

Lake Ontario water level regulation

Lake Ontario's water level has been regulated since 1960 to accommodate increased demand for shipping and hydroelectric power. Unfortunately, what is good for shipping is not necessarily good for coastal wetlands. Natural water level variability has been diminished, reducing the biological diversity of coastal wetlands that depend on variability to maintain vegetation communities.

Determining the criteria to control regulation of water level and flow in Lake Ontario and the St. Lawrence River is a challenge being addressed through a binational study launched in 2001 by the International Joint Commission (IJC). The five-year study provides a major opportunity to improve the understanding of past water regulation impacts on coastal wetlands. The new knowledge will be used to develop and recommend water-level regulation criteria for the benefit of all interests, including the specific objective of maintaining coastal wetland diversity and health.

For more information on the IJC study:
www.losl.org

About this report

This report describes the monitoring activities completed through this project to date. The methods used, in most cases, are screening-level studies that focus on describing the most prevalent elements of the physical and biological aspects of the wetland and watershed. The methods are fully documented in *The Durham Region Coastal Wetland Monitoring Project: Methodology Handbook – Second Approximation* (May 2003). Results from monitoring conducted in the 15 study wetlands in 2002 and 2003 are summarized here from *The Durham Region Coastal Wetland Monitoring Project: Year 2 Technical Report* (March 2004). The results presented here are preliminary findings and represent an initial assessment of the sites. In all cases, the priority was to conduct site assessments during typical environmental conditions (e.g., normal weather) and high biological activity (e.g., breeding season) to assure the overall representation of the site from limited data. Although the sites are ranked using preliminary results, data collected through additional years of monitoring will allow more definitive statements and conclusions to be made regarding the state of these important ecosystems.

Durham Region Coastal Wetlands

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This report discusses 15 coastal wetlands on the north shore of Lake Ontario in the Regional Municipality of Durham.

Adapted from CLOCA