
LAKE MICHIGAN ANS MONITORING SURVEY



About the Lake Michigan ANS Early Detection and Monitoring Project:

The purpose of the Aquatic Nuisance Species Early Detection and Monitoring (EDM) pilot project for Lake Michigan is to produce a set of guidelines and recommendations for a coordinated system to detect new invasions of nonindigenous aquatic nuisance species (ANS) and track the spread of established ANS populations in the Lake Michigan basin. Aquatic nuisance species are nonindigenous organisms that threaten the diversity or abundance of native species or the ecological stability of the infested waters and may include any aquatic organism (e.g. fish, invertebrates, plants, algae, etc).

This project will advance the development of a Great Lakes region-wide ANS monitoring program. Early detection of ANS introductions and monitoring of established populations will increase chances for their effective elimination and control. This survey will evaluate the degree of monitoring for ANS currently being conducted in the Lake Michigan basin. Most importantly, the survey will assess the potential for existing monitoring programs to predict and detect the introduction of new ANS invasions, as well as monitor their potential spread throughout the basin.

Instructions:

There are two parts to this survey – Part A and Part B. Part A is requesting basic background information and a detailed description of the scope of your monitoring program. **We are asking all survey recipients to complete Part A.** Part B is to be completed only for those who respond as having an “**active**” ANS monitoring/detection program.

If you are not able to complete this survey, please forward it to someone else within your organization as appropriate.

Please return the completed survey **by December 12, 2003** in the enclosed envelope to:

John Hummer
Great Lakes Commission
Eisenhower Corporate Park
2805 S. Industrial Hwy., Suite 100
Ann Arbor, MI 48104-6791

Or fax to: 734-971-9150
Or email to: jhummer@glc.org

For purposes of this project, the following definitions are used:

Early detection: To discover or ascertain the presence of nonindigenous aquatic species not previously known to exist in a particular body of water sometime prior to the successful establishment of the species.

Monitoring: To keep track of identified nonindigenous aquatic nuisance species and/or specific water bodies systematically, with a view to collecting information to enable a population assessment.

Prediction: To identify the species or types of species that are most likely to invade an ecosystem and be perceived as a nuisance species; and, if needed, to determine the potential distribution of a nuisance species throughout an ecosystem.

Active detection: Monitoring efforts which have specific responsibility to detect aquatic nuisance species. Also known as dedicated surveillance.

Passive detection: Monitoring efforts which may incidentally detect invasions as they conduct other activities. Also known as incidental surveillance.

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Your Primary Contact Information

Name/Title: _____

Name of Organization: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Fax: _____ Email: _____

Website: _____

If at any time you have a question while completing this survey, please contact:

John Hummer or Kevin Walters
Great Lakes Commission
734-971-9135
jhummer@glc.org
kwalters@glc.org

This survey is also available for download
at www.glc.org/ANS/initiatives/

Please feel free to attach additional pages.

Part A:

Tell Us About Your Monitoring Program

1. Is your monitoring program capable of **ACTIVELY** or **PASSIVELY** detecting new introductions and monitoring existing populations of aquatic nuisance species? (Check "Both" if applicable.)

Actively

Passively

Both

Neither

Active detection: Monitoring efforts which have specific responsibility to detect aquatic nuisance species. Also known as dedicated surveillance.

Passive Detection: Monitoring efforts which may incidentally detect invasions as they conduct other activities. Also known as incidental surveillance.

If you checked "Actively" or "Both" above, please complete the remainder of Part A and proceed to Part B. If you checked "Passively" above, please complete the remainder of Part A only. If you responded "Neither", this survey does not apply to you. Thank you for your time.

2. Monitoring program title (If you work with more than one program, please complete an individual survey for each program):

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Part A: (continued)

3. Describe the overall purpose or goal of the monitoring program. (1000 character limit)

4. Please describe the portion of the Lake Michigan watershed in which your program monitors. Provide a narrative description and/or geographical representation of area. (500 character limit)

Latitude/Longitude (if known) _____

- 4a. Does your program monitor within any industrial ports? Yes No Not Sure

- 4b. If you answered **“Yes”** to question 4a, please name the industrial port(s) within which your program conducts monitoring.

Burns Harbor Chicago Green Bay Ludington
 Menominee Milwaukee Other _____

5. When did the monitoring program begin? (MONTH/YEAR) _____

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Part A: (continued)

6. Is the monitoring program continuous? Yes No Not Sure

6a. If you answered “**No**” to question 6, when does the monitoring program end? (MONTH/YEAR)

7. Is funding support for the program long-term and reliable? Yes No Not Sure

8. How often is information collected? Please select any or all that apply.

Daily Weekly Monthly Semi-annually Annually

Other (please explain _____)

9. Is a quality assurance procedure/plan in place (e.g., a U.S. EPA Quality Assurance Project Plan, or QAPP, which requires elements such as: performance/measurement criteria for information collected, description and justification of sample design strategy, and equipment calibration)?

Yes No Not Sure

10. If applicable, what steps do you take to sanitize your equipment when transitioning from sampling in ANS infested waters to sampling in waters that are relatively uninfested? (*Limit 500 characters*)

11. To whom is monitoring data reported? Check all that apply.

Federal agency State agency Municipal agency (county, city, etc.)

University Private entity General public

Other (please explain _____)

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Part A: (continued)

12. What format is used to store the data (e.g., what computer application, hard copy, etc.)?
- Computer/digital Hard copy
- Other (please explain _____)
13. How long is information stored? (e.g., # months, years) _____
14. Select the category(s) that best describes the type of information being collected.
- Aquatic invertebrates
- Chemical (e.g., ph, BOD, mercury, phosphorus, PCBs)
- Physical (e.g., hydrology, weather, habitat, geology, soil, vegetation)
- Land Use (e.g., urbanized, agricultural, residential, etc.)
- Microbiological (e.g., bacteria or other microbial organisms)
- Fish
- Wildlife
- Aquatic Nuisance Species
- Aquatic, Shoreline or Wetland Vegetation
- Other (please specify _____)
15. For each box checked in question 14, please give a specific description of the information being collected. List all parameters/specific indicators measured by your monitoring program. (Limit 1200 chars)

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Part A: (continued)

16. What aquatic nuisance species have you detected or recorded during your efforts to monitor for other parameters? *(Limit 400 characters)*

- 16a. How do you record the invasive species you collect? Check all that apply.

- Presence/Absence Quantity Species Identification
 Other (explain _____)

- 16b. What specific agencies/offices do you contact regarding aquatic nuisance species you may collect and/or record? Check all that apply.

- U.S. Environmental Protection Agency U.S. Fish and Wildlife Service
 State agency (DNR, DEQ, etc.) Municipal agency (county, city, etc.)
 University Private entity
 Other (please explain _____)

17. If you suspected you found a “new” aquatic nuisance species in the Lake Michigan basin, what would you do? *(Limit 1000 characters)*

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Part A: (continued)

18. If you do not record aquatic nuisance species found during your routine monitoring efforts, what is the main obstacle or reasons for this? Please check all that apply.
- Unable to identify Cost prohibitive Not within scope of program
- Lack expertise/training Not interested in ANS Too labor intensive
- Other (explain _____)
19. Would you/your monitoring program be willing to consider participation in a coordinated, regional ANS early detection and monitoring network which includes regular reporting protocols (e.g., quarterly, online submittal)?
- Yes No Not Sure Only if training is available
20. What considerations do you think should be taken into account during the development of a coordinated system to monitor for new introductions and invasions and track the spread of existing populations of aquatic nuisance species in the Lake Michigan basin? (e.g., protocol for use of consistent monitoring techniques for ANS; independent resource for specimen verification, etc.) (Limit 1200 chars)

End of Part A. Please proceed with Part B ONLY if you indicated in Question #1 that your program is capable of ACTIVELY detecting new introductions and monitoring existing populations of aquatic nuisance species. If you did not indicate as such, please stop here and return the survey to the Great Lakes Commission, Attn: John Hummer, 2805 S. Industrial Highway, Suite 100, Ann Arbor, Michigan, 48104-6791. You may also send it via fax (734-971-9150) or email (jhummer@glc.org). Thank you for your time.

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Part B:

Complete this section only if you indicated in Question #1 that your monitoring program is capable of **ACTIVELY** detecting new introductions and monitoring existing populations of aquatic nuisance species.

21. Is your program designed to monitor for **new introductions or invasions** of aquatic nuisance species?

- Yes No Not Sure

21a. If you answered **“Yes”** to question 21, what new **introductions or invasions** of aquatic nuisance species does your program **ACTIVELY** monitor for in the Lake Michigan basin?

21b. If you answered **“Yes”** to question 21, what specific technique(s) does your program utilize to monitor for **new introductions or invasions** of aquatic nuisance species?

- Trawling Plankton nets Electrofishing
 Water samples Tagging
 Other (explain _____)

22. Is your program designed to monitor **existing populations** of aquatic nuisance species?

- Yes No Not Sure

22a. If you answered **“Yes”** to question 22, what **existing populations** of aquatic nuisance species does your program **ACTIVELY** monitor for in the Lake Michigan basin?

- Zebra mussels Round goby Eurasian ruffe
 Eurasian water milfoil Purple loosestrife Spiny waterflea
 Sea lamprey Fishhook waterflea Asian carp
 Other (explain _____)

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Part B: (continued)

22b. If you answered “**Yes**” to question 22, what specific technique(s) does your program utilize to monitor **existing populations** of aquatic nuisance species?

- Trawling Plankton nets Electrofishing
 Water samples Tagging
 Other (explain _____)

23. Is your program designed to **predict new introductions or invasions** of aquatic nuisance species?

- Yes No Not Sure

23a. If you answered “**Yes**” to question 23, what **new introductions or invasions** of aquatic nuisance species does your program **ACTIVELY** initiate **predictions** for in the Lake Michigan basin?

23b. If you answered “**Yes**” to question 23, what specific technique(s) does your program utilize to **predict new introductions or invasions** of aquatic nuisance species?

- Modeling Invasion histories analysis
 Vector analysis Biological characteristics analysis
 Other (explain _____)

24. Which of the following does your program routinely monitor? Check all that apply.

- Locations at high risk for ANS introductions High value natural resources (e.g., high quality habitat areas)
 Pathways for ANS introductions Species of concern
 None of the above

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Part B: (continued)

25. Please provide any other relevant information that you think would contribute to a more complete understanding of your monitoring efforts as they may relate to ANS early detection and monitoring.

***THANK YOU VERY MUCH FOR COMPLETING THIS SURVEY.
YOUR TIME AND ASSISTANCE ARE GREATLY APPRECIATED.***

***Please return your completed survey by December 12, 2003
in the enclosed envelope to:***

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