

# THE VERMILION



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*To Protect  
and Improve  
Lake Vermilion*

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# PRESIDENT'S MESSAGE

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**H**appy New Year Lake Neighbors and Friends,

There's a wet chill in the air today as I write this note in mid-December, but I'm certain you hardy snowmobilers and ice-fisher people will soon enjoy those clear crisp days with glistening snow. As I reflect on all that's been accomplished this year, these highlights of program growth and/or volunteers are a few (of many) that come to mind:



- ❖ Lori Ptak, who took on this Newsletter's leadership has produced phenomenal issues that continue to educate and intrigue young and old.
- ❖ Our AIS team, along with SWCD, inspected a record number of boats—over 16,000, a critical first step in our defense to protect the lake from invasive threats.
- ❖ The new Fishing Conservation recommendations were widely distributed and utilized by many.
- ❖ A new initiative to count cormorants on Potato Island during key months with the use of drones was accomplished with the help of new volunteers David Kurtz and Jake Porter.

❖ Our inaugural Live Loon Cam and subsequent YouTube videos had hundreds of hits. Look for the 20 minute compilation video "Little Loons Learn to Survive" on our website's homepage.

❖ The 8 Shore Lunch Sites were utilized by countless enthusiasts for fish fries or roasting hot dogs and s'mores and kept free of debris by our team of hearty volunteers.

❖ Our Sentry program volunteers, led by Jill Korpela-Bontems and Bob McNamara, were vigilant in monitoring our 17 public and 10 private business accesses for potential invasive species.

❖ John Yocum kept our anglers apprised of the latest fishing hot spots and evolving techniques via our ever-expanding website with YouTube videos.

❖ The inaugural year with the new Lake Steward program (an evolution from our long-time Shoreline Restoration) engaged more property owners than we anticipated—30 in total! This team is eager to kick it up a notch in '22 with more participants already thinking ahead to spring and open water.

By the time this issue goes to print, we're hopeful our grant application has been approved under the St. Louis County AIS Prevention Program for our seasonal 2022 work. Each year our proposal incorporates process improvements based on what we've learned and tested, in cooperation with others around the state. Over the past six years, Jeff Lovgren has been the champion of our highly respected AIS program. Having joined the Board in 2005 and having served as President for several years, Jeff accepted the role of leading our AIS team with his breadth of knowledge, strong communication skills, and keen mind for science-based research. Even though he's retiring from his AIS and Board roles, we're glad he'll continue to actively volunteer and mentor our two new co-leaders.

With Jeff's departure from the Board, Craig Beveroth has accepted our request that he join the board and take on the leadership of our evolving Water Quality program. Craig and his wife Carol have been on Pike Bay since 1995. He says there is some foundation from one of the early structures in the woods on their property, land from the former Coates estate and Winston City. His 35-year career in the analytical chemistry instrumentation field is already proving to be a valuable asset on our board, as we plan to expand our

**Continued on next page**



# How will climate change impact open water and ice fishing on Lake Vermilion going forward?

**O**ur planet is warming. We've all seen photographs in the news of Manhattan-sized icebergs fracturing off glaciers in Antarctica and drifting into the Southern Ocean and before-and-after photos of the glacial valleys in Glacier National Park from 100 years or so ago compared to now. As early as the year 2035, the Arctic may become ice free in the summer. Minnesota is warming at a faster rate than any other state except Alaska. This article will explore how climate change is likely to impact fishing on Lake Vermilion, with particular emphasis on ice fishing.



John Yocum  
VLA Board Member

A key factor to consider when discussing climate change is how long will competent ice conditions last during the winter so people can safely ice fish. **A study conducted in 2007 found that ice cover on bodies of water in the Great Lakes region had decreased by about five days per decade since the 1970s.** This study went on to further state that nearly two million Americans ice fish every year, and at least \$178 million is spent on ice fishing equipment annually. So, the economic impact of what is happening is significant.

A second set of factors to consider is how global warming will affect the health and size of the populations of fish in the lake. Undoubtedly, there will be winners and losers. Reproduction rates for species like cisco and lake whitefish, which thrive in colder water, may be adversely affected. Smallmouth and largemouth bass are likely to be winners; the average size of these fish is likely to become larger and we may see an increase in numbers in those species.

## *President's Message...from previous page*

water testing. Craig is an avid fisherman and is an active volunteer with the state's Let's Go Fishing program, providing fishing trips for veterans, youth, and mentally challenged individuals.

Volunteers are the glue of this organization. Is there something on the above project or volunteer list that catches your eye or piques your interest? We can find

With walleye, we may see mixed results. The average fish size may increase, but the quality of eggs may be compromised by warmer water leading to lower numbers. It may take some innovative planning and intensive work from our hatchery to keep the Big V from becoming predominantly a bass, crappie and bluegill lake and to retain its character as a wall-eye-dominant lake.

A third set of factors regarding how climate change will affect the lake is whether the chemistry of the water will change and whether we can continue to keep most invasive species out. Warmer surface water will increase the number of algae in the lake, which will decrease oxygen levels and put stress on fish and other organisms. Lake Vermilion, like other Canadian shield lakes, has not thus far been impacted by many of the invasives that have decimated some lakes in southern and central Minnesota. So far, a few invasive species like curly leaf pondweed and spiny water flea are in the lake, but not in alarming quantities.

As the planet warms, we can expect less reliable ice conditions going forward. In 2015, a year when temperatures were unseasonably warm, one in six ice fishing tournaments in Minnesota was canceled. The \$64,000 question in all this is whether the nations of the world can reach a viable solution to climate change that will prevent ice from disappearing from our planet. If not, then the pattern of suitable ice fishing days being reduced by five days per decade since the 1970s may continue unabated until it eventually results in the ice on our lake being too thin to safely support ice fishing. This much cherished part of the Minnesota way of life may well disappear.

a role that meets your needs. We have great leaders and lots of FUN, all while protecting and improving this beautiful lake we all love. Email or give me a call as we plan for our spring and summer teams.

Enjoy the wonder and beauty of winter....and stay safe,

**Pat Michaelson, Volunteer Program Leader and President**

# Ice Fishing and Bait Disposal

**B**ait disposal rules are the same for ice fishing as any other time: throw the leftover bait in the trash! If you release your live bait into the fishing hole or let it freeze on the ice, you could be spreading aquatic invasive species into Minnesota waters. See the summary of Minnesota rules below.

## **Summary of Minnesota regulations to reduce the risk of spreading fish diseases**

### **Boat Draining, Drain Plugs, and Bait Container Draining**



Ten years ago, the Minnesota Legislature passed a boat draining law. This law was created to reduce the risk of boaters spreading fish diseases, caused by microbes, and life stages of invasive species (e.g., spiny water fleas and zebra mussel larvae) that are not easily observed or detectable in water and could be transported to other lakes and rivers.

❖ When leaving waters of the state a person must drain water-related equipment holding water and live wells and bilges by removing the drain plug before transporting the water-related equipment off the water access site or riparian property.

❖ Drain plugs, valves or other devices used to control the draining of water from ballast tanks, bilges, and live wells must be removed while transporting water-related equipment.

❖ This law requires all water to be drained from portable bait containers before leaving the water access property including bait containers that haven't been in lake or river water.

**DISPOSE of unwanted bait, including minnows, leeches, and worms in the trash. It is ILLEGAL to release bait into a water body or release aquatic animals from one water body to another. If you**



**want to keep your bait, you MUST refill the bait container with bottled or tap water.**

*In summary, when boating or fishing in Minnesota, protect our waters by following state aquatic invasive species laws.*

❖ Clean in and out.

❖ Drain water-related equipment by removing drain plugs before leaving water access of shoreline property.

❖ Dispose of all UNWANTED bait in the trash. If you want to keep your bait, you must refill the container with bottled or spring water.

❖ Do not release bait into the water.





# Increasing Boater Personal Responsibility for Boat Inspection: “How to Crack the Code”

There is little doubt the best practice to avoid introducing invasive species into Lake Vermilion is to have clean boats to maintain a clean lake. The caption as advertised by the DNR is Clean, Drain and Dry. However, the answer to the question of which factors are key to increasing boater compliance with these guidelines is unclear.

Lake Vermilion is the seventh largest lake in Minnesota. It ranks first for its 341 miles of shoreline. Scattered along its shoreline are 17 public, private and marina sites available for boat launches. In 2021, St. Louis County’s Soil and Water Conservation Department reported providing 5,841 hours of certified boat inspector coverage. Staffing is determined by historical traffic data but may be adjusted to cover other sites due to unexpected weather factors such as excessive heat or drought. Approximately 40 percent of total inspector time was targeted for the two busiest landings at Hoodoo and Moccasin Point. Eight private accesses at resorts have partnered with Soil and Water for the provision of coverage with their own staff. Staff are trained as inspectors and are provided gear, tablets and online training. Over 16,000 boats were inspected by St. Louis County SWCD and resort/marina employees. However, manpower

is not always available. To assist public education, 11 other resorts participate in AIS prevention and receive prevention pamphlets, pre-arrival letters and give-a-ways as an outreach for their guests. Resorts, campgrounds and marinas receive a disproportionate number of out-of-state boats or boats from infested lakes in Minnesota so the risk of the introduction of an AIS is great.

It is difficult to imagine that all boats launched on Vermilion are “clean.” In 2022 the VLA and its partners are exploring methods to improve compliance of boaters checking their own craft. Are there existing systems in other parts of the state or country that have been tested and proven successful in improving boater compliance? What factors have promoted this success? Is it due to signage, provision of tools, or the adoption of an electronic monitoring system with a series of prompts? What is “the code” to assure that every boater understands and takes action to assure only clean boats enter Vermilion’s waters? We welcome any ideas and suggestions from our members and newsletter readership.

Contact Gary Haugen at [ghmedrep@gmail.com](mailto:ghmedrep@gmail.com) or Nancy Watkins at [2bitfarm@gmail.com](mailto:2bitfarm@gmail.com).

# North St. Louis SWCD Announces Annual Tree Sale Information and New Forester

**Y**ou may recognize our new District Forester at the North St. Louis Soil and Water Conservation District (SWCD) as the former Aquatic Invasive Species Program Coordinator. Natalya Walker has done a fantastic job in that role and is now passing on the torch to a new AIS program coordinator who will be starting early in 2022. Natalya looks forward to new opportunities to work with local landowners, organizations, and community members as it relates to forestry and terrestrial habitats.

Natalya is also your new main contact for inquiries about the annual tree sale. There are a variety of coniferous and deciduous trees for sale, as well as some fruit-bearing shrubs to improve your landscape aesthetic and wildlife habitat.

For those looking to improve pollinator habitat, shoreline vegetation, or find something native to grow in a shady area while adding some color to their landscape, there are native plant kits available that include 36 plugs of five forbs and one grass species.

New this year is a shoreline seed mix designed for planting at one to two feet from the shoreline, composed of native forbs and grasses.

Also new are a buckthorn replacement plant kit of 36 plugs and buckthorn replacement seed mix to cover 5,000 square feet. Buckthorn removal is a battle.

No. St. Louis Soil and Water Conservation Service hopes that offering these products, along with our longstanding selection of native trees and shrubs, will help those doing their part to keep invasives like buckthorn at bay.

All of these products are available on the website along with online ordering capabilities at [www.nslswcd.org](http://www.nslswcd.org). If you prefer paper order forms, those are also available on the website and can be mailed to our office at 505 3rd St. N, Ste A., Virginia, MN 55792. You may also call the office and order over the phone (218-749-2000); however, we are not



**Natalya Walker, District Forester for No. St. Louis Soil and Water Conservation Service.**



**Below: Trees and plants must be ordered by April 25; pick-up dates are May 12 and 13.**

accepting walk-ins. Inventory is limited, ordering plant kits and seeds ends April 25 and tree sale orders are due by May 9. Pick-up dates are Thursday, May 12 from 9 a.m. - 3:30 p.m. and Friday, May 13 from 9 a.m.-6 p.m. Visit our website for more information.





# Meet VLA's new Aquatic Invasive Species Program Co-Leaders

**N**ancy Watkins joined the VLA Board of Directors in 2021. She and her husband have been in the process of building a home on Pike Bay for the last 25 years and plan to permanently re-locate there when her husband retires. Nancy recently retired from Children's Hospital where she was a neonatal nurse practitioner in their ICU. Nancy graduated from high school in Virginia, MN, and first spent time on Lake Vermilion visiting friends' cabins. She enjoyed paddling the BWCA in her younger years, and just purchased a new Cadillac of canoes in hopes to spend more time in the BWCA before her shoulders and knees give out.



Gary Haugen has served on the VLA Board of Directors for three years. During that time he has served in the capacity of Resort Ambassador for Lake Vermilion's East End. Gary has recently completed building a home on the East End of the lake where he will live year-round now that he is retired from Medtronic. He has been coming to Lake Vermilion for more than 26 years and considers himself a steward of the lake.



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## *The story behind this issue's cover photo*

### Lake Vermilion Winter Beauty



**Ed Bonach**

**I** was fortunate spending entire summers from birth throughout my youth at Lake Vermilion. Both of my parents, who bought the original piece of land a couple years before I was born, reinforced in various ways what a special place it is. My sister and I were taught to respect the lake, trees and land. Trees

were only cut down when necessary, not for firewood or to create a view. In fact, we planted trees that were made available at no cost by the Forest Service. Many

of those seedlings are now tall pines, many close together as my father was certain they wouldn't all take!

We were also taught that the lake is home to much more than fish. Altering the shoreline was like moving furniture around in a stranger's house. Littering was not only unsightly, but it could cause fish, turtles, ducks and other animals in and around the lake to eat the trash and die.

I believe that this respect and love of the lake has been passed on to our children and now our grandchildren; our hope is that many more generations will enjoy Lake Vermilion and keep paying it forward!

**Ed Bonach, VLA Member and Lake Steward Award Recipient**

*Find this newsletter, along with previous issues at*

<https://www.vermilionlakeassociation.org/latest-news/>

# Howling Too Good on a December Afternoon

In my humble opinion, the best time to ice fish is early in the season on a rare sunny day with four inches of ice to cut through instead of four feet of ice in January. At 30 degrees the minnow bucket doesn't freeze, and the holes stay open and a human can relax and jig from the comfort of a camp chair while soaking up the rare natural vitamin D available in December.

The chisel chunked out big chards of ice that Jack found to be the perfect puck to chase around the ice and crunch on for kicks and refreshment. He seems to prefer drinking out of lakes and eating snow over drinking water from a bowl anytime of the year anyway. With a couple ice fishing tip-up rigs set up and baited with a fresh minnow we had time to play fetch the ice chunk. At a year and a half, it was Jack's first time realizing that even a canine with four legs has a challenge trying to stop while running on ice.

With no action happening and feeling the thrill of being alone on a wild lake perhaps miles from the nearest person, I tuned up my wolf howl for fun. It's worked well over the years, mostly at night but even in daytime occasionally. I once imitated the high-pitched whine of a mother wolf and brought her three little pups out of the woods to greet me on a June run on old logging roads. When mom showed up to round up the pups, her stare at me, hackles up on her neck from a few feet away is a moment frozen in time. So, howling into the wind on an open wild winter lake is not unusual for me.

Jack thought I was a little crazy, but he is always forgiving.

The flag went up and we trotted over to the tip-up and found the line headed south and the tug of a fish



on the end. I was hoping for a pike for dinner or even a walleye but up through the ice hole came a large-mouth bass. Now, that's a first for me in winter in northern Minnesota, catching a bass through the ice. Two pounds of golden floppiness lay on the ice for Jack to inspect. I believe he thought that was pretty cool. We let her go back through the hole she came up through swimming straight down in the murky depths. It turned out to be the only fishing thrill of the day.

The sun slides sideways in the north on a December afternoon. Maybe it was time to start packing up the gear? But, first a couple more howls to the distant hills and we can wind up the lines.

Facing the long length of the lake to the east there was some movement near the distant shore. Two animals at first and then four and they seemed to move more quickly and playfully. Jack took notice. He made a half-baked move to run out there but seemed relieved when I told him to stay and get back with me. One little 50-pound bearded collie does not herd his flock of wolves without consequence.

The energy from across the lake suddenly picked up momentum. Four animals became six and more movement along the shore meant more. Were there really nine wolves in this pack? The lead group was coming closer and again the pack expanded. I counted many times and came up with 11 dark figures moving randomly but ominously in our direction. As they came closer the lead animal was darker than the rest and appeared much larger. He or she, likely the alpha, stood obliquely to us staring. Maybe my howling earlier in the afternoon piqued their curiosity or maybe they perceived a threat to their territorial range. Whatever their motivation, it was obvious Jack and I were on the minds of 11 wild, awesome predators of the great north woods.





In a life lived outdoors there are moments that a person will never forget. The connection to nature is woven of experiences like this and so many others with the animals that live their entire lives in the constant drama of life and death. Our own lives are mostly not at risk in nature with a modicum of care but there are moments on the edge when it could go either way.

I never got out my phone to take a photo or video of this great pack of wolves on the ice; I never even thought of it. I wasn't really scared, as I wasn't rationally afraid of the mother wolf with pups two decades before. But there was adrenaline. Fight or flight was in my blood, but I reminded myself that wolves have never been aggressive towards humans in recorded history except for a questionable death up north in Saskatchewan a few years ago. Eleven wolves, however, approaching even a quarter mile away is intimidating. One or two would be less so, I think. Eleven is a whole squad in any sport and we were easy meat. So, what to do? I pulled the homo

sapiens card and instead of howling, I yelled at them to get lost. The ones in the back quickly retreated for the shore and the woods. The two or three in the front, including the biggest and darkest of the pack, just stood there. "Yell some more," I think is what Jack suggested. I did and they all slowly moved south towards the shore and disappeared. One more indelible memory etched in a chemical and electrical tangle of brain cells that will last as long as I do. May there be many more.

**Story by Steve Piragis, co-owner of Piragis Northwoods Co. in Ely (along with his wife Nanci and daughter Elli). This article is excerpted from The Boundary Waters Catalog Blog, December 2, 2020**

# Planting to Protect Lake Vermilion

The Vermilion Lake Association (VLA), North St. Louis Soil and Water Conservation District (SWCD), and Minnesota Lakes & River Advocates (MLR) worked together last year to protect Lake Vermilion through the Lake Steward Program.



A few properties that had taken the “Score Your Shore” Quiz through the Lake Steward program run through the Vermilion Lake Association (VLA) and MLR program were encouraged to implement some practices to protect the lake. Through a Minnesota Clean Water Funds grant with the Conservation Corps of Minnesota & Iowa, the North St. Louis SWCD was able to mobilize a Conservation Corps Crew to conduct two shoreline buffer projects. The Conservation Corps is an Americorps program that engages youth and young adults in conservation and natural resource work while providing training and other educational benefits.

One property selected included the tough work of removing invasive species and lawn area. The sod was replaced with native trees, shrubs, perennial plants, and native seed to create a more natural shoreline.

The second property did not have any lawn established. However, it did have an area where erosion was occurring from run off higher upland coming down slope. Native shoreline shrubs and forbs were



planted and native seed was laid down to stabilize the area.

The North St. Louis SWCD has applied for a Conservation Corps Crew again for 2022. We should know in the spring if we will be able to help more landowners protect Lake Vermilion through native plantings. If you are interested in the program, contact Becca at 218-288-6143 or [becca@nslswcd.org](mailto:becca@nslswcd.org).

## *Buying a Used Boat Lift?*

**Q: I need a used boat lift for my cabin next spring. What are the rules for moving it to Lake Vermilion?**

**A:** To minimize the chance of moving aquatic invasive species (AIS) between lakes, a lift needs to be clean and out of the water for a minimum of 21 days to allow the interior cavities of the lift to completely dry. If it's raining or the cavities are full of debris, 21 days are probably not going to be enough. The longer the better.

**Pro tip:** Buy your lift during the fall or winter from a dealer servicing Lake Vermilion. The dealer will be a trained lake service provider (LSP) who understands the risk of AIS. He'll assure the lift is clean, in good working condition, and has dried over the winter. And he can deliver it to your cabin in the spring.



# Onamani-Zaaga'Igan (lake of the red vermilion color water)

This article was written with input from Jaylen Strong, Bois Forte Band of Chippewa Tribal Preservation Officer

Lake Vermilion has gone by many names and has provided a place for sustenance, trading, traveling and new experiences for thousands of years. One such name, which is still referred to, is Onamani-Zaaga'Igan meaning lake of the red vermilion color water.



Bob Pearson  
VLA Board Member

In the mid-1600s

French explorers and fur traders became the first Europeans to discover the shores of Lake Vermilion; they immediately began to trade with the Dakota, Ojibwe and Cheyenne Indians who had already inhabited the lake.

In 1670 the French established the first fort on Lake Vermilion. This fort served to protect French trade rights to the region from their British competitors.

Lake Vermilion was an important link in the chain of rivers and lakes, and it connected Lake Superior to Rainy Lake, Lake of the Woods and Hudson Bay.

Travelers would enter Lake Vermilion through Pike River on the south side and leave through Vermilion River on the north side of the lake. Another important trade route at the time took travelers through the Mud Creek located on the east end of Lake Vermilion to Burntside Lake, the Kawishiwi River and Gunflint Lake, and eventually to fur trading at Grand Portage.

The Duluth to Rainy Lake travel route also referred to as the St. Louis River Route was so well known that it was used as the definition of the international border under the Treaty of Paris in 1763, under



which France ceded Canada to Great Britain.

The northeast shore of Lake Vermilion and the area where Tower and Soudan are now located were considered part of Canada, while the southwest shore of the lake and what is now Cook were considered part of the American territory.

The British laid economic claim to all of Lake Vermilion and built their own trading post on the lake. All furs from this region were then sent north to the Hudson Bay Company in Canada.

While the French and English were disputing control, the natives in the area were also having differences. In 1736 the Dakota began a series of hostilities against the Ojibwe located to the east along the Great Lakes and also against local French traders and settlers. It is believed that the aggression started because the French began trading with the Ojibwe who were the Dakotas' enemy. Tensions were already running high between the two tribes as the Ojibwe had been forced up against Dakota territory by the Iroquois of Michigan. A small Civil War party killed an Ojibwe family near the shores of Lake Superior and war erupted. The Ojibwe finally drove the Dakota out of

**Continued on next page**

## Vermilion history...from page 11

the Lake Vermilion area in 1774, the last battle taking place along the Little Sioux River location just north of Lake Vermilion.

Due to the vague description of the international border, the United States and Great Britain continued to argue about its course. In 1825 a British Commissioner named Barclay ordered a thorough survey of the area. In July 1825 a summer team of about 50 people including surveyors, laborers, ax men and chain men camped on Lake Vermilion and completed the most accurate survey to date in an attempt to prove that the St. Louis route which included Lake Vermilion was the correct border. Right or wrong, the American negotiators held firm on their conviction that the Grand Portage waterway was the true border and in 1842 Lake Vermilion and the Arrowhead region were recognized as part of the American territory pursuant to the Webster – Ashburton Treaty.

Throughout this same general time frame, the United States negotiated several treaties with Native American nations. In the 1825 Treaty with the Sioux and the 1826 Treaty with the Chippewa boundaries among tribal nations were delineated in an effort to stop inter-tribal warfare. In the Treaty of 1854, the Chippewa of Lake Superior ceded ownership of their lands in what is now called the Arrowhead region of northeastern Minnesota. At approximately five and one-half million acres, the 1854 Ceded Territory covers all or portions of six counties. While reserving



hunting, fishing and gathering rights, the 1854 Treaty also established several reservations in Minnesota, Wisconsin, and Michigan. However, with respect to Lake Vermilion, the 1854 Treaty provided for an undefined region around Lake Vermilion for the Bois Forte Band. It surrounded the majority of the lake, as far west as Wakemup Bay but wasn't defined well enough, so settlers started to move in with the Gold Rush of 1866. The current reservation as we know it was established by an Executive Order in 1881.

The last fur trading post developed on the lake was built in 1820 by an American company and was called the Vermilion Post. It operated until dwindling furbearers and a recession brought about its close in 1870. It is interesting to note that even before Fort Snelling was established, five nations, including Great Britain, France, the U.S., the Dakota and Ojibwe, had already occupied, mapped, and conducted business on Lake Vermilion.

## Snap More Photos!

**T**he Vermilion Lake Association will once again host a photo contest for its 2022 Annual Meeting. The theme will be "Lake Vermilion Seasons".

Take photos of people or wildlife enjoying the lake not only in summer, but winter, spring, and fall. There will be a winner chosen for each season. Look for more details in the Spring Edition of The Vermilion as well as the website and Facebook.



## VLA Caps

Wear your new caps proudly to show your support for your lake association. The price is right: \$15, plus \$3 shipping for any number of caps to one address. Free local pickup.

Check out the three style choices at our website  
[VermilionLakeAssociation.org/caps](https://VermilionLakeAssociation.org/caps)

For more info, contact Sheri Sawatzky at 218-780-8178, or [sherisawatzky@gmail.com](mailto:sherisawatzky@gmail.com)

Thanks for helping us protect and improve our great lake.



# Volunteers Needed

## Drone Owner for Cormorant Count

This program, begun in 2021, needs an additional co-pilot. Fly-overs are planned (weather permitting) the second week of the month from May through September. Valuable data obtained is shared with the DNR to track cormorant numbers over time. Our current volunteer needs a co-pilot when he's not at the lake and will share lessons learned to get good pictures.

## Aquatic Invasive Species Detector

This is a great Volunteer role for a seasonal lake resident who likes science and is eager to learn more about the lake's vegetation. With 4-6 Detectors in various locations on the lake, and only 3-4

alerts a year, this role is not time consuming, but does require an on-line course though the UofM to become knowledgeable and maintain competency. Cost of the course and an excellent resource manual is covered by the VLA.

When someone finds suspicious vegetation or questionable zebra mussels etc., they take a sample and are advised to contact one of our Detectors. The Detector(s) identifies if this is a sample of concern that needs further analysis. In consultation with our AIS Co-Leaders, the sample may then be forwarded to the DNR.

Contact Pat Michaelson, Volunteer Program leader if you'd like to explore either of these opportunities at [plmichaelson@gmail.com](mailto:plmichaelson@gmail.com) or 612-306-7702.

# In Memoriam

*The Vermilion Lake Association would like to thank and acknowledge the following Memorial gifts, made from June 17, 2021 through Jan. 14, 2022*

William C. Allen MD  
Ray & Glades Ashley  
Phil Bartusek  
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Henry & Gordon Bockus  
Jay Magnuson  
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**Donations can be sent to:**  
**Vermilion Lake Association,**  
**Jerry Lepper, Treasurer, PO**  
**Box 696, Tower, MN 55790**

**Donate online at** <https://www.vermilionlakeassociation.org/get-involved/donate/>

# What is a Trophy Fish in Lake Vermilion?

**T**he Antique Angler here with a fish story and a personal view of what a trophy is and how important these fish are to the fishery. First, let's get into a recent fish story. It was late August of this year, the lake level was very low from the drought, daytime temperatures were very warm, and the smoke from wildfires sometimes covered the lake in a ghostly fog. Besides being foggy and blocking the sun's rays, the smoke was not healthy for many people, especially those with respiratory issues.

My brother and nephew were up for some fishing on Lake Vermilion, and we left the house and headed out to a favorite area to do some bass fishing. It was partly cloudy with only a little smoke in the air when we left the house. As we cut across a large bay and past several islands, we pulled into the area we were going to fish, and we were met with a wall of very thick smoke covering the entire area and blocking daylight to the point it seemed like dusk. When I was young, I had asthma, and I was thinking that this may not be a good day for me. I seemed to be fine, and I relished the time to be out in the boat with my brother and nephew.

We hit some key spots that we knew well, and the first spot produced a beautiful trophy-caliber largemouth bass at 20 inches. A nice quick fight and a couple of pictures, and we released it back to the area where we caught it. The fishing continued to be good



The Antique Angler

**Even though smoky, a 20-inch trophy largemouth bass**

with very nice sized bass hitting in just about every spot we tried. At

a different spot where, many years ago, we caught lots of bass and some large ones too, my nephew tied into another trophy-caliber largemouth bass again at just over 20 inches. Again, a quick picture and a release. Only two times on Vermilion have we been able to catch two 20-inchers during one outing on the lake. The other time this happened was during an eclipse when the day turned dark and sun was blocked. We caught many bass that morning, along with the two trophies and even lost several to broken lines in thick cover. For people who really enjoy the pleasure of the catch and fishing on a wild and beautiful

lake where you have a long family history, it was a day that will be part of our family memories.

Thirty years ago, a lot of people kept most of the trophy fish and cleaned them or had some of them mounted. Today, I believe most of the large trophy fish are released for someone else to enjoy the experience. Except for a few cases, most of the fish survive to fight again.

What is a trophy fish? This varies for each type of fish. For both types of bass, any fish exceeding 20 inches on Vermilion is a trophy. For northern pike, a 40-inch fish is truly a trophy, and for muskies anything exceeding 50 inches is trophy caliber. I know that a lot of people on Vermilion are looking for the magic 30-inch walleye which for sure is a trophy. I will never forget being a boat operator for "Take A Kid Fishing," when two young boys told the story of each catching a 30-inch walleye with their guide that day. Two other guides and I looked at each other, and we all indicated we had not caught a 30-incher yet. For panfish, bluegills larger than 11 inches and crappies larger than 15 inches are certainly trophy status. These are only my opinions. I hope you enjoy the hunt for these large trophies. Remember to release carefully these exceptional examples of the Lake Vermilion fishery, so another fisherman will have the opportunity to enjoy a fight and thrill.



# Septic System Information and Best Management Practices

Septic systems are a vital component of many homes and cabins, though it's often the last thing we think about in our daily lives. Most septic systems contain a septic tank and a soil treatment area or drain field. Soil treatment areas are diverse – just like the soil under them. Some common types of soil treatment areas are seepage beds, mounds, trenches, at-grades, including advanced technologies like peat filters. The most important component of a septic system is the soil treatment area. This is where effluent, that contains fecal matter, disease causing pathogens, and many other metabolic wastes, is broken down and made safe before entering back into the groundwater that many of us drink, in addition to lakes, rivers, and streams.

Septic systems are important for keeping harmful waste out of our ecosystem and can be costly to replace, so proper maintenance and care is crucial for prolonging the life of our systems. Below are some Dos and Don'ts!

Septic DOs:	Septic DON'Ts:
<ul style="list-style-type: none"> <li>• Address leaks as soon as possible and limit excessive amounts of water. Spread out loads of laundry over the week – try to avoid doing many loads in a single day. Use liquid detergents. Powdered laundry detergents may use clays as a carrier and can plug the soil treatment area.</li> <li>• Have your septic tank serviced and/or pumped every three to five years by a licensed professional.</li> <li>• Know where your soil treatment area is and ensure vehicles are not driven or parked on it, even in winter; they can damage the system. Note: a lawn mower is OKAY to use – it is best to keep large shrubs and trees from growing on the system as roots can plug and damage the distribution pipes. If trees have grown, cut them off at the base and do not remove the stumps – they may rip out or move components.</li> <li>• Divert water sources such as roof drains, house footing drains, sump pumps, and rainwater flows <b>AWAY</b> from the system. Excessive flows can cause backups and lead to premature system failure.</li> <li>• Keep records of pumping, repairs, inspections, permits, and other SSTs activities.</li> <li>• If you have any issues with your system, call a licensed professional.</li> <li>• Newer systems are required to have an Effluent Filter in St. Louis County. Filters are wonderful for preventing solids from entering the field and causing plugging. This should be cleaned semi-annually.</li> <li>• Use a strainer in the sink and toss out the caught debris – too many food particles and solids are harder to break down and require more frequent pumping.</li> </ul>	<ul style="list-style-type: none"> <li>• Don't flush anything other than human waste into the system. Things you should NOT flush include (but are not limited to) cat waste or litter, clothing lint, facial tissues, feminine hygiene products, oils or grease from cooking, paint or solvents, medications, or any food scraps. It is also important to only flush standard toilet paper; <b>DO NOT FLUSH WIPES EVEN IF THEY SAY FLUSHABLE.</b></li> <li>• Don't let chemicals, harsh cleaners, excessive amounts of antibacterial soaps, or bleach into the system. This will upset or kill the “good” bacteria that are imperative in the breakdown of wastes and pathogens.</li> <li>• Don't plant anything other than grass over the soil treatment area. Do not plant a garden near the soil treatment area.</li> <li>• Don't place lawn sprinklers over the system – excess water is harmful.</li> <li>• Don't build anything over the system. Oxygen transfer is important for breakdown, and excessive weight can damage the system.</li> <li>• Don't attempt to repair systems on your own – contact a professional and ensure the fix doesn't require an SSTs permit.</li> <li>• Don't enter a septic tank. Gases accumulate in tanks and can be fatal.</li> <li>• Don't allow backwash from water softeners to be discharged into the system. The salts can damage the soil treatment area.</li> <li>• Don't allow water from humidifiers, reverse osmosis units, or water conditioning units to discharge into the system.</li> <li>• Don't add any “septic tank additives.” They can pollute groundwater and damage the system.</li> </ul>

*Emily Anderson is an Environmental Specialist with the St. Louis County On-site Wastewater Division. She has been a member of the division since January 2020 and works directly in the Vermilion Lake area. Feel free to contact Emily or the Onsite Wastewater Division with any questions or concerns. Onsite Wastewater – Virginia office: 218-749-0625 or email [oswinfo@stlouiscountymn.gov](mailto:oswinfo@stlouiscountymn.gov). Emily Anderson, Environmental Specialist: 218-749-0639, or email [Andersone@stlouiscountymn.gov](mailto:Andersone@stlouiscountymn.gov)*



# Amazing New Fishing Electronics

Available to all anglers, new electronics are designed to find fish faster than ever before. Almost all new electronics show more detail of the fish and their location with just a little effort to learn these new units. At the top end of the technology market for electronics are three newer units that are game changers. These new units are Garmin Panoptix live scope, Humminbird Mega live-imaging and Lowrance Active Target live sonar. While these units are expensive, they are becoming popular with serious anglers.



Terry Grosshauser  
VLA Board Member

How detailed are these new units? They are amazing. A person can not only see fish more clearly, but you can tell in some cases what kind of fish it is and the approximate size of the fish. The units allow you to pinpoint the distance and direction the fish is from the boat. The advantage

is to the fisherman with these new units. You can throw a bait to the identified fish and watch their reaction to the bait or see them actually strike the bait. Imagine how much you can learn about your presentation when you can see how the fish reacts to the bait you are presenting. Does the fish strike immediately, follow it, or not react to the presentation?

One friend told the story of ice fishing on an underwater hump location on a Minnesota lake and a person came out with one of these new units. He put the transducer in the water and pointed out to his friend that there was a fish that looked like a walleye ten yards from them on the rock pile. He immediately set up where the fish was supposed to be and caught a nice walleye. They quickly found another one and then moved to a different area of the lake. My friend did not catch anything on the hump.

The competition and the money associated with fishing tournaments is driving the use of these units because one contestant could have a significant advantage. Others, in order to compete, must learn how to use these units to have a chance to win the tournament dollars. In one muskie tournament, the winning team caught five fish on something like

fourteen casts. They did not cast until they were in position to cast to what they suspected was a muskie. No longer will a muskie be the fish of a thousand casts with this technology. Some guides on Vermilion are using this technology while others do not believe in using it.

What does all of this mean for the future of fishing? The technology will continue to improve with faster speed and provide even more accuracy. The difficulty in finding fish will be reduced significantly and the fish will show us what presentation works and does not work. Along with this new technology comes the need for more angler responsibility. How many fish can we catch with this new technology, when is enough for the day, and how many will die from hooking mortality even though they are released? What consideration is needed in how to manage the fishery with the impact of this new technology? These are all questions for the future of fishing and for the DNR to consider in their creel surveys to try to determine the impact of new technology. Your thoughts are welcome; let us know how you view the new technology.

We are learning from DNR studies that we should exercise more conservation with regard to the size and numbers of panfish that we keep, and we have slot limits to protect the larger spawners for walleyes and northerns. The new electronics, more fishing pressure throughout the year, AIS impact on fisheries, and warmer temperatures all are having an impact on the fisheries. We as anglers need to be more careful and only keep what we need and not keep the DNR limits just because we are having a good day. If you are trying to understand what would be considered as conservation sizes and numbers, please refer to the recommended conservation limits we published last spring. These are on our website. We will be working with our partners to review last year's recommended conservation limits and to determine whether the program was effective. Look for more information in the spring. Your feedback is always welcome at [terrygrosshauser@gmail.com](mailto:terrygrosshauser@gmail.com).





# Rink of Dreams

**G**rowing up in the Northland has been a true blessing. Every season, whether its spring, summer, fall, or winter...there's always something to look forward to. I've always enjoyed winter for two main events... Christmas and hockey season!

That being said, the past few years we've been building a skating rink right in Spring Bay and it has brought so much joy to all who had a chance to use it. It started off with a just few lights so my kids could skate a little bit longer into the night... and somehow has grown into regulation size with lights all around, Christmas trees, decorations, light timers, music, a fire pit to keep warm, and lots of skating parties with friends and neighbors! If you're looking to add some Christmas cheer and comaraderie to your neighborhood... build a rink!

## How to flood the rink (the setup):

- ❖ 8" k-drill... attached to a 20volt Dewalt
- ❖ 2" trash pump w/ suction hose
- ❖ 100 feet of 2" hose



- ❖ Gator clips/locks
- ❖ Fire spray nozzle
- ❖ Otter tow sled

The key to great ice is flooding it regularly... thin layers give the best results! The lights are always on! Stop by and skate anytime!

**Steve Amundson, Spring Bay Resort & Guide Service**

# Stopping by Woods on a Snowy Evening

by Robert Frost

*Whose woods these are I think I know.  
His house is in the village though;  
He will not see me stopping here  
To watch his woods fill up with snow.*

*My little horse must think it queer  
To stop without a farmhouse near  
Between the woods and frozen lake  
The darkest evening of the year.*

*He gives his harness bells a shake  
To ask if there is some mistake.  
The only other sound's the sweep  
Of easy wind and downy flake.*

*The woods are lovely, dark and deep,  
But I have promises to keep,  
And miles to go before I sleep,  
And miles to go before I sleep.*



## Board of Directors and Officers 2022

### Cook

Sheri Sawatzky, Secretary/Membership, 2750 Wakemup Village Rd W, Cook, MN 55723, 218-780-8178, [sherisawatzky@gmail.com](mailto:sherisawatzky@gmail.com)

Eric Hanson, 2746 Vermilion Dr, Cook, MN 55723, 218-666-5478, [eric@pehrsonlodge.com](mailto:eric@pehrsonlodge.com)

Dwight Warkentin, Vice-President, PO Box 97, Cook, MN 55723, 651-269-0674, [dhwarkentin@hotmail.com](mailto:dhwarkentin@hotmail.com)

Terry Grosshauser, 7307 Oak Narrows Rd, Cook, MN 55723, 218-666-0580, [terrygrosshauser@gmail.com](mailto:terrygrosshauser@gmail.com)

Jim Graham, 8978 E Wakemup Village Rd., Cook, MN 55823, 218-780-5525, [jcgrahamsr@gmail.com](mailto:jcgrahamsr@gmail.com)

Pat Michaelson, President, 2384 Deerwood Lane, Cook, MN 55723, 612-306-7702, [plmichaelson@gmail.com](mailto:plmichaelson@gmail.com)

### Tower

Bob Pearson, 5773 Puncher Point Rd, Tower, MN 55790, 218-753-4212, [rpearson@duluthlaw.com](mailto:rpearson@duluthlaw.com)

Gary Haugen, 1903 Westhaven Dr, Tower, MN 55790, 612-720-2853, [ghmedrep@gmail.com](mailto:ghmedrep@gmail.com)

Lori Ptak, 3505 Downers Dr, St. Anthony, MN 55418, 612-247-3751, [lori@ptak.org](mailto:lori@ptak.org)

Jerry Lepper, Treasurer, 3087 Old Hwy. 77, Tower, MN 55790, 218-753-2629, [jnclep4@frontiernet.net](mailto:jnclep4@frontiernet.net)

Jill Korpela-Bontems, 4437 Big Rock Rd, Tower, MN 55790, 218-753-6324, [jandjatbigrock@frontiernet.net](mailto:jandjatbigrock@frontiernet.net)

John Yocum, 4102 Hoel Rd, Tower, MN 55790, 407-873-3883, [snootman@aol.com](mailto:snootman@aol.com)

Nancy Watkins, 5981 412th St., Rice, MN 56367, 320-291-2363, [2bitfarm@gmail.com](mailto:2bitfarm@gmail.com)

Craig Beveroth, 11089 Mt. Curve Rd., Eden Prairie, MN 55347, 952-428-9155, [cbeveroth@comcast.net](mailto:cbeveroth@comcast.net)



# Ten Great Things To Know About Your Lake In the Winter

**1. It all starts with steam:** If you look out on your lake on a very cold October morning, you may see tendrils of steam rising from the water. The steam forms as warmer, moist air, just above the water, rises to meet the cold, drier air above. The moisture condenses into tiny droplets to form what's known as steam fog or water smoke. It's a sure sign that the water is cooling as time for ice formation approaches.

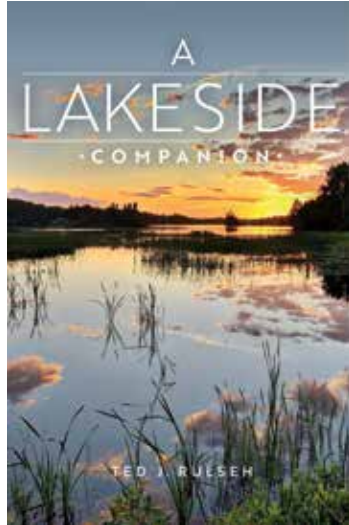
**2. Ice requires cold stillness:** Have you wondered why your lake won't freeze when the days and nights are windy? It's because wave action constantly fractures tiny ice crystals as they form, keeping solid ice from taking hold. In these conditions, the water can actually supercool, remaining as liquid below the freezing point of 32 degrees F. Then, along comes a very cold, windless night, and presto! A thin sheet of ice covers your lake.

**3. Your winter lake has layers:** Underneath the ice, lake water has an interesting temperature profile. The warmest, densest water, at about 40 degrees F, lies at the bottom. The coldest, least dense water, at 32 degrees F, lies right under the ice. The ice itself is the least dense of all, which is why it floats. Ice expands by about 10 percent from the liquid state of water.

**4. The lake starts winter rich in oxygen:** Fish and other water creatures need a supply of oxygen to make it through the winter. Fortunately, beneath the new ice, the lake holds more oxygen than at any other time of year. That's because water can hold much more oxygen when it's cold than when it's warm. At 32 degrees F, water holds almost twice as much oxygen as it would at 80 degrees F.

**5. Water creatures need less oxygen in winter:** Fish, frogs, mollusks, crayfish, and other critters are cold-blooded. In cold water, their metabolism slows down, and they move about slowly, if at all. As a result, they use less energy, and so, less oxygen. They go into winter with the most abundant oxygen they will experience all year, at a time when they need that oxygen the least. It's a good scenario for survival.

**6. There's no need to fear ice "booming":** Lake ice makes wondrous, almost musical, sometimes eerie sounds as it expands and contracts with changes in temperature. If you're on the lake when the ice is booming, or even if you hear a crack sizzle right past you and off into the distance, there's no need to fear. Booming and cracking do not mean the ice is weakening.



**7. Ice is really a collection of crystals:** We think of ice as a monolithic, solid substance, akin to a block of glass. In reality, it consists of vertically oriented crystals in the shape of hexagons, tightly packed together. These crystals grow from the surface down as the lake is continuously exposed to cold air. This structure reveals itself as the ice deteriorates toward spring: The bonds between the crystals break down, and the crystals become individual "candles" very loosely held together. At this point, the ice is extremely weak and is hazardous to walk upon.

**8. No one is certain why ice is slippery:** Most of us learned in grade school that we can skate on ice because the pressure of the steel blades lowers the melting temperature at the surface and creates a film of water on which we glide. Science has now rejected that explanation in favor of two theories. One is that friction, not pressure, melts the ice. The other is that ice is inherently slippery – that a tiny liquid film remains on the ice surface even at temperatures far below freezing. Scientists disagree on which theory is correct.

**9. Ice is tough – and fragile:** There are various ways to assess the strength of ice. One is fracture toughness – how easily a crack spreads through a material. On this measure, ice is about one-tenth as tough as window glass. Then there's tensile strength – how much force a substance can take when stretched from both ends. The tensile strength of ice is about half that of bricks. Its flexural strength, which measures resistance to bending under a load, is roughly the same strength as a pine board across the grain. That's pretty tough! How much ice is safe for travel? The Wisconsin DNR's guidelines for new clear ice are as follows:

- Ice fishing (person on foot) 4"
- Snowmobile 5"
- Car or small pick-up 8-12"
- Medium sized truck 12-15"
- Godzilla 100+ inches

Always, the watchword is caution. One saying has it: Thick and blue, tried and true. Soft or crispy, much too risky. If in doubt, don't go out.

**10. Ice melts from the bottom up:** As the weather warms, the snow melts off the ice surface. Then the sun's rays penetrate the ice and warm the water below, while also warming areas of open water near shore. Warm air above the ice contributes to the thaw, but it's the warming water below that really does the trick.

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Vermilion Lake Association  
PO Box 696  
Tower MN 55790

## Volunteers Make the Difference

The Vermilion Lake Association has been fortunate over the years to have a dedicated group of leaders and volunteers to staff our important activities. We are grateful for their help.

Please consider joining this team. We have needs for both workers and leaders, for those with only a few hours to spare, and for those who can make a larger time commitment.

If you think you may be interested, please contact Pat Michaelson, VLA Volunteer Program Leader, at 612-306-7702 (cell) or [plmichaelson@gmail.com](mailto:plmichaelson@gmail.com).

### Vermilion Lake Association

Sheri Sawatzky, Member Records • P.O. Box 696 • Tower MN 55790  
[sherisawatzky@gmail.com](mailto:sherisawatzky@gmail.com) • 218-780-8178

Membership year runs from Jan 1st through Dec 31st

☐ 2022 New Member ☐ 2022 Renewal

Membership level

☐ \$15.00 Individual ☐ \$20.00 Couple  
☐ \$25.00 Family ☐ \$50.00 Business or Organization

Member Name \_\_\_\_\_

Spouse Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email (requested) \_\_\_\_\_

Phone (requested) \_\_\_\_\_

Please clip or copy this form and send to the address above.

## Become a Member

Join those who love Lake Vermilion as much as you do. Help us continue the many activities you've just read about.

Not sure? Check us out at our website [VermilionLakeAssociation.org](http://VermilionLakeAssociation.org). We're pretty sure you'll like our vision for the future and the work we have underway now to make Lake Vermilion even better.

Please mail a check with the form on this page or join at our website using PayPal or a credit card.

The Vermilion Lake Association is a 501 (c) (3) non-profit organization.

## Do You Qualify?

Trick question. Anyone can join the lake association whose mission it is to protect and improve Lake Vermilion. No need to be a property owner. No need to be a fisherman or a kayaker. Just someone who cares about our great lake and wants to protect her for the next generation.