Chapter V

IMPLEMENTATION

PART I – INTRODUCTION

Previous chapters in this plan presented inventory information, analyzed public opinion and prioritized goals and actions all related to the management of aquatic invasive species (AIS). This chapter is intended to serve as a guide for use in the implementation of this plan including detailed AIS control methods.

PART II – PLAN IMPLEMENTATION, MONITORING AND EVALUATION

Plan Review and Adoption

For any planning process, it is good practice to hold public informational meetings on recommended plans and hold public hearings before their adoption. Such actions provide opportunity to acquaint residents and landowners with the recommended plan and solicit public feedback about the plan. The plan may then be modified to reflect any pertinent new information and incorporate sound and desirable new ideas presented at these meetings. Accordingly, a public hearing was held before the Washington County Land Conservation Committee (LCC) on December 19, 2012. A copy of the public hearing notice is included as Appendix E of this plan. The LCC recommended approval of the plan to the Washington County Board of Supervisors on December 19, 2012. The plan was adopted by the County Board by resolution on February 12, 2013 (see Appendix F of this plan for a copy of the Resolution). Upon adoption, the plan became a guide to be used by County officials and staff in making aquatic invasive species management decisions.

Plan Updates

This plan is intended to undergo an annual evaluation by staff and update process every five years. During the updating process, the AIS Advisory Committee (AC) will reconvene to analyze the progress of plan implementation. Inventory information, goals, recommended actions, and accomplishments will be evaluated and updated as necessary. Once approved by the AC, the updated plan will undergo the same approval and adoption process as it did upon its original inception.

Plan Monitoring and Monitoring of Water Resources

The best evaluation of whether or not AIS goals are being met is by directly monitoring the County's aquatic resources. In addition, monitoring data shows where, why and to what degree water resources are suffering from AIS infestations. This type of evidence is the best way to encourage behavioral modifications among County waterbody users and riparian property owners. It is also essential to justify the amount of staff and grant money being spent on AIS education and management efforts.

The Land and Water Conservation Division (LWCD) will evaluate achievements of goals, objectives, and planned actions outlined in this plan by 1) Administrative reviews and 2) Monitoring the County's

aquatic resources. Results from each of these components will be presented to the County Land Conservation Committee (LCC) which oversees the operations of the LWCD.

PART III – MANAGEMENT MEASURES AND TECHNIQUES[25]

Keys to successful and effective AIS management are knowledge, prevention and vigilance. Waterbody users must be aware of the threat that AIS present, be familiar with the proper procedures on how to prevent the spread of AIS, and take the initiative to act on those procedures. Doing so can avoid the need to implement costly management techniques and protect the integrity of a waterbody and the surrounding community. But, in the event that an AIS is spread to a new waterbody, users of the waterbody must be able to identify it, have an avenue of reporting their findings, and management procedures must be in place to quickly and effectively eliminate the AIS population to the maximum possible extent.

There are three basic measures or techniques for managing or eliminating AIS populations. These techniques are physical, biological, and chemical. Depending on the species, severity of the infestation and many other variables, a certain technique may be much more effective and cost-efficient than another. Some management techniques may require permits, related fees, and prior approval of an Aquatic Plant Management Plan (APMP).[26] If any of the management techniques listed below are being considered, action should be preceded with communication with a Wisconsin Department of Natural Resources (WDNR) resource professional. This section provides an overview of each of the three AIS management techniques.

The appropriate entity responsible for taking action on an AIS infestation depends on the species, severity of the infestation, level of threat to the surrounding ecosystem and various other factors. Proper protocol for reporting a new plant or animal AIS infestation is outlined in the "Aquatic Invasive Species Identification and Response Guide for Washington County Citizens" (Appendix A in this plan). The County AIS Coordinator can determine how to handle the infestation and who should be involved.

Physical

Physical methods of control utilize manual or mechanical manipulation of the environment to control unwanted aquatic species. As with all other treatment methods, caution must be used when a physical method of control is selected to assure that no damage to existing native plant habitat occurs during treatment. The decision to use a physical treatment in a lake ecosystem must be an educated one and action should be preceded with extensive research.

A WDNR permit or license may be required for certain physical treatments. In general, a permit is not required for manual removal of invasive plants in small areas, but a permit is required for mechanical harvesting or larger manipulations of a lake environment. A regular fishing license is required for the live trapping of Rusty crayfish. Be aware that there are some physical treatment options that are not permitted in Wisconsin, but are readily available and legal in other states.

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[25] *Much of the information in this section is derived from "Aquatic Invasive Species, A Guide for Proactive & Reactive Management 2006", published by the Wisconsin Department of Natural Resources available on-line at: http://dnr.wi.gov/Aid/documents/AIS/AISguide06.pdf.*

[26] *For details and planning guidance on the Wisconsin's Aquatic Plant Management program, visit: http://www.uwsp.edu/cnr/uwexlakes/ecology/APMguide.asp.*

Hand Pulling (Manual)

Manual removal of invasive plants in small areas may be accomplished by hand pulling or raking out the plants. This method is economical, but can be labor intensive. Fragments of plant roots may remain in the lake sediments, so the removal process needs to be repeated periodically during the growing season as the plants grow back. Care must be taken to collect plant fragments and protect the native vegetation. By keeping native aquatic vegetation intact, the chances for invasive species to completely take over the area will be lessened. This is a good option to use in conjunction with an aquatic plant restoration.

Hand pulling Eurasian Watermilfoil.

Source: University of Florida IFAS Extension Center for Aquatic and Invasive Plants

Harvesting (Mechanical)

Harvesting or mechanical removal of aquatic plants from a lake may be accomplished by use of a machine that cuts the plants and gathers them up for disposal on shore. The plants are cut to depths of three to five feet below the water surface. Harvesting is labor intensive because typically it involves larger areas and densities of plant infestation, and needs to be repeated during the growing season. Several points need to be considered when selecting this method of treatment: the cost of equipment; harvester operations and scheduling; transportation, storage, maintenance of equipment; and details related to the disposal of cut vegetation.

In Washington County, the Big Cedar Lake Protection and Rehabilitation District commonly uses a weed-cutting machine on Big Cedar Lake to manage AIS such as Eurasian watermilfoil (EWM) and other non-desirable plants. This method of management may not eradicate plants rooted to the bottom of a waterbody, but is often utilized to maintain aesthetic beauty and keep a waterbody usable for recreational purposes. It is important to note that when dealing with EWM, weed-cutting machines can create plant fragments that are not removed by the machine and can spread to other parts of a waterbody. This may result in newly-established populations of EWM in previously uninfested portions of the waterbody.

Weed-cutting machine used on Big Cedar Lake.

Source: Big Cedar Lake Protection and Rehabilitation District

On Big Cedar Lake, weeds that are cut and gathered by a weed-cutting machine are transferred to a truck and disposed of off-site.

Source: Big Cedar Lake Protection and Rehabilitation District

Drawdown (Physical Manipulation)

The lowering of the water level of a waterbody for the purpose of disrupting normal plant growth within the littoral zone (shallow, near-shore areas of the lake where most aquatic plants grow) may be an effective means of controlling AIS on some waterbodies. Water level drawdown is only feasible for bodies of water that have operational water level control structures. Following a drawdown, bottom sediments within the near-shore areas are exposed to air, dry out, and freeze over the winter months. An important concept to note here is that drawdowns affect all plants and animals that reside in the near-shore area and not just the unwanted species. The outcomes of drawdown procedures in controlling

aquatic invasive species may be variable and inconsistent. The water level drawdown is a physical manipulation of the aquatic environment and several factors must be considered prior to use of this option (such as the attributes of unwanted species and critical timing of drawdown procedure to lessen negative environmental impacts).

Trapping (Mechanical)

One control option currently available to help reduce problematic Rusty crayfish is live trapping. Eradication of the crayfish population is not the management goal with this method. Instead, the aim is to reduce the large adult population enough to minimize the potential negative impacts on the lake ecosystem. Let it be noted that crayfish trapping will need to be a continuous and consistent annual effort in order to be of any significance in population control of Rusty crayfish. This method used in conjunction with catch and release fishing (top-down food chain management) can help to reduce the rusty population within a lake.

There are a variety of crayfish traps available on the market today at minimal cost. Crayfish trapping regulations in place by the State of Wisconsin are as follows: 1) trap size at greatest diagonal measure should not exceed 2 ½ inches, 2) traps must bear the name and address of the owner, 3) traps must be raised and emptied at least once daily following the set date, 4) trap markers may not exceed five inches in size, nor extend more than four inches above the water surface, and 5) trap markers should not be orange or fluorescent in coloration. For updated information about live trapping of crayfish, consult the most current *Wisconsin Hook and Line Fishing Regulations* handbook available at most bait shops or on-line at: *http://www.fishingwisconsin.org*.

Biological

Biological control utilizes one plant or animal as a means to control another plant or animal that resides within the same environment. Caution must be taken when a biological method of AIS control is selected as a treatment option as the unwanted target species might vanish following the introduction, but the newly introduced species could become the driving force of the next environmental problem.

The desired result of biological control is to reduce the spread and weaken the unwanted population to allow native species to regenerate. The results of biological control methods are not immediate. It is normal for a considerable amount of time to pass before suppression becomes noticeable.

The mere presence of intact native aquatic vegetation within lakes and terrestrial vegetation in the near-shore areas of lake shorelines are very effective deterrents of aquatic invasive species. Native vegetation hampers the ability of an invasive plant species to encroach and become established. A healthy native plant population has the tendency to inhibit a would-be invasion by competing for nutrient resources and living space. However, even healthy, well-developed communities may eventually be invaded and dominated by non-native species.

There are several advantages to intact native vegetation within a lake and along a lakeshore. Vegetation will help to slow down the nutrient-rich runoff water from the watershed; provide a “sink” for nutrients that would otherwise get into the lake ecosystem; substantially reduce the potential for bank erosion; and provide crucial habitat for wildlife and beneficial insects (including weevil over-wintering habitat). By reducing the overall nutrient load that enters a lake from watershed runoff, there’s a marked reduction in the amount of food that could otherwise feed the growth of Eurasian watermilfoil or other aquatic invaders. The presence of native aquatic vegetation in the shallow areas of lakes not only provides

habitat for fish, but also keeps bottom sediments stabilized, provides a nutrient sink for runoff that makes it to the lake, and protects the shoreline from the erosive forces of wind and wave action.

Chemical

Chemical control utilizes chemical herbicides or pesticides to treat unwanted aquatic species. The federal Environmental Protection Agency (EPA) conducts research studies on pesticides and registers them for usage in public waterways. When a certain chemical becomes registered, the EPA has concluded that the benefits of using the chemical outweigh the risks. Federal registration status is the determining factor for which chemicals are approved or disapproved for use in Wisconsin's waterways. Do not assume that the use of pesticides is safe or without risk. Realistic decisions must be made that will determine the potential effectiveness of a chemical treatment or continued treatments within a lake.

Individuals that apply chemical pesticides in public waters must be certified and licensed by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP).

Source: WDNR

The application of chemicals in Wisconsin waters is regulated by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP). A permit for use of chemicals in the environment is required by the WDNR. As part of the permitting process, chemical permit applications are reviewed by a fisheries biologist, a wildlife biologist, and a toxicology review team. The purpose behind the permit review process is to study potential impacts of human health and aquatic life in an effort to sustain the healthiest ecosystems possible. Individuals that apply chemical pesticides in public waters must be certified and licensed by DATCP.[27]

PART IV – TREATING AIS COMMON TO AND THREATENING WASHINGTON COUNTY

Chapter II in this plan identified numerous AIS species that are commonly found in or are threatening to enter Washington County (see lists below). Chapter II provided detailed descriptions that included information on the history, identifying characteristics, life cycle, and impacts regarding such species. This section provides information regarding possible prevention and treatment methods and recommended actions on how to combat those species if they can effectively be eradicated or managed.

AIS Common to Washington County

- Eurasian Watermilfoil
- Curly-leaf Pondweed
- Purple Loosestrife
- Zebra Mussel
- Rainbow Smelt
- Rusty Crayfish
- Red Swamp Crayfish
- Chinese and Banded Mystery Snail

AIS Threatening Washington County

- Yellow Floating Heart
- Viral Hemorrhagic Septicemia Virus (VHS)
- Spiny and Fishhook Waterflea
- Quagga Mussel
- Round Goby
- Bighead and Silver Asian Carp

Non-vegetative AIS

Unfortunately, there are few known treatment methods for effectively eradicating non-vegetative AIS other than filling in a waterbody (if practical). Once a non-vegetative or animal-type invasive species is introduced and multiplies, it is largely considered impossible to eradicate. This only magnifies the

[27] *For a listing of businesses that offer services in chemical application, visit: http://www.uwsp.edu/cnr/uwexlakes/lakelist.*

importance of education and prevention. AIS such as zebra and quagga mussels, rainbow smelt, viral hemorrhagic septicemia virus (VHS), Chinese and banded mystery snails, spiny and fishhook waterfleas, Asian carp, rusty and red swamp crayfish, and round goby are examples of non-vegetative AIS that are found in or threaten Washington County. Since eradication is considered impossible, prevention is essential. Therefore, all equipment that enters a waterbody must be thoroughly cleaned and drained of water upon exiting.

Red Swamp Crayfish *(Procambarus clarkia)*

- One example of an attempt to eradicate a non-vegetative AIS is the combat against Red swamp crayfish (RSC) in the Village of Germantown. RSC were discovered by a local citizen in a five-acre stormwater detention pond in the Village in September 2009. The WDNR was contacted and after investigating, containment action was quickly taken. Trapping revealed a significant population. Containment efforts were initiated in November of 2009 that include trapping, removal, placement of nicotarp around the perimeter and stocking of predatory fish. In 2011, RSC were eradicated from two other ponds; one pond (0.2 acres) across the road from the original stormwater detention pond infestation and the other in Kenosha County (0.6 acres). Eradication was accomplished by chemical treatment using pyronol, filling the 0.2-acre pond with pavement millings and the 0.6-acre pond with clay topped with 12 inches of gravel. As of 2012, RSC have been contained to the five-acre stormwater detention pond, but eradication efforts are on-going with use of pyronol planned for 2013.

The following describes possible action that should be taken to prevent or manage non-vegetative AIS.

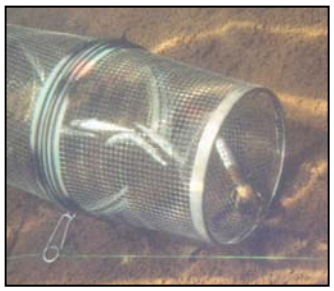
Zebra *(Dreissena polymorpha) and* ***Quagga Mussel*** *(Dreissena bugensis)*

- Quagga mussels and Zebra mussels spread in the same ways. The microscopic larvae can be carried in live wells or bilge water on boats and in bait buckets. They can also attach themselves to boat hulls and trailers. Zebra and Quagga mussels attach to vegetation. Inspect and remove aquatic plants, animals, and mud from the boat and equipment before leaving a boat launch. Drain water from boats and equipment before leaving a launch site. Throw away unwanted bait in the trash. Spray or rinse boats and equipment with high pressure and/or hot tap water (at least 110 degrees Fahrenheit) or a diluted bleach solution (minimum of one ounce bleach per gallon of water). Drying a watercraft completely for at least five days before entering a new waterbody is also recommended if possible.

Rusty Crayfish *(Orconectes rusticus)*

- Currently there are few acceptable treatment methods to control Rusty crayfish, therefore prevention steps are critical. Many Washington County streams contain Rusty crayfish but the lakes do not. To prevent the spread, do not purchase Rusty crayfish from a bait shop, pet shop, catalog or the Internet. It is legal to trap or net Rusty crayfish while possessing a valid Wisconsin fishing or small game license.[28]

  It is important to note that it is illegal to:
  - Transport or release live Rusty crayfish
  - Harvest crayfish without a fishing license



Underwater view of a crayfish trap.
Source: UW-Madison Center for Limnology

[28] *For updated information about live trapping of crayfish, consult the most current Wisconsin Hook and Line Fishing Regulations handbook available on-line at: http://www.fishingwisconsin.org.*

- Move live crayfish from one place to another
- Use live crayfish for fishing bait
- Have live crayfish and fishing equipment at the same time on any inland Wisconsin water (except the Mississippi River)

Chinese and Banded Mystery Snail *(Cipangopaludina chenesis)*

- Currently there are few acceptable treatment methods to control mystery snails, therefore prevention steps are critical. Both Chinese and Banded mystery snails were most likely introduced through the aquarium industry and have spread through boating activity. They are of the few species that may have been spread through water bird movement. Young are born with a shell and can attach very quickly to anything in the water. Preventative action should include thoroughly cleaning and draining all water equipment upon exiting a body of water, and not releasing any pets/animals or aquarium/water garden plants into the wild.

Viral Hemorrhagic Septicemia Virus (VHS)

- Presently, there is no way to eradicate VHS from a waterbody once introduced and its presence must be confirmed by lab tests. Steps must be taken to prevent its spread such as emptying bait buckets, livewells, and bilge systems upon leaving a waterbody.

Spiny Waterflea *(Bythotrephes longimanus) and* ***Fishhook Waterflea*** *(Cercopagis pengoi)*

- Waterfleas spread to inland waters when fishing gear is contaminated with eggs. Make sure to clean all fishing equipment (such as waders, monofilament line and bait buckets) before going to another waterbody.

Rainbow Smelt *(Osmerus mordax)*

- Although Rainbow smelt are fished for commercial and recreational purposes, their existence can be detrimental to native fish populations if introduced to a waterbody. The spread of Rainbow smelt populations in Wisconsin lakes is largely due to intentional introduction by humans, primarily in the early 1900s. If Rainbow smelt exist in a waterbody, the population may be managed to a degree through repeated stocking of walleye and other natural predatory fish species companied with a catch and release program. Boat shocking and gill netting are also considered effective methods for removing smelt and monitoring smelt populations.

Round Goby *(Neogobius melanostomus)*

- Predators of the goby include game fish like the smallmouth and rock bass, walleye, yellow perch, and brown trout. Practicing catch and release of these game fish and allowing them to reach maturity for natural predation may slightly reduce the chance of goby establishment, but in all likelihood will not eliminate an entire goby population. If Round goby are caught while fishing, it is recommended that they be killed and disposed of in the trash.

Asian Carp, Bighead *(Hypophthalmichthys nobilis) and* ***Silver*** *(H. molitrix)*

- To help prevent the spread of Asian carp to Wisconsin's inland waters, learn the features that distinguish young Asian carp from gizzard shad and other minnows, and adult fish from common carp, a related invasive carp species that has been established in Wisconsin for more than a century.

Carry an Asian Carp Watch Card[29] in your boat or tackle box. If an Asian carp is discovered on an inland Wisconsin waterbody, the WDNR recommends that a picture of the fish be taken if possible. Put the fish on ice and bring it to the local WDNR office.

Vegetative AIS Common to Washington County

Eurasian Watermilfoil *(Myriophyllum spicatum)*

- Once Eurasian watermilfoil (EWM) is well established in a lake, it is nearly impossible to eradicate. However, it is important to remember it doesn't cause severe problems in every waterbody it is found in. Physical, biological, and chemical measures are available to help control it. When early detection of a small infestation occurs, the best chance to inhibit growth is to hand pull it out when it is first observed. Raking shallow areas of the lake bottom also works well to reduce the spread. For larger infested areas, herbicide treatment is an option, although it can disrupt native vegetation and become very expensive. A Wisconsin DNR permit is required for all chemical treatments. Mechanical harvesting temporarily removes milfoil canopies and increases growth of native plants, however also causes a lot of fragmentation. Biological control occurs from a small weevil that feeds on native milfoils, although it prefers Eurasian. Over time, weevils can impact the population, but complete eradication is unlikely.

  Hybridization of EWM with native northern watermilfoil has been verified in the Great Lakes region. Hybridization of EWM is thought to occur because of the survival of a few individuals of native milfoil and a few individuals of non native milfoil. Hybridization is believed to be a result of repeated applications of a chemical product known as 2,4-D (2,4-dichlorophenoxyacetic acid). Due to such hybridization, the effectiveness of 2,4-D applications have been known to decrease or become ineffective altogether. If the intensity of chemical treatments is increased to combat EWM, native milfoils may become more vulnerable therefore giving EWM a competitive advantage. This emphasizes the importance of early detection and removal of EWM by other means.

  Milfoil Weevil
  Aquatic weevils (*Euhrychiopsis lecontei*) are insect herbivores (plant-eaters) that are used in the management of EWM. About the size of a sesame seed, weevils are native to Wisconsin lakes and are normally found in waterbodies with healthy stands of northern watermilfoil. However, researchers have found that weevils prefer EWM as a food source over northern watermilfoil. By supplementing the native weevil populations in a lake, suppression of EWM may be achieved over time.

  
  Milfoil Weevil
  (Euhrychiopsis lecontei)
  Source: Fall River Conservancy

  A WDNR resource professional can also provide you with current information pertaining to biological control treatment with weevils. It is the weevil lifecycle that eventually destroys EWM plants. Weevils lay their eggs on the active growth areas of the plants and the hatching larvae actively feed on the new shoots and stems. Weevil larvae burrow into the stems. Burrowing destroys vascular plant tissues and opens the plant up to various diseases. This will ultimately cause the entire plant to collapse to the bottom of the lake. Once collapsed, *photosynthesis* (a metabolic process that utilizes energy from sunlight to produce energy for plant growth) is hampered and the plants will die. Adult weevils will over-winter in vegetated and leaf littered near-shore areas of a lake. The successful and continuous lifecycle of native weevils from year to year depends on the availability of

[29] *Available on-line at: http://asiancarp.org/Key/asiancarp%20key.pdf.*

leaf littered habitats, such as those existing on natural, undeveloped shorelines (Jester and Bozek, 1999).

Curly-leaf Pondweed *(Potamogeton crispus)*

- Like Eurasian watermilfoil, once Curly-leaf pondweed is well established in a lake, it is nearly impossible to eradicate, but physical removal and chemical applications can help control it. To have the maximum benefit of control, chemical control efforts should be done in early spring, after ice out, as soon as temperatures reach 50 degrees Fahrenheit. A WDNR permit is required for chemical treatments.

Purple Loosestrife *(Lythrum salicaria)*

- Prevention is the best way to control the spread of Purple loosestrife. Small young plants can be hand pulled, while older and taller plants can be dug up with a shovel. It is important to try to dig up as much of the root as possible because it may re-sprout. Plants should be controlled prior to seed dispersal (usually before the first week in August), and flowers should be cut, and tightly bagged. Glyphosate (Round Up/Rodeo) is the most commonly used chemical for killing loosestrife. It should be applied in late July or August and should only be sprayed on 25 percent of each plant's foliage to be effective. It is best used on freshly cut stems. Any herbicide applied on or near surface water requires a permit from the regional WDNR Aquatic Plant Coordinator. Biological control is considered the most effective and cheapest option for controlling larger-scale infestations of Purple loosestrife. Biological control began in Wisconsin in 1994, with the release of *Galarucella* beetles. They eat exclusively on loosestrife stems and leaves, and also reduce the height and seed output which enables other native plants to regain control within a few years. Biological control takes many years to develop, so combining it with some of the methods mentioned above, may produce both short and long-term control.

Purple Loosestrife Beetles

Galerucella beetles (*Galerucella calmariensis* and *G. pusilla*) are three to six millimeters in length and prefer to feed on actively growing shoot tips of Purple loosestrife. The feeding activity of adult beetles creates stress on the plants and reduces the spread of the Purple loosestrife population by minimizing flower and seed production. Beetle populations remain relatively localized, and it may take from three to five years for the beetle population to build up to levels that will affect the purple loosestrife plant population. Purple loosestrife beetles are very susceptible to chemical pesticides, and exposure to any chemicals while using them as a treatment method should be avoided.

Purple Loosestrife Beetle
(Galerucella calmariensis and G. pusilla)
Source: LandscapeOnline.com

The rearing of new beetle populations has been the focus of many citizen and classroom based projects throughout Wisconsin. Written protocol for successful and economical beetle rearing has been established.[30]

Adult beetles hibernate in Purple loosestrife root crowns over the winter months and emerge in the spring. Active feeding on the spring shoots and leaves of Purple loosestrife plants begins immediately. Females may lie anywhere from 300 to 400 eggs per year. Beetle larvae actively feed

[30] *For more information about beetle rearing, visit: http://dnr.wi.gov/org/es/science/publications/ss981_2003.htm.*

on buds, leaves and stem tissues which will cause further stress on a plant's growth potential. Over time, the entire stand of purple loosestrife is affected and suppressed. Beetle populations will actively seek out new Purple loosestrife stands to sustain themselves and insect populations will naturally decline as their preferred food source runs low.

There have been and continue to be high school biology and environmental clubs, lake groups, community organizations, and private citizens raising and releasing beetles throughout Washington County. These combined efforts have allowed many infested habitats to regenerate native plants and provide more complete ecosystems.

Vegetative AIS Threatening Washington County

Yellow Floating Heart *(Nymphoides peltata)*

- Yellow floating heart is extremely difficult, if not impossible, to eradicate once established. If the infestation is contained to a small area, eradication may be accomplished through repeated chemical application but such action will also likely terminate all other plant life in the vicinity. If the waterbody is small in size, dredging, lining, and continued monitoring may be the only effective option. If Yellow floating heart is discovered, contact the WDNR to determine appropriate action.

A Yellow Floating Heart infestation was discovered in two ponds in Walworth County in 2007. The ponds received multiple chemical treatments, were drained, dredged, lined, and final landscaping was completed in Spring of 2010. Total project costs exceeded $54,000 not including Walworth County and WDNR staff time. A few Yellow Floating Heart plants were found in September 2010 and were removed. The ponds continue to be monitored by the WDNR.

Source: WDNR