

Regional AIS Specialist
Adams County – Portage County – Waushara County

Problem:

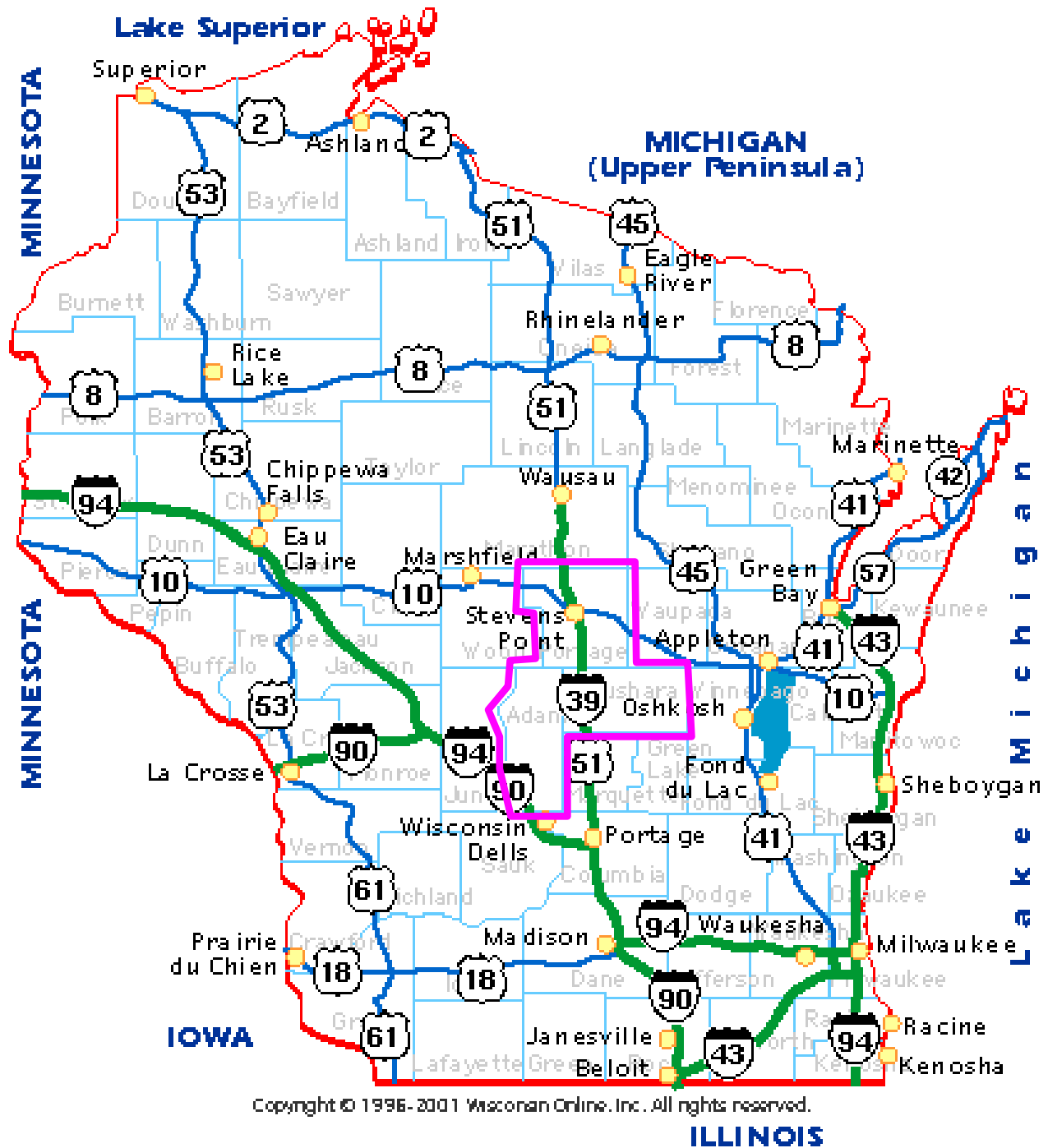
Infestations of aquatic invasive species (AIS) create a chain reaction of impacts to the lake's ecology, decreasing the recreational value, sporting value and aesthetic value of the water body, which may in turn result in decreased property values. Lakes groups in Central Wisconsin are at all levels of activity in AIS prevention and control: Some groups have yet to become active in prevention or control. Some groups already have a well-organized control plan in action. Most are somewhere in between.

In an effort to take a pro-active approach, Adams, Waushara and Portage County Land Conservation Departments (LCD's) see a need for involvement with and guidance to lake management units grappling with AIS issues. The need is viewed as a local problem, of course, but also as a region-wide problem and beyond. Each county's "AIS-free" lakes are viewed as rare gems to be cherished and protected by encouraging the implementation of early detection monitoring and Clean Boats, Clean Waters programs. Lakes with established AIS problem are viewed to have a responsibility to both control the infestation through carefully developed control plans and to prevent transportation of the problem species to neighboring lakes through Clean Boats programs. Further, lakes with one problem species are urged to remain vigilant in preventing infestations of *additional* AIS through Clean Boats, Clean Waters programs and early detection monitoring.

This grant application seeks the necessary funding to provide one full-time Regional AIS Specialist and associated project expenses.

Project Area:

The project area is a region-wide focus, including Adams County, Portage County and Waushara County. The main focus will be on public access lakes. These lakes are more likely to be susceptible to an infestation due to AIS “hitch hiking” on boats and recreational equipment.



Number of Public Access Sites and Parking Spaces

County	# of Public Access Lakes*	# of Public Access Sites*	# of Trailer Parking Spaces*
Adams	19	27	111
Portage	25	28	131
Waushara	42	83	150

*Wisconsin River flowages are not included in these tallies.

Role of Project in Planning and/or Management of the Lake

The counties involved in this project do not seek to take over the task of lake management or AIS control. Rather, they envision the county as a “facilitator” in *initiating* the start of a prevention/control program or *assisting* a struggling prevention/control program.

Goals and Objectives:

ADAMS COUNTY

Adams County has completed a county-wide lake study, documented AIS infestations and assessed which lakes need assistance with developing control plans. Lake groups have expressed an interest in training for prevention and control. Therefore, the goals are as follows:

- 1. Train County staff and lake volunteers in methods for milfoil weevil population surveys.** A short list of lakes has been identified as candidates for biological control of Eurasian water milfoil (EWM). Adams County wishes to perform weevil surveys to assess the natural population present and determine whether stocking is a viable control option. Regional AIS Specialist will provide needed field and laboratory training in survey methods.
- 2. Host ‘Clean Boats, Clean Waters’ Workshops.** County staff has completed training for instructing volunteers. Regional AIS Specialist will handle the “host” aspects of setting-up three workshops in Adams County, such as advertising, location arrangements, refreshments, assist with workshop activities, etc....
- 3. Assist with Demonstration Field Day.** Assist County staff with coordinating a “Demo Day” of control methods and monitoring methods for early detection.

PORTAGE COUNTY

Portage County has completed a county-wide lake study, documented AIS infestations and developed county-level and lake-specific control recommendations. Lakes are at various phases of implementation of control recommendations. Some continued training and public education is still needed. Therefore, goals and objectives are as follows:

1. **Give training on EWM identification and hand-pulling as requested.** Lake groups that are engaging in hand-pulling efforts are likely to require re-training in ID and techniques due to staff/volunteer turn over. Train as requested.
2. **Assist with needed cost-sharing/grant applications.** Provide assistance to lake groups pursuing financial assistance for implementing their control plans.
3. **Investigate new reports.** When requested, investigate reports of new infestations, collect voucher sample for DNR and map extent of infestation. Confer with DNR prior, so as not to duplicate efforts.

WAUSHARA COUNTY

Waushara County has not yet assessed AIS needs on a county-wide level. Lake groups have expressed a great interest in training on prevention and control. Therefore, goals are as follows.

1. **Assess current AIS presence & identify priority problem species.** Collect information about what AIS are present and in which lakes, and which of those infestations have had no control efforts to date. Collect information about success of existing control efforts. Assess what additional information may need to be collected. Develop a county-level, user-friendly AIS control plan, with generalized recommendations (i.e. Scenario 1 = Pursue recommendations A, B and E. Will need X, Y and Z permits....). Outline a plan of work for 2008.
2. **Seek funding to implement identified goals and objectives.** Assist lake groups with garnering the funding to pursue their AIS prevention and/or control plans. Garner future funding for the AIS Specialist position.
3. **Host Demonstration Field Days.** Coordinate a "Demo Day" of control methods and monitoring methods for early detection.
4. **Host 'Clean Boats, Clean Waters' Workshops.** Partner with 'Clean Boats' Program to schedule two workshops in Waushara County. Regional AIS Specialist will assist in the "host" aspects of the workshops, such as advertising, location arrangements, refreshments, assist with workshop activities, etc....

Methods and Activities

The Waushara County Land Conservation Department (LCD) will administer this grant, with Golden Sands Resource Conservation & Development Council, Inc (RC&D) providing the labor and services. The primary contact and project coordinator with Waushara County LCD is Ed Hernandez, County Conservationist. The primary contact with RC&D is Amy Thorstenson, Executive Director, who will serve as the Regional AIS Specialist. For technical guidance, when needed, and to avoid duplication of efforts, a close working relationship will be sought and maintained with the pertinent WDNR regional contacts.

Host 'Clean Boats, Clean Waters' Workshop: For Adams County, County staff is trained to perform the training of volunteers and will, therefore, serve as instructor. For Waushara County, instructors with the 'Clean Boats, Clean Waters' Program will need to be scheduled. The Regional AIS Specialist will handle "host" aspects, such as securing facilities, advertising, providing refreshments. Advertising of workshops will be done through direct mailings, press releases, posting on Golden Sands RC&D's website and posting notices with lake-related organizations for their newsletters and websites. County Conservationists will provide needed contact information and will assist with advertising by providing mailing lists and posting workshop notice through county channels.

Host Demonstration Field Days: For Waushara County, the Regional AIS Specialist will play a lead role in coordinating this event. For Adams County, the Specialist will assist County staff with the event. Appropriate instructors will need to be scheduled for the instruction of AIS identification and monitoring methods for early detection. Additionally, instructors will be scheduled for demonstrating (either live or via Powerpoint presentation) various control methods. Instructors will be of qualified expertise, potentially WDNR or UW-Extension personnel. For Waushara County, the Regional AIS Specialist will handle "host" aspects, such as securing facilities, advertising, providing refreshments. (For Adams County, the Specialist will *assist* as requested.) Advertising of workshop will be done through direct mailings, press releases, posting on Golden Sands RC&D's website and posting notices with lake-related organizations for their newsletters and websites. County Conservationists will provide needed contact information and will assist with advertising by providing mailing lists and posting workshop notices through county channels.

AIS Plant Mapping: If requested, AIS plant mapping will be completed in the same manner as was done during the 2003-05 Portage County EWM Assessments. AIS plant mapping will be conducted from a canoe during "peak season" (which is specie-dependant), to generate a map depiction the locations and extent of the infestation. Field personnel will visually search for the subject plant by coursing back and forth in a zig-zag fashion through the littoral zone and mapping every plant/bed that can be found. The GPS location of each growth found will be recorded to sub-meter accuracy using a Trimble Pro XR. Relative abundance (sparse or dense) of the subject plant will be recorded at each sample point.

In lakes where the AIS plant is abundant and/or wide-spread, surveying may be performed on a grid-system for efficiency. At each grid point, a sampling rake will be used to rate rake fullness (by specie) on a scale of 1 to 3. These data points will be used to create a map of AIS plant locations and relative abundance.

GIS maps will be produced by County GIS personnel.

Weevil population density surveys: For training purposes, the Regional AIS Specialist will assist Adams County with weevil density surveys. Weevil density surveys will be completed in the same manner as in the 2004-2006 Portage County EWM Studies. The Regional AIS Specialist served as the project leader during those studies and is, therefore, qualified to demonstrate to the County staff the survey methods.

Priority lakes in Adams County will be surveyed mid-summer. Surveyors will select four representative EWM beds to sample. When possible, these will be the same beds as sampled in past years. In most cases, there are four distinct beds. Where the EWM grows as one large, continuous bed, four quadrants (north, south, east and west) will be delineated to serve as representative beds.

Stem samples will be collected by coursing through the EWM beds and collecting samples from all areas of the bed and across all depths within the bed. Stem samples will be collected by reaching for EWM stems from the canoe, plucking a stem and retaining only the top 20 inches for collection. Field personnel will be conscientious to refrain from visually scanning the stems before picking them, which would introduce sampling bias. Where EWM is not close to the surface, a long-handled, steel, thatching rake will be dropped overboard to snag some stems. The first intact, 20-inch long stem to be randomly selected and untangled from the rake will be retained as the sample stem. A minimum of 15 sample stems per bed (60 per lake) will be retained. Water depth range (deepest and shallowest points) within each sample bed will be recorded. Amount of natural vs. disturbed shoreline (a factor affecting weevil success) will also be noted.

Stem samples will be submersed in lake water in labeled plastic bags and stored in buckets filled with water to keep samples cool while in the field. Upon returning from the field, samples will be kept refrigerated at approximately 3-4°C until they were examined. Any samples that cannot be processed within eight days of collection will be preserved with isopropyl alcohol to retain the integrity of the sample. Samples will be examined under magnification by floating them in shallow water in a clear, glass pan over a light table. All weevils of all life stages will be preserved with isopropyl alcohol in a labeled glass vial. Weevils found *in* the stem will be carefully extracted with dissecting equipment so they are still identifiable. Questionable specimens will be examined by the Regional AIS Specialist, personally, for species identification confirmation.

Project Deliverables

Final Report – A county-wide AIS control plan will be written for Waushara County, and provided for the grant report. A summary report of Regional AIS Specialist activities and results, including any maps produced and photographs of lake group volunteers and workshop attendees will be provided for the grant report.

Description of Data to be Collected

AIS plant mapping: Presence and relative abundance of the subject plant will be recorded using a Trimble Pro XR, capable of sub-meter accuracy. GPS data will be used by County GIS personnel to create GIS maps that will be overlain on color air photos and depth contour lines (where available). Total plant coverage (depicted at various abundance levels) will be reported in acres.

Weevil population density surveys: Weevil density data will be based on the average number of weevils (all life stages) found per EWM stem sample (reported as “*weevils per stem*”). Weevil specimens found and counted will be extracted, preserved, labeled and retained as voucher specimens. Throughout the process specimens will be kept sorted by sample bed number, for comparison of average *weevils per stem* between beds.

Photographic documentation, when needed, will be taken using a digital camera. Documentation of volunteer activity will be recorded through volunteer logs, meeting minutes, workshop registrations and photographs.

Description of Existing and Proposed Partnerships

Partners of this study will include WDNR, Waushara County LCD, Adams County LCD, Portage County LCD, Golden Sands RC&D and UW-Stevens Point. The Adams County LCD, Portage County LCD, Waushara County LCD, Golden Sands RC&D and the WDNR have worked cooperatively on other projects, including the 2003-2005 Portage County EWM Studies, the Portage County Lake Study, the Adams County Lake Study, the Central Wisconsin Basin Partnership, the Central Wisconsin Windshed Partnership, RC&D Demonstration Forests project and the Central Wisconsin Farm Fresh Atlas project. (Example projects include at least two, but not necessarily *all* of the partners referred to above.)

Additionally, good relationships are being and will be forged between RC&D/LCD's and lake groups. While the duration of the Regional AIS Specialist position may be short, these relationships are expected to last and facilitate partnership on future projects.

Time Table

- Assessment, Waushara County = October 1st, 2006 – Spring 2007
- Clean Boats Workshops = Spring 2007
- Demo Field Days = Summer 2007
- Training on EWM ID/Hand-pulling, Portage County = Spring/Summer 2007
- Training for Weevil Surveys, Adams County = July - August 2007
- Assist in garnering funding for control plan implementation = (Project Duration)
- Release of Waushara County AIS Plan = December 2007
- Release of Final Report = December 2007

Plan for Sharing Project Results

A summary of Regional AIS Specialist activities will be provided with the final grant report. The Waushara County AIS Plan will be released in written format, provided with the final grant report, submitted to Portage County and made available as a downloadable PDF file on both the Waushara County and Golden Sands RC&D websites. Project personnel will strive to make the

information as useful as possible, to both the respective of lake groups and managers. A press release will be issued to announce the report completion and how to obtain a copy.