

**Lake Superior Lakewide Management Plan
(LaMP)**

2006

Lake Superior Binational Program

Preface

Lakewide Management Plans

One of the most significant environmental agreements in the history of the Great Lakes took place with the signing of the Great Lakes Water Quality Agreement of 1978 (GLWQA), between the United States and Canada. This historic Agreement committed the U.S. and Canada (the Parties) to address the water quality issues of the Great Lakes in a coordinated, joint fashion. The purpose of the Agreement was to “restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem” (IJC 1993).

In the revised GLWQA of 1978, as amended by Protocol signed November 18, 1987, the Parties agreed to develop and implement, in consultation with State and Provincial Governments, Lakewide Management Plans (LaMPs) for open lake waters and Remedial Action Plans (RAPs) for Areas of Concern (AOCs). The LaMPs are intended to identify the critical pollutants that affect the beneficial uses and to develop strategies, recommendations and policy options to restore these beneficial uses. Moreover, the Specific Objectives Supplement to Annex 1 of the GLWQA requires the development of Ecosystem Objectives for the Lakes as the state of knowledge permits. Annex 2 further indicates that the RAPs and LaMPs “shall embody a systematic and comprehensive ecosystem approach to restoring and protecting beneficial uses....they are to serve as an important step toward virtual elimination of persistent toxic substances...”.

The Great Lakes Water Quality Agreement specifies that the LaMPs are to be completed in four stages. These stages are: 1) when problem definition has been completed; 2) when the schedule of load reductions has been determined; 3) when remedial measures are selected; and 4) when monitoring indicates that the contribution of the critical pollutants to impairment of beneficial uses has been eliminated. These stage descriptions suggest that the LaMPs are to focus solely on the impact of critical pollutants to the Lakes. However, the group of government agencies designing the LaMPs felt it was also necessary to address other equally important issues in the Lake basin. Therefore, the LaMPs go beyond the requirement of a LaMP for critical pollutants, and use an ecosystem approach, integrating environmental protection and natural resource management.

The Lake Superior LaMP is unique because of an additional agreement, announced in 1991, between the federal governments, states, and province surrounding Lake Superior. Called the Binational Program to Restore and Protect the Lake Superior Basin, the program established a Zero Discharge Demonstration Program and a broader ecosystem approach. The Zero Discharge Demonstration was created in response to citizen and International Joint Commission recommendations to establish Lake Superior as a pilot for zero discharge. Annex 12 of the Great Lakes Water Quality Agreement notes that “the philosophy adopted for control of inputs of persistent toxic substances shall be zero discharge.”

The LaMP process has proven to be a resource intensive, long-term effort. In the interest of advancing the rehabilitation of the Great Lakes, and getting more information out to the public in a timely manner, the Binational Executive Committee (BEC) passed a resolution in 1999 to

accelerate the LaMP effort. By accelerate, it was meant that there should be an emphasis on taking action and adopting a streamlined LaMP review and approval process. The LaMPs should treat the stages of problem identification, load reduction schedules, selection of remedial and regulatory measures, and implementation and monitoring as a concurrent, integrated process rather than a sequential one. Furthermore, BEC suggested that the LaMPs be based on the current body of knowledge and state what remedial actions can be implemented now. It was recommended that a LaMP be produced for each Lake by April 2000, with updates every two years thereafter.

Consistent with the BEC resolution, the LaMP contains funded and proposed (non-funded) actions for restoration and protection to bring about improvement in the ecosystem. Actions include commitments by the Parties, governments and regulatory programs, as well as suggested voluntary actions that could be taken by non-governmental partners. LaMP 2004 reported on the success of those actions, and identified challenges remaining to achieve established goals and ecosystem objectives.

The concept of adaptive management is being applied to the LaMP process. That is, an iterative approach is being taken with periodic refining based upon the lessons learned, successes, new information, and public input generated. The LaMP will adjust over time to address the most pertinent issues facing the Lake ecosystem.

Some parts of LaMP 2006 are incomplete and identify data gaps and next steps for LaMP 2008. LaMP 2006 is presented in a loose-leaf format with general tabbed sections that can be inserted into a three-ringed binder. This format allows for easy updates, additions of new material and removal of outdated information. The following table is a guide to updating your LaMP 2004 with the LaMP 2006 updates.

Lake Superior LaMP 2006 Guide to Changes

File name	Contents	How to update your LaMP 2004 binder
LS Executive Summary	Executive Summary	New. Insert before preface
LS Preface 2006	Preface	Replaces LaMP 2004 preface
LS Chapter 1 2006	Introduction and Purpose of the Lake Superior Lakewide Management Plan	Replaces LaMP 2004 Chapter 1
LS Chapter 2 2006	Public Outreach and Education	Replaces LaMP 2004 Chapter 2
LS Chapter 3 2006	Ecosystem Goals, Objectives, Indicators, Monitoring, and Beneficial Use Impairments	Replaces LaMP 2000 Chapter 3
LS Chapter 4 update 2006	Lake Superior Critical Pollutants Progress Report	Replaces LaMP 2004 update at beginning of Chapter 4
LS Chapter 4 2000	Lake Superior Critical Pollutants	No changes (this chapter is being updated for inclusion in the 2008 report)
LS Chapter 5 update 2006	Human Health Information	Replaces LaMP 2004 update at beginning of Chapter 5
LS Chapter 5 2000	Human Health	No changes
LS Chapter 6 update 2006	Habitat, Terrestrial Wildlife and Aquatic Communities Progress Reports	Replaces LaMP 2004 update at beginning of Chapter 6
LS Chapter 6 2006	Status of Aquatic and Terrestrial Communities and Habitat in the Lake Superior Basin	Replaces LaMP 2000 Chapters 6,7,8 and 10
	Terrestrial Wildlife Communities progress report	Remove LS Chapter 7 update 2004 (replaced by LS Chapter 6 update 2006)
	Terrestrial Wildlife Communities	Remove LS Chapter 7 2000 (replaced by LS Chapter 6 2006)

File name	Contents	How to update your LaMP 2004 binder
	The Aquatic Community progress report	Remove LS Chapter 8 update 2004 (replaced by LS Chapter 6 update 2006)
	The Aquatic Community Part 1: Fish and Their Habitat	Remove LS Chapter 8 2000 (replaced by LS Chapter 6 2006)
LS Chapter 7 update 2006	Developing Sustainability in the Lake Superior Basin: 2006 Progress Report	New: Insert at beginning of Chapter 7
LS Chapter 7 2004	Developing Sustainability in the Lake Superior Basin	No changes LaMP 2004 Chapter 9 now Chapter 7
LS Chapter 8 2006	Collaborative Efforts	New: Insert after Chapter 7
	Aquatic Nuisance Species	Remove LS LaMP 2000 Chapter 10 (replaced by LS Chapter 6 2006)
LS Appendix A 2006	Lake Superior Areas of Concern/Remedial Action Plan Summary Matrix and Fact Sheets	Replaces LaMP 2004 Appendix A
LS Appendix B 2000	Total Maximum Daily Load (TMDL) Development Strategy for Lake Superior	No change
LS Appendix C 2006	The Lake Superior Zero Discharge Demonstration Program and Relationship to Chemical Contaminants in Lake Superior	Insert after Appendix B
LS Appendix D 2006	Mercury Reduction for Lake Superior: <i>A Mercury Reduction Assistance Project for Lake Superior Region Facilities</i>	Insert after Appendix C
LS glossary 2000	Glossary	No change
LS acronyms 2006	Acronyms and Abbreviations	Updated

Acknowledgements

Lake Superior Lakewide Management Plan

The Lake Superior Lakewide Management Plan 2006 was prepared by the Lake Superior Binational Program's Superior Work Group with input from various other agencies and organizations including the Lake Superior Binational Forum. We would like to thank the committees of the Superior Workgroup for their efforts in completing this document.

Member agencies of the Lake Superior Binational Program are:

1854 Authority
Agency for Toxic Substances and Disease Registry
Bad River Band of Lake Superior Chippewa
Chippewa-Ottawa Resource Authority
Environment Canada
Fisheries and Oceans Canada
Fond du Lac Band of Lake Superior Chippewa
Grand Portage Band of Lake Superior Chippewa
Great Lakes Indian Fish and Wildlife Commission
Health Canada
Keweenaw Bay Indian Community
Michigan Department of Environmental Quality
Michigan Department of Natural Resources
Minnesota Department of Natural Resources
Minnesota Department of Health
Minnesota Pollution Control Agency
Ontario Ministry of Natural Resources
Ontario Ministry of the Environment
Parks Canada
Red Cliff Band of Lake Superior Chippewa
U.S. Environmental Protection Agency
U.S. Fish and Wildlife Service
U.S. Forest Service
U.S. Geological Survey - Biological Resources Division
U.S. National Park Service
Wisconsin Department of Natural Resources

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Chapter 4 Lake Superior Critical Pollutants

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Appendix B Total Maximum Daily Load (TMDL) Development Strategy for Lake Superior

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Glossary

Acronyms