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
Lake Michigan Monitoring Inventory Search Function
Lake Michigan Monitoring Inventory

Results:

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 PHOSPHORUS, NITROGEN, KJELDAHL, TOTAL NITRATE, PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE, CHLORIDE, TOTAL IN WATER, SULFATE, TOTAL, IRON, DISSOLVED
Lake Michigan Tributary Monitoring Project

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 these programs can be viewed.

Monitoring Stations

Field Value

- STAT_ID: 900323328230696290
- STATION: 420320067412801
- PROD_ID: BAS2000
- AGENCY: USGS
- DESCRIBER: H.R. HICKS
- STATE: ILLINOIS
- COUNTY: COOK
- ELEV: 47
- LAT: 87.9297
- TYPE: Ground-water (direct injection)
- STAS_CODE: 17001

Map of Lake Michigan with monitoring stations and other geographic information.
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
  ♦ LMCC-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
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

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

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