



Mapping Metadata:

Science in the Great Lakes (SiGL) Mapper

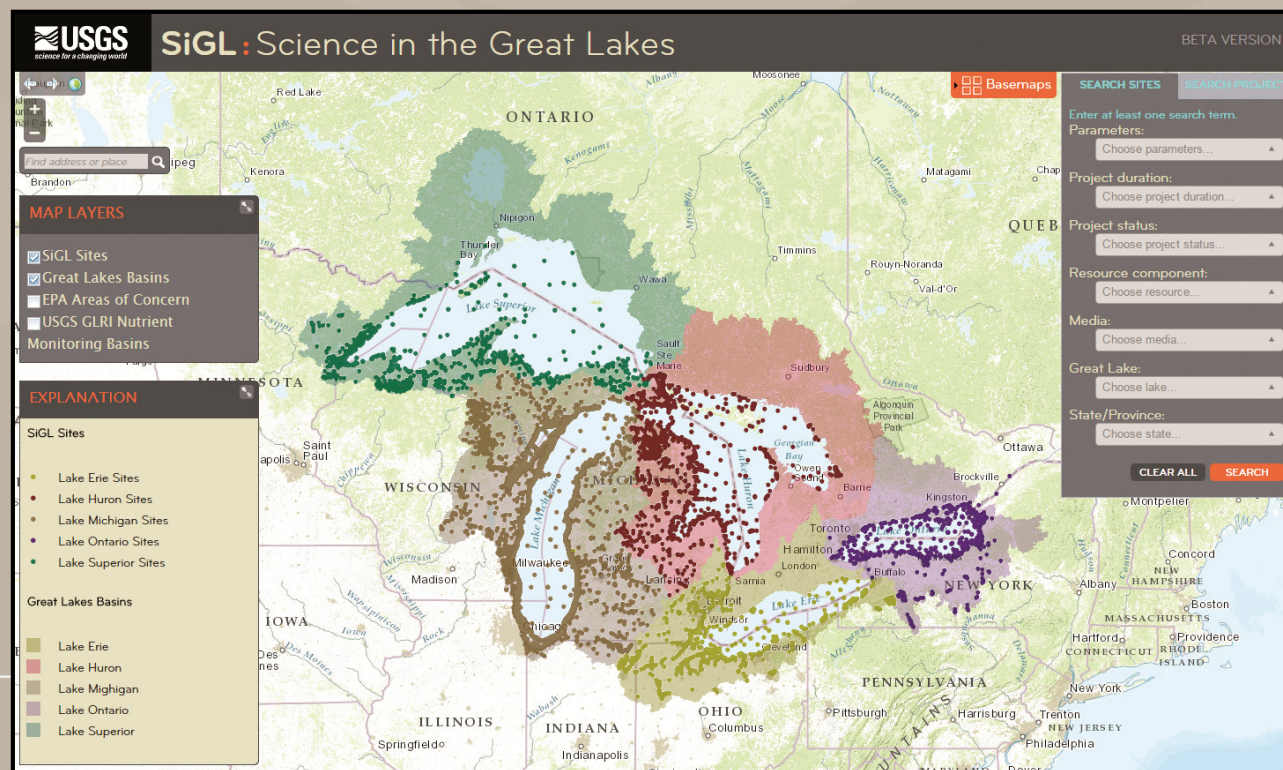
A tool for exploring and cataloging Great Lakes science and research

Jennifer Bruce, SiGL Project Lead
USGS Wisconsin Water Science Center

What is the SiGL mapper?

SiGL is a searchable metadata mapper that spatially displays information about scientific research and monitoring efforts throughout the Great Lakes basin.

wim.usgs.gov/SiGL



Purpose of the SiGL Mapper

- **Supports strategic Great Lakes data collection and analysis**
- **Captures and displays spatial data component**
- **Built for both large and small datasets**
- **Integrate with other Great Lakes data applications**
- **Provides flexible product that can accommodate the community's changing needs**
 - 288 projects and 11,000 sites
 - 65 different Federal and State agencies, municipalities, Tribes, universities, and nonprofit organizations

Data vs. Metadata

Your science produces **data:** measurements, values, statistics, observations, results, analysis, etc.

SiGL collects **metadata:** information about your data

- *Project information*
 - Who, what, where, when, why?
 - Contact/PI details
 - Publications
- *Data information*
 - Sources (what data exists and where it's stored)
 - Site information (what, where, when, and how data was collected)


Development goals

- **Make SiGL Data Management System (DMS) easier to use**
 - Incorporated spreadsheet-mode editing
 - Increased account security
- **Store and display line and polygon spatial data (not just points)**
- **Improve mapper interface**
 - Better access to projects without sites
 - Streamlined search and results view
- **STORET integration**

LMMCC inventory integration

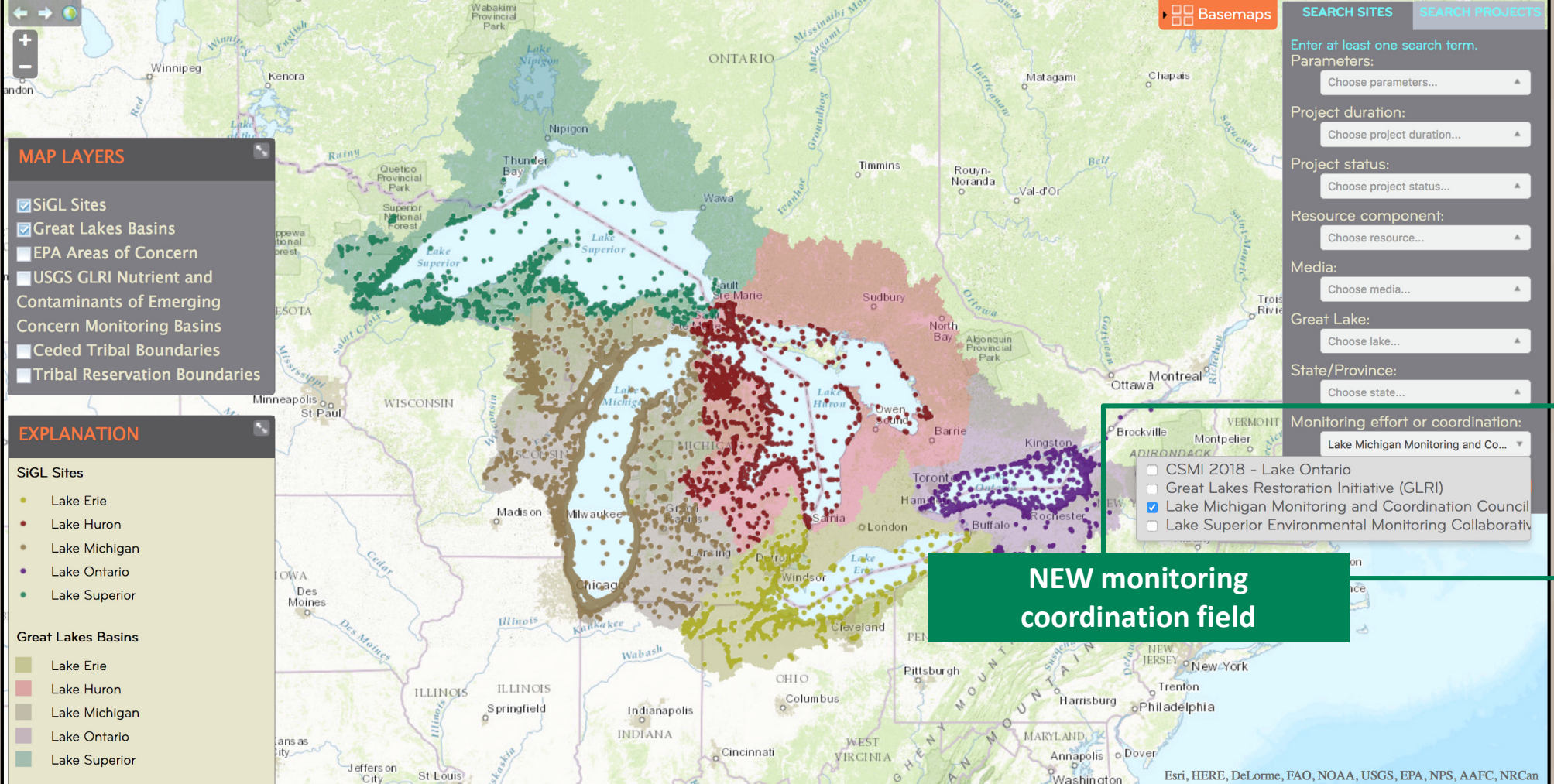
- **2013 and 2015 LMMCC inventory projects now in SiGL**
 - 156 projects, most without sites
- **LMMCC inventory will be now be managed through SiGL DMS**
 - What additional functionality does LMMCC need from SiGL?
- **Added “Monitoring coordination” field to mapper and DMS**
 - Tag and search for projects associated with LMMCC

Find LMMCC sites



science for a changing world

SiGL: Science in the Great Lakes



The map displays the Great Lakes region with various monitoring sites and basins. The sites are color-coded by lake: Lake Erie (yellow), Lake Huron (red), Lake Michigan (brown), Lake Ontario (purple), and Lake Superior (green). The basins are also color-coded: Lake Erie (yellow), Lake Huron (red), Lake Michigan (brown), Lake Ontario (purple), and Lake Superior (green). The map includes state and provincial boundaries, major cities, and rivers. A search bar and filters are located on the right side of the map.

MAP LAYERS

- ☒ SiGL Sites
- ☒ Great Lakes Basins
- ☐ EPA Areas of Concern
- ☐ USGS GLRI Nutrient and Contaminants of Emerging Concern Monitoring Basins
- ☐ Ceded Tribal Boundaries
- ☐ Tribal Reservation Boundaries

EXPLANATION

SiGL Sites

- Lake Erie
- Lake Huron
- Lake Michigan
- Lake Ontario
- Lake Superior

Great Lakes Basins

- Lake Erie
- Lake Huron
- Lake Michigan
- Lake Ontario
- Lake Superior

SEARCH SITES **SEARCH PROJECTS**

Enter at least one search term.
Parameters:

Choose parameters...

Project duration:
Choose project duration...

Project status:
Choose project status...

Resource component:
Choose resource...

Media:
Choose media...

Great Lake:
Choose lake...

State/Province:
Choose state...

Monitoring effort or coordination:
Lake Michigan Monitoring and Co...

- ☐ CSMI 2018 - Lake Ontario
- ☐ Great Lakes Restoration Initiative (GLRI)
- ☒ Lake Michigan Monitoring and Coordination Council
- ☐ Lake Superior Environmental Monitoring Collaborative

NEW monitoring coordination field

Esri, HERE, DeLorme, FAO, NOAA, USGS, EPA, NPS, AAFC, NRCan

Tag your project with LMMCC

Project Information

Organizations 2

Data Sources 1

Contacts 2

Publications 4

Sites 721

Created: 04/11/2013

Last Edited: ---

PROJECT INFORMATION

Project Name: *

Great Lakes Coastal Wetland Monitoring

Project Duration: ? *

Long term (greater than 5 years)

Project Status: ? *

Active - completion date undetermined

Project Start Date:

09/30/2010

Project Completion Date: ?

mm/dd/yyyy

Project Objectives: ?

Assessment, Ecosystem health

Monitoring Coordination Effort: ?

Great Lakes Restoration Initiative (GLRI),
Lake Michigan Monitoring and Coordination Council (LMMCC),
Lake Superior Environmental Monitoring Collaborative (LSEMC)

Description: ?

This project will establish a basin-wide coastal wetland monitoring program. Fish, invertebrate, bird, amphibian, and plant communities, along with chemical and physical variables, will be assessed in the majority of coastal wetland areas throughout the Great Lakes basin. These efforts will produce information on the status and trends of Great Lakes coastal wetlands, and enable managers to

EDIT PROJECT

NEW monitoring coordination field

What happens now?

- **Existing users will receive their DMS account information and a user guide**
 - May need to delete duplicate projects or reassign to new data managers
- **Update your project information**
- **Attach sites if possible**
 - Enter sites one by one
 - Or use excel worksheet and copy/paste into DMS
- **Identify and scope any additional LMMCC needs**

wim.usgs.gov/sigl

Contact SiGL:

Jen Bruce, USGS Wisconsin Water Science Center

SiGL mapper project lead

jlbruce@usgs.gov

608-821-3906

[demo]