Fairy Lake Plan

Prepared by:

Lake Plan Committee
Fairy Lake Association
French Planning Services Inc.

August 15, 2003

Preface

In 1853, Fairy Lake was named “because of its beauty” by Alexander Murray of the Geological Survey of Canada. In This River the Muskoka, Gary Long describes Fairy Lake as having picturesque expanses of ruffled blue waters cradled between steep, rolling hills – fantastic scenery in the autumn, and has an extra element of ruggedness from islands that thrust rocky, pine clad summits high above the water. The rolling landscape, natural shorelines and combination of urban and rural lifestyles has attracted many people to the lake over the past century and these elements continue to be the reason why many people have made this area their permanent home.

The Fairy Lake Plan identifies the significant social, natural and physical features that make the lake a desirable place for people to live and visit. These elements encompass the lake’s health, beauty, wildlife habitat, recreational opportunities, as well as opportunities for residential and commercial development. The purpose of the plan is to describe those features, and to establish an action plan to ensure their health and existence for future generations.

The Plan was prepared under the auspices of the Fairy Lake Association and a Lake Plan Committee coordinated the collection of background information and the preparation of the plan. Committee members included Maire Carew, Kathy Hunter, Bruce Gowan, and Roy Waddington. Randy French, MCIP RPP, of French Planning Services Inc., facilitated the process and provided technical support when necessary.

The Committee extends its gratitude to the following agencies and individuals that helped in providing material, advice, assistance, and encouragement:

- Department of Oceans and Fisheries
- Ontario Ministry of Natural Resources
- Muskoka District Planning Department
- Town of Huntsville - Planning and Geomatics Departments
- Commercial Establishments
- Ontario Provincial Police
- Huntsville Ratepayers Association

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Section 1 Introduction

The Fairy Lake Association was formed many years ago at a time when development pressures were low. Since that time, the watershed surrounding Fairy Lake has had many changes: highway expansion, massive property development, expanding urban boundaries, the construction of municipal water and sewage treatment plants, an increasing population and demand for recreational opportunities.

The days of the small family cottage and boats with small horsepower have been replaced with urban landscapes, monster cottages, high-speed boats and personal watercraft. The traditional way of life on the lake has changed substantially. However, the lake still remains a highly desirable place to live and this is evident by the sky rocketing property values of today's market.

Why did people want to live on Fairy Lake? Before modern times, the lake was simply the most practical place to live as it provided the essential elements for existence: fresh water for consumption, cooking, and cleaning, a source of food, and a medium for transportation. In current times these essentials are obtained without direct access to the lake and the reason for living on or near the lake has changed.

So, why do people now want to visit or live beside Fairy Lake? This was the question that the Lake Plan Committee needed to answer, and that led to an examination of what present lake users value about a lake, one of the most significant questions that must be dealt with in a Lake Plan. The intent of a Lake Plan is to identify important natural habitat, physical elements and social values, and to recommend ways to protect and rehabilitate them.

Fairy Lake was not the first lake in the watershed to formulate a Lake Plan. Peninsula Lake completed its Lake Plan in 2001, and is currently implementing a list of twenty community actions. The Peninsula Lake experience has been of great benefit to the Fairy Lake Planning Committee and the Association extends its gratitude to the Peninsula Lake Plan working group and looks forward to the opportunity for future coordination of projects. The Lake Vernon Association has also initiated the preparation of a plan and its completion is scheduled for 2003. It is anticipated that the issues, concerns, and possible solutions are similar among all three lakes and there is a need to establish common objectives and to co-ordinate strategic actions. It is hoped that these three associations will work cooperatively on common issues in order to promote a consistent approach to solving issues.

The Town of Huntsville, together with the Huntsville Ratepayers Association, has also initiated the formation of a Lake Council, which is composed of members of all lake associations in the Huntsville area and spearheaded by Mayor Hugh Mackenzie. The intent of the Lake Plan Council is to share resources and ideas on the preparation of lake development guidelines as well as promote volunteer initiatives to sustain the health and the quality of life on lakes in the area.

1.1 The Purpose of the Lake Plan

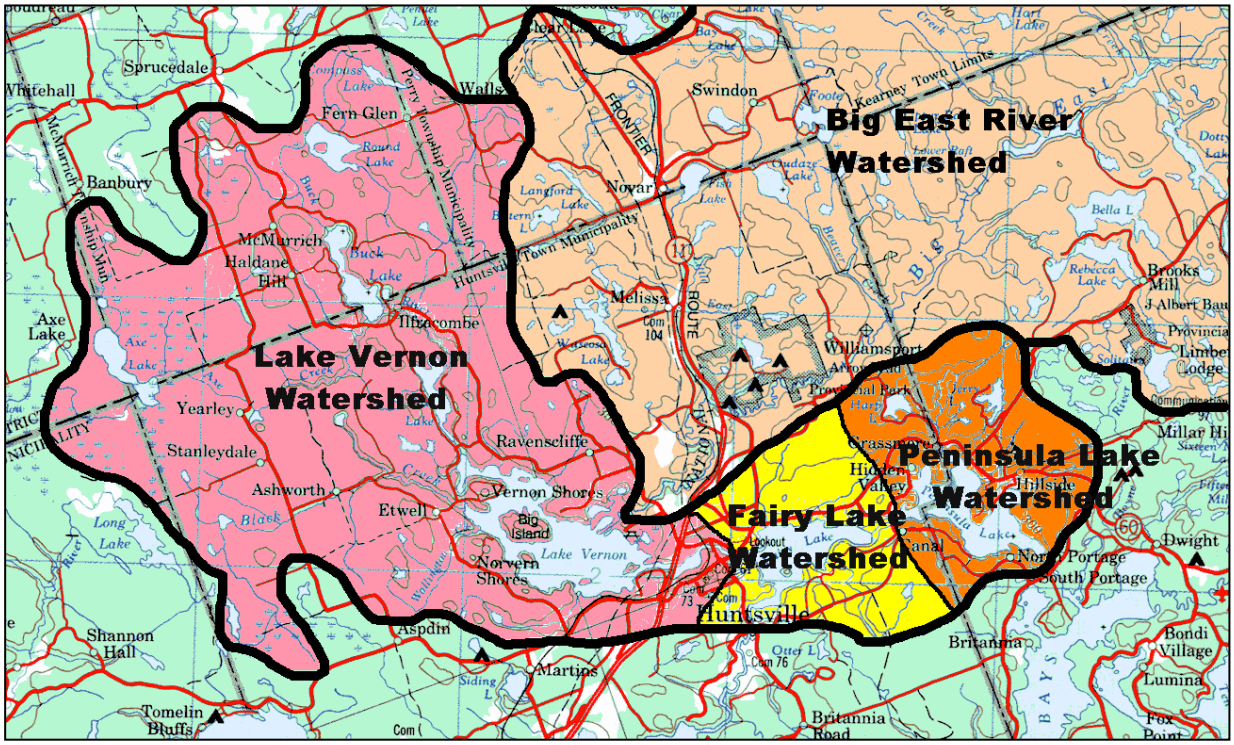
The purpose of this plan, therefore, is to recognize and protect the unique character of the lake, and to develop specific objectives for long-term protection, maintenance, and restoration of the lake.

1.2 The Scope of the Plan

While the Fairy Lake watershed encompasses Peninsula Lake, Lake Vernon, and other smaller lakes (See Map 1), the scope of the Fairy Lake Plan applies to the immediate watershed surrounding Fairy Lake (as shown in yellow). In order to ensure that all areas within the chain of the Huntsville Lakes were included, the scope of the Fairy Lake Plan was established in consultation with Peninsula Lake and Lake Vernon Associations. The study area of the Fairy Lake Plan consists of the following boundaries:

Eastern boundary - The Canal Road Bridge
Southern boundary - Brunel Locks and the southern limits of the watershed
Northern boundary - Northern Limits of the Fairy Lake watershed
Western boundary - The Town of Huntsville's Main Street Bridge

Map 1 - Huntsville Lakes Watershed



1.3 Planning Approach

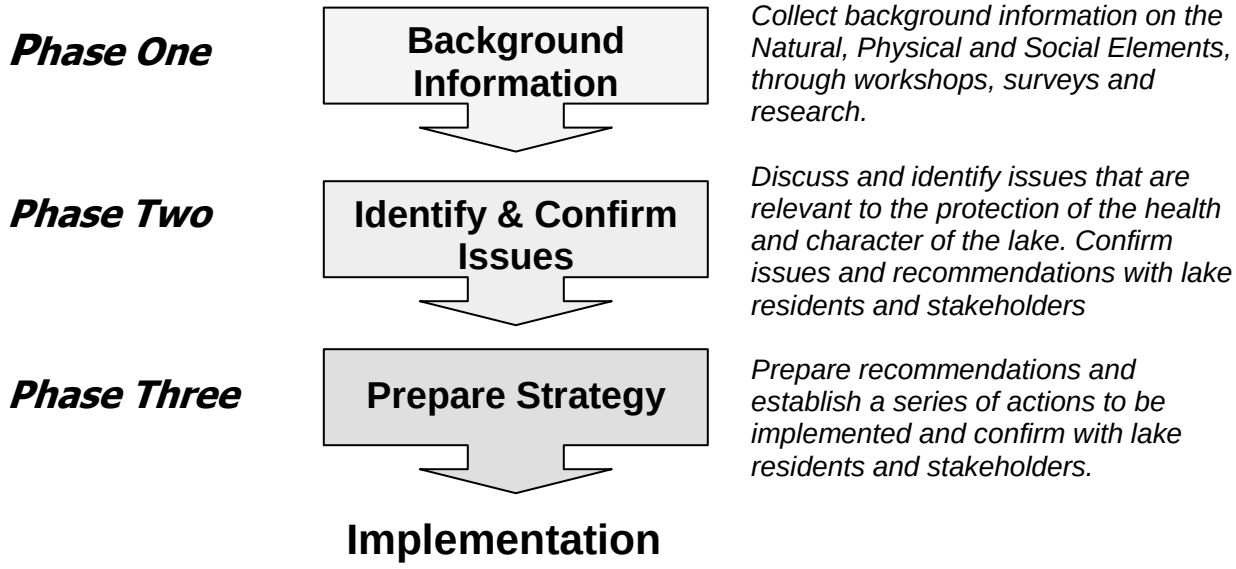
In mid-2001 the Fairy Lake Plan Committee initiated a planning process similar to one used by the Peninsula Lake working group. It engaged the same planning consultant (French Planning Services Inc.), carried out similar surveys, obtained the views of a comparable group of stakeholders, and utilized much of the same source material and references. Although the character of the two lakes differs, it was apparent that the process followed was the correct one. The approach followed in the planning process was to determine the various carrying capacities of the lake, which is the capability of the lake to withstand adverse impacts. Three broad categories of carrying capacity were investigated, namely:

Natural Elements: Water quality, wetlands, wildlife habitat, fish habitat, nesting sites, streams, and vegetation.

Physical Elements: Narrow water bodies, steep slopes, flood prone areas, access, watershed considerations, physical resources, and tree line.

Social Elements: Aesthetics, ambience, historical development, cultural sites, recreation, and boating.

The preparation of the Lake Plan took place in three phases:



1.4 Information Sources and Support

The collection of background information utilized existing reference material. The Town of Huntsville, District of Muskoka, MNR Bracebridge Area Office, the Department of Oceans and Fisheries, and the Ontario Provincial Police were very supportive of the process and provided assistance in identifying sources and providing available information. The Town of Huntsville's

Geomatics Department provided many staff hours preparing detailed maps that are included in this report.

Four reports that gave detailed information on Fairy Lake and the lake planning process included:

> *Assessing Environment and Development: Fairy and Peninsula Lakes 1995, A.J. Skibiki, Heritage Resources Centre, University of Waterloo, Waterloo, Ontario,*
>
> *The Fairy and Peninsula Lakes Study, 1994 – 1998, K.G. Cornelisse and D.O. Evans, Watershed Science Centre, Trent University, Peterborough, Ontario*
>
> *Peninsula Lake Plan, Peninsula Lake Association, French Planning Services Inc. 2001*
>
> *Peninsula Lake Background Information Report, 2000, French Planning Services Inc. 2001*
>
> *Additional sources and websites are listed in the References section.*

The collection of new information focused on obtaining the opinions and comments of lake residents, commercial operators and federal, provincial and municipal staff. As well, the Fairy Lake Association conducted a detailed dock and boathouse survey, noting the location, size, length and type of structure.

In September 2000, the Fairy Lake Association undertook a survey to gather the ideas and perspectives, and identify the issues, concerns and aspirations of the Fairy Lake waterfront residents. The survey was designed to obtain information on property size, buildings, features, and use, resident occupancy, activities, observations, perceptions, and concerns. The survey contained seventeen questions and was distributed to all members of the Fairy Lake Association. One hundred and five survey forms were completed and returned, which represents 33% of shoreline residents. The results of the survey are summarized in Appendix 1.

A Stakeholders Workshop was held in October 2001 and was attended by municipal politicians, federal, provincial, district and municipal employees, several commercial operators and the Ontario Provincial Police. The purpose of the Stakeholders Workshop was to gather thoughts and ideas about the process, investigate values and concerns, identify sources of information, and determine the level of interest in participating in the preparation of the plan. The workshop proceedings are included in Appendix 2.

In August 2002, the Lake Plan Committee was in the process of drafting the Fairy Lake Plan and found it necessary to conduct a second resident survey to obtain the opinions and recommendations of the lake residents in relation to specific issues. The questionnaire was mailed to about three hundred lake residents on August 13, 2000. Eighty-two responses were received, representing a response from 27.3% of shoreline residents. The results of the survey are summarized in Appendix 3.

1.5 Report Structure

The intent of the report is to summarize the information that was collected, to identify issues and concerns and to provide observations and recommendations to deal with specific issues. Section 2 identifies the vision, goals and targets of the Lake Plan. Sections 3 to 7 provide a description of the natural, social, physical and land use regulations and contain a brief summary of the observations together with the applicable recommendations. Recommendations for certain aspects of the lake are often similar and are consolidated in Section 8, Summary of Issues and Concerns, and Section 9, Action Plan.

For ease of reference, recommendations are numbered consecutively from the first recommendation in the report rather than from the first recommendation in a section.

Section 2 Vision, Targets and Values

2.1 The Association's Mandate

The Fairy Lake Association mandate is:

> ***"To preserve, protect, and promote the ideals of good stewardship on Fairy Lake and the surrounding areas, including:***
>
> - ***The protection of the natural beauty and environmental quality of the lake and its surrounding shoreline,***
> - ***The use of the lake and the surrounding areas for safe recreational purposes, and***
> - ***The social interaction of the Association members and members of the community at large."***
>
> Fairy Lake Association By-law

2.2 The Vision for Fairy Lake

A vision statement provides guidance for what the lake should be and look like in the future. The vision statement also provides a general description of the characteristics that are important to residents, commercial and government stakeholders, and lake users and establishes a specific direction to be followed. The following Vision Statement (Figure 1) was created by The Lake Plan Committee and the Fairy Lake Association Executive and is based upon the values identified through the process:

Figure 1 – Fairy Lake Vision

Fairy Lake Vision

The Fairy Lake Community envisions the Lake to be a place where:

The beauty of the landscape, the tranquility of the surroundings and the quality of the water are preserved;

Wildlife, fish, and plant habitat are safeguarded;

The community is actively involved in stewardship;

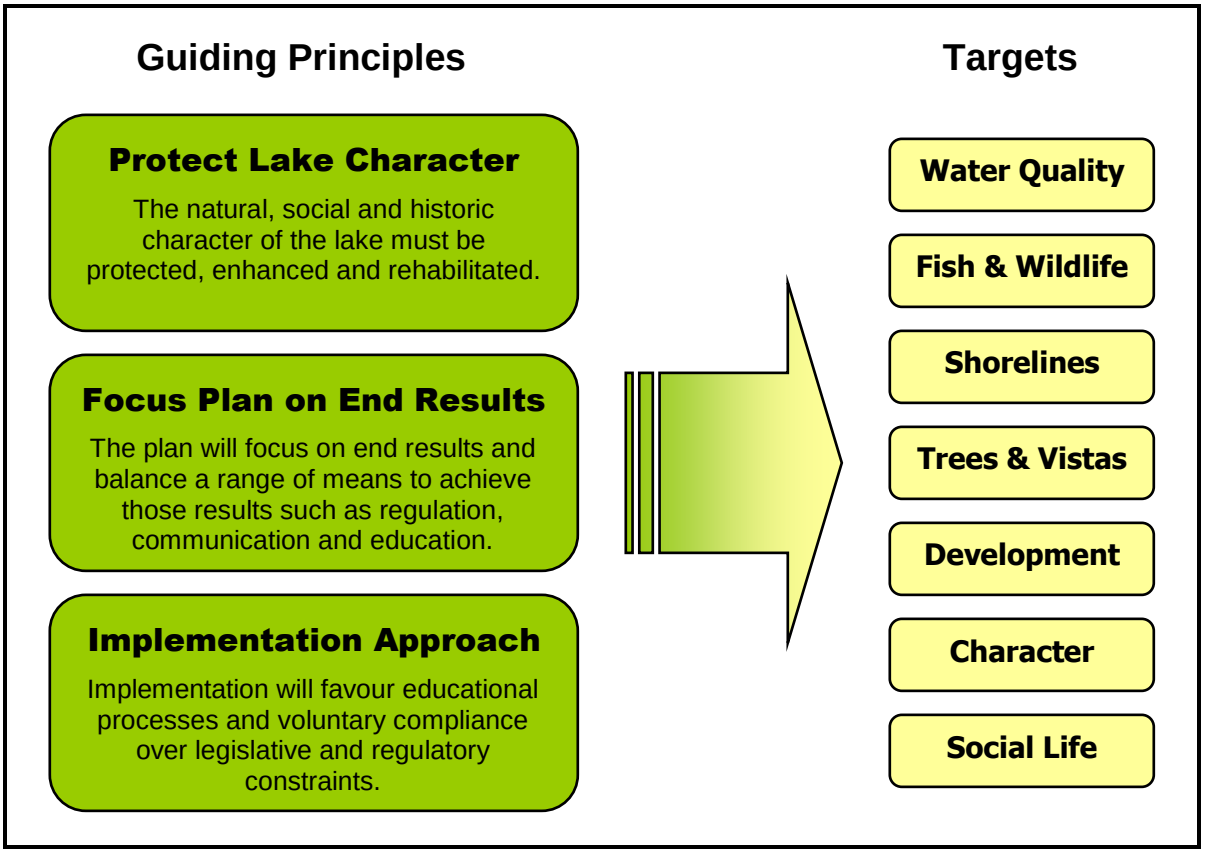
There is an appropriate balance between economic development and the preservation of the environment; and

Local residents and visitors to Muskoka will have access to the lake's recreational opportunities.

2.3 Principles and Targets

The Fairy Lake Association developed principles for the preparation of the Lake Plan and identified seven potential targets to be addressed. These principles and targets established valued features on the lake and provided the Association with a method for achieving enhancement and protection of the lake for future generations (Figure 2).

Figure 2 - Principles and Targets



The targets shown in Figure 2 were established by the Lake Plan Committee for consideration in the preparation of the plan, and are further described as follows:

1. Water quality - The water of Fairy Lake should not contain contaminants in excess of the natural historic levels (i.e. the level of contaminants that would occur in nature prior to human habitation) or standards specified by qualified official bodies. Significant contaminants to be considered should include phosphorus, nitrates, toxins and e-coli and other contaminants may be identified in the planning process.

2. Fish and wildlife - Fairy Lake should support a sustainable fish population and maintain stability in the bio-diversity of wildlife species and their habitat. The introduction of “invading species” such as zebra mussels must be prevented.

3. Natural shorelines and riparian areas - The shoreline can be described as the “ribbon of life” that supports a diverse range of fish and wildlife species. The protection and rehabilitation of the shoreline (littoral, riparian, and upland areas) should be promoted to increase the amount of natural shoreline.

4. Natural appearance and vistas - The natural vista should be maintained. Buildings and structures should have a minimal impact on the natural appearance of the shoreline and the landscape.

5. Economic and property development - The competitiveness and viability of existing resorts and commercial operations are to be supported. A cooperative working relationship has to be fostered between residential and commercial members of the Fairy Lake community to ensure that proposed commercial and residential developments and activities respect the environment and character of the lake, as well as maintain property values.

6. Historical, cultural and natural character - The historical, cultural and natural character of the lake is to be recognized, protected and restored, where appropriate. Future public, commercial and residential development must complement and be compatible with the historical, cultural and natural character of the lake.

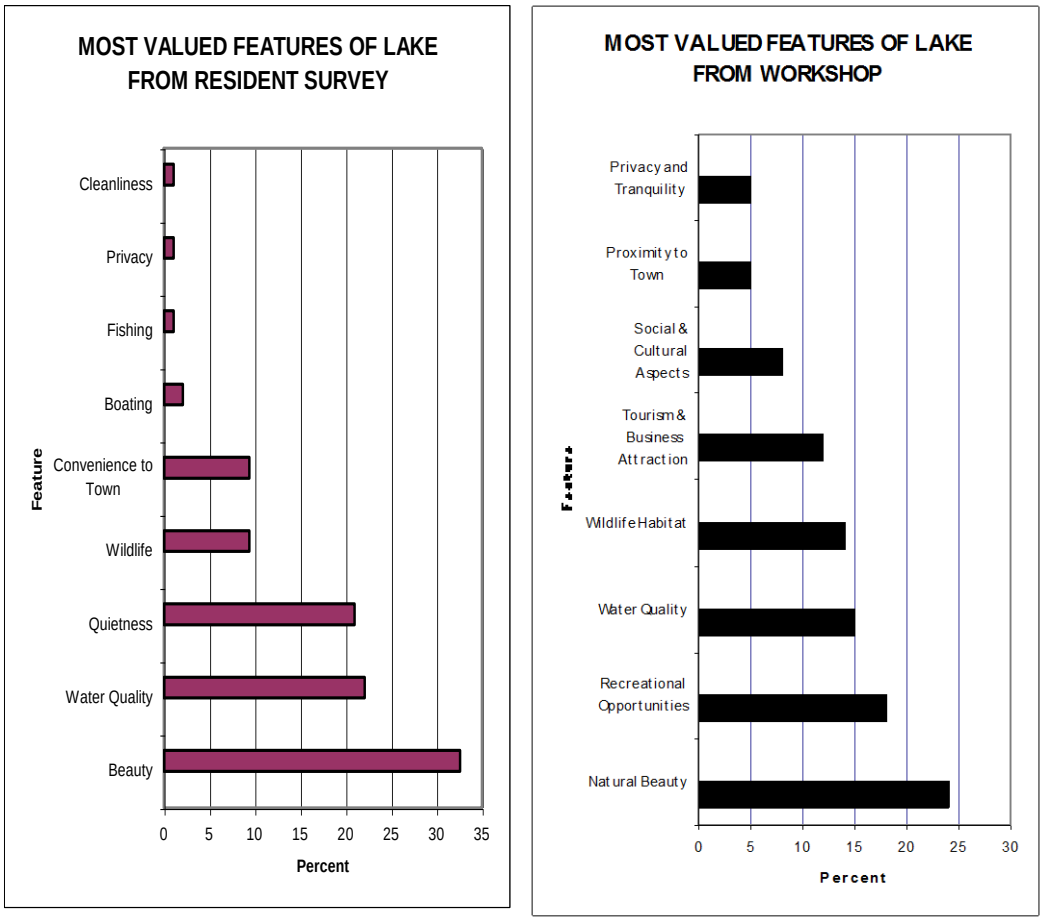
7. Social life - A range of social and recreational activities should be promoted that are consistent with the natural character of the lake, preserve the health and ambience of the lake, as well as foster a sense of community around the lake.

2.4 Lake Values

The Residential Survey (September 2000) and the Stakeholders Workshop identified the most valued features on the lake. The Resident Survey identified nine valued features and the Stakeholders Workshop identified eight. These are shown in Figure 3 in order of percentage of replies.

These two charts show that both residents and stakeholders hold the same views of what is important to those living on the lake or visiting it. Everyone surveyed considered the beauty of the lake as its most prized attribute. The beauty of lake vistas is determined by the unspoiled appearance of the two major sight lines that are commonly viewed by an observer. The first is the line of natural and constructed features on the shore; the second is the line of those features on the horizon. Any unnatural interruption to these lines, such as a clearing or an out-of-character structure detracts from viewing pleasure.

Figure 3 – Lake Values



Source: Residential Survey and Stakeholder Workshop

The results of the survey and workshop show the common valued features among both residents and stakeholders. These values include:

- Natural Beauty;
- Water Quality; and
- Wildlife Habitat.

The difference of opinion in valued features is shown by the importance of quietness to residents and recreational opportunity to stakeholders. These may be conflicting uses, but through communication and the development of a Lake Plan, balance can be achieved.

Section 3 Lake Description

3.1 Historical Development

In 1853, Alexander Murray completed a survey of the area with the intention of finding alternative land or water routes to Ottawa. Traveling by canoe up the North Branch Muskoka River, he came upon a body of water about four miles above Mary Lake and called it Fairy Lake because of its beauty. It is also believed that the lake was named because the local Indians thought it to be inhabited by spirits.

The lake was officially opened for settlement through the Free Grants and Homesteads Act of 1868, legislation that gave free 100-acre parcels to settlers. Although homesteads were already in existence to the west, and natives and trappers regularly frequented the area, substantial numbers of settlers from metropolitan areas, as well as new immigrants, flocked to the area. By 1879 much of the land around the lake was in private hands with most sites being cleared for farm operations. Map 2 shows the ownership of the lands in the area in 1886.

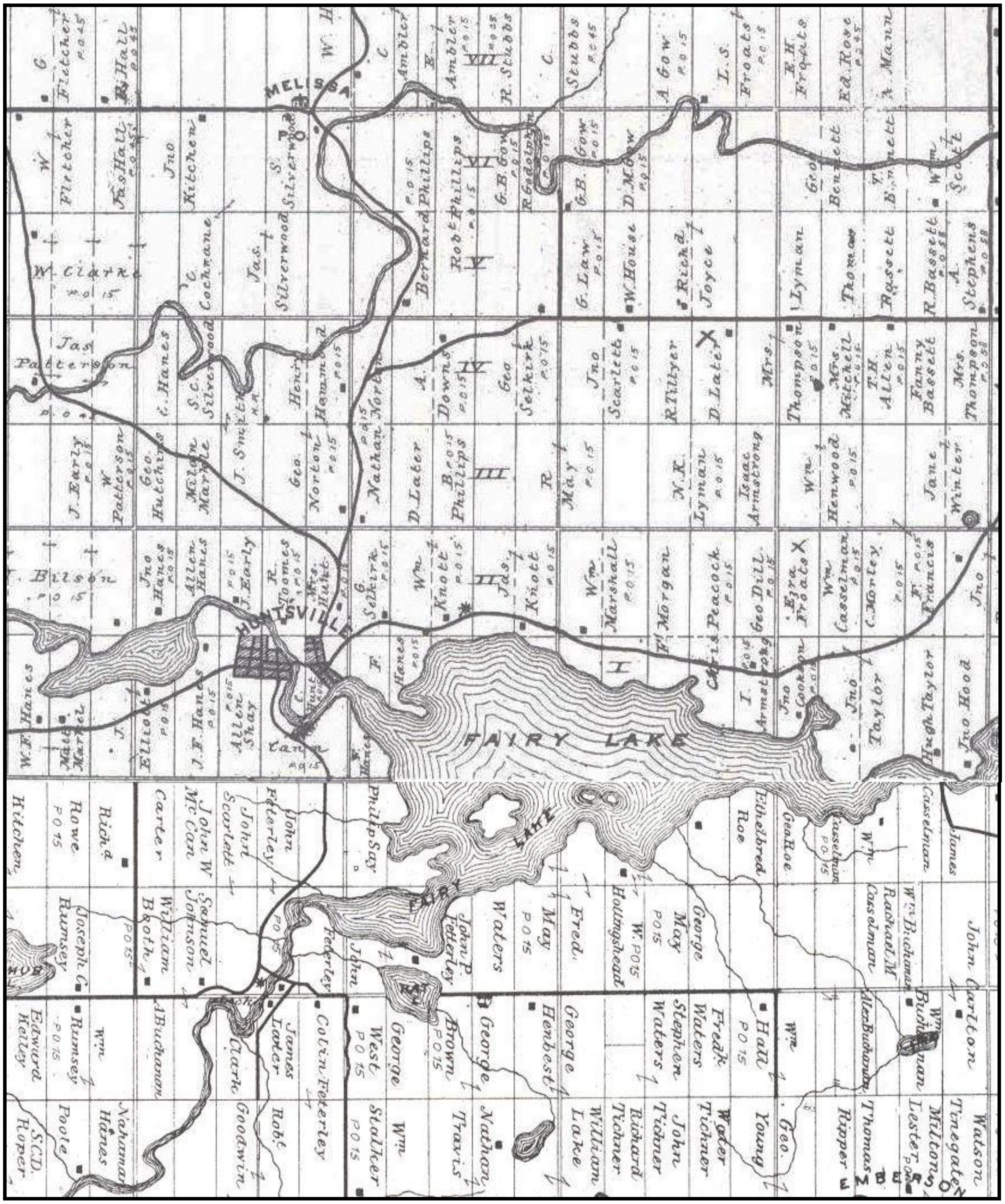
During the 1870's, Huntsville's population reached 200. A road was built along the north shore of the lake, and a stagecoach ran between Huntsville and communities to the south. Road construction was slow, which made the waterways the most efficient form of transportation. In 1877 the Brunel dam and locks were built allowing steam powered boats to operate between Mary, Fairy and Vernon lakes. This gave way to a steamboat era that lasted about 75 years. Lumbering was the predominant industry and sawmills operated in town.

In the 1880's agricultural operations declined around the lake when settlers discovered the land could support only marginal operations. Many farmers moved west to more appealing soil conditions, while others sought employment in the lumber industry. The area was becoming increasingly popular to tourists and many homesteads were converted to inns or resorts catering to the new tourist market. The tourism and logging industries received a boost when the Northern Railway reached Huntsville in 1886, and a canal joining Fairy and Peninsula Lakes was completed in 1888. In 1905, the North Portage Railway was constructed to provide train access from Peninsula Lake to Lake of Bays. In 1891 a tannery was opened in Huntsville, and in the following year a hardwood products plant was opened. By the end of the decade Muskoka's population reached 27,000.

In the 1890's, seasonal cottages had begun to appear on the shores of Fairy Lake and resorts on the chain of lakes were being opened to steamboat traveling visitors. By the late 1890's, tourism equaled logging in economic importance to the area. At the start of the 20th century, growth continued in the area. By 1921 the population of Huntsville had risen to 2,246; the town having been electrified in 1911 and a water purification plant established in 1915. A large increase in the number of cottages on Fairy Lake had taken place, and the recreational use of the lake had become more diversified. With the development of better roads, and the availability of personal motorboats, cottagers had easier access to their properties.

In the 1940's and 1950's Muskoka's image as an international tourist resort began to change. More and more it became a playground for families from Southern Ontario. The completion of Highway 11 in the early 1970's improved access to Muskoka and facilitated commercial links with other markets. Many cottages had been winterized and permanent homes were being constructed on the lake.

Map 2 – Original Survey of the Townships of Brunel and Chaffey (1886)



Source: Guide Book and Atlas of Muskoka and Parry Sound 1879

During the 1960's and 1970's the demand for more retail, business, social, and hospitality services increased. Development resulted in growth of these services as well as the construction of Huntsville's first shopping mall.

Huntsville's population growth continued and reached 3,342 in 1966. In the next ten years amalgamation with four townships (Chaffey, Brunel, Stisted and Stephenson) into the Town of Huntsville, resulted in a population of 9,784, and by 1996, Huntsville's population was 15,918. As a result of the increased population and residential, commercial and industrial development, Huntsville's first sewage treatment plant was constructed in 1959 on the Muskoka River.

Development continued through the 1980's and less easily accessible lots were sought for affordable second homes. Grandview Resort started a large expansion in 1984, providing condominiums, convention facilities, a golf course and year-round recreational activities. Condominiums, a retirement home, and commercial activities along the Highway 60 corridor were constructed. The high rate of growth overtaxed the existing sewage treatment plant and a new one was completed in 1995.

Observations

- ***Over the past century, Fairy Lake has had a significant increase in population, which has changed the rural forested character of the lake to a predominantly urban setting on the north and west shore.***

- ***The economic base for Huntsville's livelihood has changed over the years. The economic influence of the original logging and tanning industries has been largely supplanted by that of a residential and commercial tourist industry and associated services.***

Recommendations – Historical Development

1. *Local planning officials should be encouraged to consider the impact on Fairy Lake resulting from residential, commercial and industrial expansion within the immediate watersheds of Fairy, Vernon, and Peninsula Lake.*

2. *The economic importance of the tourist industry is essential to Huntsville and must be supported. New commercial development on Fairy Lake must be balanced with the protection of the natural and social amenities that attract people to the area. The protection of the lake's environmental elements must have a higher priority.*

3.2 General Location and Characteristics

Fairy Lake is a relatively large body of water located in the geographic townships of Chaffey and Brunel and is located entirely within the jurisdiction of the Town of Huntsville. The north and west shores of the lake are within the Town of Huntsville's urban area.

Fairy Lake is the smallest of four connected lakes, known locally as the Huntsville Lakes; Lake Vernon, Fairy Lake, Peninsula Lake and Mary Lake. There are forty miles of boating on the four lakes and their connecting watercourses. The lake has a surface area of 711.5 hectares and a shoreline length of 22.5 km. Figure 4 provides details on the physical characteristics of the lake.

Figure 4 - Physical Characteristics

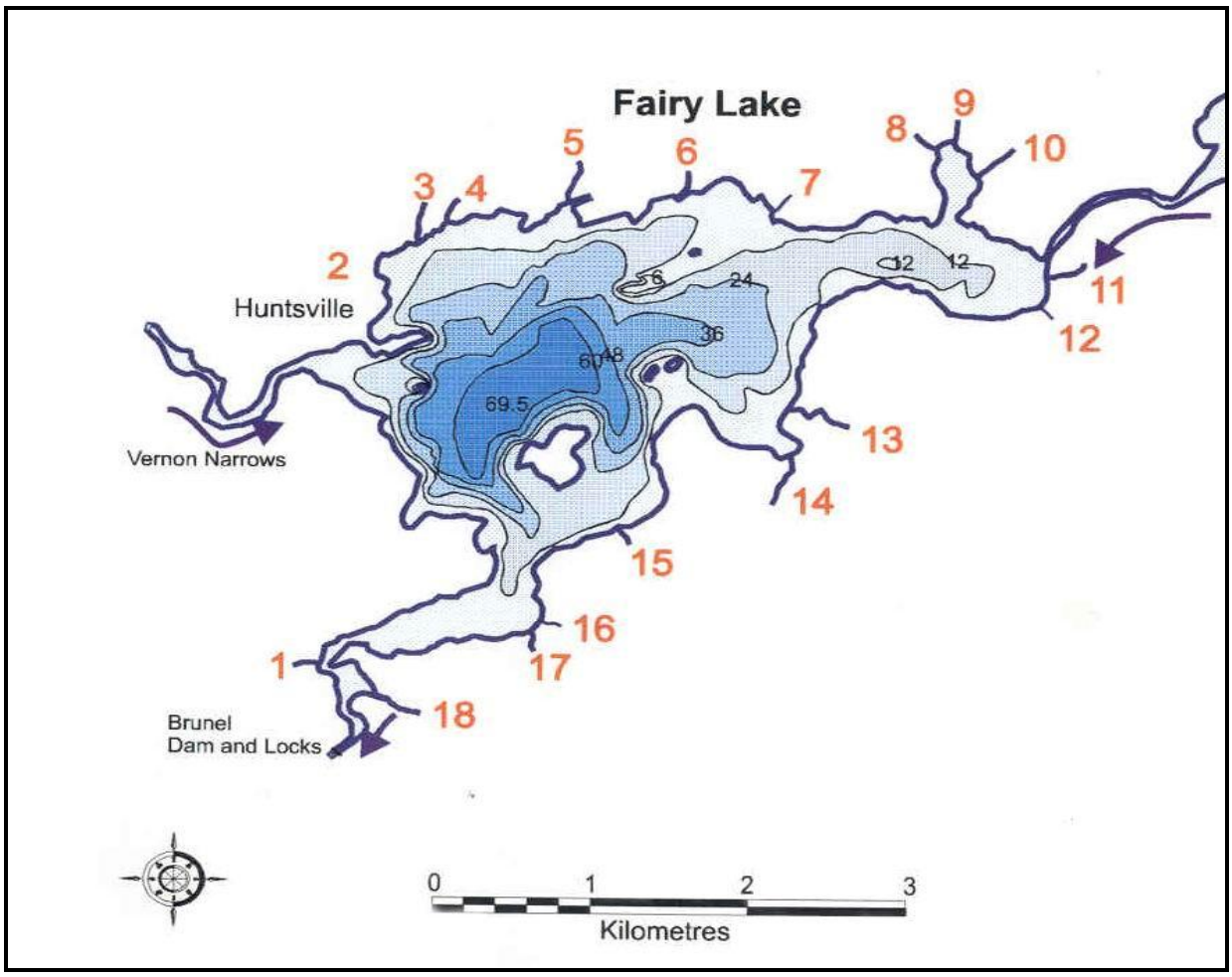
Latitude	45^0 20'	Mean Depth	22.1 m
Longitude	79^0 11'	Maximum Depth	69.5 m
Drainage Area	46.6 sq km	Total Volume	15703.6x104 cu m
Surface Area	711.5 ha	Outflow Volume	2.83x107cu m/yr
Length	9.5 km	Flushing Rate	1.8 times/yr
Perimeter	22.5 km*	Littoral Zone	23%
Height Above Sea Level	283 .7 m		

* Scaling the map of Fairy Lake gives a perimeter of 23.5 km.

Source: Fairy Lake and Peninsula Lake Study 1994-98,and MNR Map 1969

Water depths in the lake are shown on Map 3, Water Depth Contours and Tributaries. There are 20 streams flowing year-round into Fairy Lake, the sources of inflow include the Canal from Peninsula Lake (in the east), and the North Branch of the Muskoka River from Lake Vernon and Hunter's Bay (in the west). The only outlet is the North Branch of the Muskoka River, which flows south into Mary Lake. Streams that are considered as having a year round or intermittent water flow are shown in Map 3. There are also many natural depressions or swales that pass storm water into the lake.

Map 3 – Water Depth Contours and Tributaries

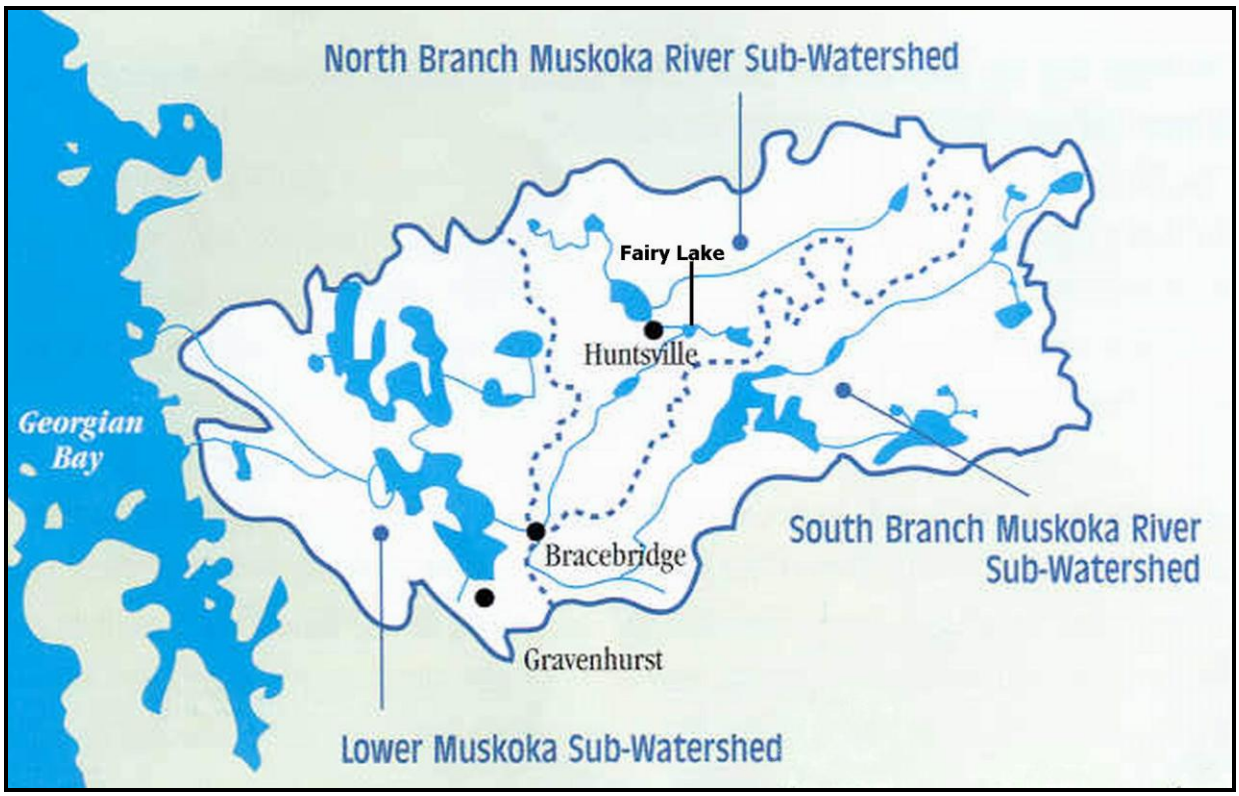


Source: The Fairy and Peninsula Lakes Study, 1994 - 1998, Cornelisse and Evans

3.3 Watershed

The Fairy Lake watershed is part of the Muskoka River Watershed (see Map 4 below), which is a medium sized watershed containing more than 2000 lakes with numerous interconnecting waterways.

Map 4 – Muskoka River Watershed



Source: The Muskoka River Water Management Plan (Acres & Assoc., 2002)

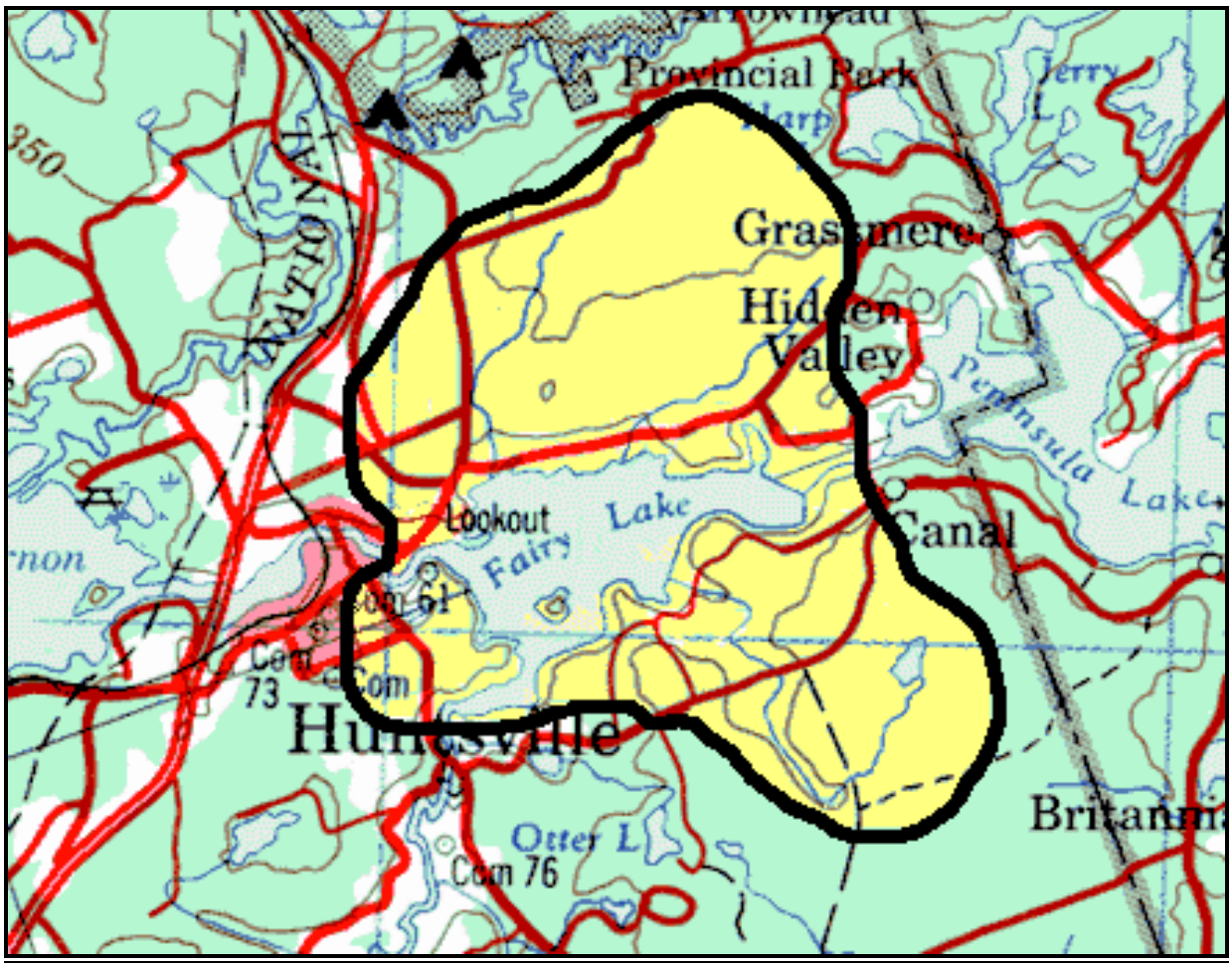
The Muskoka River watershed is comprised of three sub-watersheds; the North Branch Muskoka River Sub-Watershed, the South Branch Muskoka River Sub-Watershed, and the Lower Muskoka, Indian, Moon, Musquash, and Gibson River Sub-Watershed. The Muskoka River Watershed's annual precipitation is more than 1 meter (1,000 mm.) making it one of the wettest areas in Ontario.

Fairy Lake is located within the North Branch Muskoka River sub-watershed and drains directly into the North Branch of the Muskoka River to the south. Most inflow to the lake originates from two sources: the Muskoka River North Branch from Hunter's Bay to the west which includes inflow from Lake Vernon and the Big East River, and the canal from Peninsula Lake to the east (Map 1).

The immediate drainage area of Fairy Lake is shown on Map 5. It comprises an area of 46.6 sq. km. and constitutes a very small portion of the Muskoka River Watershed (about 1 %). The

drainage area includes a major portion of the urban area of Huntsville, the Hwy. 60 corridor running along the lake's northern boundary, and farmland and forested areas to the south.

Map 5 - Fairy Lake Drainage Area



The Muskoka Watershed Council was recently formed by the Muskoka Heritage Foundation to make recommendations on water and land management within the entire Muskoka watershed. Through cooperative efforts with its partners, the Muskoka Watershed Council will pursue four primary goals that reflect its underlying principles and will contribute to the sustainability of the watersheds in Muskoka:

- Identify and implement programs to assess and monitor the health of Muskoka watersheds on a regular and on-going basis;
- Develop and implement effective education and public information programs that identify threats to the long-term health of the environment, and increase awareness and understanding of the importance of strengthening the sustainability of Muskoka's watersheds;

- Identify and promote sound land and water use planning that protects Muskoka's watersheds;
- Promote the implementation of activities and best practices that respect the environment and do not damage the resource base of Muskoka.

Observations

- ***Although Fairy Lake constitutes a small fraction of the Muskoka River Watershed, its health and well-being has an immediate impact on those bodies of water downstream of it. Conversely, the lake is directly affected by the condition of lakes and rivers upstream of it.***

- ***Local community groups have become very active in the maintenance of healthy lakes and watersheds. The Lake Associations for Fairy, Vernon and Peninsula have either initiated or have completed a Lake Plan and the Muskoka Watershed Council has initiated a program to protect the health of the Muskoka watershed.***

Recommendations* - *Watershed

3. *All water bodies on the Watershed should be encouraged to develop lake plans.*

4. *All lakes within the Huntsville chain of lakes consisting of Lake Vernon, Fairy Lake, Peninsula Lake, and Mary Lake should collaborate on matters having mutual benefit.*

5. *Local official plans should recognize watershed impacts and development should take into account downstream impacts as well as local impacts.*

6. *The Town of Huntsville should be requested to notify the Fairy Lake Association of applications to amend its Official Plan or Zoning By-laws for major developments within the sub-watershed, particularly those on, or upstream of, the lake.*

7. *The Muskoka Watershed Council should be supported and watershed management should be promoted.*

3.4 Water Levels

Current water management of the Muskoka River system currently focuses on water flow and levels for the following activities:

- Water sports and navigation, which need high, stable water levels;
- Nine hydro-electric generating plants on the system, for which a steady flow is desirable for best operation;
- Spring run-off, which requires lake levels to be lowered in the spring; and
- Lake trout propagation, which is enhanced by ensuring water levels do not drop after eggs are laid in the fall.

The theoretical and potential water level fluctuations from Oct. 15 – Mar. 31, are 0.25 m. and 0.55 m., respectively. The extremes of the normal operating range are 0.50 m and 0.73 m, respectively.

For each major lake and river channel in the system, the Ministry directs the operation of the twenty-five dams in the Muskoka River System to regulate water levels. MNR follows operating plans that make use of a series of zones of operation reflecting low, optimal, and high water levels. The zones take into account the changing water level priorities during the year and are used as benchmarks for comparison with actual levels. There are approximately eight dams upstream of Fairy Lake (none involve the production of hydro-electricity).

The Fairy Lake Dam and Navigational Locks were constructed in the Community of The Locks at the lake's southern outlet to the North Branch of the Muskoka River, beside the Brunel Locks in 1877 to manage water levels for steamboat navigation. In 1940, the Ontario Government and Ontario Hydro (now Ontario Power Generation) signed the Hackner-Holden Agreement in order to formalize the control of lake levels and river flows within the Muskoka River drainage area for the purposes of navigation. While this agreement was amended in 1969 it still forms the basis for managing water levels on the Huntsville Lakes. The Hackner Holden Agreement indicates that:

> "The draw down period on Vernon, Fairy and Peninsula Lakes, shall begin December 1 and proceed steadily downward to the allowable "Hackner Holden" minimum levels by March 15. In accordance with the request of Fish and Wildlife Branch Department of Lands and Forests, in interests of trout propagation, the water level of Vernon, Fairy and Peninsula Lakes shall not be lowered more than 1.5 ft below the level that existed in the lake on October 15, before March 1 following."

The Ontario Ministry of Natural Resources controls the water level in Fairy Lake through adjustments to the height of Fairy Lake Dam. The MNR rule curve showing the 2002 optimum level, high and low operating levels, and level of concern, for Huntsville Lakes, which include Peninsula Lake, Fairy Lake, and Lake Vernon, as measured at Huntsville Dam, is shown in Figure 5. No public notice is given for controlled adjustments in water level, although high water level warnings are issued in the event of flooding.

Observations

- ***Water levels in the Watershed are controlled by MNR through several dams on the system.***

- ***Warnings are issued on increases in levels that could cause flooding.***

Insert Figure 5 Rule Curve for Huntsville Lakes.

- ***MNR regulation of the Fairy Lake water level often causes a decline to an unsafe level at points that were previously navigable. There is currently no notice provided when these drawdowns occur, which has resulted in damage to boats.***

Recommendations – Water Levels

8. The MNR should be requested to establish a system of notifying the public when the water level in Fairy Lake is routinely lowered in the fall.

3.5 Access

Vehicle access to Fairy Lake is gained from secondary roads off Muskoka Rd. 2 to the west and Highway #60 to the north. Road networks around the lake are shown on Map 6. There are two direct public boat access points on Fairy Lake. One is a concrete ramp at Muskoka Heritage Place, and the second is a natural ramp in The Locks on Muskoka River North beside Brunel Rd. There is also a private ramp at Huntsville Marine. Boat access to Fairy Lake can also be gained indirectly from ramps located on the other three lakes in the chain (e.g. Avery Beach in Hunters Bay, Kinsmen Beach on Lake Vernon, and a municipal ramp on Peninsula Lake beside Tally Ho).

Observations

- ***There are two public boat launch ramps on Fairy Lake, plus one at a commercial marine. There are numerous other launch ramps located on the connecting lakes. Waterfront parkland is limited.***

- ***There is good access to properties on the east, north and west sides of the lake.***

- ***There is not good access to properties on the south side of the lake.***

Recommendations – Access

9. The Town of Huntsville should give emphasis to retaining and improving existing public access sites and creating more sites where feasible.

3.6 Ownership

Land in the Fairy Lake watershed and along the shoreline is mainly privately owned, except for lands owned by the Town of Huntsville at Muskoka Heritage Place, five very small residential parks and some small areas of wetland (See Map 7 in Section 4.2). Shoreline frontage for Town-owned parkland is 738 ft., which is less than 1% of the total shoreline. Land under water on Fairy Lake is owned by the Ontario Ministry of Natural Resources, except for some very narrow strips of underwater land connected to shoreline lots that are privately owned.

Insert Map 6 – Road Network and Urban Boundaries

Observations

- ***Shoreline maintenance and improvement is mainly in the hands of individual property owners.***

Recommendations* – *Ownership

10. A stewardship program to encourage and educate property owners on the maintenance and restoration of shorelines should be introduced.

Section 4 Social Elements

4.1 Boating

Boating is the most popular recreational activity on Fairy Lake, with over 90% of resident survey respondents citing it as their number one activity. All types of vessels can be seen on the lake, from non-motorized boats, such as kayaks and canoes, to large inboard motorboats. Each household on the lake has about 3 boats (See Figure 6).

Figure 6 – Boats on Fairy Lake

Type	*Number*	*% Total*	*% Households*	*# / Household*
Non-Motorized	187	62.7	80.9	1.8
Motorized	111	37.3	76.1	1.1
Total	298	100	100	2.9

Source – Fairy Lake Resident Survey, 2000

Boating is a very popular activity and there are several issues that could potentially impact the lake and its residents, such as safety, speed, reckless operation, closeness of boats and water-skiers to swimmers and small vessels like canoes and kayaks. There are also potential environmental concerns, which include damage to shorelines and wildlife habitat, particularly bird nesting areas and fish spawning grounds. There is also the potential of wake damage to property, docks and docked boats, and increased noise from the vessel's engines and occupants of the boats.

In general, the residents of Fairy Lake are quite fortunate in that there seem to be a low number of concerns or issues concerning conventional boating. A meeting with Constable Harry Rawluk of the Huntsville O.P.P. has revealed that there are very few complaints registered each year regarding many of the problems that daunt other lakes in the area. It is believed that because this lake has more permanent than seasonal residents, the kinds of issues that plague lakes dedicated to "vacationers" are not present on Fairy Lake. Boaters on Fairy Lake tend to be law abiding and respectful of all other water users. Complaints regarding noise and speed in the open waterway are rare and the incidence of drinking and driving also seems to be low on this lake.

The fireworks display at Deerhurst on the Canada Day weekend, however, is a noteworthy problem. Congestion in the canal, wakes and noise concerns are raised on an annual basis. In order to deal with this situation, the O.P.P. has a very strong presence and tries to avert problems before they start. The annual Bass Tournament is also a concern. Participants tend to stay out on the lakes as long as possible, then rush back in order to meet the deadline. This results in several complaints about speeding and damaging wakes.

Personal Water Craft (PWC)

The operation of Personal Watercraft (PWC) is the greatest boating concern of shoreline residents. In the September 2000 Resident Survey (Appendix 1), the most requested improvement desired by residents was to ban personal watercraft (PWC). Survey respondents also noted PWC operation as a source of increased noise.

PWC's are very unpopular, not only on Fairy Lake but on many waterbodies across North America. Some states in the USA have banned them. Their two-cycle engine is noisy and pollutes the water with oil, and only recently have manufacturers responded by introducing engines with reduced emissions and noise.

The main concern appears to be with the uncaring attitude of a limited number of PWC operators that causes all of them to be branded as irresponsible. Most boaters have witnessed unsafe PWC operation such as near-shore speeding, erratic maneuvering, jumping wakes (even with children on board), and have suffered intentional sprays from operators who take juvenile delight in doing so. Efforts at educating operators on appropriate, responsible operation have not been successful and it is not surprising that PWC's are unwelcome on Fairy Lake by many residents.

In 2001 Senator Mira Spivak introduced Bill S-26 (now Bill S-10), The Personal Watercraft Act, in the Senate, and it still is being processed. Bill S-10 would require the Minister of Fisheries and Oceans to restrict PWC's wherever local authorities find they cause excessive problems. Restrictions could take the form of limiting hours, setting speed limits, or outright bans. The Federation of Ontario Cottagers Associations Inc. (FOCA) has given its endorsement to the Bill.

Speed

Speed along the river and canal appears to be a serious boating concern on Fairy Lake and the waterways are posted with signage restricting speed to 10 km/hr. There is also a 10 km/hr speed restriction for all vessels within 30 meters of the shoreline. These speed restrictions should eliminate wakes from most boats, but signs are often ignored and the size and weight of different vessels makes a significant difference in the size of the wake. For example, a small aluminum boat moving at 10 km/hr would produce a wake significantly smaller than a large inboard boat moving at the same speed.

The environmental impacts of excessive boat speeds can be large and can have long term or permanent negative effects on wildlife and vegetation. Erosion of the shoreline not only has negative visual impacts, but this along with propeller driven boats venturing into shallow waters increases turbidity and damages weed beds, resulting in the loss of fish habitat. Disturbance of nesting waterfowl is also a problem, resulting in brood loss. The long-term effects are a reduction in fish because of loss of habitat, which means reduced food supply for waterfowl. Eventually this may result in a reduction of the local wildlife population.

In most cases speeders are long gone by the time the police are on the scene so it is necessary to educate the public about how to assist with community based policing. It is imperative that serial

numbers and descriptions of the drivers of the offending vessels be recorded. Eyewitnesses would have to be willing to testify in court and video recordings are extremely useful as evidence.

Navigation Aids

While the Ministry of Natural Resources has produced a lake bottom contour map, there is no Canadian Hydrographic Service nautical chart for Fairy lake. For safe navigation on the lake, therefore, boaters are dependent on the general depth contours shown on the contour map and their own familiarity with the lake's features and navigation aids. Shoals and other hazards must be learned through word of mouth or direct experience.

Running aground is not an infrequent experience for boaters on Fairy Lake. The docking area for boats waiting at the southbound approach to the Brunel locks has insufficient depth for some boats. In the fall, no notice is given of the lowering of the water level, and areas where sufficient water depths were formerly found are no longer safe (e.g., the public dock at Muskoka Heritage Place).

There are channel markers at the entrance to the canal and at the Muskoka River North Branch where it enters the lake. The markers consist of red and green barrels, placed in the spring and removed in the fall by volunteers of the Fairy Lake Association.

There are also speed signs identifying a 10 km/hr speed limit in the Muskoka River North Branch, the Canal, and the bay at Grandview Resort. These are positioned as follows (Figure 7):

Figure 7 - Location of 10 km/hr Speed Signs

North Branch Muskoka River	Entrance to lake	Sign on north side
	Exit from lake	Sign on both sides
	Brunel Rd. Bridge	Sign on west side
Canal	East entrance	Sign on south side
	West entrance	Sign on both sides
	½ distance	Sign on south side
	Canal Rd. Bridge	Sign on north side
Cookson Bay (Grandview Bay) Entrance		Sign on both sides

While it may be of little significance, none of the above speed signs are mounted at a height greater than 6' from the water, as specified in the Navigation Act. "No Wake" signs have also been mounted to protect shorelines and moored boats at the east and west entrance to the Canal. Boaters are given notice of a hazardous area by a warning sign mounted at the southbound approach to the Brunel locks, which reads, "Fast water, proceed with caution".

Enforcement and Regulations

Fairy Lake is divided into 3 distinct policing zones, which makes response time to police calls extremely prompt. A police boat is kept at Huntsville Marina between May and October to patrol all four lakes. The patrol boat is on the water several times per week and is manned by a trained marine police officer and a summer student. During heavy boating periods such as the July long weekend or the Bass Tournament, another boat is brought in from Lake of Bays to assist.

On a typical shift, between 25 and 35 boats are stopped and inspected and half of those are issued warnings for equipment violations (e.g. insufficient number of life jackets). During a grace period, very few actual charges were laid, although regulations are now more strictly enforced. There is a web site available to get regular updates on crime within the immediate area at www.crimealerts.net. Huntsville information is posted in the Central zone.

Over the next several years, implementation of the new Operator Competency Regulations should help to remind boaters of speed and safety restrictions. Until recently there was no required training and certification program for boat operators, so boaters were uneducated about safety regulations and even the meaning of signage.

Operator Competency Regulations are now in effect for powered recreational vessel operators. Since 1999, any operator under the age of 16 was required to have an Operator Efficiency Card. As of September 15/2002 all operators of powered recreational vessels under 4 meters or 13.1 ft, regardless of age, must be certified. The final phase of this legislation comes into effect September 15, 2009 at which time all powered recreational vessel operators must have a competency card.

There are courses available through the Canadian Power and Sail Squadron and the Canadian Coast Guard. These are available several times throughout the year at Canadian Tire and other locations around town. Information is available on the web sites www.ccg-gcc.gc.ca and www.cps-ecp.ca or by calling the Boating Safety Information Line at 1-800-267-6687.

Observations

- ***PWC's on the lake are unpopular and considered undesirable by many residents.***
- ***There are several stretches of natural shoreline along the waterways that provide breeding habitat for both fish and waterfowl. Excessive speed can cause damaging wakes and noise disturbance threatening wildlife populations.***
- ***Damaging wakes can cause shoreline erosion and therefore property damage to both the landscape and personal property such as docks and docked boats.***
- ***Fairy Lake is primarily year-round residential and persons living in the area are generally respectful of other water users***

- ***Excessive speed and boat wakes should be discouraged in the canal and river as these areas are the most environmentally sensitive***

<u>Recommendations</u> - Boating

11. *The Association should continue to support community based policing to enforce speed control in order to minimize boat wakes in the channels. Safe boating practices should be encouraged by all of those who use the lake, including non-residents and visitors. This can be promoted through signage at boat ramps, newsletters, and other means of communication.*

12. *Signage should be posted in order to raise awareness of wildlife habitat. Boaters may be encouraged to reduce speed and noise levels in the waterways if they have prior warning of nesting areas.*

13. *Organizers of the Bass Tournament must be encouraged to enforce the speed limits marked in the waterways. Participants who are caught speeding should be fined, disqualified and prevented from participating in future events.*

14. *Those attending the fireworks display at Deerhurst or any other event that significantly increases the number of boats on the water should be encouraged through newsletters and signage to be particularly aware of speed restrictions and safety issues.*

15. *Increased enforcement should be conducted for high traffic events such as, Deerhurst Fireworks and Bass Tournaments.*

16. *The Lake Association should encourage all boaters to become certified operators by notifying members of the dates and times of the programs available, and by making members aware of the information website and telephone line.*

17. *In order to educate boat owners about safety requirements, the Fairy Lake Association should encourage and assist the O.P.P. to continue to operate courtesy vessel inspections on an annual basis. A program could be offered where boaters could go to a determined location for a free inspection of safety equipment without the risk of being charged for infractions.*

18. *Signs should be posted to indicate low levels at the public docks, at the Locks and Muskoka Heritage Place.*

    - *Environment Minister David Anderson: Room 133, East Block, House of Commons, Ottawa, Ontario K1A 0A6 <u>Anderson.D@parl.gc.ca</u>*

19. *The feasibility of having an official nautical chart prepared for the Lake should be investigated.*

20. *'No wake' signs be erected on Fairy Lake, and used in conjunction with the legislated speed signage.*

21. *The Association should support Bill S-10, The Personal Watercraft Act, and other agencies should be approached to do so. Agencies and individual residents can show support by sending a message to:*
    - *Senator Mira Spivak: The Senate of Canada, Ottawa, Ontario K1A 0A4 spivam@sen.parl.gc.can*
    - *Fisheries Minister Herb Dhaliwal: Room 121, East Block, House of Commons, Ottawa, Ontario K11 0A6 Min@dfo-mpo.cg.ca*
    - *Environment Minister David Anderson: Room 133, East Block, House of Commons, Ottawa, Ontario K1A 0A6 Min@dfo-mpo.cg.ca*

4.2 Social Cultural and Historic Sites

Fairy Lake has undergone numerous changes over the years, from its discovery as a remote fishing and hunting paradise, to the days after the Land Grants of 1868 when the area was mainly agricultural. Later it developed into a resort and logging area, and finally to its present day status as a year round residential community. One aspect that has not changed is the breathtakingly beautiful scenery that surrounds this lake. The rocky shoreline, majestic trees and cobalt blue waters remain timeless in their beauty. The first glimpse of the lake as one drives along Highway 60 is a sight that is not soon forgotten. As residents and stakeholders interested in preserving this beauty, we must take steps to safeguard these vistas by ensuring that the natural cover is maintained, shoreline to tree line, from deterioration and over development.

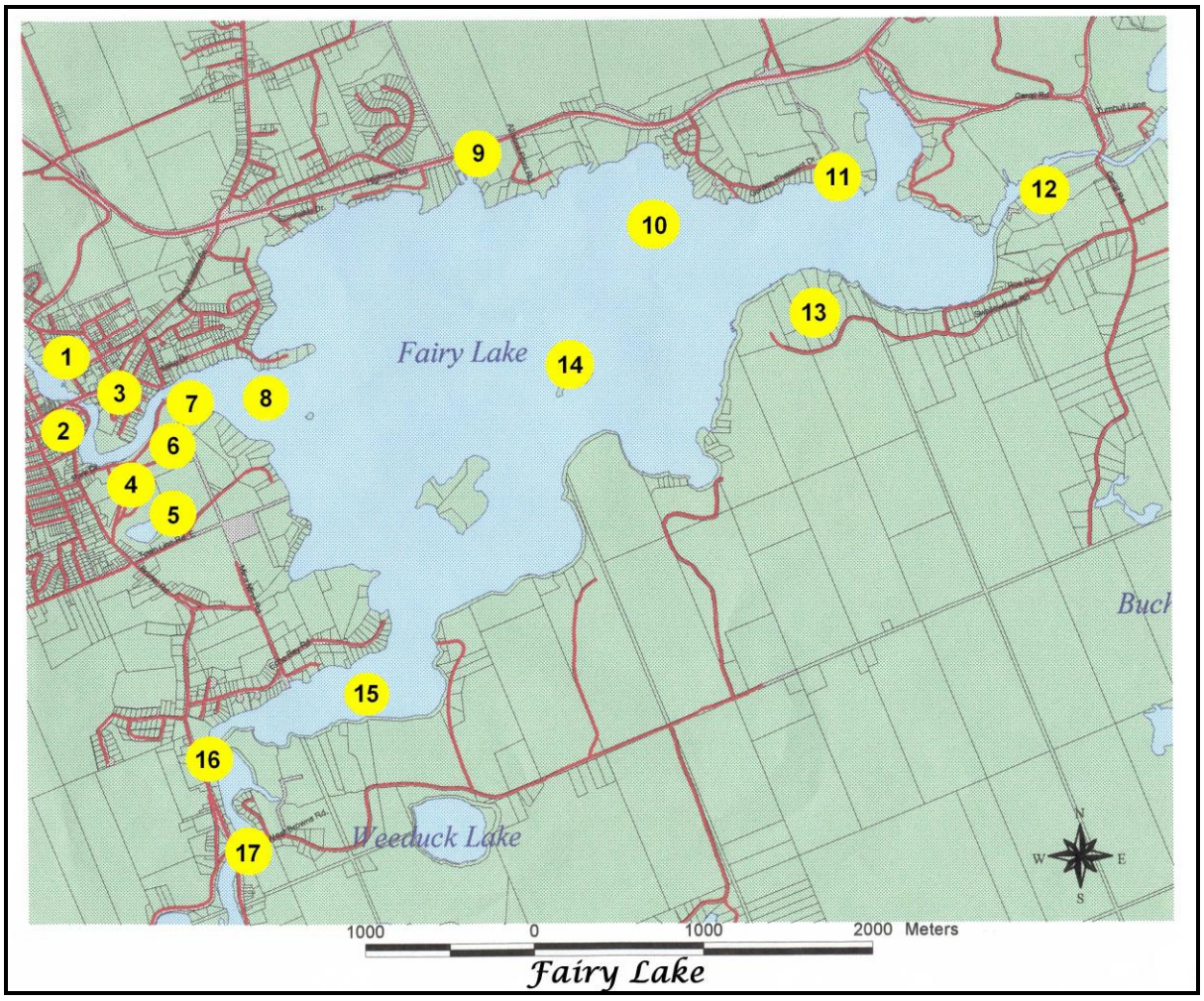
Many of the residents who now live here full time started out as cottagers. Traditional cottages have been renovated to accommodate year round use and new homes and condos have been built on once vacant or agricultural land. The result is that nearly 62% of those who own shoreline property are year round residents, and most original resorts have been developed or severed into several lots being used for either permanent or seasonal residences.

Grandview is an example of one resort that is still thriving today. Started in 1910 as a means to supplement the income of the struggling farmers who owned it, Grandview has grown to its present status with a conference centre, condos, recreation facilities and a world-class golf course. Some of the original buildings are still in use like the barn on Hwy 60 that houses the resort's administrative offices and the lakeside restaurant that once served as the boathouse. Other locations with historical significance are Swallowdale Camp, originally a private home that was turned into a resort by its owners, who were unable to make a living from farming. Haverland Resort operated until the 1930s when the resort was converted to a children's camp.

Steam ships played a huge part in the development of not only Fairy Lake but the entire town of Huntsville. They brought tourists from the train station in town to the resorts on the various lakes. 'The Northern', the first steam ship put into operation on the lakes is sunk just off the shore at the mouth of the river at Memorial Park.

Although most of the shoreline around the lake has been developed for private use, there are several sights that would be of interest to not only visitors but to residents as well. These are outlined on Map 7.

Map 7 Points of Interest



Points of Interest on Fairy Lake

1. The Main Street Bridge over the Muskoka River in the center of Huntsville's historic downtown core is on the Ontario Heritage Board's List as one of the eleven remaining swing bridges in the province. The current structure was built in 1938. The bridge separates Fairy Lake from Hunter's Bay and eventually Lake Vernon.

2. All Saint's Anglican Church was built in 1895. William Cann, a hunter and trapper built a cabin on this site in 1862. He later sold it to Captain George Hunt, after whom Huntsville is named.

3. Riverside Centennial Park is the home of the "Sugar Shack", a small OPP community based policing office built by the town in 1989.

4. Muskoka Heritage Place is a 90 acre site featuring 2 museums, 18 historic buildings, nature trails and a working steam railway. 'The Portage Flyer' is the original steam train that traveled a one mile stretch of land separating Peninsula Lake and Lake of Bays from 1905 and 1959. The railway line was the smallest commercial railway in the world.

5. Huntsville Centennial Center / Jack Bionda Arena offers a hockey arena and swimming pool as well as a full program of fitness classes and recreational opportunities.

6. Public Dock at Muskoka Heritage Place provides boat launching and car parking facilities.

7. Lion's Lookout and Memorial Park provide picnicking opportunities and a wonderful panoramic view of Fairy Lake and the surrounding area. This was the site of the Good Templars Fairy Lake Camp Association, reported as the most outstanding resort area in all of Muskoka.

8. The first steamer "Northern" is sunk off shore. Launched and built in Port Sydney, the Northern could carry 200 passengers & freight. It was in service for 20 yrs, from 1877-97.

9. Huntsville Marine.Is the only marina on Fairy Lake and offers commercial access to the lake.

10. One Tree Island was named for the one tree that grew there until the 1960's when pranksters cut it down. Re-growth is in progress.

11. Grandview Inn has a long history on the lake. The 28-room hotel first known as Grandview Farm began operation in 1910. Some of the original buildings are still in use, like the boathouse that has been converted to a lakeside restaurant. Today the resort includes beautiful condos, recreation and sports, as well as conference facilities and 2 golf courses.

12. Canal was originally Peninsula Creek. Construction of the canal began in 1886 and was completed in 1889 connecting Peninsula Lake and Fairy Lake. It is 4,612 feet long and has an average depth of about 6' at low water.

13. Camp Swallowdale was originally Haverland Resort, built in 1904. The resort ceased operation in the late 1930's and Swallowdale started to operate as a children's summer camp in 1944.

14. Snake and Rock Islands were called "Twin Sisters" by the local Indians because they believed that 2 sisters who died after an illness are buried there, one on each island.

15. The mouth of the North Muskoka River leads to Mary Lake.

16. Steam Yacht Boathouse is an imposing structure that was built by Cameron Peck, owner of a fleet of steam yachts.

17. Brunel Locks were built between 1873 and 1876. It lowers and raises boats between elevations of 931 ft to 921 ft. The locks are surrounded by parkland that provides picnicking and recreational opportunities.

Observations:

- ***Fairy Lake is a primarily year round residential area. Many cottages have been converted to full time residences and new housing development continues. This type of growth puts pressure on existing services and raises concern about maintaining the natural character associated with 'cottage country'.***

- ***There are many local historical, cultural and public sites that add to the quality of life on Fairy Lake***

Recommendations* – *Social, Cultural and Historic Sites

22. Important historical and cultural sites must be identified and protected from incompatible development.

4.3 Landscapes and Aesthetics

The Town of Huntsville surrounds Fairy Lake. Due to this, several important factors must be considered in order to protect the social and recreational values of the lake. It is, after all, the lakes that make this area so attractive to visitors and is the reason for the success of the tourist industry that is so vital to our local economy.

Fairy Lake has two distinct character areas. The west and north shores are predominantly urban and the remaining eastern and southern shores are rural in nature. Two of the truly outstanding qualities of Fairy Lake are the rolling hillsides that surround it, and the natural shoreline. Both of these elements can be hugely impacted and forever changed by continued development. It is an interesting and unfortunate fact that those living on the most natural shores of the lake are forced to view the development along Highway 60 with its bright traffic lights and business signs while those living with the noise generated from those activities enjoy the natural view on the other side of the lake but do not see the development behind them. It is difficult, if not impossible, to undo the damage that has been done to the viewscape but we must ensure that the natural character of the lake is not lost by the removal of vegetation to allow for construction and the erection of buildings that interrupt the shoreline and the horizon

The natural beauty of the area is what brought many of us to Fairy Lake, with its rugged natural shoreline and uninterrupted tree line. These aesthetic values are difficult to control, however, it is important to note that every individual has their own concept of beauty. While some prefer natural vegetation along the shore, others prefer a park-like setting with manicured lawns. Natural

shorelines help to ensure the health of both plant and wildlife and do not require regular maintenance. The end result is a quieter and healthier environment.

When planning to build, many individuals bring 'city values' to the area. What may appear as offensive and unnatural to some, like high profile structures that stretch above the horizon, may be considered beautiful to others. In addition, the growth of business along the busy Hwy 60 corridor has huge and often detrimental impacts on the lake, although they have economic benefits to the region.

The entire northern shore of Fairy Lake immediately abuts Hwy 60 and creates concerns that are unique, not only to lake residents but even to the rest of the Huntsville area. The heavy traffic flow gives rise to issues such as congestion, air pollution and runoff; while the highway itself creates the kinds of problems associated with major urban arteries, (e.g. light and noise pollution).

Also, the lake's proximity to one of the world's most famous recreation areas and animal sanctuaries (Algonquin Park) is something to celebrate and, at the same time, a reason for concern. Huntsville has been called 'The Gateway to Algonquin Park', which is a delightful moniker that, unfortunately, has a hefty price. The increased traffic during the summer months is not just the result of heavier personal vehicle use by vacationers traveling into the park. The need for supplies to local businesses results in additional truck traffic and the increased population means more emergency vehicles. In fact, the influx of visitors combined with the return of seasonal residents causes the population in the immediate area to be almost 5 times higher during the summer months.

The expansion of business and high density housing along the Highway 60 corridor will continue. The proposed development at the corner of Hwy 60 and Hwy 11 is likely just the beginning. The development plan for the town of Huntsville includes major development within close proximity to the lake. The plan calls for extensive housing development on the Muskoka Road 3 corridor and along Highway 60. The view corridor is at risk if the natural tree cover is not maintained.

Observations:

- ***Fairy Lake has retained its natural beauty on its south shore but not on its north shore.***

- ***More development can be expected on both the north and south shores.***

Recommendations* – *Landscapes and Aesthetics

23. Ensure large profile development does not occur on heights of land or in scenic areas and that boathouses are prohibited or restricted. Maintaining a sense of the 'character of Muskoka' must be encouraged through education and local planning practices.

24. Shoreline preservation or restoration should be encouraged.

4.4 Noise

Over the past several summers the noise levels on Fairy Lake have reached an all time high. As Huntsville continues to grow, the sounds of construction equipment can be expected during the summer months. Although construction activity is usually restricted to weekdays, the weekends offer little respite as the volume of traffic on the Hwy. 60 corridor increases significantly.

The location of the hospital at Highway 60 and Muskoka Rd. 3 makes it easily accessible, but the impact on residents in the immediate vicinity is significant. Ambulances and helicopters operate day and night transporting patients to and from the hospital.

Because the lake is so heavily used during the summer months, boat traffic and most particularly jet skis add to the background noise. In winter, snowmobiles run down the length of the lake, but these are less offensive as most residents are indoors with their windows closed.

Many of the homes along the shoreline have cleared natural vegetation resulting in the need for lawn mowers, weed eaters and leaf blowers. The lack of trees to absorb sound means that the opportunity for noise trespass is increased. The sound of a stereo being played on a deck or unnatural noise like the rattle of wind chimes can be heard from great distances, especially across water where there are no barriers to sound.

In addition, Huntsville seems to have more than it's share of antique vehicle enthusiasts. Every Wednesday evening through the summer these individuals gather, with their cars, in the parking lot of Canadian Tire. The result is excessive noise not only during these events, but as they leave the parking lot at the end of the evening. 'Boom cars' echo their stereos from blocks away and squealing tires are reminiscent of the 1950's. The summer is also the time for motorcycles and these can be heard approaching along Hwy 60 for great distances. Also, the sound of trucks is constant. Anyone close to Robinson's Independent Grocer or Canadian Tire can attest to the sound of back-up warnings all night long. Trains run through town several times per day as well, blowing their whistles at every crossing.

At the time of year when people want to have their windows open wide, the noise can be almost overwhelming. To look out upon the lake one would believe that they were located in a pristine wilderness, yet lake residents must endure an urban soundscape.

The Town of Huntsville has in effect By-law 95–20, "A By-law to Control Noise", which was prescribed by the Ministry of Environment and is well formulated. The By-law contains noise prohibitions that are suitable for property on Fairy Lake except for those properties zoned RU1 or RU2, where it allows at any time during the day the following:

- The operation of any motorized conveyance other than on a highway or authorized snowmobile trail (this includes boats),
- Persistent barking, whining or other similar pet noises,

- The operation of powered or non-powered tools,
- The operation of solid waste equipment.

Observations:

- ***The Town of Huntsville has a Noise Control By-law, but it does not adequately cover property in the rural area.***

- ***Noise concerns result from the location of the hospital, and businesses near the lake. Heavy trucks gearing down on the Highway and back-up warnings are of particular concern. Events like the antique car rallies held at Canadian Tire during the summer months are noisy due to loud stereos and squealing tires.***

- ***The removal of natural vegetation along the shoreline necessitates the use of noisy machinery like lawn mowers, leaf blowers and weed trimmers as well as increases the impact of noise.***

Recommendations - Noise

25. *The Town of Huntsville's Noise Control By-law No. 95–20 should be amended to provide time restrictions on the operation of any motorized conveyance other than on a highway or snowmobile trail, persistent pet noise, powered or non-powered tools, and solid waste equipment in rural zones.*

26. *Sponsors of events taking place in proximity to the lake and the surrounding residential areas must be encouraged to maintain strict guidelines regarding noise impacts on the lake. Participants who do not respect these guidelines should be prohibited from taking part in future events.*

27. *Because the intersection of Highway 60 and Muskoka Rd. 3 is a hospital zone, the Ministry of Transportation should be encouraged to post signage prohibiting trucks from applying air brakes or gearing down, at least during the night time hours.*

4.5 Light

The proximity of Highway 60 and the urban area of Huntsville results in significant negative impacts resulting from light pollution. Not only do residents suffer exhaust, congestion and noise pollution, but light trespass is also a major concern. Huge light standards have been erected along the highway as part of the road widening project undertaken last summer. These lights are extremely bright and the glow from them can be seen for miles. In addition, the proximity of many local businesses to the lake causes unnatural brightness. The Shoppers Drug Mart mall, Canadian Tire, Robinson's Independent Grocer, and Muskoka Landing are just a few of the offenders who over-light their buildings and parking lots during the night hours when the businesses are not operating or the residents are asleep.

Homeowners also do their share to contribute to the lighting problem. The popularity of Noma Moonrays, string, spot and garden lighting of all types adds to the unnatural level of light within the town and around the lake. The need for security lighting at night has been heavily promoted by manufacturers and power distributors alike, but is arguably highly unnecessary in a town like Huntsville.

The brightening of the night sky is a universal problem that continues to grow. Unless some serious initiatives are taken to inform the public as well as business about the effects, not to mention the costs, of wasteful nighttime lighting, viewing the stars at night will become something for the history books. The Town of Huntsville does not have a by-law to control outdoor lighting.

Observations

- ***Excessive lighting along the highway as well as unnecessary night lighting in parking lots and buildings adjacent to the lake and unnecessary residential shoreline lighting is offensive to lake residents and result in reduced visibility of the stars.***

Recommendations - Light

28. New development along the Highway 60 corridor must include intensive impact studies regarding lighting, noise and natural landscapes involving the Town of Huntsville, the Ministry of Natural Resources, the Ministry of Environment and the Lake Association.

29. The town should undertake further study into the effects and costs of excessive night lighting and the establishment of lighting regulations should be encouraged.

30. A communication plan must be implemented by the Association to inform residents and municipal planners of the impacts and benefits of healthy shoreline living as well as provide examples of appropriate lighting techniques.

31. Lighting from Muskoka Landing, Robinson's Y.I.G., Shoppers Drug Mart, Tim Horton's and Muskoka Landing should be dimmed after 10:00 p.m. because of the adverse affect it has on the residents of Fairy Lake. All businesses should be encouraged to dim or turn off neon and other bright lighting after 10:00 pm.

Section 5 Natural Heritage

"***When a natural shoreline is altered, often by well-intentioned projects meant to improve waterfront living, that intricate balance between the creatures, plants, and earth is toppled"***

Shore Primer, DFO

5.1 Shoreline Vegetation Disturbances

"Thanks to thousands of years of practice, natural shores are among the world's most effective, least expensive erosion controls. The mix of plants, shrubs, and trees forms a complex web of roots and foliage that knits the waterfront together, holding the bank in place and fending off the impacts of wind, rain, waves, and boat wake. The bulwark against erosion is the shoreline, the place where land and water meet. In its natural state, the shoreline is a profusion of stones, plants, shrubs, fallen limbs, and tree trunks. But it's also a busy intersection, with animals, insects, and birds traveling back and forth. Moose and deer pick their way down to the water to forage or drink. Mink skulk about on hunting trips. Water birds waddle from their nests to the water. Overhanging vegetation shades and cools the water, and acts as a fast- food outlet for fish by producing a rain of aphids, ants and other insects that slip from their perches above".

Shore Primer, Department of Fisheries and Oceans Canada

The shoreline of Fairy Lake reflects a mixture of results from developed, over developed, full time residential, seasonal residential as well as undeveloped or natural areas. Accordingly, the focus on protection and enhancement of the shoreline will vary depending on the current circumstances for each sector of the lake. If the shoreline is still in a natural state, we must ensure that it remains as such, or if the shoreline has been fully developed we must encourage the return of the shoreline to as natural a state as possible.

Fisheries and Oceans Canada has an excellent publication called, The Shore Primer – A Cottager's Guide to a Healthy Waterfront, that describes basic shoreline protection and rehabilitation procedures.

The study of the shoreline of Fairy Lake will focus on the different sectors of a shoreline.

Littoral Zone This zone is the sector from the water's edge to the area of the lakebed that the sunlight can penetrate to.

Riparian Zone This zone is the area from the water's edge to approximately 10 meters inland.

Upland Zone This is the zone beyond the riparian zone

Although each of these zones provides separate important roles, it needs to be emphasized that a shore is a natural progression with each zone seamlessly transitioning into the next. Alteration of any zone affects the whole thereby diminishing the shore's ability to support life on the lake.

Littoral Zone

The littoral zone is the area that extends from the shoreline to the area where sunlight can penetrate to the lakebed. As we relax on the shore of our properties or on our docks and we gaze down into the near shore waters of the littoral zone, we are looking at the area of a lake where as much as 90% of lake species either pass through or live. This area acts as a nursery, daycare and cafeteria for these species, offering the nutrient-rich, warm, protected waters required for fish and amphibians to grow. American Blacks, Mallards and many migrating northern ducks forage in this zone for the vegetation required for their diets.

"The simplest way to keep the littoral zone vibrant and healthy is to tinker with it as little as possible."
Shore Primer, Department of Fisheries and Oceans Canada

Aquatic plants in the littoral zone act as the lungs of a lake, converting sunlight into food and releasing oxygen in the process. The surface of submerged wood is covered with tiny plants and invertebrates, thereby becoming a diner for turtles, crayfish and small fish. Rocks, as with the submerged wood, provide a surface to which plants, invertebrates and algae adhere. Stones and rocks in a lake provide protection for spawning and incubation of fish and amphibians. Nutrients such as calcium, nitrogen and phosphorus that are vital to the health of aquatic plants, fish and amphibians are released from the rocks in and around a lake. It is this rich diversity of habitat and food sources that provides for the abundance of fish and wildlife.

The littoral zone in Fairy Lake has unfortunately been subjected to too many disturbances over the past century and the alteration of this essential lake area continues to have a negative impact. Each log, rock or plant removed, or each request for "a small variance", may seem insignificant; however, the cumulative effect of hundreds of these small occurrences is significant.

The Cornelisse/Evans study, *Effects of Land Use on the Aquatic Ecosystem (1994-1998),* conducted an inventory of woody debris of over 5 cm thick in the littoral zone of Fairy Lake. Figure 8 clearly shows that undeveloped areas have 5 times as much substrate diversity than developed areas.

Figure 8 - Substrate Cover Fairy Lake

Site	*Km Surveyed*	*Pieces of Wood/km*
Undeveloped	2.427	146
Developed	4.337	28

Source: Effects of Land Use on The Aquatic Ecosystem

This study, which covered approximately 29% of the shoreline of Fairy Lake, shows the dramatic loss of a significant portion of the valuable fish, duck and amphibian habitat from Fairy Lake.

One of the major contributors to the loss of natural littoral shoreline is construction of boathouses and docks, and the removal of substrate for swimming and boating around these areas. In the Cornelisse/Evans study, they noted that a boathouse or dock occurred every 61 meters in Fairy Lake. They noted that boathouses and crib docks were the most prevalent structures. A resident survey conducted by the Fairy Lake Association showed over two-thirds of docks on the lake were crib docks. Floating and pipe docks are highly recommended alternatives to crib docks, as they are much easier on the aquatic environment.

Riparian Zone

The combination of trees, shrubs and grasses along the natural shoreline that makes up the riparian zone of the lake forms a natural buffer that helps to filter out undesirables such as fertilizers, excess phosphorus and sediment from entering a lake. As the riparian zone extends to ten metres back from the shoreline the thick layer of foliage controls erosion and sifts impurities out of surface runoff. As well as being a valuable filter, the riparian zone is also a refuge for wildlife including water birds for both nesting and feeding and animals that visit the lake for their daily intake of water. Vegetation, which overhangs the near shore waters, provides shade, windbreaks, insects and woody debris for the littoral zone. There is a significant relationship between the woody debris in the lake waters and the amount of riparian tree density.

In a 1994 report by D. O. Evans (OMNR, Trent University, Peterborough, unpublished data) the amount of vegetation disturbance was studied for Fairy Lake (See Figure 9). Vegetation disturbances included lawns, non-vegetated areas, cultivated land, and impermeable surfaces such as paved areas. It is likely that development since the 1994 study date would show further reduction of undisturbed land.

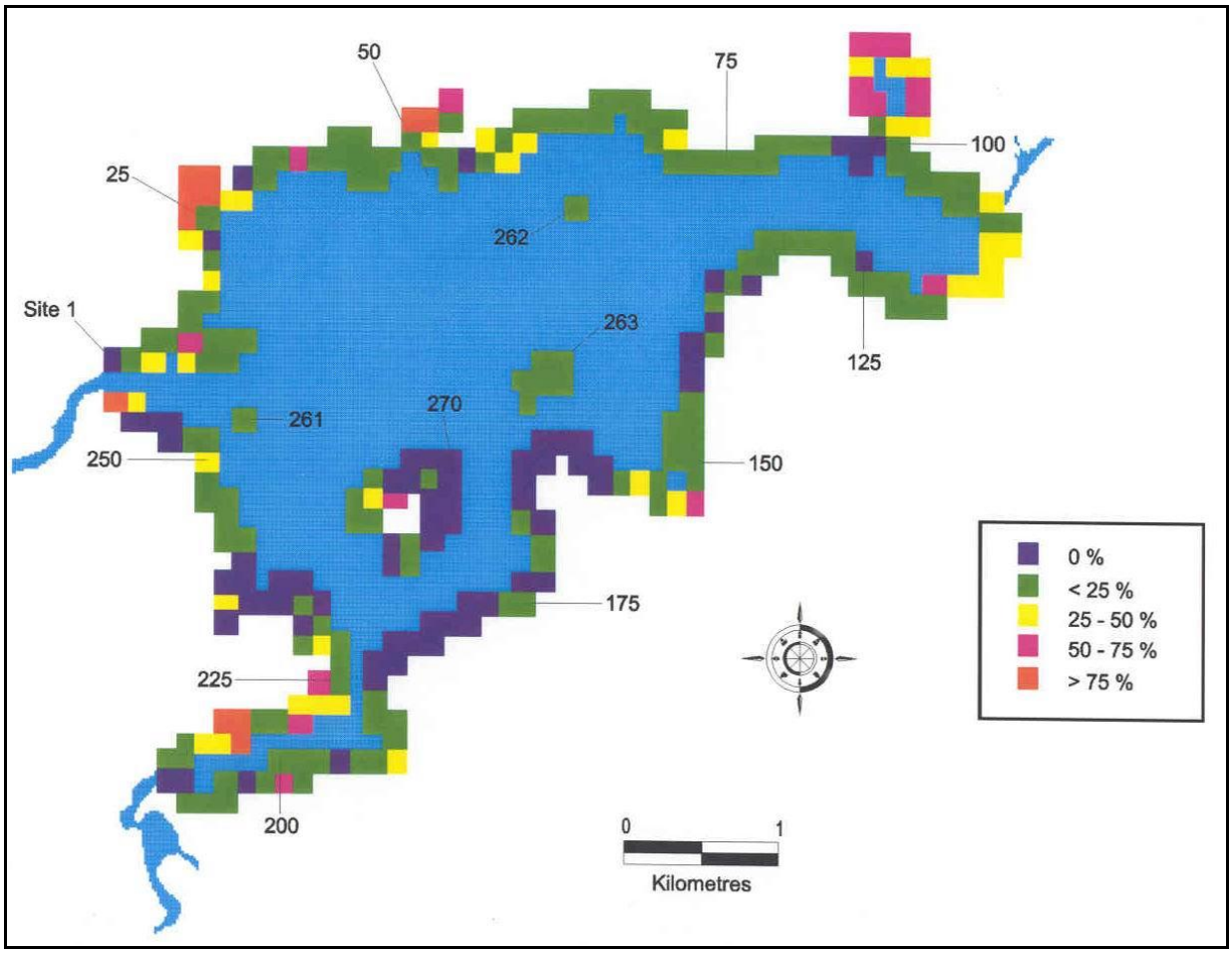
Shoreline disturbances in the riparian and upland zones for Fairy Lake as detailed in the 1994 report are shown in figure 9 and Maps 8 and 9.

Figure 9 – Vegetation Disturbance of Riparian and Upland Areas

	% of area disturbed	
Disturbance Category	**Riparian**	**Upland**
Zero (0 % disturbance)	42 %	27 %
Low (0 to 25% disturbed)	37 %	21 %
Moderate (25% to 50% disturbed)	12 %	29 %
High (50 to 75% disturbed)	6 %	12 %
Extreme (Over 75% disturbed)	3%	11 %

Source – The Fairy Peninsula Lake Study, 1994, Cornelisse and Evans

Map 8 – Riparian Vegetation Disturbance



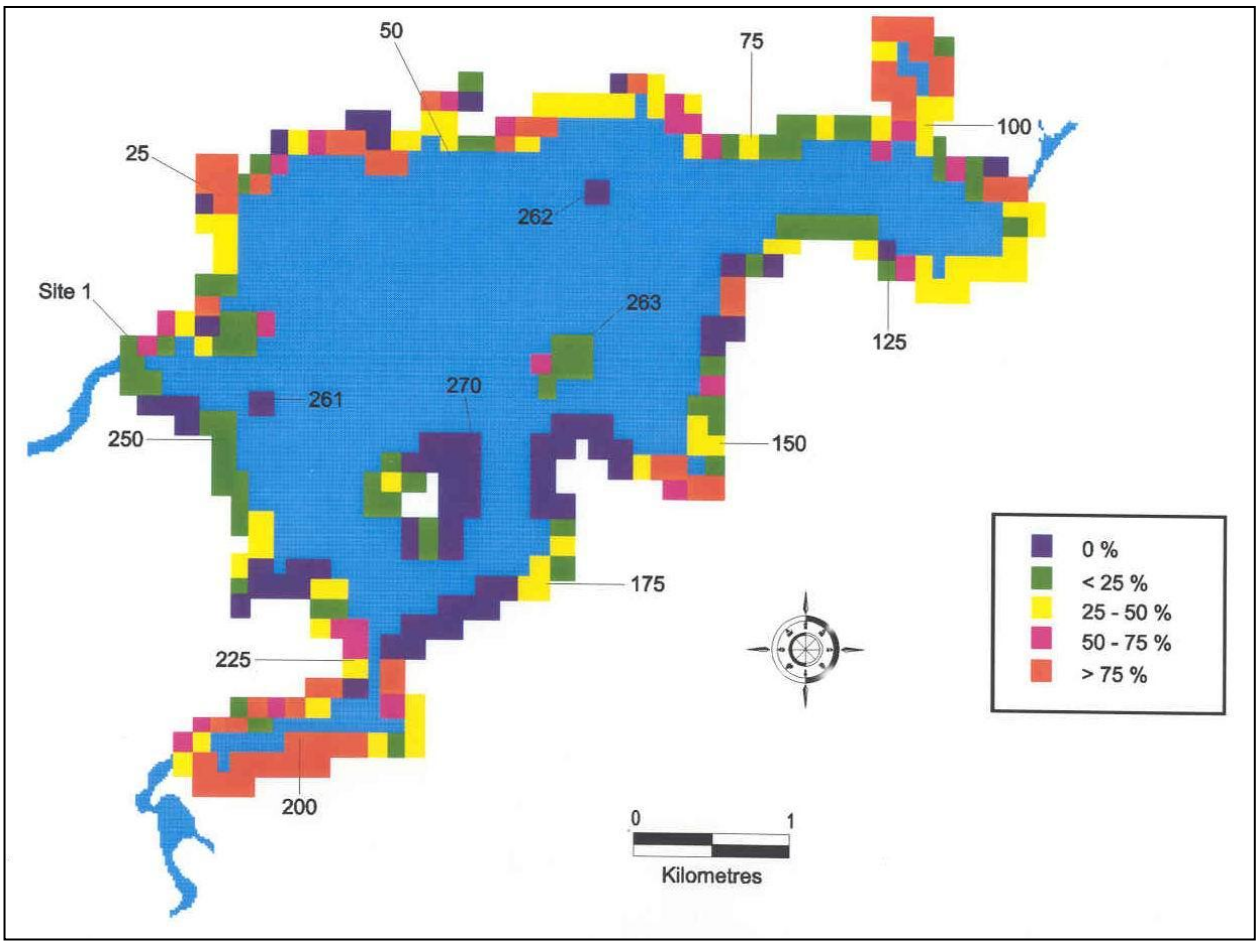
Source: The Fairy And Peninsula Lake Study, 1994 – 1998, Cornelisse and Evans

Upland Zone

The upland zone is that area of a lake's shoreline that is beyond the riparian zone. This area is typically forested with trees that take advantage of better drainage than those found in the riparian zone. The majority of trees found in this zone on Fairy Lake include maples, pines, spruce, popular, hemlocks and birch. The deeper roots of these trees provide stability to the shoreline. Their dense foliage buffers the shore from winds while the forest canopy cools the area with its shade and boosts the humidity around the lake. This zone provides shelter for wildlife including; deer, fox, squirrels and chipmunks and home for a great variety of birds. Another healthy effect of the upland and riparian zones is the filtering of an estimated 90 % of run-off from winter snow and rains before it enters the lake. This filtering is important to ensure that silt and sediments from shoreline development do not reach the lake.

The effects of development in this zone have been greater in terms of change than has occurred in the Riparian Zone. Higher density development, which has increased lot coverage and intensity of use, results in forested areas receiving a more severe impact than would be felt with lower density development. The area of greatest risk and concern would be the land along the Highway 60 corridor. These effects were noted in the 1994 D. O Evans study and there has been further loss of forest area along that stretch during the past nine years since the study was completed. Map 9 shows the disturbance noted in the 1994 Evans report.

Map 9 – Upland Vegetation Disturbance



Source: The Fairy And Peninsula Lake Study, 1994 – 1998, Cornelisse and Evans

Observations

- ***The Littoral, Riparian and Upland shoreline zones on Fairy Lake have experienced loss of vegetation and valuable habitat. The loss of habitat is particularly noticeable on the shoreline of developed (urban) properties.***

***Recommendations* – Shoreline Vegetation Disturbances**

32. Lakefront owners that have > 25% disturbance of shorelines should be encouraged to return a majority of their shoreline areas to as natural a state as possible.

33. Ensure new development protects the integrity of these areas by minimizing loss of vegetation and substrates.

34. Encourage the retention of natural shores through the creation of shoreline activity protection areas.
   a. In the Riparian Zone, consider adding downed native logs and other woody debris, by carefully placing rocks in the near shore areas.
   b. In the Riparian Zone, create a buffer of native plants and shrubs between the water line and lawn.

35. In the Upland zone replant native trees in areas that do not block the view from the residence.

36. There should be a mandatory 5 m vegetative buffer on the shoreline.

37. 75% of a shoreline lot should remain in a natural state, except for marinas.

38. A by-law enforcement officer should be appointed to ensure compliance with by-laws.

5.2 Water Quality

This report details current water quality condition and the influences caused by activities on the lake and its immediate surroundings. However, the greatest influences on water quality may occur in the water upstream. With Fairy Lake being a focal point on the North Muskoka River drainage system, it is significantly impacted from the water flowing from both Lake Vernon to the west and Peninsula Lake in the east and the various lakes and rivers that flow into each of those lakes. Accordingly, in addition to being vigilant with the factors immediately affecting Fairy Lake, we need to encourage and support efforts being made by the various agencies and associations upstream in order to both maintain and improve the desired water quality of Fairy Lake.

The goal of District of Muskoka Water Quality Program is:

- Stability in water quality, to prevent observable changes by lake users and detrimental effects of nutrient enrichment on aquatic life;

- Stability in the social environment, to maintain pleasant recreational opportunities; and

- Stability of Muskoka's economy, to preserve property values and to maintain employment opportunities.

Figure 10 shows the agencies currently monitoring and testing Fairy Lake water.

Figure 10 - Agencies Currently Monitoring and Testing Fairy Lakes Water

Agency	*Issue*	*Parameters*	*Frequency*
District Municipality of Muskoka	Recreational Water Quality	Secchi Disk (clarity) Phosphorus Dissolved Oxygen Temperature	Every 2nd year
Ministry of Natural Resources	Lake Trout Habitat	Dissolved Oxygen Temperature	Every three years
Ministry of the Environment	Drinking Water Consumption of Sport Fish	Mercury, PCB	

The source of drinking water for the town of Huntsville is Fairy Lake. The water intake is located in 15 metres of water about 280 metres from shore just south of the water treatment facilities on Highway No. 60, approximately 1 km east of Muskoka Road #3 (King William Street). The drinking water is tested extensively at post treatment, thus, the results do not reflect the quality of the untreated lake water. Some limited unpublished pre–treatment testing is performed at the Water Works. The Quarterly water testing results are published on The District of Muskoka web site including an extensive listing of the various parameters considered. The quarterly report indicates that because of the depth and location of the water intake, the change in water quality occurs slowly, making it easier to produce consistently safe water.

The only current water testing being conducted by the Muskoka/Parry Sound Health Unit for health purposes is at beaches that offer swimming lessons and swimming lessons are not offered at any of the beaches on Fairy Lake. In prior years water testing was done on all beaches in the area, however recent testing has been reduced due to Provincial cut-backs. Training in water testing, however, is now being offered by the Health Unit.

Major Water Quality Concerns

a) Turbidity (Siltation) - Reduction of the sun's ability to penetrate water is the result of the suspension of fine particles, such as clay, in surface water. This affects the entire food chain by: inhibiting the growth of phytoplankton (small floating plant life); creating lower oxygen levels, which interfere with respiration in fish and macro benthos (small animals living on the bottom of a lake); impairing the visual range of fish, thereby impacting their ability to feed; and degrading fish spawning beds.

   Factors Influencing/Creating Turbidity:

   1. Large and small scale development activities, including unprotected placement of fill or disturbance of soil at or near the shoreline creates the opportunity for fine soils to enter the lake water, particularly during spring run-off and rain storms.

2. Erosion created by the alteration or removal of natural shoreline structure causes fine soil particles to be washed into the lake waters rather than being filtered.

3. Storm water run-off from the town and site-specific storm water management systems create greater opportunity for fine soil particles to be washed into a lake.

4. Increased and inappropriate boating practices create shoreline erosion through excessive wake action and disturbance of the clay and silt on the lake bottom.

b) Nutrient Enrichment - An increase in nutrient loads, phosphorus in particular, may accelerate the eutrophication (the gradual nutrient enrichment) process and increase the growth of algae and aquatic plants in a lake.

Factors Creating or Increasing Nutrient Enrichment:

1. Nutrients, particularly phosphorus, occur naturally in nature as well as being generated from manmade sources. These nutrients enter Fairy Lake through the streams that flow into the Lake and the natural flow that occurs during the spring run-off.

2. Fertilizers used on lawns, gardens and golf courses that border the Lake introduce nutrients into lake water through run-off or groundwater.

3. Nutrient loading of Fairy Lake can also occur as a result of septic systems that are poorly designed, out of date, not operating properly, or not pumped out regularly.

c) Toxic Substances - A toxic substance is generally defined as a substance that causes harm to the environment or human beings (Environment Canada, 1993). Many toxins are synthetic and include polychlorinated biphenyls (PCBs), pesticides, dioxins, and furans. Other substances, such as mercury, can be a by-product of human industrial activity or a natural occurrence. Toxins present in lake waters accumulate in long-lived fish such as Lake Trout and Bass and accordingly, can present a danger to humans when the fish are consumed.

Factors Creating or Increasing Toxins in Lake Water:

1. Mercury occurs in trace amounts in air, water, rocks, soil, plant and animal matter and can be leached out by the acidity in the water. Naturally occurring mercury anomalies are associated with fault zones in the bedrock, and streams are a source of mercury entering the lakes (Rasmussen, 1993 Study of the lakes Vernon, Fairy, Buck and Fox area).

2. Toxins were regularly used in area industries until the 1970s and may have entered the water systems through industrial discharges.

3. Pesticides, herbicides and fertilizers used at or near the waterfront or streams can enter the watershed.

4. Soaps and cleaners containing phosphates and other chemicals used in the vicinity of the lakeshore or storm water system.

5. Untreated storm water run-off entering the watershed will transport toxins.

Water Quality Monitoring and Testing Programs

The focus of the District Municipality of Muskoka's (the District) water testing and monitoring program is to maintain and enhance the recreational water quality of the lakes in the region, including Fairy Lake. Recreation includes boating, swimming and fishing. Testing in Fairy Lake began in 1975. Today the District conducts tests in two locations on Fairy Lake: at the deepest part of the lake, just north of Antler Island and at the southerly outflow (North Muskoka River Bay) of the lake in Echo Bay. Tests are taken 6 or 7 times between May and September of every second year. Testing includes secchi disk for clarity, phosphorus for nutrient enrichment and temperature and dissolved oxygen at various levels from .5 meters to 62 meters for suitability for Lake Trout.

Phosphorus Levels - Figure 11 shows springtime readings for phosphorus from 1985 to 2000 and the long-term average of 9.0 ug/l (micrograms/litre). The trend line produced by the District, also shown in Figure 11, indicates improvement with the tendency towards lower concentrations of Phosphorus in Fairy Lake.

Turbidity - The Secchi Disc readings and monitoring trend line shown in Figure 11 indicates a slight improvement in the clarity of water in Fairy Lake. From 1985 to 2000, the average depth of visibility of the Secchi Disc over the period is 2.9 metres with the best reading having been recorded in 1998 and 2000 of 3.8 and 4.3 metres respectively.

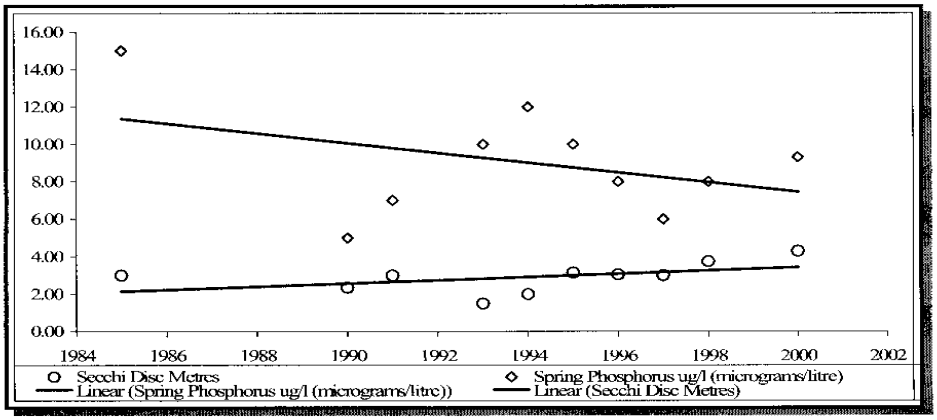
Temperature and Dissolved Oxygen - The dissolved oxygen levels in Fairy Lake at all temperature and depth ranges indicate that the lake can support a healthy Lake Trout population at various time periods during the spring to fall season. The testing done to date by the District has not indicated an unhealthy period (low dissolved oxygen levels) in Fairy Lake that has been evident in other lakes that have shown a loss in the Lake Trout population. Figure 12 is an abbreviated chart that shows the levels in the studies conducted by the District in 2000. Levels shown are from the test location north of Antler Island. The levels from the Echo Bay location are not shown as only a few preliminary readings have been completed to date.

Figure 11 – District Water Test Results

FAIRY LAKE
Town of Huntsville

Sample Year	Secchi Disc Metres	Spring Phosphorus ug/l (micrograms/litre)
1985	3.00	15.0
1990	2.4	5.0
1991	3.0	7.0
1993	1.5	10.0
1994	2.0	12.0
1995	3.2	10.0
1996	3.1	8.0
1997	3.0	6.0
1998	3.8	8.0
2000	4.3	9.3
Long Term Average	**2.9**	**9.0**

MONITORING PROGRAM DATA



Source: District Municipality of Muskoka

Figure 12 – Temperature and Dissolved Oxygen – 2000

Depth (m)	May 29, 2000 Temperature (Celsius)	May 29, 2000 Dissolved Oxygen (mg\l)	July 26, 2000 Temperature (Celsius)	July 26, 2000 Dissolved Oxygen (mg\l)	Aug 28, 2000 Temperature (Celsius)	Aug 28, 2000 Dissolved Oxygen (mg\l)
0.5	14.2	8.8	23.1	9.9	21.7	9.2
2.0	14.0	8.8	22.2	10.0	21.7	9.4
5.0	12.0	8.7	21.1	9.6	21.3	9.2
10.0	7.9	9.4	12.2	8.1	14.0	6.8
20.0	5.0	9.3	7.0	9.3	7.4	9.2
30.0	4.4	9.4	5.8	9.8	6.3	9.8
40.0	4.2	9.3	5.4	10.2	6.0	10.0
50.0	4.1	9.5	5.2	10.2	6.0	10.1
62.5	4.0	9.5	5.0	10.2	5.9	10.1

Source: District Municipality of Muskoka

The prime focus of testing by the Ministry of Natural Resources (MNR) is to obtain the Dissolved Oxygen and temperature levels at various depths to assess the sustainability of Lake Trout in Fairy Lake. Testing is always completed in late summer when the Dissolved Oxygen levels are most vulnerable. The MNR conducted tests in 1986, 1990, 1991 1993, and 1999.

The Ministry of the Environment and Energy publishes an annual "Guide to Eating Ontario Sport Fish" in which fish taken from Fairy Lake are tested for toxins. Its recommendations are based on tests completed in 1977 and 1998. An advisory has been issued with respect to consumption of Lake Trout and Bass taken from Fairy Lake.

Observations

- ***Water testing on Fairy Lake is limited to testing for Lake Trout habitat conditions (dissolved oxygen and related temperature), for phosphorous, and for water clarity.***

- ***Cutbacks at the Provincial level have eliminated testing for safe swimming conditions on the beaches of Fairy Lake.***

- ***The few tests completed on the waters of Fairy Lake over the past few decades indicate improvement. As extensive and consistent testing is not presently conducted, it is not possible to come to a conclusion on the state of water quality.***

- ***The Ministry of Natural Resources and the District of Muskoka presently conduct the same tests on Fairy Lake (dissolved oxygen and related temperature). Testing for toxic substances is practically non-existent.***

Recommendations* – *Water Quality

39. The Fairy Lake Association should develop a comprehensive plan to test the waters of Fairy Lake. The Plan should include testing at various strategic locations on the lake and tests should be completed a minimum of four times per year. A committee should be formed to co-ordinate this important task and to work with the District of Muskoka, the Ontario Ministry of Natural Resources, the Ministry of the Environment and the Town of Huntsville to improve and monitor water quality on Fairy Lake.

40. An annual report of the results of water testing should be sent to all residents of Fairy Lake. The report should include information to help educate residents and promote awareness of factors affecting water quality.

41. Pressure should be applied to have water testing resumed at public beaches on Fairy Lake to give some assurance of continual safety for those who swim at the beaches as well as for all residents of the lake who enjoy swimming and other water sports.

42. A phosphorous-free life-style on, in, and around the lake should be promoted.

43. The use of fertilizers and pesticides on the riparian and upland area of the lake should be banned within 50 m of the lake.

5.3 Wetlands

Fairy Lake is very limited in the amount of wetlands on its shoreline and in areas in the immediate proximity of the lake. Since there are so few wetland areas, it is extremely important to protect what exists.

Wetlands provide substantial ecological, social and economic value to a lake and the surrounding lands. Wetlands maintain and improve water quality, help control flooding, provide important habitat for wildlife and provide conditions to support a wide variety of vegetation including rare and unusual species. These qualities result in substantial social and economic benefits and opportunities, including fishing, wildlife viewing, and general nature appreciation.

Lacustrine Wetlands

Lacustrine (or lake) wetlands provide important spawning, foraging and rearing habitat for fish as well as amphibians and reptiles. They provide significant refuge and nesting areas for ducks, loons and other birds as well as habitat for wildlife occurring in and around Fairy Lake. The number of these wetland sites and the total surface area is relatively small; thus, the importance of preserving and enhancing these resources is more acute on Fairy Lake. The location of wetland areas is noted on map 10. The most important of these areas is the wetlands in Cookson (Grandview) Bay and the canal.

Canal Wetlands

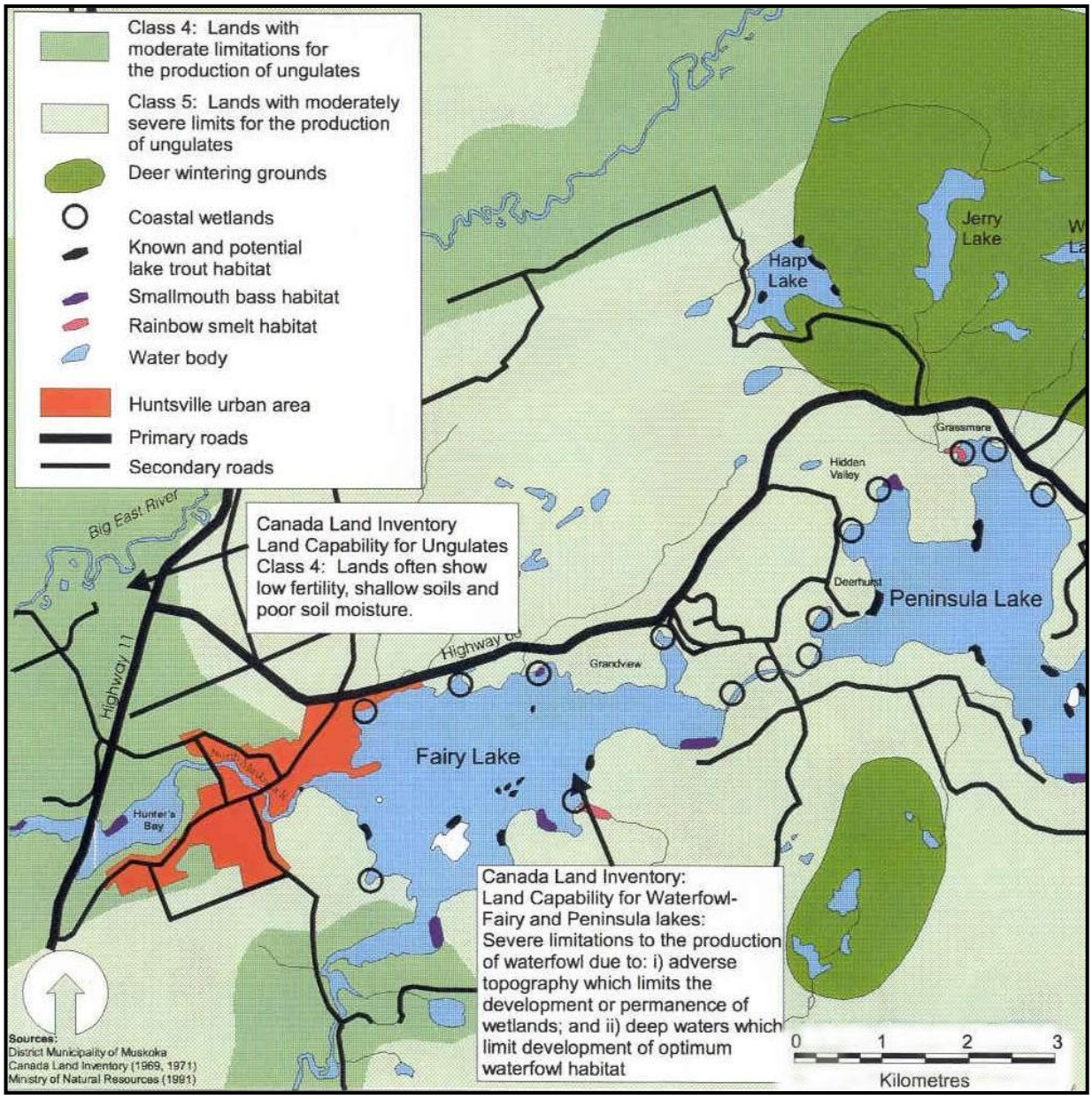
The largest and most significant wetland area on Fairy Lake is along the canal at the east end of the lake. This stretch of wetland is home to the most important wildlife sanctuary in the vicinity of Fairy Lake. A slow controlled boat cruise through this area provides endless opportunities to enjoy the wildlife that is such an important part of the experience and joy of lakefront living. The area is an important nesting and foraging area for ducks and herons; a home for beaver and turtles; and a source of water for the local deer population. Fishing opportunities are excellent along this shoreline.

The canal is also an important boating route connecting Fairy and Peninsula lakes. During the summer period the canal is subject to a constant stream of boats, particularly on weekends, as vacationers and local property owners travel the lake system. Wetlands in particular are very vulnerable to shoreline disturbances such as excess wake. Although the canal is marked with signage indicating the importance of slow speeds and no-wake boating, these signs go unnoticed by many of the boaters in this area. There does not appear to be an understanding of the environmental sensitivity of this important area or knowledge of how to protect the wetlands properly. Many of the violators may be vacationers who might not have a sense for long-term protection needed for the canal. Many boaters may not appreciate the cumulative effective of “apparent minor deviations” over the years to the canal.

Several fairways for the Deerhurst Highlands Golf Course are immediately adjacent to the vast majority of the canal wetland area. Run off from golf courses may contain elevated phosphorus levels due to the use of fertilizers. Elevated phosphorus levels will contribute directly to increased

algal production. It is important that fertilizer use on the fairways adjacent to the wetlands be controlled and monitored in order to protect the canal wetlands.

Map 10 – Wetlands, Fish and Wildlife Habitat



Riverine (Tributary) Wetlands

Fairy Lake has eighteen identified tributaries that flow into the lake (See map 3). Many of the small tributaries have wetland habitat areas along their shores. Each of these areas provides valuable habitat to fish and wildlife and storage for water flowing into the lake. One significant area is the tributary that flows from Weeduck Lake into the southwest corner of Fairy Lake. This tributary

provides ideal wetland habitat for duck populations and in particular provides valuable spring nesting habitat. In addition to the wildlife habitat, the wetlands contain a significant variety of vegetation and woody debris deposits necessary for fish spawning and rearing. Weeduck Lake is an excellent wetland area providing significant feeding and nesting habitat for ducks. The ducks of Fairy Lake continually fly into Weeduck Lake throughout the spring to fall seasons. Weeduck Lake is also a popular recreational destination for summer and winter Northern Pike fishing enthusiasts.

Observations

- ***Wetlands are important wildlife habitats and the two most significant wetland areas on Fairy Lake are Cookson (Grandview) Bay and the Canal.***

- ***The canal wetlands between Fairy Lake and Peninsula Lake are being damaged by inappropriate boating activity and adjacent shoreline use.***

- ***Little is known about the wetland areas that comprise the lower and upper reaches of the eighteen small streams that enter Fairy Lake.***

Recommendations - Wetlands

44. An education program on the sensitivity and protection of the canal wetlands is necessary for the residents of both Fairy and Peninsula lakes.

45. Speed and wake must be controlled (policed) in order to protect the canal wetland. A boating survey on selected dates throughout the season (weekends, weekdays, holidays etc.) should be conducted jointly with the Peninsula Lake Association to promote awareness and to develop protection programs.

46. The Fairy Lake Association should work with the management of Deerhurst Resort, Deerhurst Highlands Golf Course, and Club Links Resort and Golf Course to ensure proper monitoring of the fertilizer and phosphorous run-off from fairways adjacent to the Canal and Cookson (Grandview Bay), respectively.

47. New and more innovative signage about inappropriate boating activity should be developed for the canal.

5.4 Streams

Eighteen small streams and tributaries flow into Fairy Lake (See Map 3). They are either permanent or intermittent in nature but all are an important part of the fish and wildlife habitat of Fairy Lake. These streams provide spawning, nursery and rearing habitat for fish species in Fairy Lake, including Brook Trout, Bass, Northern Pike, Suckers, Smelt and most of the minnow families. The normal stream flow and the elevated spring flow provide the conditions necessary to incubate eggs deposited during the spawning season. The aquatic organisms found in most of these permanent and intermittent streams supply a significant food source for the species of fish that frequent the streams.

D. O. Evans (OMNR, Trent University, Peterborough, unpublished data) mapped and conducted a sampling program in 1997 for some of the streams that flow into Fairy Lake. A total of 13 different fish species were located in these streams. Many of the species were netted in the vicinity of the outlets (where streams enter the lake), which, in all probability indicates movement of these species between the lake and the streams. Fish species found in Fairy Lake are listed in Figure 13.

Observations

- ***There is minimal recorded knowledge with respect to the importance of Fairy Lake's eighteen steams on the ecosystem.***

- ***Nine streams either cross or originate near Highway #60 and consequently have the potential to transport road salt and other highway related pollutants into Fairy Lake.***

Recommendations - Streams

48. A detailed study should be completed of the eighteen streams that flow into Fairy Lake to determine the importance of each to fish and wildlife populations, water quality and other environmental features.

49. Municipal planning documents should list each of these streams and should include policy to control and protect against development impacts.

50. Property owners adjacent to the streams should be encouraged to protect streams, through landowner contact and information brochures.

51. Coldwater streams should be identified on a map in the Official Plan.

5.5 Fish Community

Many of the topics covered in this Lake Plan deal with the factors that impact the quality of life of the human population of Fairy Lake. However, these impacts also potentially affect the fish population of Fairy Lake.

The Ministry of Natural Resources manages Fairy Lake's fish community. The Department of Fisheries and Oceans Canada (DFO) has the responsibility throughout Canada for fish habitat; the local office is located in Parry Sound. The District of Muskoka and the Town of Huntsville also have a vested interest in the fish community and, accordingly, participate in maintaining healthy fisheries in Fairy Lake, primarily through testing and control of water quality.

Fairy Lake is home to a cold-water fish community (i.e. Lake Trout) as well as to many traditionally warm water lake species (e.g. Smallmouth Bass). The lake supports a wide range of fish species however the population of many of these species has significantly declined over the past decade.

Some of the factors that have contributed to this decline include loss of fish habitat, the effect of turbidity on spawning and rearing beds, water pollutants and the introduction of non-native fish species (northern pike) into the lake. Since the early 1990's the native fish population has been and continues to be enhanced and maintained by the Ontario Ministry of Natural Resources (OMNR) fish-stocking program.

The following species have been observed in Fairy Lake according to the OMNR, Bracebridge Area Office records (Figure 13).

Figure 13 – Fish Species in Fairy Lake

Common Name	Latin Name
Salmon Family	
Brook Trout	Salvelinus fontanalis
Lake Trout	Salvelinus namaycush
Lake Herring (Cisco)	Coregonus artedii
Lake Whitefish	Coregonus clupeaformis
Smelt Family	
Rainbow Smelt	Osmerus mordax
Minnow Family	
Finescale Dace	Chrosomus neogaeus
Golden Shiner	Notemigonus crysoleucas
Common Shiner	Notropis comutus
Blacknose Shiner	Notropis heterolepis
Spottail Shiner	Notropis hudsonius
Bluntnose Shiner	Pimephales notatus
Fathead Minnow	Pimephales promelas
Creek Chub	Semotilus atromaculatus
Brook Stickleback	Culaea inconstans
Sucker Family	
Common White Sucker	Catostomus commersoni
Catfish Family	
Brown Bullhead	Ictalurus nebulosus
Trout Perch Family	
Trout-Perch	Percopsis omiscomaycus
Sunfish Family	
Rock Bass	Ambloplites rupestris
Pumpkinseed	Lepomis gibbsosus
Smallmouth Bass	Micropterus dolomieui
Largemouth Bass	Micropterus salmoides
Perch Family	
Yellow Perch	Perca flavescens
Pike Family	
Northern Pike	Esox lucius

Source - Bracebridge MNR Office Records

In 1986 the OMNR initiated a Fisheries Management Plan for its Bracebridge Area including Fairy Lake. The purpose of this planning process was to develop both long-term and short-term fisheries management directions for the area.

The background information for the Fisheries Management Plan identified the following issues as well as an initial number of optional management strategies and tactics to deal with potential issues. Issues identified in the Fisheries Management Plan include:

i. over-harvesting
ii. non-native fish species introduction
iii. water level fluctuations
iv. shoreline development (resulting in loss of habitat)
v. contaminants
vi. illegal harvest / poaching
vii. restricted access
viii. underlying problems –conflicting use, lack of scientific knowledge and public awareness

Fish Stocking and Introductions

The fish-stocking program for Fairy Lake began in 1901 (OMNR – Bracebridge Area Office published and unpublished data). In the first half of the last century large quantities of Smallmouth Bass, Brook Trout and Lake Trout were stocked. From 1950 to 1979, the stocking was reduced in total and limited to Lake Trout and Rainbow Trout. During the 1980's, the number of stocking events was significantly reduced. Beginning in 1991, the OMNR resumed a limited stocking program of Lake Trout only.

Figure 14 provides a summary of fish stocking for the start of the 20th Century from the OMNR Bracebridge District Office records.

Figure 14 – Fish Stocking in Fairy Lake 1901-2001

Years	Species	# of Stocking Events	Total # of Fish	Average # of Fish per Event
1901-1949	Smallmouth Bass	7	28,509	4,072
	Lake Trout	27	495,750	18,361
	Brook Trout	18	110,700	6,150
1950-1979	Lake Trout	7	15,890	2,270
	Rainbow Trout	6	13,550	2,258
1986	Lake Trout	1	500	500
1991	Lake Trout	1	4,500	4,500
1992	Lake Trout	1	2,500	2,500
1995	Lake Trout	1	2,500	2,500
1998	Lake Trout	1	2,500	2,500
2001	Lake Trout	1	2,500	2,500

Source: OMNR – Bracebridge Office

Lake Trout are endemic (naturally occurring) in Fairy Lake. As a result of recreational fishing, development, loss of habitat, water quality stressors and competition for prey species with other fish (Northern Pike in particular) a significant decline in Lake Trout numbers has resulted. Accordingly, the population has had to be continually enhanced by OMNR stocking, and this has altered the population as indicated by these brief samples (Figure 15).

Figure 15 - OMNR Netting Results

Year	Program	Total Catch	Clipped (stocked)	Unclipped (natural)
1977	Contaminants Netting**	28	8	20
1996	Spring Littoral Index Netting	21	17	4
1998	Contaminants Netting	15	15	0

Source: OMNR – Bracebridge

Note ** Contaminants Netting is a program of the Ontario Ministry of Environment and Energy to test sport fish for contaminants. The results are used in the annually produced booklet *Guide to Eating Ontario Sport Fish* to advise on the suitability and quantity of sport fish that should be eaten from each lake in Ontario. The results from the 1998 sample have been used in the latest version of this guide as discussed later under the fish contaminants section.

Long-term stocking of Lake Trout can eventually replace the native gene pool, leading to reduced fitness of the stock (Evans and Willox 1991: Mclean et al 1990). This reduced fitness will become evident when stocking ceases and the introduced stock is obligated to complete its life cycle in the wild. Stocking and exploitation may have depleted the wild Lake Trout population in Fairy Lake through the possible effects of introgressive hybridization on the genetics of the local population and numerical displacement. When artificial recruitment (stocking) rate exceeds the natural recruitment rate (Evans and Willox 1991), the result is a poorly adapted hatchery remnant in the lake. In the 1998 contaminants netting of Lake Trout, all fifteen of the fish captured appeared to be from the stocking program from 1991 – 1995 (See Figure 15).

The Smallmouth Bass population was introduced into Fairy Lake by continuous stocking by the OMNR from 1901 until 1923. Largemouth Bass are also present in Fairy Lake, however, it is unclear as to how and when they were introduced into the system. Rainbow Smelt were most likely introduced in the mid century from bait buckets. Northern Pike were introduced in the late 1970's or early 1980's through an unauthorized introduction, as per OMNR.

The stocking of Smallmouth Bass, Largemouth Bass, Northern Pike and Smelt has created new self-sustaining fish populations in Fairy Lake. Although new fishing opportunities have been created with the introduction of these species, they have no doubt altered the native fish community. Indigenous species include Lake Trout, Brook Trout and Lake Whitefish.

Fish Habitat

One of the key characteristics of a healthy fish population in a lake is the quality of the habitat. Fish habitat is primarily in the nearshore area of a lake and usually includes an ample supply of vegetation, woody debris, shade, and rocks. The type of habitat necessary to support each species of fish varies to some degree, however, it is understood that maintenance of healthy shorelines, vegetation and wetlands as well as the health of the streams entering Fairy Lake are all critical factors.

> *"Fish habitat means the spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly in order to carry out their life processes."*
>
> Source: Provincial Policy Statement, OMNR

The importance and status of the various shoreline sectors along Fairy Lake are discussed in detail in Section 5.1 - Shoreline Vegetation Disturbances. The importance of the various vegetation zones of the lake is discussed in detail in Section 5.7 - Vegetation. The location and importance of areas that affect the fish community of Fairy Lake are discussed in sections 5.3 - Wetlands and 5.4 - Streams. The Lake Trout population is more sensitive than many of the other species in Fairy Lake due to the abundance and specific quality of habitat needed to support them. In the following section, Lake Trout habitat is discussed in more detail.

The OMNR have evaluated and classified fish habitat on Fairy Lake (See Map 11 – Foldout in back of document). Fish habitat areas are classified as Critical (Type 1), Important (Type 2) or Marginal (Type 3). Map 11 (insert at back of report) outlines the fish habitat areas as identified by the OMNR for Fairy Lake. The DFO has established the following classifications:

- Critical habitats (formerly Type 1) are those, which have high productive capacity, are rare, highly sensitive to development or have a critical role in sustaining fisheries (e.g. spawning and nursery areas for some species, and ground water discharge areas).

- Important habitats (formerly Type 2) are moderately sensitive to development and although important to the fish population, are not considered critical (e.g. feeding areas and open water habitats of lakes).

- Marginal habitats (formerly Type 3) have a low productive capacity or are highly degraded and do not currently contribute directly to fish productivity. They often have the potential to be improved significantly (e.g. a portion of a waterbody, such as a channelized stream, that has been highly altered physically and can be restored).

Fish Contaminants

Contaminants from the water are taken-up by aquatic organisms, and contaminants such as mercury, dichlorodiphenyltrichloroethane (DDT) and PCB's bioaccumulate and are further concentrated with every step up the food chain (Spacie and Hamelink 1985). Contaminant bioaccumulation in fish is a concern in Fairy Lake.

Contaminant testing was first completed for Fairy Lake in 1977 and was recently re-tested for fish taken from Fairy Lake in August 1998. In a letter from Andre Vaillancourt of the Ontario Ministry of Environment and Energy (MOEE) to the OMNR in Bracebridge dated May 26, 1999, with respect to the 1998 fish tested, Mr. Vaillancourt noted " As you can see Lake Trout from Fairy Lake have improved substantially from those that were reported in the 1997-1998 Guide to Eating Sport Fish (based on 1977 data)". He also noted that the mercury level is the reason for the continued advisory notice given for Fairy Lake. He advised in his letter that PCB testing for the Fairy Lake Lake Trout indicated an average of 100 ppb, which is well below the advisory level of 500 ppb. He also noted that with regard to other substances tested for, such as, Dichlorodiphenylethan (pp-DDE, which is what DDT breaks down into), the levels are well below the action level.

Figure 16 shows data taken from the 2001-2002 Guide To Eating Ontario Sport Fish produced by the MOEE. Values in the table indicate the number of meals that can be consumed per month without exceeding a tolerable daily toxin limit. The guidelines for women of childbearing age and children under 15 years of age are more stringent than listed in the table. For complete information with respect to the recommended consumption rates the guide should be obtained and studied.

Figure 16 – Guide to Eating Fish - Number of Meals per Month for Fairy Lake

Species	Fish Size (total length) in Centimetres							
	5-20	20-25	25-30	30-35	35-45	45-55	55-65	65-75
Lake Trout	-	-	-	-	4	2	0	0
Smallmouth Bass	4	4	2	2	0	0	0	0

Source: Guide to Eating Ontario Sport Fish

Note – The guide indicates that Fairy Lake fish have been tested for mercury, PCB's, mirex, photomirex and pesticides.

Lake Trout

In addition to Lake Trout being one of the prime species for sport and recreation, it is also a key indicator species of the health of a lake. Miners, for years, used the canary as a barometer to environmental problems underground (i.e. if the canary died, they knew that they had a significant environmental problem in the mineshafts). Similarly, the Lake Trout population is an indicator of the environmental health of a lake, as Lake Trout tend to be more sensitive to negative impacts than most other species of fish (i.e. decrease in oxygen, increase in temperature, loss of spawning beds due to turbidity). Accordingly, Lake Trout can be used as an environmental indicator to assess the health of Fairy Lake.

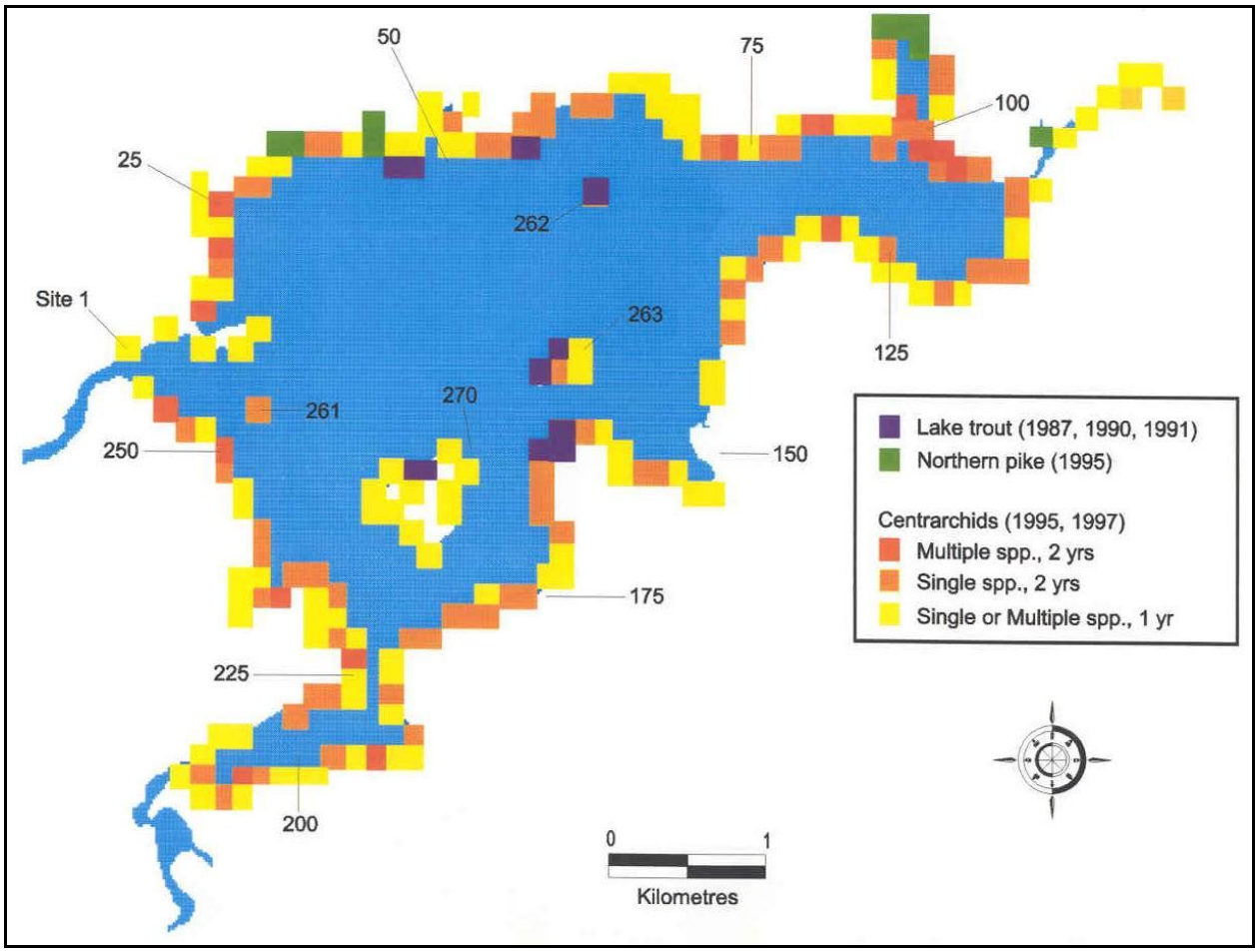
Lake Trout are found in only 2000 (less than 1%) of Ontario's lakes. These numbers have been gradually reducing due to the onslaught of human activities. One factor in the decline in Ontario's Lake Trout lakes may be the effects of acid rain. Trout are particularly vulnerable in the spring when temporary acid shock from spring run-off may occur. At this time, Lake Trout are closer to the surface of a lake in active search of their food sources. Fairy Lake (along with adjacent lakes Peninsula, Vernon and Mary) is fortunate to be one of the small number of lakes in Ontario that has and can support Lake Trout. The residents and other users of Fairy Lake must be vigilant in their efforts to protect this great natural resource.

Lake Trout have two significant habitat requirements, cold water and dissolved oxygen. When phosphorous is added to a lake, it creates algae, and when algae fall to the lake bottom, decomposition takes place. The process of decomposition uses up available dissolved oxygen.

Dissolved oxygen levels are monitored by the OMNR in Fairy Lake at an area referred to as Station 1 (a deep area of Fairy Lake just north of Antler Island). The levels are tested in late summer, as that is the time of year that the lake is most typically at its lowest levels of dissolved oxygen. The dissolved oxygen readings at the various depths in Fairy Lake have been consistently at acceptable levels over the past 15 years, as shown in Figure 12. The levels recorded show that Fairy Lake continues to be a lake that can support Lake Trout.

Map 12 – Summary of Fish Spawning Habitat

100 m grid scale



Source: The Fairy and Peninsula Lake Study, 1994 – 1998, Cornelisse and Evans

Lake Trout live in cold water. During the winter period, the trout in Fairy Lake have ideal temperatures throughout the lake to forage. Most of their food sources, however, are not abundant or active in winter, thus feeding activity can be low. During the warm summer months, the trout retreat to the deeper coldwater sections of the lake. The most active feeding period of the year for Lake Trout is late April and early May. At this time, nearshore life in a lake begins to stir again, and

with the shoreline surface water temperatures still being in the cool range, preferred by Lake Trout, ideal conditions exist. Under these springtime conditions, Lake Trout actively search the nearshore (littoral zone) area for food sources such as minnow, crayfish, mayfly nymphs and even flying insects.

Lake Trout spawn at night in the fall of each year (usually late October). Preferred spawning beds are on shallow rocky shoals, one to three meters below the surface. The female trout usually cleans the area before laying her eggs using her body, tail fin or snout. The eggs, when released by the female, are fertilized by the male and then drift down into the safety of crevices in the rocky bottoms where they remain until hatching, usually in late February, with fry emergence by early April.

Seven spawning shoals have been identified in Fairy Lake as shown on Map 10 and 12. As a significant number of the Lake Trout in Fairy Lake are stocked fish, it should be noted that stocked fish are generally less proficient reproducers than native trout.

Observations

- ***The majority of the Lake Trout population in Fairy Lake appears to be comprised of stocked Lake Trout.***

- ***Identified Lake Trout shoals in Fairy Lake have not been investigated since 1991 for spawning activity by the OMNR.***

- ***The stocking program by OMNR, which seems to have been re-established in the 1990s, appears to be successful, based on netting samples taken in 1998.***

- ***Mercury and other contaminant levels found in Fairy Lake sport fish have been declining in recent years and dissolved oxygen levels at all water depths continue to be recorded at acceptable levels. These favourable conditions indicate that Fairy Lake is capable of supporting a Lake Trout population.***

- ***The Littoral Zone which is the primary foraging area for sport fish in Fairy Lake has been depleted due to development activities on the Lake (see Section 3 – Shoreline Structures and Disturbances).***

- ***Spring and early summer are prime periods for fish spawning and rearing activities.***

<u>Recommendations</u> – Fish Community

52. The Fairy Lake Association should review the MNR lake trout stocking rate for Fairy Lake and make a specific recommendation regarding a change in the stocking rate (i.e. duration and number of fish). Follow-up to ensure stocking is put into effect and continues.

53. A request should be made to the OMNR to investigate the spawning activities on Fairy Lake. The Fairy Lake Association should provide volunteers to assist in the project.

54. Lakefront residents that have significantly altered or disturbed shorelines should be encouraged to return a significant portion of their property to as natural a state as possible.

55. Increase shoreline setbacks for Type 1 Fish Habitat.

56. Restrict fish tournaments to after July 1st.

5.6 Wildlife And Wildlife Habitat

The area around Fairy Lake has an abundant wildlife population. Species include mammals, birds and ducks, and reptiles and amphibians. Wildlife viewing is an important recreational pastime and opportunity for lake residents. Protection of the wildlife habitat in and around the lake is vital to the preservation of the self-sustaining population and biodiversity of wildlife around Fairy Lake. The continued fragmentation of habitat by development will result in loss of this valuable resource. Although we have described all the various species found in the Fairy Lake watershed, this report focuses on certain specific wildlife species or groups of particular interest, and provides comments, observations and recommendations that generally apply to all wildlife.

Figure 17 - List of Common Mammal Families In the Fairy Lake Watershed

Mammal Family	Family Name
Moles	Talpidae
Shrews	Soricidae
Bats	Chiroptera
Rabbits and Hares	Leporidae
Squirrels and Chipmunks	Sciuridae
Beavers	Castoridae
Mice and Vole	Muridae
Porcupines	Erethizontidae
Dogs (wolf and fox)	Canidae
Bears	Ursidae
Raccoons	Procyonidae
Weasels	Mustelidae
Deer and Moose	Cervidae

Source: National Audubon Society Field Guide, Mammals

A large number of the mammals that are resident to Fairy Lake are nocturnal. However, most of them can be seen and enjoyed in the late evening or early morning when they begin or end their active periods. Figure 17 provides a listing of the more common mammals to be found in the Fairy Lake watershed:

White-Tailed Deer

White-tailed Deer are numerous around Fairy Lake and in particular on the southern, less developed side of the lake where they appear to have adapted rather well to the increase in human population. Former agricultural lands in this area offer an abundant variety of grasses for the deer to graze on. Deer feed mostly by browsing on tender twigs of shrubs and trees, but these grasslands offer a nutritional alternative to their normal diets. Food is generally abundant in the Fairy Lake region for deer in the spring, summer and fall periods. Winter presents more of a problem for the deer when snow covers the ground. In the late evenings or early mornings from spring to late fall the deer can be viewed in many of the fields (south west, Echo Bay and north, adjacent to Hwy #60) around the lake. At these times, it is particularly important for drivers to be cautious as deer regularly cross area roads and highways as they head for prime feeding grounds. Deer are especially active in the fall during the “rut” or breeding season and at that time present a road hazard to both themselves and drivers.

In the spring to fall periods, the deer can roam over a larger expanse in search of food, if required. During these seasons, a considerable amount of a deer’s time is spent “fattening” itself up in preparation for winter. They have developed a particular fondness for food grown by humans, as anyone who attempts to grow vegetables in the region is aware. Winter is a significantly greater challenge for deer in years when the snow cover is deep, as winter food is limited to above snow level twigs and branches. Accordingly, it is important to maintain as much natural vegetation as possible on the properties in the Fairy Lake region in order to maintain a healthy deer population. Development must be controlled to the extent that the dense conifer forests are maintained to provide the winter habitat needed for the area deer herd. Trees and shrubs should be maintained on a significant portion of the surrounding lands in order to ensure a continual supply of browse. Rural and waterfront lots must be maintained at a large enough size to ensure adequate forested area for the existing deer population.

In the winter, deer usually travel to their traditional winter yards. These yards are normally in areas having heavy coniferous tree cover, or areas that typically have low snow levels and provide protection from the harsh winter winds and cold. Diet for White-tailed Deer in winter usually consists of twigs, and branches found in the immediate area of the deeryard. At this time, deer usually prefer to browse on cedar, hemlock, maple, birch, oak and cherry trees. The identified deeryards in the Fairy Lake watershed are primarily to the northeast of the lake (north of Highway #60) in the Jerry and Walker lakes area, and to the southeast of Fairy Lake between East Browns Rd. and Canal Rd. (See Map 10). Many of the local deer in the Fairy Lake region do not yard-up but remain in their normal habitats. This may be a result of feeding by area residents or winter availability of local food sources.

Birds and Waterfowl

"Birds are the affirmation of life. They symbolize freedom.
The whimsy of their songs has filled our souls with joy and wonder."
Ornithologist, Roger Tory Peterson

Fairy Lake is home to a great variety of birds and ducks. Figure 18 identifies some of the bird families that can be found at various times of the year on or near Fairy Lake.

Figure 18 - Fairy Lake Bird Families

Bird Family	Order
Loons	Gaviiformes
Grebes	Podicipediformes
Cormorants	Pelecaniformes
Herons and Bitterns	Ciconiiformes
Ducks and Geese	Anseriformes
Hawks, Eagles and Falcons	Falconiformes
Partridge and Grouse	Galliformes
Rails, Coots and Cranes	Gruiformes
Sandpipers, Gulls and Terns	Charadriiformes
Pigeons and Doves	Columbiformes
Owls	Strigiformes
Swifts and Hummingbirds	Apodiformes
Kingfishers	Coraciiformes
Woodpeckers	Piciformes
Vireos, Jays, Crows and Larks	Passeriformes
Swallows, Chickadees and Creepers	Passeriformes
Thrushes, Starlings and Warblers	Passeriformes
Tanagers, Sparrows and Cardinals	Passeriformes
Finches	Passeriformes
Blackbirds	Passeriformes
Cowbirds	Passeriformes
Nuthatches	Passeriformes
Waxwings	Passeriformes
Orioles	Passeriformes
Killdeer	Charadriiformes

With a diversity of shoreline and upland areas, as well as water and wetland areas, a great variety of species are common to the area. In a 1990 publication called "Birds of Algonquin Provincial Park", it was noted that 258 different species have been recorded as having been sighted in the Park. With Fairy Lake being in the same geographic area and proximity, the number of different birds and ducks that live or pass through the area is probably similar. Many of these simply pass through on their migratory path, others are spring to fall residents only and the balance are year

round residents. Many of the birds serve useful purposes such as devouring a significant quantity of insects including mosquitoes and black flies. Others such as crows, ravens and gulls are great at cleaning our roadways and waterways, but probably of most importance, are the birds that provide beauty and song for the residents and visitors of Fairy Lake and area.

Habitat varies for each of the bird species. Some prefer the dense forest cover while others prefer the open fields, shores or wetland areas. The variety of birds that exist in the Fairy Lake area is a product of the variety of natural habitat including food sources (both insects and vegetation) and nesting sites found in the region. Accordingly, in order to protect this variety, it is important for the residents to ensure that the current variety of existing habitat is maintained and protected within the Fairy Lake region.

Ducks

As with the bird population the ducks that we enjoy locally have a mixed habitat preference. American Black Ducks and Mallards have adapted to the increased population and boat traffic, and can be found in most areas around Fairy Lake, but others, such as Wood Ducks, prefer the more secluded and protected wetland areas. American Black Ducks and Mallards make their nests in spring on the lands surrounding Fairy Lake. In some areas of the lake their eggs and young are vulnerable to dry-land predators such as fox and raccoon during nesting periods and Northern Pike in their early days on the lake. Other ducks found on the lake, such as Mergansers, live primarily on the open waters of the lake where they can continually dive in search of small fish. During the spring and fall migration periods, Fairy Lake attracts a great variety of ducks that commonly nest in the more northerly areas of Canada, as they pass through to or from their winter homes. The most common of these are Lesser Scaups (Bluebills), Buffleheads and Goldeneyes. The attraction of Fairy Lake for these visitors is the availability of food whether their diet consists of aquatic vegetation or small fish.

The primary habitat required for the various duck species is dictated by their diets. Ducks, including American Black Ducks, Mallards, Teals and Wood Ducks, are primarily vegetarians and accordingly, prefer the areas of the lake that have significant patches of aquatic vegetation. A healthy supply of vegetation is required on or near a lake in order for these ducks to harvest the tender shoots and roots that can easily be pulled from the aquatic plants, which are found primarily in a lake's littoral zone. The Common Loon and ducks such as the Common Merganser, rely on a healthy supply of small baitfish for their diets. Loons and Mergansers can dive to great depths to pursue their prey and roam over the entire lake to satisfy their hunger. Many of the smaller, migratory, northern ducks dive in the shallower waters in search of small fish to satisfy nutritional requirements needed before they can complete their trip. As most of the small baitfish of a lake are found on or near the shore in the littoral zone, where vegetated areas provide both food and protection, most of the diving ducks concentrate their activities near this zone. Accordingly, in order for a lake to maintain a healthy population of all species of ducks, the main requirement is a significant supply of healthy aquatic vegetation.

Loons

The Common Loon is the provincial bird of Ontario. With its haunting, stirring and incomparable cry, it has become a symbol of the peace and solitude of northern living. It would be difficult to imagine Fairy Lake without nesting loons. Unfortunately, this could become an unacceptable reality unless the residents of the lake ensure that proper loon habitat and conditions are maintained. Loons prefer lakes surrounded with forest and rocky natural shorelines that offer an abundance of bait fish for their diets.

Loons are built for maximum efficiency underwater with their streamlined powerful bodies and webbed feet, but this design makes them very awkward at best when on land. They usually only come on shore to nest. Loon nests are usually located on islands, away from predators, and are built on the ground close to shore so that these birds rarely have to move over more than a foot or two of land. This proximity to the water allows them a quick escape route from actual or perceived danger. Their nests are usually no more than a pile of twigs or a hollow area in dried riparian vegetation. A loon usually lays two large eggs and the young enter the water within a few hours of hatching. With such a small family, compared to ducks such as mergansers that produce a large brood, it is vitally important to protect the ability of loons to reproduce healthy young each year.

Loons rely on an abundant supply of baitfish in a lake for their diets. Maintaining clear, uncontaminated water in a lake allows the loons to use their astonishing speed, lightning fast underwater pivots and quick thrusts to hunt and seize baitfish in Fairy Lake. A few decades ago the loon population in Ontario was threatened due to the increasing presence of toxic chemicals in the water such as DDT. With the loons consuming fish contaminated with DDT, they were losing their ability to lay normal, viable eggs. With the severe restrictions placed on the use of DDT, Ontario's lakes, including Fairy Lake, are now regaining their health and this danger, for the present, seems to have passed.

Today, increased human activity is probably the main cause for loss of loons on a lake. Loons are particularly sensitive to development and shoreline disturbances. Power boaters either unknowingly or knowingly disturb the nesting loons, loon chicks, or feeding loons. Sensitivity to such disturbances often causes loons to abandon nesting sites and/or ultimately to leave a lake.

Cormorants

During recent years, double-crested cormorants (phalacrocorax auritus) have been sighted on Fairy Lake. For those who have witnessed the large colonies of Cormorants that established themselves along the Great Lakes shorelines, the increasing presence of Cormorants on Fairy Lake is a concern.

Cormorants have similar physical characteristics and eating habits to Common Loons but lack their pleasing coloration and voice. These all black, gangly birds have longer thinner necks and in some people's view lack the majestic quality and dignity of the Loon. While the Loon is often alone or only with its mate, the Cormorant tends to feed in groups and colonize in very large extended families on large rocky islands.

In discussion with OMNR staff, they believe that the Cormorants only visit Fairy Lake to feed. They do not believe that Fairy Lake offers a habitat conducive to the establishment of a Cormorant colony. They also believe that Cormorants primarily feed on baitfish and do not pose a direct threat to the sport fish in Fairy Lake. In 2002, the OMNR conducted experimental control of Double-crested Cormorants as part of a research and monitoring program in several locations in the Georgian Bay and North Channel areas of Lake Huron.

Observations

- ***There is a wide variety of wildlife on Fairy Lake***

- ***With the Fairy Lake area having a significant deer concentration and with traffic increases on areas roads and highways, there is an increase in the occurrence of accidents between deer and vehicles.***

- ***Property development and woodlot clearing, particularly along the shorelines has reduced historic wildlife habitat including deer cover and winter browse areas.***

- ***Most of the land that abuts and surrounds Fairy Lake is privately owned. Accordingly, the management of wildlife habitat is substantially dependent on each owner's ability, knowledge and desire to manage his properties.***

- ***Aquatic vegetation along a great deal of the shoreline of Fairy Lake (See Sections 5.1 - Shoreline Vegetation Disturbances, and 5.7 Vegetation) has been removed, thus reducing habitat required for ducks and loons.***

- ***Significant numbers of ducks and loons are found on Fairy Lake, but their prime nesting habitats have not been identified.***

<u>Recommendations</u> – Wildlife

57. A program should be established by the Fairy Lake Association to identify, provide and protect nesting sites for loons, ducks and shorebirds.

58. Lakefront owners should be encouraged to return a significant portion of their shorelines to a natural condition and consider programs in co-operation with OMNR.

59. For the protection of the local deer population and the safety of local residents, continual emphasis and reminders (new signs) must be encouraged to identify the risk to deer, drivers and vehicles in the dangerous sundown to sunrise period and the breeding ("rut") season.

60. Planning of shoreline development is required to protect the remaining wildlife habitat of Fairy Lake including the following suggestions:

- *a. minimum frontage requirements on remaining undeveloped lots should have lot frontages of 200 feet*
- *b. wood lot clearing along the shoreline of important conifer and hardwood trees should be restricted (both commercial and residential properties)*
- *c. greater restrictions regarding alteration of natural shorelines should be imposed*

61. Literature that promotes the protection of wildlife habitat and shorelines should be distributed.

5.7 Vegetation

The naturally occurring vegetation found in the water and on the uplands adjacent to a lake is important to maintaining the health of a lake system. In addition to the natural beauty provided, vegetation is vital to the health and abundance of fish and wildlife in and around a lake. Over the years, development of Fairy Lake has resulted in a significant loss of this vegetation, which has had a negative impact on the fish and wildlife population.

As described in Section 5.1, a lake consists of three vegetation zones: the littoral zone – the shallow coastal area of a lake; the riparian zone – the first 10 meters inland from the shoreline; and the upland zone – the area beyond the riparian zone. Each of these areas provide vegetation that is important to the health of a lake. The importance of vegetation is also discussed in other sections of the Lake Plan, namely, Shoreline Structures and Disturbances, Wildlife and Wildlife Habitat and Fish Community.

Upland Vegetation

The upland vegetation around Fairy Lake consists predominantly of a tolerant hard maple forest. Figure 19 provides a list of the common tree species found in the vicinity:

Figure 19 – Upland Vegetation Species

Common Name	Latin Name
Trembling Aspen	Populus trimuloides
Largetooth Aspen	Populus grandidentata
Balsam Poplar	Populus balsamifera
White Elm	Ulmus Americana
White Ash	Fraxinus Americana
Black Ash	Fraxinus nigra
Balsam Fir	Abies balsamea
Beech	Fagus grandifolia
Black Cherry	Prunus serotina
White Spruce	Picea glauca
Black Spruce	Picea mariana
Red Spruce	Picea rubens
Eastern White Cedar	Thuja ocidenlalis
Eastern Hemlock	Tsuga Canadensis
Sugar Maple	Acer saccharum
Red Maple	Acer rubrum
Striped Maple	Acer pensylvanicum
Red Pine	Pinus resinosa
White Pine	Pinus strobes
Red Oak	Quercus rubra
White Birch	Betula papyrifera
Yellow Birch	Betula alleghaniensis
Tamarack	Larix laricina
Basswood	Tilia Americana
Pin Cherry	Prunus pensylvanica
Black Cherry	Prunus Serotina
Ironwood	Ostraya virginiana

Riparian and Shoreline Vegetation

Vegetation in these shore and near-shore regions, known as emergent vegetation, provides an important mixture of plants, shrubs and trees that together create a complex web of roots and foliage that knits the waterfront together. Natural shores of this nature provide an effective and inexpensive form of erosion control. Accordingly, it is imperative that this critical region of vegetation be disturbed as little as possible. A natural mix of native shrubs, trees and plants provides a buffer between lawns and the lake that is critical to the health of a lake. Emergent vegetation found in these zones are listed in Figure 20.

Figure 20 – Emergent Vegetation

Common Name	Latin Name
Sedges	Carex spp.
Pickerelweed	Pontederia cordata
Arrowheads	Sagittaria spp.
Burreeds	Sparganium spp.
Cattail	Typha latifolia
Speckled Alder	Alnus rugosa
Choke Cherry	Prunus virginiana

Littoral Vegetation

The vegetation found in the shallow, calm waters of the littoral zone, known as submergent vegetation, provides not only a buffer to assist in erosion control but a virtual fast food outlet for fish, wildlife and amphibians. The vegetation in this zone provides a foraging area for fish, ducks and amphibians, and spawning and nesting areas for perch, bass and Northern Pike. The plants in this area act like the lungs of the lake, by converting sunlight into food and releasing oxygen in the process. Submergent plants are indicated on Figure 21.

Figure 21 – Submergent Vegetation

Common Name	Latin Name
White water lilies	Nymphaea odorata.
Yellow Pond Lilies	Nuphar variegatum
Water Shield	Brasenis schreberi
Pondweeds	Potamogeton spp.
Wild Celery	Vallisneria americana
Water-milfoils	Myriophllum spp.
Smartweeds	Polygonium spp.
Horsetails	Equisetum spp
Pickerelweed	Pontederia cordata
Common Bladderwort	Utricularia vulgaris

Observations

- ***Shoreline vegetation is important for water quality and for fish and wildlife habitat.***
- ***Vegetation along the shoreline where development has occurred on Fairy Lake has been either substantially removed or altered over the past decades.***
- ***Structures on the shoreline such as boathouses, docks and man-made beaches have replaced or altered natural shoreline vegetation.***

- ***The greatest source of development impact with loss of natural vegetation, has been the west shore (urban Huntsville) and along the developed north shore.***

- ***The Town of Huntsville does not have a Tree Preservation By-law, however, with the new Ontario Municipal Act coming into effect the Town will have the authority to prepare one.***

<u>Recommendations</u> - Vegetation

62. Municipal planning documents should require environmental assessments for proposed development, and building permits and approvals of such should be subject to measures and controls to protect upland, riparian and littoral vegetation

63. Programs should be developed to educate, assist, and encourage landowners to restore vegetation to areas along and within the shoreline abutting their properties.

64. The use of indigenous plant and tree species should be promoted. Local nurseries and landscaping businesses should be encouraged to stock and promote the use of local plants and trees.

65. The municipality should develop a 'Tree Cutting' or Tree Preservation by-law to ensure that lots are not clear-cut or that endangered species are preserved. For example, the city of Toronto has a by-law that doesn't allow trees more than 30 cm in diameter to be damaged or cut down on private property without a permit.

5.8 Exotic Species

The introduction of exotic or non-native species into a lake affects the natural balance of the ecosystem. An example that has had a profound effect on the lake was the unauthorized introduction of Northern Pike into the Fairy Lake system in the late 1970's or early 1980's. Northern Pike are an aggressive competitor to Lake Trout for food sources. Accordingly, some experts feel that the decline in the native Lake Trout population in Fairy Lake is partly attributable to the introduction of the Northern Pike.

The Ontario Federation of Anglers and Hunters (OFAH) has indicated that Spiny Water Fleas were found in Fairy Lake in 1998. Spiny Water Fleas compete with natural fish species by feeding on the zooplankton, which is a food of choice for many of the fish species in Fairy Lake.

Zebra Mussels have been invading the lakes of Ontario since their introduction into the Great Lakes, probably as a result of discharge from the ballast of the ocean going ships that frequent these lakes. Zebra Mussels can attach to recreational boats that are used on the Great Lakes and if these boats are launched in an inland lake, without the hulls being cleaned, Zebra Mussels can be introduced into that lake. It has not yet been reported that Zebra Mussels have been introduced into Fairy Lake and boat owners need to be diligent to ensure that the lake does not get contaminated.

Observations

- ***Exotic and non-native species such as Northern Pike, and Spiny Water Fleas have already invaded Fairy Lake.***

Recommendations* – *Exotic Species

66. The Fairy Lake Association should work with the Peninsula, Vernon and Mary Lake associations to post signage at all points of water access regarding the invasion of exotic species, their harmful effect on the lakes, and the procedures to ensure protection of the lake system.

5.9 Endangered And Threatened Species and Species at Risk

At this time there are no known endangered or threatened species in or around Fairy Lake. However the Eastern Hog-nosed Snake (heterodon platyrhinos) is one of a number of Species at Risk in Muskoka. With the pace of development that the region has been incurring, it is important to maintain the watershed lands in as natural a state as possible to prevent the loss of any native wildlife and vegetation.

Observations

- ***There are no known Endangered or Threatened species in the watershed, but there are Species at Risk.***

Recommendations* – *Endangered and Threatened Species and Species at Risk

67. The type and location of endangered or threatened species should be reported promptly to the Ontario Ministry of Natural Resources when these species are identified in the future.

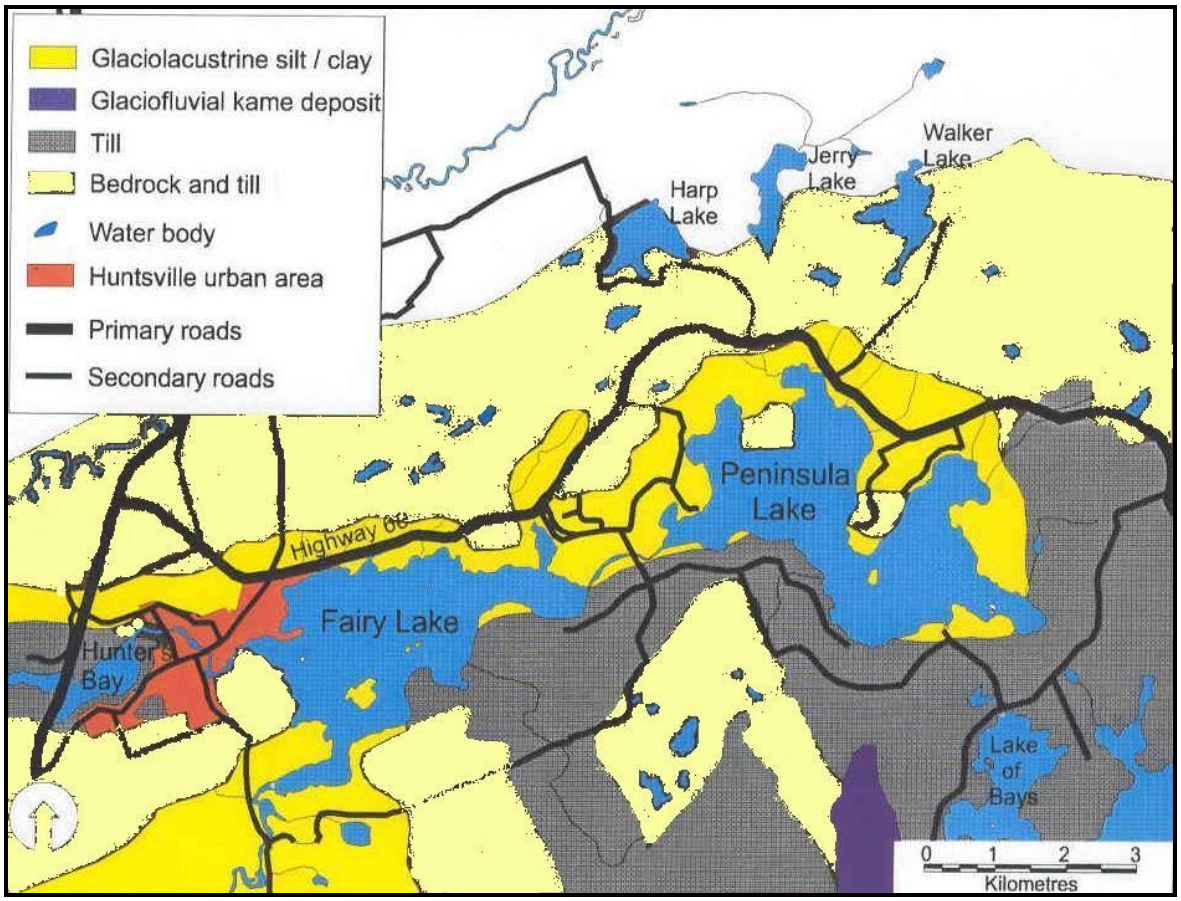
Section 6 Physical Environment

It is important to examine the physical aspects of territory surrounding Fairy Lake to identify constraints affecting present and new land development. Soils, floodplains, narrow water bodies, steep slopes, and locations of forests and non-renewable resources such as aggregates are discussed in this section. Map 14 (on next page) shows hazard lands that are identified in the District of Muskoka Official Plan. Generally, hazard lands are defined as those that are unstable for development and include wetlands, stream valleys, and steeply sloped areas.

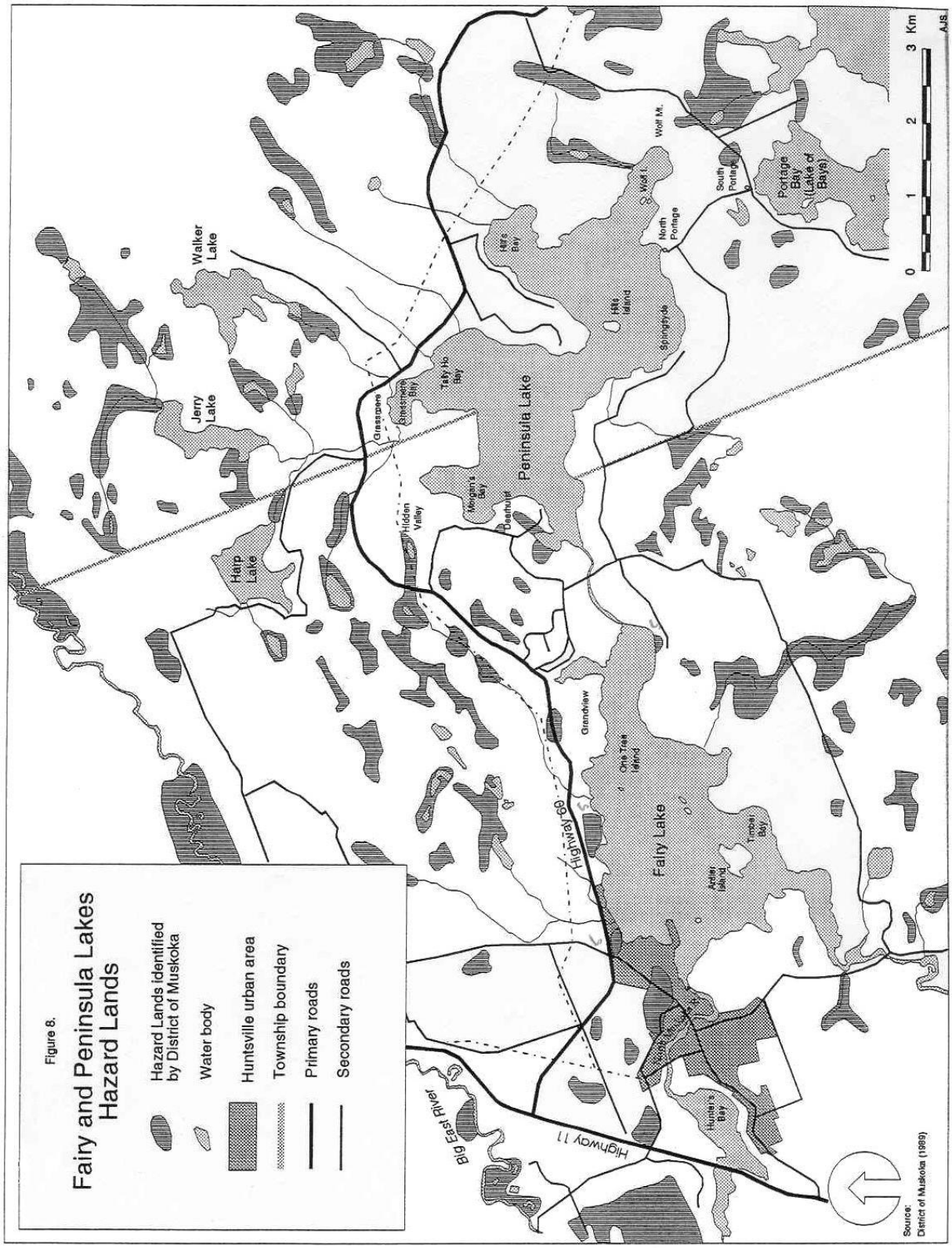
6.1 Soils

According to the study, Assessing Environment and Development, Fairy and Peninsula Lakes 1995, (Skibicki et al), soils in the sub-watershed are generally shallow, stony, sandy and acidic, with frequent bedrock outcrops. Soil potential for agriculture is low and accounts for the abandonment of farming in the late 1800's. The Skibicki study provides a detailed description and map of the soils as shown in Map 13.

Map 13 – Soils and Geology



Map 14 - Fairy and Peninsula Lakes Hazard Lands



The surficial deposits along the northern shore of Fairy Lake consist of glaciolacustrine deposits of silt and clay (Bajc and Henry, 1991). Thin discontinuous bedrock/till deposits occur in isolated sites. Along the south shore, silty fine to very fine sand till with bedrock outcrops is the main deposit type. Smaller deposits of till also occur in several locations (Skibicki et al, 1995).

Observations

- ***The overall thin soil cover of rock, silt, and fine sand makes many areas susceptible to erosion if disturbed, and stabilization by regeneration is difficult due to topography and other factors.***

- ***At construction sites, improperly contained fine soil particles and clay can result in uncontrolled erosion and introduction of sedimentation into the lake and its streams. Silting and sedimentation lead to water turbidity, which has the potential to affect the entire food chain.***

Recommendations - Soils

68. Development that causes major alteration of landscape and soils should be required to submit Storm Water Management and Construction Mitigation Plans. Construction specifications should include:
   a. Appropriate assessment of soil characteristics causing sedimentation and erosion; and
   b. Construction measures that are needed to prevent silting and erosion of banks of water courses.

69. All shoreline development should use appropriate silt screens and follow proper construction mitigation guidelines.

6.2 Floodplains

Property development in floodplain areas puts property and the health and safety of residents at risk and such development should not be permitted.

A floodplain is identified by the Muskoka District Official Plan at the west end of North Muskoka Bay where it borders Brunel Rd. and turns south into the North Muskoka River. The flood plain extends for about a kilometre to the west of Brunel Rd. Two additional, small floodplains are identified in the Huntsville study Growth Strategy for the Primary Urban Area of Huntsville to the Year 2016, one at the point formed by the bend in the Muskoka River North Branch just west of its entrance to the Lake, and the other crossing Scotts Point Road at the foot of Scotts Point.

Local plans and zoning by-laws recognize the 100-year floodplain elevation of 286.46 metres identified by MNR. As well the Huntsville Zoning By-law Section (3.16.3) indicates that the

minimum elevation of doors, windows shall be located 0.5 m above the following Regulatory Flood elevations:

- Fairy Lake 286.53 m.
- Muskoka River between Hunters Bay and Fairy Lake 286.30 m.

Observations

- ***Floodplains are small and being identified, do not pose a problem on Fairy Lake.***

6.3 Minerals and Aggregates

In the past, mica, feldspar, garnet, copper and gold were discovered south of Fairy Lake (Skibicki et al, 1995) but deposits were not of sufficient size to be economically exploitable and no recent survey has been made. Map 15 indicates the Bedrock Geology of the Fairy Lake – Peninsula Lake Area (Skibicki). The lack of up-to-date detailed inventories and mapping of geological resources for the area has been seen as a handicap to development of a resource strategy by agencies such as the MNR (MNR 1983); however, in 1987, the Ministry of Northern Development and Mines began to evaluate the mineral potential of the Muskoka-Parry Sound-Nipissing area.

Aggregates such as sand, gravel and rock, used for construction, industrial, manufacturing, and maintenance purposes, are plentiful, and two large sand and gravel pits are currently in operation in the watershed, at a distance north of the lake. Another deposit is located to the northeast, beside Hwy. No. 11, but no extraction is taking place. The Town of Huntsville does not have a by-law covering pits and quarries. The Planning Department Report, Growth Strategy for the Primary Urban Area of Huntsville to the Year 2016, September 1998, states in Part 5, Summary, Section d), Official Plan Amendments, that, "…areas have been identified in the Official Plan which require further policy development or alteration as follows:

> Aggregate Areas - North of Williamsport Road and immediately adjacent to Highway No. 11B is a large aggregate deposit and an active extractive industrial operation. Further analysis of the area should address the rehabilitation of these lands from their existing state to other uses in the event a proposal to develop these lands for other uses is initiated."

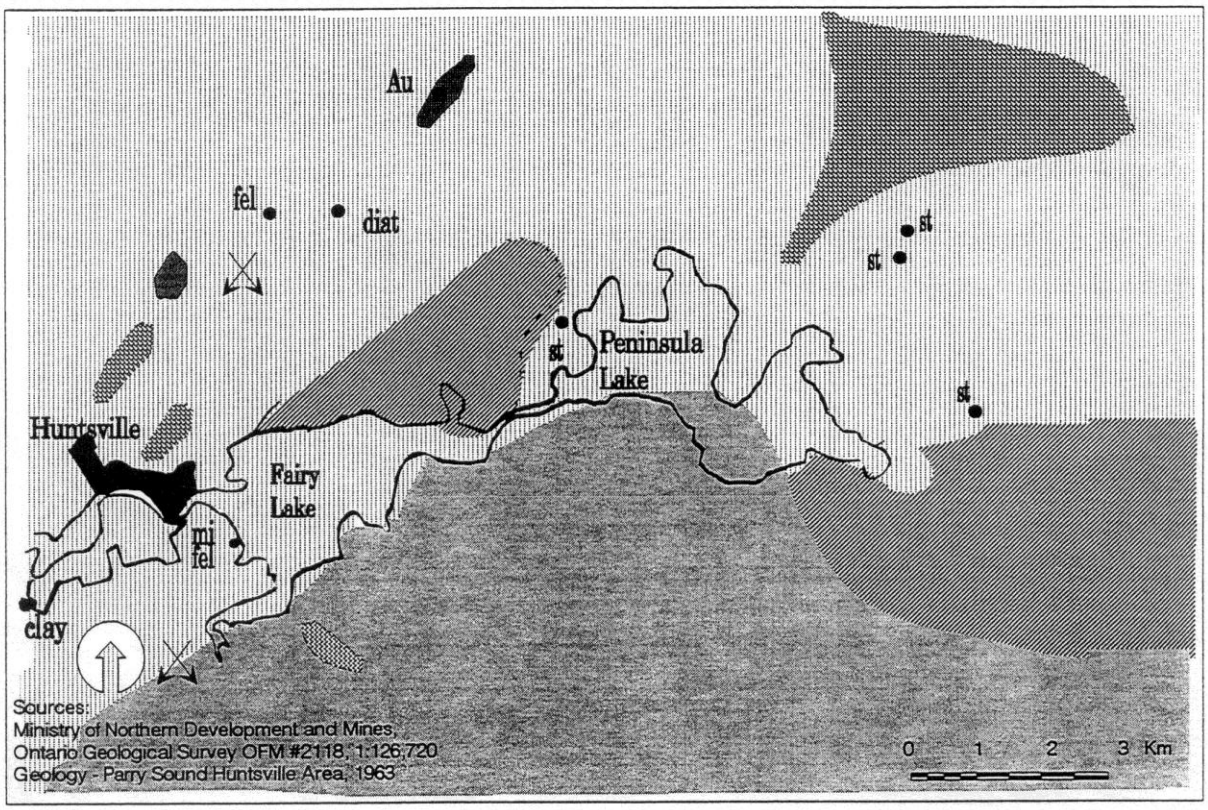
Observations

- ***While no extensive mineral extraction is now being undertaken, that situation may change in the future.***

- ***There is no municipal regulation of gravel pits in the Fairy Lake watershed although existing operations appear to be satisfactory.***

- ***The Town of Huntsville should amend the Official Plan to prohibit pits and quarries within the site horizon of the lake and to take into account rehabilitation of existing pits when operations are ended***

Map 15 - Bedrock Geology of the Fairy Lake – Peninsula Lake Area



LEGEND

	Banded biotite migmatite, moderately granitized		Paragneiss, plagioclase, quartize
	Banded biotite migmatite, with paragneiss		Diorite, diorite gneiss, metadiorite
	Banded biotite migmatite, slightly granitized		Amphibolite, hornblende gneiss, schist
	Peridotite, ultrabasic rocks		sand and gravel pit
clay	clay deposits	mi	Mica
st	stone	Au	Gold
diat	Diatomite	fel	Feldspar

<u>Recommendations</u> - Minerals and Aggregates

70. New mineral extraction sites and quarry expansions should be regulated to prevent negative impacts on streams feeding Fairy Lake.

71. The Town of Huntsville Official Plan should be amended as recommended by its Planning Department, and regulatory bodies should be encouraged to adopt a Pits and Quarries By-law that includes requirements for watershed protection and requirements to rehabilitate resource properties after operations are closed.

72. The Town of Huntsville Official Plan should be amended to prohibit the creation of new pits and quarries within the site horizon of Fairy Lake.

6.4 Narrow Waterbodies

The Official Plans for the District of Muskoka and the Town of Huntsville identify narrow water bodies as a physical constraint to property development. The background statement in the District of Muskoka Official Plan states:

> "Development on narrow water bodies tends to create problems for navigation and decrease the aesthetic beauty of the immediate area. Too many docks and boathouses protruding into a narrow bay or portion of a river may increase congestion and create a hazard with respect to water users. In addition, a congested portion on a waterbody detracts from the overall usual beauty of a waterbody. To discourage congestion in these areas, policy requiring increased frontage in narrow portions of lakes and rivers has been developed."

Generally, the District of Muskoka and Town of Huntsville Official Plan policy requires increased frontages of up to 120 m (400 ft) where a narrow waterbody on a lake is less than 150 m (500 ft), or a river is less than 30 m (100 ft) wide.

There are two areas which would be classified as narrow water bodies on Fairy Lake, namely, portions of property along the Muskoka River North Branch between the Main Street Bridge and the lake, and the entire length of the Canal at the east end of the lake.

<u>Observations</u>

- ***Many existing lots on narrow water bodies have less than the shoreline frontage requirements in the present Official Plan policy, particularly in the urban area where frontages are specified as street frontages, not shoreline frontages.***

- ***There are standards other than frontage that would reduce the impact of property development on narrow water bodies.***

***Recommendations* – Narrow Waterbodies**

73. New property development on narrow water bodies should conform to the Official Plan.

74. The Town of Huntsville should be urged to establish an Official Plan policy and zoning standards for property redevelopment that are compatible with maintaining the character of the narrow waterbody.

75. The Town of Huntsville should consider adding standards for property development and redevelopment that would reduce their impact such as: increased setbacks, decreased building height allowances, disallowance of boathouses, decreased dock length, and increased requirements for shoreline buffers.

6.5 Steep Slopes

Description

Land with steep slopes must be shown as a component of hazard lands and properly mapped. The background statement in the District of Muskoka Official Plan states:

> "Development in hazard areas must be done carefully and with full knowledge of possible slope instability and visual intrusion. Some of the more scenic homes in Muskoka are located on steep slopes and, where appropriate, future development may also locate in these areas. However, consideration must be given to building safety, aesthetic appeal and provision of waste and storm disposal facilities."

Official Plans of the District of Muskoka and the Town of Huntsville recognize steep slopes, defined as greater than 20%, as causing restrictions to development. For these lands, existing vegetation is to be substantially retained and a site evaluation report shall be prepared for private development. Lands with slopes greater than 40% require the submission and implementation of a satisfactory site evaluation report.

Observations

- ***Design of buildings on steep slopes must receive special attention to take into account terrain and aesthetic considerations.***

- ***Several areas surrounding the lake have steep slopes.***

Recommendations* – *Steep Slopes

76. Property with steep slopes should be identified in the Town of Huntsville's planning documents.

77. In Official Plans and Zoning By-laws, consideration should be given to special standards for development on steep slopes that address density, visual impact, and buffer zones.

6.6 Forestry

As stated in the report Assessing Environment and Development: Fairy and Peninsula Lakes 1995, Sibicki et al, 1998, the Huntsville area is said to contain some of the most productive mixed forests in the District of Muskoka. Tolerant hardwoods such as sugar maple and yellow birch are dominant over much of the area, and conifers proliferate between hardwood-covered hills.

Map 16 shows the classified areas of forests based on their commercial potential prepared by the District of Muskoka. Timber Site Class 1 areas represent mature, prime forest stands. Recently, many old abandoned farms have been reforested with pine, and many former fields have succeeded to mature hardwood forest stands. Private landowners are encouraged to conduct sound forestry management practices and to manage their woodlots through agreements with MNR under the Woodlands Improvement Act.

A Tree Cutting By-law (99-11) was passed by the District of Muskoka in March 1999, pursuant to the Forestry Act, R.S.O., 1990, Chapter F.26, as amended, having the intention of ensuring good forestry management in commercial operations. The By-law applies to woodlots where the total area cut in a year is less than 20 hectares, but it allows local municipalities to pass more restrictive by-laws that might cover smaller parcels of land.

Observations

- ***Regulations are in effect to ensure good logging practices for areas over 20 hectares, and can be initiated for smaller areas.***

- ***The District tree cutting by-laws do not deal with the visual impact of tree removal.***

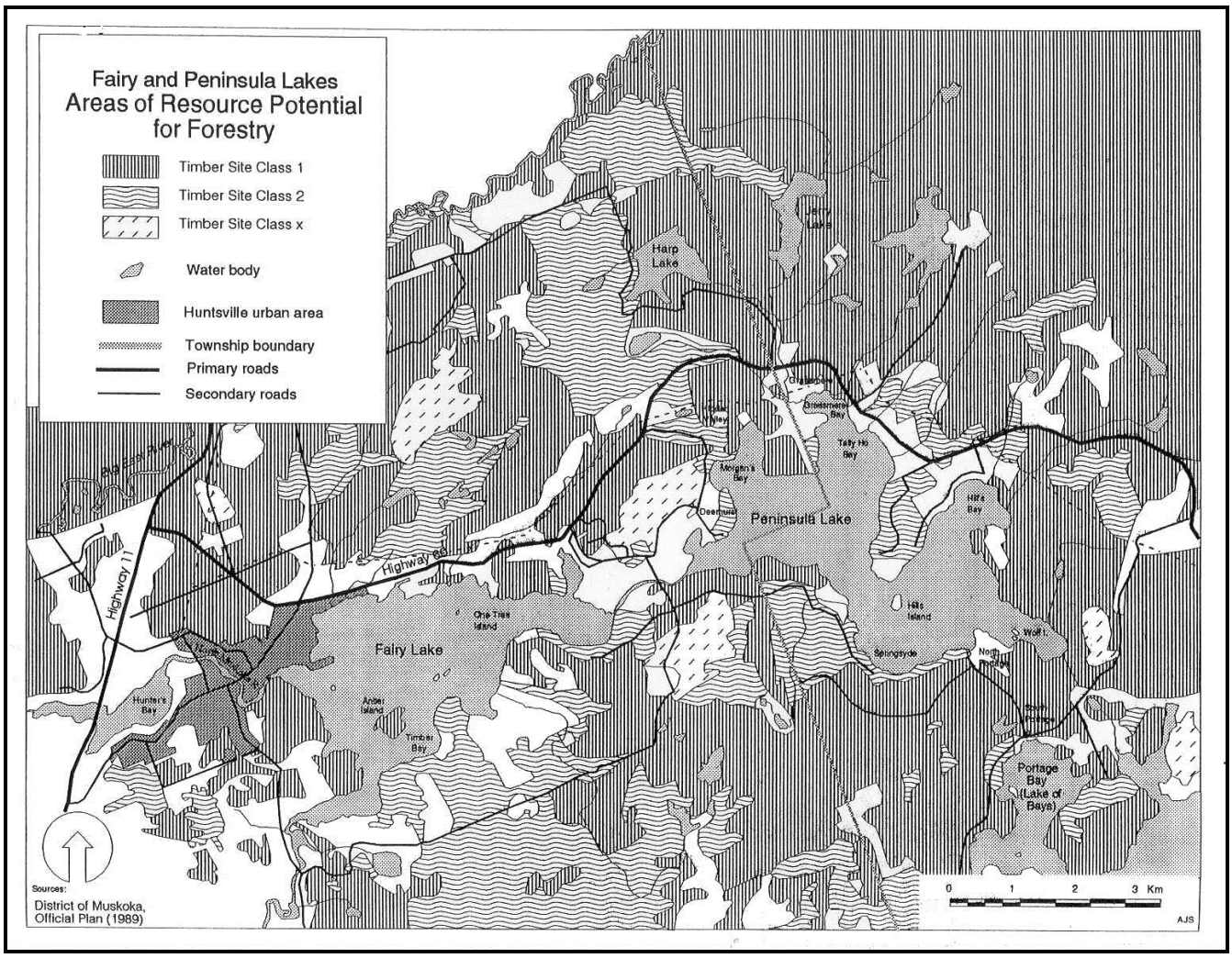
Recommendations* - *Forestry

78. Property owners should be encouraged to follow sound forestry practices, especially near lakes and streams.

79. Municipalities should be encouraged to amend the Tree Cutting By-law to impose stricter requirements for commercial operations and to cover visual impact.

80. With the authority now provided by the new Ontario Municipal Act, the Town of Huntsville should put into effect a tree preservation by-law for both urban and shoreline properties.

Map 16 - Areas of Resource Potential for Forestry



Section 7.0 Land Use

7.1 Current Land Use

7.1.1 General Development Description

Maps 6 and 17 show Huntsville's urban boundary and the 348 lots on the lake. Within the Huntsville urban area there are 172 lots, or 49.4% of the total lots on the lake; these include 37 along the Muskoka River North between its mouth and the Swing Bridge. Since the urban lots occupy 9,190 m of shoreline, the average urban shoreline density is calculated at 53.4 m per lot (178 ft/lot). Outside the urban area are the remaining 176 lots, or 50.6% of the total, occupying 14,350 m of shoreline, and giving an average shoreline density of 81.5 m per lot (271 ft/lot).

As reported in the Fairy and Peninsula Lakes Study, 1994 – 1998, the shoreline was mapped in 1994 (D.O. Evans, OMNR, Trent University, Peterborough, unpublished data), and data on shoreline development and land use within 50 m of the lake were as given in Figures 22 and 23. The land use classifications presented in the two Figures were, as follows:

Commercial	Resort, condominium, marina
Urban	Areas with municipal sewer and water services
Recreational	Golf courses
Agricultural	Pasture and cultivated lands
Light cottage	1 cottage per 100 m
Heavy cottage	More than 1 cottage per 100 m, or 1 cottage and > 25% riparian or upland vegetation removal
Undeveloped	No structures

Figure 22 – Shoreline Land Use

Type of Land Use	Length of Shoreline (km)	Percentage (%)
Urban	1.925	7.80
Commercial	2.650	9.93
Recreational	0.310	0.71
Agricultural	1.305	5.32
Heavy Cottage	9.193	39.96
Light Cottage	3.447	14.54
Undeveloped	4.689	22.34

Source: The Fairy and Peninsula Lakes Study, 1994 – 1998, Cornelisse and Evans

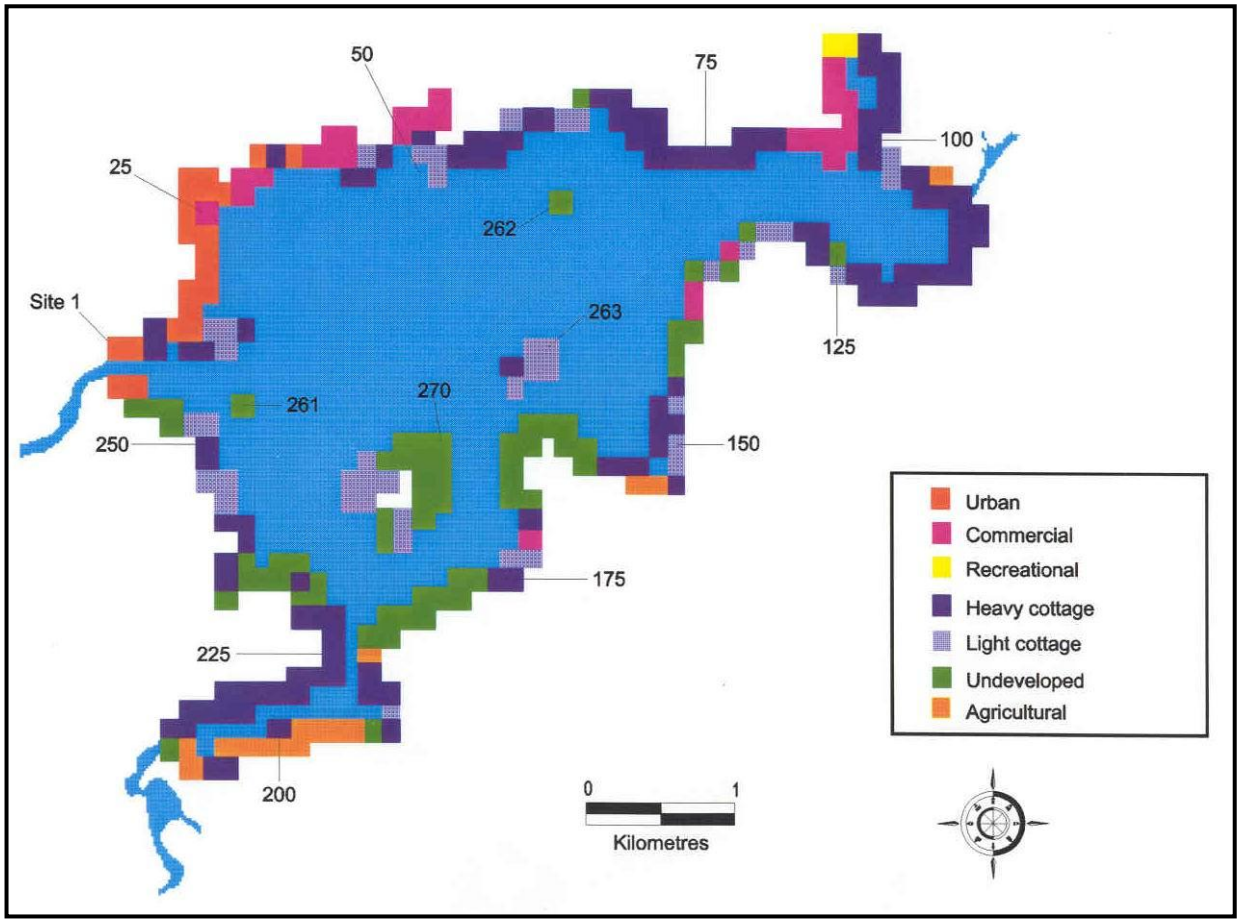
Insert Map 17 Fairy Lake Land Use

Figure 23 - Land Use within 100 m of Fairy Lake

Urban	7.8%	Agricultural	5.3%
Commercial	9.9%	Heavy cottage	39.4%
Recreational	0.7%	Light cottage	14.5%
Undeveloped	22.3%		

Source: The Fairy and Peninsula Lakes Study, 1994 – 1998, Cornelisse and Evans

Map 18 – Shoreline Land Use at 100m



Source: The Fairy and Peninsula Lakes Study, 1994 - 1998, Cornelisse and Evans

Current land use in the Fairy Lake area is shown on Map 17. As seen from the map and the above tables, the shoreline is primarily residential (> 50%). According to the September 2000 Residential Survey, average lot size was 2 acres, while 24% were greater than average. Average shoreline length was 246 ft.

7.1.2 Residential

Figures 22 and 23 and Maps 17 and 18 indicate that the largest use of land is residential, either as homes, condominiums, or cottages. Urban developments are mainly served by the municipal sanitary sewer system, while most cottages rely on septic systems.

There are three residential condominiums on Fairy Lake; Rogers Cove Condominium (20 units), Legends I Condominium (14 units), and Delta Grandview Resort (145 units of which 15 are residential and 130 are on short-term rental plans). Grandview Resort also has 30 resort rooms for short-term occupancy. A new forty unit condominium development (Lakeside Place) has been approved for construction in 2003 on vacant waterfront land on Hwy. 60 on the site of the former Northland Canoe.

According to the 2000 Resident Survey (Appendix 1), on average, families had been lake residents for 28 years. Some families have been coming to the lake for over 100 years. 62% of those surveyed were permanent residents, 34% were seasonal, and 4% were weekenders. About 8% of the seasonal residents intended to become permanent. Seasonal residents occupied their lake accommodation mainly in the summer (63.2 days) and fall (15.5 days) while in the winter and spring occupancy time was low (0.6 days and 2.0 days, respectively).

7.1.3 Commercial

Commercial enterprises have a long history on the lake. With the exception of Swallowdale Camp, all are on the north shore, served by municipal services. Those that are directly on the lakes include:

- Delta Grandview Resort – 15 residential condominium units, 130 rental condominium units, 30 resort rooms, conference facilities, restaurant, golf, tennis, water activities, winter activities, trails
- Huntsville Marine – marina, boat and ATV sales, servicing, rental, and storage
- Muskoka Landing Long Term Care Facility – nursing home
- Rogers Cove Retirement Home
- River Bend Bistro – restaurant
- Swallowdale Camp – summer camp
- Bed and Breakfast – 2

Commercial operations that are within 100 m of the lake include the following:

- Robinson's Independent Grocer
- Canadian Tire Associate Store
- Three Guys and a Stove Restaurant
- Legends Bldg., Hwy. No. 60, containing The Butcher's Daughter restaurant, and offices of lawyers, surveyor, realtor, and environmentalist
- Parkway Plaza, Hwy. No. 60, containing a fitness centre and five small retail outlets

Complaints of lighting pollution originate mainly from commercial sites on or near the lake, since parking lot and sign lighting are commonly activated over all hours of darkness. There is no

municipal regulation of outdoor lighting and it is becoming a concern, not only for Delta Grandview Resort's planetarium for viewing night skies (as reported in the Huntsville Forester) but for lake residents looking for true-to-nature conditions.

7.1.4 Urban

The urban environment encompasses 38.8 % of the Fairy Lake shoreline (See Map 17). Urban development has the potential to affect lake characteristics through the higher density of development on shoreline properties, high population density, commercial enterprises, street noise, lighting pollution, air pollution and storm water runoff. Urban residential properties have in the past been sized for street effects rather than shoreline effects, being regulated to a 60 ft. street frontage instead of the desired 100 ft. (30 m) minimum width for waterfront lots.

Sanitary and storm sewage in the urban areas have been established to meet demand, and the Town of Huntsville is served by a modern sanitary sewage treatment facility discharging into the lake. Sanitary sewage treatment is conducted to prevailing standards and careful monitoring of effluent is carried out.

7.1.5 Recreational

The main town-owned park on Fairy Lake is Muskoka Heritage Place, which has boat launching and docking facilities, Lion's Lookout, and a beach and picnic ground at Camp Kitchen. Other public parks on the lake include: a picnic area at Brunel Locks, a small, grassed area at the Swing Bridge, and three small residential parks. The total shoreline length of Town-owned parks is 738 m, of which over a half is at Muskoka Heritage Place. Less than 1% of private, shoreline property (the Grandview Golf Course) is for public recreational purposes.

7.1.6 Agricultural

Agricultural designation (RU1) is confined to the south shore. Farm land and managed forest land are shown on Map 17.

7.1.7 Industrial

There is no current industrial use of property located on Fairy Lake shoreline, but there is a major industry (KWH Pipe (Canada) Ltd.) on the North Muskoka River feeding into the lake.

Observations

- ***Fairy Lake has two distinct characters, i.e., urban and non-urban. Some past urban development does not appear to have considered the nature of the waterfront.***

- ***Most of the shore is used for private residential purposes and many shorelines have been significantly altered. The beauty of shorelines can be affected by unthinking or unwitting changes to shoreline composition and vegetation, and by indiscriminate***

shoreline tree cutting that is now permissible through the lack of any restricting regulation. Water quality can be affected by the use of unsuitable fertilizers and toxic herbicides on lawns and other landscaped areas.

- ***Population density on the lake outside of the urban area is not at a high level. There are two condominium buildings and one resort on the lake. The ratio of permanent to seasonal residents is 1.5:1.***

- ***The number of people living on and using the lake has a direct effect on water quality and personal well-being. Increased population can result in pollutants migrating to the lake from septic systems, as well as affect aesthetics, noise, boating, and recreational enjoyment.***

- ***Most urban property is served by water and sanitary sewage services, both of which are treated.***

- ***Commercial enterprises on the lake attract and service the tourist trade and add to the burden on the lake caused by temporary users.***

- ***While there are no industrial activities on Fairy Lake, an industry is located on Muskoka River North, which feeds into the lake.***

- ***Public lake property is limited, and there are only two public launching ramps.***

7.1.8 Docks and Boathouses

Docks and boathouses are prevalent along the Fairy Lake shoreline and almost all residential and resort properties have at least one shoreline structure. As one of the terms of funding of the Lake Plan by the Ministry of Natural Resources, a comprehensive was survey carried out by the Lake Plan Committee to obtain details of all shoreline structures on the lake. The results of this study are in the hands of MNR, and will be provided to the Fairy Lake Association when MNR has put them in digital form.

From the survey, it was determined that there are 311 docks on the lake, as shown in Fig. 24.

Figure 24 – Docks on Fairy Lake

Type of Support	No.	%	Type of Support	No.	%
Crib (mostly local rocks)	189	60.8	Natural Rock or Shoreline	9	2.9
Post or Pole	76	24.4	Cantilever	7	2.3
Floating	28	9.0	Concrete	2	0.6

From the survey, it was determined that there are 49 boathouses (covered slips were not considered as boathouses) on the lake, as shown in Fig. 25. These boathouses contained 64 boat slips.

Figure 25 – Boathouses on Fairy Lake

	No.	**%**
One Storey	37	75.5
Two Storey	12	24.5
	49	

The Lake Plan Committee members who conducted the study commented upon the large number of boathouses that were poorly maintained or derelict.

The Fairy and Peninsula Lake Study, 1994-1998, Cornelisse and Evans, states the following:

> "Boathouses and docks fragment the critically important and highly productive shoreline ecotone. Individually, these structures may not have a large impact on near shore habitats, but cumulatively, they may cause impacts."

Crib docks have the greatest impact on the delicate bed of the lake (A Guide to Shoreline Management in Muskoka, Muskoka Heritage Foundation).

Observations

- ***There are 311 docks and 49 boathouses on the Lake. Considering that the Lake has a perimeter of 22.5 km, it is calculated that there is a dock or boathouse every 62.5 m.***
- ***Most residences on the lake have a dock or a boathouse.***
- ***Crib docks are the most common type of dock on Fairy Lake.***
- ***24.5% of the boathouses have two storeys.***
- ***A large number of boathouses are poorly maintained and some are derelict.***

***Recommendations* – Docks and Boathouses**

81. The current by-law should be amended to disallow additional boathouses being built, as is the case on many lakes in Ontario, or impose the following requirements:

- *No two-storey boathouses.*
- *Increased side yard setbacks of a minimum of 4 m from the projected lot line to ensure that a boathouse is not constructed in front of the neighbours' property and view.*
- *Maximum height of 4 m, measured from top of dock to highest point of the roof.*
- *A boathouse shall be erected only on a lot having the required minimum 30 m (100ft) shoreline frontage, not be in critical fish habitat, and have an increased setback where the roof is a sundeck.*

82. Residents should be encouraged to install post-supported docks or floating docks instead of crib docks because of their lower impact on the lakebed and aquatic life.

83. The balance between natural state and built sections of shoreline activity should be appropriately maintained by regulations to restrict the cumulative size and location of docks and boathouses, as follows:

a. Shoreline construction should total no more than the following:

- *For single residences, 25% of shoreline frontage or up to 23 m, whichever is less,*
- *For residential cluster development, 25% of shoreline frontage of the open space block or up to 30 m, whichever is less,*
- *For resorts commercial development, 33% of shoreline frontage,*
- *For marinas 50% of shoreline frontage.*

b. A natural vegetative buffer, at least 5m in depth, should be provided on all lots.

7.1.9 Undeveloped Land

Undeveloped waterfront land could be utilized for new development in the future. Detailed information was obtained from the Town of Huntsville, Dept. of GIS and Cartography. The 2000 Assessment Records were examined to determine the amount of vacant shoreline, and Map 19 dated Feb. 19/02, was developed to show the location of vacant properties.

The map and 2000 Assessment Records show a total of 3,766 m of shoreline in various zoning classifications as being vacant. It should be noted that this figure is slightly less than the 4,689 m figure given in Figure 4 (page 12), but is considered to be accurate with the changes taking place in the past 4 – 8 years. Since the allowable width of a residential non-urban shoreline lot is 60 m, by examining the actual shoreline length of individual vacant lots the number of residential lots, which the 3,766 m of vacant shoreline could accommodate, was determined to be 36.

In addition to vacant land, it is apparent that existing land in the Rural Designation (see Map 17) on the south shore of the lake might be subdivided for residential purposes. By scaling shoreline lengths from Map 19, it was determined that these lots amount to 3,515 m of shoreline, and in examining the actual width of individual rural lots it was determined that they could accommodate a total of 56 developed lots of 60 m frontage.

As a result, vacant land and farmland provide 7.28 km of shoreline available for future waterfront development, which has the potential of providing a maximum of 92 more residential lots on the lake, if subdividing to residential size lots (60 m lot frontage) and rezoning takes place. This sizeable number of possible new residences gives cause for ensuring careful consideration of future development and mindful recognition of the precedents created by past development.

There are other sources of land for future development that were not included in the above determination, namely, land on both sides of the Canal, vacant land owned by Delta Grandview Resort and by Swallowdale Camp, and parcels of land between the Marina and Golden Pheasant Drive.

Therefore, it is apparent that considerable land development could take place on Fairy Lake. Factors hindering intense development are zoning, demand, cost, and road access, but the future could see some, or all, of these barriers being overcome.

Observations

- ***A considerable amount of undeveloped property on the lake exists and contributes greatly to the natural beauty of the lake. This property has the potential of being sub-divided into a large number of residential lots.***

Recommendations – Undeveloped Land

84. Applications for rezoning and subdividing shoreline property should receive careful and scrupulous attention, with the involvement of all interested parties. Notices of application should be sent to the Fairy Lake Association and other concerned bodies. The policy stated in the Official Plans of the District and the Municipality for a lot in the waterfront designation, should be strictly followed. No industrial use of waterfront property should be allowed, even within urban areas.

85. The ultimate extent and location of land development on the lake should be predetermined, taking into account the varying concerns of stakeholders for conceivable residential and commercial development. A professional planner should be engaged to carry out this determination. Of particular importance is the need for advanced planning to establish policy regarding the extent and location of future multiple residential buildings on waterfront property. Regulations for lot frontage, area coverage and setback provisions should be scrutinized to ensure that they are generally appropriate, and recommendations made for needed changes.

Map 19 – Vacant Land

7.2 Future Growth Plan

The Town of Huntsville developed a Growth Strategy for the Primary Urban Area of Huntsville to the Year 2016. Its purpose was to direct and manage future development of the urban area. The plan encourages industrial, commercial, and residential expansion to take place mainly to the north of existing urban development.

Land to the north of Hwy No. 60, bordering Muskoka Rd. 3, is also identified as a favourable growth area because of its accessibility to water and sewage services, its proximity to urban services such as hospital and retail facilities, and the availability of a road network. One constraint, Gypsy Bill Creek, is identified for some development. It is to be expected, as well, that the Hwy. 60 corridor will see future development to the east, at least as far as Grandview Resort, in the long-term.

Various physical and man-made constraints also influenced the Town's decision to choose the area to the north for future development (See Map 20).

Physical Constraints – wetlands, aggregate areas, Big East River valley and floodplain, Gypsy Bill Creek.

Existing Man-Made Constraints - new sewage plant, highway #11, two golf courses, the existing road system, and the water treatment plant

According to the Growth Strategy, the population of the Town of Huntsville was 15,918 in 1996 (Canada Census) and the projected population figures are 19,981 for 2006, and 25,082 for 2016, assuming no unusual phenomena.

The entire Town of Huntsville has a ratio of 1.35 permanent residences to 1 seasonal residence. Issued building permits averaged 169 per year for the period 1981 – 1995, with 47% in the rural area, 25% in the primary urban area, and 19% on waterfront property.

Observations

- ***There is the potential for significant development along Hwy. 60 and from Hwy. 60 northward along Muskoka Rd 3. Without appropriate care, development could bring about adverse visual impacts on and from the lake caused by removal of trees, ridgeline interruptions, building scale, and increased lighting.***

Recommendations - Future Growth Plan

86. The Official Plan should provide policy regarding the development north of Hwy.60 to avoid adverse visual impacts on and from the lake, which could be caused by removal of trees, ridgeline interruptions, building scale, and increased lighting.

Map 20 - Physical and Manmade Opportunities and Constraints

7.3 Land Use Regulation

The purpose of this section is to describe the municipal planning regulations that apply to Fairy Lake in order to ensure that appropriate consideration is given for the protection of lake values and to promote the consistent application of land use regulations in the Town of Huntsville.

Within all municipalities there are regulation tools and policies that govern land use. Official Plans provide the general land use policy that describes how land can be used. An Official Plan is prepared with the input of the public and it ensures that future planning and development will meet the needs of the community. All development must conform to the Official Plan. Zoning By-laws provide a means to regulate the use and location of buildings and structures. As well, Site Plan Control guidelines and Consent Agreements can ensure certain construction and design standards are maintained.

There are two Official Plans that apply within the watershed of Fairy Lake: the District of Muskoka Official Plan and the Town of Huntsville Official Plan. The District Official Plan provides general land use direction for all six municipalities in the District Municipality of Muskoka, and the Huntsville Official Plan provides more specific local direction for the Town of Huntsville. Both of these plans provide detailed and comprehensive policy about future development.

7.3.1 District Of Muskoka Official Plan

> "Policies in the Official Plan strike a balance between growth and development and the preservation of the natural Muskoka environment."
>
> *- Strategic Vision, District of Muskoka Official Plan*

The Official Plan of the District of Muskoka is a legal document that contains a set of policies that guide municipal land use decisions about how a municipality will grow. The policies in this plan apply to the entire District of Muskoka and set the stage for more detailed planning policy to be developed by the area municipalities. As well, the District of Muskoka oversees applications for large-scale residential (subdivision) or official plan amendments and grants final approval for such developments once specific criteria have been met.

The District is interested in:

- Managing natural areas, lakes and resources in a manner that respects ecological processes and sustainability, and
- Planning for future population growth and business development.

Water Quality - The District of Muskoka is one of the first municipalities in Ontario to institute a comprehensive water quality program. This program recognizes the impacts of phosphorous on water quality and is used to protect the recreational quality of the water by limiting shoreline development. Section F of the Plan states that:

The single most significant impact on water quality on most recreational lakes in Ontario is the increased levels of nutrients, particularly phosphorous, which are entering surface water bodies. The sources of phosphorous are both natural and man-made. Natural sources of phosphorous include such things as precipitation and natural drainage from the watershed. Man-made sources of phosphorous include increases in overland flow as a result of disruption in the natural vegetation (leading to erosion), use of fertilizers, and increased storm water run-off from impervious surfaces and leaching from septic systems. Waste disposal (i.e. septic systems) is considered, however, to be the most important source of phosphorous to recreational lakes, although highly urbanized shorelines may also be significant. (F4)

The Background Statement on water quality in the District of Muskoka Official Plan indicates that the District provides a standard for each lake. Chlorophyll 'a' objectives are identified and become targets against which existing and future uses and related water quality conditions are measured. Figure 26 indicates that the District of Muskoka Official Plan has established an objective of 3.0 ug/l of chlorophyll 'a' for Fairy Lake and where targets are exceeded no further development is permitted. Presently, Fairy Lake has a chlorophyll 'a' level of 1.8 ug/l, and its rating is "not sensitive" to additional development. "Not sensitive" means that the lake is not nearing capacity and that there are more than 10 lots left to develop on the lake. However, this capacity could be depleted if significant development is proposed.

Figure 26 – District of Muskoka Official Plan – Water Quality Objectives

Lake Section	Township	Municipality	Water Quality Objective	Sensitivity
Fairy Lake (main)	Chaffey	Huntsville	3.0 ug/l (micrograms per litre)	Not sensitive
Fairy Lake (N. Muskoka Bay)	Brunel	Huntsville	3.0 ug/l (micrograms per litre)	Not sensitive

Source -Table 6 District of Muskoka Official Plan

Settlement Pattern Policy - The District Official Plan identifies four types of settlement patterns on lands surrounding Fairy Lake: Urban, Community, Waterfront and Rural. While each settlement has its own set of policies regarding growth and development, the District of Muskoka Official Plan also contains a shoreline development policy to help reduce the impact that development might have on water quality and to promote environmentally sound development. The Settlement Pattern Policy described in the District's Official Plan provides a guide for area municipalities when making decisions about future development.

1. *Urban Centre Designation* - The District of Muskoka Official Plan identifies the communities of Huntsville and Hidden Valley as Urban Centres, which service the urban, rural and waterfront designations. Development in these areas is expected to proceed on the basis of municipal sanitary sewer and water services, and generally, densities would be expected to be higher than surrounding waterfront and rural areas.

Section D.4 states that Local Official Plans will address specific development issues in Urban Centres and in particular, they will determine the scale and function of development and ensure that:

- The land needs of the municipality to meet urban population and employment targets are met;
- Adequate sewer and water services are available to accommodate proposed development;
- An evaluation is made to ensure the qualities of the natural and cultural heritage of the community are maintained;
- Hazard lands are identified and protected; and
- The character of the surrounding rural area is recognized and maintained.

Section D.6 states that the expansion of the boundaries of an Urban Centre (Huntsville) will be permitted with an amendment to the Official Plan based on a growth management study. (See, Growth Strategy for the Primary Urban Area of Huntsville to the year 2016. Section D6 f), h) states that among other considerations, the impact on the surrounding rural community and on significant natural areas is to be considered during this expansion planning.

2. *Community Designation* - Communities are small development nodes that generally function as service centres for the immediate rural and waterfront areas. Communities are expected to grow more slowly than urban centres and at a density that can be serviced with private individual services. New development in Communities must consider the:

   - Maintenance of the surrounding rural or waterfront community;
   - Management of significant natural areas; and
   - Impact on water quality.

   "The Locks" has been designated as a Community comprising a small historical development.

3. *Waterfront Designation* - The Waterfront designation generally includes those lands extending inland from the shoreline 150 metres (500 feet) of any standing waterbody greater than 8 hectares (20 acres) in area or any substantive river or other waterbody that physically or functionally relate to the Waterfront designation. Although extending beyond 150 metres from the waterbody, these areas will be deemed to be within the Waterfront designation. The Waterfront designation also includes the beds of waterbodies.

   Section D.17 of the District Official Plan states that the Waterfront is a sensitive area and as such, permitted uses are limited to:

   - Single unit residential dwellings;
   - Tourist Commercial and other commercial uses that relate to the waterfront area (i.e. resorts, camps, restaurants and attractions);
   - Industrial development that services the waterfront community (i.e. contractors yards, boat repair and accessories);

- Open space uses; and
- Waterfront landings.

Other relevant policies of the Waterfront designation include:

D.18 - The Waterfront is a major recreation resource area that should be made accessible to both public and private users.

D.19 - Waterfront lots should be sized and designed to recognize environmental, man-made or other influences including, soil, terrain, water quality, fish habitat and waterbody constraints.

D.20 - The maintenance of the shoreline of lakes and rivers is key to preserving the natural and cultural heritage of Muskoka.

Generally, single unit residential development with significant natural vegetation is the predominant land use in the waterfront designation, mixed with tourist commercial and other water related commercial activities. The requirements for new residential shoreline lots are a minimum lot area of 0.4 hectares (1 acre) and a minimum lot frontage of 60 metres (197 feet). Area municipalities, however, will be able to establish a variety of lot sizes and frontages reflective of environmental constraints such as soil, terrain, water quality, fish habitat and waterbody constraints.

The District Official Plan also requires back lot development (second tier of development in the waterfront designation) to have substantially increased lot sizes with respect to frontage and area on a publicly open and maintained road. Agricultural uses will generally not be permitted in the waterfront designation.

4. *Rural Designation* - Rural lands are the lands outside of urban communities and the waterfront designation and include most of the lands surrounding the south and east sides of Fairy Lake. The rural area is generally comprised of a mix of resource-related activities, single unit residential and other small scale or space extensive developments. The character of the rural area is, for the most part, an expansive, aesthetically pleasing and predominantly open landscape with large tracts of land remaining in a natural state. The conversion of wetlands to agricultural purposes will be controlled where possible.

Observations – District of Muskoka Official Plan

- ***Fairy Lake has a water quality objective of 3.0 ug/l and current chlorophyll 'a' measurement of 1.8 ug/l. The rating is "not sensitive" and as a result, Fairy Lake has no development restrictions due to water quality.***

- ***The lands around Fairy Lake have a mixture of four settlement patterns: Urban, Community, Waterfront and Rural. Urban and Waterfront forms of development***

dominate.

- ***Official Plan policy states that backlot development must have substantially increased lot sizes and there is no backlot designation in the Town of Huntsville Official Plan or Zoning By-law.***

<u>Recommendations</u> – District of Muskoka Official Plan

87. Although the District of Muskoka does not consider Fairy Lake to be at risk due to present phosphorous levels, local Official Plans should include policy that ensure urban development considers and maintains the character of the surrounding waterfront designation by having regard for density, lighting, urban noise, tree line, and natural wildlife habitat.

88. Properties in a back lot designation impact the waterfront and should be recognized in Huntsville's zoning by-law with minimum requirements for lot configuration and building location.

7.3.2 Town of Huntsville Official Plan

The Town of Huntsville Official Plan complements and expands upon the policies detailed in the District of Muskoka Official Plan. The Huntsville Official Plan is intended to guide the decisions of Council and local development review authorities with regard to the wise use and management of land and resources in the Town of Huntsville.

The Official Plan has no termination date but is, however, subject to a continuing review to ensure that the policies are practical, meet the needs of the community and provide direction for new situations. The Official Plan is reviewed every five years but may have amendments if the need is justified. To date, there have been a number of amendments. A few of these amendments have introduced new general policy; however, most of the amendments have been related to specific development proposals.

In mid-2003, the Town of Huntsville instituted a review of the Official Plan and requested both financial assistance and additional manpower from the District of Muskoka in order to begin the process. The public will be notified of any proposed changes and recommendations from the public will be invited.

There are ten general goals that provide guidance for development in the Town of Huntsville. Some of the most relevant to the Fairy Lake watershed include:

- *Economic* - To develop an economic environment and capability in the Town which will provide new and continuing employment growth and opportunities effectively utilizing the skills and initiatives of existing and future residents.

- *Environmental* - To enhance and protect the quality of the natural and man-made environment while providing for economic growth.

- *Municipal Services* - To provide adequate and efficient systems of water supply, sanitary sewage, storm drainage, roads, and waste disposal.

- *Community Facilities* - To maximize the use of and to provide a wide and varied range of open space, recreational, institutional, educational, and cultural facilities.

- *Commercial* - To strengthen and maintain the commercial base of the Area Municipality while ensuring a varied commercial economy to serve the needs of the residents of the Area Municipality, adjacent communities and the traveling and vacationing public.

Settlement Patterns - Similar to the District of Muskoka Official Plan, the Town of Huntsville Official Plan provides land use direction for a series of land use designations. The five designations used within the Town that apply to the Fairy Lake watershed are: Waterfront, Primary Urban Area, Secondary Urban Area, Communities, and Rural.

1. *Waterfront Designation* – These lands are textually described as being within 150m (500ft.) from any standing waterbody greater than 8 hectares (20 acres) or any river. There are no maps showing the precise location of lands with this designation. It is important to note that the Waterfront Designation is not to extend within any limit of a Primary Urban Community, Secondary Urban Community or Community designation. It does apply, however, to all other land on the Fairy Lake Waterfront.

   The permitted land uses in a Waterfront designation are limited to:

   - Residential development limited to single detached dwelling units;
   - Restricted Commercial development limited to resort commercial and marina development;
   - Open space uses; and
   - Public uses.

   The Town of Huntsville Official Plan generally repeats the policies of the District of Muskoka Official Plan, with the exception that the District of Muskoka allows industrial development that services the waterfront community. Before the 2003 review, the Town of Huntsville Official Plan stated that, “The Waterfront is a unique recreational resource and land asset, and as such, development should enhance and protect the environmental qualities that contribute to the Waterfront designation.” The Site Regulations for Waterfront property are comprehensive and demonstrate the Town’s commitment to maintaining the health and quality of the lakes in the municipality. As further waterfront protection, the Official Plan includes an ‘Areas of Use Limitation’ designation for lands with physical and natural constraints.

The following policies apply to new development in the Waterfront Designation:

4.1.1 - A minimum setback of 20m (66 feet) from the controlled or normal high water mark is required for all development with the exception of permitted accessory structures and marina facilities. Where the 20m setback cannot be met, a lesser setback may be considered.

4.1.2 - Buffering and screening may be required as conditions of development in order to ensure that a proposed use is compatible with surrounding uses, or to ensure that the aesthetic and environmental quality of the site is maintained or enhanced.

4.1.3 - Tree cover and vegetation must be retained and/or required wherever possible to prevent erosion, siltation and possible nutrient mitigation.

4.1.6 - No dredging, filling or alteration of the shoreline of any natural watercourse or waterbody will be permitted without prior written approval of the Area Municipality, The Ministry of Natural Resources and any other authorized approval agency. No structures, including docks, boathouses or retaining walls, are to be permitted below the controlled high water mark without prior written approval of the Ministry of Natural Resources or other authorized approval authority.

4.1.7 - The height of any development is to minimize any adverse visual impact within the Waterfront designation.

4.1.11 - Buildings and structures extending beyond the normal high water mark of a waterbody will be designed and built in a manner that does not have significant detrimental effect on critical fish habitat as determined by the Ministry of Natural Resources.

4.1.12 - No dwelling unit is permitted as part of a boathouse.

Section B 10 (Specific Lake Policies) provides specific polices that are related to water quality issues of certain lakes. While this section includes specific policy for Fairy Lake, the Official Plan does not appear to support the concept that these policies may be related to values other than water quality. Section 10.2.14 of the plan states:

10.2.14.1 The water quality objective (chlorophyll a) for Main Section of Fairy Lake is established at 3.0 micrograms per litre.

10.2.14.2 The water quality objective (chlorophyll a) for North Muskoka Bay is established at 3.0 micrograms per litre.

10.2.14.3 Fairy Lake has been identified as a cold water lake trout lake. The Ministry of Natural Resources shall comment on the impact of any development proposal on the lake trout fishery.

2. *Primary Urban Area Designation*– This designation applies to the lands within the boundaries of the urban portion of the Town.

   Section 2.3, of the Official Plan, recognizes that the influence of this area may extend beyond the identified limits of the community and Section 4.1.1b states that development should be sympathetic to the natural environment.

   There are several Special Policy Areas that may have potential impact on Fairy Lake:

   Area No. 4 consists of a variety of commercial and residential uses along Highway 60.
   Area No. 5, Rogers Cove, has provisions for altering the shoreline of Fairy Lake, which were approved by the Ministry of Natural Resources.
   Area No. 6, the Lookout, has policy specific to the development that was previously planned for this area. Section 5.6.7.2c states that, "Development shall complement and enhance the scenic character of the area and the adjacent water resource".

   In the spring of 2001, the Environmental Assessment Committee submitted a recommendation to the Town Planning Department to make amendments to the Official Plan and Zoning by-laws that would require new residential lots in the urban area of the Town to have a minimum 30m (100 feet) frontage on the waterfront. According to Town Planning Department, there are about 140 serviced residential lots on the shoreline of the primary urban area of Huntsville. Of this total, only 51 lots have existing frontages greater than 100 feet. Of these, about 30 to 40 lots might be severed with future building potential. The proposal was approved, first by council and then was passed on to the District of Muskoka for final approval.

3. *Secondary Urban Area Designation* - These communities act as rural, recreational and urban service centres. Such areas provide a nucleus for community facilities and services at a higher level than expected in a Community, but not provided at the density expected in a Primary Urban area. The Secondary Urban Community designation applies to Port Sydney and Hidden Valley.

   Five Special Policy Areas have been established within the Secondary Urban Community of Hidden Valley:

   Area No.1 - Deerhurst
   Area No.2 - Ski Club
   Area No.3 - Hidden Valley Inn
   Area No.4 - Running Bear
   Area No.5 - Grandview

4. *Community Designation* - Communities such as The Locks are existing settlements that primarily function as small-scale residential nodes. Section E 2.2 of the Official Plan states that the intensity of development in Communities is lower than that located in Primary Urban or Secondary Urban areas. In addition, section E 2.4 states that water supply and/or sewage

disposal facilities are not envisaged for Communities. Lot sizes are required to be 40 metres (130 feet) in road frontage.

5. *Rural Designation* - This designation applies to the lands beyond the Primary Urban area and all other designations. Section F 3.1 in the Official Plan states that the predominant use of land in the rural designation may include resource-based development such as forestry, agriculture and mineral extraction; low density rural residential development; industrial, commercial and institutional uses normally associated with the rural area; and wildlife management, open space and accessory uses.

Areas of Use Limitation (Section B 4.3 and F 4.2) - The Official Plan provides policies in the Waterfront and Rural designations that apply to Areas of Use Limitation, which are defined as land with inherent physical or environmental hazards that make them unsuitable for many active land uses, including the placement of permanent structures. While there are somewhat similar policies regarding hazard lands in the Urban, Secondary Urban and Community designations, there does not seem to be a consistent approach to dealing with these areas.

Potential Areas of Use Limitation are defined to include areas with any of the following development constraints:

a) Areas that are subject to periodic or seasonal flooding;
b) Areas with water tables within 1.5m (5 feet) of the surface including areas of organic swampy soils;
c) Areas of erosion or slope instability;
d) Lands with slopes steeper than 20% and more than 1.5 m (5feet) of overburden;
e) Lands with inadequate or unstable soils or lack of soil cover; and
f) Lands with slopes steeper than 20%
g) Shore lands abutting sensitive fish spawning areas of weed beds as identified by the Ministry of Natural Resources;

Areas of Use Limitation are identified on a map in an appendix to the Official Plan. With reference to (a) and (b), only Open Space activities are permitted unless the constraints to development can be overcome to the satisfaction of the Ministry of Natural resources and the Area Municipality. No buildings or structures, nor the placing of fill whether originating on the site or elsewhere, is permitted except with the approval of the Ministry of Natural Resources and the Area Municipality and where required, upon the submission of a Site Evaluation Report that demonstrates how the constraint can be overcome.

With reference to (f), the Municipality may require that development be set back from the top of the bank and/or that an increased lot frontage and/or area be imposed.

Observations – Huntsville Official Plan

- ***The Fairy Lake watershed has a mixture of 5 types of settlement nodes – Urban, Secondary Urban, Community, Waterfront and Rural. Each area has its own set of***

land use policies. The Waterfront Designation has the most sensitive character features.

- ***The Waterfront Designation does not extend into the Urban or Community Designations.***

- ***To determine a proposed new development's compatibility with natural surroundings or existing neighbourhoods, the appropriate sections of the Official Plan are interpreted by the Town's Planning Committee and/or Town Council who obtain advice from the Planning Department, legal counsel, and others.***

- ***There is policy for the Primary Urban area that states development should be sympathetic to the natural environment but there is no specific policy for maintaining or creating the character of the waterfront. Official Plans for other municipalities include policies for communities that state, "Shoreline development shall generally be compatible with the development in the surrounding waterfront community".***

- ***An amendment to the Official Plan has been made that requires new, urban, residential, waterfront lots with municipal services to be a minimum of 30 metres (100 ft.).***

- ***There is no policy that considers the proximity of the Hwy 60 corridor (Special Policy Area #4 of the Primary Urban Area) to Fairy Lake. This area is currently considered suitable for Huntsville's expansion plan.***

- ***The Community of the Locks would lose much of its character if it had municipal water services. Although 130 foot road frontages are required, there is no reference made to the limits for shoreline frontages.***

- ***The Official Plan contains a Specific Lake Policy Section that applies individual policies to specific lakes.***

- ***While the Official Plan recognizes that carrying capacities other than chlorophyll a may exist, development limits are not based on such considerations as aesthetics, character of the lake, and environmental, social and physical factors.***

- ***The Official Plan requires urban single residential lots to have 30 m minimum waterfront frontage, however, this requirement does not apply to urban multi-residential or commercial lots.***

<u>Recommendations</u> - Huntsville Official Plan

89. The Official Plan should be amended to cause the general requirements of the Waterfront Designation to apply to Urban and Community and Rural Designations.

90. The Hwy 60 Commercial strip should be a Special Policy Area due to its proximity to Fairy Lake in order to prevent over-development.

91. A 60 m. minimum frontage requirement should be specified for all waterfront properties outside the urban area.

92. The Fairy Lake Association should make specific recommendations to the Town's Official Plan Review Team to improve the Official Plan policy as it relates to Fairy Lake.

93. The 30 m minimum shoreline requirement for urban single residential lots should apply to all other urban lots.

94. Stakeholders should encourage the election of Town Councilors who have an appreciation of the balance needed between economic development and the lake's natural, social, physical and aesthetic elements.

7.3.3 Zoning By-laws

The Town of Huntsville regulates the location and type of land uses with its Zoning By-law 74-8, as amended. Zoning by-laws list permitted uses for specific zone categories and provide regulations for the location, massing and scale of buildings and structures. In particular, zoning by-laws set the parameters governing land use and the building and use of any structure on or near a waterway. Since Fairy Lake has both Urban and Waterfront Designations (according to the Official Plan) the Zoning by-law provides two different sets of standards, higher density for the urban area and lower density for the waterfront. Map 21 indicates the existing zoning for lands surrounding Fairy Lake

General Provisions

The following provisions apply to all development in addition to the specific provisions of the specific zone category.

1. *Boathouses, Docks and Shoreline Structures (Section 3.12 – Accessory Buildings, Structures and Uses)* - Boathouses, docks and other shoreline structures are defined to mean an accessory use which means, "a use customarily incidental to, subordinate to and exclusively devoted to a principal use and located on the same lot therewith". As a result, boathouses and docks cannot be constructed on a property unless a primary use, such as a house, exists.

   A boathouse, pump house or dock for pleasure boats may be erected on a navigable waterway no closer than 1 m. to any side lot line. In addition, a boathouse cannot exceed 4 m. in height and 8 m. or 20% of the lot frontage in a Residential Zone or 25% of the lot frontage in any

other zone. Boathouses may store a maximum of 14 boats. There is currently no length restriction on boathouses (i.e. how far they extend into the waterbody).

Other accessory buildings or structures are to be erected to the rear of the minimum front yard requirement. The front yard is on the side of the street in the urban residential zones with full municipal water and sewer services, and on the side of a navigable waterway in the non-urban zones. The total lot coverage of all accessory buildings and structures is not to exceed 10% of the total lot area and the height is not to exceed 4 m.

2. *Minimum Yard Requirement from a Watercourse (Section 3.16.1)* - Section 3.16.1 e) requires all buildings and structures to be set back 20m from the normal high water mark, except:
    - Residential zones serviced by water and sewer – 10.5m
    - Boathouses, pump houses and docks
    - Barns or stables must be setback at least 46 m
    - One gazebo or unenclosed deck, under 15 sq m and at least 5 m from the high water mark

3. *Height Provisions* - The By-law sets the maximum height of a dwelling at 11m. Height is defined as the vertical distance measured from the finished grade on the side of the building from which the principal means of access is gained, to a point halfway between the eave and the ridge of the roof. This means that the height of building is not measured by its visual impact on the lake. The height of shoreline construction could have a significant impact on the natural setting of the lake.

Insert Map 21 – Zoning of Fairy Lake

Specific Zone Provisions

The following provisions apply only to development in specific zone categories.

1. *Residential Zone* - Fairy Lake has several types of residential zones, including urban residential, multiple residential and waterfront residential. According to the Huntsville Official Plan, multiple residential is permitted only in the urban area when connected to sewer and water. Figure 27 provides an overview of the relevant lot and building requirements.

   The Town has currently passed an Official Plan amendment and a Zoning by-law amendment to require a minimum of 30m of frontage when any new, urban, single family residential lots are created on the waterfront. This amendment does not apply to multi-residential and commercial zoning.

Figure 27
Current Lot and Building Requirements for Residential Use on a Watercourse

	Residential (R1) Urban With water and sanitary sewer	**Residential (R1) Urban** With private water and septic	**Seasonal (SR)** Private water and septic	**Rural Residential**	
				Septic	Municipal Services
Lot Requirements					
Area	600 sq. m	0.4ha (1acre)	0.4ha	0.4ha	0.2ha
Frontage	30 m [b]	60 m [b]	60 m [b]	60 m [b]	30m[b]
Coverage	35%	35%	10%	10%	10%
Yard Setback Requirements					
Front Yard	10.5 m [c]	20 m [d]	20 m [d]	20 m [d]	10.5m[d]
Side Yard	1.5 m	1.5 m	5 m	5 m	5m
Rear Yard	10. 5 m [d]	10 m	10 m	12 m	10m
Building Size					
Minimum floor area	95 sq. m	95 sq. m	75 sq. m	75 sq. m	75 sq. m
Maximum Height	11 m	11 m	11 m	11m	11m

- Notes a. Measured along the street. b. Measured on the water.
  c. Measured from the street. d. Measured from the high water mark.

2. *Rural Zones (RU1, RU2)* - Agricultural uses and dog kennels are subject to specific regulations.
   - Agricultural uses are not allowed within 67m (220ft.) of the waterfront. Barns or stables require a 46m setback from the normal high water mark.
   - A dog kennel is not allowed within 152m (500ft.) of the waterfront.

   Outdoor recreational uses are permitted. They are defined to include a public or private area operated for the purpose of playing golf, driving ranges, miniature golf courses, tennis courts, ski-lifts, but do not include a theme park. Golf courses are a permitted use in any rural zone without the requirement of public notification.
3. *Commercial Zone (C3, C4)* - Commercial uses permitted in the waterfront area are shown in Fig. 29, below.

- For a marina that abuts a navigable waterway, no front, side or rear yard requirement applies in a Tourist Commercial (C4) zone. However, no gasoline storage or septic tank tile bed should be located within 30m of the high water mark.

4. *Natural Resource (NR)* - Lands zoned Natural Resource have been identified as lands which are susceptible to flooding or erosion and have been zoned to comply with the Province of Ontario's Provincial Policy Statement.

5. *Grandview Resort (GR-1, GR-2, GRC-1)* - Special zones and their accompanying by-laws have been created for Grandview Resort. Grandview Resort is serviced by municipal water and sanitary sewer.

Figure 28 identifies the zone categories that are immediately adjacent to the shoreline of Fairy Lake and the uses that are permitted.

Figure 28 - Zoning Categories on Fairy Lake

ZONE CATEGORIES	PERMITTED LAND USES
RESIDENTIAL ZONES	**Residential (R1) -** Detached Dwellings, Day Nurseries **Residential Multiple 1 (RM1)** - Boarding and Rooming Houses, Day Nurseries, Duplex, Homes for the Aged, Nursing Homes, Semi-Detached Dwellings, Tourist Homes, Townhouses **Residential Multiple 2 (RM2)** - Apartments, Day Nurseries, Fourplex, Homes for the Aged **Seasonal Residential (SR)** - Detached Dwellings, Private Sleeping Cabin **Rural Residential (RUR)** - Detached Dwellings, Day Nurseries, Tourist Home, B&B **Rural (RU1)** - Detached Dwelling, Day Nursery, Artist/Craftsperson, Tourist Home, Cemeteries, Outdoor Recreational Uses, Dog Kennel (152m setback), Agricultural Uses (feed lots, manure storage areas, piggeries, poultry farms require a 67m setback) golf courses
COMMERCIAL ZONES	**General Commercial (C2)** - Retail, Business, Service, Miscellaneous Institutional and Residential Uses **Hwy#60 Commercial (C3)** - Convenience Store, Garden Centre, Market, Furniture/Appliance Store, Gift Store, Food Store, Drug Store, Builders Supply, Boats and Marine Supply Store, Art Gallery, Alcoholic Beverage Outlet, Caterers, Tourist Accommodation, Restaurant, Marine Uses, Motor Vehicle Dealership, Car Wash, Recreational Uses, Arena, and Residential Uses **Tourist Commercial (C4)** - Boats and Marine Supply Store, Variety Store, Sporting Goods, Gifts, Camping Establishment, Laundromat, Restaurant, Tourist Accommodation, Air Services, Ski Facilities
NATURAL RESOURCE ZONE	**Natural Resource (NR)** (Lands susceptible to flooding or erosion) - Dock or boathouse, Floating Dock, Private or Public Park, Structures for flood or erosion control, existing uses. No houseboats or other motorized buoyant structures or vehicles are to be used for permanent human habitation.

Note - Grandview and Deerhurst Resorts have special zone designations.

Observations:

- ***Records show that, on average, 50 exceptions have been granted annually to various zone classifications. Many of the exceptions relate to variances on waterfront property.***

- ***Huntsville By-law 74-8 does not have a "no-development" zone such as Environmental Protection. All newly created lots, however, are covered by a Consent Agreement (51/26) which is designed to protect sensitive areas (e.g. Type 1 fish habitat, wetlands or loon nesting sites) as well as protect the waterbody and the land during and after construction.***

- ***The Natural Resource Zone (NR) permits structural development such as new docks and boathouses. These may be inappropriate in some areas.***

- ***There is no restriction regarding the length of a boathouse or dock. The maximum height of a boathouse is 4 metres, which would permit the construction of two storeys. The second storey can easily be turned into accommodation.***

- ***As new lakefront homes become increasingly larger and the roof slopes become higher because the total heights of buildings increase, the distance from the halfway point up to the peak increases proportionately.***

- ***Certain agricultural uses may be inappropriate in the waterfront.***

- ***Golf courses are permitted "as of right" in all rural zones.***

- ***Back lots are those areas that are within the waterfront designation, but do not abut the shoreline. They are the second tier of development around a lake. Although they are acknowledged in both the District of Muskoka Official Plans and the Town of Huntsville Official Plans, there is no zoning that recognizes such a designation.***

- ***The 1 metre side yard limit for building a dock or boathouse is too small. Boats that are moored at a dock would visually trespass on the neighbour's extended lot lines.***

- ***There is no rationale for having different setbacks from the water for a building on the Town Sanitary sewage system and a building on a septic system.***

<u>Recommendations</u> – Huntsville Zoning By-law

95. Amendments to zoning by-laws should be examined carefully to determine their impact on the health of the lake, as well as their impact on the community with regard to noise, light and visual impacts. Zoning by-laws need to adhere more closely to the Official Plans of the District and the Town. Some of the natters to be considered include:

- *height should be measured on the side of the building that faces a navigable waterway*
- *height should be measured from finished grade to peak of roof, not to a point at ½ roof height.*
- *a new Back Lot Residential Zone should be created to control the density of development in the waterfront area*

96. Local planning approval authorities should advise the Fairy Lake Association of proposed zoning amendments or by-law changes that could impact Fairy Lake, as well as notify landowners who will be affected by the proposed change. Sufficient time should be allowed for a response to development applications prior to the open house review. Although, the Planning Act makes it mandatory that landowners within a distance of 400 feet receive notice of a zoning change and landowners within a 200 ft distance receive notice for minor variance, this is not sufficient for a lake community.

97. All shoreline minimum setbacks should be 20 m, regardless of zoning and availability of municipal services.

98. Minor variance applications with no planning rationale other than personal choice should not be approved.

7.3.4 Site Plan Control Regulations

Site plan control is a municipal tool that is used to deal with the specific siting of buildings and structures, as well as landscaping matters. The current use of site plan control is limited to multiple residential development and commercial development.

By-law No. 95-76p states that all lands within the Corporation of the Town of Huntsville are designated as a Site Plan Control Area. The following classes of development, however, may be undertaken without the approval of plans and drawings as required by the Site Plan Control By-law:

- Any residential development containing two (2) dwelling units or less;
- Buildings and structures accessory to any residential development containing two (2) dwelling units or less; or
- All non-intensive agricultural uses with the exception of those within the Community designation of the Town of Huntsville's Official Plan or where, in the opinion of the Town's Director of Planning, the surface water quality may be considered to be adversely affected.

Huntsville Physical Services Department (Public Works, Building Inspection, Fire Department) has created a guide as an aid to designers completing Site Plan Control applications. The Guide ensures that the minimum requirements have been met when designers submit building applications for commercial or multiple residential development.

The site plan must include servicing and grading drawings and address storm water management issues when necessary. Storm water runoff is to be controlled to the specific rate approved by the Ministry of the Environment. Both storm water quality and quantity are to be addressed in order to ensure the security of the environment. When storm water management plans are required, the designer must be a licensed, professional engineer, qualified in the storm water management field.

Observations

- ***Site Plan Agreements can be imposed on any commercial or multiple family shoreline development and are registered on title to the property and are binding on subsequent land owners.***

- ***Site Plan Agreements are not subject to a public participation process and can be approved without notification of adjacent property owners.***

Recommendations*: *- Site Plan Control

99. Adequate ongoing inspection of a building site by professional building inspectors should be ensured. Site plan agreements should be monitored and enforced. Using the community as watchdog is unreliable.

100. More diligent site inspection is required before final approvals are granted to builders.

101. Town staff should ensure that municipal standards are adhered to.

7.3.5 Consent Agreement (51/26)

A consent agreement is a restrictive covenant between the Town and the proponent that is registered on title to the property and is binding on subsequent landowners. However, these agreements can only be used when an application to create new lots by the consent process is made. Consent agreements cannot be used to regulate development on existing lots of record.

Due to the recent restructuring and reorganization of various government bodies, the authority of granting consents was transferred from the District of Muskoka to the local municipal government. The Town of Huntsville has jurisdiction to review and approve the creation of new lots by the consent process and can require all proponents to sign an agreement before the consent is finalized and the new lot created.

Consent agreements can be used to ensure that specific development conditions (e.g. storm water) are completed. The conditions set out in the Consent Agreement can be designed to protect

the waterbody on which the new construction will take place by restricting the removal of trees, requiring a natural vegetative buffer, establishing the parameters for storm water management and site grading, and by imposing conditions to mitigate impacts on fish and wildlife habitats.

The Consent Agreement is a deeded document that passes from one owner of the property to the next. Each subsequent owner must abide by the terms set out in the original Agreement.

Observations

- ***Consent Agreements can be registered on title to properties that are being subdivided and the terms are binding on subsequent owners.***

- ***Consent Agreements can be used to address matters such as retention of natural buffers, provision of storm water management measures, and conditions to mitigate impacts of fish and wildlife habitat.***

- ***Consent agreements cannot be used to regulate development on existing lots of record.***

- ***Landowners are encouraged to develop and maintain their properties in such a way as to protect water quality. Besides having regard for the aesthetic quality of the lake, development is to be compatible with existing land uses in the adjacent area.***

Recommendations*: *- Consent Agreement

102. Ensure that the terms of the Consent Agreement are not violated by providing adequate site inspection before, during and after the completion of the project.

7.3.6 Storm Water Management

Storm sewage and runoff from impervious surfaces, does not appear to have been given sufficient attention by the Town of Huntsville. The Town of Huntsville Planning Department's report of Growth Strategy for the Primary Urban Area of Huntsville to the Year 2016, September 1998, states (Part 5, Summary, Section D, Official Plan Amendments) "areas have been identified in the Official Plan which require further policy development or alteration as follows:

> "Natural Storm Water Management - The discharge of storm water into the lakes and rivers in the Muskoka watershed is of primary significance to the environmental quality of the area. The Town of Huntsville has played a leading role through its approval processes in ensuring that storm water management is an integral component of development approvals. To date only general direction is provided in existing Official Plan policy addressing storm water practices and procedures. A more comprehensive and detailed policy is required either within the Official Plan or by way of special report setting forth an appropriate approach. While

development should be allowed to proceed in the meantime, this work should be undertaken as soon as possible."

In order to explore the ways that storm water management within Muskoka could be better addressed, an inter-agency working committee was organized at the request of the District Planning and Economic Development Committee. Jurisdiction respecting storm water management is split between the agencies represented on the working Committee which includes the District of Muskoka, Ministry of the Environment, Ministry of Natural Resources and the local municipalities of Bracebridge and the Town of Huntsville. The Building Inspector is responsible for ensuring that the builder/developer adheres to the building codes and regulations. By fulfilling these duties, he ensures that the environment is not put in jeopardy during the project.

As reported in the Huntsville Forester, raw sewage has flowed directly into area lakes and the Muskoka River on several occasions when the sanitary sewer pipe was inadvertently connected to the storm water pipe during home construction.

Observations

- ***Storm water runoff can have direct impacts on water quality and natural habitats.***

Recommendation* – *Storm Water Management

103. Identify the location of all storm sewers intakes and outflows that flow into Fairy Lake, Muskoka River North Branch, and Lake Vernon, and paint a fish on the storm grates to advise people that ultimately these flow into Fairy Lake.

104. The Town of Huntsville's storm water regulation, however, requires further attention.

105. The Town of Huntsville Planning Department's recommendation regarding the formation of a more comprehensive policy for storm water systems should be quickly put into effect. All storm water systems should be reviewed to ensure that they have suitable installations of oil interceptors, silt filtration, and other water pollution controls. A system to spot, report, and correct sources of undesirable effluents should be instituted.

7.4 Enforcement

Federal and Provincial Regulation

Legislation affecting waterfront property and its development has been enacted at Federal, Provincial, District and Municipal levels. The involvement of each jurisdiction is described in the following.

Government of Canada

The federal government involves itself in environmental matters through its *Fisheries Act* and *Navigable Waters Protection Act*. The Fisheries Act makes it illegal for a person to do anything that harms fish habitat, or to deposit "a deleterious substance" (which includes sediment, silt, clay, gravel and oil) in waters containing fish. The Ontario Ministry of Natural Resources enforces the Act, and significant fines are levied for infractions. The Navigable Waters Protection Act prevents the dumping of rubbish and wastes into navigable water.

Government of Ontario

Ministry of the Environment

The Ontario Ministry of the Environment and Energy (MOEE) regulates water quality through its *Environmental Protection Act*, which addresses public health concerns resulting from water contaminants. The Act requires pollutant spills to be reported, stopped or controlled. It also requires a development applicant to submit to MOEE plans for new developments for approval, and this causes the agency to be involved in local development.

Water supply, sewage disposal systems and storm drainage system must be approved by the MOEE, which may specify temporary holding ponds to retain sediment runoff during construction. The MOEE is active in monitoring municipal sewage treatment plants. Substantial fines can be levied for violation of the terms of the Act.

Ministry of Natural Resources

The Ontario Ministry of Natural Resources (MNR) regulates natural resources in lake areas through the *Public Lands Act* and the *Lakes and Rivers Improvement Act.* Both Acts require a work permit to be obtained from the agency before work around water bodies can commence. Work covered includes water and shoreline activities such as dredging, filling, and removal of rocks, stumps, logs or plants, and construction of dams, docks, boathouses, and retaining walls. Fines of up to $5,000 may be incurred if no work permits are obtained.

Municipalities

Town of Huntsville

Despite the goals of the Official Plan and the strict regulations set out in the building by-laws, there are frequent problems related to site supervision or inspection breakdown during construction projects.

If a developer is seen to be in violation of the Site Plan Agreement, the Building Inspector can place a Stop Work Order against the project. This remains in place until such time as the mitigation plans meet inspection criteria.

Although MOE, MNR and the Town of Huntsville have established numerous guidelines for commercial development, it is evident from information reported in the document, Assessing Environment and Development: Fairy and Peninsula Lakes 1995, that many projects required MNR and MOE intervention during the construction phase. The health of the Muskoka River and Fairy Lake were in jeopardy on several occasions:

- Huntsville Place Mall (1987) - Charged under the Ontario Water resources Act and Environmental Protection Act when silt was discovered in the town's residential water supply and plumbing systems were damaged.

- Fairy Lake Residents in Rogers Cove Area (1987) - it was reported that until construction took place on the Mall, the lake had a hard packed sand bottom. Afterwards, the bottom became thick with sediment and silt and remains so today.

- Blackburn's Landing (1989) - A shoreline slump occurred along 200 feet of shoreline extending 70 feet inland, dumping soil into the Muskoka River. Dredging operations later recovered most of the soil.

- Roger's Cove (1989) – Evanco wanted zoning changes and residents were not informed.

- Canadian Tire Corporation (1991) - There were no suitable outlets in a containment pond.

- Muskoka Landing (2001) - During and after construction, storm water management controls were not adequate for preventing runoff into Fairy Lake.

Observations

- ***A substantial amount of legislation with respect to the Lake and waterfront property is in effect and involves all levels of government. With the exception of regulation for shoreline vegetation, there is little need for more legislation.***

- ***Monitoring and inspection for compliance with legislation is often inadequate. Adherence to legislation appears to be encouraged through punitive reaction to an infraction rather than attentive prevention of it, with monitoring customarily dependent on the casual reaction of neighbours or the general public, who do not have full knowledge of legislation or its infractions. As described above this process has allowed serious water contamination during construction, even though fines were levied afterwards.***

<u>Recommendations</u> - Enforcement

106. Monitoring of potential causes of water pollution, which mainly occur on construction sites, should be intensified. Failing this, a system of informing and educating interested neighbouring parties of matters to look out for should be established.

107. On-site activity must be monitored more closely, to ensure that it conforms to the Site Plan requirements so that the environment is not put into jeopardy in the future.

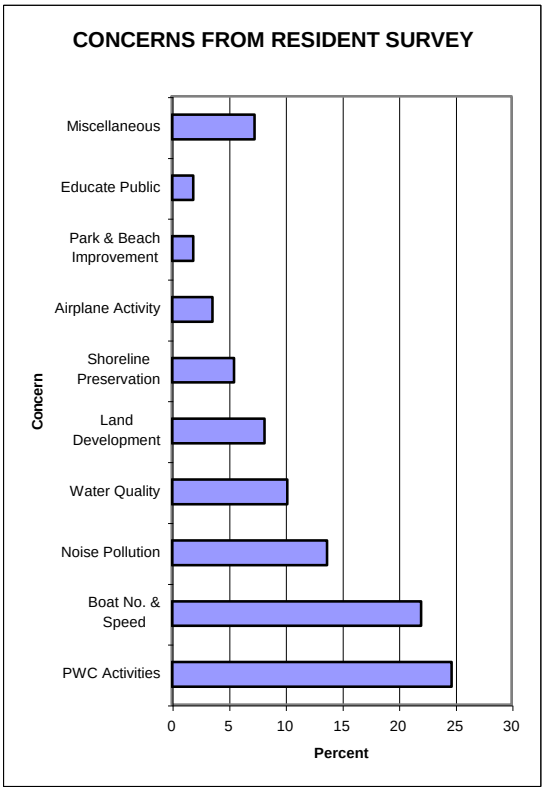
108. Development approvals and standards must be enforced. If a developer is seen to be in violation, the Building Inspector should place a Stop Work Order against the project that should remain in place until such time as the mitigation plans meet inspection criteria.

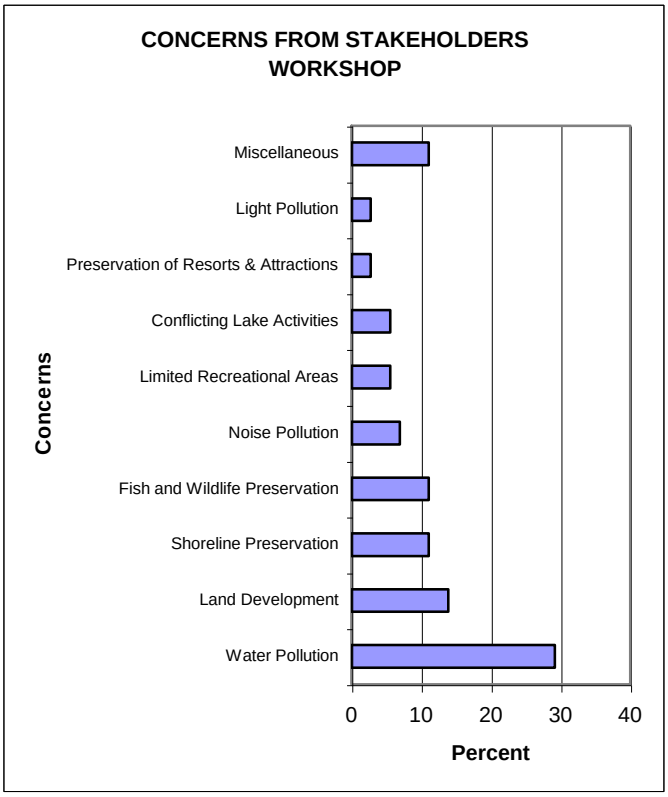
Section 8 Lake Concerns and Impacts

8.1 Lake Concerns

The concerns of residents and stakeholders deal with anything that detracts from, or lessens, those aspects of the lake they value. Figure 29 indicates the concerns expressed in the Resident Survey and at the Stakeholders Workshop (Section 1.3, "Information Sources and Support) in order of percentage of replies:

Figure 29 – Lake Concerns





Source: Residential Survey and Stakeholder Workshop

While the concerns identified by the Resident Survey and the Stakeholders Workshop are very similar, they differ in the single item of greatest concern; residents identify PWC and boat activities as their greatest concern and stakeholders identify water pollution. The difference may be explained by the dissimilar priorities held by people living on the lake and those involved in regulating it or having a commercial interest in it.

However, there is general agreement on the major concerns, those being: land development, water quality, boating activities, shoreline preservation, noise, and fish and wildlife preservation.

People visit the lake primarily for recreational purposes. Residents and stakeholders have acknowledged this by indicating a concern for improved recreational access to the lake and boating being the preferred recreational activity. For the same reason, stakeholders express a concern for preservation of resorts and attractions.

8.2 Impacts on the Lake

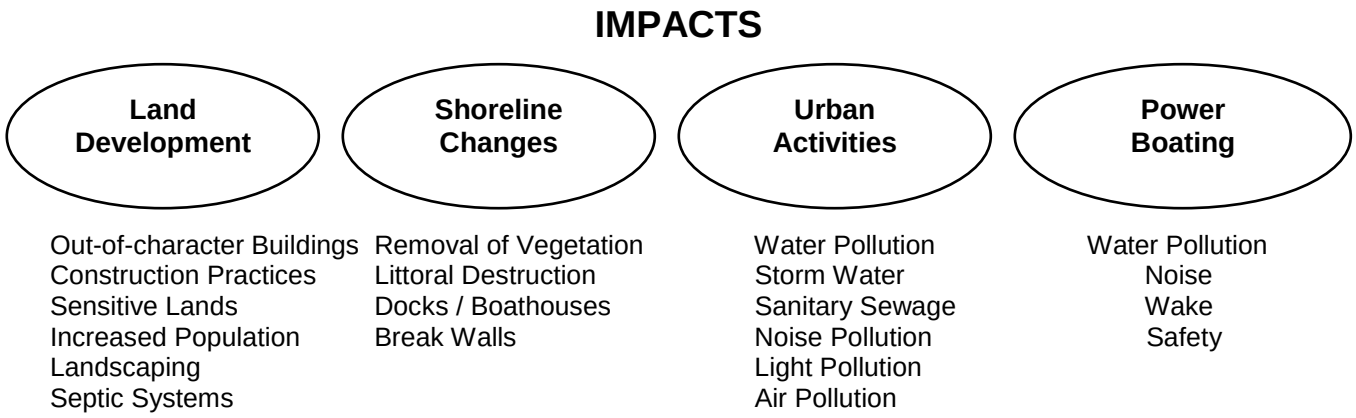
There are certain activities that impact the most valued features of the lake. Often a single event, or combination of small events, can be sustained without a significant impairment of a lake value or feature. However, the cumulative impact of ongoing activities can result in a negative result or the creation of a situation that becomes intolerable to lake users. The ability of a lake to sustain many small impacts is known as its carrying capacity.

> *Carrying capacity refers to the maximum number of development or recreational activities that can be sustained by a given social, natural or physical element, before its quality diminishes. The threshold limit is the maximum number of impacts that a certain value can sustain.*

Sometimes, a single event or action will not impact a lake value and it may take a repetitive action for any impacts to be noticed. For example the removal of one tree may not result in any detectable impact, however the removal of many trees could result in loss of habitat, affect the natural beauty of a shoreline, or cause erosion.

Impacts on the lake have been identified by reviewing the values of residents and stakeholders and determining how they are vulnerable. Anything that results in a negative change of a lake value, is an impact. Impacts on Fairy Lake can be generally grouped under the headings of land development, shoreline changes, urban activities, and boating. These impacts are briefly summarized in the following section, and details of the impacts are provided throughout the report.

Figure 30 – Description of Impacts



1. Land Development

a) Out-of character Buildings - A building may be out of character compared to its lake surroundings. It may be too large, poorly sited, or have unattractive features that can adversely affect the natural beauty of the lake.

b) Construction Practices - During construction, significant damage to the lake's natural, social and physical features can occur unless proper care is taken. Removal of vegetation and topsoil can result in erosion. Sand and silt from construction sites can be washed into a lake during rainstorms or along improperly designed or protected drainage channels and land gradients. Unstable banks can collapse into a watercourse and silting and sedimentation can result in increased turbidity, which has the potential to affect the entire lake food chain.

Although the Ministry of the Environment and Energy and the Ministry of Natural Resources have established stormwater management guidelines for commercial development, it is evident from information reported in the document, Assessing Environment and Development: Fairy and Peninsula Lakes,1995*,* that many projects required MNR and MOE intervention during the construction phase. The health of the Muskoka River and Fairy Lake were in jeopardy on several occasions.

c) Hazard / Environmentally Sensitive Lands / Fish Habitat - Hazard and environmentally sensitive lands consist of wetlands, stream valleys, floodplains and steeply sloped areas. Development in these areas requires additional caution during construction. Development applications and building permits must receive intensive scrutiny to avoid adverse impact on wildlife and fish habitat as well as to prevent inappropriate structures. By-law requirements in these areas should be more stringent than for normal development.

d) Increased Population - With development comes an increase in residential, recreational and commercial activities, and a potentially corresponding increase in their harmful effects on the lake and community, such as: increased sewage, noise, and light pollution; more intensive traffic, boating, and fishing; and possible changes to the shoreline and littoral zone.

e) Landscaping - Different views are held on what constitutes attractive landscaping. Unfortunately, urban landscaping, which normally requires replacement of natural vegetation with cultivated lawns and ornamental plantings, is not suitable on shoreline lands as described below in "Shoreline Changes". Fertilizers, herbicides, and pesticides used on lakeside property have an increased potential to be transported into the water, harming water quality. Nutrients from fertilizers stimulate the growth of aquatic plants and algae; when aquatic plants die and decompose, dissolved oxygen is consumed and the oxygen available to fish (especially Lake Trout) is diminished. At present, off-site migration of fertilizers is not thoroughly understood and studies are in progress.

f) Septic Systems - Improper construction and maintenance of septic systems can result in the release of nutrients and coliforms into the lake. Released nutrients, such as phosphorous, increase plant growth, that in time reduce dissolved oxygen. High levels of certain coliforms

can have a serious affect on public health. Agricultural activity and golf courses are all sources of phosphorus and for seepage of other contaminants into the lake.

2. Shoreline Changes

a) Removal of Shoreline Vegetation - Removal of shoreline vegetation adversely affects the natural shoreline that is so desired for scenic beauty. In addition, the elimination of vegetation roots takes away the holding action on the shoreline and causes erosion, which produces silting and destruction of fish habitat. Removal of trees destroys the shading needed by fish in shallow water. A naturally vegetated shoreline filters nutrients and sedimentation and this action disappears with its removal.

b) Destruction of Littoral Zone - The littoral zone is the lake area from the water's edge to where light no longer penetrates to the bottom. 90% of the species in a lake either live in or pass through this zone since it offers to them foraging areas, hiding spots, and a protected area for young fish and amphibians. Aquatic plants, logs, downed trees, and submerged rocks, are crucial parts of the system and removal of them destroys its effectiveness. Creating a sand beach smothers spawning areas, buries amphibian eggs, covers vegetation, and fills hiding spots, all of which ripple through the food chain with a ruinous effect on aquatic life.

c) Docks and Boathouses - Construction of a dock can impact both fish habitat and scenic values. Depending on the time of construction, location and design, docks can affect fish spawning, interfere with navigation, and disrupt the lakebed. Floating docks are the least disruptive option on submerged lands. Pipe or pile docks are preferred in areas with aquatic vegetation, as they permit sunlight to penetrate. Crib and concrete pier docks are the least desirable based on increased disruption to the lakebed. In addition to the impact caused by a dock, a boathouse has a detrimental effect on the natural beauty of the lake's shoreline. It disrupts the normal line of sight along a shoreline and can be an eyesore, depending on its dimensions, architectural features, and maintenance. Many lakes will not allow boathouses to be constructed and those that do have stringent controls over dimensions and percentage of developed shoreline.

d) Break walls –Break walls are often needed to stabilize shorelines. However, concrete and other vertical break walls are of little use for fish or other aquatic organisms. They will deflect wave energy rather than dissipate it, usually resulting in erosion problems elsewhere. Properly constructed, slanted, rock rubble embankments, however, can increase fish habitat diversity, encourage vegetation growth, and dissipate wave action.

3. Urban Activities

a) Storm water - Phosphorous is a nutrient that stimulates aquatic growth. Storm water from urban areas contains this nutrient, which originates from fertilizers used on home lawns and landscaping and is one of the largest sources of phosphorous in a lake. Storm water can also contain other water pollutants such as silt and sediment from soil erosion, oil from paved areas, and chemicals that are accidentally or improperly allowed to flow into storm sewers.

b) Sanitary Sewage - Urban sanitary sewage can be a source of water pollution if proper treatment is not carried out. New sewage treatment plants such as that operated in Huntsville, however, operate to legislated standards and carry out regular monitoring of effluent to the lake.

c) Noise Pollution - Noise from traffic, trains, and concentration of activities in urban and commercial areas can interfere with enjoyment of the serenity of the lake.

d) Light Pollution - Urban streets, parking lots, and sections of major highways are lit at all times during the night. While this is needed for safety and security reasons, it interferes with the view of starlit skies and creates a distraction for those wishing to experience surroundings that are true to nature. As well, inappropriate lighting practices along shorelines increase light pollution.

e) Air Pollution - Air contaminants from heating and industrial sources can be troublesome to those wishing to escape them by taking refuge on the lake.

4. Power Boating

Power boating is a recreational activity in which almost everyone on the lake participates and can impact the quality of life on the lake through:

a) Noise - High-speed passage or “racing” of powerboats causes noise to be carried across the lake, as sound travels very well over water.

b) Wake - Wake from powerboats can cause intense rocking of floating docks and smaller craft, and shoreline erosion.

c) Water Pollution - Pollution results particularly from two-stroke engines but also from on-board sanitary facilities.

d) Safety Issues - A powerboat’s high-speed passage near swimmers and other boats, as well as through narrow waterways is hazardous.

e) Personal watercraft, in particular, are at the top of resident’s concerns since they are noisy, their operators tend to operate them at high speed, and they are powered by relatively large, highly polluting, two-stroke engines.

8.3 Summary of Concerns and Impacts

The valued lake features, which are affected by each of the above impacts, are shown in Figure 31.

Figure 31 – Effects of Impacts on Valued Lake Features

IMPACTS	VALUES EFFECTED BY IMPACTS						
	Scenery	Water Quality	Quietness	Wildlife Habitat	Boating & Fishing	Privacy	Tourism
Land Development							
Out-of-character Buildings	X	-	-	-	-	-	-
Construction	X	X	X	X	X	X	X
Hazard Lands	X	X	-	X	-	-	-
Increased Population / Land Use	X	X	X	X	X	X	X
Landscaping	X	X	-	X	X	X	X
Septic Systems	-	X	-	X	-	-	X
Shoreline Changes							
Removal of Shoreline Vegetation	X	X	X	X	X	X	X
Destruction of Littoral Zone	X	X	-	X	X	-	X
Docks and Boathouses	X	-	-	X	X	-	-
Break Walls	X	X	-	X	-	-	-
Urban Activities							
Storm water	-	X	-	X	X	-	X
Noise Pollution	-	-	X	-	-	-	X
Light Pollution	X	-	-	-	-	-	X
Power Boating							
Noise	-	-	X	-	-	-	-
Wakes	X	X	-	X	X	-	-
Oil, exhaust, sanitary facilities	-	X	-	X	-	-	X
Unsafe Speeds	-	-	-	-	X	-	X

Section 9 Action Plan

GENERAL

Recommendations were made in each Section of the Lake Plan to describe needed improvements. The Action Plan was developed from these recommendations and a few others not specifically covered in the Lake Plan.

There are fourteen actions that are presented for implementation by the Fairy Lake Association. Six of these actions relate to land use planning and the remainder deals with lake stewardship.

Land Use Planning Actions include:

1. Encourage Watershed Measures
2. Update Official Plans
3. Update Zoning By-laws
4. Control Land Development
5. Regulate Construction
6. Enforce Regulations

Stewardship Actions include:

7. Communication
8. Sustain Water Quality
9. Preserve and Rehabilitate Streams and Wetlands
10. Preserve and Rehabilitate Shorelines
11. Preserve and Rehabilitate Fish and Wildlife
12. Educate and Provide Advice to Lake Residents
13. Encourage Municipal Measures
14. Improve Boating and Navigation

IMPLEMENTATION

It is recommended that the Fairy Lake Association implement the proposed actions in accordance with the following steps:

1. Review each action and confirm its desirability
2. Establish priorities
3. Set up a time schedule for initiation and completion of each action
4. Break down or combine actions into definable projects
5. Select project leaders and obtain necessary volunteers for each project
6. Prepare a work plan for each project
7. Implement the work plan
8. Monitor progress and take follow-up action, as appropriate

RECOMMENDED ACTIONS

A detailed account of the objective, description, and tasks for each of the fourteen recommended actions is given in the following pages. Reference to the associated section of the Lake Plan will be of assistance in carrying out an action.

Many of the actions and their specific tasks address similar issues. For example, the maintenance of healthy shorelines will depend on sound regulations as well as the independent actions of shoreline property owners. These linkages should be recognized in order to ensure the right combination of Land Use and Stewardship actions.

ACTION 1. ENCOURAGE WATERSHED MEASURES

Objective
To work with local Lake Associations, commercial operators, local municipalities and other agencies on common objectives and goals.

Description
Working in partnerships can enhance the success of many projects and it is essential that we share our ideas and work together on common objectives.

Tasks
1. Contact other local Lake Associations to promote alliances and partnerships to advance common goals and objectives.
2. The FLA should support and participate in the activities of the Muskoka Watershed Council and Huntsville Lakes Council, and promote watershed management.
3. All lakes within the Huntsville chain of lakes, particularly Lake Vernon, Fairy Lake, Peninsula Lake, and Mary Lake, should collaborate closely on matters having mutual benefit.
4. All lake associations on the watershed should be encouraged to develop lake plans.
5. The Town of Huntsville should be requested to notify the Fairy Lake Association of applications to amend its Official Plan or Zoning By-laws for major developments within the sub-watershed, particularly those on, or upstream of, Fairy Lake.

ACTION 2. UPDATE OFFICIAL PLANS

Objective
To ensure that the Town of Huntsville Official Plan has appropriate policy direction to guide property development and redevelopment on the lake.

Description
The Fairy Lake Association should work with the Town of Huntsville during its Official Plan (OP) review to ensure that amendments are made to the Official Plan that specify policy consistent with this Lake Plan for maintaining the character and health of Fairy Lake.

The team for this action must have a good understanding of the present Official Plan, current land use patterns, and potential land areas of concern. This will require a review of the Official Plan, Zoning By-laws, and pertinent sections of the Lake Plan.

The most effective activity for the team is to make written and oral presentations to the Official Plan Review Team formed for the purpose of amending the OP.

Tasks

1. Make submissions to the Town of Huntsville's Official Plan Review Team to amend the Official Plan to provide for the following:
   (a) Include policy to ensure that all development considers and maintains the character of the surrounding waterfront designation by having regard for density, lighting, urban noise, tree line, shoreline, and natural wildlife habitat.
   (b) Designate the Hwy. 60 commercial strip a Special Policy Area due to its proximity to Fairy Lake in order to prevent over-development. Develop policies for the strip to reduce the impact of development on Fairy Lake, e.g., decreased lot coverage, increased frontage, and decreased density. Intensive landscape, waterfront, noise, and lighting studies for development should be required for any development on the Hwy. 60 corridor.
   (c) Designate the shoreline property on the Muskoka River North Branch within 500 m of the Main Street Bridge a Special Policy Area to allow a more intense urban use in order to benefit the Town's tourist and commercial appeal and enhance the town centre.
   (d) Expand Section B, Waterfront, so that its Principals (B.2), General Development Policies (B.4 except 4.1.8)), Open Space Land Use Policies (B.7), policy with respect to Public Uses (B.10), and the General policy requirements of Specific Lake Policies (B.10.1) apply to Primary Urban, Secondary Urban, and Community designations as well as to the Rural designation.

   - or -

   Add the Principals (B.2), General Development Policies (B.4 except 4.1.8), Open Space Land Use Policies (B.7, policy with respect to Public Uses (B.10), and the General policy requirements of Specific Lake Policies (B.10.1) from Section B, Waterfront, to OP Sections covering Primary Urban, Secondary Urban, Community and Rural designations.
   (e) For shoreline properties establish requirements as given in Figures 32 and 33, and in the following with respect to the current designations:

   Maintain present OP requirements for:

   i. a 30 m minimum shoreline frontage for single family residential properties multiple residential, commercial, and single family residences in the Primary Urban Area, except for those single family residences with private water and sewer which require 60 m minimum frontage,
   ii. a 60 m minimum shoreline frontage for residences (outside of the urban area) in the waterfront designation regardless of whether they are on municipal services or not.

   Establish in the OP new requirements of:

   i. a 60 m minimum shoreline frontage requirement for all lots in the Community of the Locks,
   ii. a 20 m minimum setback from the shoreline for property in all areas and zones regardless of whether on private or town services, except for properties on town

services between the Main St. bridge and Fairy Lake on the Muskoka River North Branch, which should remain as at present,

iii. a 30 m minimum shoreline setback for all property fronting on Type 1 Fish Habitat,
iv. a 4 m minimum interior side yard setback for single family residences in the Urban Area (R1) with 30 m minimum frontage,
v. a 10 m side yard setback for commercial buildings in the Urban Area,
vi. a maximum of three storeys above grade facing the water for single and multiple residential buildings in all areas,
vii. a maximum lot coverage for properties on Fairy Lake within the Urban designation of 25%. (All properties in the town core on the Muskoka River North Branch shall have maximum lot coverage the same as at present.),
viii. a natural vegetative buffer, at least 5 m in depth from the shoreline,
ix. a 10 m minimum side yard setback for multiple residential buildings in the Primary Urban Designation,
x. prescribed maximum heights for all types of buildings in all areas,
xi. a maximum height of 3 m (10 ft.) per storey.

(f) Include policy that requires the precise limits of all Designations to be clearly defined in the Zoning By-law.
(g) Disallow industrial use of shoreline property, even within urban areas.
(h) To ensure a favourable balance between constructed and natural state, shoreline construction should total no more than the following:
    i. For a single Residence, 25% of shoreline frontage or up to 23 m, whichever is less;
    ii. For a Residential Cluster Development, 25% of shoreline frontage of the Open Space block or up to 30 m, whichever is less;
    iii. For a Resort Commercial, 33% of shoreline frontage;
    iv. For a Marina, 50% of shoreline frontage.
(i) Establish policy for protection of natural vegetative shoreline buffers.
(j) Prohibit the construction of new boathouses.
(k) Improve public access to the Lake.
(l) The Town of Huntsville Planning Department's recommendation regarding the formation of a more comprehensive policy for storm water systems should be put into effect quickly. A system to spot, report, and correct sources of undesirable effluents should be instituted.
(m) Identify in the OP the location of property on steep slopes and narrow water bodies.
(n) Consider establishing special standards for development on steep slopes that address density, visual impact, and buffer zones.
(o) Prohibit large profile development on heights of land or scenic areas bordering on Fairy Lake.
(p) Include policy for development north of Hwy. 60 that minimizes adverse visual impact on and from the lake caused by removal of trees, ridgeline interruptions, building scale, and increased lighting.
(q) Prohibit quarry operations between the shoreline and the horizon.
(r) New quarry operations should require OP and Zoning By-law approval.
(s) As recommended by the Huntsville Planning Department, a Pits and Quarries By-law should be adopted that includes requirements for watershed protection and the rehabilitation of resource properties after operations are closed.

(r) Regulate mineral extraction sites and quarry expansions to prevent negative impacts resulting from noise, aesthetics, well contamination, and discharge into streams feeding Fairy Lake.
(s) Identify and protect historic and cultural sites.
(t) Ensure that the Official Plan includes an inventory of the streams and wetland areas and a protection policy for all streams and wetland areas against adverse development impacts.
(u) Provide for the creation of shoreline activity protection areas.
(v) Impose strict requirements on tree removal, particularly for commercial operations, in order to avoid adverse visual impact.
(w) Development that causes major alteration of landscape and soils should be required to submit Storm Water Management and Construction Mitigation Plans. Construction specifications should include appropriate assessment of soil characteristics causing sedimentation and erosion, and construction measures that are needed to prevent silting and erosion of banks of watercourses.
(x) All shoreline development should be required to use appropriate silt screens and follow proper construction mitigation guidelines.

Figure 32 - Present and Proposed Lot and Building Requirements on a Watercourse in the Primary Urban Area

	Residential (R1) with municipal water and sanitary sewer		**Residential (R1)** with private water and septic system		**Multiple Residential (RM2)** with municipal water and sanitary sewer		**Hwy 60 Commercial (C3)** with municipal water and sanitary sewer	
	Present	Proposed	Present	Proposed	Present	Proposed	Present	Proposed
Lot Requirements								
Area	600m^2	600m^2	0.4ha	0.4ha	160m^2/unit	160m^2/unit	1400m^2	1400m^2
Frontage*	30m	30m	60m	60 m	30m	30m	30m	30m
Coverage	35%	(Note 1)	35%	(Note 1)	40%	(Note 1)	25%	(Note 1)
Vegetative Buffer		(Note 3)		(Note 3)		(Note 3)		(Note 3)
Yard Setback Requirements								
Front Yard*	10.5m	(Note 2)	20m	20m	10.5m	(Note 2)	15m	(Note 2)
Side Yard	1.5m	4m	1.5m	4m	10m	10m	5m	10m
Rear Yard	10m	10m	10m	10m	10m	10m	5m	5m
Building Size								
Minimum Floor Area	95m^2	95m^2	95m^2	95m^2				
Maximum Height	11m	11m*	11m	11m*	11m	11m*		
Max. Storeys*		3**		3**		3**	2	2**

** Frontage, Front Yard, Max. Height, and No. Storeys are measured on the waterfront side of the structure.*
*** A storey shall be no more than 10 ft. high.*

Notes:

1. Within the Urban designation, maximum lot coverage of all properties on Fairy Lake shall be 25%, except that maximum coverage of those properties in the town core between the Main St. bridge and Fairy Lake on the Muskoka River North Branch shall remain the same as at present.
2. Minimum shoreline set back shall be 20 m, except for properties between the Main St. bridge and Fairy Lake on the Muskoka River North Branch, which shall remain the same as at present.
3. A natural vegetative buffer shall be provided, at least 5 m in depth from the shoreline with an open area for shoreline activities.

Figure 33 - Present and Proposed Lot and Building Requirements on a Watercourse Outside the Urban Area

	Seasonal Residential (SR) Private water and septic system		**Rural Residential (RUR)** Private water and septic system		**Rural Residential (RUR)** Municipal water and sanitary services	
	Present	Proposed	Present	Proposed	Present	Proposed
Lot Requirements						
Area	0.4ha	0.4ha	0.4ha	0.4ha	0.2ha	0.2ha
Frontage*	60m	60m	60m	60m	30m	60m
Coverage	10%	10%	10%	10%	10%	10%
Vegetative Buffer		(Note 3)		(Note 3)		(Note 3)
Yard Setback						
Front Yard*	20m	20m	20m	20m	10.5m	20m
Side Yard	5m	5m	5m	5m	5m	5m
Rear Yard	10m	10m	12m	12m	10m	10m
Building Size						
Minimum floor area	$75m^2$	$75m^2$	$75m^2$	$75m^2$	$75m^2$	$75m^2$
Maximum Height	11m	11m*	11m	11m*	11m	11m*
Maximum Storeys*		3**		3**		3**

** Frontage, Front Yard, Max. Height, and No. Storeys are measured on the waterfront side of the structure*
*** A storey shall be no more than 10 ft. high.*

Notes:

1. Within the Urban designation, maximum lot coverage of all properties on Fairy Lake shall be 25%, except that maximum coverage of those properties in the town core between the Main St. bridge and Fairy Lake on the Muskoka River North Branch shall remain the same as at present.
2. Minimum shoreline set back shall be 20 m, except for properties between the Main St. bridge and Fairy Lake on the Muskoka River North Branch, which shall remain the same as at present.
3. A natural vegetative buffer shall be provided, at least 5 m in depth from the shoreline with an open area for shoreline activities.

ACTION 3. UPDATE ZONING BY-LAWS

Objective

To ensure that the Town of Huntsville updates its by-laws in a manner consistent with this Lake Plan.

Description

The Fairy Lake Association should work with the Town of Huntsville's Official Plan Review Team in its review and update of the Official Plan and the Zoning by-laws, providing input and making recommendations on amendments that will benefit the character of Fairy Lake.

The FLA team for this action must have a good understanding of the present Official Plan and Zoning By-laws, current land use patterns, and potential issues and areas of concern. This will require a review of the Official Plan, Zoning By-laws, and pertinent sections of the Lake Plan.

The most effective activity for the team is to make written and oral presentations to the Official Plan Review Team during its review of by-laws.

Tasks

1. Encourage the Town of Huntsville to establish zoning standards for development of waterfront property that are compatible with the amended Official Plan. Amendments to zoning by-laws should be examined carefully to determine their impact on the health of the lake as well as their impact on the community, and must be consistent with the Official Plans of the District and the Town. Ensure that new by-law amendments provide that waterfront property development will have minimum lake impact.
2. Insist that local planning approval authorities notify the Fairy Lake Association and all affected landowners concerning all proposed zoning amendments, by-law changes, and minor variance applications that could impact Fairy Lake. They should provide sufficient time to respond to development applications prior to the Council review and approval process.
3. Propose the following by-law amendments to the OP/Zoning By-law Review Team:
   (a) As described above in Action 2, Update Official Plans, for all shoreline property establish requirements as given in Figures 32 and 33, and in the following with respect to the present Zoning By-laws:

   Maintain present requirements for:

   i. a 30 m minimum shoreline frontage for multiple residential, commercial, and single family residences in the Primary Urban Area, except for those single family residences with private water and sewer which require 60 m minimum frontage,
   ii. prescribed minimum shoreline setbacks for properties on town services in the Urban Area between the Main St. bridge and Fairy Lake along the Muskoka River North Branch,
   iii. a 10 m minimum side yard setback for multiple residential buildings in the Urban Area (RM2),
   iv. prescribed maximum heights for all types of buildings in all areas,
   v. maximum lot coverage requirements for all properties in the town core between the Main St. bridge and Fairy Lake on the Muskoka River North Branch.

   Establish in the Zoning By-laws new requirements of:

   i. a 60 m minimum shoreline frontage for residences (outside of the urban areas) in the waterfront designation, regardless of whether they are on municipal services or not.
   ii. a 60 m minimum shoreline frontage requirement for all lots in the Community of the Locks,
   i. a 20 m minimum setback from the shoreline for property in all areas and zones regardless of whether on private or town services, except for properties on town services between the Main St. bridge and Fairy Lake on the Muskoka River North Branch which should remain as at present,
   ii. a 30 m minimum shoreline setback for all property fronting on Type 1 Fish Habitat,
   iii. a 4 m minimum interior side yard setback for single family residences in the Urban Area (R1) with 30 m minimum frontage,
   iv. a 10 m minimum side lot setback for commercial buildings in the Urban Area,
   v. a maximum of three storeys above grade facing the water for single and multiple residential buildings in all areas,
   vi. a maximum height of 3 m (10 ft.) per storey.

vii. a maximum lot coverage for properties on Fairy Lake within the Urban designation of 25%. (As given above, all properties in the town core on the Muskoka River North Branch shall have a maximum lot coverage the same as at present),
viii. a natural vegetative buffer, at least 5 m in depth from the shoreline.

(b) Ensure significant environmental features such as wetlands and fish habitats are placed in an appropriate environmental protection (EP) zone.
(c) Shoreline construction should total no more than the following:
    i. For a single Residence, 25% of shoreline frontage or up to 23 m, whichever is less;
    ii. For a Residential Cluster Development, 25% of shoreline frontage of the Open Space block or up to 30 m, whichever is less;
    iii. For a Resort Commercial, 33% of shoreline frontage;
    iv. For a Marina, 50% of shoreline frontage.
(d) A height limitation should be incorporated into the interpretation of '2-storeys' for commercial buildings.
(e) The height of shoreline structures should be measured from the shoreline side of the finished grade to the finished height of the structure.
(f) The height of roofed buildings should be measured to the peak of the roof, not to one-half of the roof's height as stipulated by the current by-law.
(g) For construction on steep slopes include standards that address density, visual impact, and buffer zones.

5. Establish a zone category for narrow water bodies and include provisions that reduce development impact, such as increased setbacks, decreased height allowance, decreased dock length and increased shoreline buffers.
6. Ensure by-law and OP provisions are consistent in prohibiting construction of new boathouses.
7. Introduce a Backlot Zone with appropriate requirements.

ACTION 4. CONTROL LAND DEVELOPMENT

Objective

To ensure appropriate control of development of shoreline property.

Description

The Fairy Lake Association should work with officials of the Town of Huntsville to develop suitable control measures for development of Fairy Lake waterfront property.

The FLA team for this action must have a good understanding of the present Official Plan and Zoning By-laws, current land use patterns, and potential land areas of concern. This will require a review of the Official Plan, Zoning By-laws, and pertinent sections of the Lake Plan.

Tasks

1. The Fairy Lake Association should engage a professional planner to predetermine the ultimate extent and location of land development on the lake, taking into account the varying concerns of stakeholders for conceivable residential and commercial development. Advanced planning to establish policy on the location of future multiple residential buildings and other large profile developments must be made and submitted for Town Council's acceptance.

2. Make representation to Town Council to ensure that the Environmental Advisory Committee reviews all shoreline development proposals as a routine precaution. Building permits and approvals of shoreline development should be subject to measures and controls to protect upland, riparian and littoral vegetation.
3. Encourage Town planning officials to recognize the importance of protecting Fairy Lake's natural characteristics in order to support the burgeoning tourist industry.
4. Recognize the impact on Fairy Lake resulting from commercial and industrial expansion on Vernon, Fairy, and Peninsula Lakes.

ACTION 5. REGULATE CONSTRUCTION

Objective
To ensure construction on shoreline property is properly reviewed and regulated.

Description
The Fairy Lake Association should work with officials of the Town of Huntsville to develop suitable control measures for development of Fairy Lake waterfront property.

Tasks
1. Make representation to Town staff to have proposals for new shoreline development show a plan that incorporates natural shoreline buffers, and the preservation of natural shorelines.
2. It should be recommended that development that causes major alteration of landscape and soils be required to submit Storm Water Management and Construction Mitigation Plans. Construction specifications should include appropriate assessment of soil characteristics causing sedimentation and erosion, and construction measures that are needed to prevent silting and erosion of banks of watercourses.
3. All shoreline development should use appropriate silt screens and follow proper construction mitigation guidelines.
4. A Tree-Cutting policy should be instituted to preserve mature trees. The policy should also include direction to a developer for preparing a site for construction, with the least possible visual impact on the lake caused by tree removal.

ACTION 6. ENFORCE REGULATIONS

Objective
To ensure appropriate enforcement of regulations affecting development of shoreline property.

Description
The Fairy Lake Association should work with officials of the Town of Huntsville to develop suitable procedures for enforcement of regulations. Consideration should be given to having FLA participate in cooperation with Town representatives in enforcement measures.

The FLA team for this action must have an understanding of the present Official Plan, Zoning By-laws, and regulations and codes related to construction and water contamination.

Tasks

1. Recommend to Town authorities that applications for minor variances to by-law specifications not be entertained unless proper justification related to site peculiarities is provided, it being understood that personal wishes do not constitute justification.
2. Encourage Provincial, District, and Town authorities to provide adequate, ongoing inspection of building sites by professional inspectors. Inspection should ensure adherence to Provincial, District and Municipal standards, Site Plan Agreements and Consent Agreements, and that the health of the lake is not at risk during the construction phase. Final approvals should not be granted without site inspection.
3. Make representation to Provincial, District, and Municipal authorities to address the problem of reducing water pollution from construction sites.
4. A by-law enforcement officer should be appointed to ensure compliance with shoreline by-law requirements.

ACTION 7. COMMUNICATION

Objective

To provide ongoing communication with residents, stakeholders, lake users, and the general public regarding lake matters.

Description

Appropriate communication is necessary and its means must be established to inform and educate everyone on important lake matters.

Tasks

1. Prepare a “coffee table” version of the Lake Plan, i.e., one that is reader friendly, and offer it for sale. Donate a copy to the library, Federal, Provincial and Town authorities, and neighbouring Lake Associations.
2. Offer maps of interest from the Lake Plan for sale.
3. Prepare or obtain brochures, pamphlets, etc. that deal with specific issues as they arise.
4. Prepare and distribute a Newsletter that includes educational material.
5. Establish and keep up-to-date a website for displaying pertinent FLA information.
6. Maintain contact with local media, invite their representatives to take part in lake affairs and provide them with news releases, special articles, and announcements.
7. Obtain interesting speakers and other presentations for general meetings.

ACTION 8. MONITOR AND IMPROVE WATER QUALITY

Objective

To develop a testing, monitoring and education program to protect and improve the water quality of Fairy Lake.

Description

Lakefront living and enjoyment are profoundly affected by the quality of the lake water. A healthy watershed is imperative to the safe enjoyment of activities including swimming, boating, fishing

and wildlife viewing. The source of water for the Town of Huntsville as well as directly for some lake residents is Fairy Lake. Due to significant cutbacks in Provincial water quality testing and monitoring programs during the past few years the ongoing safety of consuming our untreated lake water is now somewhat of a mystery.

Tasks

1. Form a committee to develop a comprehensive program to test and monitor the water quality at strategic locations on Fairy Lake and in lakes and streams flowing into Fairy Lake. The Committee should work with the District of Muskoka, the Town of Huntsville, the Ministry of the Environment, and the Ministry of Natural Resources. It should co-ordinate activities with the Peninsula Lake Association and the Lake Vernon Association.
2. Develop an annual "State of the Lake" report for the lake residents on the water quality, including monitoring results and trends for the various test parameters.
3. Promote healthy lakefront living standards including phosphorus free living and control over use of pesticides and fertilizers in the properties adjacent to the lakefront or the streams flowing into Fairy Lake.
4. Ensure that the septic tank inspection program recently initiated by the Town of Huntsville is diligently followed.
5. Work with the public health authorities to have water testing resumed at public beaches on Fairy Lake to give assurance of water safety for those who swim at the beaches, as well as for lake residents.
6. Develop a plan to identify all storm sewer intakes and outflows into Fairy Lake and the North Muskoka River and paint a fish on or near the grates to advise people that these flow directly into Fairy Lake. Ensure that area residents are aware of the danger to the lake water of inappropriate discharges into these storm sewers.
7. Work with adjacent lake associations and area industrial enterprises with the objective of ensuring upstream discharges of effluents are eliminated.
8. During the OP Review process, work with the Town of Huntsville Planning Department's recommendation regarding the formation of a more comprehensive policy for storm water system management including installation of oil interceptors, silt filtration and other methods to control the flow of undesirable effluents.
9. Work with the management of Deerhurst Resort, Deerhurst Golf Course and Delta Resorts and Club Links Golf Club to monitor run-off of phosphorus and fertilizers from the fairways adjacent to the Canal and Grandview Bay.

ACTION 9. PRESERVE AND REHABILITATE STREAMS AND WETLANDS

Objective

To protect and enhance the wetlands and streams adjacent to and flowing into Fairy Lake.

Description

There are eighteen small streams and tributaries that flow into Fairy Lake, with many of these streams having embedded riverine or tributary wetland areas in their upper and lower reaches. In addition, Fairy Lake has several lacustrine or lake wetland areas. These streams and wetlands provide valuable benefits to the fish and wildlife communities of Fairy Lake as well as assist in improving water quality and flood control.

Tasks

1. Studies should be completed to ascertain the importance of each of the eighteen streams as well as the wetland areas that are flowing into or adjacent to Fairy Lake.
2. Work with the Peninsula Lake Association to develop education and protection programs for the canal and canal wetland areas.
3. Develop boat speed and wake control programs with the Peninsula Lake Association for protection of the canal wetlands and shorelines.
4. Landowners adjacent to the streams should be assisted and encouraged in the protection of the eighteen streams.

ACTION 10. PRESERVE AND REHABILITATE SHORELINES

Objective

To encourage residential, commercial and municipal lakefront property owners to preserve and rehabilitate their shoreline properties, and to educate lakefront property owners on the importance and benefits of maintaining natural shorelines.

Description

Shoreline property owners need to fully understand the impacts of removing shoreline vegetation and substrates (littoral, riparian and upland zones) on water quality, and fish and wildlife. The owners must be made aware of the cumulative negative impacts of numerous small alterations (including well-intentioned projects) to a shoreline. Through years of development the shoreline of Fairy Lake has experienced loss of vegetation and fish and wildlife habitat particularly for the urban properties.

Tasks

1. Contact and encourage lakefront owners to create a shoreline buffer of native plants and shrubs between the waterlines and their lawns.
2. Contact and encourage lakefront owners having greater than 50% of their shorelines disturbed to restore most of their shorelines to as natural condition as possible.
3. Promote the addition of native logs and other woody debris in the Littoral and Riparian zones of the shoreline as well as the careful placement of rocks in the near shore areas.
4. Encourage shoreline preservation in conjunction with OMNR and Fisheries and Oceans Canada, including the creation of shoreline activity protection areas, wake prevention and rehabilitation and preservation projects.
5. Ensure that local by-laws provide for the retention of natural shoreline for new development, including vegetation, shrubs and trees in each of the Littoral, Riparian and Upland Zones.
6. Create a continuous education program for shoreline protection and enhancement including distribution or publication of articles and booklets.
7. Request the District of Muskoka to conduct a shoreline vegetation survey for Fairy Lake.

ACTION 11. PRESERVE AND REHABILITATE FISH AND WILDLIFE

Objective
To improve and rehabilitate the fish and wildlife communities of Fairy Lake and the habitat necessary for their development.

Description
Wildlife viewing and fishing activities are important recreational activities of the residents of Fairy Lake. The health of the fish and wildlife populations is directly affected, probably to even an greater extent, to the same stresses, such as water quality, noise and light pollution, and shoreline development and alteration, experienced by lakefront property owners.

Tasks
1. Actions outlined in Action Plan Sections 8. Monitor and Improve Water Quality, 9. Preserve and Rehabilitate Streams and Wetlands, and 10. Preserve and Rehabilitate Shoreline are vital to the preservation and rehabilitation of the fish and wildlife communities.
2. Work with the OMNR on the frequency and number of fish stocking events and provide volunteers to study the spawning beds and spawning activities on Fairy Lake.
3. Signage should be posted to raise awareness of wildlife habitat including requests to reduce noise, speed and wake from boats, particularly in nesting and rearing areas.
4. Create a program to identify, provide, and protect safe nesting sites for loons and ducks.
5. Work with local organizers to restrict fish tournaments to a period after July 1 of each year to protect fish spawning and rearing activities.
6. Develop a signage program in conjunction with the Peninsula and Vernon Lake Associations to post information to halt the harmful effects and procedures caused by the invasion of exotic species to ensure protection of the lake system.
7. Give continual emphasis to the protection of the local deer population and the safety of local residents, and post reminders (new signs) to identify risks to deer, drivers and vehicles, particularly in the sundown, sunrise and breeding (the rut) periods.

ACTION 12. EDUCATE AND PROVIDE ADVICE TO LAKE RESIDENTS

Objective
To educate and provide advice to lake residents on proper management and care of their property and of practices which adversely affect the health of the lake or other residents.

Description
Some lake residents are not familiar with desirable property management and care of their waterfront property, bringing to the lake city values that are inappropriate for maintaining a healthy lake. Similarly there are certain practices of residents, boaters, and others, which adversely affect the lake or its enjoyment by others. The Fairy Lake Association must educate and advise all residents and lake users on proper procedures.

Tasks
1. Develop programs to educate, assist, and encourage landowners to restore and protect vegetation to areas along and within the shoreline abutting their properties.

2. Develop a communication plan to inform residents and planners of the impacts and benefits of healthy shoreline living.
3. Promote the use of indigenous plants and tree species. Encourage local nurseries and landscapers to stock and promote their use.
4. Promote sound forestry practices adjacent to the lake and its streams.
5. Educate and encourage lakeside residents and commercial enterprises on the establishment of natural buffers, the preservation and restoration of natural shorelines, and the proper maintenance of shorelines, lawns, and landscaping. A phosphorous-free lifestyle should be promoted.
6. Request the MNR to establish a system of notifying the public when the water level in Fairy Lake is routinely raised and lowered.
7. Point out the impact of inappropriate lighting over the water on other lake residents. Make representations to commercial enterprises to dim or turn off illuminated signs and lighting in parking lots when patrons are not using them. Recommend that the Town and MOT study the effects and costs of excessive night lighting.
8. Advise residents of the results of water testing and include information to help educate and promote awareness of factors affecting water quality.
9. Encourage residents to install post-supported or floating docks instead of crib docks because of their lower impact on lakebed and aquatic life.

ACTION 13. ENCOURAGE MUNICIPAL MEASURES

Objective
To encourage municipal measures that improve the enjoyment of the lake.

Description
It is desirable that FLA work with the Town of Huntsville to improve municipal facilities on the lake and eliminate objectionable municipal features.

Tasks
1. Encourage the Town of Huntsville to give emphasis to retaining and improving existing public lake access sites. The FLA should provide volunteer assistance in this endeavour.
2. Make recommendation to the Town to provide more public access to the lake in the form of parks, viewing areas, and picnic sites.
3. Make representation to sponsors of events in the lake area to maintain strict guidelines regarding excessive noise, with the penalty of being prevented from holding future events if guidelines are not respected.
4. Recommend to the Town and MOT to eliminate the noise caused by truck engine braking at the intersection of Hwy. 60 and Muskoka Rd. # 3, in the proximity of the adjacent hospital zone, long-term health care facility, and retirement home, by posting signage prohibiting it.
5. Advocate by-law action:
   (a) Recommend to Town staff that its Noise Control By-law No. 95-20 be amended to provide in zones R1 and R2 time restriction on the operation of any motorized conveyance other than on a highway or snowmobile trail, persistent pet noise, powered or non-powered tools, and solid waste equipment.
   (b) Make recommendations for the establishment of a “dark sky” lighting by-law.

(c) Advocate the establishment of a Pits and Quarries By-law as described in 2, Update Official Plan, para. 1(k).
(d) A Tree Preservation By-law (under the Ontario Municipal Act) should be instituted based on a tree-cutting policy designed to preserve mature trees for both urban and shoreline properties. The policy should also include direction to a developer for preparing a site for construction, with the least possible visual impact on the lake caused by tree removal.

6. Request the Town of Huntsville to notify the Fairy Lake Association of minor variance applications.
7. Consider political representation.
   (a) Sound out local politicians (especially candidates before an election) on their values and motives when in office and provide to lake residents a news release or information in the Association newsletter.
   (b) Prepare a strategy to support political candidates who are sympathetic to lake causes and work closely with them during their term of office.
   (c) Invite local politicians having concerns for lake values to all events and especially workshops.

ACTION 14. IMPROVE BOATING AND NAVIGATION

Objective

To make improvements to boating practices on the lake that will benefit boaters, residents, and lake users.

Description

Just about everyone living on or using the lake owns a boat, and boating is the most common form of recreation. There are, however, a number of boating practices that residents and stakeholders find objectionable, and this Action aims to rectify them.

Tasks

1. Request the MNR to establish a system of notifying the public when the water level in Fairy Lake is routinely lowered in the fall. (This is a repeat of Task 6 in Action 12.)
2. Support community based policing to enforce speed control and destructive wakes in the channels.
3. Post signage at ramps and include articles in newsletters promoting safe boating practices.
4. Encourage boaters to become certified operators by notifying members of the dates and times of available training programs, and by making members aware of information on websites and telephone.
5. Assist the OPP to continue to operate courtesy vessel inspections on an annual basis that allow boaters free inspection of safety equipment by OPP without risk of being charged for infractions.
6. Post signs indicating low water level at the tie-up area at the Locks where boats wait for lock admission, and at other public docks where there is unsafe depth for boating. Mark shoals and sandbanks where boat damage might occur through insufficient water.
7. Look into the feasibility of having an official nautical chart prepared for the lake and follow up on the matter.

8. Through notices in newsletters, local media, and signage, encourage those attending events that significantly increase the number of boats, such as the Deerhurst fireworks display and fishing tournaments, to be aware of speed restrictions and safety issues.
9. Make representations to organizers of Fish Tournaments to enforce speed limits. Speeding participants should be disqualified, fined and banned from future participation.
10. Develop and post new and more innovative signage concerning inappropriate boating activities for the canal.
11. Signify FLA support of Federal Bill S-10, The Personal Watercraft Act, and encourage other associations to also do so. Support can be shown by writing to Senator Mira Spivak or Environment Minster David Anderson.

REFERENCES

1. Assessing Environment and Development: Fairy and Peninsula Lakes 1995, A.J. Skibiki, Heritage Resources Centre, University of Waterloo, Waterloo, Ontario,

2. The Fairy and Peninsula Lakes Study, 1994 – 1998, K.G. Cornelisse and D.O. Evans, Watershed Science Centre, Trent University, Peterborough, Ontario

3. Lakeshore Capacity Study, 1986, Geza C. Teleki and Joan Herskowitz, Ministry of Municipal Affairs

4. Peninsula Lake Plan, Peninsula Lake Association, 2001

5. Peninsula Lake Background Information Report, 2000

6. Statutes of Ontario, 1990
    a) Environmental Protection Act, Chapter E.19, as amended
    b) Public Lands Act, Chapter P.43, as amended
    c) Lakes and Rivers Act, Chapter L.3, as amended

7. Government of Canada
    a) An Act respecting fisheries, Chapter F-14
    b) An Act to amend the Fisheries Act, Chapter 1
    c) An Act to amend the Fisheries Act, Chapter 35

Appendix 1 – September 2000 Residential Survey

In September 2000, the Fairy Lake Association undertook a survey to gather information about Fairy Lake properties and residents. Specifically, the survey was designed to obtain data on property size, buildings, features, and use, and on resident occupancy, activities, observations, perceptions, and concerns.

The survey contained seventeen questions and was distributed to all members of the Fairy Lake Association. One hundred and five survey forms were completed and returned to form the basis for the information contained herein. Through a manual count of shoreline properties given on the Town of Huntsville GIS map of Fairy Lake, dated Nov. 16/01, there are 322 shoreline lots on the lake. The survey return, therefore, represents 32.6 % of owners and is considered a fair sample.

Results of the survey are summarized in the following pages. As some respondents did not answer all questions, statistics were developed using the number of respondents to a question rather than the total number of respondents.

A. RESIDENT INFORMATION

1. Use of Residence

Permanent or Seasonal	%	Intention of Seasonals	%
Permanent	61.9	Become Permanent	7.6
Seasonal	34.3	Remain seasonal	22.8
Weekends	3.8		
Other	0.1		

2. Average Length of Time on Lake: 27.8 yrs.

3. Duration of Use by Seasonal Residents:

Summer **-** 63.2 days ***Fall –*** 15.5 days ***Winter –*** 0.6 days ***Spring –*** 2.0 days

4. Average Number People in Residence:

1 – 2	3 – 4	5 – 6	7 – 8	> 9
48.0%	39.2%	9.8%	2.0%	1.0%

5. Residents' Recreational Activities

Type	%	Type	%
Boating	90.5	Hiking	20.0
Swimming	82.9	Ice skating	20.0
Canoeing	69.5	Snowmobiling	10.5
Reading	67.6	Ice fishing	8.6
Walking/jogging	65.9	Jet skiing	4.8
Socializing	57.1	Scuba diving	1.9
Fishing	45.7	Gardening	1.9
Sailing	26.1	Hunting	1.9
Water skiing	25.7	Other	3.7
Winter skiing	25.7		

B. PROPERTY INFORMATION

1. Buildings and Structures

a) Average Main Building Size: 2835 sq. ft.

b) Sleeping Cabins: % having sleeping cabins: 22.2%
Average size: 392 sq. ft.

c) Docks:

Type	%	Ave. Length	Longest
Crib	70.9	67.8 ft.	900 ft.
Post	12.8	64.1	250 ft
Floating	12.8	46.9	144 ft
Other	3.4	41.3	100 ft

d) Boathouses: Percentage of lots with boathouses: 22.3%

Type	Single Slip	Double Slip	Wet	Dry
Percent	14.1	6.1	14.1	7.1

e) Changes to Structures: Percentage that made changes in last 10 yrs: 40.2%

Change	Number	Percent
Renovation	12	30.8
New	11	28.2
Addition	5	12.9
Dock	5	12.9
Garage	3	7.6
Septic	2	5.1
Deck	1	2.5

Percentage planning to make changes in next 5 yrs: 15.5%

Change	Number	Percent
Addition	4	26.6
Renovation	4	26.6
Deck	2	13.3
Boathouse	1	6.7
Septic	1	6.7
Garage	1	6.7
Well	1	6.7
Cabin	1	6.7

2. Boats

Type	Number	% Total	% Households	# per Household
Non-motorized	187	62.7	80.9	1.8
Motorized	111	37.3	76.1	1.1
Total	**298**	**100.0**	**-**	**2.9**

a) Non-Motorized

Type	No.	% Total
Canoe	91	48.7
Sail	28	14.9
Rowboat	19	10.2
Windsurfer	18	9.6
Kayak	18	9.6
Paddleboat	13	6.9
Total	**187**	**100.0**

b) Motorized

Horsepower	No.	% Total
<10	32	28.8
< 100	35	31.5
> 100	43	38.7
PWC	1	0.9
Total	**111**	**100.0**

C. PROPERTY FEATURES

1. Shoreline Lots

a) Lot Size: Average Lot Size: 1.99 acres

Area	No.	% Total
< 0.5 acre	17	20.2
0.5 – 1 acre	32	38.1
1 – 2 acres	15	17.8
> 2 acres	20	23.9
Total	**84**	**100.0**

b) Shoreline Frontage: Average Shoreline Frontage: 87.3 ft.

Frontage	No. Lots	% Total
< 100 ft	12	13.1
100 – 200 ft	52	56.6
201 – 400 ft	17	18.4
401 – 1000 ft	8	8.6
> 1000 ft	3	3.2
Total	**92**	**100.0**

c) Natural Shoreline: Average Natural Shoreline: 77.0%

% Natural	No. Lots	% Total
0	12	12.9
1 – 24	2	2.1
25 – 49	2	2.1
50 – 74	9	9.7
75 – 99	30	32.2
100	38	40.8
Total	**93**	**100.0**

d) Percentage with Artificial Beach: 7.2%

e) Percentage using Artificial Fertilizers: 33.7%

2. Septic and Water

a) Location of Tile Beds:

Distance from Shoreline	No. Lots	% Total
0 – 40 ft	4	5.5
41 – 66 ft	11	14.8
67 – 100 ft	18	24.3
> 100 ft	41	55.4
Total	**74**	**100.0**

b) Age of Septic System:

Age	No. Lots	% Total
0 – 5 yrs	22	28.5
6 – 15 yrs	27	35.1
16 – 30 yrs	25	32.4
> 30 yrs	3	3.9
Total	**77**	**100.0**

c) Septic Pumping:

Last Done	No. Lots	% Total
0 – 5 yrs	51	79.6
6 – 10 yrs	7	10.9
11 – 20 yrs	3	4.7
Don't Know	3	4.7
Total	**64**	**100.0**

d) Water Supply:

Source	No. Lots	% Total
Well	36	41.8
Lake	28	32.6
Town	22	25.6
Total	**86**	**100.0**

e) Water Testing: Average tests per year: 2.0

	Tested		Not Tested	
Source	**No.**	**%**	**No.**	**%**
Well	31	50.8	4	6.6
Lake	12	19.6	9	14.7
Town	1	1.6	4	6.6
Total	**44**	**72.0**	**17**	**27.9**

f) Household Cleaning Products:

Product	No.	%
Always phosphate free	47	63.5
Phosphate free if on sale	9	12.1
Whatever is on sale	18	24.3
Total	**74**	**100.0**

D. PERSONAL OBSERVATIONS

1. Perception of Change on Lake

Activity	Increased	Decreased	No Change
Boat Traffic	64.3%	5.1%	29.6%
Daytime Noise	66.0%	2.0%	63.6%
Night-time Noise	33.3%	3.0%	63.6%
Night-time Lighting	27.7%	4.3%	68.1%

a) Sources of Boat Traffic Increase:

Source	PWC's	Boats	Resort	Water Skiing	**Total**
Percentage	76.0	12.0	8.0	4.0	**100.0**

b) Sources of Noise Increase:

Daytime Source	**%**	**Night-time Source**	**%**
PWC's	49.0	Resort	41.4
Train	19.6	Traffic	35.2
Aircraft	13.7	Boats	11.7
Traffic	5.8	Town	5.8
Boats	3.9	Snowmobiles	5.8
Resort	3.9	**Total**	**100.0**
Town	1.9		
Snowmobiles	1.9		
Total	**100.0**		

c) Sources of Nighttime Light Increase:

Source	Streets	Resort	Tim Hortons	**Total**
%	50.0	33.3	17.7	**100.0**

d) Appearance of Shoreline:

Feature	**% Increased**	**% No Change**	**% Decreased**
Lawns	52.3	47.7	0.0
Cottages	59.3	38.4	2.3
Resorts	19.8	77.8	2.5
Forest Cover	3.5	54.2	42.4
Structures	59.3	40.7	0.0

e) Perception of Water Quality:

Quality	Excellent	Good	Poor	**Total**
%	6.2	64.9	29.0	**100.0**

E. VALUED FEATURES OF LAKE

1. Most Valued Features of Lake

Feature	%
Beauty	32.6
Water Quality	22.1
Quietness	21.0
Wildlife	9.4
Convenience to Town	9.4
Boating	2.1
Fishing	1.1
Privacy	1.1
Cleanliness	1.1
Total	**100.0**

2. Improvements Desired

Improvement	%
Ban PWC's	24.7
Control number of boats	11.0
Control boat speed	11.0
Control development	8.2
Ban trains	7.3
Control water quality	6.4
Control noise	6.4
Manage shoreline	5.5
Limit airplanes	3.6
Reduce pollution	1.9
Monitor septic systems	1.9
Provide sewers	1.9
Improve park and beach	1.9
Educate public	1.9
Better services	0.9
Maintain lake level	0.9
Improve fish habitat	0.9
Ban snowmobiles	0.9
Control crows	0.9
More trails	0.9
No change	0.9
Total	**100.0**

Appendix 2 – Summary of Stakeholder Workshop

FAIRY LAKE PLAN

REPORT OF STAKEHOLDERS WORKSHOP
OCTOBER 29, 2001

FAIRY LAKE ASSOCIATION
LAKE PLAN COMMITTEE

FAIRY LAKE PLAN
REPORT OF STAKEHOLDERS WORKSHOP OCT. 29/01

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APPENDIX A: PARTICIANTS AT STAKEHOLDERS WORKSHOP, OCT. 29/01

APPENDIX B: WORKSHOP AGENDA

REPORT OF
STAKEHOLDERS WORKSHOP OCT. 29/01

~ SUMMARY ~

Fifteen people representing thirteen agencies and enterprises and six Fairy Lake Association members took part in the Workshop. An initial address by the Mayor, Town of Huntsville stressed his interest in environmental concerns, while explanatory presentations from the Workshop Facilitator and Lake Plan Committee Chair described the reasons for and purpose of the Lake Plan, how the Plan was being developed, and the purpose of the Workshop.

After initial expressions of lake plan importance, participants were presented with opportunities to voice their interest and concerns in the lake through questions requiring written answers and discussion. This was followed by questions on how they might help and what advice they would give.

Participants gave twenty-seven special characteristics that they valued about Fairy Lake. Those most frequently presented, in order of frequency of answers were:

- Natural beauty and shoreline
- Recreational opportunities, including boating
- Water quality
- Habitat for wildlife, fish and plants
- Attraction for tourism and generator of business

Participants listed thirty-seven concerns for the Lake. Those most frequently expressed, in order of frequency of answers were:

- Water pollution
- Land development and redevelopment
- Preservation of shoreline
- Preservation of fish and wildlife habitat
- Noise pollution
- Limited recreational and boating access
- Conflicting lake activities

Participants described a number of ways in which they could provide assistance to the Lake Plan Committee, given in Section 10, and listed useful advice, given in Section 11.

* * * * *

REPORT OF
STAKEHOLDERS WORKSHOP OCT. 29/01

1. PRESENT

Attending the Workshop as participants were Federal and Ontario Ministry representatives, municipal politicians and planning staff, and commercial enterprise operators. Present as observers were members of the Fairy Lake Association Executive and its Lake Plan Committee. The Facilitator for the Workshop was Randy French, French Planning Services Inc.

Invited were those enterprises that had a societal, cultural or commercial attachment to Fairy Lake. A total of twenty-two such agencies and enterprises were contacted, and nineteen stated that they would send representation. Sickness and other last-minute obstacles reduced this to a total of fifteen persons representing thirteen agencies and enterprises, while another six individuals represented the Fairy Lake Association. As viewed by the Lake Plan Committee, the large turnout showed an enthusiastic endorsement of the need for a Lake Plan and a strong desire of stakeholders to have their viewpoints included in it.

A list of all who were present is given in Appendix A.

2. AGENDA

The Agenda for the Workshop is given in Appendix B.

3. WELCOME ADDRESS OF PRESIDENT, FAIRY LAKE ASSOCIATION

Bob Jennings, President, Fairy Lake Association welcomed everyone to the Workshop, thanking them for their time and interest in attending. He presented a short history of the Association, and an explanation of the necessity of a Lake Plan for the fulfillment of the Association's mandate and goals. He described the desirability of all lakes in the area completing mutually acceptable Lake Plans so that common policies and coordinated standards could be developed.

The Association views the Lake Plan as a contract that must be acted upon by the Association if its full usefulness is to be realized.

4. OPENING COMMENTS OF MAYOR, TOWN OF HUNTSVILLE

Hugh Mackenzie, Mayor of Huntsville, emphasized the concerns for environmental matters that are held by his office, where they are viewed as necessary to keep the economy growing, among other things. He outlined the initiative being taken by the Town on septic tank inspection, and described a recent, Town initiated Seminar of lake and cottage associations to foster the development of common positions and promote liaison and networking.

The Town is now developing a Strategic Plan that will take into account environmental interests, and a new Official Plan will follow. Mr. Mackenzie, therefore, heartily endorsed a Fairy Lake Plan for use in both endeavours, with the comment that we must have homegrown solutions and agreements, and the Lake Plan and its Workshop will aid in developing them.

5. LAKE PLANNING AND PURPOSE OF WORKSHOP

Randy French stated that the purpose of lake planning is to determine for a lake what is important and what supports the quality of life in order to identify steps necessary to protect the lake. A Lake Plan is a community based planning process, linked to Official Plan policy and other controls, which reflects and responds to the special character of a lake in consolidating information and providing future direction. A Lake Plan will include a lake Vision, a lake description, an outline of issues, causes, and recommendations, and an action plan.

The purpose of the Workshop is to provide information on Lake Planning, and more importantly, to gather Stakeholders thoughts and ideas about the process, investigate their values and concerns, determine what information they may have, and find out their interest in participating in the Plan.

6. LAKE PLAN OVERVIEW

Roy Waddington declared that a Lake Plan was necessary to fulfill the Fairy Lake Association's mandate, to carry out the Association's obligations to all lakes in the Muskoka River watershed, and to guide agencies that regulate lake activities. With the sole objective of preparing the Lake Plan, a Lake Plan Committee, composed of four members, Kathy Hunter, Maire Carew, Bruce Gowan and himself, was formed.

The format being followed by the Committee is to examine Fairy Lake's carrying capacity in three areas that create limitations, namely, its natural elements, social elements, and physical elements (of which land development is paramount). The approach taken by the Committee is to identify the present situation, determine what is right and wrong with it, and develop a strategy to preserve what is right and correct what is wrong.

Much information has been obtained from studies but more important are the views of those who have an interest in the lake. From the Workshop, therefore, it is expected to obtain the views of agencies and enterprises, while those of lake residents are to be obtained from a survey.

7. INITIAL COMMENTS OF PARTICIPANTS

Upon introducing themselves, participants were asked to make brief comments on what they thought would be the benefit of a Lake Plan. Briefly, comments were as follows:

A lake plan . . .

- *will plan for the future excellence of the lake.*
- *is like a neighbourhood plan.*
- *is the development of goals and objectives for the lake.*
- *will concern itself with social aspects and prevent conflict.*
- *is important because lakes are part of Huntsville life.*
- *will provide good regulatory and planning information, and policy for the OP.*
- *will assist in habitat management and lead to good stewardship and education.*
- *will help in ensuring and defining good water quality.*
- *will lead to a shared interest in natural and social aspects of the lake.*
- *will deal with the lake's uniqueness in being partially urban in character and having a large number of year-round residents.*
- *will provide information and expertise.*
- *will recognize the importance of tourism and winter activities.*

8. VALUES

Participants were asked to write answers to and discuss the question: "What does your organization value the most about Fairy Lake?" In order of decreasing number of replies, answers were as follows:

Characteristic	***No. Replies***
Natural Beauty and Shoreline	
Beauty	*5*
Natural setting	*5*
Shoreline	*4*
Type and scale of shoreline development	*1*
Limited dock and structures	*1*
	16

Recreational Opportunities	
Recreational opportunities	*7*
Boating opportunities	*2*
Boating access to other lakes	*2*
Year-round fishing and hunting	*1*
	12
Water	
Water quality	***10***
Habitat	
Wildlife habitat	*4*
Fish habitat	*3*
Wetland habitat	*1*
Plant life	*1*
	9
Tourism and Business	
Tourism attraction	*4*
Business generator	*4*
	8
Social and Cultural Aspects	
Cultural heritage	*1*
Community focal point	*1*
Low crime area	*1*
Educational opportunities	*1*
Desirable lifestyle	*1*
	5
Proximity to Town	
Proximity to Huntsville and Golden Horseshoe	***3***
Privacy and Tranquility	
Tranquility	*2*
Privacy	*1*
	3
Miscellaneous	
Development opportunities	*1*
Air quality	*1*
Water transportation	*1*
	3
TOTAL	***69***

To summarize the above, that which is valued most about Fairy Lake is its:

- Natural beauty and shoreline (16),
- Recreational opportunities, including boating (12),
- Water quality (10),
- Habitat for wildlife, fish and plants (9), and
- Attraction for tourism and generator of business (8).

Other valued lake characteristics are social and cultural aspects (5), proximity to town (3), privacy and tranquility (3), and miscellaneous (3).

9. CONCERNS

Participants were asked to write answers to and discuss a second question, namely: "What are your concerns about Fairy Lake?" In order of decreasing number of replies, answers were as follows:

Concern	***No. Replies***
Water Pollution	
Water pollution	*12*
Downstream affects	*2*
Urban runoff	*1*
Septic tank failures	*1*
Lack of boat pump out facilities	*1*
Sewage treatment plant controls	*1*
Highway 60 runoff	*1*
Golf course development	*1*
Silting	*1*
	21
Land Development and Redevelopment	
Potential development and redevelopment	*8*
Housing density	*1*
View from water	*1*
	10
Preservation of Shoreline	
Preservation of shoreline	*5*
Cutting of trees	*2*
Protection of slopes	*1*
	8
Preservation of Fish and Wildlife Habitat	
Preservation of habitat	*5*
Health of lake trout	*1*
Cormorants	*1*
Invading species	*1*
	8

Noise Pollution	
Noise (some mechanical)	*4*
Highway 60 noise	*1*
	5
Limited Recreational and Boating Access	
Limited recreational access	*3*
Boating accessibility	*1*
	4
Conflicting Lake Activities	
Lake activities – boating density	*2*
Types of water craft	*1*
Conflicting recreational activities	*1*
	4
Preservation of Resorts and Attractions	
Supporting resorts	*1*
Preservation of community drawing qualities	*1*
	2
Light Pollution	
Light pollution	***2***
Miscellaneous	
Cumulative effect of incremental changes	*1*
Balancing tourism and environment	*1*
Water level fluctuation	*1*
Improved navigational aids	*1*
Increased property crime	*1*
By-laws enforcement	*1*
False alarms for police	*1*
11th hour participants	*1*
	8
TOTAL	***72***

To summarize the above, the greatest concerns for Fairy Lake are:

- Water pollution (21),
- Land development and redevelopment (10),
- Preservation of shoreline (8),
- Preservation of fish and wildlife habitat (8),
- Noise pollution (5),
- Limited recreational and boating access (4), and
- Conflicting lake activities (4).

Other concerns for Fairy Lake are preservation of resorts and tourist attractions (2), light pollution (2), and a variety of physical and social concerns of significance (8).

10. ASSISTANCE

Finally, participants were to write answers to and discuss the questions: "How can you help? What resources do you have available?" Replies received were as follows:

- *The DFO representative stated that the department has pamphlets, new articles and booklets available to lake members. The department is ready to provide assistance in achieving reasonable objectives.*

- *The OPP representative declared that he could provide crime statistics and trends. He suggested that the Lake Plan might identify "hot spots" for increased concentration of effort.*

- *The District Utilities representative described annual water reports that can be supplied.*

- *District Planning representatives outlined the availability of environmental assessments, and brochures on water quality, maintaining forested lands, and habitat preservation. It will also provide encouragement and support.*

- *The Huntsville Planning representative offered mapping capability, GIS information on property with lot size, shoreline, assessment, etc., the town's Official Plan, bylaws for noise, zoning, etc., a document on Growth Strategy for Urban Areas, a description of the septic tank program, and 1981-1995 historical information.*

- *The MNR representative stated that access to MNR files is available and the files include considerable information on fisheries and wildlife. Funding is available for projects.*

- *Other sources of information suggested were:*

    - *Muskoka Tourism*
    - *Resorts Ontario*
    - *Heritage Huntsville*
    - *Huntsville Chamber of Commerce*
    - *Muskoka Watershed Council*
    - *District website*
    - *Golf Course Association*
    - *Robin Tapley*
    - *Lake of Bays Association*
    - *Muskoka Heritage Foundation*
    - *Potential Developers*

11. ADVICE AND ACTIONS

An open discussion took place with the following advice and actions suggested by participants:

- *Make objectives reasonable and implementable.*
- *Find a balance between regulation and cooperation.*
- *Recognize that a 100% buy-in to recommendations will not be achieved.*
- *Send out newsletters to all property owners, not just Fairy Lake Association members.*
- *Consider an occasional article in the Forester.*
- *Consider a kiosk in Robinson's to distribute information.*
- *Work with District and local government and have input into Huntsville's Strategic Plan*
- *Reach out to silent groups on the lake through dock surveys, etc.*
- *Make recommendations specific, e.g. lot frontages, height, size, proportion of lot for buildings.*
- *There is a two-way opportunity for communication with property owners through the Fairy Lake Association's website at www.huntsvillelakes.com.*

.12. WRAP UP

Roy Waddington summarized the results of the Workshop and thanked everyone for their interest in attending, for the information they provided, and for their enthusiastic participation. He asked that members of the Lake Plan Committee be contacted at the phone number given in the Committee's initial letter if there was any further information or question which anyone wished to present to the Committee.

APPENDIX A

PRESENT AT STAKEHOLDERS WORKSHOP, OCT. 29/01

STAKEHOLDERS

Jeff Suddaby, 3 Guys and a Stove

Hugh Mackenzie, Town of Huntsville

Don Baker, Huntsville Ratepayers Association

Peter Brown, District of Muskoka Utilities

Greg Corbett, District of Muskoka

Marg French, District of Muskoka

Jennifer Foster, Muskoka Landing

Tom Welsh, Huntsville Marine and Recreation

Christy MacDonald, Ontario Ministry of Natural Resources

Tom Hoggarth, Department of Fisheries and Oceans

Terry Sararas, Town of Huntsville

Tracy Robinson, Robinson's Independent Grocer

Debbi Tutty, Robinson's Independent Grocer

Tracy Ford, Delta Grandview Resort

Harry Rawluk, Huntsville OPP

FAIRY LAKE ASSOCIATION REPRESENTATIVES

Bob Jennings, President **Gayle Leachman, Past President**

Lake Plan Committee

Kathy Hunter Maire Carew
Bruce Gowan Roy Waddington

FACILITATOR

Randy French, French Planning Services Inc

APPENDIX B

Workshop Agenda

1:00 to 4:00 pm
October 29th, 2001
Owls Nest, Grandview Inn

1:00 Introduction

Welcome	*Bob Jennings, Pres., Fairy Lake Association*
To-day's Purpose	*Randy French, French Planning Services*
Opening Comments	*Hugh Mackenzie, Mayor, Town of Huntsville*
Introductions and Comments	*All Participants*

1:30 Fairy Lake Plan Overview R*oy Waddington,air, Lake Plan Committee*

1:45 Brainstorming Session on Lake Values and Concerns *Discussion Leader - Randy French*

3:30 Open Discussion on "Best Advice" *All Participants*

4:00 Wrap Up and Adjourn *Roy Waddington*

Appendix 3 – August 2002 Residential Survey

In August 2002, the Lake Plan Committee was in the process drafting sections of the Fairy Lake Plan and desired to make recommendations on several matters in each section. While some recommendations were obvious, the Committee recognized that some could be contentious, with lake residents likely to have different points of view.

Accordingly, it was considered necessary to determine residents' views on several matters. A survey was planned and a questionnaire for the survey developed. The questionnaire asked for elaboration on any answer asked in it, and provided space for comments. A resident was not asked to give his name and address on the returned questionnaire.

The questionnaire was mailed to about three hundred lake residents on August 13, 2002, with the request that it be completed and returned by September 15, 2002. Eighty-two responses were received, representing 27. 3% of those receiving the questionnaire.

Results

The results of the survey are given in the following. Each question from the questionnaire is stated below exactly as presented in the questionnaire, and for each question is given the number and percent of responses received for the options provided in answer to it.

A. SHORELINES

Most residents state that the beauty of the lake is the feature they value the most. The shoreline gives the lake its beauty, and recommendations on its preservation or improvement will be made in the Plan concerning the following:

1. Should a natural on-shore vegetative buffer be mandatory?

	No.	%
Yes	45	54.9
No	24	29.3
Don't know	12	14.6
No reply	13	15.8

2. What should be a buffer's depth from the water?

	No.	%
5m	28	34.1
10 m	10	12.2
15 m	6	7.3
>15 m	1	1.2
Don't know	18	21.9
No reply	38	46.2

3. Should the shoreline setback for buildings and structures be increased from 20 m?

	No.	%
Yes	19	23.1
No	55	67.1
Don't know	2	2.4
No reply	6	7.3

4. What should be the setback?

	No.	%
30 m	12	14.6
35 m	5	6.1
Other	5	6.1
No reply	60	70.3

5. Should a minimum amount of a lot's lakeside frontage be retained in its natural state?

	No.	%
Yes	64	78.0
No	9	11.0
No opinion	4	4.9
No reply	5	6.0

6. What should be the percentage remaining natural?

	No.	%
25%	20	24.4
50%	25	30.5
75%	15	18.3
Other	7	8.5
No reply	15	18.2

7. Should there be a tree preservation by-law?

	No.	%
Yes	48	58.5
No	30	36.6
No opinion	3	3.7
No reply	1	1.2

8. Should the Town of Huntsville have an enforcement officer to inspect shoreline alteration?

	No.	%
Yes	43	52.4
No	31	37.8
No opinion	4	4.9
No reply	4	4.9

9. To maintain the balance between natural state and built form, should cumulative shoreline development (i.e. docks, boathouses and beaches) on a lot be restricted, as follows?

a. Residential Property:

	No.	%
15%	16	19.5
25%	20	24.4
33%	12	14.6
50%	19	23.2
Other	3	3.7
No reply	12	14.6

b. Cluster Development (higher density residential development located away from the lake):

	No.	%
15%	24	29.3
25%	14	17.1
33%	11	13.4
50%	10	12.2
Other	4	4.9
No reply	19	23.2

c. Commercial Resort:

	No.	%
15%	22	26.8
25%	9	11.0
33%	13	15.8
50%	14	17.1
Other	4	4.9
No reply	20	24.3

d. Marina:

	No.	%
15%	17	20.7
25%	14	17.1
33%	6	7.3
50%	17	20.7
Other	7	8.5
No reply	21	25.6

10. How should the permitted height of shoreline structures be measured (height is measured from average finished grade to ½ peak of structure)?

	No.	%
From the shoreline?	50	61.0
From the road?	8	9.8
No opinion	17	20.7
No reply	9	11.1

11. Should minor variance applications with no planning rationale other than personal choice be approved?

	No.	%
Yes	26	31.7
No	39	47.6
No opinion	9	11.1
No reply	8	9.7

12. On many lakes boathouses are not permitted. Should more be permitted on Fairy Lake?

	No.	%
Yes	28	34.2
No	46	56.1
Don't know	5	6.1
No reply	3	3.6

13. Should every lot be entitled to a boathouse?

	No.	%
Yes	22	26.8
No	50	61.0
Don't know	5	6.1
No reply	5	6.1

14. Should a boathouse be allowed only on a lot with a frontage of :

	No.	%
200 ft. or larger?	31	37.8
150 ft. or larger?	11	13.4
100 ft. or larger?	20	24.4
No opinion	5	6.1
No reply	5	6.1

15. Should a boathouse be allowed to have two storeys?

	No.	%
Yes	20	24.4
No	55	67.1
No opinion	2	2.4
No reply	5	6.1

16. A maximum height of 4 m is now allowed for a boathouse, measured from dock to ½ the roof height. Should this be restated to allow an overall maximum height (measured from top of dock to the highest point on the roof) of:

		No.	%
Similar to Muskoka Lakes)	4.8 m	30	36.6
	4.0 m	38	46.3
	Other	6	7.3
	No reply	6	7.3

17. A boathouse width of 20% of shoreline, maximum 8m, is now allowed. Should this maximum be reduced to:

	No.	%	
6 m	19	23.2	
5 m	5	6.1	
4 m	9	11.1	
Other	36	43.9	(*retain present requirement*)
No reply	13	15.8	

Should it be increased? 0 Larger recommended width _____

18. A boathouse setback of 1 m from the side lot line is now required. To eliminate interference with a neighbour's view, should this be increased to:

	No.	%	
3 m	21	25.6	
4 m	20	24.4	
5 m	23	28.0	
Other	12	14.6	(*retain present requirement*)
No reply	6	3.6	

B. WATER QUALITY

Water quality is high on the list of valued lake features.

19. Should the use of lawn fertilizers be banned within 50 m of the lake?

	No.	%
Yes	67	81.7
No	10	12.2
No reply	3	3.6

20. Should the use of pesticides be banned within 50 m of the lake?

	No.	%
Yes	72	81.8
No	5	6.1
No reply	5	6.1

C. FISH AND WILDLIFE

Fish and wildlife habitat is important to residents

21. Should fishing tournaments not be permitted?

	No.	%
Yes	30	36.6
No	32	39.0
No opinion	17	20.7
No reply	3	3.6

22. Should fishing tournaments be limited to the period after July 1st in order to protect spawning and rearing activities?

	No.	%
Yes	59	72.0
No	8	9.8
No opinion	8	9.8
No reply	7	8.5

23. Should the Fairy Lake Association, in cooperation with MNR and DFO, engage in the re-establishment and/or improvement of spawning beds?

	No.	%
Yes	60	73.2
No	7	8.5
No opinion	10	12.2
No reply	5	6.1

24. Should the Fairy Lake Association develop duck, loon and shorebird nesting sites?

	No.	%
Yes	55	67.1
No	6	7.3
No opinion	9	11.0
No reply	12	14.6

25. Should the Fairy Lake Association, in cooperation with MNR and DFO, develop or redevelop vegetation zones for improved fish and wildlife habitat?

	No.	%
Yes	64	78.0
No	6	7.3
No opinion	9	11.0
No reply	3	3.6

D. PUBLIC ACCESS

26. Should there be more public parks on the lake for visitors?

	No.	%
Yes	31	37.8
No	41	50.0
No opinion	6	7.3
No reply	4	4.9

27. Should there be more public access to the lake for boats?

	No.	%
Yes	10	12.2
No	65	79.3
No opinion	0	0.0
No reply	7	8.5

E. COMMENTS

Some respondents made comments in the comments section. Most were related to individual answers given in the Questionnaire and cannot be summarized. One comment which was given a number of times, however, was on the need for "No Wake" signs in Echo Bay where there appears to be considerable water-skiing and PWC activity.

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