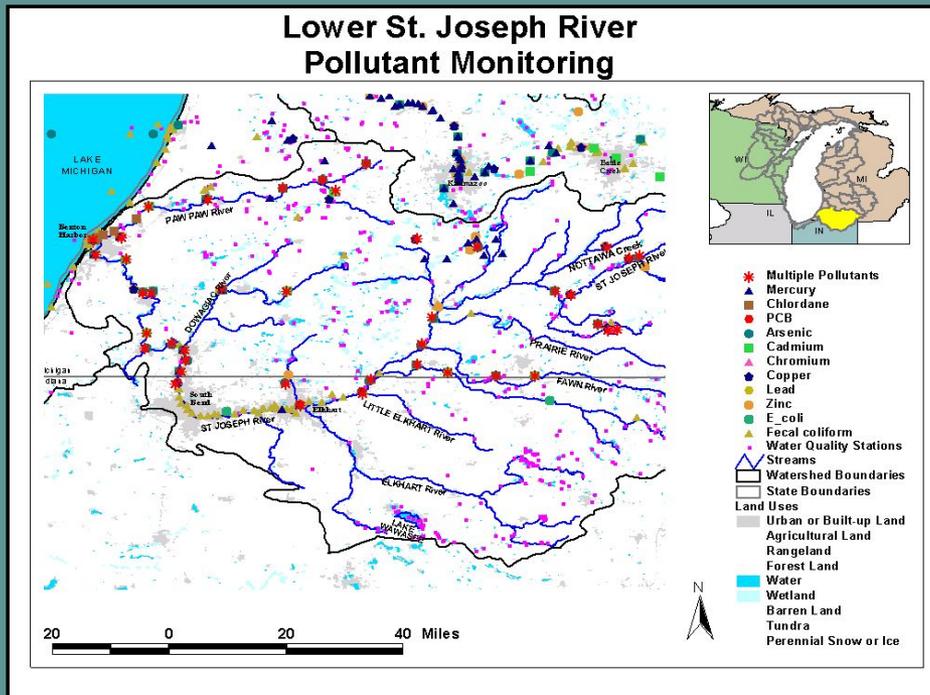


Lake Michigan Monitoring Inventory



- ◆ Inventory of federal, state, and local monitoring efforts
- ◆ Collaboration with 14 tributary groups
- ◆ Searchable by location or characteristics
- ◆ Entries will link to monitoring organizations for better data access

Maps and GIS of the Great Lakes Region - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://mapserver.glc.org/website/lkmich/front2.htm>



>> Full map viewer

Search the Monitoring Database

Organization	<input type="text" value="US Geological Survey"/>
Watershed	<input type="text" value="Basinwide"/>
Purpose	<input type="text" value="surface water gaging station data"/>
Date	<input type="text" value=""/> (mm/dd/yyyy)
Monitoring Medium	<input type="text" value="Water"/>
Type of Monitoring	<input type="text" value="Physical"/>
Description	<input type="text" value=""/>
Frequency	<input type="text" value="Annually"/>
Methods	<input type="text" value=""/>
Quality	<input type="text" value=""/>
Staff Type	<input type="text" value="Paid staff"/>
Parameters	<input type="text" value=""/>

Done Local intranet

Lake Michigan Monitoring Inventory Search Function

Maps and GIS of the Great Lakes Region - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address http://mapserver.glc.org/website/lkmich/queryresult.asp



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The Great Lakes Environment Economy Education **Map**







Maps and GIS Topics

GIS Data
By Topic
By Geographic Region
By Organization
GLINDA Clearinghouse
Basinwide Reference Data

Online Mapping
About the Project
Pilot Areas
HydroMet Directory

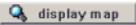
Map Gallery
Images to Download
Other Images

Resources
Commercial
Federal
Independent
State and Provincial
Tourism Maps

Lake Michigan Monitoring Inventory
Project Overview | Search | Online Maps | The Complete Report

Results:

Organization: US Geological Survey
Program: Gaging stations
[view details](#)



http://mapserver.glc.org/website/lkmich/details.asp?id=BAS0003



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The Great Lakes Environment Economy Education **Maps and GIS** Tourism








About the photos (©Mahan)

Maps and GIS Topics

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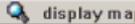
Resources
Commercial
Federal
Independent
State and Provincial
Tourism Maps

Lake Michigan Monitoring Inventory
Project Overview | Search | Online Maps | The Complete Report

Results:

Program id : BAS0003
Program : Gaging stations
Organization : US Geological Survey
Watershed : Basinwide/Multiple watersheds
Purpose : Inventory of surface water gaging station data used for water quality studies, waste load allocations, distribution studies, and advanced waste treatment assessments.

Medium : Water
Type : Chemical, Physical
Description :
Methods :
Quality :
Staff Type :
Parameters : TEMPERATURE, WATER, SPECIFIC CONDUCTANCE, OXYGEN, DISSOLVED, PH, NITROGEN, KJELDAHL, TOTAL, NITRITE PLUS NITRATE, DISS. 1 DET., PHOSPHORUS, TOTAL, PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE, CHLORIDE, TOTAL IN WATER, SULFATE, TOTAL, IRON, DISSOLVED



Normal HTML Preview

For Help, press F1

15 seconds over 28.8 NUM

Lake Michigan Tributary Monitoring Project

Monitoring Programs Explorer

Zoom in Zoom out Full extent Pan Info Select Clear Print Legend

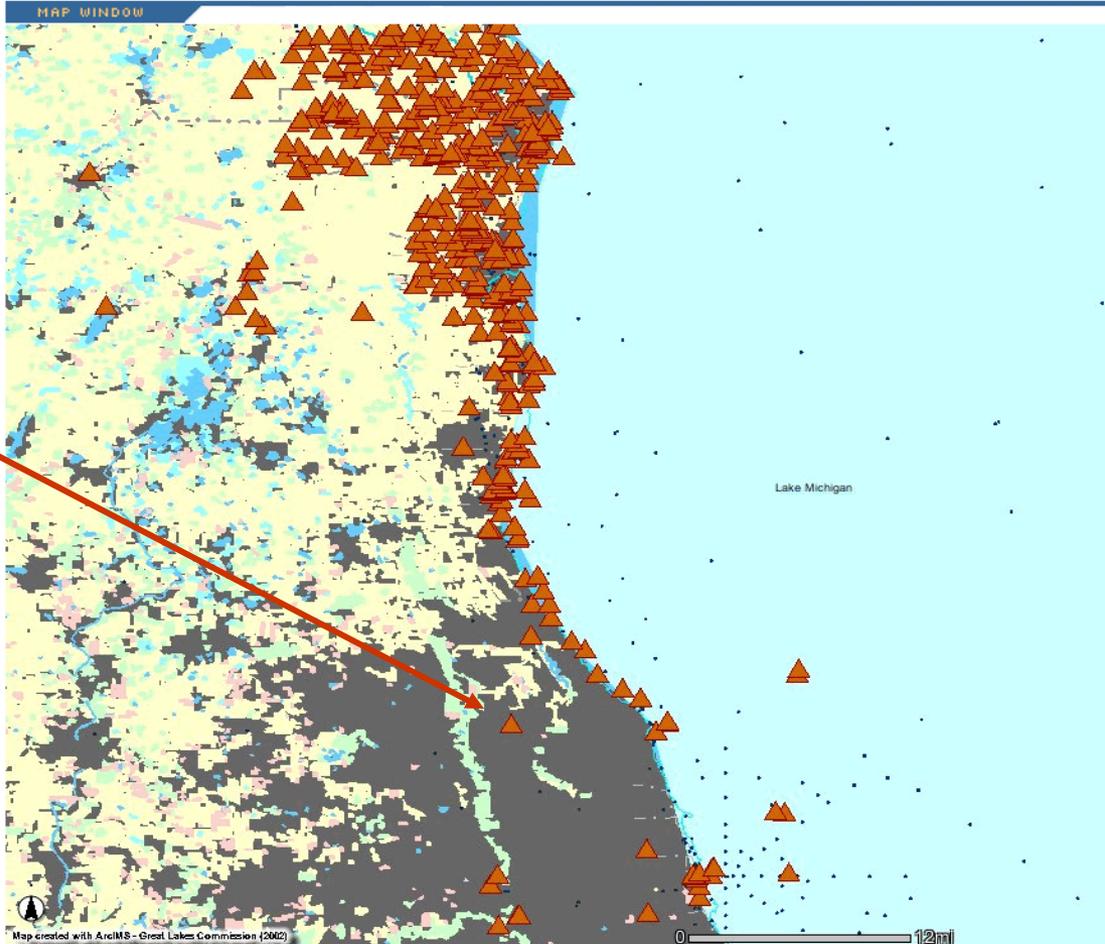
SEARCH HELP

This project provides an inventory of information about monitoring programs (or "metadata"), which was collected into a database for long-term storage and access. For many programs, we were able to obtain information on fixed monitoring stations. These stations and other geographic descriptors (such as watersheds, counties, etc) can now be searched through this website, and all the metadata about those programs can be viewed.

[map it](#)

Monitoring Stations

Field	Value
STAT_ID	USGS-420328087492301
STATION	420328087492301
PRD_G_ID	BAS0003
AGENCY	USGS
DESCRIPT	41N12E-12.8b1
HUC	04040002
SEG	
COUNTY	COOK
STFIPS	17
STATE	ILLINOIS
LONG	-87.8231
LAT	42.0578
TYPE	Ground-water other than Spring
STCOFIPS	17031
WEB	http://water.usgs.gov/mi/nwis/nwisman/?site_no=420328087492301&agency_cd=



- Legend Highlighted Feature
- Monitoring Stations
- Roads
 - Less than 2
 - 2-4
 - 4-6
- rf1
 - Less than 2
 - 2-4
 - 4-7
- Great Lakes
- Land Use
 - Agriculture
 - Forest
 - Open water
 - Other
 - Unknown
 - Urban
 - Wetlands
 - gl_arealand

Map created with ArcIMS - Great Lakes Commission (2002)



Follow-up assessment report

- ◆ Comprehensive review of monitoring programs at the federal, state and local levels for the targeted watersheds;
- ◆ An analysis of gaps, inconsistencies and unmet needs
- ◆ An assessment of the adequacy of existing efforts to support critical ecosystem indicators; and
- ◆ Recommendations for addressing major monitoring needs, particularly those considered most important for lakewide management decision making.

More recent efforts

- ◆ Coordinated Tributary Monitoring – 2005
(follow-up to the Lake MI Mass Balance Study)
- ◆ Great Lakes Monitoring Inventory - 2006
- ◆ Coordinated Nearshore Monitoring – 2010
 - ◆ LMMCC-NEMO Workgroup



Great Lakes Monitoring Inventory ~ 2006

- ◆ A comprehensive inventory of monitoring programs for the Great Lakes basin
 - ◆ Actively collected program metadata
 - ◆ Geographic database
 - ◆ Fully searchable online database
- ◆ An analysis of gaps and overlaps in monitoring and associated recommendations for improving monitoring coverage and coordination – brochures available

LMMCC-NEMO

- ◆ The Lake Michigan Monitoring Coordination Council-Nearshore Monitoring Workgroup (LMMCC-NEMO) is a network of government, university and Sea Grant scientists and managers engaged in the monitoring of the Lake Michigan nearshore. The goal of the workgroup is to coordinate and plan monitoring efforts for the 2010 Lake Michigan Intensive Year monitoring effort that coordinates with the 2010 National Coastal Condition Report field activities.

NEMO Activities/Products:

- ◆ An inventory of current nearshore monitoring objectives and activities. [DONE]
- ◆ Discuss a coordinated nearshore monitoring network, including timing, sites, constituents, automation, remote sensing, proposed NMN design, etc. with a goal of implementation on a five-year cycle.
- ◆ Evaluate nearshore monitoring methods and data comparability.
- ◆ Discuss development of a coordinated nearshore monitoring database.
- ◆ Consider integrated and comparable data analyses and reporting approaches.
- ◆ Development of a three year timeline for reporting.

NEMO Inventory Matrix

Org	Dates	Objs	Resource Comps Sampled	Media Sampled	Parameters Sampled	Sampling Frequency	Station Locations	Sampling Platform	Data Management	Metadata Inquiry
U.S. EPA GLNPO	April 2010, August 2010	Annual water quality survey; benthic sampling; TRIAXUS will be towed	Nearshore; offshore or connecting lakes (i.e. drowned river mouths)	Water; sediment	chloride, nitrate, silica, phytoplankton, total phosphorus, chlorophyll a, temperature, secchi disc depth, D.O., macrobenthic diversity...	Biannual (Spring Survey - April; Summer Survey - August)	Offshore, basin-wide (see station map on web site); nearshore tows with TRIAXUS	R/V Lake Guardian	Great Lakes Environmental Database (GLENDa) -electronic database	Available online at epa.gov/glnpo/monitoring/data_proj/glenda/codes/codes.html

Matrix now includes over 70 rows of information from federal and state agencies, universities and metro sewerage districts.

For more information

Lake MI Monitoring Inventory

www.glc.org/monitoring/lakemich