



May 5, 2011

**Optimizing Industry Water Use
(Phase II)
Great Lakes Protection Fund Project # 926.01**

*Effective Application of Footprinting
Methodologies to Industrial Operations in the
Great Lakes Basin*

Interim Narrative Report

Project Tasks This Reporting Period:

During this reporting period, the CGLI led project team has performed the following tasks:

- Completed evaluation of water stewardship (footprinting/accounting) initiatives identified in Phase I of the project. One additional initiative, (the ISO Water Footprint Standard) was added to the previous list. The final set of, now 19, initiatives included in the evaluation is:
 - Aquawareness
 - Alliance for Water Stewardship
 - BIER Water Footprint Working Group
 - Carbon Disclosure Project -Water Disclosure
 - Corporate Water Gauge
 - Federation House Commitment to Water Efficiency
 - Global Environmental Management Initiative (GEMI)
 - Global Reporting Initiative
 - Global Water Tool (WBCSD)
 - UNEP/SETAC Life Cycle Initiative
 - Strategic Water Management Framework (Australia minerals)
 - UN CEO Water Mandate
 - Water Brief for Business
 - Water Footprint Network
 - Water Footprint Neutrality and Efficiency Project (UN)
 - Water Neutral Offset Calculator
 - WaterSense Certification Scheme
 - Water Stewardship Initiative
 - ISO Water Footprint Standard
- Developed a metrics centered evaluation process to determine commonalities and differences in the information collected (i.e. indicators) and used by each of the 19 initiatives. Established the objectives and basic components of each initiative and compared each with the objectives that are of importance to the Great Lakes. This analysis has led to a short list of initiatives that will be the in-depth focus of the remainder of the project. These initiatives are:
 - European Water Partnership (regional AWS)
 - Water Footprint Network
 - Global Water Tool
 - Global Reporting Initiative
 - Carbon Disclosure Project (water disclosure)

- Reactivated and expanded membership of the Optimizing Industry Water Use Expert Panel and held the first project Workshop on March 4, 2011. Utilized this workshop and a follow-up comment period to collect Panel reaction and contributions to the water stewardship initiative evaluations and metrics centered pilot study approach. The summary of this workshop outcome can be found on the project website at: http://cgli.org/waterfootprint/CGLI_GLPF_WaterFootprintingProjectExpertPanelWorkshopSummary4-11.docx. Additional information regarding this Panel workshop is also available on the site at: <http://cgli.org/waterfootprint/waterfootprint.html>. It includes:
 - [Expert Panel Members](#) March, 2011 (pdf)
 - [Introduction](#) - Slide Deck 1
 - [Like Nowhere Else](#) - Slide Deck 2
 - [Objectives and Charge to Expert Panel](#) - Slide Deck 3
 - [Descriptions of Global Water Sustainability/Stewardship Initiative-Paul Wiegand](#) - Slide Deck 4
 - [Apply Water Sustainability Initiatives Metrics- Paul Wiegand](#) - Slide Deck 5
 - [Evaluating and Selecting Metrics for Application- Wendy Larson](#) - Slide Deck 6
 - [Pilot Facility Use Information Table](#) - Slide Deck 8
 - [New Page Escanaba Mill Profile](#) - Slide Deck 9
- Completed a preliminary final report outline to guide conduct of the work for the remainder of the Phase II project work. This outline was subjected to Expert Panel review and is available at: http://cgli.org/waterfootprint/WaterFootprintWorkshopSlideDeck/Draft_Report_Outline_GLIWF.docx.
- Selected final metrics set for completing the water stewardship initiative at each of the pilot facilities. These metrics have been categorized within a set of indicators to aid in directing data collection at each facility. The indicators (categories of indicators) and the respective **metrics** are:
 - Withdrawal Amounts
 - **total volume abstracted by source**
 - **total volume consumed by source**
 - **water transfers (interbasin and ground/surface)**
 - **peak/average/seasonal use by source**
 - Withdrawal Source Characterization
 - **sources under stress**
 - **sources affected by abstraction**
 - **amount of renewable water**
 - Withdrawal Permissions
 - **permits and other consents**
 - Withdrawal Impact & Available Supply
 - **relative to total available supply**
 - **upstream water use**
 - **effect on human services**
 - **effect on ecosystem services**
 - Discharge Amounts
 - **total volume discharged to source**
 - **peak/average/seasonal discharge to each receiving water body**

- Discharge Quality
 - **conventional pollutant load (BOD/TSS)**
 - **other pollutant loads**
 - **non-regulated pollutant load**
- Discharge Permissions
 - **permits and other consents**
- Discharge Impact
 - **eutrophication potential**
 - **effect on downstream human uses**
 - **effect on ecosystem (generally)**
- Water quality/quantity benefit
 - **effect on flow**
 - **effect on aquifer level**
 - **effect on water quality**
- Equitable and Transparent Governance
 - **water recycling efficiency**
 - **water consumption per unit product**
 - **water resource management strategy (use and disclosure)**
- Supply chain (NewPage only)
 - **Supply chain water use/consumption related to wood supply**
- Secured the Electric Power Research Institute (EPRI) as additional sponsor of this project. This allows us to complete **four** pilot studies at industrial facilities rather than limit it to three as initially planned. EPRI will sponsor the work for the Consumers Energy coal fired electric utility in Grand Haven, MI.
- Secured final participation agreements from pilot facilities for their participation in the project. These facilities are:
 - NewPage Corp. pulp/paper mill – Escanaba, MI
 - Consumers Energy coal fired electric utility – Grand Haven, MI
 - Shell petrochemicals refining plant – Sarnia, Ont.
 - LaFarge portland cement plant – Bath, Ont.
- Developed data request forms for each pilot facility to be used to secure information needed for the metrics centered water stewardship initiative evaluations. The first interview with pilot facility personnel and initiation of data collection will take place at the Consumers Energy Grand Haven facility on May 9, 2011.

Project outreach and collaboration:

To expand the outreach and collaboration on this work and take advantage of the large amount of water stewardship work that is now underway the project team has presented information about the project and solicited feedback from several organizations or forums. These include:

- The Electric Power Research Institute (EPRI)
- The American Petroleum Institute
- The American Forest and Paper Association
- The Sustainable Water Resources Roundtable
- The National Council for Air and Stream Improvement (NCASI)
- The World Business Council for Sustainable Development
- The Forest Products Association of Canada (FPAC)

Problems encountered:

So far, no significant problems have been encountered in this work.

Lessons learned:

The interest in this work within all circles continues to be strong. We are conducting this investigation at a time when several organizations are working to fully develop their methodologies and gain acceptance of their water stewardship evaluation tools. Additional vetting of the this work at World Water Week in Stockholm, August 21 – 27, 2011 appears to be an opportunity for enhancing both the value of this work and opportunities for it to contribute substantially to the global quest for water sustainability success.

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