



Aquatic Invasive Species In Minnesota's Waters: *An Aquademic*

**Position Paper and
Recommendations**



Position Statement

- o Adopted April 2009
- o Updates provided here



AIS Task Team Charge

- Recognize that AIS (plants, animals and viruses) harm Minnesota's waters, and
- Propose a comprehensive system to adequately and appropriately prevent and control AIS



How to Describe a Condition ...

- Where polluting agents spread rapidly
- Are self-replicating
- Cannot be eradicated
- Have unknown synergistic effects, and
- Have few, if any effective treatments?



**Minnesota Waters calls this
condition an**

“Aquatic Epidemic”

or

Aquademic



Minnesota Waters believes the AIS issue

- Is real
- It matters, and
- It is not too late – we can do something positive and proactive



Guiding Principles

1. Minnesota's waters should be managed and protected to preserve their intrinsic ecological, economical, recreational and commercial values as guided by the precautionary approach



Guiding Principles

2. The legal, regulatory and cultural framework that allows AIS introductions into Minnesota and into Minnesota's waters must be re-examined in light of AIS concerns.



Guiding Principles

3. Responsibility and resources for protecting Minnesota's waters from AIS and managing AIS in Minnesota's waters must be shared among citizens, local governments and the state.



Guiding Principles

4. Minnesota's waters are public resources for all to enjoy.
5. Current AIS laws, funding and programs are neither adequate nor acceptable.



History

- o AIS for 100 years
- o More recently – milfoil since 1987



Urgency & Imperative

- New AIS being introduced
- Rate of Spread is Increasing
- Synergistic Effects
- Lack of Remedies
- Other Challenges



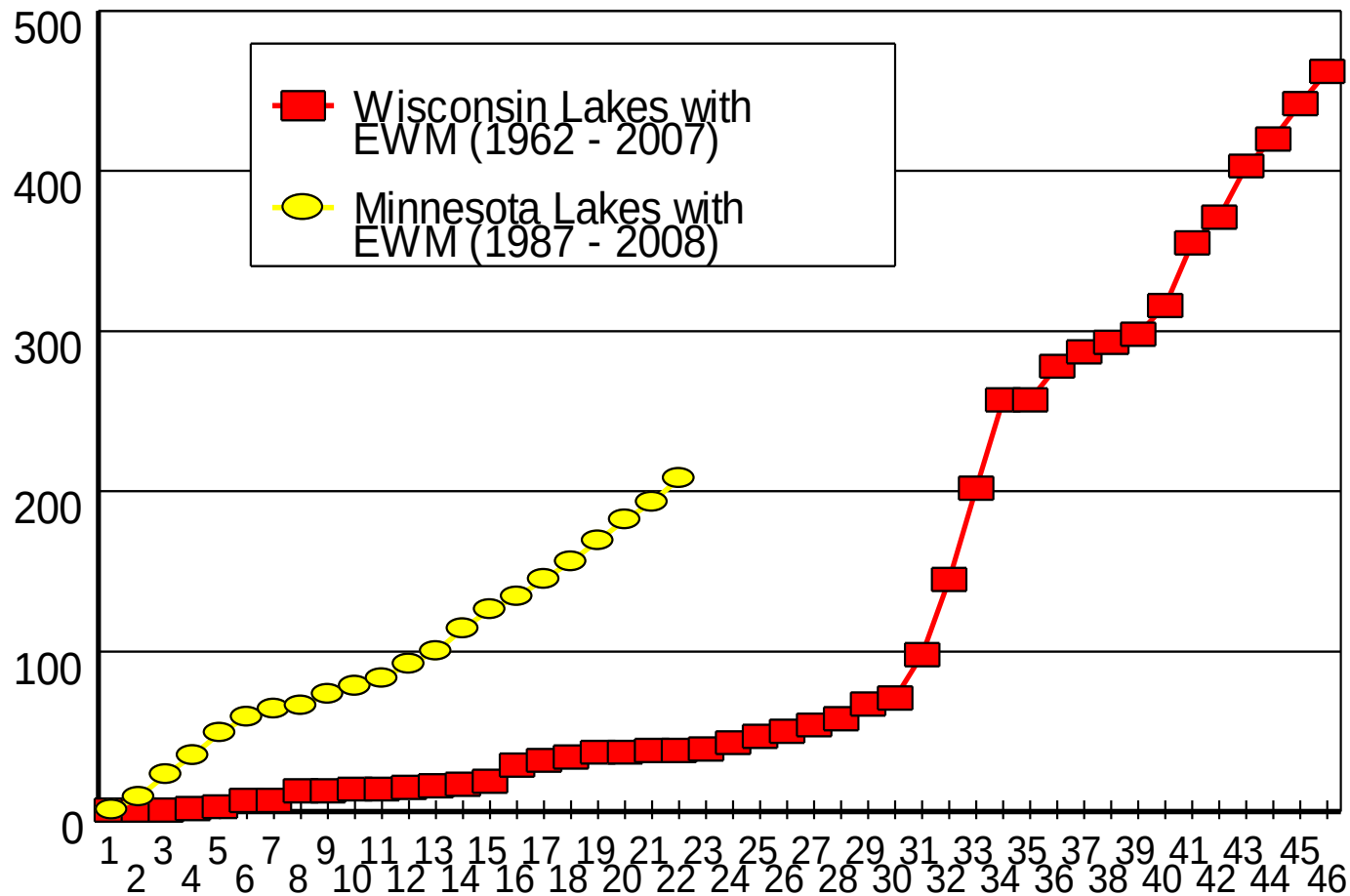
New AIS

- 58 new, harmful AIS expected to enter Great Lakes
- Hydrilla, Brazilian elodea, VHS, flying carp and others nearing Minnesota



Rate of Spread

- S-Curve within and between waters
 - Slow, steady increase
 - Rapid increase
 - Approaching a ceiling





Increase projected in MN

- Eurasian watermilfoil – staged to increase (2,100 to 4,700 lakes)
- Zebra mussel – staged to increase
 - Update: Since April 2009, zebra mussel in
 - Le Homme Dieu (Alexandria chain)
 - Prior
 - Minnetonka
 - Gull



Zebra Mussel in MN





Synergistic Effects

As AIS are added to waters:

- Impacts accrue and multiply
 - Eg. Zebra mussel & milfoil
 - Eg. Zebra mussel, round goby & avian botulism
- No predictive tools



Lack of Remedies

- Some controls for some AIS plants
 - No biocontrols
- No controls for AIS animals or viruses



Other Challenges

- Challenges of Scale – Global
- Challenges with Control
 - Often involves chemicals
- Conflicts with culture and attitudes
 - We value our waters and access to them
 - AIS exploit this access



MN AIS System

- Evolved piecemeal
- Inefficiencies & insufficiencies
- Eg. Mille Lacs Lake
 - 400,000 angler trips per year
 - A 'super spreader'
 - Increased inspections – to 3%



Trends

- Additional AIS will come to MN, primarily through Lake Superior,
- Additional lakes and rivers will become infested with AIS at increasing rates,
- Additional impacts to water quality, habitat, recreation, fish and wildlife and the economy will occur, and
- We will be in an increasingly poorer position to slow the spread or control the impacts.



What do we need to do?

- Comprehensive, systematic approach
- Greater emphasis on prevention
- Re-examine legal, cultural framework
 - change the game



Levels of Prevention

Level 0

- No programs
- No funding
- No laws or enforcement



Levels of Prevention

Level 1

- Programs, laws and enforcement rely mainly on a high level of public awareness and voluntary actions
- Funding is minimal



Levels of Prevention

Level 2

- Level 1 plus
- Aggressive enforcement & penalties
- Strategic deployment of assets
- Significantly increased funding
- Advanced education



Levels of Prevention

Level 3

- New AIS prevention and management system that allows
 - Quarantine* of waters
 - Significant increases in fines and penalties
 - New funding, including higher rates, inspection fees
 - Increased funding – at least 10x greater
 - Providing local authorities to control accesses (while protecting public access rights)



Fork in the Road

- MN can continue down the current path (Level 1), or
- MN can do better
 - Level 2 (within current legal, cultural framework)
 - Level 3 (not recommending at this time)



**We Can
(We Must)
Do Better**



Recommendations

“Optimizing individual components can only lead to incremental change; optimizing the system can lead to transformational ecology”

Minnesota Waters recommends the former, but Minnesota Waters will advocate for the latter.



Minnesota Waters recommends:

1. The state adopt an AIS management system that prioritizes its activities, especially by devoting more focus and resources to prevention

Update: Some progress



Minnesota Waters recommends:

2. That 80% of all state resources for AIS be devoted to prevention



Diversify Prevention Efforts

- Education/awareness
- Containment of new AIS in satellite infestations
- Containment of AIS, with highest priority in super spreaders
- Containment of AIS, licensing control for service providers
- Enforcement of existing state laws and rules
- Uniform AIS prevention laws and rules
- Understanding, assessing, and limiting invasibility
- Allow and support volunteer citizen-based prevention efforts



Minnesota Waters recommends:

3. A flexible and multi-faceted approach to AIS that recognizes and responds to situational differences among various regions of the state

Update: Zebra mussels a focus,
multiple loci



Minnesota Waters recommends:

4. Increased funding for the AIS prevention program

Update: ~\$790k increase in 2010-2011 from federal sources



Minnesota Waters recommends:

5. Increased funding for AIS prevention and control grants to local interests
 - Prevention, \$1.5 million
 - Nuisance control, \$200,000
 - Pilot projects for EWM and CLP control, \$1.5 million



Minnesota Waters recommends:

6. That AIS (plant) control be encouraged in manners that protect native plants and encourage restoration by:
 - Requiring Lake Vegetation Management Plans (LVMPs)
 - Providing grant funding for LVMPs
 - Eliminating permit fees
 - Encouraging lake-wide or bay-wide control by eliminating riparian consents

Update: Some progress, although inconsistencies and frustrations exist



Minnesota Waters recommends:

7. That a dialog be initiated to re-examine the legal, cultural and social framework that now prevents consideration of Level 3 AIS management system.

Update: DNR Stakeholder II Meetings



Fiscal Summary

State funding

AIS Prevention \$10 million per year

AIS Control \$2.5 million per year

TOTAL \$12.5 million per year



Thank you!

Minnesota Waters

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Find us on:



*Citizens protecting
and improving our
lakes & rivers*