

## Weed Committee Report – GLA Board Meeting – 7-25-2016

1. Rollins has been doing a good job in keeping up with the lakes. See lake notes below. EXPECT A HIGHER COST FOR WEED TREATMENTS NEXT YEAR. It all depends upon the weather over the winter.
2. What you should know about the invasive species of weeds in our lakes See accompanying articles also available online at [www.gooselakeassociation.com](http://www.gooselakeassociation.com). Here is a synopsis:
  - a. Eurasian Watermilfoil - **RISKS/IMPACTS:** Eurasian watermilfoil negatively affects the water bodies it invades in several ways.
    - i. Due to its tendency to branch profusely and form a dense canopy over the waters surface, it will shade out the native vegetation. This can alter the species composition of the water which can result in a near monoculture of Eurasian watermilfoil.
    - ii. This plant is not a valuable food source for waterfowl unlike some of the native submersed aquatic plants.
    - iii. Plant biomass can become so dense that predator fish will lose their foraging space and will be less effective at controlling prey species resulting in an imbalanced fish community.
    - iv. Dense beds of Eurasian watermilfoil make recreational activities such as boating, fishing and swimming nearly impossible.
    - v. Residential or industrial water intakes can become clogged with Eurasian watermilfoil.
    - vi. Dense plant beds can be nursery areas for mosquito larvae.
    - vii. **A lake heavily infested with Eurasian watermilfoil will be aesthetically displeasing which results in reduced property values.**
  - b. Curlyleaf Pondweed - **RISKS/IMPACTS:** Although curlyleaf can provide habitat for aquatic life during the winter when few other plants are present, the negative consequences of this plant far outweigh this one positive aspect.
    - i. The mid-summer decay of curlyleaf pondweed can cause low oxygen conditions in areas where a considerable amount of decomposition is occurring.
    - ii. The die-off will also cause nutrients to be released from the plants which can trigger algal blooms.
    - iii. Dense beds of curlyleaf can reduce recreational opportunities such as boating, fishing, and swimming.
    - iv. **Property values may decrease around lakes heavily infested with curlyleaf.**
    - v. To reduce recreational impacts and maintain property values, expensive control programs must be implemented.

# Invasive Aquatic Plants...Why We Do NOT Want to Preserve These Species on Our Lakes

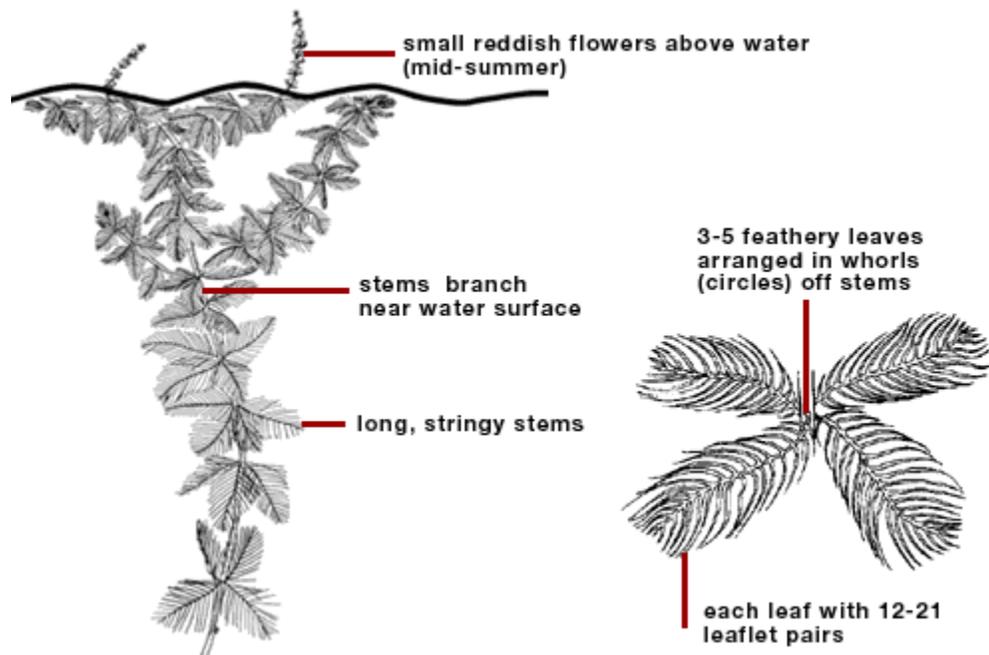
Refer to the notes below and to the AIS white papers from the Indiana Department of Natural Resources found on our website at [www.goselakeassociation.com](http://www.goselakeassociation.com).

## Eurasian Watermilfoil (*Myriophyllum spicatum*)

Eurasian watermilfoil (*Myriophyllum spicatum*) is a feathery submerged aquatic plant that can quickly form thick mats in shallow areas of lakes and rivers in North America. These mats can interfere with swimming and entangle propellers, which hinders boating, fishing, and waterfowl hunting. Heavy infestations may reduce property values. Matted milfoil can displace native aquatic plants, impacting fish and wildlife.

Since it was discovered in North America in the 1940s, Eurasian watermilfoil has invaded nearly every U.S. state and at least three Canadian provinces. Milfoil spreads when plant pieces break off and float on water currents. It can cross land to new waters by clinging to sailboats, personal watercraft, powerboats, motors, trailers, and fishing gear. Eradicating established infestations is nearly impossible. Your help detecting and reporting new infestations is vital for preventing their spread.

## Identify Eurasian Watermilfoil

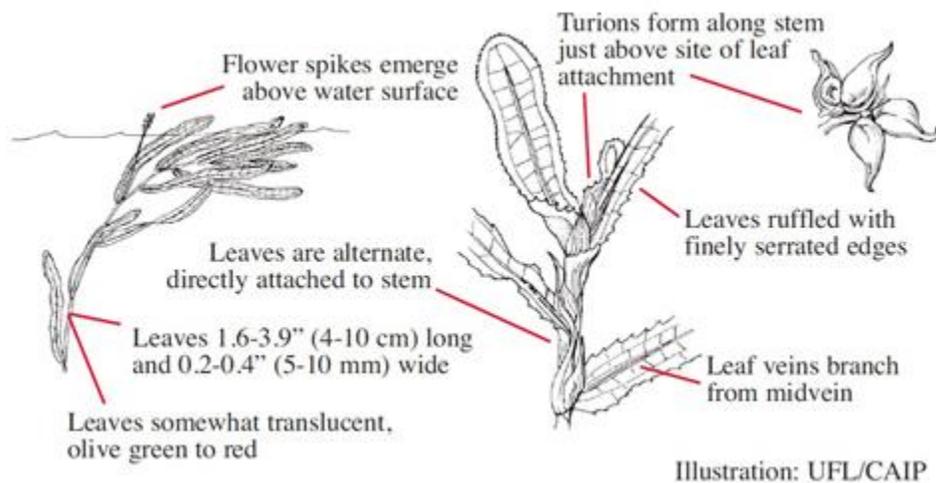


## Curly-leaf Pondweed (*Potamogeton crispus*)

Curly-leaf pondweed (*Potamogeton crispus*) is a rooted submerged plant that quickly forms dense mats at the water surface of lakes and rivers in late spring and early summer. In late fall and early winter, it sprouts from rhizomes and turions (overwintering buds) shading out later growing native plants. Mats interfere with boating, fishing, waterfowl hunting, and swimming. Summer die-offs can form windrows of decaying plants on shore, sometimes followed by algal blooms. Curly-leaf pondweed displaces native plant communities and decay can deplete oxygen levels, leading to fish kills and impacts on other aquatic life.

Native to Eurasia, Africa and Australia, curly-leaf pondweed was first discovered in North America in the mid 1880s. By 1978, it had spread across most of the United States and Canada. It spreads by seeds, rhizomes, turions, and plant pieces that break off and float on water currents. It can spread overland to new waters by clinging to watercraft, trailers, and equipment. Eradicating established curly-leaf pondweed infestations is nearly impossible. Your actions and your help in reporting new infestations are vital for preventing their spread.

### Identify Curly-leaf Pondweed



# Rollins Aquatic Lake Notes

## Subject: Lake Notes 6-29-16

**Goose Lake: Water level up 3.5"      82 degrees      6.11 mg/L**  
**Contracted treatment Acres: 8 Acres      Acres Treated to date: 2.5 Acres      -5.6Acres**

Goose Lake is looking good with only a couple areas of concern. The boat launch and side channels have a decent amount of algae present. The fingers continue to look good as well with very minor algae present. The East finger has some duckweed in the south corner otherwise minor duckweed noted. I am noticing some sporadic coontail and milfoil located around the shoreline towards the west finger but nothing to worry about yet. The milfoil on the south end of the lake is getting worst and I will plan for a treatment next week.

### Treatment:

Today I treated Muskie channel for the remaining milfoil and algae growth. Should notice results soon. Treatment area does not count against overall contracted treatment acres.

### Recommended treatment for next week:

1. South end of the lake there is some heavy milfoil growth still. I will be treating around the dock area of lot 58 and also treating a narrow strip from lot 58 to the north for boat traffic. (1 Acre total treatment area. Acreage has not been added to overall contracted treatment acres.
2. There is some algae building up around the boat launch and side channels. I will treat any algae present in these areas with copper sulfate. No restrictions.

**Beaver Lake: Water level up 5"      83 degrees      6.3 mg/L**  
**Contracted treatment Acres: 5 Acres      Acres Treated to date: 10 Acres      +5 Acres**

Beaver continues to look good with more and more native plants appearing. The majority of the lake is in good shape. Half moon lake channel to the south is clear of weed growth with the exception of a couple small milfoil patches. At the far south end of Beaver there is still some Curly leaf lingering in patches around the shoreline. This growth should not effect boat traffic still. Boat launch channel weeds continue to drop out and improve.

No treatments are scheduled for next week. I will be inspecting the lake only and no restrictions will be issued.

**Lincoln Lake: Water level up 3"      81 degrees      7.15 mg/L**  
**Contracted treatment Acres: 10 Acres      Acres Treated to date: 10.6 Acres      +.6 Acres**

Lincoln Lake is still looking very good and only has a few small areas of concern. Lot 49 on main channel just down from boat launch has a couple patches of Bladderwort and milfoil around shoreline. I will be treating this area next week. On the bay at the south end of the lake near lots 6 and 7 there is some algae/chara that I will plan to treat next week. Lot 25 has a patch of bladderwort from previous treatment that looks to be dying off but is still hanging around. I will look at this area again next week and if it does not improve I will retreat the following week.

The Milfoil growing in Lincoln Lake estates and at the end of Coal city road is a hybrid milfoil of Variable leaf milfoil. I will treating the section at the end of coal city road next week with a different herbicide. Once I see that the treatment is working I will schedule the treatment for Lincoln Lake Estates. I want to start with the smaller treatment to see how well the herbicide works before doing the larger application at Lincoln Lake Estates

### Treatment:

1. Coal City road channel- (Lots 5-14) Only treated residential dock areas for Milfoil and Curlyleaf. \*\*(1 acre total treatment area. Acreage has been added to overall contracted treatment acres.)
2. South Cove- (Lots 15-17) Treated for algae and Curly Leaf. \*(.5 Acres total treatment area. Acreage has been added to overall contracted treatment acres.)
3. 2055 Island Dr.- (Lot 71-S) Treated for Milfoil and Curly Leaf. Also treated for minor algae growth. (.1 Acre total treatment area. Acreage has been added to overall contracted treatment acres.

### Recommended treatment for next week:

1. Lot 49- Treating for Bladderwort and Milfoil. (.1 Acre total treatment area. Acreage has not been added to overall contracted treatment acres.)

2. South bay- Treating for algae and chara growth with copper. No restrictions.
3. End of Coal City Rd- Treating for variable leaf milfoil. (.5 acre total treatment area. Acreage will not count against contracted treatment acres since it is a re-treat.)

We have currently reached the contracted treatment total acreage for the season. Any future weed treatments will be billed extra. I will not perform any extra weed treatments without the approval from Goose Lake. The extra acreage weed treatments on Goose Lake (1 acre) and Lincoln Lake (.1 acre) will be \$425.00. Let me know if you have any questions.

### **Subject: Lake Notes 7/6/16**

**Goose Lake: Water level up 4"      80 degrees      5.97 mg/L**  
**Contracted treatment Acres: 8 Acres      Acres Treated to date: 3.5 Acres      -5.6Acres**

Goose Lake is continuing to look good. The boat launch and side channels had a decent amount of algae present, which was treated for yesterday and should look much better soon. The fingers continue to look good as well with very minor algae present. I received some good feedback from a couple residents in this area that the fingers are looking good. With the recent rains, however, there looks to be more duckweed that washed in. The majority of it is still located on the east side of the fingers. We may need to look into a different approach next year to help minimize duckweed build up in these fingers. Muskie channel looks much better after last weeks treatment. Most of the milfoil that was present is dropping out and the algae is gone as well.

Treatment:

1. South end of the lake there is some heavy milfoil growth. I treated around the dock area of lot 58 and also treated a narrow strip from lot 58 to the north for boat traffic. (1 Acre total treatment area. Acreage has been added to overall contracted treatment acres.
2. I treated around the boat launch and side channels for algae growth only. No restrictions apply.

No treatments are scheduled for next week. I will be inspecting the lake only and no restrictions will be issued.

**Beaver Lake: Water level up 5"      80 degrees      6.5 mg/L**  
**Contracted treatment Acres: 5 Acres      Acres Treated to date: 10 Acres      +5 Acres**

Beaver lake continues to look good. Most all of the curlyleaf is gone with the exception of a few areas in the south end of Half moon lake. This area is still navigable without a problem and looks to be slightly improving over the past week. There are a few patches of milfoil that are starting along the shore in the north end of the lake but will not pose a threat for boat traffic.

No treatments are scheduled for next week. I will be inspecting the lake only and no restrictions will be issued.

**Lincoln Lake: Water level up 3"      78 degrees      6.76 mg/L**  
**Contracted treatment Acres: 10 Acres      Acres Treated to date: 10.7 Acres      +.7 Acres**

Lincoln Lake is still looking very good and the only concern that remains is the variable leaf milfoil that is located in Lincoln Lake Estates. I treated the end of Coal city road channel yesterday using a newer chemical Renovate Max G. We will see what the results are over the next couple inspections. Last weeks treatment areas have responded very well. The south bay of the lake and west lot the weeds have mostly dropped out. While inspecting the lake the resident at LL4009 asked if I could treat for algae growth, which I did with his permission because there are no restrictions for algae treatments. The lake should continue to look well..

Treatment:

1. Lot 49- Treated for Bladderwort and Milfoil. (.1 Acre total treatment area. Acreage has been added to overall contracted treatment acres.)
2. South bay- Treated for algae and chara growth with copper. No restrictions.
3. End of Coal City Rd- Treated for variable leaf milfoil. (.5 acre total treatment area. Acreage will not count against contracted treatment acres since it is a re-treat.)

Recommended Treatment for next week:

Lincoln Lake estates area will be treated with a new combination of chemicals that should yield good results. I will be using the chemicals Tribune and Komeen together to reduce the amount of Variable leaf milfoil in this area. This treatment will not be counted against the overall contracted acreage and will be done at no extra cost since it is a retreat.

**Subject: Lake Notes 7-13-16**

**Goose Lake: Water level up 3"      82 degrees      6.11 mg/L**  
**Contracted treatment Acres: 8 Acres      Acres Treated to date: 3.5 Acres      -5.6Acres**

Goose Lake inspection was cut a little short today due to the weather. I was able to look at the majority of the lake but not all of it. The treatment areas from last week have improved. Most all of the algae near the boat launch and side channels is gone. The milfoil that was treated on the west end of the lake is showing signs of stress and dropping out. I will continue to monitor this area over the next couple weeks and if it does not improve I will arrange a follow up treatment. I was only able to look at a little bit of the fingers before the weather ended my day. I am noticing more milfoil and coontail growth along the shoreline in this area. There was also a decent amount of algae growth building up. I will be treating the algae next week and will then finish inspecting the fingers to see how much of the weed growth will need to be treated. If this area needs to be treated for weeds it will be an additional cost.

Recommended treatment for next week:

I will be treating the fingers for algae control only. There will be no restriction for this treatment and the treatment does not count against contracted treatment acres.

**Beaver Lake: Water level up 4"      81 degrees      6.65 mg/L**  
**Contracted treatment Acres: 5 Acres      Acres Treated to date: 10 Acres      +5 Acres**

Beaver lake overall is still in good shape with the exception of a few areas of concern. I am starting to notice some milfoil and pondweed pop up on the north mouth of half moon lake. The milfoil looks to be spreading via fragmentation. I will keep an eye on this area but no treatment is needed yet. There is still random patches of curly leaf on the south end of half moon but still not effecting boat traffic. There is a patch of milfoil at the very southern tip of half moon also.

Recommended treatment for next week:

1. Lot 2015- patch of milfoil and bladderwort in middle of channel headed toward dock. (.2 Acre total treatment area. Acreage has not been added to overall contracted treatment acres.)
2. Lots 5 and 6 on southwest extension of lake- patch of variable leaf milfoil next to dock. (.2 Acre total treatment area. Acreage has not been added to overall contracted treatment acres.)
3. Customer at address 3870 Jugtown Road requested I treat his dock area for milfoil and algae growth. (.1 Acre total treatment area. Acreage has not been added to overall contracted treatment acres.)
4. Previous treatment near lots 14 and 15 in channel will be retreated for milfoil and algae growth. ( This area will not be counted against contracted treatment acres.)

**The cost for doing the top 3 treatments will be billed extra at a cost of \$325.00**

**Lincoln Lake: Water level up 2"      80 degrees      6.78 mg/L**  
**Contracted treatment Acres: 10 Acres      Acres Treated to date: 10.7 Acres      +.7 Acres**

Lincoln Lake continues to look well overall with only a couple areas to be concerned with. Last weeks treatment on lot 49 worked well with much of the bladderwort dropping out. The treatment at the end of coal city road went well with the herbicide Renovate max g. Most of the milfoil has started to drop out. I will continue to note this area to see if Renovate max g will be the "go to" herbicide for the variable leaf milfoil problem in the lake. The algae treatment on the south bay worked as well with no algae remaining. A couple areas that I noted more weed growth in were lots 23 through 25. I noted some milfoil growth around these lots dock area. If this area becomes more of a problem for residents then I will schedule for treatment but growth is mostly minor for now. I also noted a patch of milfoil in front of lot 71 n in the middle of the lake. It is out of the way of main boating channel and shouldn't effect boating.

Treatment:

Today I treated Lincoln Lake Estates for the reduction of Variable leaf milfoil and some algae growth.

Recommended Treatment for next week:

1. LL4007- Patches of milfoil growth around dock and boat house. (.1 Acre total treatment area. Acreage has not been added to overall contracted treatment acres.)

2. A channel- Milfoil growth along shoreline at the beginning of channel down about ¼ of the way east. Then I will spot treat dock areas as needed. . ( 1 Acre total treatment area. Acreage has not been added to overall contracted treatment acres.)

**The cost for doing treatments 1 and 2 will be billed extra at a cost of \$550.00**

I am not able to look at every shoreline of the lakes each visit so feel free to put a link up on the website for my email. This way if a resident is noticing weed growth that they want looked at they can send me an email with lot number and address and I will take a look at it on my next inspection date.

### **Subject: Lake Notes 7-20-16**

**Goose Lake: Water level up 4"      82 degrees      6.85 mg/L**  
**Contracted treatment Acres: 8 Acres      Acres Treated to date: 3.5 Acres      -5.6Acres**

Goose lake is in decent shape still. The milfoil that was treated on the south and west side of the lake has dropped out a lot more. Only dead stalks of milfoil can be found within the treatment area. Muskie channel is still improving as well. There is a lot of dead growth on the west end of the channel but boat travel shouldn't be effected by it. The algae in the fingers was treated for and should look much better by next week. The only area of concern in Goose lake right now is the duckweed problem in the far east channels of the fingers. It seems that the majority of the growth is in the first 2 east channels I will schedule to treat these areas next week. I am still also noticing sporadic milfoil and coontail growth throughout the fingers as well. But is not effecting boat traffic.

#### Treatment:

I treated the fingers for algae control. The rain had knocked out the majority of algae from last week but there was still some present that was treated for.

#### Recommended treatment for next week:

I will schedule to treat the fingers for duckweed control next week. It seems that the duckweed gets worst after a rainfall so it must be coming in from somewhere else. I will be focusing the majority of the treatment on the 2 furthest east channels but will also be treating the remaining fingers as needed for duckweed control. . I can not guarantee total control with spot treating the duckweed but my plan is to get rid of the dense areas of the duckweed.

**\*The duckweed treatment will be an additional cost of \$575.00**

**Beaver Lake: Water level up 5"      82 degrees      7.65 mg/L**  
**Contracted treatment Acres: 5 Acres      Acres Treated to date: 10.5 Acres      +5 Acres**

Beaver lake overall is still in good shape with the exception of a few areas of concern. The areas of concern are all in Half Moon Lake. The patches of milfoil that were treated near the middle of the channel near Joe Turk's lot dropped out initially but are still lingering at this time. If area worsens by next week I will plan to schedule for retreatment the following week with the granular herbicides that have been working well for me as of lately. I am still noticing some minor patches of milfoil and pondweeds to the north of this area but no treatment needed yet. The south end still is showing curly leaf growth. I will plan to hit this entire area early next year to stay ahead of the curly leaf growth before it becomes a problem like it did this year.

#### Treatment:

1. Lot 2015- patch of milfoil and bladderwort in middle of channel headed toward dock. (.2 Acre total treatment area. Acreage has been added to overall contracted treatment acres.)
2. Lots 5 and 6 on southwest extension of lake- patch of variable leaf milfoil next to dock. (.2 Acre total treatment area. Acreage has been added to overall contracted treatment acres.)
3. Customer at address 3870 Jugtown Road requested I treat his dock area for milfoil and algae growth. (.1 Acre total treatment area. Acreage has been added to overall contracted treatment acres.)
4. Previous treatment near lots 14 and 15 in channel was retreated for milfoil and algae growth. ( This area will not be counted against contracted treatment acres.)

**No treatments are scheduled for next week only an inspection.**

**Lincoln Lake: Water level up 2.5"      82 degrees      7.2 mg/L**  
**Contracted treatment Acres: 10 Acres      Acres Treated to date: 11.8 Acres      +.7 Acres**

Lincoln Lake is still looking good with only one real area of concern. Last weeks treatment on Lincoln lake estates does not look to have made a difference yet. Some of the weeds have dropped out from the surface but still look healthy. I am not sure if the rain had any effect on the treatment last week or the combination of the herbicides did not work well. I am going to give it one more week to see if any results can be noticed if not I will be scheduling it for another follow up treatment with either Navigate or Renovate Max G. I am seeing great results at the end of coal city road channel. Most all of the milfoil continues to drop out and decompose. Other than a few patches of milfoil along lots 23 through 27, the remaining lake is looking great.

Treatment:

1. LL4007- Patches of milfoil growth around dock and boat house. . ( .1 Acre total treatment area. Acreage has been added to overall contracted treatment acres.)
2. A channel- Milfoil growth along shoreline at the beginning of channel down about  $\frac{1}{4}$  of the way east. Then I spot treated dock areas as needed. . ( 1 Acre total treatment area. Acreage has been added to overall contracted treatment acres.)

**No treatments are scheduled next week only an inspection.**