



Deer Lake Watershed News

Deer ♦ Pickerel ♦ Battle ♦ Poplar ♦ Five Island
♦ Mirror ♦ and many other lakes!



Our Mission:

To protect, maintain and improve the natural resources of the Deer Lake Watershed for current and future generations

Winter 2019

Contents

Fundraising Committee Looks to the Future	2
5K Fun Run.....	2
One Outflow Creek – Open or Closed?.....	4
Volunteer Recognition and Donors.....	8
Nuisance Beaver Disposal.....	10
DLWA/DNR Connections.....	11
2018 DNR Fisheries Survey	12
Stir the Pot	13
CCC Camp Project Completed	14
DLWA Website Launched.....	14
2019 Fishing Survey Update	15

President's Message

By Bill Cromell

Greetings, DLWA members;

As one of the new board members and newly appointed president, I feel fortunate to be involved in the DLWA and will strive to carry on the positive and productive volunteer work we have witnessed in the past. I am looking forward to working with DLWA members and nonmembers and listening

to everyone's views concerning the watershed. We are all stakeholders in this association. Please let us know your thoughts. The board's renewed focus supports our Mission Statement and works toward protecting the lakes and natural environment within our watershed.

Continued page 3

What's New?

Editorial comments by Gail Blackmer

This is our first newsletter distributed electronically. It saves \$1200 a year. Articles are informational stories supporting the watershed's mission. We also highlight events and social activities, photos of our beautiful environment, and the people who live and volunteer in the area.

We created committees for fundraising, membership, water quality, and creek flow to support the mission statement.

See the list on page 15. A Bylaws committee is reviewing our bylaws. Look for revisions in the next newsletter and on the website, with a vote on the changes at the annual meeting in August, 2019.

More great news! We have a new website! Look for information on page 14.

Fundraising Committee Looks to the Future

by Patti Olson

Since its beginning in 2002, the DLWA has been addressing the need for clean water in our lakes and streams. During the 2018 season we saw a decrease in water clarity and increase in water levels, especially noted in Deer Lake. The high levels of lake water and decreased outflow through Deer Creek caused many neighbors to be concerned. In previous years, we had monetary help from Ducks Unlimited, the DNR, and private donations. In 2018 the DNR and DU had no funds for us. As you all know, we are a small organization with limited funds. We continue to operate within our budget, but as we look forward to 2019 and beyond, we realize more fundraising will be needed to maintain our lake systems.

Throughout the nation, watershed organizations have a positive impact on the water quality of their local lakes and rivers. We strive to continue this long tradition.

We would like to propose four ways to financially support the DLWA.

1. *Increased Membership*
2. *Donations*
3. *Paid Services*
4. *Promotional Items for sale*

1. Increased membership. We need a wide open door for membership. I have been on the lake all my life; I was asked to join in 2003. I didn't understand the important work the DLWA was going to do in our neighborhood. After watching volunteers care for our lakes over the years I realized this was an organization with which I wanted to be aligned. When I was asked to join again two years ago, I joined on the spot. Identifying and contacting landowners in our watershed will be our first priority. Expect visits or notes from DLWA board members next season as we attempt to meet our neighbors and communicate information about the DLWA. A gift membership to next generation family members, former cabin owners or interested people is another option. Maintaining contact with members and encouraging their annual renewal of membership dues is also a high priority.

2. Donations. The DLWA was incorporated as a non-profit organization on Nov. 6, 2002. Like most Minnesota watersheds we are organized as a 317A under authority of the Minnesota Attorney General's office. The MN statute 317A was established in 1989 for organizations like ours – small non-profits

Continued page 9

5K Fun Run

by Jim Kush



We are looking forward towards spring and summer of 2019, but I've got to back up to last summer and the DLWA 7th Annual 5K Fun Run. Blessed with a beautiful Minnesota summer day, the race kicked off at 9 A.M to the blast of my 12-gauge shotgun. I have six medallions with spent shotgun shells hanging around my neck. The first race didn't include live gunfire.

Once again participants and bystanders enjoyed socializing with brats, chips, and beverages at the Deer Lake Charlie's finish line - it was a fun time had by all. This event was sponsored by the DLWA for that purpose - a fun time for all. Many, many, thanks to all the volunteers who financially and physically make this possible. Thank you to the large contributors - **Tom Super** for donating the brats, chips, and cooking the brats, **Libby Geary** for the medallions and timing, and **Sheila Vorland** for taking race fees and organizing the race listings.

Continued page 8

President's Message continued

At the DLWA annual meeting in August 2018, new members to the board of directors were elected which include Patti Olson as Vice President, and myself, Bill Cromell, President. We joined fellow board members Jim Kush, Gail Blackmer, and Sheila Vorland. Chad Lovdahl and Mark Smith were appointed as alternate board members.

Two long-standing board members have stepped down. Art Lind served 17 years on the board, as both secretary and president. Chad Lovdahl has moved from long-standing board member to an alternate board member. Art and Chad served countless hours on watershed events, projects, CCC Camp project, roadside cleanup, and trips down Deer Creek to keep the one outflow creek unobstructed and flowing. We wish to thank them for their volunteer service and consistent dedication to the DLWA.

Since last August, I have been educating myself on the multitude of watershed board functions, past watershed history, and member concerns. Along with other board members, we have been prioritizing where the association should be focusing its time and resources to best move the DLWA forward. We will have a strong membership drive in 2019, investigate new fundraising concepts, set-up new donation accounts, and discussed the possibility of additional social events. Ideas and volunteers are welcome in all categories. The old saying, "So much to do and so little time" seems to fit.

We will spend a portion of our volunteer time and resources to focus on summarizing the existing secchi disk data, previous water test results, and existing lake level data. We will implement a two-year plan for water quality testing with the intent of publishing an annual summary and/or graph to keep members informed as to the condition of our lakes. We will continue to educate ourselves and do whatever is necessary to stop the Aquatic Invasive Species (AIS) migration that is happening in Minnesota and in some of our neighboring bodies of water. In 2018, \$621,000 was allocated by the State of MN to Itasca County to combat the advance of AIS and to educate county residents on best practice procedures to eliminate the spread. How do we stop the AIS from entering our watershed? If any member has an interest in volunteering for these activities, please contact the board at:

deerlakewatershed@gmail.com

In an effort to ensure the financial sustainability of the DLWA now and into the future, the current board has been reviewing the DLWA financial records.

Based on our review, decisions have been made to keep the association viable for future generations.

Some decisions were difficult, but necessary. The financial decision-making is now behind us and 2019 is looking to be an exciting and positive year for our DLWA. Please contact Bill Cromell or Sheila Vorland with any questions.

One of our critical areas of concern is how to keep Deer Creek open and flowing.

With only one outflow creek on Deer Lake, the DLWA must ensure there is consistent drainage during the spring, summer and fall so lake levels will remain at a normal level or range that is best for the watershed and its property owners.

Therefore, we formed an Outflow Committee to focus on that goal with the help and support of volunteers. ***In a separate newsletter article titled, "Outflow Creek, Open or Closed?" I put together some information and justification for keeping the outflow creek continually open and in its natural state.***

In an effort to better communicate with our association members, Sheila Vorland has established an electronic mailbox at deerlakewatershed@gmail.com. Email correspondence will allow the board to increase the frequency and promptness of communication with association members. The board can email responses to your concerns, meeting agendas, volunteer needs, annual meeting date, board meeting minutes, creek updates, and details of planned activities and events.

On a lighter note, the area north of Effie where I deer hunt has been mostly logged off within the last 5 to 20 years. It is laced with many beaver ponds, swamps and moose browse. Within the last few years there has been a dramatic increase in moose sightings, which has created a great wilderness experience for a hunter walking up on these huge animals. I had photos of three different bulls on my trail cams this last fall, and have seen bulls, cows and calves eight different times in my travels for deer this past season. These animals are in an area only 20 to 25 miles from Deer Lake.

I look forward to meeting many more of our members this year and hope to see you in the outdoors enjoying our watershed!





Bone dry rock dam due to beaver activity



Deer Creek closed by wild rice

One Outflow Creek – Open or Closed?

by Bill Cromell

As a new DLWA board member and President and only participating since August 2018, I have been puzzled as to why Deer Lake has had such high water level peaks the past few years. I wondered what we could do to minimize the water level peaks and what information I might discover to explain and help address this issue. I completed some research on the internet, read through whatever board minutes I could lay my hands on and chatted with people within the watershed to try to understand what has been done in the past and what we can do in the future. I have made eleven boat trips down Deer Creek since August 4th to educate myself on busting out dams, trapping beaver, and monitoring the creek water flow. It has been an interesting experience, to say the least. I would like to share the following information, observations, thoughts and conclusions with members and nonmembers alike. I trust this information will be useful to help clear up any past misconceptions and assist members and nonmembers to make informed decisions in the future.

- The average rainfall for Minnesota is 28" annually. I discovered that rainfall can range between 20" to 35" annually over the state.
- If the outflow creek (Deer Creek) is open sufficiently, on the average it takes at least 4 to 6 days or more for the water level on Deer and Pickerel Lake to go down one inch. The number of days is affected by a number of factors. Obviously, the number of days needed to drop an inch will increase as rainfall increases and creek restriction occurs. If the water level drops way down there is less pressure to discharge and the flow will slow.
- We can do the math. At 20" to 35" of annual rainfall and using 5 days per inch, it would require 100 to 175 days each summer to keep the lake stabilized at a normal and good level for all. High rainfall dictates that Deer Creek must be fully open almost 3.5 to 6 months to discharge the annual rainfall depending on the actual volume of rain.

According to past board members, the average water level on Deer Lake that is best for all is approximately 4.40' on the gauge under the creek bridge between Pickerel and Deer Lake, by Dunlap's Camp Deer Resort.

Continued next page

One Outflow Creek continued

- According to prior lake level records, the lowest level was 3.95 in 2002, which is in the range of 4" to 6" below the desired average. Obviously, low rainfall is dictated by Mother Nature.
- In 2016, the high water level reached 5.95 on the gauge. Not only was this level damaging to our water quality, but multiple properties around the lake were subjected to some degree of flooding. The 5.95 level was more than 1½ feet over the desired average.
- Looking at this last summer's high water level/beaver-caused emergency, we know that on August 1, 2018, the lake level gauge reading was 5.05. The creek was dammed up from August 1st through September 22nd while the beaver were being professionally trapped and the dams busted out by volunteers. On September 10th, the lake level was 5.3.
- **On October 11, 2018, the lake level reading was continuing to rise at 5.65 and beginning to flood properties.**
- Although the Deer Lake Watershed has received some higher rainfall this year, particularly in late summer and early fall, it would not have caused the high 5.6 gauge reading. The creek was plugged for over 7 weeks due to beaver dams.
- What can we do to stabilize the lake level to protect our water quality, avoid erosion and property damage? We know for a fact that whenever Deer Lake floods or we experience high water levels (due to high rainfall and beaver dams and vegetation plugging Deer Creek), we are seeing our water quality deteriorate, and our lakeshores erode.

Further research indicated the following:

- Checking data on the MN State Climatology website revealed that we received 3.5" of rain in both May and June of 2018.
- We received about 6" of rain in July when the beaver were building up the three dams in Deer Creek. Based on rainfall averages for this area, we seldom receive more than 6" in any one month.
- We received low rainfall of 2+" in August and 5.5" in September. We could have dropped the lake level in August with only 2" of rainfall, but the beaver dams were in place. Hence, the lake level continued to rise throughout August, September and October.
- The stated monthly rainfall data shows us that if the annual rainfall is near normal or average, the lake levels will naturally stabilize to a "good" level if the outflow creek is always open during the months there is no ice. The creek still flows even after the lake freezes, at least until the below zero weather and the ice thickens. At the end of December 2018, the gauge stick read 4.7 and holding.
- If the outflow creek is plugged or dammed up by beaver for one or more months during the summer, the outflow on the average can't discharge at a fast enough flow or rate to play catch up. With Deer Creek plugged for over 7 weeks this past summer by three beaver dams, coupled with average rainfall we experienced damaging water levels.

In summary, please consider the following conclusions:

Point #1: Deer Creek must remain open all spring, summer and fall for the lake level to have any chance of remaining at a normal level. The outflow creek must be monitored on a regular basis and beaver activity must be dealt with immediately.

Point #2: Continuous outflow and normal water levels facilitates maintaining the best water quality possible and saves lake property owners' shoreline from soil erosion.

Point #3: The soil erosion from high water pulls unwanted nutrients into the lakes that accelerate the natural aging process of the lakes.

Point #4: Nuisance beaver should be trapped each and every year to keep their numbers at the lowest point prior to winter breeding. The cost for the DLWA to hire trappers will be much less if nuisance beaver are trapped annually.

[Continued next page](#)

One Outflow Creek continued

Per trappers, the beaver must be trapped each spring until the end of June to keep their numbers from doing damage in the summer. For example, two beaver that begin breeding each year, and then their offspring breeding, creates a total of 480+ beaver during a five-year period (based on 4 offspring, they can have up to 8 offspring). Left unchecked, they will continue to multiply and inflict damage to the lake quality and properties. The current cost to hire a beaver trapper ranges from \$25 to \$50 per beaver. The DNR has provided an annual permit to remove nuisance beaver out of season. FYI: Minnesota state trapping records show the average numbers run somewhere between 30,000 to over 60,000 beaver trapped each year. Due to the low price on furs, and less trappers, more and more nuisance beaver are being trapped out of season by government trappers. Eight beaver were removed by the county trapper within our watershed at Tank Lake due to potential road damage. Eight more were removed by Carpenter Township due to ongoing road and creek damage to the South Pickerel lake road or "Pete Thor" creek. Thank you, **Jay Dolinich** and **Carpenter Township**. There were approximately 55 to 60 beaver removed within the watershed that we are aware of. **Tom Brula** trapped the Deer Creek Outflow during August and September and eliminated 17 beaver. We need to thank him when we see him. Popple and Otter Lakes have not been properly trapped or the related dams broken out due to high water on Deer. Those areas will be focused on in the spring and are still in reality part of the emergency from August.

Point #5: If the nuisance beaver are trapped out promptly each spring, summer and fall, there is no reason to spend DLWA's limited resources on blowing beaver dams, which comes at a premium.

Point #6: If the outflow creek is kept open and water levels are within a normal range, we will not see the volume of cattail bogs floating across Deer Lake. The high water breaks the cattail islands loose. Once the bogs come to rest on a property owner's shoreline, we are forced to accept cattails as a new shoreline or push them with boats to a new DNR approved site, and/or go through the needless expense of removal by machinery. On the rare occasion this removal can run into thousands of dollars depending on the volume of cattail.

Point #7: If water levels are within a normal range property owners will not be forced to riprap with rock to protect their shorelines. Multiple property owners have begun riprapping shoreline the last few years due to high water level peaks in conjunction with high winds. No one likes to see a full shoreline of riprap, but if there is no alternative, what else can a property owner do?

Point #8: When beavers plug the outflow creek, backed up water becomes warm and stagnant like it was this past summer. The warming water causes vegetation to grow at a faster rate. This facilitates slowing the creek flow with the added vegetation which gradually is making the creek more shallow and narrow. There were also a few congested stretches on the creek that were nearly plugged off with wild rice in August. The DNR has provided a permit and recommended we cut out a narrow passage of 6' to facilitate a continuous outflow.

Point #9: This past summer the beaver in Deer Creek had built three small to medium-sized dams, one holding back 8", one holding back 10" and one holding back 22" of water. These repeating beaver dams over many years are causing the creek to shallow up towards the last 2/3 of a mile prior to the rock dam. The beaver dig up the bottom of the creek and build dams, we tear out the dams and the joint activity sends the silt and mud drifting downstream and settling to the bottom towards the rock dam. Dam foundations like the three from this summer are 10' wide in some spots and don't recede back to the natural creek bottom depth.

Point #10: A beaver population left unchecked on certain ponds or creeks will continue to build up and work on their dams over time. They are such engineers! I have observed multiple beaver dams in other areas that are over 5' and a few over 6', and one in Canada at 8' or more. The longer the beaver are left to their own devices, the higher the dams, the higher the cost to remove beaver and dams.

Point #11: When lakes freeze over for winter with high water in place, an abnormally excessive amount of damage is sometimes inflicted on shoreline due to ice expansion. I have personally helped to repair a number of properties with high water ice damage.

Point #12: Wild rice is stated to be very sensitive to fluctuating water levels, especially during the formation stage. Lake levels fluctuating up to 1½ feet are not good for wild rice crops. Wild rice grows to the water surface usually by

[Continued next page](#)

One Outflow Creek continued

mid-June. During this time, wild rice plants lay flat on the water surface and can form vast leafy mats. During this floating-leaf stage, wild rice is extremely susceptible to water level fluctuations. Plants can be uprooted and washed away due to rising water levels.

That being said, on a rare year excessive rainfall may still cause higher than normal lake levels. Mother Nature will not take direction and is obviously out of our control.

These statements are my personal thoughts, observations and conclusions. I welcome any comments or questions, input and ideas from DLWA members, or anyone who may be affected by or have thoughts on high water levels. I apologize for being somewhat redundant, but I am striving to make a few points that I believe are valid. I believe lake residents and watershed members may also wish to consider these statements.

Thanks for your time and patience in reading through this information. Thank you for your membership in our Watershed Association which helps to support our mission, "To protect, maintain and improve the natural resources of the Deer Lake Watershed for current and future generations".

*Bill Cromell, President
Deer Lake Watershed Association*

The DLWA and Continuous Outflow Committee is seeking a few hardy volunteers to travel up and down Deer Creek (two boats per run) throughout the summer to monitor the engineering activities of those long toothed critters! Many of the existing volunteers feel one trip every two weeks will suffice.

To volunteer, contact Bill at deerlakewatershed@gmail.com or call 218-244-5000



*Volunteers Clearing Deer Creek
Summer 2018*

5k Fun Run continued*Based on your input,**The Fun Run is Saturday, July 13, 2019!*

Due to the cost factor, there will not be a T-shirt offered this year, and because of that, the registration fee is reduced to \$10. Please join in for racing to your personal best, enjoying a stroll with friends, or simply socialization at the finish line. If you haven't tried it, it's great to eat brats at 10:00 in the morning! Watch for registration forms and more information in the spring newsletter.

Here's a little personal story of how fun this event can be: the Runnings and the Darrows are my kids and grandkids. Cindy Running is my oldest daughter at age 40 and is a pediatrician and a marathon runner. She confided in me before the race that Luke "might be getting near my times!" After the race we were comparing times so I could announce the winner and I noticed the times - Cindy 24:33 and Luke 24:32, and I thought - how nice, Mom let him win!

Come to find out, that was not the case. Cindy was trying desperately to catch him - and fell short! Luke's Uncle James Darrow also had to eat some crow as well. After telling Luke he was going to beat him - he finished almost 5 minutes behind. So now you know the rest of the story!

2018 5K Fun Run Winners by Age and Gender

Age Group	Female/ Time	Male/Time
0 - 9	Elaina Geary: 35:44	Max Running 30:10
10 - 14	Greta Geary 27: 38	Luke Running 24:32 (1 st Place)
30 - 39	Melissa Darrow 34:36	James Darrow 29:15
40 - 49	Cindy Running 24:33 (2 nd Place)	
50 - 59	Sandra Boland 37:41	Greg Geary 24:52 (3 rd Place)
60 - 69	Valerie Cromell 43:00	
80 +		Denny Carlson 45:19

Volunteer and Donor Recognition Corner

There are no individuals more important in a non profit organization than volunteers! Without volunteers stepping up, the organization will wither and possibly die. We have individuals donating on an annual basis and some on a one-time basis. We hope to provide space for all to have a brief notice of thanks, but we do realize some donors may wish to remain anonymous so the question will be posed prior to printing. Donor recognition will begin in the spring newsletter.

The Association has many projects, events and social gatherings taking place, so sometimes it is difficult to identify all volunteers. We plan to begin recognizing particular volunteers and donors in the newsletter now and into the future. We apologize if we missed anyone.

The Continuous Outflow Committee volunteers are: **Chad Lovdahl, Alex Jensen, Mark Smith and Bill Cromell**. The hard-working volunteers going down the creek (sometimes multiple times) last summer and fall to knock down beaver dams and clear vegetation out to maintain flow are the following: **Mark Smith, Dave Nurka, Jerry Pratt, Denny Carlson, Dan Kehren, Chad Lovdahl, Corey Lovdahl, Larry Blackmer, Galen Vorland, Mark Purcell, Alex Jensen, Buck Gallagher, Dan Gallagher, Jeff Hansen, and Valerie Cromell**. A special thanks to **Dan Gallagher**, who has completed so many trips down the creek with such a volume of work on the outflow creek over the years that he is one of our top watershed volunteers.



*Dan Gallagher busting beaver dams
on Deer Creek
Summer 2018*

Fundraising Committee continued

with small annual budgets and limited fundraising. As a 317A, we are not able to give tax credit for your donations. Therefore, when donating to the DLWA you will not have a tax incentive, but rather knowledge that your money is being used for clean and flowing water. Quite frankly, the efforts being planned to keep the creeks flowing properly by removing some vegetation, reducing the number of nuisance beaver, and clearing beaver dams, mud and silt, will require additional funds beyond basic membership levels. Further, water quality testing and prevention/detection of aquatic invasive species should have a budget category of its own. You will notice that the membership form includes specific donation lines for these initiatives. Shoreline property owners most impacted by high water erosion issues should get the most benefit from pooling donation dollars into this fund. The board pledges to honor your requests and only spend from these categories on specific projects.

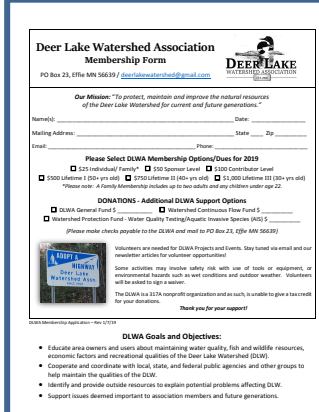
3. Paid services. Some local neighbors are willing to donate time and ability where a portion of the payment will go to the watershed and the remainder to the service provider. Examples could include tree removal, fishing guide, excavating, cattail bog removal, etc. We are working on this concept so more information will be coming.

4. Promotional items for sale. We are looking at the possibility of printing calendars with either vintage or current photos from around the watershed and selling them, or perhaps maps of our lakes would be of interest to our community. We welcome your ideas!

We are grateful for all the support the DLWA has received since its inception in 2002.

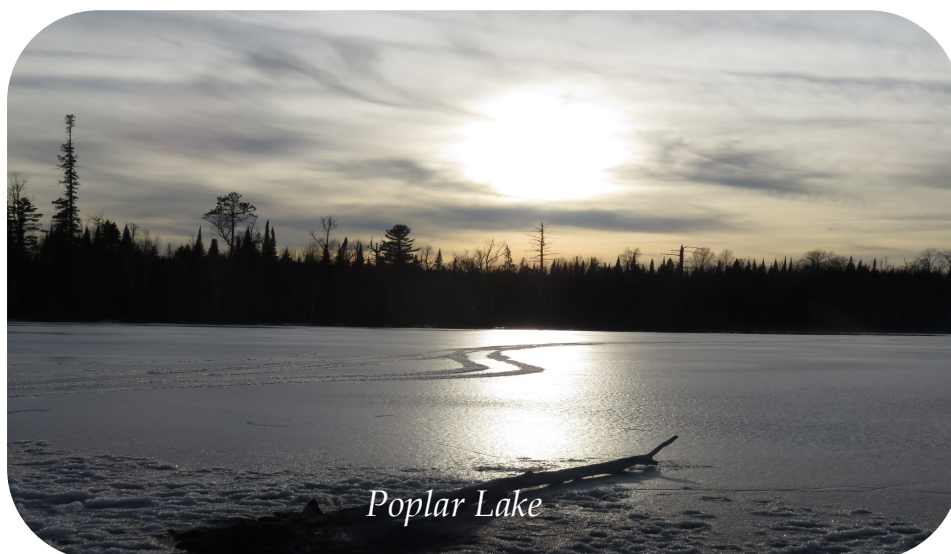
Our watershed association is only possible with volunteer hours and donations.

The first line of defense for monitoring and protecting our lakes and streams are the people who care. We will not take members of this community for granted, and are grateful for your past gifts and service. We intend to recognize all volunteers and donors in newsletters. Small organizations like ours are dependent on generous members – Thank you!



The image shows a membership form for the Deer Lake Watershed Association. It includes fields for Name, Address, City, State, Zip, and Email. There are checkboxes for different membership types: Individual, Family, Sponsor, and Life. Below these are checkboxes for various donation categories: Watershed Protection Fund, Water Quality Testing/Aquatic Invasive Species (WQIS), Watershed Carbonates Flow Fund, and Watershed Carbonates Flow Fund. A small photo of a person is included. At the bottom, there are DLWA Goals and Objectives listed.

Find the membership/donation form on the last page



Nuisance Beaver Removal and Disposal Guidelines

Recently, a Deer Lake watershed resident had a nuisance beaver inflicting damage on his property. The individuals who gathered to remove the beaver had concerns about how to legally remove and dispose of the nuisance beaver. Anyone who has nuisance beaver damaging their property should contact the DNR or go to the DNR website to review the options listed below. During out-of-season trapping, the DNR will have two methods for beaver disposal. Please ensure you are aware of the correct and current disposal method at that point in time. Contact the DNR for details.

Please review the following for legal options available. If there are questions please contact the Minnesota DNR, specifically on a local level, or our current Conservation Officer. DNR contacts are listed in every newsletter.

The information below was copied directly from the MN DNR website on 11-20-2018.

Beaver Removal Methods

In many cases, beaver damage cannot be effectively managed unless the offending beavers are removed. Removing a dam without removing the resident beavers generally results in the dam being immediately rebuilt. To remove a beaver dam, a permit is needed from the [regional wildlife manager](#) unless authorized by state statute (i.e. road authorities). Live relocation of beavers, or any other protected wild animal, is not legal in the State of Minnesota (Minnesota Statute 97A.501, Subdivision 1; 97A.105, Subdivision 7) without a DNR permit.

The DNR encourages property owners to work with local trappers to take beaver causing damage during the open trapping season. No permit is needed for a licensed trapper during the regular beaver season. Your local Conservation Officer or Area Wildlife Office may have names of local experienced trappers who may be willing to assist in trapping beaver for you. Fees, if any, will vary with seasons and individuals.

No Permit is Required-Minnesota Statute 97B.655 which allows a landowner or legal occupant (e.g., authorized renter), or their authorized agent, to shoot or trap beaver that are causing damage. No license or permit is required if all four of these conditions are met:

1. The landowner/occupant must have beaver damage to their property.

2. The landowner/occupant must authorize the removal.
3. The animal must be on that landowner's/occupant's property, where it is causing damage, at the time it is shot or trapped.
4. The person taking the beaver must notify the DNR within 24 hours, by following the Reporting Requirements listed below.

The reporting requirements for a person who takes a beaver causing damage, without a permit, is they must contact the local DNR Conservation Officer or Area Wildlife staff within 24 hours of removing the beaver. It is sufficient to leave a message or e-mail the [DNR's One Call Line](#) at 1-888-MINNDNR stating your name, address, and telephone number, the total number of beaver shot or trapped, along with a brief explanation of the damage and location where the beaver was shot or trapped.

A permit is required if the above conditions are not met. This permit is issued by the local conservation officer or regional wildlife manager, is free, and authorizes beaver to be taken out of season and without a license. All federal, state, or local regulations apply. This permit does not allow trespassing, using poison, using artificial lights or the discharge of firearms or use of traps where prohibited.

State, county, or local governmental employees, while on duty as a representative of that government, do not need a permit while doing beaver removal on land under their jurisdiction.

Statute 97B.667 Removal of beaver dams and lodges by road authorities. When a drainage watercourse is impaired by a beaver dam and the water damages, or threatens to damage a public road, the road authority, as defined in section 160.02, subdivision 25, may remove the impairment and any associated beaver lodge within 300 feet of the road.

To remove a dam by explosives, contact the local Sheriff's office for the names of licensed explosives experts.

DLWA/DNR Connections

by Denny Carlson, DNR Liason

Before getting into our DLWA/DNR report I want to recognize and thank our board members for their interest and effort shown in pursuing our bylaws Mission Statement. It states: "To protect, maintain and improve the natural resources of the Deer Lake Watershed for current and future generations". Simple, but quite encompassing. Unless you've served on the board, it's difficult to realize the array of topics that must be discussed and debated to complete the many tasks of the various projects that come under this responsibility of natural resource sustainability! Our Association can be proud of our accomplishments and the direction it is going. Thanks for your leadership!

As for our DNR/DLWA connections: Even though we have natural resource projects being studied, discussed and sometimes implemented, our two major ongoing co-operative projects are:

1. ***Beaver population and water level/water quality concerns***
2. ***Fish management concerns***

It is imperative that we have a positive, co-operative relationship with the DNR. I feel we have benefitted with this co-operation by giving us annual stocking of walleye fry in Deer Lake, and area fish surveys and management programs. The Rock Dam with fish passage construction, a \$75,000 project, is an example of what it means to have a co-operative working relationship with a large government regulatory body.

With our ongoing high water level and beaver situation, the goal is to trap the beavers out first, then remove the dams. We need in-season trappers, and out-of-season nuisance beaver trapping which is allowed through a permit from the DNR's conservation officer and wildlife director. The board of directors is working on new methods of blowing or deconstructing beaver dams as permitted by law. The big elephant in the room is how to fund a budget to pay for activities such as these – we need your ideas!

The second DNR connection is the fish management plan that includes the walleye protected slot program and bluegill possession limits. We, as a committee, will be meeting in the fall of 2019 with our DNR fisheries director and biologists to prepare a new

management plan that will be submitted to St. Paul for consideration. The membership will be notified of the Public Input meeting date. Our fish plan will be based on the DNR's netting survey results over the last 13 years when the 17"-26" walleye protected slot was implemented, plus the survey results that our watershed board completed three years ago. A current fish survey was just completed as well for the DNR Fisheries division to consider.

The DNR Fisheries goal is to be able to possibly loosen the present protected slot to a more liberal 20"-24" protected slot with one fish over 24". These protected limits will be based on four or six possession limits. There will also be survey questions on bluegill size and possession limits. We need your input.

Please refer to the 2018 DNR Fish Survey Report for Deer Lake prepared by David Weitzel and included in this newsletter.

Again I thank our membership for your support. Your ideas and concerns are welcomed. Have a healthy and enjoyable 2019!



Mark Smith with a catch and release walleye from Deer Lake

2018 Fisheries Surveys Report

by David Weitzel, DNR Fisheries Supervisor

DNR fisheries crews conducted fish surveys in July of 2018 to evaluate the effectiveness of the reduced bag limit for sunfish, the protected slot limit (PSL) for Walleye and to determine the overall status of the fish community.

Deer Lake has a history of producing large sunfish. A special 10 fish bag limit regulation for sunfish was implemented in 2006 in an effort to help maintain the existing quality sunfish population. Previous surveys documented a population with relatively low numbers, but high size quality, and recent surveys suggest that the regulation maintained a quality fishery. Size structure remained favorable in 2018 as nearly 30% of the sampled Bluegill exceeded 8 inches and 6% exceeded 9 inches. Bluegill averaged nearly 7 inches and the largest fish was 10.8 inches. In comparison, 25% of the sampled Bluegill exceeded 8 inches and no fish exceeded 10 inches in a 2005 pre-regulation survey. Some anglers have noted a recent decrease in large sunfish numbers, but this appears to be related to variable reproduction, more so than angler harvest. Bluegill reproduction is inconsistent on Deer Lake, so size quality is expected to vary based on year class production and survival. The 2012 year class was most common in the 2018 survey and represented 40% of the sample. These fish averaged just under 8 inches. Deer Lake fish may live 10 years or more, so opportunities for large fish are expected to improve as the 2012 cohort continues to grow and persist in the system.

Deer Lake has a history of moderate Walleye catches, with a population typically dominated by young, small fish. The Walleye population is maintained by supplemental fry stocking, although some natural reproduction has been documented. Currently, 660,000 fry are stocked annually. The 2018 Walleye catch rate was typical for lakes with similar habitats, and somewhat above average for Deer Lake. Fish under 20 inches dominated surveys prior to the implementation of the protected slot limit in 2005. Modest improvements in size quality have been observed since the regulation was implemented. Walleye over 24 inches were not sampled prior to 1998, but were sampled in every survey since the regulation was enacted. Small fish still dominate the catch, however. Eighty-one percent of the sampled fish were less than 17 inches in 2018, suggesting good harvest opportunities for anglers. Size structure remained moderate, as Walleye ranged from 7.1 to 27.1 inches with a mean

length of 13.5 inches. Despite modestly improved opportunities for larger Walleye, the PSL has not resulted in major changes in size structure or recruitment patterns. It appears that variable year class production has a larger impact on size structure than does angler harvest. The DNR has proposed to review the Walleye regulation in 2019. Options are to maintain the current slot, drop the slot entirely, or change to a new 20-24 inch slot limit. Public input will be collected in 2019.

Deer Lake typically produces moderate catches of Northern Pike. The 2018 catch rate was typical for lakes with similar habitats, but below average for Deer Lake. In fact, it was the lowest catch observed on Deer Lake. Low pike numbers are often desirable, however, as growth is slow and size quality is poor when pike become overly abundant. Northern Pike size structure remained moderate in 2018, as few fish exceeded 28 inches. Some large pike were present, with fish over 37 inches being sampled. Pike ranged from 16.5 to 37.2 inches and averaged 21.4 inches. The new north central pike zone regulation allows expanded harvest opportunities for small pike, while protecting medium sized fish. It is hoped that this regulation will improve age distribution and size quality on Deer Lake.

Like many Minnesota lakes, Yellow Perch numbers in Deer Lake appear to have declined over time. The gill net catch has been low compared to similar lakes in the last four assessments. The 2018 catch was the second lowest recorded. Perch ranged from 5.6 to 9.3 inches with an average of 6.7 inches. Low Yellow Perch abundance is likely a limiting factor for Walleye in Deer Lake.

Black Crappies have been sampled in very low numbers and have not been sampled in both years in every assessment. Crappies up to 14 inches have been sampled in some assessments, suggesting good adult survival and quality size structure. Only three crappies were sampled in 2018 so the size structure can't be accurately summarized.

Information collected in 2018 will be used to revise the fisheries lake management plan. We look forward to working with the DLWA on this effort. To learn more about fisheries management in the Grand Rapids Area, contact us at 218-328-8835 or email us at GrandRapids.fisheries@state.mn.us.

“Stir the Pot”

by John McCoy

As a work in progress this column's focus will be:

(1) What might be the few key metrics that best indicate watershed ecological health/problems.

(2) Gain knowledge and credibility through collection of those metrics.

(3) Use metrics and knowledge to broaden communication with local agency representatives, St. Paul staff, and elected representatives as needed.

Lake levels and beaver control are somewhat stand alone issues. Fish parameters are more tied into overall ecological health. It doesn't take a rocket scientist to know these three concerns are most important to DLWA members. True, but our watershed is in itself part of a larger complex ecological entity and that is very important – so it is much more than rocket science!

Only 2.5% of earth's water is fresh, most of which is in ice caps and aquifers, leaving 1/100th in lakes, rivers, and wetlands. Our watershed's grain of that will be decimated if invasive species arrive.

Jumping to water quality, what is its state and where? A secchi disk history shows Deer Lake water transparency changes but what impacts that transparency? Algae and water chemistry (nitrogen, phosphorus levels) is related and can be measured. The above make a point: The emphasis of the watershed must be more inclusive than just the Deer Lake's 8% of the watershed area. The majority of the watershed input is from Lorraine and Pickerel creeks. Lakes and members upstream matter. Secchi readings and chemistry measures should be extended to Lorraine and Pickerel lakes. Ditto for invasive species education and other concerns.

An average of three Deer Creek dam top water levels taken between Dec 23-27 showed an above

sea level elevation of 1335.9'. At the Pickerel-Deer gauge the water elevation averaged 1337.05'. Deer Creek is now clear of beaver dams and with frozen ground there is only spring fed recharge, an excellent time to see close to normal benchmark water levels. Needed is a similar metal gauge at the dam top and one at the lake outlet (correlated to bridge gauge). Gauge reading histories are on a DNR website. But confusion exists about lake level changes and causes. Adding two more gauges of our own would help all see what is going on and better communicate factual problems to the DNR. Itasca county surveyors could help here. Looking down from the Hwy 1 Bigfork River bridge nothing has changed in 100's of years. That's because the river is free to flush itself out. Now look at Deer Creek's 2.5-3 miles of bottom to the dam. For 80 plus years the solid dam structure and beaver dams have impeded normal sediment flushing. Coring down about a foot would probably hit a pre-settlement sand/gravel hard pan. Each year more vegetation is filling in Deer Creek. There are small dredges and marine excavators that could remove most of this siltation. But this is not a navigable waterway and multiple agency's restrictions most likely would prevent that. Still this is a problem needing a solution.

So, what are the few key measures? We need to figure that out but 2 or 3 are likely included here. Let us know what you think. With a digital newsletter and active website, we can record and build a “back pages” spreadsheet archive of key data.

Measurement leads to facts and in turn helps build DLWA leverage for the better. Remember St. Paul DNR administrators set policy and the legislators control limited funding. Field people's hands are often tied.

Who is going to collect these measures? Member volunteers and perhaps Bigfork HS science students, and other means. Finally, a big thanks to **Denny Carlson** who for years has diligently collected all the data we now have.

CCC Camp Project Completed

by Patti Olson

The Deer Lake CCC Camp project began in 2011 when Art Lind and Denny Carlson were concerned that the CCC site was being used as a garbage dump. That is no longer a problem. The CCC camp is on state owned land. The DNR is responsible for the land. The DLWA's role is to communicate with the DNR, then communicate and educate the residents. That is why the CCC project is under the DLWA umbrella. When the DNR decided to log the 13 acres around the CCC camp in 2012, they contacted the DLWA board. The DNR used a vintage aerial photo to locate the building sites, tagged them for protection and walked through the site with board members. After the camp was logged in 2014, the site was left a hazard with logs scattered everywhere but we could see foundations for the first time in decades. The DNR worked with the DLWA to reforest the camp with 500 red and white pine seedlings. Following the rules laid out by the DNR our little band of history buffs began the archeological work at the CCC camp site. We had no idea what we would find or that we would be so successful in understanding the site. We have maintained the original paths in the camp and created two more to protect people from hidden logs/stumps left by loggers. We placed these paths as close to original paths as we could. We linked collections of vintage photographs to the DNR's 1930's aerial photo and cement foundations. We are now finished. There is nothing left for us to do other than maintain paths, keep foundations clear and make paper maps available.



*From the Carlson collection;
Myron Carlson, center*

In the past the only DLWA money spent on the camp was for the first sign. That money has been returned to the watershed through two grants and an anonymous donation for the balance this past summer. There are no current or perceived future financial needs for the CCC camp project.

***We have a unique volunteer pool at the CCC.
50% of the CCC Work Day participants are women.
80% of the total hours at the CCC were given by women,
most over 60 years of age.
We are grateful for their hours and interest.***

CCC camp visits are continuous throughout the spring, summer and autumn. 5-10 paper maps are taken from the visitor kiosk weekly. ATVs and parked cars are often seen at the CCC historical site. People stop, read our larger map and sign, and travel down the paths to view the 10 identified sites of the former CCC Camp buildings. The DLWA has created a "park" or place of interest for all of us to enjoy.

New DLWA Website Launched

by Chris Fischer, Website Administrator

Some of you may know that my wife and I have a seasonal cabin on Pickerel Lake. We are excited to be part of the DLWA and look forward to meeting more members along the way. In joining the watershed, I took on the initiative to develop a website.

I am pleased to announce the website is up and running!

deerlakewatershed.org

The website allows all members and individuals interested in becoming a member to find out everything about DLWA in one spot! First and foremost, it allows everyone to obtain a membership form for renewing or joining right from the website. We also now have a new business membership advertising form. If you have a business, please consider this option. We already have a number of businesses who will be advertising with this new option and we still have room for many more.

Learn about the recent efforts to keep the dam flowing from Deer Lake into the Big Fork River and how this affects all 11 lakes in the watershed. You will find photos, video, along with information on lake conservation, lake quality water studies, our board members, recent meeting minutes, upcoming events and most importantly, information on membership. New information will continually be added so be sure to use the website as a resource throughout the year!

2019 Fishing Survey Update

by Bill Cromell

Due to a member request, we recently submitted a new fishing survey for watershed members to fill out and return. The last survey was distributed three years ago and some residents feel the fishery is changing. It has become apparent how receptive and helpful the DNR has been while working with our DLWA. Regional DNR Fisheries Manager, Dave Weitzel, has agreed to accept the new survey results for consideration when decisions are finalized for statewide regulations that affect our watershed. We thank those of you who completed and sent us their surveys. The results will be summarized soon and sent out to our membership in a separate email, or in the April (spring) newsletter.

Our Mission: To protect, maintain and improve the natural resources of the Deer Lake Watershed for the current and future generations.

DLWA

DLWA OFFICERS

Bill Cromell

President

Patti Olson

Vice President

Gail Blackmer

Secretary

Sheila Vorland

Treasurer

Jim Kush

Board Member

Chad Lovdahl

Alternate Board Member

Mark Smith

Alternate Board Member

Denny Carlson

DNR Liaison

DLWA Active Committees 2019

Continuous Outflow Committee: Bill Cromell, chair

Alex Jensen, Chad Lovdahl, Mark Smith

An outcome summary of the Continuous Outflow Committee will be printed in the Spring edition, April 2019

Fund-raising Committee: Patti Olson, chair

Sheila Vorland, Bill Cromell, Valerie Cromell

Bylaws Review Committee: Gail Blackmer, chair

Sheila Vorland, Bill Cromell

An outcome summary of all DLWA bylaws changes will be printed in the Spring edition, April 2019.

Newsletter Committee: Gail Blackmer, chair

Sheila Vorland (publisher), Bill Cromell, Valerie Cromell

Anyone wishing to be involved in the committees please contact a board member via deerlakewatershed@gmail.com.

Treasury Report 12-31-2018

Checkbook Balance \$1,077

Outflow Fund \$1,530

Deer Lake Watershed Association

Membership Form

PO Box 23, Effie MN 56639

deerlakewatershed@gmail.com www.deerlakewatershed.org



Our Mission: "To protect, maintain and improve the natural resources of the Deer Lake Watershed for current and future generations."

Name(s): _____ Date: _____

Mailing Address: _____ State _____ Zip _____

Email: _____ Phone: _____

Please Select DLWA Membership Options/Dues for 2019

- ☐ \$25 Individual/ Family* ☐ \$50 Sponsor Level ☐ \$100 Contributor Level
☐ \$500 Lifetime I (50+ yrs old) ☐ \$750 Lifetime II (40+ yrs old) ☐ \$1,000 Lifetime III (30+ yrs old)

**Please note: A Family Membership includes up to two adults and any children under age 22.*

DONATIONS - Additional DLWA Support Options

- ☐ DLWA General Fund \$ _____ ☐ Watershed Continuous Flow Fund \$ _____
☐ Watershed Protection Fund - Water Quality Testing/Aquatic Invasive Species (AIS) \$ _____

(Please make checks payable to the DLWA and mail to PO Box 23, Effie MN 56639)



Volunteers are needed for DLWA Projects and Events. Stay tuned via email and our newsletter articles for volunteer opportunities!

Some activities may involve safety risk with use of tools or equipment, or environmental hazards such as wet conditions and outdoor weather. Volunteers will be asked to sign a waiver.

The DLWA is a 317A nonprofit organization and as such, is unable to give a tax credit for your donations.

Thank you for your support!

DLWA Membership Application – Rev 1/20/19

DLWA Goals and Objectives:

- Educate area owners and users about maintaining water quality, fish and wildlife resources, economic factors and recreational qualities of the Deer Lake Watershed (DLW).
- Cooperate and coordinate with local, state, and federal public agencies and other groups to help maintain the qualities of the DLW.
- Identify and provide outside resources to explain potential problems affecting DLW.
- Support issues deemed important to association members and future generations.