

Michigan Clean  
Water Corps

# MiCorps 101

Presented by Paul Steen

& MiCorps Staff

# MiCorps Team



**Laura Kaminski**  
**Anne Sturm**



**Bill Dimond**



**Paul Steen, Ph.D.**



**Scott Brown**  
**Jean Roth**

**MICHIGAN STATE**  
**UNIVERSITY**

**Jo Latimore, Ph.D.**

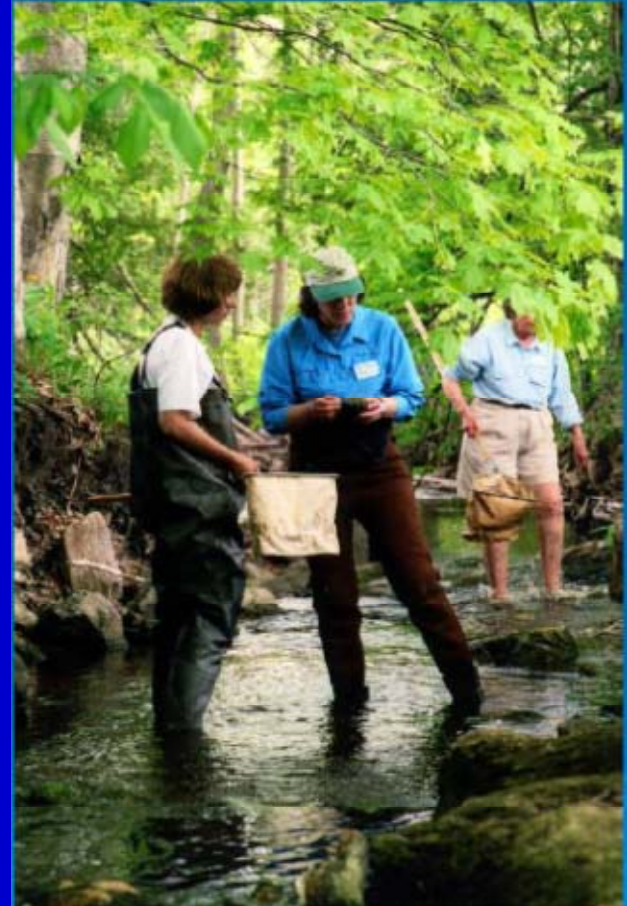
“Together, we’ll create the nation’s most comprehensive and meaningful clean water monitoring system, building a water legacy for generations to come.”

Former Governor Jennifer Granholm  
2003



# Governor's Executive Order

- MiCorps established September 30, 2003
- Comprehensive statewide volunteer water quality monitoring network
- Pre-existing lake program, a fledging stream program, and pre-existing water cleanup program



# MiCorps Mission

- Network and expand volunteer water quality monitoring organizations statewide.
- Collecting, share, and use reliable data.
- Educate and inform the public about water quality issues
- Foster water resources stewardship to facilitate the preservation and protection of Michigan's water resources.



# Nuts and bolts...

- MiCorps consists of two main programs concentrating on volunteer stream and lake monitoring.
- Volunteer Stream Monitoring Program (VSMP)
- Cooperative Lakes Monitoring Program (CLMP)
- Other components of MiCorps that support the 2 main programs are:
  - Grants (Streams only)
  - Trainings
  - Annual Conference
  - Newsletter
  - Email ListServ for discussion and news
  - Web site [sidenote: make your own presentation!]
  - Web-based, publically available, searchable database

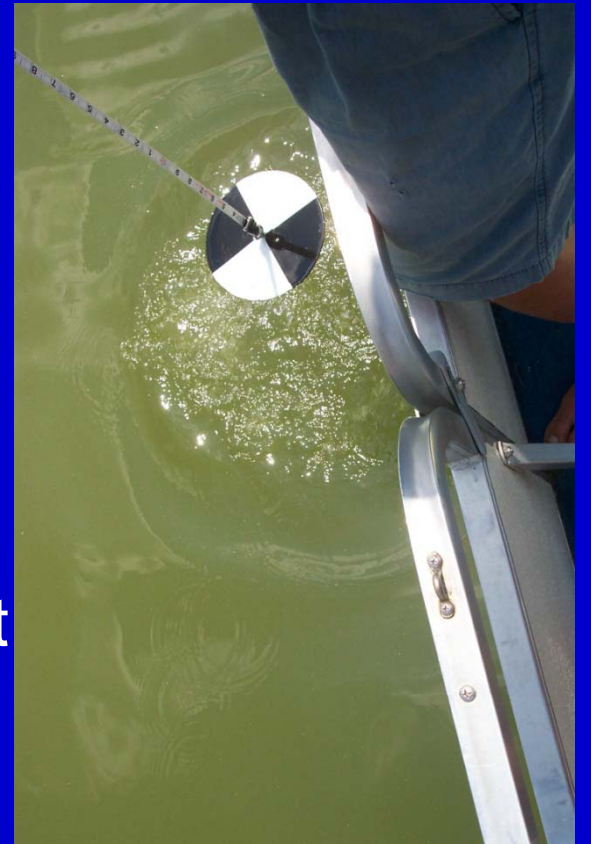


# MiCorps concentration in quality assurance gives us...

## More reliable data

Which gives us:

- Greater use by the DEQ and local managers in planning and management
- Continued funding of the program.



# Volunteer Stream Monitoring Program (VSMP)



# What would a successful volunteer stream monitoring program look like?

- You collect data about your fresh water
- You use it to and the monitoring process to educate and foster stewardship, & get people to independently take action.
- You continually are reaching new people.
- Human impacts to the watershed are alleviated.
- **MiCorps helps you with the first bullet with money, training, and assistance.**
- **A MiCorps grant can help pay for your hours, but it is never enough to cover a successful program.**

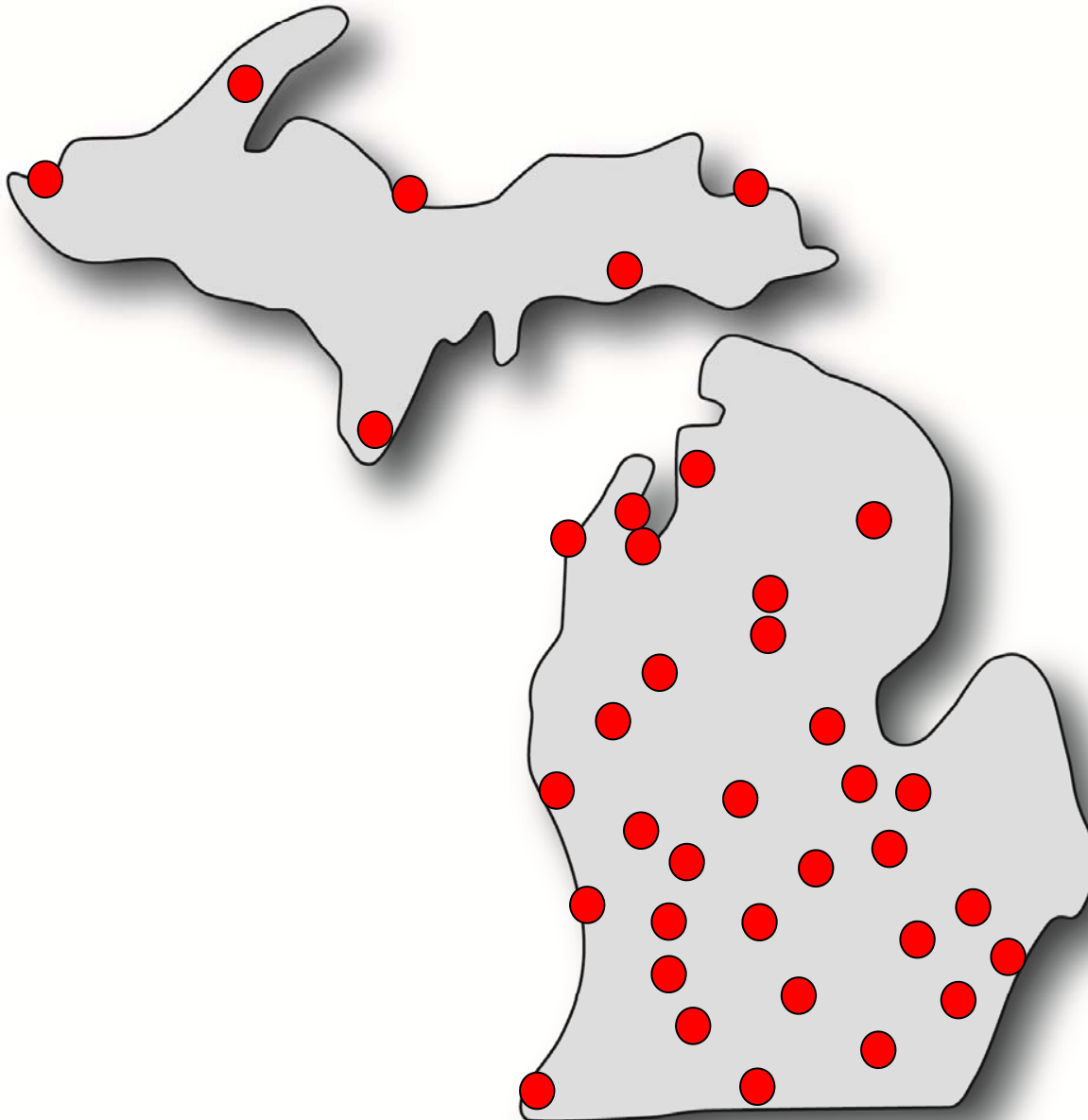
# Volunteer Stream Monitoring Program (VSMP)

- A grant-based program for local groups to develop or enhance stream monitoring programs. Groups must be non-profits, academic, or local government.
- \$50,000 is available every year
  - Full grant: \$10-15k
  - Startup grant: \$1 – 3k
- Full grants last 2 years
- Start-up grants last 1 year.



*The VSMP annual training day*

# Volunteer Stream Monitoring Program



- Since 2005, 33 Groups have received grants.
  - Including:
    - Cannon Township
    - Tip of the Mitt Watershed Council
    - Friends of the St. Clair River
    - Muskegon River Watershed Assembly
    - Branch County Conservation District
    - Upper Peninsula Resource Conservation and Development Council

# Stream Program Components

Groups who receive grants are expected to:

- Find, engage, train volunteers
- Collect and identify macroinvertebrates
- Monitor habitat
- Use the Michigan Data Exchange
- Verify & interpret the data
- Follow up as needed with relevant authorities based on the results of monitoring.



# What support do grantees get from MiCorps?

- Money
- Training, procedures, technical assistance.
- A solid reputation.
- Plugged into the MiCorps network.



# Why collect bugs?

## Scientifically Useful

- Good indicators of stream conditions
- Diversity = Healthy stream
- A scarcity of bugs may indicate:
  - Sedimentation
  - Habitat loss
  - Chemical pollution
  - Hydrology problems

## Great for Volunteers

- Easy sampling techniques- great for volunteers
- Generally abundant communities- volunteers find them quickly.



# How do MiCorps groups collect bugs?

- Each team member gets a job- collector, scribe, picker, shuttler, leader, etc.
- Collector works upstream collecting along ~300 foot reach. Collector samples a variety of microhabitats.
- Store in 70% ethanol until identification and for long term storage. Avoid rubbing alcohol.
- Groups hold identification events



# How do MiCorps groups collect bugs?

- The goal is to find as many different types as possible.
- Time limits: Generally, one collector samples between 35-45 minutes, and strives for around 100 organisms.
- Collectors needed to be trained, but other volunteers can come in cold. Volunteer accessibility is key.



# Questions on the Volunteer Stream Monitoring Program?



# Cooperative Lakes Monitoring Program (CLMP)



# CLMP Goals

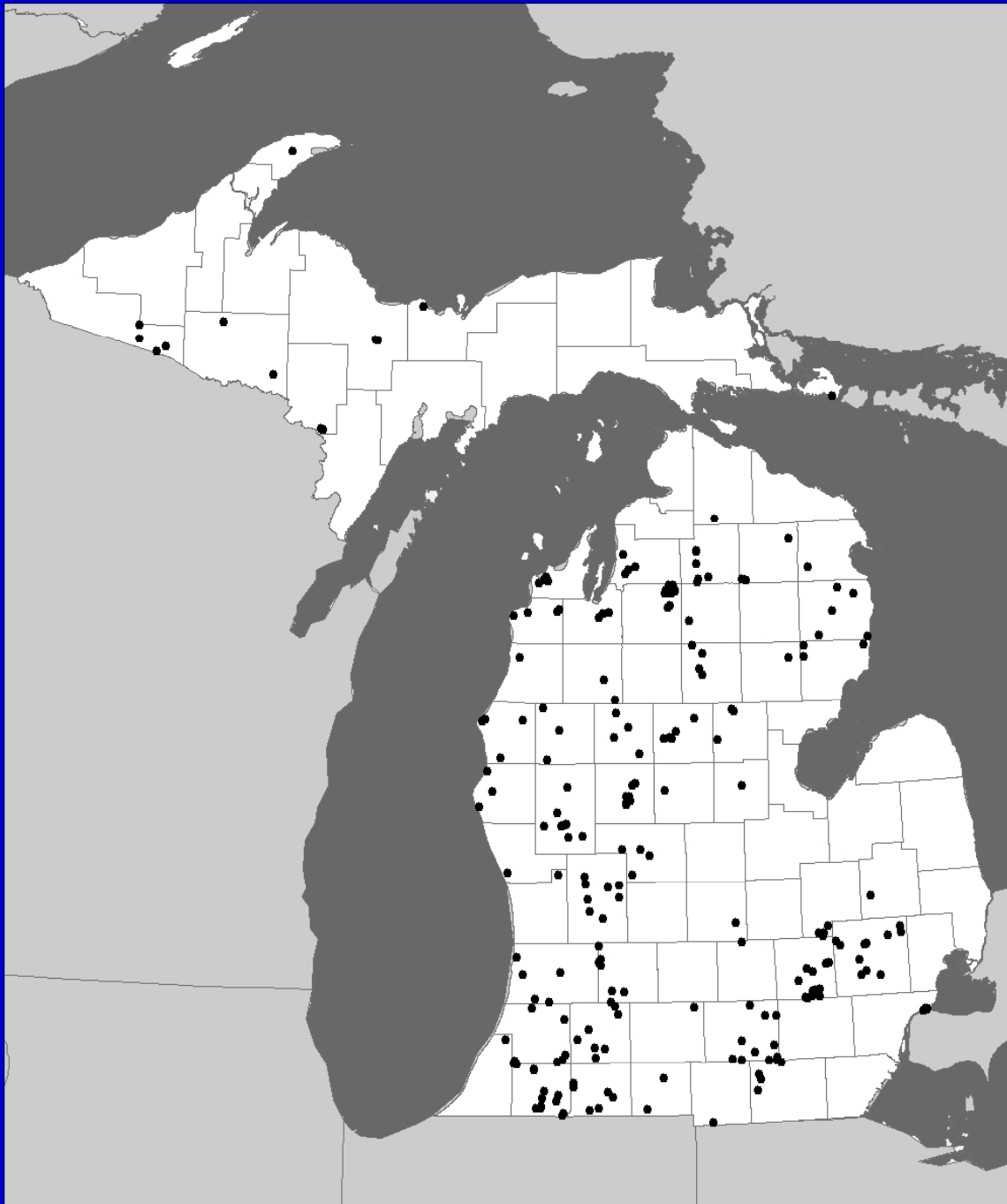
- Provide baseline information and document trends in water quality for individual lakes.
- Educate lake residents, users, and interested citizens in collection of water quality data, lake ecology, and lake management practices.



# CLMP Goals

- Build a constituency of citizens to practice sound lake management at the local level and build public support for lake quality protection.
- Provide a cost-effective process for the DEQ to increase baseline data for lakes in Michigan.





# CLMP Membership

2011 number:  
~225 Lakes  
monitored by lake  
associations or  
individuals

# What do we measure in the CLMP?

- Transparency
- Total Phosphorus
- Chlorophyll *a*
- Dissolved Oxygen and Temperature
- Aquatic Plants



# Watch out for eutrophication!

- Observing long-term trends of the CLMP parameters can help us understand if the amount of algae (lake eutrophication) is increasing in the lake over time.
- High phosphorus, high chlorophyll, and low transparency can be signs of:
  - Undesirable algae blooms
  - Poor boating and swimming
  - Low dissolved oxygen which can cause fish kills



# What is expected of volunteers?

- A slight enrollment fee (\$20-60, depending on parameter, plus one time equipment costs)
- Weekly or biweekly transparency measurements. Other measurements may need to be taken monthly.
- Attend an annual training
- Follow directions carefully.
- Sample turn in: two-three times during the sampling season volunteers bring their samples into a local DEQ office.



# And what does the CLMP provide in return?

- The potential for long term data on your lake (the program has been operating since 1974).
- Training
- Analyzes your water samples at the State of Michigan lab for long-term data consistency
- Excellent quality assurance procedures
- A volunteer mentor program to get you help if you need it.



# Doesn't CLMP provide a magic formula for fixing lakes?

- No. The CLMP only provides a way for you to collect the baseline data that is needed to make proper management decisions.
- It takes further effort, further resources, and committed riparian owners and state and local governments to carry out these management decisions.
- Additional lake management resources are available on the MiCorps web site at <http://www.micorps.net/lakeresources.html>

# Aquatic Plants- Full Surveys and Exotic Plant Watch



- CLMP offers two versions of plant monitoring.

- The full survey program provides training and technical assistance to map out all of the plants in a lake (native and exotic).

- The Exotic Plant Watch is dedicated to early detection of incoming exotic plants.



# Questions on the CLMP?



# MiCorps Website and Data Exchange Platform

- [www.micorps.net](http://www.micorps.net)
  - Registry of water monitoring groups
  - Various information on water monitoring
  - Details specific to the VSMP and CLMP.
- Data exchange platform
  - Searchable database of all of the information collected by MiCorps volunteers.
  - Data entry is required for both CLMP and VSMP

# MiCorps Conference and Newsletter

- These items provide a way for MiCorps members to speak to each other and share their news and experiences.
- This is a major part of creating a “network” of monitors across the state.
- Newsletters are electronic and can be found on our website.



# Volunteer River, Stream, and Creek Cleanup Program

- \$25,000 is available annually through a competitive grant application process. Compared to other grants out there, it is a simple application.
- Began in 1998
- More than 90 grants totaling greater than \$185,000 have been awarded since the inception of the program.



# Contact information

- See MiCorps staff:

Bill Dimond

or

Paul Steen

517-241-9565

734-769-5123

[dimondw@michigan.gov](mailto:dimondw@michigan.gov)

[psteen@hrwc.org](mailto:psteen@hrwc.org)

- Web site: [www.micorps.net](http://www.micorps.net)

# Questions for MiCorps staff?

