



News Release
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Assessment Tools Help Great Lakes Industry Understand Water Use; More Work Needed to Demonstrate Great Lakes Water Use Sustainability

Ann Arbor: The Council of Great Lakes Industries (CGLI) has released a new report, funded primarily by the Great Lakes Protection Fund, on use of water stewardship tools. The report concludes that tools used to assess global water use practices have potential to improve Great Lakes industry's understanding of water use. The project team, after reviewing 19 tools, further concluded that no single existing tool can comprehensively demonstrate that a particular water use is sustainable. The team also concluded that the tools need to be enhanced or modified to meet the unique needs of industry operating in the water-rich Great Lakes region. This work lays the foundation for developing water stewardship metrics useful in a water-rich region.

The project team included an expert panel made up of industry, state and provincial water resource managers, regional Great Lakes policy makers, and environmental non-government organization representatives. The expert panel met periodically over a two-year period to develop the issues of primary importance to the Great Lakes, evaluate and provide input on project progress and outcomes, and review the final report.

The report follows a first-phase effort to improve methods for characterizing and evaluating industrial water stewardship in the Great Lakes. In the initial phase, the team considered existing water stewardship (including "water footprinting") tools and metrics. These were assessed to determine their applicability for water stewardship assessment in the Great Lakes. In the second phase, the project team piloted application of key metrics contained in the tools at a number of industrial facilities in the Great Lakes basin. Facilities that participated in the pilot studies included:

- Escanaba Paper Company, a Subsidiary of NewPage Corporation – Escanaba, MI
- Consumers Energy coal-fired electric utility – Grand Haven, MI
- Shell petrochemicals refining plant – Sarnia, Ont.
- Lafarge Portland cement plant – Bath, Ont.

Technical support was provided by LimnoTech, the internationally recognized freshwater consulting firm; the National Council for Air and Stream Improvement (NCASI), the paper industry's environmental research organization; and the Electric Power Research Institute (EPRI). EPRI and NCASI also made financial contributions to the project.

Study conclusions included the following:

- The impact of water use, not the quantity of water withdrawn, is the critical issue for water sustainability in the Great Lakes region.

- Water use accounting is a complicated matter. Water sustainability tools provide a framework for examining water withdrawal and consumption values, use of best water management practices, and quantifying wastewater treatment and reuse. Several tools even can be used to describe some of the economic benefits arising from regional industry. However, no single tool currently integrates all of this information, and none of the tools quantify the economic and social aspects of water use -- two essential elements of a sustainability demonstration.
- Data precision is a critical element governing the validity of water use calculations and can significantly impact the usefulness of assessment conclusions.
- Water use quantities must be related to the context of water availability and scale. Large volume water uses can be sustainable in water-rich regions.
- Some metrics are external to, and redundant to, what is already being reported for regulatory purposes. These were generally found to have limited or no value for the Great Lakes industries studied.
- The tools cannot be used in isolation to evaluate conformance with certain Great Lakes-St. Lawrence Water Resources Compact and Agreement conservation requirements – for example demonstrating the required “balance between economic development, social development and environmental protection of proposed withdrawal.”

George Kuper, Chairman of CGLI, notes that “[t]hese are important findings, not only for industry, but for our entire region. They provide guidance for evaluating water use and make industry more aware of the characteristics associated with good water use stewardship. This phase of the study moves us a step closer to being able to demonstrate sustainable water use, an important objective of industry operating in the Great Lakes.”

The results from this evaluation are useful both for Great Lakes industry and for water sustainability tool developers.

“There has been great interest in this project from industry, tool developers and policy organizations. CGLI and others involved in the study are presenting study conclusions at conferences in the US and Canada and are planning to present the results at World Water Week in Stockholm, Sweden this summer,” Kuper said. “We plan to continue our work in this area with the ultimate goal of piloting an industrial sector sustainable water use challenge and goal program for the Great Lakes.”

CGLI is an association of major US and Canadian companies and business associations committed to the sustainable development of the Great Lakes region. The full report, entitled “Optimizing Water Use – Evaluation of the Use of Water Stewardship Tools by Great Lakes Basin Industries” is available on the CGLI website at http://www.cgli.org/waterfootprint/FinalCGLI_Rrt_PhaseII_May2012.pdf. The Executive Summary is posted at [Phase II Report Executive Summary](#).

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The mission of the Council of Great Lakes Industries is to promote the economic growth and vitality of the region in harmony with its human and natural resources (sustainable development).