

Final Report: Regional Aquatic Invasive Species Program AEPP-558-18

February 2018 through December 31, 2019

Green Lake, Marathon, Marquette, Portage, Taylor, Waupaca, Waushara and Wood County

The following report summarizes activities performed under grant AEPP-558-18. Aquatic Invasive Species (AIS) Coordinators Anna Cisar and Chris Hamerla along with Amy Thorstenson and AIS LTE staff Jennifer Fjelsted and Parker Wyngaard worked with numerous partners and projects to educate and empower volunteers and professionals. Directly below are items that highlight our accomplishments. These items are further explained throughout the report. Numerous supporting items for this report are included in a second, separate email.

- Clean Boats Clean Waters. Paid staff completed 226.5 hours and contacted 851 people. Over 800 additional volunteer hours were recorded. 33 volunteers received CBCW training. Assisted Erin McFarlane with special CBCW project.
- 7 identification and removal trainings.
- 1 containment and prevention event in partnership with Law Enforcement.
- Green Lake boat wash station planning is developing and progressing.
- 14 outreach and education events including five press releases and three TV interviews.
- 1 DNA evaluation completed. Zebra mussels collected from the WI River in Adams Co. were sent to the University of Minnesota, Department of Fisheries, Wildlife and Conservation Biology to assist in DNA monitoring of zebra mussels in various waters.
- 1 eDNA water collection was done on Big Green Lake for Asian clam, faucet snails and New Zealand mudsnails
- 1 spiny water flea monitoring tow was conducted on Big Green Lake
- 12 PI surveys (Ogdensburg Millpond, W. Branch White River Millpond, Marl Lk, Wadley Lk., Helen Lk., Lake Emily, Little Green Lk, Lk Emery for SSW, Weyauwega Lk for CLP)
- 1 Project Red training.
- Involvement in statewide events (Drain Campaign, Landing Blitz, Snapshot Day and Waterfowl Hunter outreach).
- 2 prohibited species. Portage Co has a known, small population of giant hogweed. Per request of DNR, follow up monitoring, mapping and removal efforts are being coordinated with the land owner. During 2018 all observed plants were mapped and removed or treated. See giant hogweed supporting document in accompanying email for full details. Lake Emery, Marquette County verified and vouchered starry stonewort, initial PI was conducted in October.
- 32 potted purple loosestrife plants and one mass rearing cage of at least two-hundred plants were used to raise and release galerucella beetles.
- Worked with volunteers in Joanis Lake, Portage Co. in 2018 to install milfoil weevil predator exclusion cages and teach volunteers about EWM and biological control.

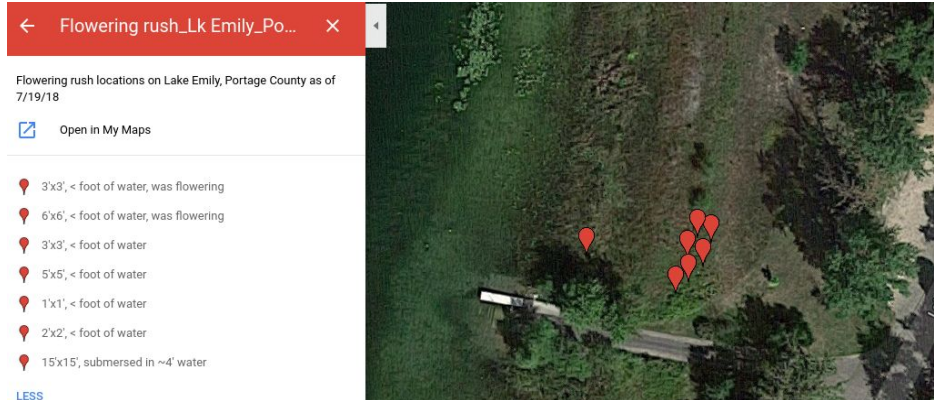
Prevention

Prevention objectives under this grant were described to actively prevent and reduce the introduction of AIS into new water systems. Seven activities are listed to meet this objective.

1. Clean Boats Clean Waters (CBCW), (minimum 200 hours). **Deliverable complete.** Two limited term employees (LTEs) were hired in 2018 to help complete CBCW watercraft inspections. Parker Wyngaard and Jennifer Fjelsted completed 226.5 hours of watercraft inspections and contacted 851 people. Twenty-nine different waterbodies were monitored. Both LTEs commented that many people had never been contacted by a watercraft inspector. They also commented that most people were not aware of all the AIS boating laws.

Volunteers contributed over 1,200 additional hours of watercraft inspections. All CBCW data was entered into the SWIMS database. **Deliverable complete.** Our staff also assisted Erin McFarlane, UW Extension Lakes AIS Volunteer Coordinator, in special CBCW programs. The special program collects more data on boater behavior versus the current CBCW program that focuses on informing boaters about AIS prevention.

2. AIS ID & Removal Trainings (minimum of 4). 7 ID and removal trainings and events were completed. They are summarized below. **Deliverable complete.**
 - a. Buckthorn Bash, May 2018. Over four hundred students in Medford, Taylor Co. learned about buckthorn, environmental disruptions it causes and how to remove it. A buckthorn removal event took place along the Riverwalk in Medford. Buckthorn was cut and removed from the riverwalk area. Following the cut, stumps were dabbed with herbicide. Students, school staff, county, city, state, federal and private partners were involved.
 - b. Helen Lake, Portage Co., EWM training and removal event, 6/22/18. Helen Lake also contracted two scuba divers to help the volunteers by removing EWM that was too deep for snorkelers.
 - c. Sunset Lake, Portage Co., EWM training and removal event, 7/11/18. Sunset Lake also contracted two scuba divers to help the volunteers by removing EWM that was too deep for snorkelers.
 - d. Lake Emily, Portage Co. Flowering rush was recorded during a point intercept survey. As follow up a shoreline meander survey was completed around the entire lake. Seven locations were found right near the county boat landing. (pictured below) Six locations were in approximately a foot and a half of water. These are small clumps ranging from 1'x1' to 6'x6'. They were removed following an identification and removal training. The seventh is a large (~15x15 foot) patch in roughly 4 foot of water. This location will require snorkeling to remove. This is planned for 2019.



- e. Johns Lake, Marl Lake and West Branch Millpond in Waushara Co. received EWM ID and removal training followed by an EWM removal event.



- f. Mirror/Shadow Lakes in Waupaca Co. has CLP and EWM around the public beach. Lifeguards were trained to ID and remove CLP and EWM. Removal efforts were done when no swimmers were at the beach.
- g. Thirteenth annual Fern Island buckthorn removal Marathon Co., October 2018. Volunteers learned non-native shrub ID, monitoring, and removal techniques and followed up their training with hands-on work. Since the WI River was flooding the buckthorn removal location was moved from Fern Island to a wetland owned by the Wausau School District. Twenty volunteers participated. (Photos below)



3. Containment and prevention activities other than education. **Deliverable complete.**
 - a. Coordinated with Marathon County Sheriff's Department and a Conservation Warden to contact and cite person transporting a pontoon boat with zebra mussels attached on I-39, 10/3/18. Pontoon was observed in Portage Co and contacted in Vilas County. (Picture below)



4. Containment and prevention activities other than education: boat wash station planning for statewide AIS source water Big Green Lake. **Deliverable complete.**
 - a. 2018 - Boat wash station planning has continued to have a power wash station at Dodge Memorial Park and Sunset Park. Research has been done to how other lakes in the midwest and what different states have for power wash boat stations. The current design proposal is to have one site at the 2 county landings on Big Green Lake. Each site will have 2 heated, pressure washers, so that we have the capability to clean boats as needed coming into the lake and cleaning boats on their way out. Details and budget still need to be finalized. The overview of this project has been introduced to the county's Parks Commission. The Spring of 2019 will seek the approval and support of Green Lake County's Parks Commission, County Board, Green Lake Association board and Green Lake Sanitary board.
 - b. 2019 - County approval process has slowed down our timeline, as did the limited grant eligible expenses for permanent structures through Surface Water Grants. Knowing we were not going to be submitting a 2019 grant application the planning team decided to redirect our prevention efforts for 2019. Reaching out to all the other municipalities who own public landings on Green Lake, getting 7 of the 8 to purchase AIS tool boards. We also developed and conducted a recreational user survey of Green Lake to better understand the local outlook on AIS and the need for prevention. With a better understanding on the Green Lake community and having made partnerships with other local municipalities the planning team will continue the boat wash planning efforts with the County Board and local municipalities in 2020.
5. Outreach & education. Provide information on AIS prevention, control, ID and monitoring. Distribute through RC&D channels, county partners, meetings, presentations, booths, press releases and youth education. **Deliverable complete.**
 - a. AIS station at 2018 Little Plover RI day and TV interview are pictured below.

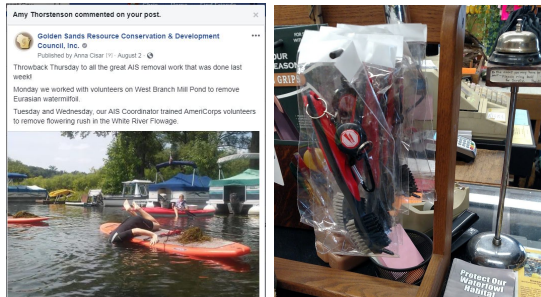


- b. Press releases (minimum of 5). Press releases were sent out covering the announcement of the 2018 grant AEPP-558-18, Landing Blitz, Drain Campaign, Waterfowl Hunter Outreach and Fern Island buckthorn Removal Day. Releases are part of the supporting documents. **Deliverable complete.**
- c. Participated in statewide AIS outreach events. Landing Blitz, Drain Campaign, Snapshot Day and Waterfowl Hunter Outreach. During the waterfowl outreach twelve volunteers helped to contact 165 hunters at the Mead Wildlife area.
- d. AIS station at Wausau Youth Sporting Heritage Day. Kids and adults learned AIS ID and prevention steps related to fishing, boating, waterfowl hunting, trapping, ATVing and general outdoor recreation.
- e. Three TV interviews informing the general public about AIS prevention steps and laws. Two were on WSAW Channel 7 Wausau and one was on WZAW Channel 33.1 Wausau. (Landing Blitz and Waterfowl outreach picture below.)



- f. Five Golden Sands RC&D Council meeting. County partners attend these meetings and it is a great way to share AIS information, learn about problems in that county and to get in contact with residents/groups.
- g. AIS presentation and booth at WI Trapper Association (WTA) Convention
- h. Created AIS related video clips to train the trainers on waterfowl hunting equipment and AIS speaking points. Shared through the AIS Box.
- i. County Fair AIS booths. AIS booths were displayed at the Green Lake, Marquette and Taylor Co fairs. AIS Technicians Wyngaard and Fjelsted spent time educating the public on AIS, native plants and lake topics.
- j. AIS booth at the Farm Tech Days. Approximately 1000 people visited the booth. Three people brought in aquatic plant samples for identification. One person received follow up phone calls.

- k. AIS Technician Fjelsted wrote a Flowering Rush article for the Eastern Lakes Newsletter, Marathon Co. AIS Technician Wyngaard wrote an AIS article for Little Green Lake, Green Lake Co. Cisar wrote an aquatic plant information article for the Green Lake Association newsletter.
- l. Two AIS classes at the Central WI Children’s Museum. One on cleaning boats and trailers to prevent spreading AIS and one covering Habitatititude and not releasing pets into the wild.
- m. One AIS lesson was taught to the Clay Lamberton 5th grade class.
- n. New AIS web pages were created for the Golden Sands RC&D website.
- o. Thirty-three AIS related posts were made through Golden Sands RC&D Facebook. Supporting document details the posts. (Photo below, left)



- p. Partnered with Baeseman’s Shoe Store in Wausau to offer boot brushes with purchase of select boots. (Photo above, right)

6. Signs at landings and stream accesses. **Deliverable complete.** Signs at boat launches are continually monitored and replaced when needed. Stream locations are posted when identified. A total of fourteen walk in access AIS signs have been installed throughout the Mead & McMillan Wildlife Areas. Locations were reported to WDNR and Mead Wildlife Center for tracking. The AIS boat landing signs were updated at Chequamegon Waters, Taylor Co.



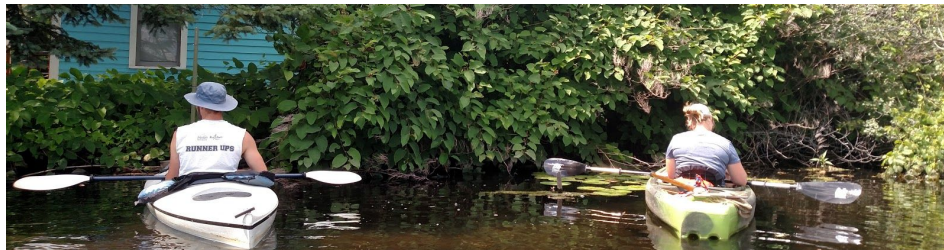
7. Outreach to bait shops and garden centers. **Deliverable complete.** Twenty-two bait shops were visited and fifteen didn’t have “Fishing with Bait Laws” or “ Stop Aquatic

Hitchhiker” brochures. All shops were updated with current brochures. Two pet stores were monitored for NR 40 listed species. None were observed.

Detection

Detection activities under this grant were described as increase detection and reporting of AIS. Four activities are listed to meet this objective. **Deliverable complete.**

1. Phragmites surveys. An email was received about concern of non-native phragmites in Lake Pacawa, Portage Co. The lake was surveyed and the phragmites was found to be native. In Marathon County two new locations of non-native phragmites were detected and reported. One is along HWY 13 on the north side of Marshfield and the other is along HWY 13 approximately two miles south of HWY 64. DNR AIS Regional Coordinator Alex Selle and Golden Sands are working together on other potentially non-native populations.
2. AIS Early detection (ED) surveys. **Deliverable complete.** ED surveys were completed and reported in SWIMS on Meyers & Spring Lk - Portage Co., Knight, Orlando, Sand, Scandinavia Millpond, Rollofson, Long and Hartmann Lk - Waupaca Co. Vouchers of AIS were sent to DNR AIS Coordinator. These lakes were noted by DNR as primary areas to survey for Corbicula. No Corbicula were found during these ED surveys. (Scandinavia Millpond photo Below)



Portage County - Meyers and Spring Lake were completed to assist WDNR with lakes on their ED list. No AIS were observed in Meyers. In Spring Lake curly leaf pondweed and banded mystery snails were observed but are known to be present. No new AIS were observed. Early detection sheets were completed and entered into SWIMS. They documented that an ED survey was completed and that no new AIS were observed.

Waupaca County - Long Lk, Hartmann Lk, Rollofson Lk, Sand Lk, Scandinavia Millpond, Knight and Orlando Lake. EWM, CLP, rusty crayfish and Japanese knotweed were found at Scandinavia Millpond. Knight and Orlando were surveyed and zebra mussels were found in both. The lakes are actually attached to one another and also part of the Waupaca Chain which is known to have zebra mussels. The population was very limited and those that were found were scattered, attached to chara, sticks, rocks and native mussels. Early detection sheets were completed and entered into SWIMS.

3. Point intercept (PI) surveys. **Deliverable complete.** Aquatic plant point intercept surveys were completed in 2018 on three lakes as follow up to EWM treatments. Wadley Lk, Marathon Co., and Helen and Emily Lks, Portage Co. were surveyed by the request of DNR. Summaries and maps from these surveys are attached to the email that sent this summary. Ogdensburg Millpond, Mirror & Shadow Lakes Waupaca Co. and W. Branch Millpond, Marl Lake Waushara Co. were also completed based on interest from WDNR or assist with mapping EWM due to scheduled EWM removal events.

Crystal Lk, Marquette Co. and Little Green Lk, Green Lake Co. were surveyed as part of the State's Long Term Trend monitoring program for EWM. Little Green Lake was done in assisting DNR. A PI survey for the purpose of surveying the CLP population was done in June on Weyauwega Lake, Waupaca Co. An October 2019 PI survey was done at the request of DNR on Lake Emery, Marquette Co. after the finding and verification of starry stonewort. (PI Photos below.)



4. Citizen Lake Monitoring Network (CLMN)-AIS monitoring/Project Red trainings. **Deliverable complete.** Golden Sands RC&D hosted a Project Red training as part of the 2018 Snapshot Day. Monitoring, ID, mapping/recording locations and removal were taught as well as native look-a-like ID. The event was held at the Dayton Town Hall in Waupaca Co. Six volunteers attended and surveyed Columbia, Crystal, Gooseneck, Spenser & Bailey Lakes, the Crystal River at Sanders RD, Shadow Lake RD and Nelson Park, Murry Creek at West RD and Radley Creek at West RD. EWM was found in Spencer Lake. Incident reports were completed. (Photos below)



Zebra mussel plates were installed in Gilbert Lake, Waushara Co., monitors on the lake had not seen presence of zebra mussels over the years and wanted to confirm their

visual findings and have it removed from their DNR Lakes Page. Golden Sands worked with volunteers on the lake to find three appropriate locations around the lake for monitoring to take place from May - September. Monitoring followed the CLMN monitoring protocol. Cisar did a final confirmation check on all the zebra mussel sample plates when they were removed in the fall, no zebra mussels were observed over the summer of 2018. This worked in tandem with WDNR's Early Detection Surveys conducted by Amy Kretlow in 2017 and 2018, zebra mussel veliger tows came back negative both years.

AIS Technician Fjelsted surveyed and mapped the extent of the yellow iris population on the Medford Millpond, Taylor Co. These mapped locations may be used for removal and restoration efforts in coordination with pollinator habitat improvement.

Flowering rush locations were mapped on the White River Flowage in Waushara Co. in 2018 and 2019. This is part of an ongoing removal effort of which the lake district is involved. This mapping event helped organize the Flowage's hand-pulling removal event with AmeriCorps in July 2018 and local volunteers in July 2019. The hand-pulling and monitoring work the last two years has made significant progress in the flowering rush that remains in the Flowage.

Planning

Planning activities under this grant were described as facilitating county-wide AIS programs and planning as part of a regional approach. One activity is listed to meet this objective.

1. Implement and update County AIS Plans and Regional AIS Strategic plan. **Deliverable complete.** All eight of our individual county AIS plans and our Regional AIS Strategic plan were updated winter of 2019. County and regional AIS plans mirror our county partners' County Land & Water Resource Management Plans (LWRMs). Implementation of our plans occur through our AIS grants. The updated plans are available on the Golden Sands RC&D website.

County partners are communicated with through emails, phone and during updates at our Golden Sands RC&D Council meetings. Staff reports relay accomplishments and areas where assistance is needed. Hamerla and Cisar reported during five council meetings (2018 - March, May, July, September & November).

Management

Management activities under this grant were described as protect native ecosystems by facilitating the management of AIS. Four activities are listed to meet this objective.

1. Containment and removal of pioneer infestations (volunteer trainings), minimum of four. **Deliverable complete.**

- a. Golden Sands RC&D trained numerous groups how to identify, properly remove and dispose of various invasive species (EWM, CLP, flowering rush, buckthorn, Japanese knotweed and phragmites). One pioneer population of flowering rush was discovered on Lake Emily during a PI on 7/19/18. Two people were trained to ID and properly remove flowering rush. Nine total locations were known to exist and eight of those were removed. The ninth location will be focused on in 2019 using snorkelers. Though not pioneer populations, we did have many partners with small enough invasives populations that ID and removal trainings were beneficial to them.
 - b. EWM was recorded on Susan Lake, Portage Co. in 2018. The population will be surveyed in 2019 and, if appropriate, an ID and removal training will be scheduled.
 - c. Helen Lk, Portage Co. received training and completed an EWM removal event. They followed up with continued monitoring and removal. Helen Lk also completed training and removal of a small, early-stage (date unknown) Japanese knotweed population.
 - d. Golden Sands RC&D will continue to train and assist volunteers with their limited EWM on Sunset Lake, Portage Co.
 - e. Per the request of WDNR, Golden Sands RC&D will continue to assist a Portage County resident with their small population of giant hogweed. RC&D will assist in monitoring for new plants and the property owner will continue to treat any found plants. Efforts and results will be summarized in future reports.
2. Coordinate SCUBA assisted manual removal of Eurasian watermilfoil (EWM). Several lakes have expressed interest in using SCUBA divers to remove deeper populations of invasive plants like EWM and CLP. Follow up and planning will occur with these and others as needed. **Deliverable complete.**

Sunset and Helen Lakes in Portage County, requested snorkel-divers to assist with plants in deeper water. Volunteers will learn plant ID and monitoring, but also how to handpull shallow plants and how to provide surface support to divers and follow up a removal effort by scouting for loose fragments. Lake Helen - Portage Co and Mirror/Shadow Lakes - Waupaca Co held EWM removal events with SCUBA assistance.

3. Trainings were conducted on Biological control for purple loosestrife (PLS). Numerous volunteers were involved with PLS bio-control (galerucella beetles). PLS data was entered into SWIMS. **Deliverable complete.**

Jes Roloff, Environmental Consultant with WI Public Service assisted in getting ten root stock, twenty potted plants and over 200 beetles to volunteers and releasing beetles in 2018. Roloff entered her data into SWIMS.

Marathon County Planning and Zoning staff partnered to dig root stock, pot plants, collect beetles, manage beetle rearing and release beetles. Shoreland Specialist, Lauren Nichols raised sixteen pots of beetles in 2018. (Photos below)



Taylor County Land Conservation Department's Karyn Eckart partnered with the Medford Library to setup and raise beetles on sixteen potted plants of PLS in 2018.

Installed milfoil weevil predator exclusion cages in 2018 in Lake Joanis, Schmeekle Reserve, Stevens Point, with the help of volunteers from Wisconsin River Academy Charter School. Students helped place cages May 10, 2018, and remove cages on Sept 24, 2018, and learned about how the native milfoil weevil is being used to control EWM in Lake Joanis. Volunteers also helped collect EWM stem samples for weevil surveys and complete a PI survey Aug 7-8, 2018. **A separate and complete report will follow.**

4. Technical assistance to lake groups or other partners. EWM mapping for Sunset and Helen Lake, Portage Co. to assist with their removal efforts. AIS ID training for the new Deputy Wardens. Assisted Helen Lake Portage Co. with CBCW grant planning and with understanding DNR Healthy Lakes grant options. Assisted West Branch Millpond, Waushara Co. in the need and eligibility of a DNR Surface Water Grant; they later decided to pursue this grant. **Deliverable complete.**

Conclusion:

All deliverables were met during this grant, AEPP 558-18. This final summary will be shared with our state, county and local partners. It will also be available to the public on our Golden Sands RC&D webpage, www.Goldensandsrcd.org

For questions about the Golden Sands RC&D Regional AIS Coordinator program please contact:

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