

## **Lower Spring Lake AIS Established Infestation DNR Final Report - Project Number ACEI-116-12**

The Lower Spring Lake Protection and Rehabilitation District received a Department of Natural Resources Aquatic Invasive Species Control Grant in 2012. The grant was extended by one year to December 2017. The following is the report on the grant deliverables.

### Aquatic Plants and Chemical Treatments

*Main Project Goal:* Work on controlling Eurasian water milfoil and curly-leaf pondweed through an adaptive management approach as outlined in DNR guidance.

*Project Goal:* Protect and enhance the native plants found in the lake.

To work on these goals, the Lower Spring Lake Protection and Rehabilitation Districted worked cooperatively with the Jefferson County Land and Water Conservation Department (LWCD). Together, they consulted with experts at the Department of Natural Resources (DNR).

Every year (2012 through 2017), pre-treatment and post-treatment aquatic plant surveys (using the PI method) were performed on the lake by the LWCD. Data was summarized and plant maps for the aquatic invasive species (AIS) were produced. Statistical information was also prepared including Frequency of Occurrence of the plants in the lake and chi square analysis of changes in the AIS and native plants. During some years, volunteers also collected water samples to track the amount of chemical in the lake after treatment. Each winter a group of DNR and US Army Corp of Engineers experts convened to consider the plant data, previous chemical treatments, chemical concentrations after treatment, and current scientific knowledge to determine how aquatic nuisance species would be managed.

Data from each aquatic plant survey was provided to the DNR on spreadsheets. In addition, a summary of the data and chemical treatments is located in the 2018 Aquatic Plant Management Plan for Lower Spring Lake (also provided to the DNR).

### Aquatic Plant Management Plan

The original grant was amended to include the following:

- Complete an update to the aquatic plant management plan with information learned from statewide research and the whole lake treatment on Lower Spring Lake.
- Determine when it would be appropriate for the whole lake treatments to be used on Lower Spring Lake in the future.
- Research the appropriateness of other management options for the lake including water level management and diver-assisted suction harvesting.
- Hold a public meeting to obtain feedback from the public.

The 2018 Aquatic Plant Management Plan for Lower Spring Lake was completed and provided to the DNR who reviewed and approved the plan. This plan discusses whole lake treatments as well as other management options including water level management and diver-assisted suction harvesting. In April 2017, the LWCD attended the Lower Spring Lake District meeting to present a draft of the plan and obtain public input and feedback.

### Education

*Project Goal:* Educate the Lower Spring Lake District Board and its members regarding aquatic invasive species, AIS control laws, and the importance of a diverse native aquatic plant population.

The LWCD Water Resources Management Specialist attended several Lake District Board meetings each year to talk about AIS, native aquatic plants, and the AIS control plans. The Lake District Board meetings are well attended by the lake membership. The LWCD also communicated one-on-one with the Lake District Board Presidents. With the development of the 2018 update to the Aquatic Plant Management Plan for Lower Spring Lake, the LWCD also held a public session (at the District meetings) to obtain public input and feedback.

### Clean Boats, Clean Waters

*Project Goal:* Prevent new introductions of species to Lower Spring Lake in addition to preventing the export of existing species to other lakes.

This was accomplished through the implementation of the Clean Boats, Clean Waters Program. District members and volunteers attended trainings to learn how to educate boaters and fisherman and the laws associated with aquatic invasive species. Table 1 displays their efforts.

Table 1. Clean Boats, Clean Waters Inspections on Lower Spring Lake

| Year | Hours Spent | People Contacted |
|------|-------------|------------------|
| 2012 | 108         | 22               |
| 2013 | 97          | 74               |
| 2014 | 46          | 42               |
| 2015 | 67          | 101              |
| 2016 | 76          | 180              |

### AIS Monitoring

*Project Goal:* Monitor the lake for new exotic species.

The LWCD trained citizens to monitor for the presence of new aquatic invasive species. Basically, if a species is found before it gets established, then there is a much better chance of controlling it from becoming widespread in a lake. Two citizens followed up and performed

monitoring from 2012 through 2014. In addition to visual observations, they set crayfish traps and a zebra mussel sampler. Besides Eurasian water milfoil and curly-leaf pondweed, the volunteers also identified purple loosestrife. These species were all known to be present at Lower Spring Lake. They found no new species.