

“For the Sake of the Lake”



Town of Columbia Non-Native Aquatic Invasive Species herein
Aquatic Invasive Species and/or
(AIS) Awareness Self Study Course ~ 2017*

***Part of the Comprehensive Aquatic Invasive Species Prevention Plan**

A Primary Threat to Columbia Lake ~ Aquatic Invasive Species (AIS)



Currently there are no known aquatic invasive species in Columbia Lake.

The goal is TO PREVENT AIS!

Part 1

What Are Aquatic Invasive Species?

Why Should I Care?

Aquatic Invasive Species (AIS) are non-native plants, animals, and pathogens that live primarily in water.

They thrive in a new environment and can cause environmental damage, recreational loss, economic loss and can be harmful to human health.

Currently there are no known aquatic invasive species in Columbia Lake.

The goal is TO PREVENT AIS!

AIS Negative Impacts

- Lake Ecosystem
 - ✓ Destroys Natural Habitat/Ecosystem
 - ✓ Minimizes Natural Beauty
- Recreational Use
 - ✓ Temporarily or Permanently Impedes Recreational Uses
- Economic Impact ~ Ongoing & Costly
 - ✓ \$ Per Acre Cleanup Costs of \$300 - \$ 2,000
 - ✓ Options to Reduce Have Flaws & Do Not Remove AIS
 - ✓ AIS Growth has Negative Impact on Town Tax Base
- Health
 - ✓ Toxins Can Be Passed Up the Food Chain



Aquatic Hitchhikers



Costs of Cleanup

Part 2

Examples of Aquatic Invasive Species (AIS) Found in Connecticut Water Bodies

AIS EXAMPLES

- **Fanwort** – are aquatic plants of the water lily family, having very small flowers with submerged and floating leaves. **Fanwort is found in lakes and ponds throughout most of CT, the nearest being in Mono Pond, Columbia CT.**
- **Curly-leaf pondweed** - is a species of aquatic plant native to Eurasia but is a noxious weed in North America. It is under water with smooth wavelike form and jagged edged leaves. **Curly-leaf pondweed is found in Lake Candlewood, Lake Zoar and many other lakes and ponds throughout CT.**



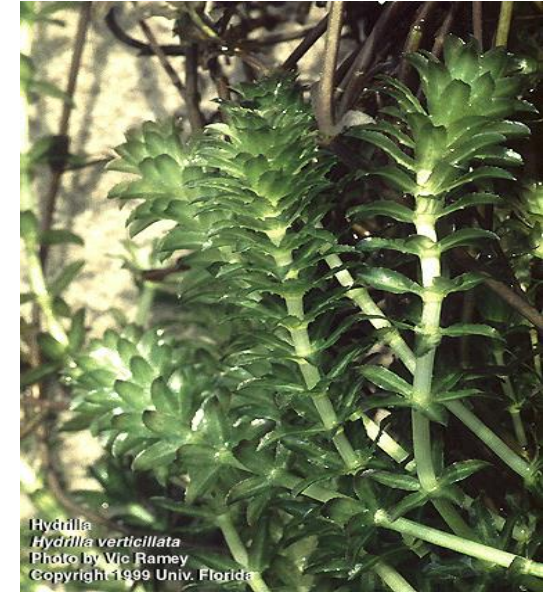
Fanwort



Curly Leaf Pondweed

AIS EXAMPLES

- **Hydrilla** – forms a dense canopy shading out other vegetation. Hydrilla interferes with recreational activities such as swimming, boating, fishing and water skiing. Thick layers can alter water quality by raising pH, decreasing oxygen under the mats, and increasing temperature. **Hydrilla is found in Coventry Lake, the Connecticut River and throughout Southern CT.**
- **Variable Leaf Water Milfoil** – is similar to Hydrilla but milfoil reduces biodiversity by competing aggressively with native plants. Also it reduces oxygen levels in the water caused by decomposing plants which can kill fish. **Variable Leaf Water Milfoil is found in Coventry & Rogers Lakes & throughout most of CT.**



Hydrilla



Variable Leaf Water Milfoil

AIS EXAMPLES

- **Zebra Mussels** – a chiefly freshwater Eurasian mollusk that was accidentally introduced into the Great Lakes and has spread to other waterways throughout the USA. Zebra mussels get their name from a striped pattern commonly seen on their shells, though it is not universally present. They are usually about the size of a fingernail, but can grow to a maximum length of nearly 2 in. They compete with native fish for food. Zebra Mussels are found in Rogers Lake, the Connecticut River and many other CT waterways.



Zebra Mussels

Example of CT Waterways With AIS Near Columbia Lake

- Mono Pond ~ Columbia
- Bolton Lake ~ Bolton
- Bashan Lake ~ East Haddam
- Beseck Lake ~ Middlefield
- Black Pond ~ Meriden
- Cedar Lake ~ Chester
- Connecticut River

- Coventry Lake ~ Coventry
- Crystal Lake ~ Middletown
- Crystal Lake, Ellington
- Gardner Lake ~ Salem
- Grannis Lake ~ East Haven
- Lake Pocotopaug ~ East Hampton
- Rogers Lake ~ Lyme

Part 3

How Can We PREVENT AIS In Columbia Lake?

Prevent 'aquatic hitchhikers' from being transported by different pathways which include:

- Attaching to boat hulls, motors, trailers, and equipment
- Attaching to non motorized watercraft as row boats, kayaks, canoes, paddle boards and equipment as paddles
- Attaching to fishing or other field gear
- Transporting in bilge tanks, live wells, and engine cooling water
- Emptying bait containers into water bodies
- Emptying aquariums into water bodies

What Can We Do To Help Stop AIS?



PREVENTION is the most effective option for stopping the spread of aquatic invasive species.

When boating or paddling in other waterways before launching in Columbia Lake follow the simple steps of

CLEAN, DRAIN, DRY OR DISINFECT EVERYTIME!

Clean, Drain, Dry or Disinfect Procedures

DO NOT TRANSPORT ~ Before Leaving Boat Launch of Another Water Body

- ✓ **CLEAN** ~ remove all visible mud, plants, animals & other debris before transporting equipment
- ✓ **DRAIN** ~ eliminate all water from your watercraft, trailer, tackle and gear before leaving the area, including wells, bilge, engine cooling water, internal compartments and bait buckets

In addition to CLEAN & DRAIN Practices...DRY or DISINFECT

- ✓ **DRY** your watercraft & equipment in hot or sunny weather for 7 days before transporting boat to another body of water OR
- ✓ **DISINFECT** ~ Use a high pressure washer to spray of watercraft & trailer or rinse the watercraft & trailer with hot water OR
- ✓ Wet the watercraft & trailer with a bleach solution (1 oz per gallon) or Lysol and hot water for 10 minutes. Rinse well to remove all residual cleaning agents.

Clean & Disinfect Watercraft

Away From the Columbia Lake Watershed Area

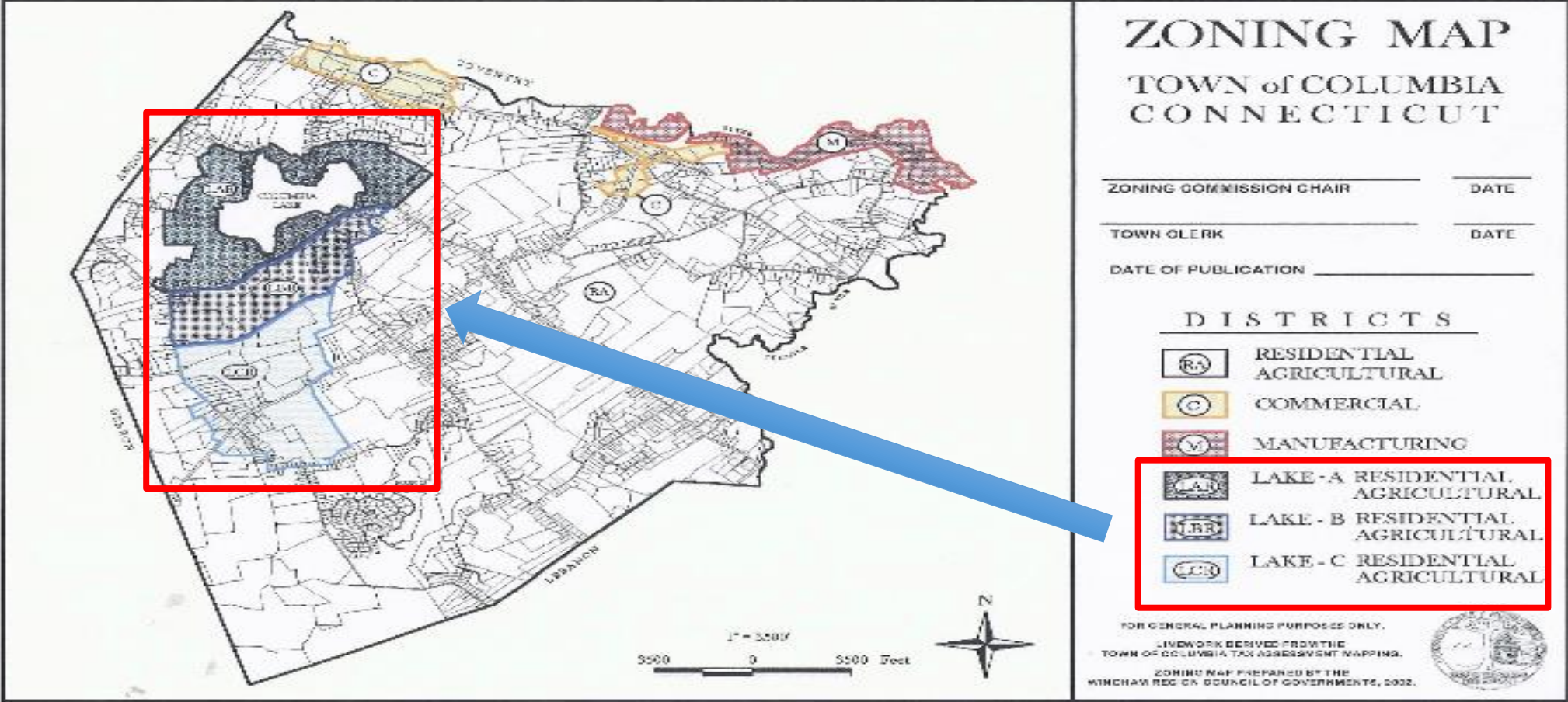
What is Watershed?

The Columbia Lake watershed is a bowl area surrounding Columbia Lake where all water runoff from rain or snow and human use drains from high points downward to culverts or catch basins that ultimately empties into the lake.

Where Do Watershed Residents Clean/Disinfect Watercraft?

- ✓ If you live in the Watershed, for watercraft requiring disinfecting consider a location that is as far from the Lake as possible and that does not drain downhill to a storm culvert or other storm water flow to the Lake OR
- ✓ Go to an area outside of the watershed that does not have water runoff that empty into the lake. An example of a disinfecting area outside of the watershed are car washes.

Columbia Lake Watershed Areas A, B & C



Town of Columbia Inspector &/or Qualified Inspector Action Steps Prior to Launching

- **LOOK & FEEL** for signs of any vegetation, mussels, snails or standing water that may be attached to any watercraft part ~ outside & inside
- **CHECK TRAILER & TOWING VEHICLE** including rollers and bunks for signs of any plants
- **OPEN** internal compartments checking they are completely drained
- **CHECK FOR STANDING WATER.** Standing water is of particular concern as some aquatic invasive species have life stages that are microscopic - as invasive mussel larvae - and undetectable. They can be easily transported in standing water from previous use.
- **LAUNCH** if **NO signs of AIS** seen or felt and/or no standing water
- If you find any vegetation, mussels, snails or standing water **REMOVE** watercraft to *Clean, Drain, Dry or Disinfect.*

“For the Sake of the Lake”



PREVENT THE INTRODUCTION OF AIS!!!