer creates more protection for water quality and increases the aesthetics of properties.
4. Seek an amendment to the bylaw to limit lateral expansion of cottages that are already too close to shoreline.

Crown Land

Wildlife

1. Local official plans and zoning bylaws must identify the location of newly identified significant wildlife habitat and provide appropriate policy to ensure its protection, including the enforcement of environmental impact assessments for new development proposals.

Safety on Land and Water