The Chain Letter

of the



Dedicated to the care and preservation of our lakes, for the enjoyment and safety of all.

January 2019

Volume 22, Issue 1

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President's Musings

Here we are in January and it is nearly time to work on taxes again. We got more snow and lots of cold and I think the slush on the lakes may have finally frozen over. It is a quiet time of the year for your lake association; however a few things have come up. Probably the most important is consideration regarding modifying the Wabana Township Ordinance 101 which is intended to protect the lakes by controlling land usage near the lake shores. Another is use of salt on the roads and sidewalks. We have included articles on these items in this newsletter.

Ice-up this season was November 20 on Wabana. This is the earliest date in 20 years. The last 20 year average ice up date is December 4. Since John Zimmerman moved to Maine, we no longer have anyone keeping track of ice-up and ice out on any of the other lakes in the chain. In addition to it being interesting to many of us, this information is provided to the MPCA who uses it in their lake analysis. It would be very helpful if someone on each of the lakes would volunteer to track and report ice out and ice up dates. Please let me know.

We had some complaints about boating etiquette last summer including loon harassment and waves from wake boats. We will include an article(s) on this in the June newsletter.

We have included a sample summary sheet prepared by RMB Labs on water quality in this newsletter. We have also included an article from the July 1999 newsletter entitled "The Bridges of Wabana Township" which describes some of the history and I think you will find it interesting.

Already looking forward to summer.

Wabana Township Ordinance 101 news

Wabana Township enacted Ordinance 101 (Regulating Subdivisions and Towers in the Shoreland Overlay District) in 2003 with the intent of protecting the chain of lakes. Townships are allowed to enact regulations more strict than state or county regulations which at the time were deemed insufficient for the township needs. Itasca County has subsequently changed some of their restrictions and Wabana's now align more closely, but not completely.

The issue at hand as I see it is that the township board decided in 2007 to no longer enforce Ordinance 101 and to depend on the county. However the county is not required to enforce nor even inform anyone of township regulations during the permit process. The result is there undoubtedly are structures constructed since 2007 in violation of a Wabana's ordinance and it is continuing.

At a recent special township meeting, it was decided by the town board to hold a public hearing to discuss one of the regulation differences and to spend more time studying the remainder of the regulation. A meeting was held on January 22, 2019 at the Wabana Town Hall. The specific issue at hand is in Article IV Section 1.a dealing with minimum side and rear setbacks. The ordinance can be reviewed on the Wabana Township web site. At the well attended meeting, the township board

decided to <u>NOT</u> call for a vote at this time, rather to continue studying the entire ordinance and consider future updates.

Loree Miltich had prepared a comparative matrix between the Itasca County (updated in 2016) and Wabana Ordinances. Many of the requirements are now the same, however in at least two cases, the county ordinance is now more restrictive than Wabana's that being impervious surface area allowed and regulation of shoreland alterations. Unfortunately in a few areas the reverse is true:

- Ordinance 101 allows only one single-family detached dwelling per lot while the county allows a wide variety of structures and conditional uses.
- Ordinance 101 allows Lake Access Only from single family detached dwelling on riparian lots while the county provides for "controlled access lots" (potentially PUDs or multiple dwelling houses two plexus, four plexus and the like).
- Ordinance 101 requires minimum side and rear setbacks of 30 feet while the county requires 15. In reading Ordinance 101, it appears that this setback applies to dwellings only, not outbuildings.
- Ordinance 101 states "NO variances allowed. The county allows variances

There are a few additional differences but they don't appear to affect our current situation.

Since township ordinances may be stricter than county or state, but not less, Ordinance 101 will have to be revised at least a little. There may be costs involved should Wabana Township decide again to enforce the ordinance, which it clearly must do unless the ordinance is significantly revised. There are also a number of potential legal issues and implications which need to be worked through.

My personal view is that WCOLA must protect those most critical elements of Ordinance 101 while revising those less critical to coincide with the county. Then the township needs to attempt to work-out an arrangement with the county for timely notification of permit requests and enforcement by the county of Wabana Ordinance 101.

I welcome your input on how best to proceed.

Jim Olijnek

Government Liaison News

by Doug Griffin

As Chair of the Government Liaison Committee there are a couple of things that I feel that you should be aware of for the next year.

- 1. It would be beneficial to the whole chain of lakes to have additional residents that are AIS Detectors. To become an AIS Detector you would learn how to identify various aquatic species that are detrimental to our lakes. It costs \$175.00 to become certified, however, Bill Grantges, Itasca County AIS Coordinator, will provide a 100% scholarship for any of our members who would like to become an AIS Detector. To become a detector requires about 8 hours of online training and then a 6 hour hands on class. To maintain certification each year requires 8 hours of volunteer work such as inspecting lake shore for invasive species. It would benefit all of us if we had several more certified inspectors available.
- 2. I attended a seminar in Alexandria last summer where a presentation was made concerning Zoning issues. As our President has indicated in this Newsletter, our Wabana Township is now attempting to come to a decision about land use zoning on our chain of lakes. A point frequently made during this seminar was that the time to become involved is when zoning requirements are made and implemented, not when they are already established. There are some important issues that are to be decided in the near future. I implore you to become involved prior to the zoning requirements being updated. Let your voice be heard.
- 3. On January 22, 2019, an article was published in the Pioneer Press, St. Paul, MN. Information for this article was from a master's thesis This article discusses various ways that aquatic invasive species can be transported via watercraft. The author, Adam Doll, analyzed water in various holding areas of boats on Lake Minnetonka. It would behoove our members to read this article which would give you a better understanding of how AIS are spread and the manners in which a boat can facilitate the spread of AIS.

https://www.twincities.com/2019/01/22/zebra-mussels-wakeboard-boats-umn-studylivewells-mn/

Wabana Chain of Lakes Treasurer's Report January 31, 2019

Balance –January 1, 2019 Receipts:	\$	7,233.52
Dues	\$	1,835.00
Contributions	\$	480.00
Total Receipts	\$	2,315.00
Disbursements:		
Postmaster	\$	120.00
Stamps – Membership Letter		
Treasure Bay Printing	\$	31.32
January Membership Letter Itasca Waters	\$	100.00
2019 Membership	Ψ	100.00
Total Disbursements	\$	251.32
Checkbook Balance-January 31, 2019	\$	9,297.20
Savings Account – Water Testing	\$	6,511.92
Interest – September and December	\$	3.28
Savings Account – Water Testing Balance	\$	6,515.20
Savings Account – AIS Fund	\$	6,051.54
Interest – December	\$	1.52
Savings Account – AIS Fund Balance	\$	6,053.06

Total Paid Households: 67

Water Quality Reports

RMB Labs using input from WCOLA and the MPCA has completed a series of reports describing the water quality i.e. clarity, chemical make-up and a whole host of other items. These reports include extensive analysis and commentary for each of the lakes in the Wabana Chain, also a single page summary has been developed for each lake and a sample in included in this newsletter. Both the summary sheets and detailed reports can be found on the WCOLA web site <u>www.WCOLA.org</u>.

Wabana Lake Itasca County



Summary

Wabana Lake is located 13.5 miles north of Grand Rapids, MN in Itasca County. Wabana Lake has three inlets and one outlet, which classify it as a drainage lake. Wabana Lake is part of the Wabana Chain of Lakes Association (WCOLA). The association is involved in activities such as water quality monitoring and education.

There is an improving trend in water quality. Water quality data have been collected on Wabana Lake from 1994-2015. These data show that the lake is oligotrophic (TSI = 36) with very clear water conditions most of the summer and excellent recreational opportunities.

Lake Vitals		Long-term Trends
MN Lake ID:	31-0392-00	Recommend minimum of 8-10 years
Ecoregion:	Northern Lakes and Forests	of data with 4+ readings per season. Minimum confidence accepted by MPCA is 90%
Major Watershed:	Mississippi R. –Grand Rapids	
Surface area	2221 acres	
% Littoral area:	46%	Total Phosphorus: Improving
Max depth:	115 (ft) 35 (m)	Chlorophyll-a: Improving

Aquatic Invasive None Species:

Water Quality Characteristics

Parameters	Site 202
Total Phosphorus Mean (ug/L):	9.2
Total Phosphorus Min (ug/L):	<5.0
Total Phosphorus Max (ug/L):	20.0
Number of Observations:	38
Chlorophyll-a Mean (ug/L):	2.2
Chlorophyll-a Min (ug/L):	<1
Chlorophyll-a Max (ug/L):	4.0
Number of Observations:	33
Secchi Depth Mean (ft):	19.0
Secchi Depth Min (ft):	13.0
Secchi Depth Max (ft):	35.1
Number of Observations:	121

Secchi Depth: Improving (1992-2015)

Trophic State Index

Trophic State: Oligotrophic (36) The figure below shows the minimum and maximum values with the arrows and the mean with the black dot.

Historical Data Summary

Monitoring Program	Laboratory	Years
Citizen Lake Monitoring Program	-	1975-1977, 1988,
		1990, 1992-2015
Clean Water Legacy Surface Water Monitoring	-	2015
Water Quality Inventory of Itasca County Lakes	-	2001
Lake Monitoring Program	-	2000
MPCA Lake Monitoring Program Project	-	1985, 1988, 1991
Itasca County Lake Assessment (+JLCWP)	-	2001-2002
Bigfork River Watershed Priority Waters Assessment	Natural Resource Research	2001-2002
	Inst.	
Paleo Lakes	-	2001-2002
Wabana Chain of Lakes	Itasca Community College	2010, 2014
Wabana Chain of Lakes	Instrumental Research	2005, 2008
Wabana Chain of Lakes	MN Chippewa Tribe	1999, 2003

Note: RMB Labs states that the Secchi Depth readings are improving for 1992 – 2015. For this time-period, the data does show that; but for the time-period of 2010 to 2017, there has been a gradual decline in Secchi readings for most of the lakes in the chain (data from the 2018 Annual Meeting).

HISTORY: The Bridges of Wabana Township

Bud Sage and Harold Unger collaborated on this article, for publication in *The Chain Letter*. They had the help of Mr. Keith W. Matson, a Forestry Technician from the Deer River Ranger District, and of Bob Sage.

From the Wabana Chain of Lakes *The Chain Letter*, <u>July 1999</u> Volume 3, Number 3

The two bridges have some interesting history as to date and background. The bridge known as the Harold Unger Bridge, at the channel between Trout and Little Trout, was built in the mid-1950. Prior to that, a bridge to accommodate vehicle traffic did not exist. Back in the early 1900's a man by the name of Anton Haglee homesteaded on the thoroughfare between Little Trout— also know as Interlachen—and Trout Lake. Although there were no roads, Mr. Haglee is reported to have built a log home for his family. During the school year the family lived in town due to the transportation problems.

A descriptive photo exists showing a rather crude footbridge crossing the thoroughfare, and it could be one built to reach the Haglee place. The photo also suggests it was designed to allow log flow under, and the background further suggests second growth timber.

Wm. E. Sage [grandfather of Bud and Bob] built the other bridge crossing the Thoroughfare between Bluewater and Wakens Bay in1920, with the help of Roy Wakeman. The original bridge was all cedar with the trees cut from a cedar swamp on the East Side of Bluewater. The bridge was to give access to the property purchased by Wm. E. Sage in 1916.

Itasca County was to grade a road in, after a brushing out by Sage, but never did; and the bridge was not used for vehicle traffic for many years. The roadway was again brushed out, and with local residents living year-round on the south end of the lake; the county did run a road into the bridge. This was in the mid 1950's. The bridge deck was rebuilt in 1978 and in 1991; new cedar poles were installed to replace weathered ones. The original poles at water level were left in place due to their condition.

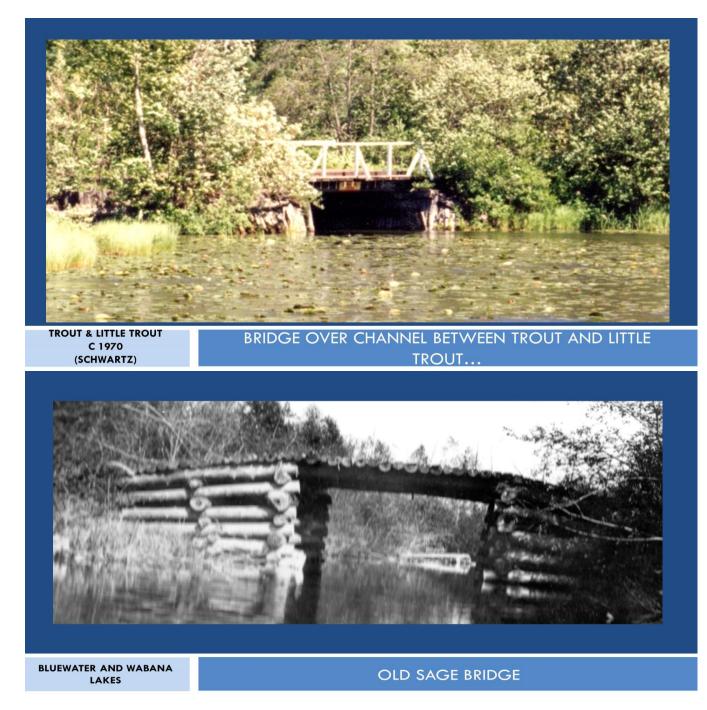
The first bridge across the creek flowing from Trout lake to Little Trout lake [Interlachen] was a foot bridge constructed of cedar poles driven into the creek bottom with cross pieces on the uprights and planks on the crosspieces for walking (1957 photograph). It is assumed that Anton Haglee, who lived on the north side of the creek, and Bill Barber, on the south side, constructed the bridge together. If Barber was involved in the construction, it would have been prior to 1925 as he was fatality shot (a murder-suicide) that year near the footbridge. The footbridge was removed in 1958 and was located where the existing bridge is now. The cedar poles were partially decomposed at the water surface, but well preserved below the water line.

The existing bridge was constructed in 1958. It was planned earlier, but legal problems caused delay. Initially it was assumed that a branch road off the Bluewater road, called the Barber road, could be used to access the bridge site. After close inspection of the old township records it was determined that the road along the north side of Bluewater lake had been surveyed and legalized, but the Barber road was not completed and not legalized. Proper easements were obtained and a permit from the Department of Conservation, Division of Waters, was granted after submitting cross-sections of the creek and completed plans for the bridge.

Ernie Heaton, Senior, who lived near Clearwater Lake, owned and operated a small bulldozer tractor. With his aid, and using fill from the road just south of the bridge site, construction began in the summer of 1958. As there wasn't any road access to the north side of the creek, all work

was done from the south side. A makeshift boom chained to the bulldozer blade was used to position the bridge parts. A small front-end loader carried fill across the bridge to complete the access to the north side of the creek. Originally

there were 4" x 4" spreaders underneath three of beams. Their purpose was to prevent the two bents from tilting inward due to the pressure from the fill. They were removed by some vandals about 15 years ago who evidently wanted more clearance for their boat. Some improvements were made on the deck in 1986; otherwise the bridge is as originally built.



Use de-icing salt sparingly to protect Minnesota waters

As the first snow of the season arrives, Minnesotans start thinking about clearing snow and ice from pavement — sometimes with salt. But when the snow melts or it rains, the salt, which contains chloride, runs into nearby lakes, rivers, and groundwater. It only takes a teaspoon of salt to permanently pollute five gallons of water. There's no feasible way to remove chloride once it gets into the water, and we are finding increasing amounts of chloride in waters around the state. Salty water harms freshwater fish and other aquatic wildlife.

Scatter patterns

Though no environmentally safe, effective, and inexpensive alternatives to salt are yet available, smart salting strategies can help reduce chloride pollution in state waters. You might think more salt means more melting and safer conditions, but it's not true! Salt will effectively remove snow and ice if it's scattered so that the salt grains are about three inches apart (see this illustration for a visual reference).

A coffee mug full of salt (about 12 ounces) is all you need for a 20-foot driveway or 10 sidewalk squares (roughly 1,000 square feet). Consider using a hand-held spreader to apply salt consistently, and use salt only in critical areas.

And sweep up any extra that is visible on dry pavement. It is no longer doing any work and will be washed away into local waters.

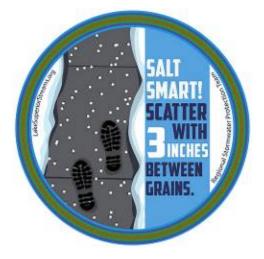
Additional tips for limiting salt use:

- **Shovel.** The more snow and ice you remove manually, the less salt you'll have to use and the more effective it can be.
- **15°F and below is too cold for salt.** Most salts stop working at this temperature. Use sand instead for traction, but remember that sand does not melt ice.
- **Slow down.** Drive for the conditions and make sure to give plow drivers plenty of space to do their work. Consider purchasing winter (snow) tires.
- **Hire a certified Smart Salting contractor.** Visit the MPCA's <u>Smart Salting</u> <u>webpage</u> for a list of winter maintenance professionals specifically trained in limiting salt use.
- <u>Watch a video</u>. Produced by the Mississippi Watershed Management Organization, it offers tools for environmentally friendly snow and ice removal.
- **Promote smart salting.** Work together with local government, businesses, schools, churches, and nonprofits to advocate for reducing salt use in your community.

Learn more on the MPCA's <u>Chloride webpage</u>.

The Minnesota Pollution Control Agency recommends a low-salt diet for our lakes, streams, and rivers. Much like table salt, rock salt's benefits are peppered with danger. Salt helps melt ice on roads and sidewalks. But when the snow melts, deicing salt, which contains chloride, runs into nearby bodies.

There's no feasible way to remove chloride once it gets into the water and salty water harms our freshwater fish and other aquatic wildlife. Learn more on the agency's website at <u>https://www.pca.state.mn.us/water/chloride-sa</u>



Zebra Mussels on the move

At the October ICOLA meeting Bill Grantges gave a presentation on Zebra Mussels movement down the Mississippi River from Lake Winnibigoshish. They have been detected all the way into the Blandon Reservoir so Little and Big Jay Gould as well as Blackwater and Pokegama have been declared impaired and probably infested. Bill's team has been doing the inspection along the river. The good news is that only one (North Star) lake not connected to the Mississippi has been found infected in the last five years.

Mark Your Calendars

2019 Season Events

* Road Clean-up
* Social Gathering- Camp Fire Camp
* Picnic-Wabana Town Hall Pavilion
Ice Cream Social-Wabana Town Hall
* Ballots due for elections
* Annual Meeting and Program- Wabana Town Hall
* Road Clean-up
Hunters Supper- Wabana Town Hall

* WCOLA sponsored