

**OTTERLAKE SUSTAINABLE LAKE PLAN
TERMS OF REFERENCE (Draft)
July 24, 2008**

INTRODUCTION

In 2006, the Otter Lake Association (OLLA) made the decision to undertake a Lake Planning exercise. Concern about future development pressures on and around the lake, OLLA acknowledged the role a Lake Management Plan could play in the future health of the lake. As a result, the lake planning process was initiated by the members in a vote at the 2006 AGM.

THE SUSTAINABLE LAKE PLAN

Purpose

The purpose of the sustainable lake plan (SLP) is to:

- Develop a strategy that outlines ways to maintain and improve the health of the Otter Lake Watershed
- Develop such a strategic plan in co-operation with landowners, users and visitors of Otter Lake as well as government and non-government organizations having a vested interest in the Otter Lake watershed
- Motivate, educate and engage lake residents to become involved in the health of the Otter Lake watershed
- Make recommendations to the municipalities concerning official plan and zoning by-law policies
- Adopt an ecosystem (watershed) approach to managing the health of the Otter Lake watershed

Goals of the SLP

- To involve as many users, visitors, residents and other stakeholders as possible in creating and implementing the plan
- To educate Otter Lake users, visitors, residents and other stakeholders about their role in affecting lake watershed health
- To identify the direct relationship between the activities and attitudes of users and residents on the lake with lake health
- To put into place and action the proper land management tools to manage shoreline development

Issues

Lake residents and users have suggested that the following issues be addressed in the Lake Management Plan

- Surface water (water in streams and lakes) quality
- Weeds
- Groundwater (water from underground aquifers) quality and quantity
- Water levels
- Development pressures and their impacts on the watershed
- Fish and wildlife health
- Mining rights/claims
- Shoreline protection/health
- Partnerships in lake management
- Impacts of boating
- Beavers
- Responsibility of landowners in protecting lake health

The preparation of a lake watershed management plan will provide better communication, co-operation and commitment amongst all players. This strategic plan will educate lake residents

about their role in affecting lake health through their actions and identify stewardship opportunities to improve ecosystem health.

These Terms of Reference will help guide the plan through the SLP process.

OVERALL APPROACH

The plan will include the following steps using the described mechanisms.

Set the Stage:

- Undertake the required consultation with lake residents and users as well as with community partners* in order to determine need for, and interest in, a SLP
- Establish the organizational structure to undertake the plan
- Establish the values that stakeholders want protected in the SLP.
* for clarification of community partners please see page 3

Prepare the Plan

- Collect and compile the necessary information/data to address identified issues and to understand the Otter Lake Watershed ecosystem – its features, functions, trends, stressors and the role people have in the ecosystem
- Produce a “State of the Lake/ Lake Watershed” report
- Establish stakeholders’ vision for the lake/watershed over the next 20 years
- Establish goals and objectives for the SLP incorporating the vision, the statement of values and the issues as identified by the SLP process
- Determine strategies through which the lake will be managed as per above
- Produce the Lake Management Plan

Implement the Recommendations of the Plan

Monitor and Evaluate the Effectiveness of the Plan

DETAILED APPROACH

Setting the Stage

Establish organizational structure to undertake plan

Establish the LMP Steering Committee (SC)

This committee will be made up of members of the Otter Lake Association. The role of the SC will be to guide the day to day progress of the plan and to make the decisions necessary for the progress and advancement of the plan. The SC will meet as often as necessary to ensure the progress of the plan as per the schedule attached. The SC will have the responsibility of compiling all data necessary for the “State of the Lake” report.

Establish a Community Partners Committee

The Community Partners Committee will be made up of government and non-government groups and organizations that have a stake in the health of Otter Lake and the development of the LMP. This group will include, but not be limited to representatives from: municipalities, provincial ministries, federal departments, counties, interest groups, conservation authority, the business community, etc. The role of this committee is to provide advice and input into the development of the plan from a technical perspective. This committee will meet to provide background information, to review the “State of the Lake” report, to provide input into the ‘Vision, Goals and Objectives’ and to review the final LMP.

Establish Lake Residents Involvement/Committee

While not a committee per se, the residents and users of the Otter Lake Watershed will be called upon throughout the planning process to provide input, local knowledge and advice pertinent to the development of the plan. This group will be asked to identify what they value about their lake, what they see as issues affecting their lake, the means by which some of the issues can be resolved and their vision of the future for the lake. They will also be asked to review the final plan and to play a large role in the implementation of the recommendations. It is important to have lake residents involved in order to get them motivated about the plan and educate them on lake issues (helping them understand their role in creating or eliminating the issues and in facilitating the implementation of the recommendations of the lake plan).

Note: Together the Community Partners Committee and Otter Lake residents will be referred to as the “stakeholders”.

Preparing a Budget and Seeking Funding

Funds for the project will come from sources to be determined. Possible sources include lake residents, Trillium grants, the local stewardship council, and other sources. Much of the work to be accomplished in this process will come from volunteers, especially residents around the lake. Many activities in this process will be contributions made in kind by governments, agencies and volunteers. Some funding is required for technical expertise such as evaluation of data, report writing and LMP production. Please see attached budget.

Preparing the Plan

Data Collection and “State of the Lake” reporting

This activity involves data collection and analysis to describe the current status of the lake and its watershed – its features, characteristics, and ecological functions as they pertain to the health of the watershed. The State of the Lake Report will look at identifying trends over time and identifying particular stressors on the lake and its watershed.

The following list, by component, illustrates the information and data needed to characterize the lake and its ecosystem.

Land Use

- Determine the general land use from available information including: hazards, land use type, land use capability, official plan and zoning designations, etc. List all official plan and zoning designations
- Identify any present or future development sites
- Determine historical land uses. Include areas of cultural and natural heritage significance
- Identify any aboriginal land claims
- Identify development trends
- Identify location of all past, present and future landfills sites
- Identify recreation opportunities (past, present and perceived for the future)
- Identify and map recreational land use and public land ownership and assess its usefulness for present and future recreational opportunities
- Identify all existing and proposed municipal services (i.e. sewer, storm water, water, roads, etc.) and policies affecting each. Assess their effectiveness
- Identify the jurisdictional responsibilities of the agencies including policies and regulations affecting development and the management of water
- Locate the areas of agricultural and industrial activity. Identify the type and extent of activity.
- Determine the extent of seasonal dwelling conversions to permanent residences

- Determine the extent of mining claims on properties in the lake watershed and include a summary of the legislation affecting same. Identify active and abandoned mines, as well as known mining resources.
- Determine the state of health of the shoreline
- Determine the developmental carrying capacity of the lake/watercourse and compare with past assessments

Ecology

- Identify specific habitats, spawning areas, nesting sites, migratory routes etc. and identify features that play significant roles in supporting the flora and fauna of the watershed (i.e. woodlots, corridors, linkages etc.)
- Identify extent and history of invasive species e.g. Eurasian Milfoil, Zebra mussels
- Identify any timber licensing agreements and forest management policies
- Identify any specific (present and past) licensing arrangements e.g. bait fishing licenses
- Identify wetlands, their class and the role they play in lake/watershed function
- Identify impacts on wetlands as a result of development
- Determine changes in land use/vegetative cover over time (trends).
- Determine role of natural and man made obstructions on ecosystem health (e.g. dams, beaver dams)
- Describe the aquatic and terrestrial ecosystems of the lake watershed in terms of diversity and ecological health
- Compile species lists of aquatic and terrestrial species in the lake/watershed including rare and endangered species
- Summarize and describe the ecological features and functions at work within the watershed and their sensitivity to changing watershed conditions - natural or human induced

Surface Water Quantity

- Characterize the stream flow and water levels of the lake/watershed. Include historical human influence on water levels
- Identify and map all dams – natural and man made
- Establish bathymetry of lake

Surface Water Quality

- Compile all historical records reflecting surface water quality to establish water quality trends. Include water chemistry and benthic data
- Determine sources of water quality impairment
- Relate the status of water quality to human health risks and human activity
- Relate overall water quality to constraints on the health and diversity of the aquatic ecosystem, plants and animals

Groundwater Quality and Quantity

- Characterize the groundwater regime of the watershed
- Compile all geological and soil maps of the watershed
- Compile all available well record information and previous hydro geological reports to determine the relative abundance and quality of groundwater throughout the watershed
- Identify all (significant) groundwater discharge and recharge areas. Characterize the significance of groundwater/surface water exchange in maintaining or limiting the health of the aquatic ecosystem
- In concert with the surface water quantity component, characterize the water budget

Recreation/Tourism/Economy

- Identify past, current and anticipated economic trends (inventories, forecasts,) Identify the role tourism and recreation plays in the local economy

- Determine the level (intensity) and type (diversity) of recreational use of the lake and watershed
- Identify and map existing and potential recreational sites and trails (public access, boat launch, trails, natural areas, beaches, portages, campsites)
- Identify and map the location of private and commercial camps, outfitters, etc.
- Determine the carrying capacity of water craft use on the lake

Produce the State of the Lake Report

- The data collected will be compiled to illustrate the features and functions of the lake/watershed ecosystem.
- The report will describe these functions and features and the interrelationships that exist between and among components
- The report will identify significant environmental areas and will attempt to convey an appreciation of the quality and sensitivity of the watershed ecosystem
- The report will identify information gaps and will flag the problem areas from an ecological health viewpoint
- The report will attempt to illustrate people's role in affecting ecological health.
- The report will serve as the reference document for the remainder of the study process

Formulate the Lake Management Plan

Once the State of the Lake Report describing the current conditions in the lake and its watershed has been prepared, the process will look to the future to determine the vision and goals and objectives for the watershed.

Workshops will be held to determine the:

- "vision" the community has for the future
- obstacles that are in the way of achieving that vision
- suggested actions necessary that will achieve the vision
- priority in which these objectives will be met

A number of goal and objective statements will be produced to express the community's "vision" for the future of the lake.

Objectives will:

- establish desirable ranges of water levels.
- be defined recognizing the carrying capacity of the ecosystem with regard to new development and with regard to existing land management practices.
- take into account water quality requirements for supporting the desired aquatic ecosystem on a sustained basis.
- reflect the carrying capacity for recreation on the lake.
- be set regarding the human role in contributing to or alleviating poor ecosystem health.
- relate to stewardship targets for lake residents.
- guide the development of local planning policies.

The Lake Management Plan will describe a set of actions that will achieve the defined "vision". It will outline areas where development opportunities and constraints exist and will recommend and develop guidelines for environmentally sustainable living in the Otter Lake watershed.

The plan will be written in plain language. The final report will be produced after public consultation.

Public Participation/Communication

The success of any strategic plan depends to some extent on the level of involvement of those directly affected by the recommendations contained in the plan. In the case of a Lake Management Plan, those most affected by its development and eventual implementation are the

residents, users and visitors of the lake and its watershed. It is therefore essential that these stakeholders be consulted throughout the lake management planning process.

Effective and directed communication is crucial to

- track progress of the project
- keep lake residents informed
- foster ownership of the plan
- foster ownership of the issues (part of the solution or part of the problem)
- educate lake residents on lake issues and what they can do about them NOW
- motivate lake residents into action by making lake health topical/current/trendy
- promote the project and its outcomes to partners (RVCA, MoE, municipalities, residents and users of the lake)

Stakeholders can be kept informed in the following ways:

- Newsletters – Quarterly
- Web site – with current updates, progress of plan, information items on stewardship, local initiatives, success stories, events, etc.
- AGM's – focus on Lake Plan at AGM
- Dock to dock talks – encourage volunteers to visit dock to dock – and discuss LMP and shoreline health with lake residents
- Door- to- door delivery of information
- Engage shoreline stewards to promote Best Management Practices and to provide updates on the lake planning project
- Press releases or regular columns in local papers
- Radio shows
- Email updates
- Off-season mail outs
- Open Houses once draft plan is completed

Communication will occur regularly throughout the LMP process and additionally when there is something specific to report e.g.

- grant applications and approvals to announce
- a report or major component thereof to review
- there is a need to advertise regarding a visioning exercise/focus group meetings/workshops/information items, etc

Communication will focus on personal interactions in the summertime when most residents/users are in the area. Off season mail outs/emails are also important to keep people informed/motivated/committed.

Another key stakeholder in the development and implementation of a Lake Management Plan is the municipality in whose jurisdiction the lake (and its watershed) lies. Otter Lake is situated in the Township of Rideau Lakes. Regular updates to the municipality as well as regular input from them will help assure implementation of the recommendations once the plan is completed.

Adoption of the Plan

The major stakeholders/partners will be asked to formally endorse the Lake Management Plan once it is complete. These include the Municipalities, the Rideau Valley Conservation Authority, the Otter Lake Association and the residents of the lake.

Monitoring, Evaluation and Implementation

The success of the plan will hinge upon i) the implementation of the recommendations and ii) monitoring the effectiveness of those recommendations.

A monitoring strategy will form part of the final watershed plan. The monitoring strategy will be used to indicate the effectiveness of the actions undertaken to improve the health of the watershed. Included in the strategy will be an indication of the ecological indicators that should be used to measure the effectiveness of those recommendations and determine the relative health of the watershed.