
THE CULLEN CURRENTS

Summer, 2020



2020 Annual membership meeting will not take place

The CLA Board of Directors has decided to forego this year's annual membership meeting due to the Covid-19 pandemic. Necessary business, the election of Board members and the approval of the 2020-2021 budget, will be conducted by the mail-in ballot provided in this newsletter.

Crow Wing County Board adopts a short-term rental licensing ordinance

On June 9, 2020 the County Board adopted a short-term rental licensing ordinance. Effective January 1, 2021, all short-term rentals within the boundaries of Crow Wing County will be required to obtain an annual short-term rental license from Crow Wing County.

The purpose of the new ordinance is to continue the allowed use of short-term rentals while mitigating possible adverse impacts to the health, safety, welfare, and quality of life of surrounding properties as well as to water and environmental quality.

This ordinance will affect "any home, cabin, condominium or similar building that is advertised as, or held out to be, a place where sleeping quarters are furnished to the public on a nightly, weekly, or for less than a 30-day time period and is not a bed and breakfast, resort, hotel or motel."

Those Cullen Lake properties being rented out for periods of time of less than 30 days will need to obtain a license to do so next year.

The full text of the ordinance can be found on the County's web site.

Vandals leave their mark on public access

In June unknown persons vandalized Middle Cullen's public access. They spray painted the AIS sign and the handicapped parking space sign at the access. The proper authorities were notified and the signs will be replaced, an unfortunate but necessary use of taxpayer dollars at a time when State money is tight due to the pandemic.



The vandals also had their fun spinning out in the parking area and dumping cabin garbage at the access.

A nearby lake resident noticed the damage, took pictures of the signs, and reported the sign damage to the DNR so they could have the signs replaced. If you have any knowledge of who may have done the vandalizing, please notify the DNR.

Public access watercraft inspections

Due to Lower Cullen's designation as a zebra mussel infested lake, Crow Wing County allotted 300 hours of watercraft inspection time at its public access this summer. On most weekends there is a watercraft inspector on duty at the access for eight hours each day. Holiday weekends generally have one additional day of the inspector's time.

As of July 10, 152 hours of watercraft inspection time had been used. If you or your friends and family are putting in or taking out watercraft at the public access, please be courteous and cooperate with the inspector. He is performing a valuable service for the lakes.

Weeds, weeds, weeds

by C.B. Bylander

Weeds are a problem. That was a common response among those who completed the 2020 Cullen Lakes Association survey. Survey results included such observations as “weed growth out of control,” “green slime,” “stuff floating on the water,” and “weeds getting closer to shore.”

Typically, lake vegetation was characterized as a nuisance, and sometimes it is. The recreation-inhibiting aspects of lake vegetation is why the Department of Natural Resources allows our association to chemically treat curly leaf pondweed and allows property owners to remove vegetation within certain guidelines.

Still, aquatic plants — weeds if you will — are part of lake life. Aquatic plants have existed in Minnesota lakes for thousands of years. They will be here for thousands more. So, regardless of how you feel about water plants, it makes sense to know a bit about them. That’s because despite being the occasional nuisance, aquatic plants also provide benefits, including being a food source for various life forms, providing habitat and oxygen for aquatic organisms, stabilizing shorelines and sediment, and helping water clarity by absorbing runoff and nutrients.

The Cullen Chain includes four groups of aquatic plants: 1) emergent, 2) floating-leaf, 3) submerged, and 4) algae. What follows is a closer look at these groups and the functions they provide to the ecosystem.

Emergent vegetation

Emergent plants are often located near the water’s edge and are rooted in the lake bottom with their leaves and stems extending out of the water. Emergent plants absorb nutrients before algae can utilize them. They also stabilize bottom sediments of a lake, thereby helping improve water quality and clarity. Common emergent plants include bulrush, cattail and wild rice.

Bulrush provide excellent fish habitat for spawning northern pike and yellow perch along with being a food source for ducks, geese and swans. Wild rice grows in soft, mucky sediment and its leaves float on the surface during late spring and early summer. However, in July this “flat grass” emerges from the water and grows into



three to ten feet stalks. Wild rice is a magnet for waterfowl and red-winged blackbirds. A lot of the shooting you hear in autumn near sunrise comes from waterfowl hunters utilizing the rice stands in Upper Cullen.

Other less common emergent plants include sedges, arrowhead, spike rush, pickerelweed, cane and many other less conspicuous plants.

Floating-leaf vegetation

Floating-leaf plants are typically rooted in the lake bottom but their leaves and flowers float on the water surface.



They are typically found in protected areas where wave action is limited. Common floating-leaf vegetation includes yellow pond lily, white water lily and water shield. The latter is also known as “snot weed”

due to the slimy clear protective covering on the underside of the floating leaf.

Submerged vegetation

Submerged plants have stems and leaves that grow entirely underwater and are found from near shore to the deepest part of the lake that light can penetrate. Examples of submerged vegetation include various pondweeds, wild celery, coontail and watermilfoil. Submerged vegetation is often exceptional fish habitat. Anglers often refer to a patch of “cabbage,” which is the term they use for a thick broad-leafed pondweed bed where fish congregate.



Due to their diversity, submerged plants perform a variety of lake functions such as providing food and cover for fish and invertebrates, producing oxygen, and improving water clarity. Clearly, some species can become a nuisance to surface water users, which is why the DNR has adopted more liberal rules for managing submerged vegetation than for emergent vegetation.

Algae

While not a vascular plant, algae is common in all lakes and has no true roots, stems or leaves. Algae is what gives lake water its green tinge. Small planktonic algae provide food for certain small aquatic animals and young fish in open water, while the much larger chara or “muskgrass” stabilizes bottom sediments and supports insect and other small aquatic animals, as well as waterfowl.

Chara is an advanced form of algae and is often mistaken for a vascular plant. It is identified by a strong musky or skunks odor when crushed and has a gritty texture.

Though the Cullen are not known to contain any muskellunge, chara is preferred muskellunge spawning habitat on Leech Lake, Cass Lake and other muskellunge waters.

Green algae are the most common planktonic algae. This algae drifts in the open water and is a food source for microscopic creatures called zooplankton, which in turn feed many species of fish. Green algae accounts for a significant amount of oxygen production in lakes.

The kind of algae you do not want to see is called blue-green algae. It exhibits a “spilled paint” look on the water’s surface. Some species of blue-green algae produce “cyanotoxins” that can be harmful and even deadly to mammals. Don’t let your pets or kids get into water like that.

Blue-green blooms can be a sign of deteriorating water quality and can often be a precursor to a lake changing from a clear water to a more turbid state. However, it is also true that blue-green algae blooms are often isolated in one small part of a lake and are a temporary result of high nutrients and warm weather. More information on blue-green algae can be found on the Minnesota Pollution Control Agency website at (<https://www.pca.state.mn.us/water/blue-green-algae-and-harmfulalgal-blooms>).

What can be done to minimize algae blooms in the Cullens?

The long answer is fodder for an upcoming newsletter article, yet the short answer is this: Help limit the amount of nutrients that enter our lakes. This means supporting good conservation throughout the watershed, buffering shorelines from nitrate or phosphate-containing lawn fertilizers that also make lakes green, and making sure septic systems are functioning as they should.

Is purple loosestrife growing on your shoreline?

By law, you must kill or remove any purple loosestrife (PL) on your property. If the PL is not too plentiful, the best method is to dig or pull it out by the roots. If the infestation is heavy, cut the blossoms off, being careful not to spread the seeds, and bag them up for disposal in the garbage. Then cut the plant off at ground level to inhibit future growth. You can also hand spray the plants with poison. Contact the DNR for more details on spraying and to apply for a permit to do so.

If you need help in identifying purple loosestrife, you will find a photo and diagram of it on the lake association’s web site: www.cullenlakesassoc.org.

Fourth of July parades are a big success

’Twas a beautiful day for a boat parade! The sun was shining, there wasn’t much wind, and the temperature was in the 80s.

Upper Cullen set a record with 18 boats participating in its parade. This photo was sent by C.B. Bylander. Upper



Cullen Resort provided a lengthy and beautiful fireworks display that evening for everyone within viewing distance to enjoy.

Middle Cullen had 34 decorated watercraft participating in its parade, also a record number. Debi Oliverius provided this photo for the newsletter.



Lower Cullen had a very respectable but not record setting turnout of 38 watercraft in the parade, including the traditional flag-carrying pair of waterskiers who made several rounds of the lake during the boats’ one time around. Ann Beaver provided this



photo. Unfortunately, during the Lower Cullen parade a lone jet skier raced in and out of the boat lineup, endangering participants and intentionally kicking up spray on some of them.

2020 Curly leaf pondweed treatment was effective

Clarke Aquatic Services conducted its post treatment surveys on June 25, 5 1/2 weeks after treating the curly leaf pondweed (CLP) polygons with Aquathol K. The technician noted much of the CLP was dead, dying, or unable to be found because it had already decomposed. He did find some new CLP growth on the edges of some of the treated polygons, likely plants that started growing after the treatments. He compared the Middle Cullen treatment polygon that was treated with granular Aquathol K to the polygons treated with liquid Aquathol K to see if the granular form was more effective. He noted no difference in the results.

In the following maps, areas in white are the polygons of CLP that were treated in May. The blue dots indicate CLP found in the June surveys.

The yellow dots and arrow in the map below indicate an area of CLP found in the post treatment survey that could merit treatment next year.



Upper Cullen



Lower Cullen



Middle Cullen

Midsummer loon reports

Lower Cullen had four nesting platforms, one along the Paul Bunyan Trail, one along the northwest shore, one along southeast shore and one off the east shoreline. Of these nesting loons, only the east enders hatched eggs and as of this writing only one chick was still alive.

Reports from Middle Cullen indicated that there were several nesting pairs and perhaps some non nesting loons. Of the eggs hatched by the nesting loons, there are two chicks still in evidence.

Of Upper Cullen's loon couples it was not known how many of them successfully hatched eggs, but there is only one chick that has recently been seen.

Not a great year for surviving loon chicks, but obviously a good one for the eagles in the area.

Currents on the Cullens

Deaths

Hellen Opsahl, Upper Cullen (U14)

Boating etiquette: the unspoken rules of the water from the Minnesota DNR web site



Recreational boating has an etiquette – the customary code of accepted behavior on and around the water. Boating etiquette is about safe behavior, as well as what’s socially accepted. Here are some of the basics to help you navigate the boating world with ease while not creating a stir among fellow users of the water.

Top 10 rules to respectful boating – make the right kind of waves

Remember, these are guidelines and should not serve as a replacement for learning the rules, regulations and laws for your local body of water. Whether you’re a novice or veteran boater, learn more by taking a boating safety course.

- 1. Respect the ramp.** Good boating etiquette starts before you enter the water - at the dock. Prepare your boat and equipment before getting into position to launch. Anything else is disrespectful to fellow boaters.
- 2. Own your wake.** The fastest way to make the wrong kinds of waves is to literally throw a big, obtrusive wave at another boat, swimmer, angler or shoreline owner. This is much more than being a nuisance or disrupting others’ experience on the water. It’s dangerous to those unable to tolerate a large wake. Stay at least 200 feet from the shoreline and other boaters.
- 3. Keep the tunes in check.** Sound is amplified over the water, so keep the music at a decent level. Not only is it a disturbance to others but the operator may not hear the spotter.
- 4. Pack in. Pack out.** Seems like common sense, right? Yet shorelines are still lined with trash being thrown overboard. Take care of the body of water you love and dispose of any trash you have. Do not throw it overboard!
- 5. Slow your roll.** Does the body of water you’re on have a speed limit or slow-no-wake restriction? It’s your responsibility to know it and respect it. You are responsible for any damage you cause to other people’s property.
- 6. Rules of the road.** Become familiar with waterway markers and navigation rules, which dictate how you operate your vessel in order to prevent collision.
- 7. Be prepared.** If you are the captain, you need to be prepared with the safety rules for your craft and make your guests aware as well. Know state and local laws for the body of water you’re on. Set a good example by always wearing a life jacket and have enough life jackets for each person onboard. Beyond that, make sure to have the appropriate fit.
- 8. Fuel and go.** At the fuel dock, get fuel, pay your bill and move out of the way. If you need to buy additional supplies, relocate your boat. Don’t forget to run your blower before starting.
- 9. Anchoring and mooring.** Enter an anchorage or mooring area at a slow speed. Don’t create a wake that will disrupt other anchored boats. The first boat sets the tone. Mimic how they tie off, how much line you use and how much distance you allow between you and other boats. The busier the boat, the more space you should give yourself.
- 10. Be polite – give a wave.** When passing another boat, give a little wave hello. Boating is all about having fun and being part of the boating community. Embrace it, enjoy it, and share it for generations to come.

Cullen Lakes Association 2021 Lake Management Plan (LMP)

Goal 1: Maintain or improve the water quality of the Cullen Lakes

Strategy A: Monitor the water quality of each lake using the three most common parameters: Secchi disk for water clarity, total phosphorus, and chlorophyll *a*.

- Actions:**
1. Monthly, May through September, take lake water samples and have them analyzed by a certified lab for total phosphorus and chlorophyll *a*.
 2. At least once monthly, May through September, take Secchi disk readings for water clarity.
 3. Plot the results to detect trends.

Strategy B: Increase the number of lakeshore properties that have a shoreline buffer of unmowed native vegetation or a completely natural shoreline.

- Actions:**
1. At least once each year, publish an educational article on natural shorelines in the Association's newsletter and post it on the CLA website.
 2. Educate property owners regarding what lakeshore property alterations, both on land and in the water, require permits from the local government unit and/or the DNR.

Strategy C: Encourage all developed Cullen Lakes lakeshore properties to have sewage treatment systems that effectively treat wastewater.

- Actions:**
1. Annually, educate property owners on the recommended usage and maintenance of septic systems.
 2. Provide each new lakeshore property owner with the University of Minnesota Extension's Septic System Maintenance and Tank Pumping Guidelines sheet.

Strategy D: Identify possible sources of pollutants in the lakes from sources other than inadequately treated wastewater.

- Actions:**
1. Periodically, analyze wetland and stream discharge into the lakes for total phosphorus. Plot the results to detect trends.
 2. Educate property owners on ways to help prevent shoreline erosion problems.

Goal 2: Maintain an aquatic plant community of sufficient abundance to support fish and wildlife, to protect shorelines and lake bottoms from wave action, and to improve water quality.

Strategy A: Maintain a healthy, well-balanced aquatic plant community while controlling vegetation which interferes with reasonable access to and use of the water.

- Actions:**
1. Annually, educate lakeshore owners on native aquatic plants, their value to the lake, the proper and/or allowed methods of their removal, and possible ramifications of altering the native plant community.
 2. Monitor changes in the abundance of aquatic vegetation.

Goal 3: Control and prevent infestations of aquatic invasive species to protect native plant and animal populations and the lakes' ability to support recreational activities.

Strategy A: Control the growth and spread of purple loosestrife.

- Actions:**
1. Annually, educate lakeshore property owners on their responsibility to identify and control purple loosestrife on their property.

Strategy B: Control the growth and spread of curly leaf pondweed.

- Actions:**
1. Annually, map and document with GPS coordinates the locations of nuisance curly leaf pondweed or assist a hired CLP treatment contractor in doing so.
 2. Annually, work with the DNR or other resources to implement a curly leaf pondweed treatment plan.

Strategy C: Prevent the introduction of zebra mussels from Lower Cullen into Middle and Upper Cullen.

- Actions:**
1. Annually, educate lakeshore property owners on how to prevent inadvertently transporting zebra mussel veligers from one lake to another in water contained in their watercraft, bait containers, and livewells as well as adult zebra mussels attached to items that have been in the lake.

Strategy D: Monitor the lakes for new aquatic invasive species.

- Actions:**
1. Annually, educate lakeshore property owners on identifying aquatic invasive species.
 2. Immediately upon confirmed identification of an aquatic invasive species in the Cullen Lakes, take action to eliminate, control, or decrease its presence or growth.

Goal 4: Enhance the recreational use, safety, and enjoyment of the lakes' water surfaces while protecting them as natural resources.

Strategy A: Minimize the environmental impact of motorized watercraft on the lakes.

- Actions:**
1. Annually, provide lake property owners with a review of and update on watercraft regulations.
 2. Annually, educate lake property owners on lake-friendly usage of motorized watercraft.

Goal 5: Maintain or improve the fish population of each lake.

Strategy A: Provide lake property owners with information that will enable them to set reasonable expectations for the current and future quality of fishing on the Cullen Lakes.

- Actions:**
1. When a report is available, publish a newsletter article reviewing the most recent DNR lake survey results on fish spawning conditions and test netting results for each lake.
 2. Annually, educate property owners regarding catch-and-release.
 3. Annually, provide property owners with any new fish possession limits and size guidelines.

Strategy B: Work with the DNR to protect/improve/restore fish habitats and populations.

- Actions:** 1. Maintain a committee whose responsibility it is to work with DNR Fisheries personnel.
- Goal 6:** Promote responsible and sustainable land development to protect the lakes and their environs.
- Strategy A:** Take a proactive position on the development of shoreland.
- Actions:** 1. Maintain a committee whose responsibility it is to act as a liaison with the jurisdictions in which the Cullen Lakes are located on matters concerning shoreland ordinances, rezoning requests, development proposals, conditional use permits, and variance requests.
2. Submit a position letter and attend public hearings, when possible, for all rezoning requests, development proposals, conditional use permits, variance requests, etc. involving Cullen Lakes lakeshore properties.
3. Annually, via the newsletter, educate lakeshore property owners on lake-friendly shoreland development.
- Strategy B:** Monitor development and land use within the Cullen Lakes watershed.
- Actions:** 1. Stay informed of development and land use requests via legal announcement in area newspapers.
2. When appropriate, attend local government unit meetings and public hearings that concern rezoning requests, development proposals, conditional use permits, variance requests, etc. for properties within the watershed to express the Association's position and/or concerns.
- Goal 7:** Educate and inform Cullen Lakes property owners, Association members, and the general public on topics related to the preservation of the quality of the lakes and their environs.
- Strategy A:** Educate lakeshore owners on their responsibility to preserve the quality of natural resources.
- Actions:** 1. Use a quarterly newsletter as the principle medium to educate property owners on Best Management Practices.
2. Maintain an Association website.
3. As needed, update and revise the Association's *Managing Your Shoreland: A Guide for Lakeshore Owners* for distribution to all new Cullen Lakes lakeshore property owners.
- Strategy B:** Inform lakeshore property owners of Board and committee actions taken to meet the Association's goals and objectives.
- Actions:** 1. Annually, provide lakeshore property owners with written reports of Board and committee actions.
2. Annually, publish the water quality test results in the newsletter.
- Strategy C:** Provide information to lakeshore property owners on current issues that could affect the future of the Cullen Lakes.
- Actions:** 1. As needed, send special mailings and other communications to lakeshore property owners and Associate members to keep them informed on current critical issues.
- Goal 8:** Review and, when necessary, revise the Association's organizational structure to ensure attainment of its goals and objectives.
- Strategy A:** Work towards ensuring that the Association's committee structure supports the goals and objectives of this plan.
- Actions:** 1. Annually, analyze the current committee structure and make changes needed to accomplish the goals and objectives adopted by the Association.
2. Annually, review specific responsibilities assigned to each committee and update/revise them where appropriate.
3. Maintain a current manual of procedures defining officer and committee roles, responsibilities, duties, and the working relationships between entities in order to facilitate officer or committee chair and Board member turnover.
- Strategy B:** Obtain necessary financing for the Association's general operations and projects through dues, grants, fund drives, and gifts.
- Actions:** 1. Encourage adult family members of property owners to join the Association.
2. Encourage all co-owners of lakeshore properties who are not currently members to join the Association.
3. Annually, assess the need for an increase in dues.
4. Encourage members to include a tax deductible donation with their payment of annual dues.
- Goal 9:** Establish a proactive position in the planning for the future of the Cullen Lakes.
- Strategy A:** Evaluate and modify the Lake Management Plan (LMP) on a regular basis.
- Actions:** 1. Annually, evaluate the current database and the need for additional data to meet current goals.
2. Annually, review the LMP to determine if any actions need to be modified.
3. Annually, report the progress towards meeting the goals of the LMP to the membership.
4. Every five years, conduct a survey of lakeshore property owners to profile their understanding of and need for shoreland management and to use as a basis for making changes to the LMP.
5. Every five years, analyze trends that may affect the quality of the lakes to determine what modifications are needed to the LMP.