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SUBECT: TRI-COUNTY CLEAN BOATS, GLACIER LAND RC&D FINAL REPORT (MAY 2010 – DEC. 2011) GRANT AEPP-232-10;

DATE: DECEMBER 31, 2011

FROM: TOM WARD, WARD'S WOODS & WATERS ENVIRONMENTAL SERVICES LLC.

I. Project Summary

The project was initiated in April 2010 to hire paid boat inspectors for the summer boating season and conduct inspection with Duck hunters during the fall of 2010. The second phase of the project in 2011 was to focus on raising awareness of Aquatic Invasive Species (AIS) for: the public, citizen organizations and public officials. Glacierland Resource Conservation & Development (RC&D) served as the project sponsor, funded by an Aquatic Invasive Species Grant from the Wisconsin Department of Natural Resources. Tom Ward, retired Department director of the Manitowoc County Soil & Water Conservation Department and AIS Coordinator for the Manitowoc County Lakes Association (MCLA) was contracted as the consultant to perform the tasks identified in this project.

Calumet and Manitowoc Counties currently have an active AIS project in place to address their AIS issues. Multi-county coordination is proving to be effective with addressing regional AIS educational issues. Calumet and Manitowoc Counties successfully teamed up to conduct a "Stop Aquatic Hitchhikers" campaign. These three regional Counties share small glacial lakes along their boundaries that experience boating use between these lakes. They also share the same problems of invasive species distribution patterns of these same lakes.

The establishment of a leadership group of stake holders in Kewaunee County such as outdoor recreational groups; sporting organizations and clubs; government entities such as townships and cities; landowners and citizens; would help create a support base and forum to share knowledge about local invasives and create a unified project that would raise the awareness and educational programming on invasive species. This could be modeled after the Door County Invasive Species Team that has proven to be very successful in coordinating Door County efforts.

This effort would help produce the volunteers and individuals for boat inspection and waters monitoring, possible funding support, and most important the efforts necessary to maintain a sustained AIS program.

The primary goals of the project were:

- GOAL: Raise the awareness of the Public, Private Landowners, Citizen Organizations and Public Officials in the region to create an understanding that everyone needs to act and give priority to prevent the spread of invasive species.
- GOAL: Conduct Clean Boat inspections on priority lakes identified by AIS Coordinators; to reduce the spread of invasives species; educate and train boaters on steps to take to prevent the spread of invasives, and encourage volunteers to conduct water craft inspections.

For a detail summary of tasks and activities performed by the consultant under the project note details under objectives in this report.

II. Conclusions and Recommendations

A. Public Land and Rights-of-Way AIS Management

An inventory of AIS locations of all the County Trunk roads was conducted in the late fall of 2011. AIS sites within the right-of-way were mapped by coordinates and plotted by the Kewaunee County Land Information office. GIS access or a map layer of the AIS inventory can be obtained by calling the Land Information Office at 920-388-7130, located at 810 Lincoln Street, Kewaunee. See attached AIS map. Calumet and Manitowoc County have completed an invasive plant inventory and mapping.

112 sites were mapped on County Trunk roads. Due to the limitation of funding and time, Township road right-of-ways were not mapped with this project nor AIS sites located outside of the right-of-way. A complete inventory would be valuable to bench mark the spread of select invasive species in the county. By mapping the sites on County Trunks the County Highway Department can begin managing invasive species through the application of right-of-way best management practices (BMPS). The County also contracts to maintain many of the Township roads.

The late season mapping allowed for drive by observation of Phragmites (Giant Reed Grass), Teasel, and Japanese Knotweed. Due to some limited mowing and scheduled road mowing (County Highway does not mow all road right-of-ways in a given year but rotates each year), some of these plant species may not have been visible at the time of the inventory.

The primary Aquatic Invasive species mapped in Kewaunee County was Phragmites. This species displaces native cattails in our wetlands, resulting in habitat loss for nesting birds and the primary food source for muskrats. Phragmites primarily spreads by rhizomes growing into tall 6 to 10 foot high stands that clog drainage ways and create a fire hazards in residential areas. Mowing and moving soils containing root fragments may be the primary method of spreading.

Japanese Knottweed was also mapped, commonly found near residential areas due to it being planted as an environmental screen. This plant spreads by rhizomes, sending up shoots as far as 60 feet from the mother plant. This plant is deemed as nuisance because it prefers wet moist wetland soils and is very difficult to kill with common herbicides available to most home owners.

The Manitowoc County Lakes Association (MCLA) identified the dirty seven invasive species that they recommend Town and County public land and right-of-way managers target.

The Dirty Seven

- 1. <u>Common and Cut leaf Teasel</u>: planted by dried flower hobbyists, early stages of establishment
- 2. <u>Phragmites or Giant Reed Grass</u>: primary source from wetlands around Greenbay
- 3. Japanese Knottweed: escaped from ornamental plantings
- 4. Wild Parsnip: spreading in the area, plant sap can cause sever skin blisters, health hazard
- 5. Giant Hogweed: outbreak in Manitowoc county, health hazard causing skin blisters
- 6. <u>Spotted Knapweed</u> : found in sandy soils, emits its own chemical to suppress native plants
- 7. <u>Yellow Tansy:</u> attractive ornamental plant, spreading in the lake shore area.
- Purple Loostrife (can be controlled by a beetle)

B. Recommendations Public Land and Rights-of-Way AIS Management

Training and overview of BMPS to manage invasive species were conducted with staff from the Kewaunee County Land & Water, Parks, and Zoning Departments; Natural Resource & Conservation Service; County Highway Commission; and Land & Water Conservation Committee. A presentation was also conducted with the County Towns Association. A summary of this report and recommendations were provided to the staff and Departments in attendance.

County and Town Government are both eligible for the DNR Aquatic Invasive Species grants to help provide staff and programming on AIS needs. However the current political climate discourages local government from assuming any new responsibilities or increase of staff workload. In the absence of any local constituent pressure it's unlikely that local government will adopt a formal AIS program.

However, invasive species management can become part of staff job functions or duties, such as work safety, energy conservation, and electronic technology have.



These are typical phragmites right-of-way sites that can be eradicated by herbicide treatment before they spread to private properties. Hwy 42 North of Kewaunee to Algoma had one of the highest number of Phragmites sites.



Disposal of excavated soil containing the phragmites rhizome (picture on the right) can spread this plant to other areas of the County. Clean equipment before leaving an infested area.

1. Recommendations for Highway and Parks Rights-of-Way Managers:

The following recommendations and ideas are common sense suggestions that are part of the Invasive Species Best Management Practices for Transportation and Utility Rights-of-Way manual.

http://www.council.wisconsinforestry.org/invasives/transportation/pdf/ROW-Manual.pdf

Train your staff on AIS Best Management Practices

- **BMP RV 3:** Inspect clean clothing, foot wear and gear for soils, seeds, plant parts, or invertebrates before and after activities.
- **BMP RV 1**: Plan activities to limit the potential introduction and spread of invasive species prior to revegetation.
- **BMP SD 1**: Prior to implementing activities scout for and locate invasive species infestations, consistent with the scale and intensity of operations

Other BMP's to be knowledgeable of

BMP = Clean equipment before going into an <u>uninfested area</u>, or before leaving an infested area

BMP VM 6: Carefully dispose of soils seeds, plant parts or invertebrates found during inspection and cleaning.



GLRI - Invasive Species Recon Survey Town of Two Rivers

BMP TM 6: Use soil and aggregate material from sources that are free of Invasive Species.

BMP RV 2: Select appropriate species for re-vegetation and Landscaping Activities.

- Specify native or non-invasive nonnative species
- Avoid single species plantings, especially of known invaders such as Crown vetch
- Specify certified weed-free mulch

Vegetation Management:

- Mow before early flower and seed development
- Mowing after seed development will spread seeds
- Timing of mowing varies with species
- For most invasives, best to mow late June to early July

Staff Considerations

• Prioritize sites: are they close and threatening to spread to riparian areas, parks, significant wild areas; or are they small new locations?



This patch of Phragmites has expanded from the road right-of-way into the flood plain and riparian area of Scarboro Creek.

- Utilize the maps to plan your mowing schedules
- Choose a number of sites to chemically treat each year and follow up the following year.
- Practice and implement equipment cleaning procedures
- Use common sense.
- Become familiar with Right-Of-Way BMP manual.
- Advise contractors to clean equipment before entering a project area.
- On bid projects include this and other BMPs as a bid condition.
- Make invasive species management part of your job.

2. Recommendations for Land & Water, Zoning and Other Land Management Departments or Agencies

Staffs that commonly work in Departments of Zoning and Land & Water Conservation, UWEX, and the USDA NRCS offices interface with many local property owners regarding the management of local natural resources. They commonly have degrees in Biology, Natural Resources or Agronomy and are familiar with local native plant communities. Having knowledge of invasive species threats in the County, can help staff advise and provide information regarding Invasive Species management.

Many of the same staffs that conduct onsite or field work can also become a vector and spread invasive species as they travel to different properties in the county or region.

Actions and BMPs that Staff can implement with Invasive Species management

- 1. Staff involved in land disturbing projects that employ practices such as filling, renovating or vegetation management.
 - **BMP RV 1**: Plan activities to limit the potential introduction and spread of invasive species prior to revegetation.
 - Advise contractors to clean equipment before entering a project area.
 - Encourage landowners to include cleaning and BMP's in construction contracts and timber sales.
 - On bid projects include Invasive Species Mgt. BMPs as a bid condition.
 - **BMP SD 1**: Prior to implementing activities scout for and locate invasive species infestations, consistent with the scale and intensity of operations
 - **BMP VM 6:** Carefully dispose of soils seeds, plant parts or invertebrates found during inspection and cleaning.
 - **BMP TM 6:** Use soil and aggregate material from sources that are free of Invasive Species.
- 2. Staffs that administer ordinances that can impact invasive species management such as, Shoreland zoning buffer zone management.
 - **BMP RV 2:** Select appropriate species for re-vegetation and landscaping activities.
 - Specify native or non-invasive nonnative species
 - Avoid single species plantings, especially of known invaders (Crown vetch)
 - Specify certified weed-free mulch
 - Encourage removal of Invasive species in the 75 ft. Shoreland buffer corridor.

- 3. Departments that sell trees or plant materials:
 - Select only native species or non-invasive species; check against NR 40
 Prohibited and Restricted plant lists.
 - Check out plant mixes to be insured they are native species or the nursery does not have mixing equipment used with invasive species.
- 4. Develop bid or project specifications that include Invasive Species Mgt. BMPs.
- 5. Staff entering areas infested with invasive species:
 - **BMP RV 3:** Inspect clean clothing, foot wear and gear for soils, seeds, plant parts, or invertebrates before and after activities.

C. Clean Boats Clean Waters and AIS Awareness on Kewaunee County Public Access Waters.

The State's Clean Boats Clean Waters program that teaches the proper methods to clean boats and equipment and educate people about the new AIS law by water craft users is the primary tool to prevent the spread of AIS in our public waters.

Those steps are:

Before launching and before leaving a launch:

- INSPECT boats, trailers and equipment.
- REMOVE all attached aquatic plants and animals.
- DRAIN all water from boats, vehicles and equipment.
- NEVER MOVE live fish away from a water body. That means, if you want to take your catch home, drain water from it before leaving the landing. However, you can put the fish on ice.
- BUY YOUR BAIT only at Wisconsin bait dealers. You may take leftover minnows home in up to 2 gallons of water and use it again on the same water, or use it elsewhere if you have not added lake or river water to the bait container.

This project was designed to raise the awareness of the Clean Boats Clean Waters Program and understand the concern of AIS in the project area. Kewaunee County was targeted for this activity due to the lack of an AIS County wide program and boat inspection on County lakes. Public boat access sites to Lake Michigan was not part of this project due to the presence of seasonal paid boat inspectors provided by the UW Seagrant AIS programming. The following public access lakes inspected in Kewaunee County were:

- Shea; Heidmann; Krohn's; East and West Alaska
- Lily in Brown County

Public Access Lakes inspected in Manitowoc County were:

- Bullhead; Long; Cedar; Pigeon; Wilke; Tuma; Harpts; Silver; English; Horseshoe; Cedar, Weyers; Carstens and Spring Lakes.
- The two Calumet County lakes of Round and Becker Lakes because of winter fish kills in recent winters were not being fished and therefore did not warrant boat inspections.

In April 2010 two paid boat inspectors were hired for the summer boating season and conducted inspections with Duck hunters during the fall of 2010. Volunteer boat inspectors were also recruited to build a capacity of inspectors after this project ended.

The following graphs summarize the finding from the boat inspections conducted in 2010.

- <u>Awareness of AIS rules:</u> the over all awareness of boat inspections in Kewaunee County was only 27% compared to the state average of 90 plus %. Similar results of 35% awareness were identified during the first year of inspection in 2009 in Manitowoc County. Awareness levels as a result of the third year of boat inspections in Manitowoc County were raised to 75%.
- <u>Violation rates for AIS:</u> violations occurred on 46% of the inspections in Kewaunee County. Note that about 41% of the boats had plants and were not removing plants is the primary violation. Manitowoc County in 2010 with AIS programming had a rate of 14% violations with similar rates of plants present.
- <u>Inspection Data:</u> demonstrates the need for boater training on boat inspections in a County such as Kewaunee that is not conducting Clean Boats Programming.





All Project Counties









D. Recommendation Regarding Clean Boats Clean Waters and AIS Awareness on Kewaunee County Public Access Waters.

One of the goals of the project was to meet with outdoor recreational groups in Kewaunee County to create a support base or constituency that would advocate for invasive species programming. The following list of Sportsman groups was identified through the input of the Land Conservation Committee, Tri-Lakes Association Directors and the noted sports writer Kevin Naze.

- Muskrat City Sportsman club: Mark Prucka, Kewaunee
- Kewaunee Trap Club: Don Erdman
- New Franklin Sportsman Club: Ken Jonet
- Luxemburg Sportsman Club: Dick Stodola
- Black Ash Sportsman Club: Steve Paplham
- Great Lake Restoration Alliance: Lia Montgomery
- Great Lakes Sports Fisherman Kewaunee County: Jerry Haegele & Ed Coppersmith
- Tri-Lakes Association: Bill Iwen
- Kewaunee County Master Gardeners: Jerry Matuszek or Kris Fulwiler

Of the Conservation Organizations the Great Lakes Sports Fisherman was the only group that agreed to a presentation on Invasive Species and a report on the Boat Inspection results. However none of their membership attended the Asian Carp program which would impact Great Lakes fishing. The remaining Sportsman clubs primarily operated trap shooting ranges and did not have membership information meetings or felt a hunting organization would not be interested in AIS.

The Tri-Lakes Association, which represents East & West Alaska Lake and Krohn's Lake, were very cooperative. However Association sponsored events were also ill attended by the general membership. Attendance to a presentation on the results of the boat inspections, by Property owners on Shea, Heidmann, and Harpts Lake were well attended.



A core of Tri-Lakes Association members were trained on Clean Boat Inspection procedures and AIS monitoring techniques. With the Alum treatment on East Alaska in the fall of 2011 it is possible that the Lake Residents will contact boaters on their lake regarding the Clean Boats Inspection procedures.

This table identifies the AIS species found in Kewaunee County Lakes. As you can see all the primary public access lakes have AIS, this means they are apparently vulnerable to AIS spread and future introductions of species like Spiny Water Flea and Zebra Mussels are also a threat.

Waterbody Name	Waterbody ID Code (WBIC)	Invasive Species
East Alaska Lake	94200	Curly-Leaf Pondweed, Eurasian Water-Milfoil
Heidmann Lake	85200	Eurasian Water-Milfoil
Krohns Lake	94700	Curly-Leaf Pondweed, Eurasian Water-Milfoil
Shea Lake	85400	Curly-Leaf Pondweed, Eurasian Water-Milfoil
West Alaska Lake	94300	Curly-Leaf Pondweed, Eurasian Water-Milfoil

Recommendations for future AIS management in Kewaunee County

- WDNR staff should continue to assist Tri -Lakes Association with AIS programming. Water guards, Wardens, AIS staff and Seagrant student boat inspectors need to conduct limited boat inspections on County Lakes during peak boating months of May and June.
- Manitowoc & Door County AIS Coordinators should direct their AIS events to media sources in Kewaunee County. Shared programming with Kewaunee County would help improve the publics AIS awareness.
- Direct mailing to property owners on the five public access lakes is an effective method to raise awareness of AIS management.
- The spread and the number of sites of Phragmites and Japanese Knottweed (JK) in Kewaunee, Calumet and Manitowoc County is at a level that can be controlled with a targeted and aggressive herbicide treatment initiative.
- The Great Lakes Initiative (GRLI) is a potential funding source to help chemically treat mapped sites of Phragmites and JK. A multi County agency such as Glacierland RC&D or Baylakes Regional Planning should consider drafting a grant application.
- An inventory of all AIS sites needs to be conducted in Kewaunee County to establish a benchmark beyond the inventory conducted by this project. The Land & Water Department or Baylakes Regional Planning should complete the inventory.
- County and Local Government can implement basic AIS BMPs on public property and right-of-ways as a part of every land managers job.
- AIS Transport laws needs to be enforced by WDNR and the County Sheriffs Department.

Citation for NR 30.07(2)a- <u>Launching</u> or <u>placing</u> a vehicle, boat trailer, equipment, or gear of any type into the waters of the State, which has an aquatic plant or aquatic animal attached to the exterior.

The new "transport law" requires boats to be clean of Aquatic Invasive Species (AIS) and not to leave the landing and hit the highway with aquatic plants or animals attached.

• Proximity to Lake Michigan and the Bay of Greenbay increases the vulnerability of future AIS threats to inland lakes like the Spiny Water Flea, Zebra Mussels, New Zealand Snail to name a few, if AIS management is not taken seriously.



This table illustrates the rate of infestation over time of an invasive species after it is introduced in a non-native environment. Eventually the species will naturalize and commonly displace native species. Phragmites and Japanese Knottweed in the project area are at stage (3); we have time to attempt eradication or a least slow the process (in some cases until biological control measures can be developed). At Stage (4), the species has become established and costs to control are prohibitive.

E. Summary of Project Goals, Tasks and Accomplishments

GOAL: Raise the awareness of the Public, Private Landowners, Citizen Organizations and Public Officials in the region to create an understanding that everyone needs to act and give priority to prevent the spread of invasive species.

Objectives:

- 1. Identify and organize stakeholders in Brown & Kewaunee Counties to invite to a series of forums on AIS issues.
 - a. Task: develop a mailing list of contacts: completed for Lake Property owners and numerous sportsman groups.
 - b. Task: Identify program agenda and forum contents to include: presentation of regional AIS efforts and experiences, review of NR 40 requirements, assessment of local known AIS issues and sites, review of BMPs and measures to reduce impacts of AIS.
 - Completed an inventory and mapped of all County road trunks right-of-ways to provide a map and site locations for road right-of-way management.

- Selected BMPs from the Right-of-Way Managers hand book that best apply to County AIS needs.
- Developed a power point presentation to be used with Towns and County highway.
- Fielded the presentation with a cluster of Town in Manitowoc County early September of 2010.
- c. Task: *include the prohibited invasive species list in chapter NR 40 for presentation at the forums.* Provided as a handout to highway committee and staff.
- d. Task: conduct at least one presentation on Rights-of-Way BMPs and management in Kewaunee County.
 - Conducted AIS training on BMPs for County staff on 11-16-2011.
 - Conducted AIS training with 46 Town Supervisors and guests at the Kewaunee County Towns Association on December 28-11.
 - Conducted AIS training on road right-of-way BMPs with the Kewaunee County Highway Commission on December 7, 2011.
 - Provided handouts to all of the above audiences.
- 2. Schedule a series of forums to be conducted in the Brown/Kewaunee area to begin a dialog and education of AIS needs for the region.
 - a. Task: Identify location and speakers for the forums.
 - Met with the Kewaunee County Land Conservation Committee in March to identify county contacts and report results of the boat inspections.
 - Met with RC&D Council in August 2010 to raise awareness of AIS programming and needs.
 - Scheduled the finale program on June 29, 2011 in Kewaunee County featuring the Status of Asian Carp entry to Lake Michigan presented by Dr. Phil Moy, Seagrant Program.
 - b. Task: Coordinate program announcements, schedule dates and locations.
 - Conducted a presentation with the Algoma, Kewaunee Area Great Lakes Sport Fisherman on May 12, 2011.
 - Conducted a presentation to property owners on Harpts, Shea, Tuma, Heidmann and Engledinger Lakes on May 19, 2011.
 - Conducted a presentation with Tri-Lakes Association (East/West Alaska and Krohns lakes) for Saturday May 21, 2011.
 - c. Task: Facilitate the forums and record discussions of the group.
 - Utilized public input from the presentations for development of this final report.

- d. Task: encourage the recruitment of AIS monitors and direct them to the Woodland Dune/Manitowoc County monitor training program.
 - E-mail training session dates to Tri-Lakes Officers for two sessions held in 2010.
 - Conducted Clean Boats Clean Waters, boat inspection and AIS monitor training at the East Alaska Boat landing for Tri-Lakes Association with DNR staff on July 21, 2011.
- e. Task: Develop news releases on the scheduled events and CBCW boat inspections.
 - Published article in news papers announcing the inspections. (Copied)
 - Placed posters through out the County along with news releases announcing the Asian Carp finale program.

GOAL: Conduct Clean Boat inspections on priority lakes identified by AIS Coordinators; to reduce the spread of invasives species; educate and train boaters on steps to take to prevent the spread of invasives, and encourage volunteers to conduct water craft inspections.

Objectives:

- 1. Provide a Clean Boats Inspector to conduct boat inspections at priority Lakes identified by County AIS coordinators and to provide training, experience and support to encourage volunteers to continue Clean Boat programming.
 - a. Task: An Inspector will be contracted or hired to conduct inspections from Memorial Day thru opener of waterfowl seasons.
 - Candidates for two inspectors were interviewed and inspectors Danielle Sipple and Adam Gronke were hired by mid-may.
 - Danielle inspected at lakes in Manitowoc and Calumet counties; Adam inspected at lakes in Brown, Manitowoc and Kewaunee counties.
 - b. Task: AIS coordinators will identify, train and schedule volunteers to train with the inspector.
 - Three volunteers were recruited in to help in Kewaunee County and 5 in Manitowoc Counties.
 - Contractor worked with each inspector during the first three weeks of the season.
 - c. Task: Communicate weekly with inspector and coordinators and points of contact.
 - Contractor scheduled inspectors each week and provided them with hats, apron, shirts, handouts and equipment.

- 2. Provide boat inspections on lakes that do not have sufficient residents or volunteers to conduct a volunteer Clean Boat inspection.
 - a. Task: Identify priority Lakes and schedules for inspection.
 - Met with Kewaunee county Parks Director and identified boating use levels at the various boat landing to target inspections.
 - b. Task: Manitowoc AIS coordinator will identify and schedule volunteers to train with the inspector.
 - Contractor contacted volunteer boat inspectors for the following week's inspections and coordinated inspection times. Notified lake leaders when inspectors were scheduled at their lakes.
 - c. Task: Schedule the boat inspectors on Lake Michigan access sites with the Seagrant staff and target inspections during the fall salmon run.
 - Inspection time was applied to inspecting Duck hunters during this time frame.
- 3. Target waterfowl boat access locations during the waterfowl opener to begin programming Clean Boat skills on non-traditional boat launches where the spread of AIS is threatening public wetland ecosystems.
 - a. Task: identify and provide BMP's and educational materials targeted to waterfowl hunters. Contractor developed handouts for boat inspectors that was provided to duck hunters.
 - b. Task: coordinate activities and schedule with the area WDNR Wildlife managers. Identified the sites frequented by Duck hunters for boat inspections.
- 4. Expand coverage of boat inspections in the region where there are adjoining lakes in multiple political jurisdictions.
 - a. Task: as identified by coordinators. This project offered an opportunity to provide inspections to the lakes adjoining Manitowoc County and forming a cluster of small lakes: Tuma & Harpts Lake Manitowoc; and Shea, Heidmann, and Engledinger in Kewaunee County. All of the lakes in this cluster were found to have EWM and Curley leaf pondweed.
 - b. Conducted Monitor & Clean Boat Inspection training for Tri-lakes residents on July, 2011.

NEWS RELEASE

DATE: JUNE 27, 2010

BY TOM WARD; AQUATIC INVASIVE SPECIES COORDINATOR FOR THE MANITOWOC COUNTY LAKES ASSOCIATION

"Regional Inland Lakes Get Help with Boat Inspections"

Expect to see Boat inspectors at regional inland Lakes for a first time in Kewaunee, Calumet, Brown and Manitowoc Counties, this holiday week end thru this fall, teaching water craft users how to inspect their watercraft for aquatic invasive species. Two part time inspectors have been hired by the Glacierland Resource & Conservation Development Inc. (RC&D), thru a DNR AIS grant

This regional approach to inspecting boats on area lakes is important to spreading the word to boaters traveling across county lines with a potential to move aquatic invasive species. According to Tom Ward AIS coordinator for the Manitowoc County Lakes Association adjoining counties like Brown and Kewaunee Counties have not conducted aquatic invasive species programming with area boaters to help educate Lake users on AIS prevention methods. Last year was the first year in Manitowoc County to conduct boat inspections and over 65% of the boaters had not been through a boat inspection. Many understand the AIS problem but do not know how to thoroughly go through their boat and trailer looking for and removing vegetation and animal.

Glacierland RC&D boat inspectors will help raise the knowledge level of Clean Boats Clean Waters Boat Inspection program and update them on the new "transport law" that requires their boat to be clean of Aquatic Invasive Species (AIS) and they can't leave the landing and hit the highway with aquatic plants or animals attached. A first citation of the transport law carries a penalty ranging from \$232 to \$767.50 and a second offense within three years carries a penalty that ranges up to \$2,657.

Volunteer boat inspectors will be working at boating landings as well, helping educate people about the new law, inspecting boats, and demonstrating the required prevention steps. Those steps are:

Before launching and before leaving a launch:

- INSPECT boats, trailers and equipment.
- REMOVE all attached aquatic plants and animals.
- DRAIN all water from boats, vehicles and equipment.
- NEVER MOVE live fish away from a water body. That means, if you want to take your catch home, drain water from it before leaving the landing. However, you can put the fish on ice.
- BUY YOUR BAIT only at Wisconsin bait dealers. You may take leftover minnows home in up to 2 gallons of water and use it again on the same water, or use it elsewhere if you have not added lake or river water to the bait container.



		20
Chapter NR 40 Regulated Plants		V_CS_ 6.30.2011
Prohibited Statewide		*designa tes aquatic
Common Name	Scientific Name	Species
Australian swamp crop or New Zealand pygmyweed*		Notes
Rrazillian waterweed*	Ederia densa	
Brittle paiad or Lesser Bushy Slender Spiny or Minor	Najas minor	
naiad or Waternymph*	ivajas minor	
Chinese vam	Dioscorea oppositifolia	
European Frogbit*	Hydrocharis morsus-ranae	
Fanwort *	Cabomba caroliniana	
Giant hogweed	Heracleum mantegazzianum	
Giant knotweed	Polygonum sachalinense	Includes hybrids
Hydrilla*	Hydrilla verticillata	
Japanese honeysuckle	Lonicera japonica	
Japanese stilt grass	Microstegium vimineum	
Kudzu	Pueraria montana	Also known as Pueraria Iobata
Mile-a-minute vine	Polygonum perfoliatum	
Oxygen-weed, African elodea, or African waterweed*	Lagarosiphon major	
Pale or European swallowwort	Vincetoxicum rossicum =	
	Cynanchum rossicum	
Parrot feather*	Myriophyllum aquaticum	
Perennial or broad-leaved pepper-weed	Lepidium latifolium	
Porcelain berry	Ampelopsis brevipedunculata	Includes the variegate d cultivar
Princess tree	Paulownia tomentosa	· · · · ·
Sawtooth oak	Quercus acutissima	
Scotch broom	Cytisus scoparius	
Sericea or Chinese lespedeza	Lespedeza cuneata =	
	Lespedeza sericea	
Spreading hedgeparsley	Torilis arvensis	
Water chestnut*	Trapa natans	
Wineberry or Wine raspberry	Rubus phoenicolasius	
Yellow floating heart *	Nymphoides peltata	
Yellow star thistle	Centaurea solstitialis	
Restricted Statewide		
		Notes
Autumn olive	Elaeagnus umbellata	
Canada thistle	Cirsium arvense	
Common buckthorn	Rhamnus cathartica	
Common teasel	Dipsacus sylvestris = Dipsacus fullonum	
Creeping belifiower	Campanula rapunculoides	
Curly-leaf pondweed*	Potamogeton crispus	
Cut-leaved teasel	Dipsacus laciniatus	
Cypress spurge	Euphorbia cyparrissias	
Dame's rocket	Hesperis matronalis	I
Eurasian watermiltoil*	Myriophyllum spicatum	Includes hybrids
Flowering rush *	Butomus umbellatus	
Garlic mustard	Alliaria petiolata	
Giossy buckthorn	Rhamnus trangula = Frangula alnus	Includes cultivar Columnaris (tall hedge). Excludes cultivars Asplenifolia and Fineline

Summary of Notes from Aquatic Invasive Species Training Kewaunee County staff November 16, 2011

(Tom Ward, 920-588-0047 or tomward@tm.net)



Definitions:

- **NATIVE** indigenous species naturally occurring in a specific area or plant community, not introduced
- EXOTIC / NON-NATIVE / ALIEN
 - non-indigenous species that have been purposefully or accidentally introduced to an area
 - Non-naturalized (cultivated) corn is non-native
 - Naturalized Reproducing and establishing (Canary Grass)

INVASIVE - are non-native species or strains that establish in natural plant communities and wild areas <u>and replace native vegetation</u>

• **WEEDS** – plants that grow aggressively in agricultural and disturbed areas or where we don't want them, such as corn growing in a soybean field.

Role of County Staff in AIS Management

- Involved in land disturbing projects that employ practices such as filling, renovating or vegetation management.
- Administer ordinances that can impact invasive species management such as Shoreland zoning buffer management.
- Sell trees or plant materials
- Develop bid or project specifications
- Enter areas infested with invasive species
- Advise the public on land management activities
- Are knowledgeable on plant species identification

The Dirty Seven

- 8. Common and Cut leaf Teasel.
- 9. <u>Phragmites or Giant Reed Grass</u>
- 10. Japanese Knottweed
- 11. Wild Parsnip
- 12. Giant Hogweed
- 13. Spotted Knapweed
- 14. <u>Yellow Tansy</u>
- Purple Loostrife (can be controlled by a beetle)



Phragmites or Giant Reed

Common and Cut leaf Teasel



Japanese Knotweed

Wild Parsnip

Spotted knapweed (Centaurea maculosa)



Yellow Tansy

Agency Staff Considerations on AIS Management

- Advise contractors to clean equipment before entering a project area.
- Encourage landowners to include cleaning and BMP's in construction contracts.
- (To include timber harvest)
- On bid projects include this and other BMPs as a bid condition.
- Make invasive species management part or you job.

Train you staff on AIS Best Management Practices

- **BMP RV 3:** Inspect clean clothing, foot wear and gear for soils, seeds, plant parts, or invertebrates before and after activities.
- **BMP RV 1**: Plan activities to limit the potential introduction and spread of invasive species prior to revegetation.
- **BMP SD 1**: Prior to implementing activities scout for and locate invasive species infestations, consistent with the scale and intensity of operations

Other BMP's to be knowledgeable of

BMP = Clean equipment before going into an <u>uninfested area</u>, or before leaving an infested area

BMP VM 6: Carefully dispose of soils seeds, plant parts or invertebrates found during inspection and cleaning.

BMP TM 6: Use soil and aggregate material from sources that are free of Invasive Species.

BMP RV 2: Select appropriate species for re-vegetation and Landscaping Activities.

- Specify native or non-invasive nonnative species
- Avoid single species plantings, esp. of known invaders
- Specify certified weed-free mulch

Property Owners on Shea, Heidmann, Engledinger, Chada, Harpts and Tuma

Lake	LastName	FirstName	Address1	Address2	City	State	Zip
Shea	Jones	Gerald & Patricia	N1003 Manitowoc Rd.	PO Box 69	Denmark	WI	54208
Shea	Vanderloop	Harold	E1048 Cty Rd. KB		Denmark	WI	54208
Shea	Wilinski	Walter	E1274 Cty Rd. KB		Denmark	WI	54208
Shea	Rabas	Wayne	E0245 Pine Grove Rd.		Luxemburg	WI	54217
Shea	Doehler	John	E1108 Shady Acre Lan		Luxemburg	WI	54217
Shea		Kewaunee Count	810 Lincoln St.		Kewaunee	WI	54216
Shea	Bradley	Frank	E1076 County Rd. KB		Denmark	WI	54208
Heidmann	Engeldinge	Gary	2172 Sunnymede Lan		Green Bay	WI	54311
Heidmann	Duckart	Benedict	E1228 Bolt Rd.		Denmark	WI	54208
Heidmann	Steffel	Alvin	E1272 Bolt Rd.		Denmark	WI	54208
Heidmann	Helmer	David	3116 Maplewood Rd.		Two Rivers	WI	54241
Heidmann		MJM Partnership	1814 Kellner St.		Manitowoc	WI	54220
Heidmann	Verdonck	Michael	2955 Arrowwood Tr.		Riverwoods	IL	60015
Heidmann	Schetter	Nicholas	513 Pameto Rd.		Nokomis	FL	34275
Heidmann	Christense	Lynn	7120 Longboat Dr. E		Longboat Key	FL	34228
Heidmann	Meyer	James	1329 Kellner St.		Manitowoc	WI	54220
Engledinge	Skubal	Lester	E1099 Cty Rd. KB		Denmark	WI	54208
Engledinge	Bradley	Wayne	E1411 Bolt Rd.		Denmark	WI	54208
Engledinge	Hruska	Robert	PO Box 957		Green Bay	WI	54305
Engledinge	Rich	Janice	N0856 Cty Rd. Q		Denmark	WI	54208
Engledinge	Engeldinge	Victor	2508 38th St.		Two Rivers	WI	54241
Chada	Chada	Charles	N0483 Cty Rd. Q		Denmark	WI	54208

CHERNEY	CHARLES & NANCY	6205 N LAKE ROAD	MISHICOT	WI	54228	Harpt Lake
DELLEMAN	PAUL & DEB	4920 HWY 147	MARIBEL	WI	54227	Harpt Lake
HARTMAN	LYLE	1205 S 32ND STREET	MANITOW	WI	54220	Harpt Lake
LARRABEE		PO BOX 196	MISHICOT	WI	54228	Harpt Lake
NOVACHE	PAUL	4504 TWIN BRIDGE R	MISHICOT	WI	54228	Harpt Lake
SCHOENK	DONALD	1113 - 29TH STREET	TWO RIVE	WI	54241	Harpt Lake
SKARVAN	CHRISTINE	16305 HARPT LAKE R	MISHICOT	WI	54228	Harpt Lake
STELZER	PETER & MARY	919 N 13TH STREET	MANITOW	WI	54220	Harpt Lake
STUECK	MICHAEL	6404 POLIFKA RD	WHITELA	WI	54247	Harpt Lake
STUECK	MARILEE	7136 Tannery rd.	TWO RIVE	WI	54241	Harpt Lake
TUSCHEL	PAUL	16305 HARPT LAKE R	MISHICOT	WI	54228	Harpt Lake
REZEK	GLENN & MARLENE	5916 N. LAKE RD.	MISHICOT	WI	54228	HARPTS
RATHSACK	ANTON & KATHLEEN	2741 - 35TH STREET	TWO RIVE	WI	54241	Tuma Lake
TADYCH T	JAMES	602 MEADOW LANE	BRILLION	WI	54110	Tuma Lake