



# STATE OF THE LAKES

KEVIN HORROCKS, COLA PRESIDENT

There's a saying that "knowledge is power." But only if that knowledge is put to use.

So, what do we know about Lac Courte Oreilles and Little Lac Courte Oreilles, the LCO Lakes? What do we know about ourselves? And can, or will that knowledge be put to use to save the water quality of these lakes for ourselves, and for our own kids and, yes, for total strangers in the future who will love these lakes as much as we do?

There are a number of items to cover, so this will mainly be an overview.

Let's get COVID 19 out of the way. It's created a lousy situation for all of us whether we live here full time or have a second home, or visit or rent. This year we've all had to compromise on our use and enjoyment of the Courte Oreilles Lakes. Some of our friends and neighbors were not able to come even once this year to visit their own places.

We all have adapted to the situation in our own ways, but, of course, our local business friends at Trails End, Angler's Haven, Trailways, Boulevard, and Fireside have also all suffered by our restricted abilities to support them, Fireside apparently closing permanently.

For COLA (Courte Oreilles Lakes Association) COVID 19 forced us to cancel the annual Picnic, and, after two delays, also cancel the Annual Meeting.

So, what about Lac Courte Oreilles and Little Lac Courte Oreilles themselves and our use of them.

## PHOSPHORUS

Phosphorus remains the number one problem for Lac Courte Oreilles. For the lakes, it is a pollutant. It is so damaging that Wisconsin and other states have banned the use of phosphorus in all sorts of applications where it might enter lakes or streams or virtually any surface water. For example, it's against the law to use fertilizer with phosphorus on your lawn.

One problem is phosphorus is invisible. We can look at the water and see nothing dangerous, so, to our knowledge we think the water is clean.

So, what's the harm with phosphorus in our lakes?

- Virtually all aquatic plants will grow more with more phosphorus in the water.
- Algae will grow more, clouding the visibility of the water.
- Phosphorus can prompt blue-green algae which can be poisonous to humans and pets.
- The overabundant plants and algae die and when rotting, consume dissolved oxygen from the water, which has led to large scale fish kills. In Lac Courte Oreilles' case, it can lead to the collapse of the rare two-



Photograph of the MB floating algal mat

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story fishery...one of only five in all Wisconsin which supports cisco and lake whitefish...which in turn, support the lake's gamefish.

- Rain or snowmelt over impervious surfaces flushes phosphorus into the lakes.
- Without shoreline buffers rain or snowmelt picks up naturally occurring phosphorus and adds more to the lakes.
- Phosphorus does not break down, so the entire 125 square mile watershed brings phosphorus to Lac Courte Oreilles, and then to Little Lac Courte Oreilles.
- Phosphorus remains in the dead aquatic vegetation, gets stirred up and stimulates the subsequent year's plant growth.
- The excessive aquatic plant decomposition uses so much dissolved oxygen that the eggs of some fish, like muskies, die before they can hatch.
- It helps grow slime, another form of algae, on slippery rocks.

LCO Conservation and COLA are still collecting and analyzing phosphorus samples and we don't have this year's measurements tabulated at this time. When we have them the results will be published in SELT.

Suffice it to say, this is the most immediate, measured, known threat to the future health of these two lakes. The phosphorus levels in Lac Courte Oreilles have been on a steady rise for the last 20 years of intensive monitoring. The corresponding decrease in water quality evidenced by fish kills, green water, floating algal mats, denser aquatic plant growth, loss of water clarity (can't see your toes anymore) are signaling us the lakes are headed for an early death if we don't slow and reverse the levels of phosphorus coming into the two Courte Oreilles Lakes.

## SSC

Controlling phosphorus in the water remains the most important effort toward saving and protecting the Lac Courte Oreilles. Last year COLA and the LCO Tribe submitted a filing with the State to establish a Site Specific Criteria for Lac Courte Oreilles of 10 ppb (parts per billion). The State standard has been 15 ppb, and Lac Courte Oreilles' water quality has been deteriorating at that level. In fact, there have not been sufficient efforts to even keep the lake at the 15 ppb. The science, the facts that COLA and LCO Conservation have used and studied for years helped convince the DNR the lower standard is what needs to be set for this lake. It may have helped that Lac Courte Oreilles is designated as an Outstanding Resource Water...a State designation which specifically allows for different, more protective standards to be set for a lake.

What should have been a great step forward was instead derailed by the Wisconsin Natural Resources Board, a 7-person appointed Board that sets and oversees natural resource policy for the State of Wisconsin. Instead of following the recommendation of the DNR and COLA, several of the members ignored or chose to remain ignorant of the facts, followed their own self-interests (one represents a consortium of cranberry farms) and voted to leave LCO at its current, deteriorating phosphorus standard.

Since then this same Board (one member is new) has been pressured to revisit one of their other more recent decisions when they again ignored the DNR and other the professionals and behind the scene decided among a few of the NRB members (leaving others out of their own discussion) to write up their own rules. Three former heads of the NRB formally requested they revisit this effort and do it properly, openly, honestly.

It is tough. This is some of the kind of resistance COLA can run into in the efforts to protect the water quality of Lac Courte Oreilles and Little Lac Courte Oreille for all of us.

Having and knowing the facts, having the agreement and involvement of other professionals in limnology (the study of fresh water lakes and rivers), having the goal of protecting the lakes, being in the right, sometimes may not

be enough.

But this is why COLA is continuing its efforts. On behalf of these lakes and everyone who cares about them, wants to see them protected, we will again fight to obtain a maximum 10 ppb phosphorus level ruling for Lac Courte Oreilles.

Saving the LCO Lakes from a premature death has always required work, time, money, and cooperation of many of us, we property owners.

## 2020 AIS

We've previously sent maps of the two lakes with the known locations of curly leaf pondweed (CLP) and Eurasian water milfoil (EWM) indicated. Knowing where these species are in the lakes is obviously critical to the ability to control them. Volunteer monitors continue to confirm the existing locations and look for new cases. These are then added to our database.

It was a weird spring for aquatic invasive species (AIS). Probably due to cooler weather longer into the spring the CLP, often the first plants to appear, emerged a couple weeks later than expected. In areas of Musky Bay a 'new' algae was observed matting at the bay bottom. This may have actually interfered with the CLP's growth.

In other areas, for example at Barbertown Bay, the CLP ended up topping out at the surface at the same time as some of the native plants. This can make treatment more difficult since we have to avoid accidentally damaging the aquatic native plants.

EWM acted a bit like "Whack-A-Mole". It did not appear at what was last year's largest and densest location (an unexpected surprise) since even though we had treated it in 2019 full eradication is so rare. But, it has popped up in other areas, and has shown up "loose" among other plants...its origin location unknown.

Do you know where to look? If you pull a sample can you identify it as CLP or EWM? There were a number of false alarm calls which turned out to be misidentified native plants. But that's good. Not just because these plants weren't invasives, but because people were looking, involved, contacting COLA as a partner to check it out.

The Courte Oreilles Lakes almost always need more partners helping them. Lacking someone near the mouth of Barbertown Bay to check on the status of several known locations of CLP I took our half-a-century old IO to look. I knew 'where' the plants were located, I did not know how deep the bottom...not my part of the lake. I am sure the two guys watching from their docks were surprised to hear me turning rocks to gravel with my prop. So, a rapid increase in knowledge as to where not to take my boat again.

*Stop the Presses! I heard last evening, not yet confirmed, that the west basin's large area of EWM had a late re-growth and IS back. I have to get this letter out now, before we've had a chance to determine our response.*

In conclusion, both species of invasive plants are still in Lac Courte Oreilles and Little LCO. Essentially under control. But next year will be a whole new ball game of dealing with them.

## Eco-Harvester

Most of you know that COLA will be purchasing an Eco-Harvester Aquatic Plant Harvester later this year. For 2021 it will be used as the primary method of Aquatic Invasive Species removal and control, both curly leaf pondweed and Eurasian water milfoil. A lot of information about the Eco-Harvester has been provided previously in the SELT newsletter and in the e-blasts raising funds for its purchase.

For the lakes this is exciting. Beginning in 2021 it will allow AIS efforts to move away from aquatic herbicides and chemicals and physically remove invasive plants from Lac Courte Oreilles and Little Lac Courte Oreilles lakes.

When the COLA Board and then lake property owners learned about this specialized boat, its advantages and how it works, dozens and dozens

individually donated to the fund to purchase it. Some donated more than once. Others, who do not live at the lake, and some of those who would not be able to even visit this year generously donated so that COLA could continue with the purchase and lake protection efforts. We also received donations from visitors, people who do not own property on the Courte Oreilles Lakes but have been coming here for years and value how special they are.

### **Shorelines**

Each spring ice-out involves some level of damage to parts of the shoreline on Lac Courte Oreilles, less so on Little LCO. This can render those shorelines much more susceptible to ongoing erosion from waves, windblown or from boats. Relatively, the damage was not widespread this year, and not too severe where the ice did blow into and dig up the shore.

Some property owners have bitten the bullet before and had a serious shoreline restoration performed. Most of these shorelines have held up well and, for example, as the selected plants have taken firmer root, they become even more resilient.

Effective, durable shoreline restorations are easier said than done. Many people seem to first go to the idea of piling rip-rap as a barrier on their shore (I admit I used to think this until learning more.). This is most often not the best solution. In fact, it can often provide the spring ice with the material (the rip rap itself) to drive into the shoreline and cut roots, dig up the soil and perform the damage.

There are a number of professionals' methods and materials that can often more than make up for the costs due to how well they can work.

COLA continues to try to help shoreline owners consider their options for restoring their shorelines and/or putting in buffers to protect the lake from continued pollution coming from people's yards or property. Depending on grants and reserves, there may be some financial assistance, too.

### **Wakeboats**

Officially, there is not a classification of watercraft defined as "wakeboat." But, use the term and people sure pay attention. The Town of Bass Lake passed an ordinance in 2018 regarding where boats creating an enhanced wake are allowed to operate, when they are making an enhanced wake in Lac Courte Oreilles and Little LCO as well as Grindstone, Whitefish, Durphee and Windigo lakes. This remains an issue of high interest.

This is what's good to hear. Recently, I was discussing a different lake issue with the guy most involved and responsible for guiding that enhanced wake ordinance through the system. He voluntarily brought up that this year he had not heard of any complaints against the "wakeboats". In other words, they are operating far enough from shore.

I've been at my own dock, and out kayaking, any number of times this summer and watched as a boat obviously creating a wake of considerable height has cruised by. I've listened to the shouts and shrieks of delight from kids getting bounced and tossed on a towed inflatable, or howls of encouragement to an adult working on a wakeboard. By the time the waves reached my shore they were gentle, non-eroding...irrelevant.

The boaters sure seem to know the rule...700 feet or more from shore when making an enhanced wake, and are following it. And for many of us, how can they be faulted for having such a blast on the lake? I wish I was half my age and out there with them. Okay, a third my age.

So, maybe enough of us from both ends of that issue, and in between used our collective knowledge to listen to each other and found a sensible way that works.

### **Water Levels**

Is a glass of water half full, or is it half empty? Same type of question for the lakes; is the water too high, or is it too low? This can get contentious, so

here is what needs to be understood. Rain or snow, dry spell or drought, the 125 square mile watershed all drains into Lac Courte Oreilles' 5,139 acres via multiple inlets. There is one outlet, maybe 30 feet wide and not even waist deep.

To lower Lac Courte Oreilles' level by 1 inch means about 140 million gallons of water has to move through that outlet, plus all the water coming in from the entire watershed at the same time. Evaporation also helps, more than you imagine.

The Billy Boy dam can have a noticeable and fairly fast effect on the water level of the 221 acre Little Lac Courte Oreilles. But its effect on Lac Courte Oreilles is dramatically slower, and far less noticeable than the acts of nature.

The dam is controlled by the county. The county has been working to determine what the maximum and minimum lake levels should be. We will keep you informed.

### **Fishing**

Both Lac Courte Oreilles and Little Lac Courte Oreilles are popular fishing lakes. But it's fishing, it's unpredictable, it's not visiting Marketplace's meat department. Maybe 2020 is a year of unpredictability for fishing, too.

The season opened and the people I know who have a decent knowledge of the lakes, and truly are good at fishing were having little success. And, they were trying for anything; walleye, crappie, northern, bluegill, catch-and-release bass. They tended to blame the cool weather and slow change.

Then, a friend of mine squeezed in an early morning effort with little minnows and came back, while I was still having coffee, with an exact day's limit of crappies. I went immediately back to the spot he described (he would never misdirect me, I'm sure), and up and down the shore, a couple of other guys on their docks also directing me to where they had been catching crappies (again, they are fishermen, they would never misdirect me). Nothing.

A couple weeks later my brother visited and at the wrong time of day, using the wrong plug (he was trying for northern), in the wrong area caught the largest crappie he has ever caught...and among the largest I've ever seen.

After that another neighbor was at their lake home, took his son on a guided outing and caught walleye (the largest single walleye they'd ever caught), northern, and a batch-o-bass. They practice catch and release, so no loss to the population.

My old "reliable" true-fishermen? Days or weeks without catching anything to mention. They were scratching their heads.

I checked at Angler's Haven as to the 'word on the water.' They were too busy to provide details....but let's say I think I should be following boats from their docks and fishing where they fish.

So, the unofficial fishing report: It's fishing. The fish are in the Courte Oreilles Lakes in numbers and in size. And, even if you did not get much action, where would you have rather been?

### **Uninvited Neighbors – Clean Boats**

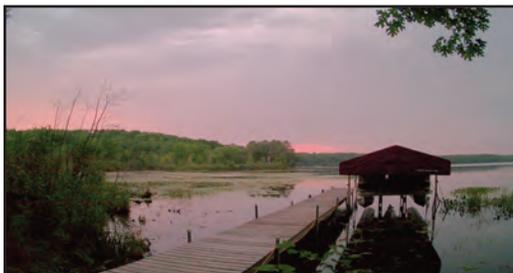
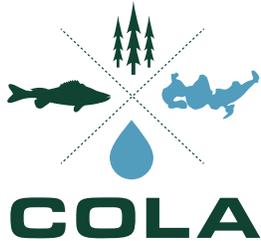
On the other hand, one of our human neighbors recently reported an unpleasant mess of snails washing up on their shoreline. LCO Conservation quickly identified these as two invasive species; Chinese mystery snails and Banded mystery snails.

Undoubtedly, they were accidentally, carelessly, brought into Lac Courte Oreilles with someone's boat from another lake. The Chinese mystery snail, for example, can essentially seal itself off and survive out of the water for 4 weeks making them ideal for spreading to other waters.

Though COLA had not been aware of these it appears they have been here at least a couple years. Once established in the lake, they are here to stay as there is no practical way of getting rid of them. So, thanks to our neighbor for reporting them.

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This leads to the Clean Boat effort. The 2020 effort was cancelled before it even got started due to COVID 19. The State basically pulled the plug. Fortunately, from the past few years we've seen really good adherence to proper boat and trailer cleaning. But it only takes one careless boater to bring in another invasive plant or animal.

The Clean Boat effort for 2021 will be on a future agenda for funding and hiring and re-instituting it at the main DNR boat launch off of K in Chicago Bay.

### **Turtles (Painted)**

Many of you may not realize that Lac Courte Oreilles, specifically around Musky Bay and Stuckey Bay, has been "an ecological learning classroom" for painted turtle study for over 12 years. Dr. Beth Reinke was a student when she first arranged to stay at a friend's lake home on Musky Bay and begin her field studies.

She is now Assistant Professor of Biology at Northeastern Illinois University. This year she brought four of her new students, and caught a record-breaking 345 individual turtles. The research required catch and measure turtles from six other bodies of water in Sawyer County. They struggled to reach their quota of 20 per site. Not Lac Courte Oreilles, they "easily got 20 a day, often many more."

"I'm not sure what it is about LCO that makes it such a uniquely good turtle habitat, but they sure do seem to love it. There are much higher population densities on LCO than any of the other nearby lakes."

### **COLA and the Courte Oreilles Lakes**

There are two basic concepts you need to remember about the Courte Oreilles Lakes.

First, virtually every one of us comes to these lakes as a big part of our

enjoyment of life. It's not just what we like to do, whether kayaking, waterskiing, fishing, sailing snorkeling, doing stunts on your PWC (that's Personal Water Craft...Jet Ski is a name brand) wandering on a pontoon boat, sitting on a dock drinking a beer (this is Wisconsin)...it's being able to do them on these lakes.

Grilled cookouts taste better. Yard games are funnier, the cheers and jeers louder. Camp fires and marshmallows more romantic. The night sky breathtaking. The memories.... unforgettable.

Lac Courte Oreilles is one of only 5 lakes in the entire state with its unique, rare, special water and fishery. Joined to Little Lac Courte Oreilles, there are bays and peninsulas and quite retreats. Deep, cool, clear lakes absolutely full of life, our own included. All of us are flat out lucky we've had these as part of our lives.

Second, the lakes will not stay this way without work. The lakes are in trouble now, struggling to be healthy. Big and Little Lac Courte Oreilles form a single, living, vibrant organism. If we keep them healthy you, your kids, your grandkids.... or the fortunate ones in the future will love and use them just as much. Grateful for how we treated them.

If we keep them healthy. If we are the lakes' partners, enjoying them and working with them.

Enough of us can make a great difference when we all take responsibility. People partner up with others to share knowledge, ideas, and accomplish larger works. There is no single, easy answer to saving, to protecting these two jewels. Neither is there any single, unsolvable problem.

Lac Courte Oreilles and Little Lac Courte Oreilles need COLA. Be a partner with COLA and we can save these lakes.

Thanks,  
Kevin Horrocks, COLA President