

Cocolalla Lake Association Box 133 Cocolalla, ID 83813

Protecting Cocolalla Lake Since 1984

Fall ~ Winter Newletter 2020

It is with great sorrow that we inform you our friend and fellow board member Janet Conlin passed away on October 16th, after a long and courageous battle with cancer. Janet was a great steward of Cocolalla Lake and her passion to protect and improve its water quality was unsurpassed.



Janet got involved with the CLA Board immediately upon moving here in 2009 and brought a high level of expertise to our association having a BS and a Masters Degree in microbiology from Vanderbilt University. Janet worked in the VU microbiology lab for 8 years and helped author a research paper with her Professor who received a Noble Peace Prize.

Even with her health setbacks Janet's attitude remained upbeat and optimistic, her energy boundless when it came to lake concerns and her time commitment selfless. She was always the first to volunteer for any and all tasks or assignments and always maintained that warm vibrant smile.

Tom Herron, a fellow board member, has written a wonderful tribute acknowledging some of Janet's many contributions to our lake community, it is an impressive summary, you can begin to understand our gratitude for her service. It is featured on the next page, I hope you will take the time to read it.

Janet leaves behind her husband Jeremy, sons Sean and Graham, many family members and a vast number of friends locally and across the country.

The Conlin Brother in Laws have made generous donations to the Cocolalla Lake Association in her Memory. We are discussing ways to best honor Janet in her pursuit of heath for Lake Cocolalla for generations to come. Janet has made significant contributions to the understanding of water quality issues in tributaries to Lake Cocolalla and the Lake itself. She was a true scientist and was involved in numerous water quality programs and monitoring efforts that directly benefit the Cocolalla Lake Association and residents and recreationists.

- She was one of the original participants of the IdaH2O effort sponsored by the University of Idaho to collect and post water quality data in synchronized sampling among participants across Northern Idaho. She monitored Johnson Creek and Westmond Creek to characterize flow conditions, sediment deposition and insect life as well as pathogens flowing into the lake. Her data contributed toward further studies by DEQ to monitor E Coli in Westmond Creek and to develop a review of the restoration document, the Lake Cocolalla TMDL.
- She was an integral partner in monitoring Lake nutrients, temperature and dissolved oxygen through the Citizens Volunteer Monitoring Program (CVMP) that was being implemented across Northern Idaho Lakes.
- Janet attended annual CVMP and IdaH20 meetings and contributed to improvements of both programs. She also attended the Eastern Washington/North Idaho Lake Regional Lake Management Conference.
- Janet was active in the Washington Lake Protection Act (WALPA) and the North American Lake Management Society (NALMS). By attending meetings and providing feedback she kept up to date with Lake Management concepts that directly benefited Lake Cocolalla.
- Janet stayed involved in invasive species management by regularly attending the Pacific States Marine Fisheries Commission Invasive Species Council Meetings. Her involvement provided perspective to prevention of infestation and management of area lakes at risk from invasive mussels and requiring management of invasive aquatic plants.
- She attended the Pacific NorthWest Economic Region meetings that were important to identifying the economic importance of managing invasive species to protect the regional economy. She made many contacts that increased the awareness of issues important to Lake Cocolalla and North Idaho.
- Janet was a board member of Idaho Farm Bureau for North Idaho and was on the State Water Board. She made significant contributions to awareness of water quality issues, invasive species management to protect agriculture and increased statewide awareness of the Columbia River Treaty and its importance to Idaho water users.
- Janet, through her role in Bonner County Republican Women did much to promote political awareness of water quality, invasive species, and hydroelectric management important to North Idaho.
- Janet participated in annual surveys on Priest Lake with the Idaho Department of Agriculture Invasive Species Management and State and Local government. She provided important feedback to management policy development and pushed for increased budgeting.
- Janet provided important support to resource management agencies by assisting in investigating water quality complaints, watershed surveys and evaluating pollution control implementation projects throughout the region and particularly in the Lake Cocolalla Watershed. She was particularly important to the development of the IDFG South Cocolalla Wetland Restoration
- Janet was on the Bonner County Natural Resources Advisory Board where she provided important input on resource decisions.

The September Algae Bloom proved to be an unusually stubborn invasion with the normal natural remedies such as wind and rain events failing badly. To say this particular bloom was perplexing is an understatement. IDEQ testing found the prevalent organism to be *Lyngbya*, a cyanobacteria which is different than we typically see in Cocolalla Lake this time of year. Tests on Round Lake which Cocolalla feeds into indicated a different variety of bloom.

We will hope for a good late ice-up on the lake and a good spring runoff to flush out dissolved nutrients and give us a good start to next year.



Photo taken September 4th, 2020

According to Bob Steed (IDEQ) algae is always present, however, the conditions this year were just right, high temps, low wind, the longest consecutive 62 dry days on record for the bloom growth rate to explode exponentially.

For all we don't know about this bloom there are certain things we can do as individuals to help prevent this reoccurring.



Five Things You Can Do to Prevent Harmful Algal Blooms



July 8, 2019

This weekend, Harmful Algal Blooms (HAB), including blue-green algae closed all of Mississippi's beaches. Much of the growth of these harmful algal blooms is exacerbated by nutrient pollution, which is a direct result of human activity. With that in mind, there are simple steps people can take to reduce nutrient pollution coming from their communities.

Use fertilizers and pesticides sparingly, and always follow package directions. Phosphorus is the biggest feeder and often NOT necessary. You can get your soil tested at the Soil Conservation office to determine if it is recommended. Try to check the weather forecast before application to make sure you're not immediately preceding a rainstorm—the precipitation can wash away your fertilizer into local streams, wasting the product and your money.

Continued...

- **Pick up after your pet.** Even if Fido is answering nature's call inside of your own yard, stormwater runoff ignores property lines, and can wash the waste into nearby storm drains and streams. Pet waste is high in nitrogen and phosphorous and encourages algae growth.
 - When your car needs a wash, take it to the pros—washing your car on your driveway means that the soapy water could go right down a storm drain, and out into a waterbody, contributing the detergent to nutrient pollution. Commercial car washes are required to dispose of the wastewater properly.
 - **Reduce the number of impervious surfaces**—where the ground is solid, like on asphalt or concrete—on your property. By switching to pervious surfaces, precipitation is filtered into the ground rather than allowed to wash across the surface, where it can pick up trash and other pollutants before flowing into a storm drain.
 - Have your home septic system inspected regularly to check for leaks, and have the system pumped regularly. If you have a home septic system, try to avoid the use of your garbage disposal—this will contribute unnecessary solids to the septic system that you can dispose of elsewhere, causing the tank to fill more rapidly.
 - Though some state and local governments are funding and developing plans to combat HABs in their areas, individual action continues to be an important part of prevention.
 - Learn more about what people in your community are doing to cut down on nutrient pollution here (link is external)

WHAT IS THE BEST TOILET PAPER FOR SEPTIC SYSTEMS?

Surprisingly for us during our regular scheduled Septic System Pumping we were informed we were days away from a back up and the culprit he claimed was "Charmin" toilet paper. Like many the recent pandemic shortage limited the choice for paper goods.

If you have a septic tank at your home, you've probably wondered whether those "Septic Safe!" toilet paper claims are really true. Are all toilet papers created equal? Or is there a secret to what makes toilet paper safe for your septic tank? Just like those "flushable" wipes, most of which shouldn't really be flushed. What the packaging says may not hold true in practice.

When you flush your toilet, the contents travel to your septic tank. There, solids like toilet paper sink to the bottom and contribute to the layer of "sludge" that builds up over time. Natural bacteria will decompose some of the sludge, but the accumulation is the reason you need to have your septic tank pumped at regular intervals.

Logic would suggest that the best toilet paper for septic tanks would be toilet paper that dissolves rapidly into very small particles, to minimize the space it takes up once it reaches the septic tank. But there are other factors to consider:

BIODEGRADABLE TOILET PAPER

All toilet paper will eventually break down inside your septic tank, but biodegradable types will require less water to break down and will dissolve much faster, making it a good choice for use with a septic system. Unfortunately, biodegradable toilet paper is not as soft or thick as more luxurious alternatives, and can be more expensive.

RECYCLED TOILET PAPER

Recycled toilet paper contains fewer chemicals, like bleach, that can disrupt the natural bacterial balance in your septic tank. Instead of being made up of long, strong fibres, recycled paper has short fibres that easily break apart into short little pieces, the tinier the pieces are, the less likely they are to get caught on the edges, rough spots or corners in your plumbing and it dissolves more quickly in water. Any toilet paper made with 100% recycled paper will dissolve almost completely. It is the best toilet paper to use.

SEPTIC-SAFE TOILET PAPER

There are numerous types of toilet paper available which are marked "septic-safe." Generally, this designation is intended to indicate that the toilet paper will dissolve rapidly. If you're skeptical of manufacturer labels, look for toilet papers that have been certified septic-safe by the National Sanitation Foundation, a nonprofit organization that tests products related to health and the environment.

Properly Dispose of Waste

Whether you flush it down the toilet, grind it in the garbage disposal, or pour it down the sink, shower, or bath, everything that goes down your drains ends up in your septic system. What goes down the drain affects how well your septic system works.

Toilets aren't trash cans!

Your septic system is not a trash can. An easy rule of thumb: Do not flush anything besides human waste and toilet paper. Never flush:

- Cooking grease or oil
- · Non-flushable wipes, such as baby wipes or other wet wipes
- Photographic solutions
- Feminine hygiene products
- Condoms
- Dental floss
- Diapers
- Cigarette butts
- Coffee grounds
- Cat litter
- Paper towels
- Pharmaceuticals
- Household chemicals like gasoline, oil, pesticides, antifreeze, and paint or paint thinners

Think at the sink!

Your septic system contains a collection of living organisms that digest and treat household waste. Pouring toxins down your drain can kill these organisms and harm your septic system. Whether you are at the kitchen sink, bathtub, or utility sink:

- Avoid chemical drain openers for a clogged drain. Instead, use boiling water or a drain snake.
- Never pour cooking oil or grease down the drain.
- Never pour oil-based paints, solvents, or large volumes of toxic cleaners down the drain. Even latex paint waste should be minimized.
- Eliminate or limit the use of a garbage disposal. This will significantly reduce the amount of fats, grease, and solids that enter your septic tank and ultimately clog its drainfield.

University of Idaho College of Natural Resources - Water Research Sustaining Our Waters A Deeper Understanding | Idaho's Lakes

We're tackling Idaho's water-related challenges to ensure clean water for industry, people and recreation in our state. Our efforts on Payette Lake in McCall will provide accessible data to guide decisions on the use of our lakes for recreation and drinking water.

Researchers Preserve Water Quality Across Idaho and the World

Payette Lake near McCall is a slice of heaven for Heather Crawford.

Crawford grew up on its shores and now studies the lake's health as a University of Idaho master's student in the Department of Fish and Wildlife Sciences. After graduation, Crawford hopes to remain in McCall and use her water resources knowledge to protect the region's waterways.

"The data I'm collecting can be used by decision-makers to improve water quality, not just in Payette Lake but in other lakes as well," Crawford said. "It's really great being able to actually give back to my community by producing meaningful and much-needed science for the area."

For U of I researchers, sometimes the best place to start solving problems is in their own backyard.

Idaho relies on clean water for agriculture, recreation, drinking and healthy forests, and the university is tackling water-related challenges across the state. The discoveries at U of I advance many aspects of water health — from studying shoreline erosion to investigating toxic algal blooms and designing machines that clean runoff.

What's Left in the Wake?

While studying abroad in Costa Rica, Crawford dove into learning about forestry and completed a capstone project on how forests recover carbon lost during a fire. Thinking she had identified her career, Crawford returned to Moscow and happened to take a limnology class — which focuses on inland waters. She immediately decided to transfer her interest in nutrient cycles to the water.

"I loved water," she said. "I realized I would be happy studying this forever."

Under the direction of Professor Frank Wilhelm, who is in the Department of Fish and Wildlife Sciences and is an associate director of the Center for Research on Invasive Species, Crawford focuses on studying boat wakes and natural waves. Large wakes — some big enough to surf — can disrupt fellow boaters, disturb lake sediments and erode shorelines.

"It's important to understand how recreation affects the water quality of the lake so we can make good decisions and policies that protect the water quality while also maintaining people's ability to recreate," Crawford said.

Crawford would also like to create a citizen science tool that landowners can use to determine the type of sediment on their shorelines — information useful to estimate shoreline vulnerability to erosion. Her findings will provide scientific data that natural resource managers could use to make decisions regarding water quality and recreation.

"This is a study on Payette Lake, not for Payette Lake," said Gary Lyons, BPLWQC council member. "We want to see management tools come from this study that allow natural resource managers the ability to make data-driven, scientifically-derived decisions."

Toxic Algae Harm Idaho Lakes

Frank Wilhelm, Fish and Wildlife Sciences Professor of Limnology and Associate Director, Center for Research on Invasive Species

According to Idaho's Department of Environmental Quality (IDEQ), toxic algal blooms erupt in roughly 20 to 25 Gem State lakes every summer. Algal toxins harm plants, animals and humans, and the blooms impair Idaho's economy by reducing recreation opportunities and property values. Over the past 15 years, these blooms have become more common and persist for more days each year.

One highly impacted water body is Fernan Lake near Coeur d'Alene. Residents and lake managers asked Wilhelm to investigate the cause of the local blooms, which have resulted in dangerous levels of toxins almost annually since 2007.

"We're not really a research facility, and we don't have the capacity to investigate the cause of these blooms," said Bob Steed, a surface water manager with IDEQ. "We rely on academia for that, and Frank has been a great resource for us over the years."

I think our job as researchers is to solve real-world problems like preserving and protecting water quality.

Trea LaCroix, who was then a master's student, and Wilhelm measured the water and nutrients flowing into and through Fernan Lake as part of a National Science Foundation project. They found 81% of the phosphorus — which fuels the algal blooms — entering the lake never leaves, allowing the element to build up year after year. These findings will help lake managers develop mitigation plans for the lake.

"I think our job as researchers is to solve real-world problems like preserving and protecting water quality," Wilhelm said. "Our work at Fernan Lake provides necessary information for the stakeholders to make decisions about their lake, and we plan to continue working with them to provide the science they require."

A Clean Water Machine

Other U of I researchers are tackling the problem of toxic lakes "upstream." Greg Moller, Dan Strawn and Martin Baker want to remove and recover excess phosphorus — which can come from anything from detergents to fertilizers — from wastewater before it becomes a problem downstream.

Over the past decade, these College of Agricultural and Life Sciences researchers have invented several water technologies that now clean billions of gallons of water and impact the lives of millions of people across the planet. Currently used in about 140 municipal and industrial water reclamation plants, the inventions use simple materials including rust, sand, air and electricity to remove nutrients that produce harmful algae blooms and even toxic pollutants such as mercury, hormones and antibiotics. The idea is to mimic how nature cleans water, Moller said.

"Baleen whales strain massive amounts of water through filters in their mouths to capture their food," Moller said. "We think our approach will act similarly on pollutants at the molecular level."

In September 2020, Moller received a \$1 million grant from the U.S. Environmental Protection Agency (EPA) to continue the team's work.

"Our innovations show we can make substantial progress in controlling these toxic algae blooms," Moller said. "We are excited to accelerate new discoveries that may help solve a global water challenge."

The team will use the new EPA funds to accelerate testing of new water treatment technologies including one that employs biochar — or microscopic charcoal — to capture phosphorus. The monthlong tests will focus on Florida's St. Johns River and Oregon's Klamath Basin. The project will also assess the impact of a phosphorus-removal technology invented by Moller now used in municipal water reclamation plants in Alabama, Massachusetts and Minnesota.

"We are grateful for the opportunity to visit and assess how our technology is working in actual municipal water reclamation plants across the nation," Moller said. "We will be able to better understand the equipment's lifecycle and ways we can improve its efficiency."

The project described as the Fernan Lake study was supported by NSF award number IIA-13-1792 from the NSF Idaho EPSCoR Program and by the National Science Foundation. The project described as the Clean Water Machine study is funded under the U.S. Environmental Protection Agency grant No. R84008701. The total project funding is \$999,996, of which 100% is the federal share.

Article by Leigh Cooper, University Communications and Marketing.

The CLA is Paying Close Attention to the Waterfront Setback Standard Proposed Change

SANDPOINT — Bonner County's 40-foot waterfront setback standard, which is widely considered to be an important bulwark in protecting water quality, could be changing.

The Bonner County Planning Department advised the Idaho Lakes Commission on Tuesday that it is being asked by county commissioners to evaluate the buffer zone meant to be free of land use development.

"Commissioners wanted us to look into to what, if any, uses could be allowed within the 40-foot setback in a way that would be ecologically sound," said planner Jason Johnson.

Landowners are technically not allowed to put structures within the buffer zone, although they can seek variances from the design standard.

If the county does decide to shrink or expand the zone, it would be the subject of a comprehensive land use plan code amendment.

"We're so early on in this process that the official comment period hasn't even opened yet," Johnson told the lakes commission.

Johnson said the county is reaching out to stakeholders ahead of time in order to ensure their remarks can be evaluated and folded into the comp plan amendment if need be.

Johnson said there's been enough turnover in the department, making it unclear what the basis is for the buffer is or whether it's even justified.

Johnson added that there is ambiguity in the current code, which encourages landowners to opt for native vegetation to limit nutrient loading that can be caused by lawns which extend to the shore of Lake Pend Oreille or the Pend Oreille River.

"The vegetative buffer is something we have had a hard time working off (of). The code wants something, but the code doesn't necessary always go far enough to allow us to achieve that something that it wants," said Johnson.

The prospective code change received a lukewarm welcome from the lakes commission, which has been supportive of the 40-foot setback and guidance aimed at reducing nutrient loading.

Commissioner Linda Mitchell asked Johnson if the county had an idea on how far the protective band should extend.

"As far as any specific distance goes, we're not thinking of any distance at this point," Johnson answered.

continued ..

"We all can see the increased square footage and footprint of houses and related structures along the lake and particularly along the Pend Oreille River, which has so much of that level building area," said Elsaesser. "A concern about runoff into the lake as a result of those improvements is something that really concerns us."

"Our utmost concern has to be about water quality. In any way allowing these buildings to be closer is going to affect water quality," said Mitchell.

Ford Elsaesser, the lake's commission's chairman, said runoff concerns will always persist. Bonner County Daily Bee October 23rd, 2020

Concern over Wake Surf Boats

There's no question that the Hottest New Water Sport phenomena is causing havoc with property owners, environmentalists, and fellow water enthusiasts.

There are reports that several water bodies have banned them, however I had difficulty in finding any documented information. Several States are tackling this issue with research on the environmental impacts and seeking legislative action to restrict operation especially on smaller and narrow bodies of water. I have listed what I have found including the specs on the new Mastercraft Gen2!

THE WAKE SHAPING DEVICES With 19 patents and counting, "we're continually innovating and improving our waves. The size, design, and placement of our shaping devices are unique to each boat model.THE BRAINS Software puts all the variables together—speed, ballast levels and shaping devices—to make the perfect wave a breeze. The intuitive dash controls feature a quiver of surf profiles to cater to every surfer".

It is clear sophisticated technology is creating the ability to produce bigger waves resulting in wakes with longer and wider dissipation.

The CLA received calls from concerned residents over the summer citing boat traffic operating too close to the shore, shoreline erosion, dock damage and witnessed public safety hazards involving these watercraft.

We will discuss, from a water quality standpoint, what involvement the CLA should undertake regarding this matter at our March 2021 Board of Directors Meeting. In the meantime, we would encourage those concerned to reach out to your local state representatives and agencies.



Protecting Minnesota Lakes for Future Generations

The Problem: Artificially-enhanced wakes created by wake boats and wake enhancing devices cause environmental damage to lakes and lakeshore, safety risks for people on the water and on shore, and physical damage to property and shorelines.

Environmental effects:

Resuspension of sediment adds nutrients to the water which can lead to increased algal blooms Nearshore turbidity Shoreline erosion Threat to aquatic life, nesting loons and waterfowl Increased probability of AIS transmittal through ballast systems

Economic impacts:

Threat to MN Tourism Damage to shoreline, rip-rap, trees, and natural buffers Damage to docks, boats, and lifts Diminished property values Reduced tax base

Safety concerns:

Dangerous water conditions for swimmers, fishermen and other watercraft Dangerous conditions on shore and on docks Obscured vision forward as ballast weighs down the stern and causes the bow to rise

SafeWakes Mission:

Prevent environmental damage and injury to people and property caused by artificiallyenhanced wakes.

SafeWakes Goal:

Restrict the creation of enhanced wakes to areas of lakes that allow at least: 1000 feet distance from the boat to shore a minimum water depth of 16 feet

What you should know

How wakesurfing is different from other water sports:

The wave energy of wakesurfing wakes are 4 times that of wakeboarding wakes. Wakes can be 4 to 5 feet in height with half of the wake above the waterline and half below the waterline.

The thrust from a wakeboat can go down 16+ feet toward the lake bottom, causing major disruptions below the water.

Legislation is needed to restrict usage of wake boats and wake enhancing equipment to a minimum safe distance from shore, people and property, and to water deep enough to prevent environmental damage.

A minimum of 1000 feet from shore is required in order to not cause irreparable damage to the lake bottom and shoreline

A minimum of 16 feet of water depth is required in order to not cause irreparable damage to the lake bottom.



HOME ABOUT US THE LAKE PROGRAMS DISCOVER NEWS

Ossipee Lake is located in Carroll County in northeastern New Hampshire. At 3,245 acres, it is the sixth-largest lake located entirely in the state, and is surrounded by the towns of Ossipee, Freedom and Effingham.

STATE COMMISSION AGREES ON WAKE BOAT SAFETY, DISAGREES ON REGULATION

July 14, 2020 David Smith Alliance Report 10 comments

Freedom—July 14, 2020—Members of the state's Commission to Study Wake Boats reached consensus on several measures to improve boater safety, but disagreed on whether there should be limits on where wake boats can be operated.

Research sponsored by the Water Sport Industry Association (WSIA) in 2015 found wave heights for wakeboarding were 43% higher than when the same boat was cruising and not towing a boarder. Waves for wakesurfing were 114% higher, using the same comparison.

In regard to wave energy (discussed in detail in the report) the WSIA study found waves from wakeboarding generated 179% more wave energy than waves from the boat when cruising, and 720% more energy for the same boat when wakesurfing.

Full Article at - <u>https://www.ossipeelake.org/2020/07/state-commission-agrees-on-wake-boat-safety-disagrees-on-regulation/</u>

NPR for Oregonians

Feds Say Willamette River Wake Surfing Could Harm Salmon

By EDITOR • FEB 13, 2020

Federal officials have warned the Oregon State Marine Board that wake surfing on the Willamette River could pose a serious risk to threatened salmon and steelhead populations.

Critics say the board's failure to restrict this controversial water sport could leave the state in violation of the Endangered Species Act.

Full Article at - <u>https://www.klcc.org/post/feds-say-willamette-river-wake-surfing-could-harm-salmon</u>



Can You See Me???



Taken July 30th, 7:48 a.m.

Taken August 4th, 7:18 a.m.

Paddle-boarders, swimmers and other lake enthusiasts please wear something bright so others can see you. These pictures were taken at the North End where we had just dropped a skier.

Increase in boat and jet ski traffic and what appears to be a practice pond for seaplanes taking off and landing is a cause for concern when our paddle-boarders, swimmers and kayakers are not clearly visible.

I will be sure to include this in our Spring - Summer Newsletter as a reminder.

Bob Brimmer did a stellar job again this year with map donations reaching \$845.00.

Boat inspections kept him hopping with a total of 1414 interactions up from 1017 in 2019.

Fishing reportedly had several worthy of bragging rights and Covid travel restrictions brought several newcomers to our lake.

Thank you Bob for your service and dedication to ensure boats entering Cocolalla Lake are free of invasive species.

Our Paid Memberships have increased to **96**. Thank you to those who sent in an additional contributions, it helped greatly to offset our Boat Inspection Expense.

A Big Thank You to Dave and Cinda Crow for Our New CLA Sign at the North End.





Wishing You a Happy, Healthy Holiday Season And The Very Best In 2021