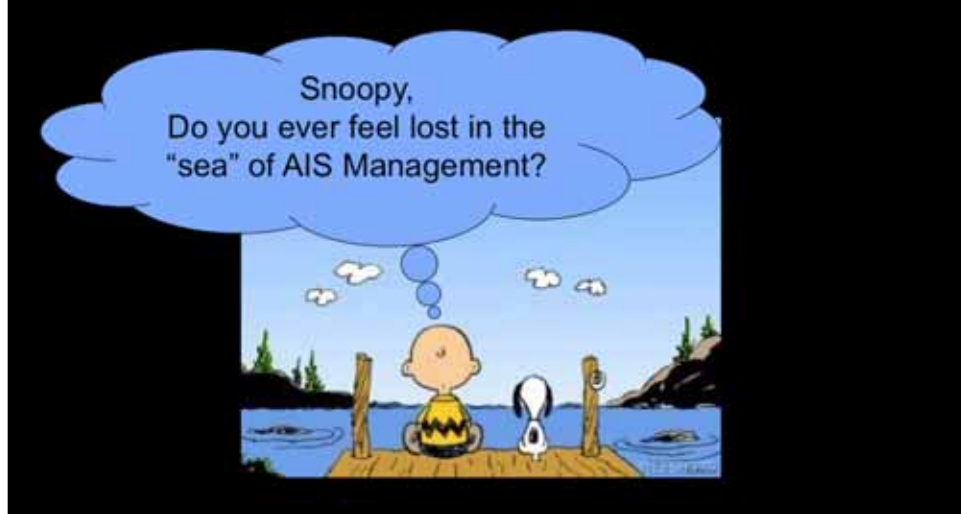


## Aquatic Invasive Species Management Tools and Guidance



When I first started helping lake groups in Vilas County years ago, I did... I was lost. I wanted to make the process a bit simpler for other people, thus the guidebook idea was formed. I wanted to get down on paper all the parts of the puzzle that people needed a little information about to even ask the right questions. To get started in the right direction. The guidebook is not intended to give nitty gritty details about each ideas, but rather to give groups a sense of direction in their AIS efforts. Go through agenda for the day.

Yours to keep!



Information from 2006, some specifics have changed...

Yours to keep. It is also available electronically on the UW extension Lakes Website.

## Proactive Management

...initiating action today to protect your lake from invasive species (and have a plan of action ready if you find one).

***"The more you know and plan for AIS management NOW, the more effectively you can manage potential AIS in the future."***

*AIS: A guide for Proactive & Reactive Management, 2006*

### Why be proactive?

- Make informed decisions, time to prepare
- Reduced frustration and pressure
- Less expense in time and money

Turn to page 12 in the guidebook. Here is where the Steps of proactive mngt begin. What exactly is proactive management? I conceptualize it as actively taking action before there is an actual problem. This way groups are not forced to move forward with rash or unwise decisions when dealing with an invasive population. The homework and decisions are made before the pressure is on. A lake group will have a lot less frustration, and project cost (in time and money) if they are taking action to keep invasives out of the lake than to try rid the lake of an existing population.

## Proactive Management Steps



- Step 1: Gather Information about AIS
- Step 2: Gather Information about a Specific Lake**
- Step 3: Restore Native Vegetation
- Step 4: Conduct AIS Monitoring**
- Step 5: Spread the Word about AIS
- Step 6: Develop a Contingency Plan**
- Step 7: Distribute the Workload
- Step 8: Involve Local Government**
- Step 9: Plug in to the Lake Community Network
- Step 10: Be Creative!

Starting on page 12 of the guidebook, proactive management strategies are listed. Some ideas may not be new to you, but then, perhaps they might! There are 10 steps listed and I wanted to take a closer look at the ones listed here in red font.

## Proactive Management

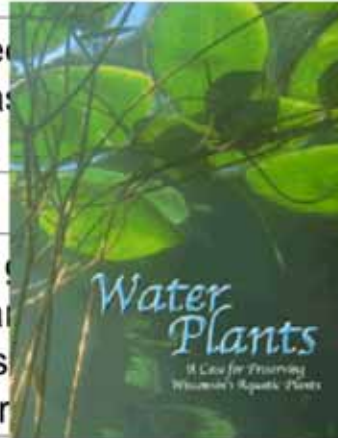
### Step 2: Gather Information about a Specific Lake

**Why?** →

- Lakes are unique ecosystems
- Establish a data baseline
- APM Plan required

**Who & How?** →

- Simple: volunteers or citizen scientists
- Complex: consultant or professional
- Management Plans: APM or Comprehensive



<http://www.uwsp.edu/cnr/uwexplakes/>

You might ask why you would have to put in so much work, when the lake doesn't Lakes are unique = different sizes, depths/volumes, seepage vs drainage, chemistries, biological makeup, trophic state, watershed landuse, etc. Because of this we need to know what is normal for that lake.

Establish baseline = you need to know what is normal for the unique lake in order to notice quickly what has changed and to diagnose the cause/s.

Go through the year long process involved in APM planning proactively means that you'd be prepared for management or treatment quicker in case an invasive was discovered.

How and Who depends on how in-depth your group wants to get in gathering lake information. It can be a simple process or more complex.

Simple Information about a lake can be gather by citizen volunteers such as water clarity, water chemistry measures, temperature and dissolved oxygen, ID/map native plants.

More complex information or studies can be hired out to a consultant: APM plans, Comprehensive lake plans, watershed analysis To learn details about about what how aquatic plant surveys are used and how they are completed, Water Plants or a more in-depth (80 page) account can be found at UW Extension lakes website. Vilas County Resource Guide or Water Plants summary guide...

## Proactive Management

### Step 4: Conduct AIS Monitoring



Clean Boats / Clean Waters Program

Citizen Lake Monitoring Network



Many of the AIS infestations have been discovered by citizens who have been involved in in-lake monitoring for invasive species. It is an important step in the proactive management strategy. There are a few different ways to go about AIS monitoring – and they could be done concurrently.

The CBCW program is a program that trains volunteers to conduct watercraft inspections at boat landings. Training sessions occur frequently throughout the state – Friday at this conference! Not only do you check the boats launching into the lake, but it provides a good opportunity to educate the lake users about AIS at the same time.

The Citizen Lake Monitoring Network offers many different opportunities to volunteers who want to collect pertinent information about “their” lake – a great way to establish a baseline of data! Types of data that can be gathered are: water clarity and trophic status, chemistry, temperature and DO, or even ID and mapping of native or invasive plant beds

The important elements to remember about AIS monitoring are: to know what you are looking for, if there is limited manpower then focus on key areas of the lake for monitoring efforts, be consistent in monitoring, and finally – target the appropriate times of year to monitor (page 17) timetable.

## Proactive Management



### Step 6: Develop a Contingency Plan



*Would your lake group be prepared today if an invasive was discovered?*



Get Started – Communicate

Ask Questions – Page 20

Find Answers

Would your lake be ready to deal with an invasive species population today if one was discovered? Most lake groups answer no to this question. That's why I recommend that lake groups develop a contingency plan. If there is a plan of action set in place prior to the discovery of an invasive, it will make the management of an invasive population much smoother. A well-organized plan is good insurance. To get started, place this item on a lake group board of directors meeting agenda as an item of discussion. Make sure the group understands the importance and purpose of a contingency plan. Ask the group questions to get a feel about how they would want to proceed. Page 20 has a list of questions to start with. Have tasks divided up among the board for research, so they can report back to the group. Once the answers to your questions are discussed and decisions are made, write your plan of action out so that they may be reflected in the lake association secretary files for easy retrieval.

## Proactive Management

### Step 6: Develop a Contingency Plan – Cont.

*Would your lake group be in agreement as to which control method to use?*

Physical Control: to manually or mechanically manipulate the environment

Biological Control: use of one plant or animal to control the population of another

Chemical Control: use of herbicide or pesticide to Kill an unwanted population

One question that might take some time to discuss would be the comfort level associated with which control method to use to manage an invasive population. Starting on page 32 of the booklet, control methods are discussed. The method that is chosen depends on many factors such as: species of concern, infestation size, waterbody characteristics, community support or comfort level, and cost. Controls are physical, biological, or chemical. Examples of Physical = mechanical harvester or raking; Biological = beetles for PL; Chemical = 2,4-D on EWM



## Proactive Management

### Step 8: Involve Local Government



Create Ordinances

Support Letters

Sponsor Grants

Bridge Loans

Boat Landing Signage



Local town, county, or municipal governments can be a wonderful resource to tap when dealing with AIS matters. They can sponsor grants for groups that may not be eligible (non-qualified lake associations), provide letters of support for grants, provide bridge loans for grants if necessary, create signage or ordinances to discourage the movement of troublesome species, provide encouragement to the community by initiating proactive AIS movements (ex. Vilas County AIS Partnership), or even provide a formalized mechanism or structure to deal with local level lake issues (town lake committees).

Let's get a closer look at  
Proactive Management in action



## Reactive Management

...managing the population of a current aquatic invasive plant or animal that has settled in.

Don't Panic!



9 Steps

Grant Funding

Treatment Permits

If you find an invasive the first rule of thumb is don't panic or make impulsive decisions. There are people and resources available to help. Hopefully your group has already been working proactively, but if not, all is not lost. Starting on page 28 of the guidebook, there are logical steps to take. I'll take you through all of them and then focus in on a few. Give information about funding projects with grant money and some information on seeking chemical treatment permits.



## Reactive Management Steps

- Step 1: Identify the Aquatic Invasive Species
- Step 2: Verify the Aquatic Invasive Species
- Step 3: React to a Pioneer Colony
- Step 4: Set a Contingency Plan into Motion
- Step 5: Hire a Consultant
- Step 6: Determine the Extent and Locations
- Step 7: Prepare for AIS Management Decisions
- Step 8: Know the Control Methods
- Step 9: Select Management Goals & Treatment Options

Steps in logical order... start on page 28. Let's take a closer look at the ones in red font.

## Reactive Management

### Step 2: Verify the Aquatic Invasive Species

*Verification* – a formal process by which an invasive species is genetically confirmed and “vouchered”.



Verification – defined. Once a sample of the plant has been collected from the waterbody, and formally vouchered, the proper means of treatment can be assessed. Formal verification is done so that invasives that are found throughout the state can be tracked and they also make sure that plants are not hybridizing.

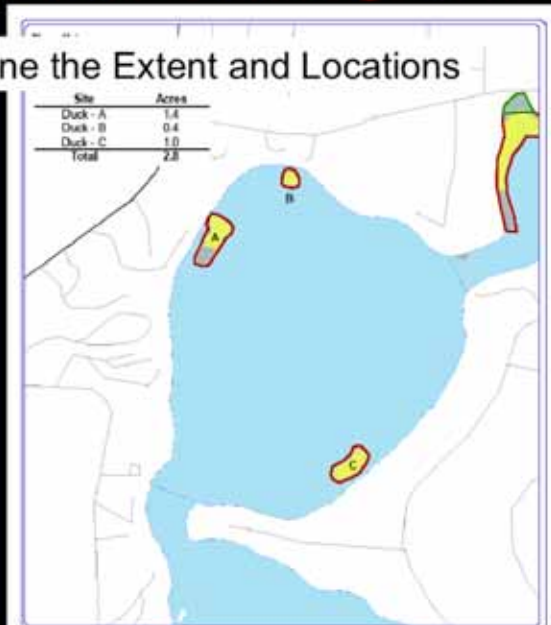
## Reactive Management

### Step 6: Determine the Extent and Locations

Level of Infestation –  
Acres

Location in Lake




Potential of Spread



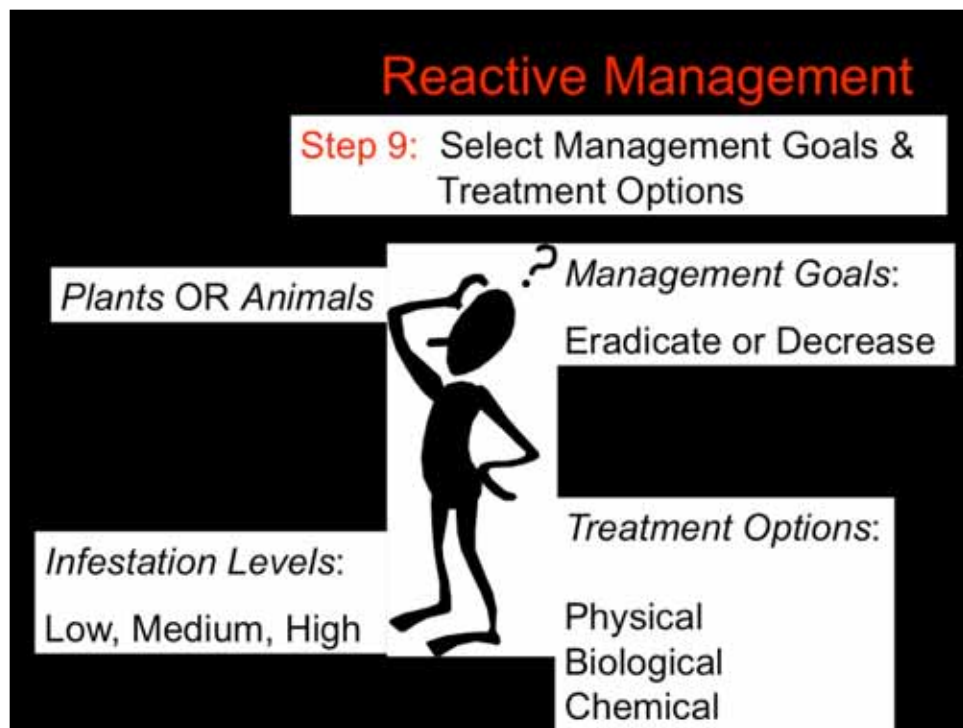
The primary reason for step 6 is to allow you to select the best treatment strategy. In order to do that a few pertinent questions need to be answered. See booklet for questions: page 29

## Reactive Management

### Step 7: Prepare for AIS Management Decisions

	Low Density	Qualitative Data
	Medium Density	Quantitative Data
	High Density	

Step 6 and 7 take place at the same time out in the field. Step 6 describes “generalized” information, whereas, Step 7 gets to more “specific” information about the invasive sites. In step 7, we now start collecting qualitative and quantitative data. Page 30 shows some different techniques to take qualitative and quantitative measures on the infestation area(s). Assessment of Infestation Density takes place to gage how “thick” the sites are populated. This will then help to gage how much chemical is used or where cutting would take place in the lake.



Step 9 is where all your work from previous steps pays off. Once the infestation has been assessed and the density has been measured, you can begin thinking about the best management strategy to deal with the problem population. Your consultant and the DNR Lake Coordinator will help in this phase so that the most proper and sound decisions are made for the lake. Step 9 (page 40) in the guidebook gives examples of some typical situations that you might encounter with invasive plant or animals and ideas about how to manage them.





## Reactive Management

### Grant Funding

#### *AIS Grant Categories:*

- 1) Education, Prevention, and Planning (\$200K)
- 2) Early Detection and Response (\$20K)
- 3) Controlling Established Infestations (\$200K)

75% - 25%; **Advances**; Competitive; In-kind

Many people think that getting grants is hard, but it really is not if you work closely with your local Lake Coordinator in planning it out. Many projects are eligible for grant funding through the state, and the type of grant that you seek will depend on the specifics of the project. For today I'm only going to focus on AIS grants. See Handout – Categories. Specifics = 75-25% cost share. In-kind = donated time or materials, permit fess included. Example:  
Project Total \$26,667 (.75) = \$20,000 (.25) = \$5000 advance payment

## Reactive Management

### Chemical Permit Procedure

*The Procedure:*

- Approved aquatic plant mngt plan
- Lake Maps that show proposed treatment areas
- Completed application (consultant)
- Permit Fee (\$20+\$25/acre)
- Public Notice Requirement
- Conditional Permit until pre-treatment survey complete
- Final Permit granted

When conducting chemical treatments, a permit is required and a licensed chemical applicator must be hired to apply chemicals to waterways. There are certain requirements that must be met in order to receive a conditional and final permit to treat.

Let's get a closer look at  
Reactive Management in action

