

Community-Based Lake Planning in Ontario's Cottage Regions: Developing a Comprehensive Tool for Making Better Plans

EXECUTIVE SUMMARY

Clear water, rocky shorelines, and the mournful call of the loon are almost synonymous with the Ontario experience. Ontario's abundant water, including over 250,000 lakes, have long provided people with many sources of enjoyment, including recreation, connection with nature, and seasonal and year-round residences. Today, many lakes have become ringed with development, driving away the loons and increasing nutrient loads in the lake waters, such that water quality



begins to be degraded. Lake residents have long taken a proactive interest in protecting their lake environment. Since the 1970s, cottagers have been monitoring water quality on lakes through a “Self Help” program that evolved into the current Lake Partner program led by the Ministry of the Environment. In the last ten years, increasing numbers of lake organizations have begun to undertake a more comprehensive approach to protect the health of their lakes by writing community-based lake plans.

A lake plan is a long-term, iterative and adaptive community-based planning document that identifies and implements priority actions to preserve the special character of the lake, the environment, and the community through the collective action of property owners, non-property-owners, and government agencies (FOCA, 2009). Like other community initiatives, lake planning builds social capital, and it seeks to improve the management of lakes through a combination of stewardship and recommendations to decision-makers. Water management in Ontario is a complex process that involves numerous agencies and levels of governments, and a

lake plan aims to make sense of it all by bringing all the information about a particular lake together in one document. This can be a very difficult undertaking, and some lake associations are now finding it challenging to implement their lake plan's recommendations. Lake plans must also ensure that they are living documents, so that the action strategy will continue to evolve into the future and not just sit on a shelf. Lake planning efforts could be greatly benefited by having a set of evaluation criteria tailored specifically to lake plans and based on principles of good planning. This will help ensure that lake plan documents present information in the best way possible to inform an action plan to protect the integrity of the lake.

The objectives of my research are:

1. Develop a comprehensive evaluation tool (set of plan evaluation criteria tailored specifically to lake plans) that community groups involved in lake planning can use.
2. Identify key commonalities among lake plans, as well as their strengths and weaknesses.
3. Provide recommendations to lake planning organizations to improve the effectiveness of their lake plans.

Methods

This report uses an evaluation method based on a general plan evaluation model proposed by William C. Baer (1997). The essence of Baer's method is the premise that the criteria to evaluate a plan should be developed based on the concept of the plan itself. First, I completed a literature review on the common lake planning problems, and common lake plan goals. I then developed an initial list of criteria based on Baer's sample criteria and the literature review. I used these initial criteria to evaluate three case study lake plans and compare their strengths and weaknesses. The three lake plans are: the Kahshe Lake Plan from the Muskoka region, the Clear, Ston(e)y, White Lake Plan from the Kawartha Lakes region, and the Bobs and Crow Lakes Stewardship Plan from eastern Ontario. The case study evaluations tested the evaluation criteria

and informed a few refinements to ensure that the evaluation criteria are useful for a wide variety of lake plans. The final criteria are presented in List 1 at the end of this summary.

Results: Case Study Lake Plan Strengths and Weaknesses

The literature review revealed that although there are numerous specific issues that have contributed to lake planning, four key areas form the common problems. These four areas are: declining water quality, jurisdictional gaps in lake management, cumulative impacts of development, and the loss of lake character. The three case study lake plans generally addressed aspects of each of these; however, jurisdictional gaps and lake character were the least well addressed. Specific roles of management agencies, and gaps in policy were not always identified within the plans. Lake character was often mentioned as a key value, but specific elements of lake character were not effectively described in order to understand how character was being lost. Other important plan areas that could use improvement are: guidance for implementation including an action plan, timeline, and provisions for monitoring success; the distinction between goals, objectives, and actions; and communication to decision makers. The case study plans generally excelled at communicating to the community about the importance of stewardship, or communicating to municipal governments on planning policies, but not both. The recommendations to improve lake plans based on these strengths and weaknesses, as well as additional observations from the case study evaluations, are listed below.

Results: Recommendations for Lake Planning Organizations to Improve Lake Plans

- **Recommendation #1:** Organizations involved in lake planning activities should use the lake plan evaluation criteria in List 1 below to help guide lake planning efforts, and to review and update existing plans.

- **Recommendation #2:** When consulting with lake residents about their values, whether in a survey or at a workshop, use open-ended questions rather than a pre-existing set. You will likely find out more about the lake's unique aspects this way.
- **Recommendation #3:** Make your lake plan a stand-alone document. Present only the detail necessary to support the reasoning behind the recommendations, and summarize less important details in supplementary studies and tell the reader where to find them. Include all important figures and maps in the plan.
- **Recommendation #4:** Describe in detail the planning process used to formulate the plan.
- **Recommendation #5:** Describe the roles of all agencies and levels of government deemed important in affecting the lake. These are not always obvious to the reader.
- **Recommendation #6:** A lake plan should have a clearly linked hierarchy of goals, objectives, and actions. This hierarchy should include: a general community vision, a list of prioritized issues identified by the community, general goals for each issue, measurable objectives for each issue, and actionable recommendations for each issue.
- **Recommendation #7:** Develop a work plan for the next few years of implementation. A plan should always be a guide for future action.
- **Recommendation #8:** Make a plan to review the plan. Set a date to review progress, and update the plan if necessary.
- **Recommendation #9:** Carefully consider the audience of the lake plan. If action by both community members and decision makers is important, then the lake plan should clearly speak to both of these groups.
- **Recommendation #10:** A province-wide agency such as FOCA should assess the common issues identified in many lake plans and lobby the province to improve policy and legislation for lakes province-wide.

List 1. Evaluation Criteria for Lake Plans

These criteria represent principles of good planning and characteristics of a good lake plan. A lake plan need not satisfy every criterion to be an excellent plan; however, a good plan will give consideration to most of these criteria questions. This makes this criteria checklist an indispensable tool to use during lake plan formulation, as well as during subsequent iterations of review and evaluation.

Adequacy of Context. <i>(The plan should explain the context and setting: the what and the why of the lake plan. They are not evident to an outside audience.)</i>	Yes <input checked="" type="checkbox"/>
1. Is the community-based context of the plan explained (e.g. community discussions and values, top priority issues)?	<input type="checkbox"/>
2. Is it clear who the plan is for (e.g. citizens, agency head, city council, board)?	<input type="checkbox"/>
3. Is the purpose of the plan explained (e.g. study of the lake, consolidate information, lead to action, conveyance of advice for decision-makers)?	<input type="checkbox"/>
4. Is there a call to action to both community members and decision-makers?	<input type="checkbox"/>
5. Is the geographic area to which the plan applies with some surrounding context (e.g. highways, towns) displayed on a map?	<input type="checkbox"/>
6. Is adequate background information presented (e.g. history and current state of the lake, lake location and nearest urban centre, size and make-up of the lake community, number of seasonal and permanent residents, number of residential and commercial properties)?	<input type="checkbox"/>
7. Is the role of the preparing organization or group adequately explained?	<input type="checkbox"/>
8. Is the role of the local municipal government explained?	<input type="checkbox"/>
9. Are the roles of other resource management agencies explained (e.g. provincial, conservation authority, federal etc.)?	<input type="checkbox"/>
10. Is an Executive Summary provided?	<input type="checkbox"/>
11. Is the source of funding for the plan shown?	<input type="checkbox"/>
12. Is the amount of time in preparation shown (total person/hrs., weeks, years etc.)?	<input type="checkbox"/>
“Rational Model” Considerations. <i>(The plan should show basic planning considerations based on underlying theory and its criteria. The plan authors must be clear themselves about what they are doing, to transmit clarity to the reader.)</i>	
1. Are problems specifically identified (i.e. not implied)?	<input type="checkbox"/>
2. Are goals and objectives specifically identified?	<input type="checkbox"/>
3. Are there general goals, measurable objectives, and actionable recommendations?	<input type="checkbox"/>
4. Is the tone of the plan consistent with its community-based nature (e.g. does it inspire action, does it offer compelling courses of action, etc)?	<input type="checkbox"/>
5. Is there planning for coordination with other plans, agencies, and/or levels of government?	<input type="checkbox"/>
6. Is the capacity or adequacy of existing resource management organizations or frameworks described (e.g. roles and responsibilities and gaps)?	<input type="checkbox"/>
7. Are alternative actions and the tradeoffs between them considered?	<input type="checkbox"/>
Procedural Validity. <i>(The plan should explain the who and the how of the plan-making; inform the reader about what went on in making the plan and what is going on by publishing it.)</i>	
1. Does the plan outline who was involved or consulted in the plan formulation (e.g. seasonal and permanent lake residents, lake users, commercial operators, local governments)?	<input type="checkbox"/>
2. Is it evident from the plan that the planning process actively attempted to engage everyone that has an impact on, or an interest in, the lake?	<input type="checkbox"/>
3. Does the plan describe the methods used to engage various stakeholders in the plan process (e.g. surveys, workshops, meetings, website etc.)?	<input type="checkbox"/>
4. Does the plan describe the plan formation process including whether or not preliminary drafts were circulated for public comment?	<input type="checkbox"/>
5. Does the plan describe how the values, visions, goals, or other information from community members was used in recommending actions?	<input type="checkbox"/>
6. Was background information outlining the current scientific knowledge of the lake gathered and	<input type="checkbox"/>

summarized in the plan?	
7. Does the plan describe how technical and scientific matters were analyzed and transformed into recommended actions (e.g. through “ordinary knowledge”, experience, “scientific” training, consultation with experts, etc.)?	<input type="checkbox"/>
Adequacy of Scope. (<i>The plan should address the key issues, and demonstrate how it is connected to the larger world.</i>) *Note: see section 3.2.1 for a description of the key lake planning issues	
1. Does the plan adequately address water quality*?	<input type="checkbox"/>
2. Does the plan adequately address jurisdictional gaps in lake management*?	<input type="checkbox"/>
3. Does the plan adequately address cumulative impacts of development*?	<input type="checkbox"/>
4. Does the plan adequately address loss of lake character*?	<input type="checkbox"/>
5. Does the plan adequately address other specific problems identified by the lake community*?	<input type="checkbox"/>
6. Does the plan evaluate current land use policy and recommend amendments to improve the lake’s protection?	<input type="checkbox"/>
7. Does the plan outline the role of lake stewardship and suggest actions for all community members?	<input type="checkbox"/>
8. Does the plan explain how the geographic area covered by the lake plan was defined?	<input type="checkbox"/>
9. Does the plan include a map that shows how the plan boundaries relate to both watershed and municipal boundaries?	<input type="checkbox"/>
10. Does the plan consider land or other waterbodies upstream or downstream of the area covered by the lake plan?	<input type="checkbox"/>
11. Does the plan consider its relationship to local municipal official plans?	<input type="checkbox"/>
12. Has the feasibility of meeting the plan goals within the larger political context been considered?	<input type="checkbox"/>
Guidance for Implementation. (<i>The plan should consider the tools and the agencies/ persons responsible for making the plan work.</i>)	
1. Does the plan include an implementation/action plan?	<input type="checkbox"/>
2. Are priority actions for implementation clearly identified?	<input type="checkbox"/>
3. Is there a timeline for plan implementation?	<input type="checkbox"/>
4. Is the cost of implementing various alternatives considered?	<input type="checkbox"/>
5. Are specific implementation methods given?	<input type="checkbox"/>
6. Is the agency or person responsible for each action identified?	<input type="checkbox"/>
7. Is the agency responsible for coordinating the implementation plan identified?	<input type="checkbox"/>
8. Are the actions worded such that they apply to all the stakeholders necessary to implement it?	<input type="checkbox"/>
9. Is there a monitoring plan including measurable indicators of progress to assess the performance of the plan?	<input type="checkbox"/>
10. Is there a date given for the plan to be reviewed and updated?	<input type="checkbox"/>
11. Is there provision for future consultation with the lake community to re-assess goals and objectives?	<input type="checkbox"/>
Approach, Data and Methodology. (<i>The plan should make clear the technical bases of the plan: where the data come from and how they are used, so that others may check the plan’s thinking by use of the same sources.</i>)	
1. Does the plan include an adequate description of the lake and watershed characteristics (trophic status, number of stream/river inflows and outflows, drainage area, mean depth, volume, flushing rate, shoreline length, location of dams, etc).	<input type="checkbox"/>
2. Does the plan include an adequate description of the natural heritage features of the lake (e.g. vegetation, wetlands, streams, fish communities, wildlife and wildlife habitat, species at risk)?	<input type="checkbox"/>
3. Does the plan include an adequate description of current threats to lake health (e.g. invasive species, biodiversity loss, habitat loss, resource extraction, pollution, climate change, water quality changes, etc.)?	<input type="checkbox"/>

4. Does the plan include an adequate description of the physical constraints to new development (soils, minerals and aggregates, narrow waterbodies, steep slopes)?	<input type="checkbox"/>
5. Does the plan include an adequate description of the local land use and servicing (residences, commercial uses, crown land, septic systems, etc)?	<input type="checkbox"/>
6. Does the plan include an adequate description of the social elements of the lake (e.g. features that are most valued by the lake community, cultural and historic sites, landscapes and aesthetics, boating, noise and lighting)?	<input type="checkbox"/>
7. Does the plan identify sensitive features and priority areas for protection?	<input type="checkbox"/>
8. Is the plan sufficiently flexible to permit new data and findings to be fed in?	<input type="checkbox"/>
9. Does the plan acknowledge where data is missing or lacking?	<input type="checkbox"/>
10. Are all the data sources cited?	<input type="checkbox"/>
11. Are the levels of data aggregation relevant or meaningful to the plan?	<input type="checkbox"/>
Quality of Communication. <i>(The plan should utilize clear communication to ensure both wide understanding and implementation by community members and users of the document.)</i>	
1. Does the plan clearly speak to both community members and decision-makers?	<input type="checkbox"/>
2. Is the background information on the need for a lake plan convincing enough to inspire personal action by an average community member?	<input type="checkbox"/>
3. Does the plan effectively communicate information and recommendations to support decision-making by municipal governments or planners?	<input type="checkbox"/>
4. Does the plan effectively communicate information and recommendations to support landscape-level decision-making (e.g. by conservation authorities, the provincial government, or other broad-scale decision-making framework)?	<input type="checkbox"/>
5. Are the rationales behind the proposed actions/recommendations effectively presented?	<input type="checkbox"/>
6. Are the proposed actions/recommendations consistent with the goals and objectives?	<input type="checkbox"/>
7. Is the plan easily accessible to the community and to a wider audience (e.g. is the plan available at no cost, is it posted online for all to access, etc.)?	<input type="checkbox"/>
8. Is plain English used (avoiding poor, verbose, jargon-filled, or unclear language)?	<input type="checkbox"/>
Plan Format. <i>(The plan should demonstrate user-friendliness and transparency in who takes responsibility for the plan's preparation.)</i>	
1. Is the date of publication shown in a prominent location in the document?	<input type="checkbox"/>
2. Are the authors shown, to indicate who takes responsibility for the plan's preparation (e.g. names of people who worked on the plan, as well as association or committee names)?	<input type="checkbox"/>
3. Is there a detailed table of contents?	<input type="checkbox"/>
4. Is there a list of figures and tables with page numbers?	<input type="checkbox"/>
5. Is there a glossary of terms that may be unfamiliar to the average person?	<input type="checkbox"/>
6. Are the pages numbered?	<input type="checkbox"/>
7. Are graphics used to reinforce ideas and better explain concepts?	<input type="checkbox"/>
8. Do figures and graphs have clear legends and a caption explaining what symbols and/or trends mean so they can be understood independent of the plan text?	<input type="checkbox"/>
9. Are maps clear and easy to understand (i.e. are they uncluttered, labeled with titles and legends, and displayed at an appropriate scale to see the features of interest)?	<input type="checkbox"/>
10. Is there cross-referencing of topics between sections to facilitate navigation by the reader?	<input type="checkbox"/>
11. Are the pages laid out in way that is logical and easy to follow?	<input type="checkbox"/>
12. Is the plan easy to follow with a logical progression of topics?	<input type="checkbox"/>
13. Does the plan remain concise by presenting only the important information and referring to additional supporting documents/studies and how to access them?	<input type="checkbox"/>