

7. IMPLEMENTATION STRATEGIES

Implementation strategies address the methods and means by which the protection recommendations, management actions, and priority actions identified in 6. Protection and Management Recommendations can be implemented. These strategies include coordination between various municipal agencies, identification of code and ordinance modifications, development of new programs and policies, sources of funding for program and project development, and procedures for monitoring and assessing results.

7.1 Intergovernmental Coordination

Effective partnerships are based on good information and educational efforts. Cooperation requires that the parties have a knowledge of why, how, when and where to cooperate, which can only be gained from shared information and communication. Mutual trust is necessary to make partnerships work, and trust can only be earned. To even consider the management of a complex ecosystem like a watershed or lake, it is necessary to foster a cooperative partnership approach. No single entity manages Honeoye Lake or the watershed for its numerous stakeholders.

There could be no Honeoye Lake Watershed Management Plan (HLWMP) without the support of town, county, and state governments. In the formation of the Honeoye Lake Watershed Task Force (HLWTF) in 1998, municipal governments stepped forward to exercise their powers to regulate land use and perform other functions for the improved health, safety and general welfare of their citizens. The HLWTF will continue to manage the implementation of this HLWMP.

As in the case of the other Finger Lakes, it makes sense to speak of Honeoye Lake as an “economic engine” of the area. Recreation and tourism contribute substantially to the local economy, and the tax base is significantly affected by the presence and condition of Honeoye Lake. Self-interest requires that the watershed municipalities take action to protect the source of business and tax revenues.

Municipal support in the form of funding is tremendously important to the short and long term implementation of the HLWMP. Municipalities are not asked to shoulder the whole burden of what will be a costly plan, but they are expected to provide financial support and leadership to the project and have responded positively.

Because the HLWMP is completely voluntary, leadership from the municipal level is essential to the success of the project. None of the planning or implementation process is mandated by other levels of government or authorities, so local direction must come from within the watershed.

7.2 Basis for Decision Making

In watershed management planning, consideration of public opinion, past educational efforts, and a sound scientific basis must be taken into account in addition to considering environmental protection.

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7.2.1 Gauging Public Opinion

Two surveys of public opinion were carried out: the first in 1986 (Gilman, 1986) and the second in 1993 by the HVA (Starke, 1993). (A summary of the two survey results are as follows.) In 1986, 532 responses were obtained as opposed to 206 responses in 1993. Most respondents defined themselves as shoreline residents—and about half of those respondents defined themselves as seasonal. Respondents were presented with a suggested list of “lake issues” and responded by selecting their chief concerns.

<u>1986</u>	<u>1993</u>
weeds	weeds
algal blooms	property value
boat speed	unsafe boating
bacteria	boat density
lake level (tie)	algal blooms
cottage density (tie)	

The issues from both surveys have not changes significantly over the past decade. Weeds and algal blooms were major lake issues in both surveys and are a major focus of this watershed plan. The lake level issue was addressed by reconstruction of the weir in 1999, which has proved effective at maintaining the lake level to less than a one foot variation from nominal level. Maintenance of the weir is addressed in this watershed plan. There has been limited testing that has shown bacteria levels is not a health problem. All other issues, while they might be quality of life or safety issues, are beyond the scope of this watershed plan and are not addressed.

Public hearings associated with this HLWMP will be used to gauge and record public opinion on current issues relating to Honeoye Lake watershed management.

7.2.2 Education Approach

Many years of concentrated efforts have been spent to protect Honeoye Lake and improve its water quality. Many of these efforts concentrated on the necessary role of education in the process. Indeed, education is the motivating force for all sorts of social improvements including environmental protection. Educational efforts have been aimed at citizens and governmental officials.

It should be clear from the list of the accomplishments of the HVA and the HLWTF that they have been involved in a long term public education program—first to draw the public’s attention to the issues facing Honeoye Lake and then to engage the public in seeking solutions (Figure 7-1).

Outreach, education, and public participation are important issues to the Honeoye Lake Watershed. Appendix M: Public Participation Plan provides a framework for community participation and involvement in the implementation of the HLWMP.



Figure 7-1: Education Approach

7.2.3 Scientific Approach

Watershed management efforts must have a solid scientific basis, including the analysis of water quality problems, selection of remedial actions, and analysis and evaluation of results (Figure 7-2).

Before actions are recommended or taken, a scientific analysis of the problems must be performed. Solutions must be tailored to target problems as specifically as possible and to avoid unintended consequences. Comprehensive analysis is needed in complex systems, such as lakes and watersheds. Sufficient data and an accurate picture of the interrelationship of various factors must be researched.

The Honeoye Lake Watershed has been intensively studied for at least three decades, but information gaps exist. In recent years, scientific studies have intensified in certain areas of interest: sediments (Gilman, Souza, Callinan), internal and external nutrient loading (Souza, Callinan, Gilman), water chemistry (Callinan, Gilman), the impacts of various management options (Souza), land use and cover (Gilman), and plankton (Crego, Pearsall and Richardson).



Figure 7-2: Scientific Approach

7.3 Methods to Implement Action Items

The various action items identified in Section 6, Protection and Management Recommendations, require using different methods to accomplish their objectives. Some of the methods used include: education and outreach, land use regulation, structural control actions, and non-structural control actions.

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7.3.1 Education and Outreach

Education and outreach is central to effecting change in environmental protection. Municipal employees, contractors, and the general public who understand the importance and benefits of the action items are capable and motivated to implement the action items necessary to protect the environment. Some of the action items from Section 6, Protection and Management Recommendations, which are primarily instructive in nature include: educating residents on a “lake-friendly” lawn program, educating riparian property owners about proper management of streambanks, educating municipal employees on erosion control and stormwater management, etc.

7.3.2 Land Use Regulations

Honeoye Lake and its watershed are located in six municipalities. Each municipality has its own set of land use regulations. Thus, for the sake of good management, it is necessary to foster cooperation, participation, communication, and—to the extent possible—uniform regulations. Management of the Honeoye Lake Watershed will require the efforts of many levels of government, agencies, organizations, groups, and citizens working together in partnership.

Attention needs to be paid to the shoreline of Honeoye Lake, which is already densely populated and may be a source of water quality problems. Establishing a joint committee of planning board members from watershed municipalities to review land use regulations in their towns and make recommendations for improved water quality protection may help to protect the lake and improve water quality. The joint committee could participate in land use regulation actions such as:

- Adopt lake-protection district in the Towns of Richmond and Canadice;
- Adopt construction standards and consistent sediment and erosion control measures in the watershed towns, especially for steep slopes;
- Adopt design and construction standards for private roads;
- Work together to create an open space plan to identify environmentally-sensitive and undeveloped lands requiring protection; and,
- Seek the assistance of a knowledgeable land use consultant familiar with the coordination of a watershed management plan and municipal land use regulations.

The Honeoye Lake itself is subject to several forms of regulations and jurisdictions. For example, the NYS Office of General Services (NYSOGS) is responsible for uses of Honeoye Lake’s bottom. Commercial users of the lake bottom acquire a permit from NYSOGS. Honeoye Lake’s water on the other hand, is primarily the jurisdiction of Environmental Conservation Law and comes under the regulation of the New York State Department of Environmental Conservation (NYSDEC). The New York State Department of State (NYSDOS), under the Coastal Management Program, has designated Honeoye Lake as an “inland waterway.” This allows the municipalities surrounding the lake the opportunity to develop a Local Waterfront Revitalization Program (LWRP) and qualify for grant monies. As a designated inland waterway, Honeoye Lake is also within the Coastal Nonpoint Boundary, making watershed communities eligible for Environmental Protection Fund (EPF) support.

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Any excavation for a permanent structure on the shoreline of Honeoye Lake at or below the mean high water level (804.5) requires a permit from the NYSDEC. In 2003, a Uniform Docking and Mooring Law under New York State Navigation Law was proposed. Under the proposed law, the number of docks and boats that could be installed by shoreline property owners is related to the amount of shoreline owned. However, a Draft Docking and Mooring Law that was presented to the Towns of Richmond and Canadice in 2004 was rejected.

Honeoye Lake is patrolled by the Marine Unit of the Ontario County Sheriff's Department to enforce the common New York State laws for the safe operation of boats.

7.3.3 Structural Control Actions

Structural control actions are often required to correct existing problem or to prevent potential future problem. Some of the action items that fall into this category include roadbank and streambank improvement projects, aquatic weed harvesting, weir maintenance, etc.

7.3.4 Nonstructural Control Actions

Nonstructural control actions fall into two major categories: scientific investigations and encouraging use of BMPs to improve water quality. Some examples of scientific investigation that are part of the action items include lake water quality monitoring, tributary sampling, and creation of a target index to measure effectiveness of action items. Encouraging the use of BMPs by municipalities, foresters, contractors, landscape services, and private citizens is another tool used in the action item to foster improvement in water quality.

7.4 Monitoring and Assessment

A final step in the implementation of a watershed management plan is assuring the quality of the actions by setting benchmarks to monitor success or failure. It is recommended that the HLWMP establish a "trophic target" like that used in the Irondequoit Basin Report of 1986-88 (Irondequoit Creek Watershed Collaborative, 1999). With it, the HLWTF can chart the lake's progress toward a better trophic state.

Monitoring progress is important for measuring the effectiveness of programs, selecting new directions, and ensuring accountability to the public. If goals are not being met, current priorities will have to be adjusted. Benchmarks set for reductions in the priority pollutants are measurable steps on the way to the goal of improving the quality of Honeoye Lake's water.

Yearly reviews by the participating municipalities in the HLWTF will be used in conjunction with reports from the monitoring program to ensure that public expenditures are having the proper effect. The HLWMP should be reviewed annually and amended as necessary.

7.5 Staffing

In reviewing the list of actions, the project sponsors must decide the best means to accomplish them. In some cases, only agency employees, trained technicians or knowledgeable consultants can complete the

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tasks. Other tasks could be accomplished by a well-trained employee, with some cost-savings to the organization. In some cases, volunteers may be able to accomplish tasks if they are sufficiently trained or organized by a staff person.

If the HLWMP is to be carried out in a timely manner, it is clear from the list of tasks that it cannot be accomplished solely on a volunteer basis. A part-time employee acting as a watershed manager to work with the HLWTF may be a viable option

7.6 Prioritized Plan

Creating a five-year action plan is a reasonable beginning point for a project of significant scale and unknown duration. Many projects are more feasible if their costs are spread over a five-year term. Some actions can be further divided into steps to attain a large or distant goal..

7.7 Annual Work Plan

The recommendations outlined in Section 6, Protection and Management Recommendations, encompass actions by multiple agencies over a time period that extends for five-years or more. A key element for managing the program will be for the HLWTF to create an annual work plan to determine which action items should be initiated dependent on availability of funds. The order in which tasks are undertaken should be determined by the HLWTF in conjunction with the agency responsible for performing the task. At that time questions of cost, timing, and leadership can be further scrutinized. It is recommended that all of the action items identified in this document should be considered because some can be accomplished through volunteer efforts, some have minimal costs, some are purely administrative, and some should begin as soon as possible to pave the way for future tasks. An example of a multiple-year work plan is included in Table 7-1. Efforts will be directed at 12 of the 21 high priority items over a two-year period. This sample work plan is included to highlight the need for a high level of commitment and coordination by the many involved organizations—both public and private.

Pollution Prevention Actions	Description of Action Item	Priority	Estimated Cost	Source of Funds	Responsible Agency
6.1.1 Riparian Zone Management	1. Conduct field survey to identify and prioritize the most severely eroding streambanks and shorelines.	High	?	HLWTF	OCSWCD, HLWTF
	2. Where feasible, restore severely eroding streambanks and shorelines.	High	?	MUNI, OCDPW	OCSWCD
6.2.1 General Watershed Education	3. Educate residents on a "lake-friendly" lawn program to reduce nutrient input to the lake and perform survey of resident practices. Provide & promote use of zero phosphorus fertilizer.	High	\$1,000	Grants, CCE	HVA, CCE, OCSWCD

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6.2.1 General Watershed Education	4. Educate riparian property owners about proper management of streambanks and shoreline to minimize erosion.	High	\$500	MUNI	OCSWCD, HVA
	5. Provide education for municipal officials on erosion control and stormwater management options.	High	<\$500	Grants	OCSWCD, NYSDEC, HLWTF
	6. Conduct training session for highway superintendents on recommended BMPs for road maintenance. Develop a written inspection and maintenance plan intended for use by highway department employees for the efficient management and maintenance of highway-related facilities.	High	<\$500	OCSWCD	OCSWCD
	7. Conduct training session for highway superintendents on recommended winter road de-icing practices.	High	<\$500	OCSWCD	OCSWCD
6.3.1 Nutrients	8. Develop Macrophyte Management Plan according to DEC guidelines considering all forms macrophyte management.	High	<\$1,000	Towns of Canadice & Richmond, Grants	HLWTF, consultant
	9. Manage excessive macrophytes with weed harvesting until the WMP is completed.	High	\$75,000/year	Towns of Canadice & Richmond, FL-LOWPA	Towns of Canadice & Richmond
	10. Expand the tributary sampling program to assess the actual contribution of streams and direct drainage areas to the lake's overall nutrient budget under baseline and storm conditions.	High	\$6,000	HLWTF, Grants	HLWTF
	11. Evaluate nutrient sources from highways, shoreline and streambanks.	High	\$1,500	OCSWCD	OCSWCD, OCDPW, MUNI
12. Institute a monitoring program to measure the trophic status of the lake and to evaluate the effectiveness and longevity of the alum treatment performed in 2006-2007.	High	\$1,000 per year for 5 years (\$5,000)	Towns of Canadice & Richmond, HLWTF	HLWTF	

Table 7-1: Draft Annual Work Plan – 2007-2008

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7.8 Financing

A sample budget has been constructed to show an approach to number of funding several of the highest priority actions over the next five-years.

7.8.1 Project Financial Needs for Five Years

Stream and Lake Sampling	50,000
Purchase New Harvester	120,000
Harvesting Operating and Maintenance	400,000
Part-time employee @ \$20,000/ year for 5 years	100,000
Assorted remedial actions @ \$10,000/year for 5 years	50,000
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Total for 5 years	720,000

7.8.2 Potential Funding for Five Years

Canadice and Richmond	370,000
NYS Aid to Localities	125,000
Volunteer Services	55,000
Honeoye Lake Watershed Task Force	30,000
Ontario County Water Resource Council	20,000
Ontario County Board of Supervisors	20,000
Additional Grants	100,000
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Total for 5 years	720,000