

Tulaby Lake Association Newsletter

SPRING 2013

WWW.TULABYLAKASSOCIATION.ORG



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Tulaby Lake Report

The Tulaby Lake Association supports continued water testing and monitoring.

RMB Environmental Labs in Detroit Lakes process all the lake samples and other data provided by the efforts of Tulaby Lake Association members. The Association has a tradition and history of consistent collection of data, which now with concerns about continuing water quality is invaluable in determining causes in possible declining water quality.



RMB Labs have posted an extensive report about Tulaby Lake on their website. The report is too long to publish in this newsletter, but we encourage you to visit their site and read the report. Go to <http://www.rmbel.info/Tulaby.pdf> We will also have hard copies of the report available at our spring association meeting.

Highlights of the report

The Tulaby Lake annual **transparency** ranges are 6.5 to 15.2 feet and vary throughout the summer. During May and June transparency is high, and then declines in August. The transparency rebounds in October after fall

turnover. This is typical for a northern Minnesota lake. The transparency in 2004 - 2006 was much better than the long-term average; however, 2007-2011 it is below the long-term average.

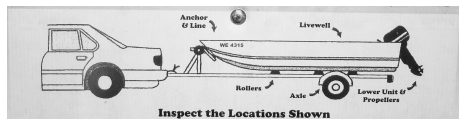
Best Management Practices Recommendations

The management focus for Tulaby Lake should be to improve the water quality.

-RMB Environmental Laboratories, Inc.

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HELP
STOP
AQUATIC
HITCHHIKERS



NOW IS THE TIME TO
RENEW YOUR LAKE ASSOCIATION MEMBERSHIP
SEE PAGE 3

Tulaby Lake Association Letter from the President

"Being a part of an association is more than just paying the dues."

Today was a beautiful winter day at Tulaby Lake. Light dusting of snow and the snowmobile trails were all groomed and ready to ride. After riding most of the day you could tell that the winter season will soon to pass onto spring and summer. The sun felt warm and the snow was starting to melt. After a fun filled winter of sledding, snowmobiling and a little ice fishing I am looking forward to warm sunny summer days at the lake.

By the time you read this newsletter everyone should have received their dues notices in the mail. Please continue to support your Tulaby Lake Association. The association would like to thank you for your participation in helping to maintain the quality of Tulaby Lake. If you have not received your dues notice please contact Pat Adams or Danny Pinske with your new address information or name change for your property so that we can update the information in our database.

This year our new Tulaby Lake Directory is going to be available. Please check the current directory to make sure your information is correct. If you have contact information to be updated, or if you are a new member and have not submitted information, please send it to Pat Adams. Her phone and email can be found in this newsletter.

As an association we have been doing lake water testing to better understand the cycles of Tulaby Lake. We have a detailed report which helps us understand some of the unique features of our lake. We still have continued testing which will go on throughout the summer to understand the details behind these features. Access to the report can be found by going to the website outlined in this newsletter.

Be sure to save the dates of activities and volunteer opportunities as shown on the calendar of events in this newsletter. Be sure to mark your calendars to attend the potluck and business meeting scheduled in May. We are interested in your thoughts and ideas as an association. I encourage our association members to talk to their neighbors on Tulaby Lake and find out if they are a member of the Tulaby Lake Association. If they are not members, we have pamphlets available outlining the value of the association and benefits for Tulaby Lake and their property as a whole.

We are also talking with the MN DNR to have some work done at the boat landing to improve the access for launching and loading boats. They are aware of the need for improvements to be done and will try to get to it by this years boating season.

Almost everyday I read about issues on neighboring lakes. It may be aquatic invasive species. It may be water quality issues. I read about cabin development issues on lakes. The benefit of an

association is that as a group we can work together to protect the quality of the water, fishing, recreation and overall enjoyment of Tulaby Lake. So if you know someone who is not a member please talk to them and encourage them to join the association. If you do not feel comfortable let me or one of the board members know and we would be glad to call or stop by to answer questions and educate them about the benefits of our association.

Being a part of an association is more than just paying dues. We encourage all members to take an active role in helping the association do the best job to maintain the quality and enjoyment of Tulaby Lake.

I would like to add that the Dan and Annette Peterson family are still in Houston, TX patiently waiting for the opportunity of a dual lung transplant for their ten year old son Jordan. We would ask for your continued thoughts and prayers for them. You can follow their journey at jordanpeterson@caringbridge.org

Hope to see you this summer!!

Sincerely,
Scott Van Dam



Calendar of Events

May 4: Ditch Clean Up

2:00PM Fire Hall

May 4: Association Meeting

6:00PM Fire Hall

Potluck

Tulaby Lake Report

Membership Meeting

May 11: Season Opener

Walleye and Northern

May 25: Season Opener

Large & Small Mouth Bass

May 27: Memorial Day

July 4: Boat Parade

10:00PM Outlet Area

July 4: Tie-Up Party

2:00PM Middle of the lake

August 3: Association Meeting

12:30PM Fire Hall

Pot-luck & Hotdogs

Presentation

Membership Meeting

Election of Directors

September 2: Labor Day

September 7: Ditch Clean Up

9:00PM Fire Hall

Calendar of Events Elbow Lake Fire Department

Pancake Breakfast

Memorial Day Weekend

Sunday, May 26, 2013

8:00AM - 12:00PM

Fire Hall

Annual Pig Roast

Saturday, August 10, 2013

11:00AM - 2:00PM

Fire Hall

Pancake Breakfast

Labor Day Weekend

Sunday, September 1, 2013

8:00AM - 12:00PM

Fire Hall

Seeking Nominations 4th of July Boat Parade Grand Marshal



The Tulaby Lake Association is looking for nominations for the 2013 Fourth of July Boat Parade Grand Marshal. Submitted nominations will be presented at the May membership meeting.

Send nominations to

tulabylakeassociation@gmail.com



A Fishing Trip

We made a trip to Tulaby
Rev. Brauer with his wife and we
The road-a bit of fairy land
All painted by the master's hand
A robe of red and gold and green
Bedecked the hills and vales between
It was a gorgeous sight to see
That winding road to Tulaby
The road wound mostly East and
South
Sometimes my heart was in my mouth
The hills seemed very high and steep
The vales between appeared so deep
But foolish twas of me to sigh
The car took every hill in high
A thousand fold repaid were we
When we arrived at Tulaby
The lake, placid mirror lay
Tween wooded hills in colors gay
Wild ducks yon its bosom float

There too we saw a fisherman's boat
A group of cabins on the shore
With every convenience at hand
An ideal place to fish I say
It's Balsam Beach at Tulaby
Rev. Brauer and his gracious spouse
Kindly welcomed to their house
Our host provided us with a boat
Soon on the lake we were afloat
My husband rowed, I trolled a line
And soon we caught a pickerel fine
Nine dandy pickerel were our prey
While we were out on Tulaby

Author Unknown

Submitted by Dan Pinske's Aunt

JOIN OR RENEW YOUR MEMBERSHIP TO THE TULABY LAKE ASSOCIATION

Your membership dues are needed more than ever to continue lake water testing and monitoring, support and promote lake quality and lake stewardship, maintain partnerships with local and state organizations, and provide information to our membership and lake residents!

Please send your annual 2013 membership **dues of \$25** to:

Tulaby Lake Association, Danny Pinske Treasurer

38150 Tulaby Lake Drive, Waubun, MN 56589

A registration form is available at www.tulabylakeassociation.org if you need to update your current information for the directory.

Please notify Pat Adams of any address changes or neighbor changes so the directory and mailing information remains correct. You can email her at tulabylakeassociation@gmail.com or by sending information to Pat Adams, 25572 Gramford Avenue N, Wyoming, MN 55092

Tulaby Lake Resident Story Ron and Annette Wasfaret

"Tulaby Lake seemed like a wild place in those days."

In 1948, with friends from Ada, Ron made his first trip to Tulaby Lake traveling twisty, hilly gravel roads to the Janusch home. Ron played with young Jerry Janusch who told Ron about a bear cub up in a tree near their home. Tulaby Lake seemed like a wild place in those days.

The next time Ron remembers being at Tulaby was during the winter in the early 1950s on a Boy Scout outing. The group stayed at Hap Peterson's Balsom Beach Resort, which is now the home of Sue and Ken Baumann. Ron and the other boy scouts stayed in a cabin south of the lodge. The cabin was heated with a wood burning stove. The Boy Scouts went out in the woods and performed some of the requirements to become a Tenderfoot Boy Scout.

During 1970 and 1971 Ron remembers camping in a tent at the Evergreen Campground, which at that time was owned by Gisle Fevig. Gisle and Frank Gunderman would always go from campfire to campfire visiting, socializing and drinking coffee. During those camping trips Ron made lot of friends and had some great times.

Annette's parents, Oscar and Margaret Kulland rented a trailer house from Gisle and later rented from Don Cary. Family members visited they while they were at the lake. Those were great times and wonderful memories at Tulaby

Lake became a part of their lives.

Annette and Ron bought their cabin on Tulaby in 1998 from Richard and Sharon Gumto for \$60,000. It is believed that their cabin was part of Balsam Beach Resort. Fred Janusch built the Wasfaret's cabin in 1952 from man-made logs milled at George Berger's Mill near Big Elbow Lake. Fred's son, Jim Janusch, currently lives year-round across 306th Avenue from Wasfaret's cabin.

Ron says he doesn't do a lot of fishing on Tulaby Lake, but does remember in late summer 1971 fishing with Dwight Murray and his brother-in-law, Paul Gunderson. One afternoon Paul caught a seven pound walleye. The group had rented a boat from Gisle Fevig, who was very impressed and proud of their catch.

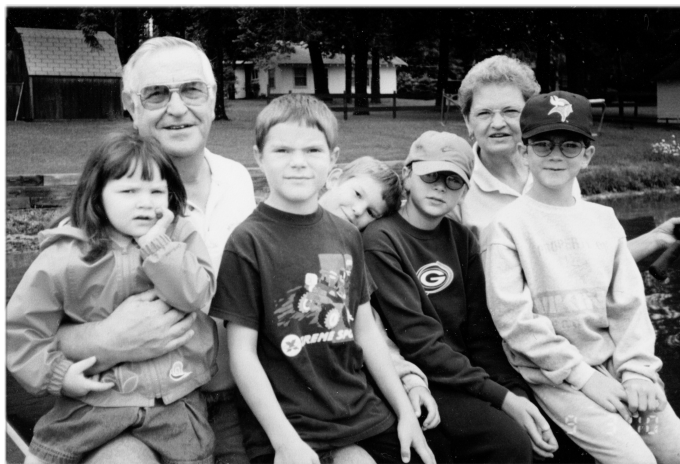
Annette and Ron have been married for fifty four years and have two daughters and one son. They enjoy five grandchildren,

including four boys and one girl. They have all spent time at Tulaby Lake and shared wonderful times with their grandparents.

Ron worked full-time for the North Dakota Air National Guard for thirty three years after serving three years of active duty in the Army. Annette went back to college after their three children were grown, completed her teaching degree and went on to teach elementary school children for thirty years. She mostly taught first grade.

Ron and Annette feel very fortunate to be a part of the Tulaby Lake family of friends. Ron has been active in the Lake Association for years and is currently a Director. Ron encourages lake residents to keep doing what is being done to preserve this wonderful lake for future generations. Along with the great summers, Ron shared that he also has enjoyed winters at the lake snowmobiling, ice fishing, snow shoeing and cross-county skiing.

Hunting has been allowed Ron to be in the woods in the fall of the year, which Ron says 'is like being as close to God as a person can hope for.'



Board of Directors

Association Board Member Roster
The following is a list of Tulaby Lake Association Board members and their contact information.

Scott VanDam – President
701-318-2828
ocpdrs@ideaone.net

John Oncken – Vice President
218-791-3437 or 701-740-8148
joncken@truenorthequipment.com

Dan Pinske – Treasurer
218-734-2542 drgrain@arvig.net

Pat Adams - Secretary
218-734-2374 or 651-269-6070
patrnka@gmail.com

Ron Wasfaret – Director
218-233-7656 or 701-429-7337

Irv Kallin – Director
218-734-2317
arloineirvkallin@yahoo.com

Ray Thorkildson - Director
218-734-2230
rcthorkildson@gmail.com

Ken Baumann - Director
218-734-2204
susanjbaumann@aol.com

Dan Peterson – Director
218-734-2472 or Cell 701-238-7391
dpeterson@e4brokerage.com

Board Member Terms Ending in 2013:

Ron Wasfaret
Ray Thorkildson
Scott Van Dam

Board member Terms Ending in 2014:

Ken Baumann
Pat Adams
Irv Kallin

Board member Terms Ending in 2015:

Dan Peterson
Dan Pinske
John Oncken

Treasurer's Report - March 2013

Treasurer's Report - Danny Pinske

The Tulaby Lake Association had 97 regular members and one associate member in 2012. Annual membership dues were \$20 in 2012; this amount will be increased to \$25 for 2013.

Tulaby Lake Association dues are used for expenses aimed at improving our lake community. In 2012, that included:

Walleye rearing ponds \$300.00
Lake & Stream Water Quality Testing \$854.00
COLA Membership (2 years) \$400.00
Annual Picnic Expenses \$156.92
Association Mailings, printed literature, and website \$735.50
Association Treasurer Fees \$75.00
Association Secretary Fees \$75.00
Security light at the landing \$86.80

Total Expenses: \$2,683.22

Balance as of December 31, 2012 \$2523.92

We encourage everyone on the lake to join the Tulaby Lake Association, including new property owners and former members.

Thank you!

Understanding and Protecting Tulaby Lake

Bruce Paakh, Hydrologist/Limnologist MPCA - March 24, 2013

Tulaby Lake has been the subject of some fairly intense study during the past several years. The White Earth Tribe Biology Department collected some detailed monthly lake samples in 2010 that have proven to be valuable in understanding seasonal lake phosphorus concentrations at different depths. The Tulaby Lake Association collected samples from wetland and groundwater flow into the lake in 2010 and 2011 that have proven valuable in understanding phosphorus levels in this source water. In 2011 the MPCA collected stable isotope data to better understand the water sources feeding the lake with an emphasis of trying to understand the role that groundwater and groundwater phosphorus concentrations play in the lake phosphorus cycle. The Tulaby Lake Association has been collecting lake samples since

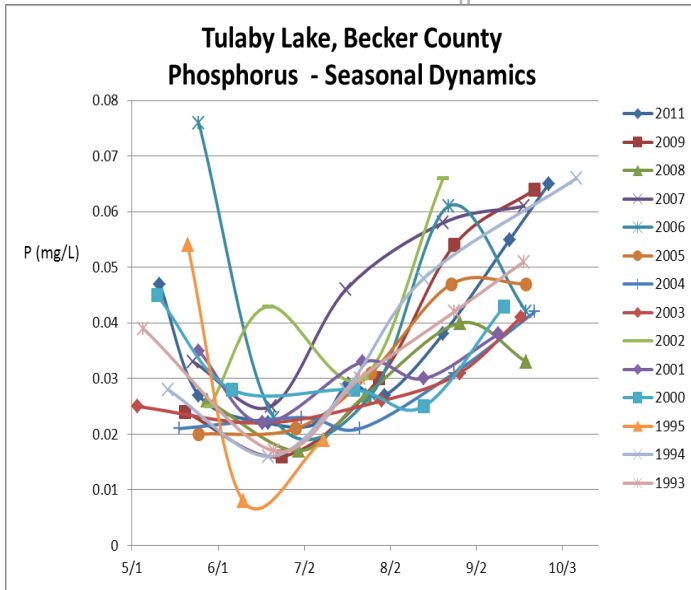
1993 that is extremely valuable in understanding differences in monthly and annual lake fertility, algal production and clarity.

Why so much study of Tulaby? You have likely heard or noticed that Tulaby has a late summer algal bloom that typically peaks between late August and late September. It is not unusual for MN lakes in agricultural areas of the state to have severe algal blooms. But the watershed that feeds Tulaby is fairly natural except for the lakeshore development, and the watershed is small. We don't expect to see a lake behave like this given the characteristics of the watershed. When I looked at the first season of data after it was collected back in 1993, I noticed the pronounced change in phosphorus levels from spring (.038 mg/l) to mid-June (.017 mg/l) to mid-September (.052 mg/l).

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Understanding Tulaby
Continued

See Figure 1 below. Increased lake phosphorus levels result in



increased algal levels.
Figure 1. Tulaby Lake long-term annual surface total phosphorus and seasonal P dynamics.

This seasonal swing in mid-lake surface phosphorus concentrations shows up each season in the 14 years of data collected by the association, with the timing in 2002 a bit off from the other years. The consistent pattern that these data exhibit is something that we are trying to better understand. We believe that groundwater is playing an important role in Tulaby's lake phosphorus cycle. The next step in trying to better understand this lake is to conduct a water and phosphorus budget for Tulaby. This summer the U of M in cooperation with the MPCA plans to send some graduate students to Tulaby to collect the data needed to complete this work. The goal of this study is to determine the sources of water

and phosphorus that flow into the lake and determine what percent each source contributes to the lake during "average", wet and dry conditions. When we have this information we will be in a

better position to know how much of Tulaby's phosphorus is from natural vs. human sources.

One thing I can tell you without hesitation is that those who live on Tulaby Lake should each be doing their part to protect

the lake now. In the end, we can only minimize and reduce the human sources of phosphorus into Tulaby. Protecting the lake from enrichment caused by us should be a "no-brainer" if our goal is to keep Tulaby healthy. There has been enough good information provided by the association and county regarding lake stewardship over the years that all lake residents should be making good choices regarding a host of issues from septic system pumping to protecting the natural shoreline vegetation both on land and in the water. Protecting the lake can mean not pursuing an "improvement" project that you might have in mind. It means checking with the county to see what is allowed, what isn't and what are the best alternatives for the lake.

In non-agricultural areas of MN, the doom of most developed lakes has been or will be the conversion of the shoreline into urban type

lots. The effects are usually slow in coming but the lakes will eventually become degraded if we continue to "improve" our properties by converting them from homes and cabins nestled in the woods into city lots with large lawns and large impervious surfaces. It is an incremental and cumulative process over time that results in lakes becoming degraded. One patch of shoreline forest converted to lawn here; a bed of aquatic plants removed there, a shoreline dozed and converted to lawn and beach over there. It boils down to many seemingly small changes to our properties over time. A city type lake lot can send up to 10 times the phosphorus into the lake than the original forested shoreline did. There are many things we can do to lessen our impacts on the lake.

In general, those choices that result in our properties staying in a relatively natural condition will help the lake and those choices that tend to convert our lots to a more city appearance will hurt.

Those who would like more information about this subject can search the Internet (Google lake protection, shoreline protection, etc.), consult with your association experts or contact me in Detroit Lakes (218-846-8115). Last month I drafted a report to your Association Board that goes into the phosphorus issue more deeply and describes the research plans for this summer. You may want to check this out. Our study this summer will improve our understanding of the phosphorus dynamics in Tulaby Lake - but please don't wait for our results to begin protecting Tulaby. The lake needs your help now.

Invasive Species

Invasive Species: What are they and how can we stop them?

Invasive species are species that are not native to Minnesota *and* cause economic or environmental harm or harm to human health. Minnesota's natural resources are threatened by a number of invasive species such as **zebra mussels**, **Eurasian water milfoil**, **curly leaf pondweed**, **Spiny water flea**, **Asian Carp**, **common buckthorn**, and **emerald ash borer**. Invasive species can occur on land or in the water.

Each year, by January 15, the Department of Natural Resources (DNR) is required to prepare a report for the Legislature that summarizes the status of management efforts for invasive species (aquatic plants and wild animals) under its jurisdiction.

Currently the 2012 report is available.

Eurasian water milfoil was discovered in 16 additional water bodies during 2012. The total number of milfoil-infested water bodies, including lakes, rivers and wetlands, is 273. **Curly-leaf pondweed** is known to occur in 759 lakes in 70 of the 87 Minnesota counties. Both form dense mats of vegetation that can interfere with swimming and boating. **Purple loosestrife** is known to infest 2,412 locations in Minnesota. In 2012, purple loosestrife was found in four new sites, bringing the total number of known infestations to 2,412.

Flowering rush is known to

occur in 27 water bodies in 10 counties. No new infestations were reported in 2012.

Zebra mussels were first found in Minnesota, in 1989. During 2012, 14 new lakes were designated as being infested with zebra mussels including Pelican, Gilbert and Buck Lakes (**Becker County**). In addition to fouling water intakes, zebra mussels affix themselves to rocks and can grow large enough to cause cuts and scrapes to swimmers, rafts or fishing line, attach to native shellfish killing them and interfere with native food chains.

Three species of **Asian carp** were caught in Minnesota in 2012. One adult bighead carp was caught in the St. Croix River in April 2012; and a grass, bighead, and silver carp were caught in Mississippi River Pool 6 near Winona in March 2012.

One new **spiny waterflea** infested water was discovered in Trout Lake (Cook County) in 2012. With the interconnections between many infested lakes in northern Minnesota, more infestations are likely to be discovered in future seasons. Spiny water fleas collect in what the DNR describes as “gelatinous blobs” on fishing lines and downrigger cables. You can help prevent their spread by cleaning fishing lines and cables, and draining water from boats, personal watercraft and bait containers before moving from one lake to another.

Chinese and Banded Mystery Snails

are being reported in Minnesota waters—more than 90 occurrences of the Chinese mystery snail and 60 occurrences of the banded mystery snail have been reported. Chinese and Banded Mystery Snails are native to Asia. It was brought to the United States in 1892. It is a popular aquarium snail that has been released in Minnesota waters.

Both snails can form dense aggregations. It also is a carrier of trematode parasites found in native mussels. and can cause mortality of largemouth bass embryos when they invade nests.

By the end of the 2012 open water season, 41 potential leech ponds across four counties in northwest Minnesota had been searched for the presence of **faucet snails**—only eight were confirmed to have faucet snails. Faucet snails, native to Europe, are host to a trematode parasite that is deadly to waterfowl and other waterbirds who consume the snails. Never move aquatic species from one water body to another and do not dump aquarium species.

There is good news, however. Thanks to the statewide cooperation of citizens, legislators, recreationalists, tourism industries, businesses, and agencies, **less than 1% of Minnesota's waters are infested** with aquatic invasive species (AIS) like zebra mussels and Eurasian water milfoil. With 15,000 lakes, thousands of miles of rivers and streams, and acres of

Invasive Species

wetlands to protect, Minnesotans recognize the importance of acting to prevent and slow the spread of the state's current and potential AIS (*Minnesota Sea Grant; March 2010*).

Lake-goers should also take the time to practice clean and drain steps to avoid violating the law. As of July 1, 2010, Minnesota state law requires boaters to remove boat drain plugs and leave them out while transporting watercraft. In addition, all such water-related equipment, including portable bait containers, must be drained before leaving any water access. Anglers who want to keep leftover bait alive should bring fresh water to replace existing water in bait containers.

Under the law, businesses that install or remove water-related equipment or structures are also held to higher standards. They must complete invasive species training and pass an examination in order to qualify for a required permit. People who work for the service providers must also complete DNR training. The

Tulaby Lake Association encourages everyone to be diligent in preventing the spread of invasive species to preserve the quality and integrity of Tulaby Lake.

So what can we do? By following a simple procedure each time we leave the water, we can stop aquatic hitchhikers. Knowing which waters contain nuisance hitchhikers is not as important as practicing prevention procedures

every time we leave any lake, stream or other body of water.

Simple Steps

- Remove any visible mud, plants, fish or animals before transporting equipment
- Eliminate water from equipment before transporting
- Clean and dry anything that came in contact with water (boats, trailers, equipment, clothing, dogs, etc)
- Never release plants, fish or animals into a body of water unless they came out of that body of
- water
- Finally, become informed and take action! Becker County COLA website hosts a webpage with pictures of aquatic invasive species and lists the names of lakes in Minnesota that have been identified as infested with invasive species.

The Minnesota DNR works to help prevent the spread and promote the management of invasive species. They provide information on current laws, educational videos and a list of invasive species at their website, www.dnr.state.mn.us. You can also visit www.checkmylake.org for a list of newly listed lakes infested with invasive species.

Why is it important to stop hitchhikers? The invasion of these species can

- Reduce game fish populations.
- Ruin boat engines and jam steering equipment.

- Make lakes/rivers unusable by boaters and swimmers.
- Dramatically increase the operating costs of drinking water plants, power plants, dam Maintenance and industrial processes.
- Reduce native species.
- Degrade ecosystems.
- Affect human health.
- Reduce property values.
- Affect local economies of water-dependent communities.

If you suspect a new infestation of an aquatic invasive plant or animal, or an introduction of a new aquatic species, save a specimen and report it to a [**local natural resource office**](#).

You can help by reporting locations of invasive species. Use the DNR website to identify invasive plants and animals. One of the keys for a rapid response to invasive species is the early identification of new occurrences. Please help report occurrences of invasive species in Minnesota at the following:

- MISAC website at: www.mda.state.mn.us/misac and click on "Reporting Invasive Species".



STOP AQUATIC HITCHHIKERS!

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

Tulaby Lake Report
Continued from front page

Tulaby Lake is **phosphorus** limited, which means algae and aquatic plant growth is dependent upon available phosphorus. Tulaby Lake follows a dynamic seasonal pattern. The seasonal patterns of concentrations of phosphorus include high concentrations in spring and fall, and very low in June-July.

Hypolimnion monitoring shows that the higher phosphorus at the end of the summer could be due to internal loading.

Chlorophyll is the pigment that makes plants and algae green. Concentrations greater than 10 ug/L are perceived as algae bloom; above 20 ug/L concentrations are perceived as a nuisance. The patterns of chlorophyll concentrations match the phosphorus pattern - below 10 ug/L in early summer and greater than 20 ug/L in late summer early fall.

Tulaby Lake has a maximum depth of 43 ft. **Dissolved Oxygen** (DO) profiles from 2011 indicate that the deep areas of the lake stratify in the summer. The report includes an illustration of the stratification in the summer of 2011 representative of the DO profile for Tulaby Lake. The thermocline resided at 22-24 feet of water, indicating that fish will not be present below that depth in the summer.

Trend analysis uses eight to ten years of readings and data, along with weather conditions, to analyze long term transparency, total phosphorus and chlorophyll in Tulaby Lake. Currently Tulaby Lake show no significant evidence

of a trend in water quality, however, the lake has not experienced the same early summer peaks in transparency in recent years that it did in 2004-2006.

It is noted in the ecoregion comparisons within the report that Tulaby Lakes mean totals for phosphorus, chlorophyll A and transparency are poorer than expected for the region.

The report includes an explanation and interpretation of the Tulaby Lake **watershed**, plus information in the land cover and land use of the lake shed.

Included in the report is 2006 **Status of the Fishery** of Tulaby Lake. Tulaby Lake is regarded as a good all-around fishing lake with relatively fast growth rates for most fish species. Walleyes, bluegills, and perch are generally nice-sized. Although the Minnesota Pollution Control Agency classifies Tulaby as eutrophic, water quality is good enough to sustain a modest tullibee population, as well. Yellow perch are an important forage fish for the major predators in a lake and yellow perch have always been very abundant in Tulaby Lake. Northern pike and walleye both have good growth rates as a result of the abundant food supply.

Overall Conclusions

Overall, Tulaby Lake is in fair shape for water quality. It is a eutrophic lake (TSI=50), with no detectable water quality trends.

There have been major algae blooms occurring in late summer that past few years. Tulaby Lake is in excellent shape for lake shed protection. Fifty-nine percent (59%) of the lake shed is in public ownership, and 71% of the watershed is protected, while only 3% of the watershed is disturbed

The report concludes with findings and recommendations for continued collection of data and analyze to determine trends.



**REMEMBER TO
RENEW OR JOIN THE
TULABY LAKE ASSOCIATION**