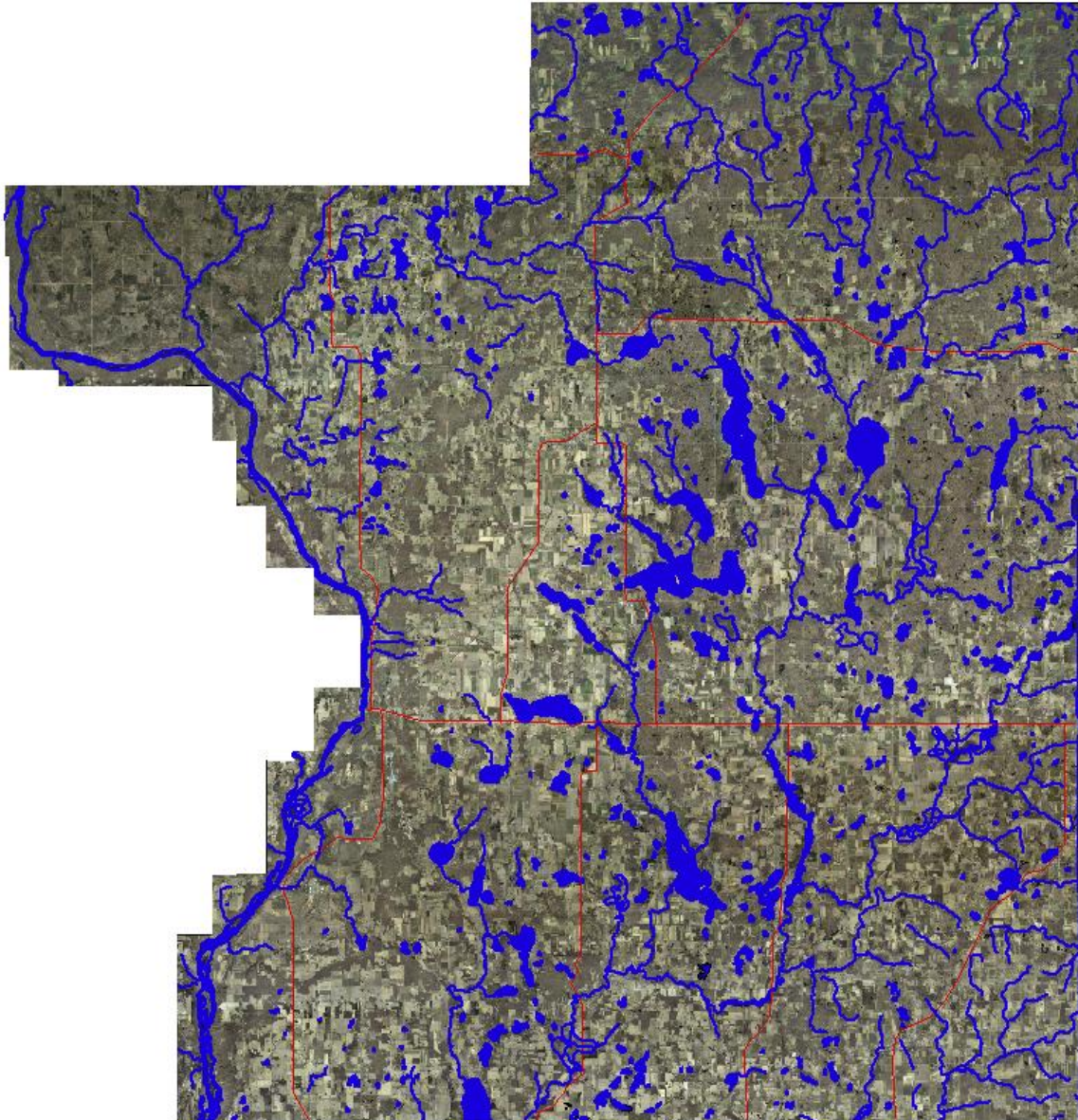


Polk County Aquatic Invasive Species Education, Prevention, and Planning Control WDNR Grant

2012 Update



Prepared by Polk County Land and Water Resources Department

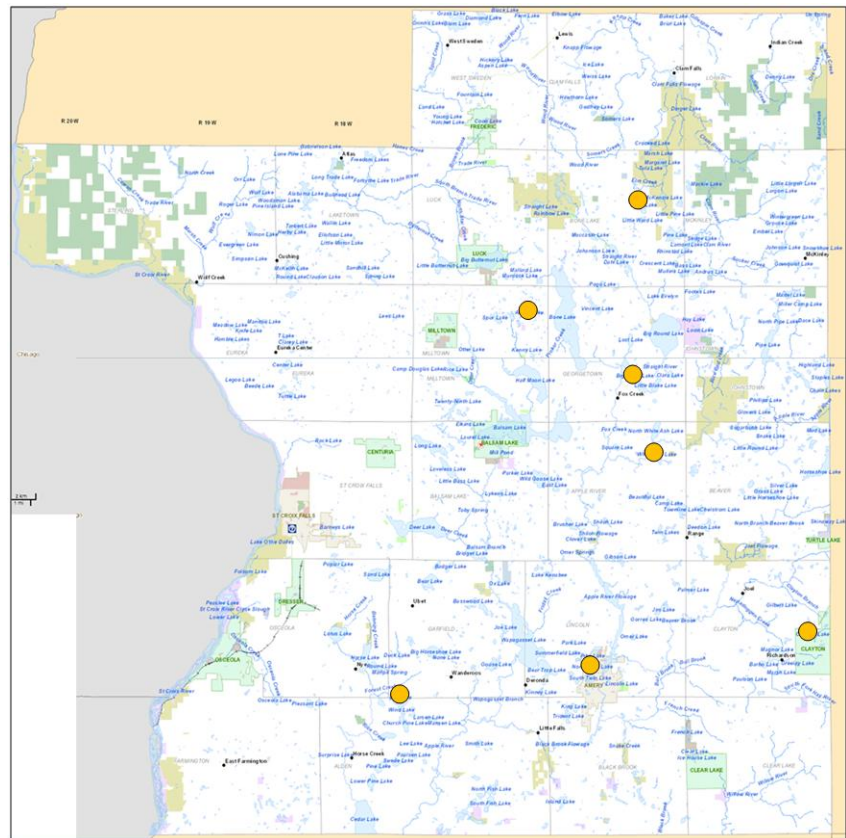
In April 2012, the Polk County Land and Water Resources Department received a two year Aquatic Invasive Species Education, Prevention, and Planning Control Grant from the Wisconsin Department of Natural Resources. The following report details the tasks completed from April 2012 through December 2012. Deliverables to be completed from January 2013 to December 2013 will be highlighted at the end of the report.

AIS Early Detection Smart Prevention Protocol

In 2012 the Polk County LWRD partnered with the WDNR to implement the AIS early detection smart prevention protocol on Polk County Lakes.

Seven Polk County lakes were randomly chosen for monitoring in 2012.

- ✓ Ward lake
- ✓ Antler Lake
- ✓ Big Blake Lake
- ✓ White Ash Lake (South)
- ✓ Big Lake
- ✓ North Twin Lake
- ✓ Camelia Lake



Data for secchi depth, conductivity, and GIS location of AIS populations was entered into the Surface Water Integrated Monitoring System (SWIMS). Aquatic plant specimens were sent to the UW-Stevens Point Herbarium, waterflea and veliger samples were sent to the Wisconsin DNR, and snail specimens were sent to UW-La Crosse Biology Department.

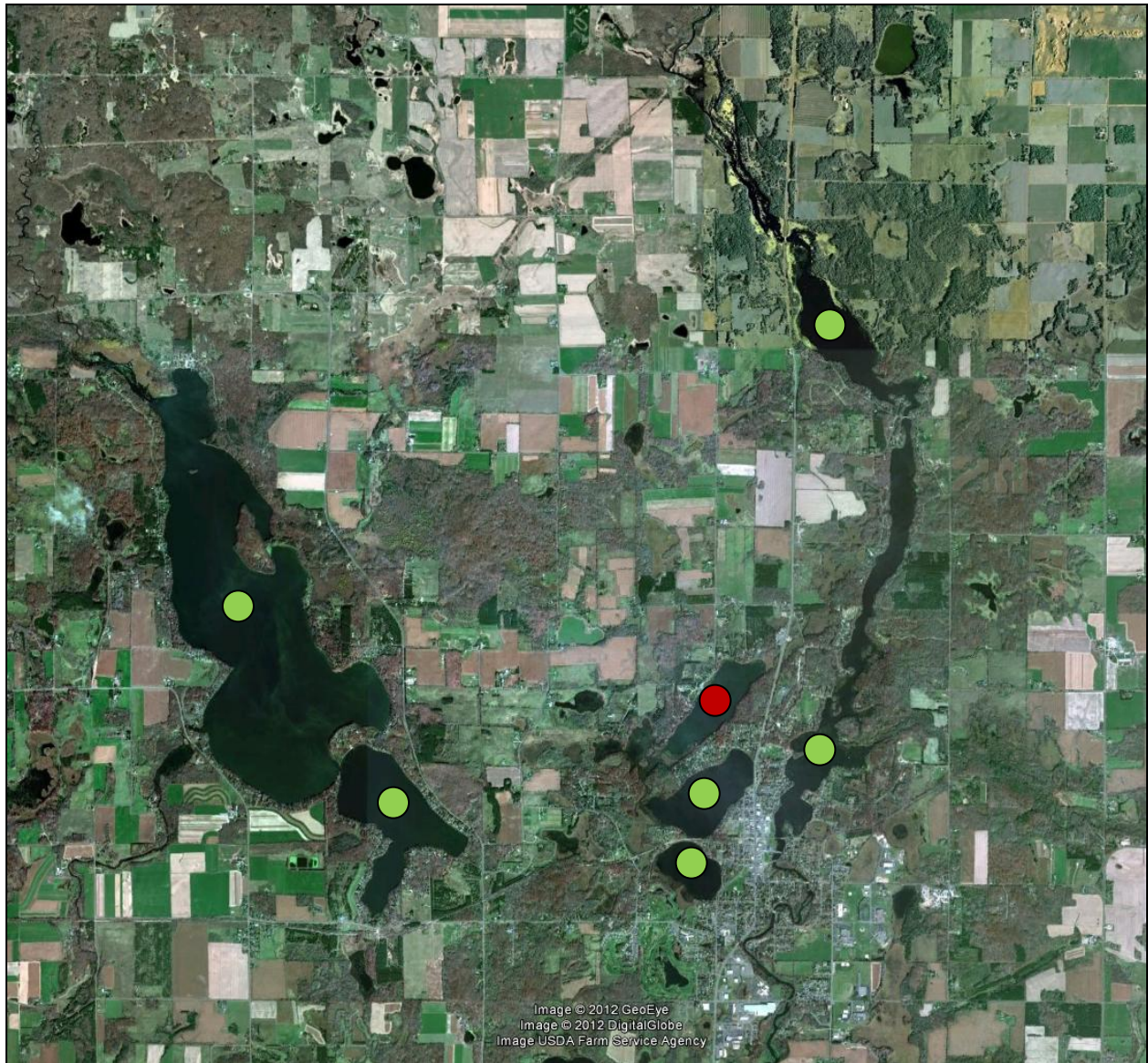
The most pervasive invasive species was the Chinese mystery snail which was found in all seven 2012 Polk County Lakes. Banded mystery snail shells were found at two of the lakes (Big Blake Lake and Big Lake). Purple loosestrife (already documented) was found at three of the lakes (North Twin Lake, White Ash Lake, and Big Lake). Curly leaf pondweed was found at Big Lake where it had been previously documented.

Lake	WBIC	Date	Secchi depth (ft)	Conductivity ($\mu\text{s/s}$)	AIS present	Density	Latitude	Longitude						
North Twin	2623900	7/5/12	14	234	Chinese mystery snail	1	45.18822	92.21982						
						1	45.18716	92.22254						
						1	45.18964	92.22246						
						1	45.19074	92.21937						
						1	45.18935	92.21869						
					Purple loosestrife	1	45.18742	92.22507						
Ward Lake	2599400	7/30/12	7	42	Chinese mystery snail	1	45.36184	92.19398						
						1	45.36076	92.19121						
						1	45.36219	92.19136						
						1	45.36506	92.19119						
						2	45.36649	92.19200						
						1	45.36504	92.19286						
White Ash Lake	2628600	7/31/12	2.5	223	Chinese mystery snail	3	45.26784	92.18373						
						1	45.26960	92.18614						
						3	45.27166	92.18866						
						3	45.27119	92.18722						
						1	45.26929	92.18829						
						3	45.26714	92.18757						
											Purple loosestrife	1	45.26962	92.18970
											Purple loosestrife	1	45.27145	92.18975
											Narrow leaf cattail	1	45.26714	92.18757
						Antler Lake	2449400	8/3/12	10.5	35	Chinese mystery snail	1	45.32460	92.25542
2	45.32139	92.25647												
4	45.32287	92.25359												
2	45.32248	92.25177												
1	45.32380	92.25383												
1	45.32294	92.25615												

Camelia Lake	2079400	8/10/12	4	43	Chinese	1	45.20059	92.10359
					mystery snail	1	45.20139	92.10307
						1	45.20184	92.10332
						1	45.19939	92.10779
						1	45.20018	92.10657
					Narrow leaf cattail along shoreline			
Big Blake Lake	2627000	8/13/12	1.5	167	Chinese	1	45.29402	92.19438
		8/23/12			mystery snail			
					Banded mystery snail shell at 3 sites			
Big Lake	2615900	8/27/12	4	183	Purple	3	45.17446	92.32183
					loosestrife	1	45.18115	92.32301
						1	45.17658	92.32957
					Chinese	1	45.17446	92.32183
					mystery snail	1	45.18115	92.32301
						1	45.17808	92.32816
						1	45.17732	92.31939
					Curly leaf pondweed	1	45.17658	92.32957
					Banded mystery snail shell at 1 site			

Eurasian water milfoil

Wapogasset Lake, Bear Trap Lake, North Twin Lake, South Twin Lake, and the Apple River Flowage were all reconnoitered for Eurasian water milfoil due to their proximity to Pike Lake which has an established population of Eurasian water milfoil. Fortunately, Eurasian water milfoil was not found on any of the lakes sampled.



In July 2012, LWRD hand pulled Eurasian water milfoil on Pike Lake with Steve Schieffer, Lake Resident and Amery Lakes Board President.

Purple Loosestrife

Polk County LWRD partnered with the Luck Girl Scouts to raise and release *Galerucella* beetles for purple loosestrife control. On May 29th LWRD presented background information to the Girl Scouts regarding aquatic invasive species with a specific focus on purple loosestrife. The beetles were later released in the Luck wetland.



Additionally, LWRD responded to two novel purple loosestrife sites in Polk County. At both sites flowers were cut and bagged and remaining foliage was sprayed with herbicide.

Clean Boats, Clean Waters

The Clean Boats, Clean Waters program is an opportunity for citizens to conduct a boater education campaign in their community. Through Clean Boats, Clean Waters, volunteers are trained to organize and conduct watercraft inspections that help stop the movement of aquatic invasive species across the state.

Polk County LWRD provided Clean Boats Clean Waters training for two lake organizations in 2012.

Balsam Lake, April 24th, 2012: 29 participants

Horseshoe Lake, June 9th, 2012: 36 participants

Additionally, LWRD presented an overview of the Clean Boats Clean Waters program at the Big Round Lake District Annual Meeting on June 23rd, 2012. This presentation included a copy of the data collection sheet for each attendee.

LWRD also provided answers about the Clean Boats, Clean Waters program to lake organizations interested in starting a Clean Boats, Clean Waters program (the Apple River Flowage, Amery Lakes, Big Butternut Lake, and Paulson Lake).



Clean Boats, Clean Waters Story Hour

In 2012, LWRD implemented the Clean Boats, Clean Waters Story Hour developed by the WDNR for nine groups across Polk County.

- ✓ Balsam Lake Library, June 13th: 10 participants
- ✓ Dresser Library, June 25th: 18 participants
- ✓ Clear Lake Library, June 27th: 11 participants
- ✓ Clear Lake Library, June 28th: 13 participants
- ✓ Family Camp at West Denmark Church, July 3rd: 13 participants
- ✓ Milltown Library, July 10th: 23 participants
- ✓ Amery Library, July 25th: 90+ participants
- ✓ Osceola Library, July 25th: 5 participants
- ✓ St. Croix Falls Library, August 1st: 15 participants



Education and Outreach

Polk County LWRD delivered AIS education and outreach at numerous events and meetings throughout Polk County for a variety of audiences.

- ✓ Earth Day at the Recycling Center (4th and 5th graders County-wide), April 20th 2012: 700 participants
- ✓ Clayton School 3rd grade field trip, May 29th 2012: 44 participants
- ✓ Loveless Lake Association May 2012 Newsletter
- ✓ NW WI Lakes Conference, June 22nd 2012, (display board)
- ✓ White Ash Lakes District Fair, June 23rd 2012
- ✓ Wild Goose Lake Annual Meeting, July 14th 2012: 14 participants
- ✓ 2012 Polk County Fair Education Tent: July 26th- 29th 2012
- ✓ Loveless Lake August Newsletter
- ✓ Bone Lake Annual Meeting, August 11th 2012 (display board and specimens)
- ✓ Hunters Night Out, August 29th 2012
- ✓ Amery 4th grade classroom presentations, September 27th 2012: 30 participants
- ✓ Boy Scouts Invasive Species Merit Badge Pilot, October 6th 2012: 500 participants
- ✓ Mr. Y's St. Croix Falls 5th grade camp, October 9th 2012
- ✓ Amery Lakes 2012 newsletter



Lake Maps

Polk County LWRD, in collaboration with the Polk County Association of Lakes and Rivers, produced and printed lake/AIS flyers for seven lake organizations. The two sided flyers were printed in full color on waterproof paper, 8.5 x 11 inches. One side of the flyer has a contour bathymetric map of the lake with relevant information such as maximum depth, acres, and species of fish present and the other side of the flyer has AIS prevention information, Clean Boats, Clean Waters information, and emergency phone numbers.

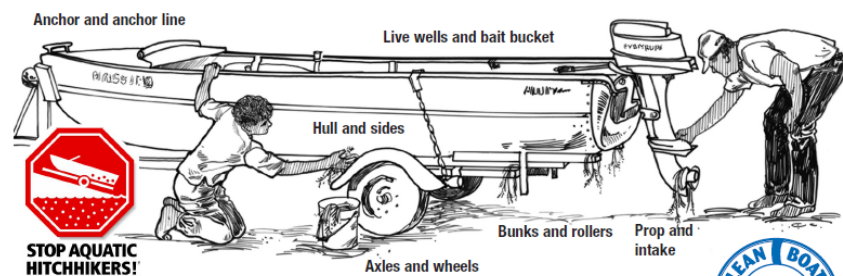
Although the grant paid for the professional design work of the flyers, lake organizations were required to pay for individual printing costs.

Participating lakes included:

- ✓ North and Pipe Lakes
- ✓ Apple River Flowage
- ✓ Big Butternut Lake
- ✓ Bone Lake
- ✓ Big, Round, and Church Pine Lakes
- ✓ Big Blake Lake
- ✓ Balsam Lake

Stop aquatic hitchhikers...

Clean your boat and equipment to prevent the spread of invasive species!



In Wisconsin it's the law*... failure to follow these steps can lead to fines up to \$2000.

Aquatic invasive plants and animals like Eurasian water milfoil, Curly leaf pondweed, rusty crayfish, and zebra mussels are easily transported by boats and equipment as boaters travel from one lake to another. The fish disease Viral Hemorrhagic Septicemia (VHS) is easily spread when fish are transported from one waterbody to another.

It is important for all of us to follow these preventative steps for all water activities, not just boating and fishing. These activities include:

- Using personal watercraft
- Shore and fly-fishing
- Sailing
- Scuba diving
- Waterfowl hunting

Be diligent! Even small fragments, roots or seeds transported by your boat can grow and infest another lake.

Before you leave a body of water:

- **Inspect** boats, trailers, and equipment.
- **Remove** all attached aquatic plants, animals, and mud before launching and before leaving the water access.
- **Drain** all water from boat, motor, bilge, live wells, bait containers and equipment before leaving the water access.
- **Never move** plants, live fish, bait, or fish eggs away from a water body.
- **Buy** minnows from a Wisconsin licensed bait dealer.
- **Dispose** of unwanted bait in the trash, not in the water or on land.

Additional steps

- Spray, rinse, or dry your boat and equipment to remove or kill species not visible. Spray/rinse with hot or high pressure water OR dry your boat for 5 days before entering another lake or river.
- Disinfect boats and equipment to kill species and fish diseases using a mixture of two tablespoons of household bleach to one gallon of water.

*State of Wisconsin: Section 30.715 WI Act 16 prohibits launching a boat or placing a boat or trailer in navigable waters if it has aquatic plants or animals attached.

*Polk County Ordinance 29-11: prohibits launching or operating on a public roadway any boat, boat trailer, or hunting, trapping, fishing, or boating equipment, including canoes, lines, anchors, nets, decoys, and waders if aquatic plants or invasive animals are attached.



Polk County Sheriff
715-485-8300
(non emergency)
EMERGENCY DIAL 911

Source: Wisconsin Department of Natural Resources. For more information check these sources: DNR.WI.GOV search "Aquatic Invasives", WWW.UWSP.EDU/CNR/UWEXLAKES, WWW.SEAGRANT.WISC.EDU, WWW.PROTECTYOURWATERS.NET

AIS Signs

Although WDNR AIS signs have been installed at many Polk County lakes with boat landings there are still landings in need of signs. In 2012 WDNR AIS signs were installed at the following lakes:

- ✓ Horseshoe Lake
- ✓ Long trade Lake
- ✓ Big Lake
- ✓ Camelia Lake



AIS Billboard

In August 2012 an AIS billboard was installed along HWY 87 north of the Lions Park in St. Croix Falls. The billboard was designed by the Wisconsin Lakes Partnership. The billboard serves as a reminder that Wisconsin state law requires everyone to inspect boats, trailers, and equipment; remove all attached aquatic plants, animals, and mud before launching / leaving the water access; and to drain water from all equipment before leaving the water access.

Protect WI Waters/It's the Law Media Campaign

Whenever applicable, Polk County LWRD submitted news articles to promote the AIS educational message to local newspapers. Articles were published related to:

- ✓ Balsam Lake Clean Boats, Clean Waters Training
- ✓ Horseshoe Lake Clean Boats, Clean Waters Training
- ✓ Balsam Lake Clean Boats, Clean Waters and AIS laws
- ✓ Purple loosestrife Beetle Rearing Project with Luck Girl Scouts
- ✓ Osceola Clean Boats, Clean Waters Story Hour
- ✓ AIS billboard

Additionally, LWRD was interviewed by the Leader regarding the early detection smart prevention protocol although an article was never published.

LWRD was also a featured guest on WPCA radio bi-weekly throughout the 2012 year. Bi-weekly interviews were used as an opportunity to discuss AIS.

The Polk County LWRD also filmed and produced three videos related to invasive species. Film topics included identification and control of three aquatic invasive species:

- ✓ Eurasian water milfoil
- ✓ Japanese knotweed
- ✓ Purple loosestrife

Films were posted to YouTube and are available for viewing at the Polk County Land and Water Resources Department website: www.co.polk.wi.us/landwater/videos.asp

Learn about efforts to control Eurasian Watermilfoil at Pike Lake in Amery, Wisconsin and how to identify this invasive species.



Knowweed identification and control through stem injection: Learn how to identify knotweed and how to control this invasive through stem injection.



Introduction to Purple Loosestrife: Learn how to identify and control this wetland invasive plant.



Augmented Enforcement

In 2012 Polk County LWRD partnered with the Polk County Sheriff's Department and planned to provide augmented enforcement of the Balsam Lake Boat Landing on the morning of Saturday, June 30th to coordinate with the 4th of July festivities during Balsam Lake's Freedom Festival. However, due to other priorities deputies were not able to provide augmented enforcement.

Deliverables to be met in 2013

- ✓ Early Detection Smart Prevention Protocol for 2013 randomly chosen lakes
- ✓ Adapted Early Detection Smart Prevention Protocol for St. Croix River boat landings and tributaries
- ✓ Reconnoiter Horse Creek Watershed for zebra mussels
- ✓ Reconnoiter lakes near Long Trade Lake and Horseshoe Lake for Eurasian water milfoil
- ✓ Project Red Workshop
- ✓ Augmented enforcement
- ✓ Curly leaf study

- ✓ Continue AIS media campaign
- ✓ Continue AIS education and outreach
- ✓ Continue installation of new AIS signs