

EXECUTIVE SUMMARY (LAMP 2008)

Introduction

This Lake Ontario Lakewide Management Plan Status 2008 is the latest, comprehensive compilation of existing LaMP reports, and replaces the 2006 Status. The document contains new/updated information on the state of Lake Ontario, Lake Ontario LaMP indicators, habitat, and public involvement and communication. The report also provides an update on LaMP workplan actions and progress and next steps. Several of the chapters in this document have been updated and other chapters will be updated at a later date, as new information becomes available.

Background

In 1987, the governments of Canada and the United States made a commitment, as part of the Great Lakes Water Quality Agreement (GLWQA), to develop a Lakewide Management Plan (LaMP) for each of the five Great Lakes.

The Lake Ontario LaMP is a binational, cooperative effort to restore and protect the health of Lake Ontario by reducing chemical pollutants entering the lake and addressing the biological and physical factors impacting the lake.

Building on the Lake Ontario Toxics Management Plan (LOTMP) (1989, 1991, 1993), the Lake Ontario LaMP focuses on:

- Restoring lakewide beneficial use impairments, as defined in the GLWQA (Annex 2) and described in Chapter 4 of this LaMP;
- Virtually eliminating critical pollutants that, due to their toxicity, persistence in the environment and their ability to accumulate in organisms, are likely to contribute to these impairments despite past application of regulatory controls; and
- Improving physical and biological integrity of the waters of Lake Ontario and water dependent resources that have been impaired by human activities.

The Binational Executive Committee (BEC) of the GLWQA passed a resolution in 1999 requiring each Lake to produce an updated Lakewide Management Plan (LaMP) at least once every two years. To facilitate this requirement, the Lake Ontario LaMP is presented in a loose-leaf format with general tabbed sections that can be inserted into a three-ring binder. This format allows the LaMP to be viewed as an evolving document where new material can be easily added and outdated material removed. The date when information was updated is located at the bottom of each page.

LaMP 2008

The LaMP 2008 Status for Lake Ontario has been developed by Region 2 of the US Environmental Protection Agency (USEPA), Environment Canada (EC), the New York State Department of Environmental Conservation (NYSDEC), The Ontario Ministry of the Environment (OMOE), the Ontario Ministry of Natural Resources (OMNR), Fisheries and Oceans Canada (DFO), and the US Fish and Wildlife Service (USF&W). The document incorporates all relevant information/commitments from: the Lake Ontario Toxics Management Plan (1989, 1991, 1993), the Lake Ontario LaMP Stage 1 Report (1998), the Lake Ontario LaMP 2002 Biennial Report, the Lake Ontario LaMP 2004 Status and the Lake Ontario LaMP 2006 Status. In addition, the following chapters of the LaMP have been updated since the Lake Ontario LaMP 2006 Status was released:

- Chapter 1 State of Lake Ontario

- Chapter 3 Ecosystem Goals, Objectives and Indicators
- Chapter 5 Habitat Assessment and Restoration
- Chapter 9 Public Involvement and Communication
- Chapter 11 Summary of Areas of Concern Status
- Chapter 12 LaMP Workplan Actions and Progress
- Chapter 13 LaMP Next Steps
- Appendix C LaMP Management Team
- Appendix D 5-year Binational Workplan for the Lake Ontario LaMP

The primary audience for this document is government agencies and their partners who are involved directly in restoration and protection activities around the Lake. LaMP Status also responds to the reporting requirement to the International Joint Commission under the Great Lakes Water Quality Agreement (GLWQA). *Update* newsletter is prepared annually by the LaMP Agencies to inform the public about developments and progress on LaMP Program activities.

LaMP 2008 Highlights

State of Lake Ontario (Chapter 1)

- The State of Lake Ontario chapter provides a status of the Lake Ontario ecosystem measured against the objectives and indicators of the Lake Ontario Lakewide Management Plan (Chapter 3). The status of contaminated sediment has been provided, which is an indicator under development.
- Lake Ontario's ecosystem can be considered improving in a number of areas while improvements are required in other areas. Progress is being made towards achieving the Lake Ontario LaMP Objectives in critical pollutants. Bald eagle, mink and otter are achieving LaMP Objectives however lower food web indicators and sport fish contaminants indicators are not. Challenges appear to be linked to nearshore nutrient levels, invasive exotic species, and human effects on habitat.

Ecosystem Goals, Objectives, and Indicators (Chapter 3)

- This chapter evaluates the status of the Lake Ontario LaMP's ecosystem indicators based on reports and information provided by government monitoring programs as of the beginning of 2006. The key findings of these studies are presented in each of the indicator assessments.
- This chapter was released March 23, 2007. Figures 3.4 through 3.7 were revised and released April 22, 2008.
- The LaMP has adopted goals, which provide a vision for the future of Lake Ontario and the role human society should play:
 - The Lake Ontario ecosystem should be maintained and, as necessary, restored or enhanced to support self-reproducing and diverse biological communities.
 - The presence of contaminants shall not limit uses of fish, wildlife and waters of the Lake Ontario basin by humans, and shall not cause adverse health effects in plants and animals.
 - We, as a society, shall recognize our capacity to cause great changes in the ecosystem and we shall conduct our activities with responsible stewardship for the Lake Ontario basin.
- The LaMP also adopted the LOTMP's five ecosystem objectives that describe the conditions necessary to achieve LaMP ecosystem goals around the following categories aquatic communities, wildlife, habitat, human health and stewardship.

- The eleven indicators selected provide a good characterization of ecosystem health across the food web. The selected indicators can be divided into three groups:
 - 1) Critical Pollutant Indicators: which measure concentrations of critical pollutants in water, young of the year fish, herring gull eggs and lake trout, and compare this information against existing guidelines.
 - 2) Lower Food web Indicators: which track the status of nutrients, zooplankton and prey fish (such as alewife and smelt). These indicators reflect the ability of the ecosystem to support higher level organisms (such as lake trout and waterbirds); and
 - 3) Upper Food web Indicators: which monitor the health of herring gull, lake trout, bald eagle, mink and otter populations. These top-level predators are dependent on quality habitat and sufficient prey populations, free of problematic contaminant levels.
- Detailed information regarding the objective, purpose, measure, target and status for each indicator is presented in this Chapter. A summary of this information is provided as a State of Lake Ontario report in Chapter 1.

Habitat Assessment and Restoration (Chapter 5)

- This chapter provides an overview of the types of habitat in the Lake Ontario basin, status of the habitat, and the restoration and protection activities that have been completed or are still ongoing in the U.S. and Canada. The material presented is based on information that existed as of December 2007.
- New information about the Binational Biodiversity Conservation Strategy has been added. This is an important new initiative for the LaMP and many partners around the basin. Although it is still in the planning stages, it will be continue to be a priority for planning and implementation in the years to come.
- Ongoing Canadian and U.S. habitat activities have been updated to reflect recent and planned activities.

Public Involvement and Communication (Chapter 9)

- This chapter discusses the Public Involvement and Communication component of the Lake Ontario LaMP. It highlights the goals for public involvement and describes ways in which the LaMP implements these goals. The chapter focuses on the activities that have been conducted over the past ten years and lists contacts for further information.
- In 2006, the LaMP had material available at the SOLEC Conference in Milwaukee and the plan is to participate in a like fashion at SOLEC 2008 to be held in Niagara Falls, Ontario in October.
- On October 24, 2007 the LaMP hosted a joint public meeting with the Niagara River Toxics Management Plan. The meeting was held in Grand Island, New York. The focus of the meeting was progress on the NRTMP, with a brief overview of the work of the LaMP. About 30 members of the general public attended. There were three media outlets present, including the Buffalo News, National Public Radio, and the Niagara Falls Review.
- Building on the theme of stewardship, the Ontario Ministry of the Environment led an initiative to develop a temporary exhibit on the Lake Ontario ecosystem at the Marine Museum of the Great Lakes in Kingston, Ontario. In 2007 Ministry of the Environment reconnected with the Marine Museum to explore the possibility of future partnership in reinstalling the Lake Ontario “Ecogallery”. The museum is going to research options and will contact the ministry at a later date.

- Providing the public with a sound understanding of the complex problems facing the Lake is the first step in gaining public support and participation in achieving the LaMP's goals. Ongoing and planned activities include opportunities to meet with existing groups, forming partnerships locally to assist in LaMP projects and providing information when requested and regularly through the LaMP website and mailings. Stewardship of the Lake will be emphasized at future partnership meetings. The LaMP will continue to inform the public through reporting and public meetings, and will participate in other meetings such as SOLEC and the International Joint Commission (IJC) biennial sessions.

LaMP Workplan Actions and Progress (Chapter 12)

- Seven agencies now work together to implement the Lake Ontario LaMP through an updated binational workplan. This workplan became effective in January 2007 and enhances binational efforts to restore and to protect Lake Ontario and its biological resources. Table 12.1 summarizes the actions and progress made in all the workplan activities.
- The revised workplan now combines the previous short term and long term plans into one document. It accomplishes this by listing activities under the four major work areas and then identifying in separate columns short term (3 year) and longer term (5 year) outputs. An additional column in the workplan reports on the status or assessment of each activity. The short term (3 year) outputs for each activity have been established to be consistent with the commitments of the Canada-Ontario Agreement (COA). The long term (5 year) outputs can also reflect the desired results.
- LaMP Next Steps (Chapter 13)

The LaMP parties will continue their cooperative efforts towards the restoration and protection of Lake Ontario and its ecosystem. The LaMP workplan outlines details of activities by the LaMP parties for the next 5 years. In the upcoming years, special attention will be concentrated on the following activities:

Coordinating binational monitoring efforts and programs to better assess the health of Lake Ontario and its ecosystem.

- Reducing critical pollutant loadings to the Lake.
- Reporting on the status of the LaMP's ecosystem indicators, and adopting new indicators.
- Assessing the current status of the lower food web and the fisheries.
- Re-evaluating the status of the Lake's beneficial use impairments, as needed.
- Developing a binational habitat conservation strategy and actions.
- Conducting public outreach and promoting LaMP partnerships and stewardship of the Lake and its watershed.

The LaMP agencies are looking forward to continuing efforts to improve Lake Ontario and its ecosystem. The updated workplan and relevant documents can be found on the web at www.binational.net.