



Data and Information Management

Goal: To provide the data, information and technical support processes needed for informed decisionmaking on a range of public policy issues

What we did in 2002 to *restore the greatness:*

- Coordinated toxic air emissions data from Great Lakes states and provinces to produce a regional inventory and published report on 1999 emissions
- Developed prototype GIS tools for the IJC's Lake Ontario-St. Lawrence River study and provided information management assistance
- Began developing metadata for several hundred sets of environmental, hydrological and cultural data for the Great Lakes region, with NOAA funding
- Designed key elements of an online atlas detailing a host of environmental, hydrologic and cultural data on Lake Michigan and its tributaries
- Mapped areas susceptible to the effects of toxic spills in five states to support U.S. EPA's area contingency planning efforts

Featured Projects

www.glc.org/about/programs/dim.html

What we do

The Data and Information Management Program promotes the development and application of decision support products and techniques, including data and information management systems, inventories, geographic information systems (GIS) and related tools. Contact: Roger Gauthier, program manager, at gauthier@glc.org

Regional Air Toxics Inventory

www.glc.org/air/

Air pollution across the Great Lakes region is a continuing concern for the Great Lakes Commission, particularly with regard to the deposition of toxins in bodies of water and bioaccumulation in plants and animals, including humans.

For nearly 10 years, the Commission has been working with the U.S. EPA to track regional air emissions through the Regional Air Toxic Emissions Inventory project. The project compiles data collected by the Great Lakes states and province of Ontario into a comprehensive inventory that provides a coherent picture of toxic air emissions across the region. The Commission also oversees ongoing development of the Regional Air Pollutant Inventory Development System (RAPIDS) software used to report and disseminate emissions data.

The inventory lists data for more than 200 toxins emitted by nearly 1,600 types of sources. A priority of U.S. EPA's Great Lakes Air Deposition Strategy, it provides a better understanding of the impacts of air deposition and helps guide the development of regulatory and management policies. Contact: Kevin Yam, kyam@glc.org

GIS coordination and mapping

www.glc.org/gis

Over the past decade, Geographic Information Systems (GIS) have become a major tool for managing and interpreting data at nearly all levels of government and in the private sector as well. Simply put, GIS allows complex information to be organized into a map-based format, providing users with an intuitive way to identify and interpret data.

In 2002, the Commission responded to the growing importance of this new tool by creating the Data and Information Management Program Area to consolidate its GIS staff and computing resources, and help coordinate regional GIS efforts. A major effort is under way to catalog data holdings on all Commission projects according to binational metadata standards.

Areas that GIS regional coordination will benefit include Great Lakes coastal wetlands studies, biological and hydrological monitoring programs, air toxics inventories, oil spill contingency planning and regional water quantity management investigations. Contact: Roger Gauthier, gauthier@glc.org

Photos: Opposite, Empire Bluff near Sleeping Bear Dunes, Lake Michigan – Ray Malace, Ray Malace Photo Illustration. At left, Lake St. Clair connecting Lake Huron and Lake Erie – courtesy Michigan Sea Grant.

