



Optimizing Industry Water Use (Phase II)

Great Lakes Protection Fund
Project # 926.01

*Applying Water Footprinting/Accounting Initiatives to Industrial
Facilities in the Great Lakes Basin*

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Project website: <http://cgli.org/waterfootprint/waterfootprint.html>

Why This Project?

- Global concerns regarding water shortages and access to water
- International efforts to characterize water use practices and needs
- A critical need for industry to understand water use assessment and “footprinting” **water stewardship initiatives**
- There are several important questions regarding the protocols that need to be answered

The Questions

- Are the initiatives applicable to a “water rich” region like the Great Lakes Basin?
- Do these characterizations of water use or “footprint” mesh with the concept of utilizing sustainable water availability as an enabler for economic development within the Great Lakes Basin?
- Do these initiatives and the concept of characterizing water use appropriately consider industry water use needs?
- How do they relate to water conservation expectations within the industrial facility setting?
- Do the initiatives provide for recognition of water recycling or reuse practices commonly typical of industrial processes? How do these vary between sectors?
- Are these initiatives equipped to properly characterize use of water in support of society’s needs, services, and manufacture of products?
- How can these initiatives affect future water use approvals? How would application impact costs?

The Project

- Established a Project Team and **Expert Panel**
 - Panel Informs and equips the team
 - Review and finalize the questions
- Developed project design to address questions
- Sought volunteer industrial sites to serve as pilot facilities
- Complete evaluation of water stewardship initiatives and test at pilot facilities
- Interpret results and develop answers to questions

Key Phase I Findings

Water Use

- Context of water supply/use circumstances must be understood both globally and locally. Interpreting significance between situations can be difficult

Characterization of Water Use

- It is not the water use that is the issue, but the impact of that use

Planning For and Achieving Sustainable Water Use

- Water use accounting/stewardship initiatives can have value for achieving sustainable water use but must accommodate user and regional needs

Utilization of Water Resources of Benefit of Great Lakes Basin

- The ability to utilize water resources within a framework of sustainability (one that equally reflects environmental, economic, and societal needs) – and tell the story about how it is done is critical to the Region

The Schedule

- Initial project workshop – July 16, 2010
- Phase I report – October 15, 2010
- Phase II project approval – December 10, 2010
 - Water stewardship initiative and metrics review
 - Expert panel workshop – March 4, 2011
 - Conduct pilot facility analyses
 - Expert panel workshop – July/August 2011
 - Interpret results from facility analyses
 - Expert panel workshop – September/October 2011
 - Prepare draft Phase II report
 - Expert panel review/comment period
 - Issue Phase II report – December 2011/January 2012
- Potential Phase II project development

The Pilot Facility Approach

- Test use of water accounting initiatives at “real” facilities in the Great Lakes Basin
 - NewPage pulp/paper mill – Escanaba, MI
 - Consumers Energy coal fired electric utility – Grand Haven, MI
 - Shell petrochemicals refining plant – Sarnia, Ont.
 - LaFarge portlant cement plant – Bath, Ont.
- Utilize a “common metrics” approach to tease out responses expected to be generated by four to six of the more prevalent accounting initiatives
- Complete an interpretive analysis of study results relative to both Great Lakes water management needs and the evaluation of water use through these initiatives in general

Project Personnel

CGLI

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Questions?

Feedback Points to Capture?