



*Aerial view of the Ossipee Watershed from above Green Mountain looking north across Ossipee Lake to the White Mountains.*

## GMCG celebrates 25 years of watershed protection

*Our founders sowed the seeds for a new generation of leadership, innovation, and growth*

**By Matt Howe**  
**Executive Director**

On Tuesday, August 16 from 4 to 6 p.m., thanks to our friends at The Preserve in Chocorua, GMCG will host a gathering to recognize 25 years of research, education, advocacy and land conservation protecting the Ossipee Watershed for future generations. The themes of this event will be friendship, appreciation, and community. We will take time to honor some of our heroes and highlight our most notable achievements, but the emphasis will be on reconnecting with old friends and enjoying the moment. This party is free and open to the public. Space is limited so please reserve your spot by emailing [info@gmccg.org](mailto:info@gmccg.org).

There is much to celebrate about all that GMCG has done and become. Blair Folts and her co-founders — and all those who have carried this organization forward — were and remain tireless visionaries who infused this organization with an energetic, enterprising spirit that distinguishes our work. GMCG has forged a rare blend of land conservation, citizen science, community

organizing, and environmental education. It is an ambitious model guided by a deep understanding of what it takes to protect a watershed.

As we embark on our next quarter century, let us rededicate ourselves to the principles and values that guided our founders and the strategies they adopted, updating them as needed to address emerging challenges. The cornerstones of GMCG include:

***Environmental protection and economic prosperity are not mutually exclusive!***

For 25 years GMCG has driven home the message that our natural resources are the bedrock of our region's economy. We protect our aquifer with vigilance because its health is essential not only to human health but to every business and every workplace in every watershed community. In the years to come we must keep this message front and center, and do an even better job of promoting it. There is an emerging movement among academics and environmental activists to build data-driven models that will enable us to assign real dollars to the value of our natural

# Green Mountain Conservation Group

*The Watershed News* is a quarterly publication of Green Mountain Conservation Group, a nonprofit, 501 (c)(3) charitable organization established in 1997. The mission of GMCG is to promote an awareness of and appreciation for clean water and the wise use of shared natural resources across the Ossipee Watershed and advocate strategies to protect them.

The towns of Eaton, Effingham, Freedom, Madison, Ossipee, Sandwich, and Tamworth comprise the Ossipee Watershed. This watershed includes one of the largest and deepest stratified drift aquifers in New Hampshire. GMCG also serves the towns of Maine's Sacopee Valley. Water knows no boundaries!

## Board of Directors

Knute Ogren, Chair  
Karen Vitek, Vice Chair  
Nadine Armstrong, Treasurer  
Open, Secretary

## Town Representatives

Lorie Dunne, Effingham  
Alice Custard, Freedom  
Noreen Downs, Madison  
Karen Vitek, Tamworth  
Dana Simpson, Ossipee  
Peter Zack, Maine  
Nancy Walser, Sandwich  
Todd Dickinson, Member at Large  
John Hedden, Eaton

## Staff

Matt Howe, Executive Director  
Tara Schroeder, Education Coordinator  
Moselle Spiller, Outreach Coordinator  
Jill Emerson, Water Quality Coordinator

## AmeriCorps Members

Bethany Mestelle, Education and Outreach Assistant  
Caitlin Noseworthy, Water Quality Resources Assistant  
Madison Martin, Conservation Assistant  
Brittney Semone, Conservation Assistant



## GMCG celebrates 25 years of watershed protection continued...

resources. GMCG should be a part of this work so we can provide local decision-makers and citizens with a heightened understanding of the value of our groundwater, surface water, forests and wildlife and the costs that will be incurred when these resources are degraded.

### ***Landowners have rights AND responsibilities***

No one "owns" land. We own an abundance of rights to our private property, but land ultimately belongs to everyone. The influence of the "live free or die" philosophy upon New Hampshire's political culture can make this a particularly challenging point to get across in the public square. This point is at the heart of GMCG's work. We can protect this watershed only if those who hold property take their responsibilities of ownership seriously and do not flaunt the local, state, and federal laws that have evolved to ensure that what happens on our land does not harm our neighbors and future generations. We live in a time when the notion of "individual rights" has been distorted by strident politicians and pundits who have failed to think through the implications of unfettered individual liberty. Turning back this wave in public life will take a long time. What we can do now is look to the landowners who respect this principle and ask them to elevate in every way possible their commitment to responsible land ownership. All to say, follow best management practices! GMCG is here to help you as best we can.

### ***GMCG is not a political organization but we need you to be political!***

That is right. We cannot protect this watershed if you do not get out and vote and speak up. GMCG does not get involved in elections but we can observe that elections have consequences for the environment. We can urge you, when you go to the polls, to vote for candidates whom you believe will govern with a sense of responsibility toward the environment and a recognition of the economic value of the natural resources of Carroll County and New Hampshire. The more leaders we have on town boards and in the state legislature who are willing to listen to voices for the environment, the more hope we can hold for the future of our natural resources.

### ***Citizen science is good for the watershed and good for GMCG!***

GMCG has a stellar citizen science program without which we could never have established and sustained our two decades of comprehensive study of the Ossipee Lake System and its tributaries. Without our team of trained volunteers we could never have compiled the massive database that documents years of trends in surface water health. As GMCG is called upon to sample more and more waters from the Sandwich Range to the Maine border, we will need to rely even more on citizen scientists and AmeriCorps volunteers to collect data.

**Keep building the environmental youth movement!**

The decision to take GMCG’s love and knowledge of science into the classroom was truly visionary. We now touch the lives of almost every student who passes through the public schools of Conway, Sandwich, Tamworth, Effingham, Freedom, Ossipee, Madison, and the Sacopee Valley of Maine. They learn to test their home’s well water. They learn about the life cycle of brook trout. They discover the wonders of the aquatic life that dwells beneath the stones of their favorite streams. They are challenged to think about the products they and their families consume and how their lifestyle affects the natural world around them. And they teach us back! Their curiosity and awareness of the state of the planet inspires us and underscores how important it is for GMCG to be engaged in their education and to play a part in the paths they choose to take. There may be nothing more important than instilling the next generation with a love of science, a passion for the natural world and a determination to be involved in its protection.

**Collaborate! Collaborate! It takes a village!**

We must not celebrate a quarter century of achievement without stressing the fact that we cannot and do not protect the Ossipee Watershed alone. Scores of organizations and public agencies play essential roles in safeguarding this part of New Hampshire and have supported and partnered with GMCG in countless ways since 1997. If your organization is not listed below, my apologies in advance – please give me a shout and I will be sure not to overlook you next time. To all the organizations below, thank you! From the entire GMCG community, thank you for your devotion to our shared environment, for your expertise, your cooperation and your moral support. Let us get underway with the next 25 years of working



*The Pine River, one of Ossipee Lake’s major tributaries, flows north through the Heath Pond Bog natural area. An extraordinary place for bird-watching, it is also home to beavers, fishers, and porcupines. Above photo and cover photo by Moselle Spiller.*

together to protect these waters and lands we love.

- Ossipee Lake Alliance
- Berry Bay Association
- Broad-Leavitt Bay Association
- North Broad Bay Association
- Long Sands Association
- Province Lake Association
- Chocorua Lake Conservancy
- Dan Hole Pond Watershed
- Moose Mountain Regional Greenways Conservation Trust (now with MMRG)
- Francis Small Heritage Trust
- Tin Mountain Conservation Center
- Global Awareness Local Action
- Acton Wakefield Watershed Association
- Lakes Region Conservation Trust
- Upper Saco Valley Land Trust
- Silver Lake Association
- Saco River Corridor Commission
- Lakes Region Planning Commission
- Saco Headwaters Alliance
- Squam Lakes Association
- Squam Lakes Conservation Society
- Squam Lakes Natural Science Center
- Forest Carbon Sequestration Project
- Sandwich Climate Action

- Tamworth Recycling Project
- Society for the Protection of New Hampshire Forests
- Loon Preservation Committee
- The Nature Conservancy in New Hampshire
- New Hampshire Lakes
- New Hampshire Audubon
- Harris Center for Conservation Education
- Trout Unlimited
- NH Department of Natural and Cultural Resources
- NH Department of Fish & Game
- NH Department of Environmental Services
- NH DES – Volunteer Lakes Assessment Program (VLAP)
- NH Department of Natural and Cultural Resources
- UNH Cooperative Extension
- UNH 4-H
- UNH Technology Transfer Center
- UNH Lay Lakes Monitoring Program
- Natural Resource Conservation Service
- U.S. Environmental Protection Agency
- Maine Department of Inland Fisheries & Wildlife
- and Every Town’s Conservation Commission!

# Is your drinking water safe?

## New tools and resources make it easier for homeowners to find out

**By Tara Schroeder  
Education Coordinator**

According to the NH Department of Environmental Services (NH DES) Drinking Water and Groundwater Bureau, about 520,000 residents, or 46%, of New Hampshire homes use private wells for drinking water. In the Ossipee Watershed, that number is much higher – closer to 80%, or more than 24,000 people, in this area use private wells for their drinking water (with many more people in the summer months).

In New Hampshire, well owners are responsible for testing and treating their drinking water, yet since most are never required to test their water (only sometimes when buying or selling a house), most people are unaware of the safety of their drinking water. Well water may have high levels of naturally occurring arsenic and other contaminants of concern like uranium and radon. These contaminants can be colorless, odorless, and tasteless, so testing is the only way to determine whether or not levels exceed health limits. With bladder cancer incidence in Maine, New Hampshire, and Vermont 20% higher than the United States average (Baris et al. 2016), along with 3 in 10 wells in New Hampshire having too much arsenic, it is all the more reason to get your well water tested.

The NH Department of Health and Human Services recently released the NH Private Well Water Dashboard, a portal that shares data from across the state so homeowners can better understand which contaminants may be of concern in their area. The aim is to put data into action for private well testing and treatment. Data is from 2006 through 2020 for residential well water tests and focuses on 14 contaminants recommended by NH DES and NH Public Health Laboratories (NPHL) for



*Contaminates can be invisible to the naked eye and taste buds. Test your well water to know what is in it.*

homeowners to test: arsenic, chloride, copper, fluoride, iron, lead, manganese, nitrate, nitrite, radon, sodium, and uranium. Anyone can access the site at [www.wisdom.dhhs.nh.gov](http://www.wisdom.dhhs.nh.gov) to better understand levels of contaminants in their town, county, and across the state, with analyses performed on approximately 24,000 wells. Reports for 14 parameters by town or county can be downloaded as PDFs. The site also provides estimates of the population served by private wells for each town, as well as survey results indicating how frequently people test their water.

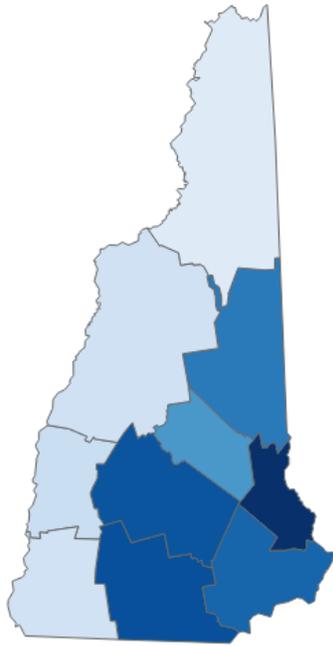
While the cost of testing can be a barrier to some people, there are a number of programs available to cover or defray the cost for at-risk populations and others needing assistance. The NH Water Well-ness Initiative provides free water testing and a free Zero Water pitcher filter through the Women, Infants, Children (WIC) program to expectant mothers since some common contaminants like arsenic, lead, and manganese can be especially harmful to infants and young children. The USDA offers

funding for private well testing for certain qualifying homeowners through the Resources for Communities And People (RCAP) Solutions Individual Well Program (IWP).

GMCG also offers to deliver well samples to the state lab in Concord periodically throughout the year. Volunteer Mark Longley and GMCG staff and AmeriCorps help save homeowners the cost of overnighting samples or driving samples to the lab. Mark volunteers his time to help anyone who is interested in interpreting their results. GMCG hosts a number of GET WET! well testing programs throughout the year where members of the public can screen their well samples for free for seven different parameters (nitrate, pH, hardness, iron, chloride, conductivity and microplastics). The next GET WET! program will be held at Cook Memorial Library in Tamworth on Wednesday, July 27 from 2 to 3:30 p.m.

Finally, New Hampshire's Be Well Informed website is a useful tool for helping homeowners understand if any of their results are outside the safe limits, what the possible health

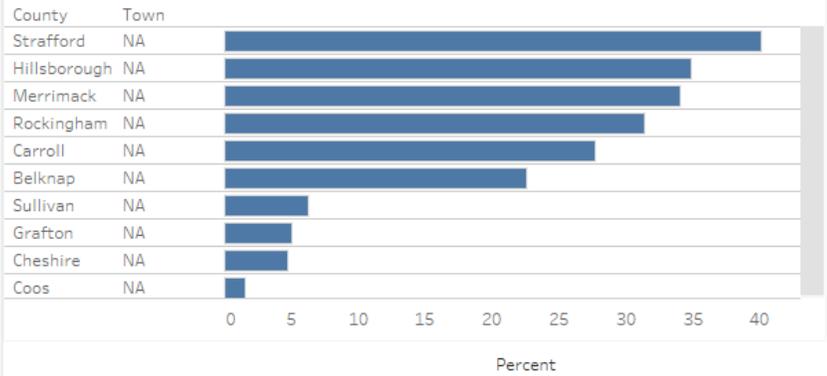
Percent of wells exceeding health limit; Contaminant: Arsenic; 2006-2020  
 Arsenic health limit: None ( $\mu\text{g/L}$ )



1.51 40.10

Source: wisdom.dhhs.nh.gov

Percent of wells exceeding health limit; Contaminant: Arsenic; 2006-2020  
 Arsenic health limit: 5.0 ( $\mu\text{g/L}$ )



The new NH Private Well Water Dashboard is a data portal from NH Department of Health & Human Services that analyzes private well data from more than 24,000 wells taken between 2006-2020. The goal of the site is to put data into action and increase private well testing and treatment in the state. This screenshot shows that 27.7% of the wells in Carroll County exceed the health limit for arsenic (5.0  $\mu\text{g/L}$ ). Anyone can access the site at [wisdom.dhhs.nh.gov](http://wisdom.dhhs.nh.gov) to better understand which contaminants may be of concern in their town.

impacts are, and recommended treatment system(s). In the Ossipee Watershed, in addition to natural contaminants like bacteria, arsenic, radon and uranium, there are PFAS and other emerging human-made contaminants and rising levels of salt in groundwater, so testing your water, and testing it regularly (every 3-5 years), is a good idea.

**References:**

Baris D;Waddell R;Beane Freeman LE;Schwenn M;Colt JS;Ayotte JD;Ward MH;Nuckols J;Schned A;Jackson B;Clerkin C;Rothman N;Moore LE;Taylor A;Robinson G;Hosain GM;Armenti KR;McCoy R;Samanic C;Hoover RN;Fraumeni JF;Johnson A;Karagas MR;Silverman DT; (2016, May 2). Elevated bladder cancer in Northern New England: The role of drinking water and arsenic. *Journal of the National Cancer Institute*. Retrieved June 8, 2022, from <https://pubmed.ncbi.nlm.nih.gov/27140955>



Pictured above: Well water testing kits are available to the public to pick up in-person at GMCG’s Blue Heron House located at 236 Huntress Bridge Road Effingham. It is recommended to call (603) 539-1859 in advance to make sure supplies are on hand. The kit comes with easy to follow instructions. The completed water sample kit must be delivered to the Department of Health and Human Services lab in Concord, NH.

**More information**

RCAP Solutions Individual Well Program: <https://www.rcapsolutions.org/private-wells/> or contact Martin Mistretta, (603) 312 7901 [mmistretta@rcapsolutions.org](mailto:mmistretta@rcapsolutions.org)

GMCG Well Testing: Tara Schroeder [education@gmcg.org](mailto:education@gmcg.org)

Be Well Informed website: <https://www4.des.state.nh.us/DWIToolWelcome.aspx>

Mark Longley (to help interpret lab results): [marklongley@sbcglobal.net](mailto:marklongley@sbcglobal.net)

# Calling all artists for “Wonders of Water” Art Exhibition

**By Moselle Spiller  
Outreach Coordinator**

GMCG is happy to announce the third annual community art exhibition 2022 “Wonders of Water” (WOW). We are seeking artists to express what water means to them.

GMCG welcomes artists of all ages and inclinations to explore the meaning of **water** through the medium of their choice. Artist participation guidelines for the 2022 WOW exhibition are posted at [www.gmcg.org](http://www.gmcg.org) and submissions will be accepted through August 15.

Artists will have the option of having their submitted art displayed online and on a traveling outdoor banner that will be available for viewing at different locations across

the watershed. For assistance with digitizing a physical piece of art please contact [info@gmcg.org](mailto:info@gmcg.org) for help.

This year, GMCG is seeking more locations in addition to libraries to hang the “WOW” banner. If you are a local business or organization or know someone who has an appropriate place to hang a five-foot by seven-foot banner please let us know! GMCG also seeks partners to help promote the exhibition. Partners will be listed in press releases, radio broadcasts, and on GMCG’s website. Partners’ names and logos will be displayed on the traveling banner. Contact Moselle Spiller at [info@gmcg.org](mailto:info@gmcg.org) for more information on how to partner.



*The traveling “WOW” banner displayed at the Conway and Madison libraries last fall.*

## AmeriCorps unveil new Interpretive Trail at GMCG Natural Area

**By Caitlin Noseworthy  
and Bethany Mestelle**

On June 17 and 18, GMCG unveiled a new interpretive trail at the GMCG Natural Area. Interpretive trails incorporate information about the natural environment and historical land use to tell the story of the land. This new trail, designed by AmeriCorps members Caitlin Noseworthy and Bethany Mestelle, highlights the historical uses of the land, including Abenaki and colonial history, how the natural world affected the lives of the people that lived there, and physical artifacts that were left behind.

The creation of this interpretive trail has been a months-long project for the AmeriCorps members. In the fall, Bethany and Caitlin visited the existing Natural Area trail, and were inspired by the historical artifacts, as well as the existing interpretive trail at the Blue Heron House, to create an interpretive guide booklet. Over the winter, they brainstormed station ideas and began researching both the natural and cultural history of the area. The Effingham Library,



AmeriCorps members Caitlin and Bethany stand beside the kiosk at the Natural Area entrance.

and especially librarian Grace Fuller, were helpful in providing local knowledge and resources. By spring they finalized the information and designed the booklet offered free to visitors. Caitlin and Bethany, along with GMCG’s two other Conservation Assistants, conducted trail maintenance and installed the station markers in preparation for the opening day.

For the opening weekend, GMCG once again teamed up with Bobby Sue’s Homemade Ice

Cream to offer a free kiddie scoop to children who visited the trail. In addition, kids received a Junior Conservationist patch.

The trailhead is located on Green Mountain Road in Effingham, just 0.1 miles south of the Route 25 intersection. Look for the wooden steps directly off the east side road shoulder. Parking is on the shoulder of Green Mountain Road. The trail is 0.8 miles long, and is welcoming to kids of all ages and dogs on a leash. Please make sure to practice “Leave No Trace” principles while on the

# GMCG and SRCC awarded grants to improve *E. coli* monitoring

**By Jill Emerson**  
**Water Quality Coordinator**

Summertime for many of us in New England means a return to our favorite swimming locations. For some, this might be a public beach where all your neighbors congregate to cool off on a hot day. For others, maybe this means dipping your toes into a cool mountain river. Or perhaps you have a favorite lake you remember spending long summer days on as a kid. Wherever your favorite spot is, it is probably the favorite spot of someone else too. Or maybe many someone else's.

As almost anyone in the Saco River Basin can tell you, recreation of our surface waters has increased significantly since the pandemic started. With that increase in use, we can expect an increase in water contamination issues. One such water quality issue is *E. coli* – a bacterium that many of us only think about when there's a food recall of some kind. *E. coli* is a very common gut bacterium in mammals and is pretty well studied: there are at least 11 Nobel Prizes associated with *E. coli* (which is 11 more than I currently have). Many strains have been shown to be harmless, but unfortunately not all of them are, and this is where problems can arise. According to data collected by the Saco River Corridor Commission (SRCC) – GMCG's friend in our tributary water quality monitoring program RIVERS – 8 out of 19 sites that were monitored for *E. coli* showed the highest levels recorded in the last 5 years. Many of those high *E. coli* sites are well known and well used swimming locations, like Rotary Park in Biddeford and Weston's Beach in Fryeburg. This is a significant increase in *E. coli* problems in the Saco River Basin that unfortunately do not show any sign of slowing down.

Thankfully, our friends at the Maine Outdoor Heritage Fund



*Using the Quanti-tray system from IDEXX, E. coli results are scored by looking for wells that appear yellow under white light and give off a fluorescence when exposed to a UV light.*

(MOHF) are also very concerned with the growing *E. coli* issue, and have recognized GMCG and SRCC's efforts to combat the issue with two separate grant awards that will allow us to better study the source of the pollution while helping to keep testing results down. It is thanks to partners like these that allow us to be more effective at protecting the health of the waters in the Saco River Basin.

Our first grant awarded in the fall of 2021 was to purchase the Quanti-Tray System, a technology developed by IDEXX that allows groups like ours to take accurate *E. coli* or other bacterial counts. We worked with the state of Maine to develop a protocol - known as an SOP, or standard operating procedure - to make sure our techniques and system yield accurate data. This system has revolutionized the *E. coli* monitoring that both groups can do; no longer are we beholden to driving samples to far away labs and then waiting for them to tell us our results. We can now process results in-house, and for much cheaper too, which allows us to spend money expanding other parts of our water quality program (including conducting more *E. coli* monitoring).

The more recent good news occurred in May of this year, when GMCG and SRCC were awarded a second grant by MOHF in order to better identify the source of *E. coli* contamination. To begin with, we are going to be looking at whether the *E. coli* is human derived. We will be doing this by collecting environmental DNA (eDNA). Basically, as living creatures interact with their environment, cellular debris is sloughed off and accumulates. This DNA can then be isolated to determine what type of organism was in that environment. We can use eDNA from an environment that shows high levels of *E. coli* to get a better idea if that *E. coli* came from a human. We can look for specific human derived DNA sequences, such as other gut bacteria or human viruses that have spent millions of years co-evolving in humans. We can also use the *E. coli*'s own DNA to determine if it came from a human. We do this by looking at the *E. coli*'s phylogenetic subgroup – a genetic tree that is the result of millions of years of co-evolution – and determine its likelihood that it came from humans. Using both the eDNA and the bacteria's DNA gives us multiple data points we can use to determine with higher probability whether the *E. coli* either came from humans or not.

Both of these grants will hopefully allow us to better protect the public health by expanding our testing and help problem solve when *E. coli* issues arise. We all want clean water to recreate in, especially at our favorite swim spots.

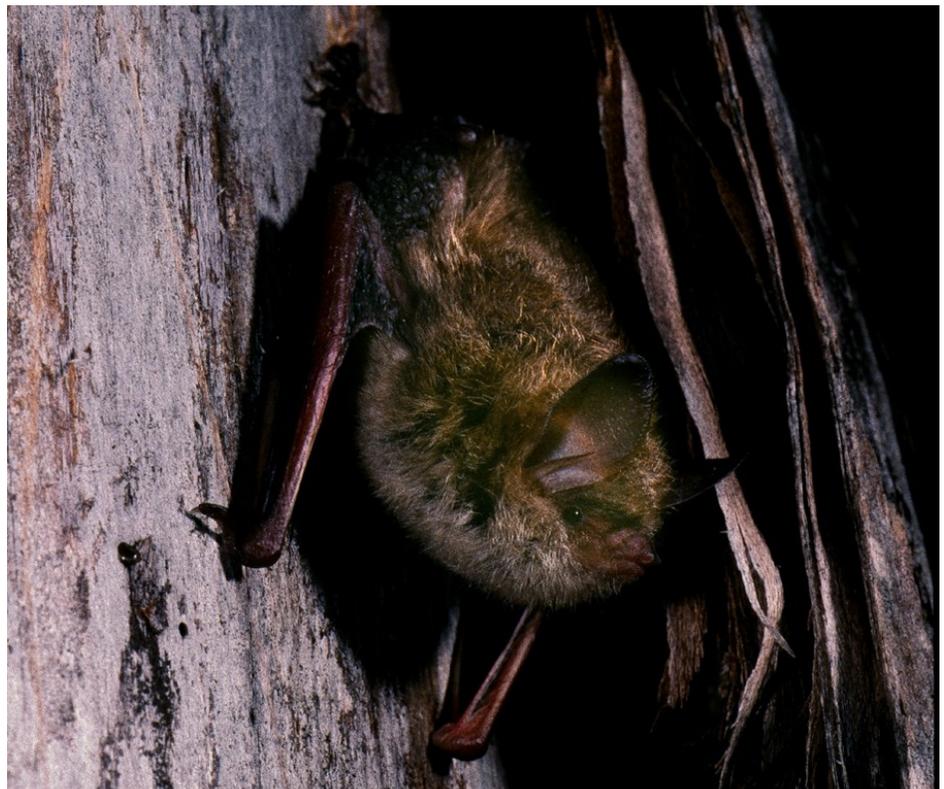
# Our Nocturnal Neighbors: Bats in New Hampshire

By Haley Andreozzi  
Wildlife Conservation State Specialist  
University of New Hampshire

Bats often get a bad rap, but the truth is they are incredibly unique creatures that are poorly understood. Part of this is likely due to the fact that they are nocturnal and are active at night when we do not get the chance to witness them. They are the only mammals that truly fly and use their special ability of echolocation to find their way through the woods and locate the flying insects they depend on for food. While all bat species are a bit different, there are some things they tend to have in common. In general bats are small (with species in New Hampshire weighing between 0.2 to 12 ounces), have a long lifespan (typically living 6-10 years, but up to 30 years in some cases), and reproduce relatively slowly (having few babies at a time, often just one per year).

Bats are an important part of our ecosystems, as they are the greatest predator of night-flying insects here in New Hampshire. Not only do they consume pesky mosquitoes, but they also eat agricultural pests and forest pests, which not only has ecological impacts but also potential economic repercussions. One study found loss of North American bats could lead to agricultural losses estimated at almost \$4 billion per year.

New Hampshire is home to eight species of bats; unfortunately, all of their populations are declining – and they are all listed as Species of Greatest Conservation Need in the NH Wildlife Action Plan. Beyond that, four species are also listed as state-endangered, and one species is listed as federally threatened. While all of these bats spend the summer months in New Hampshire, three of our bat species migrate to spend the winter in southern places. These species – the silver-haired bat, hoary bat, and eastern red bat – are declining due to habitat loss and other threats, such as wind turbines. Five of our bat



Northern long-eared bat. Photo credit: Merlin Tuttle.

species spend their winters here in the northeast, some in New Hampshire, but many in New York and Vermont, hibernating in caves and mines. These species – the tricolored bat, eastern small-footed bat, little brown bat, big brown bat, and northern long-eared bat – are being affected by White-nose Syndrome which has led to significant declines in bats in recent years.

White-nose Syndrome (WNS) is caused by a fungus that grows in the cold damp conditions where bats hibernate. As it grows, the fungus causes changes in bats that make them become more active than usual and burn up the fat stores that they need to survive the winter. Since WNS was first found in New Hampshire in 2009, our cave-hibernating bats have been decimated by WNS, with several species (little brown, tricolored, and northern long-eared bats) experiencing 99% population declines. There is a lot that is still unknown about WNS and research is ongoing, but there

are some small glimpses of good news. For example, some studies have found genetic traits for little brown bats that might show some resistance to WNS and here in New Hampshire, we do have a few survivors. During surveys this past winter, there was one hibernaculum (an area used for hibernation) that had three little brown bats present where there had been zero in recent years. However, prior to WNS, there were around 2,000 little brown bats at that site – an indication that there is a long way to go for recovery of that and other bat species.

The better news is that there are ways that individual homeowners, landowners, community volunteers, and conservation organizations can contribute to bat conservation here in New Hampshire.

### ***Let them use your barn.***

You can help by allowing bats to exist where they have for centuries – in your barn. Big and little brown bats particularly like structures where they can form large maternity colonies in a hot environment that

helps the pups grow quickly. If you are having problems with guano, create a ceiling or hang a tarp between the roof and your equipment.

### **Install a bat house.**

Since bats typically only have one pup each year, successful maternity colonies are important. Bat houses can be good colony locations if designed correctly and put in the right place – size (large), color (dark), height (>15 feet), and location are all important.

### **Follow best practices to keep them out.**

If you want to get rid of bats in your attic, you or a licensed wildlife control operator can create an exclusion. Use a one-way device over holes, so the next time bats fly out they cannot get back in. You can then seal up the holes, and replace your colony space with a large bat house. Do not exclude bats from mid-May through mid-August when babies cannot fly and will get trapped in the space.

### **Do not disturb.**

To reduce the likelihood of harming bats, avoid any disturbance near a known maternity roost site from mid-May through mid-August, and conduct timber harvests when bats are hibernating (October 31 to April 1). In winter, stay out of caves and mines. Bats are very sensitive to disturbance, and will come out of hibernation when humans enter their space. This uses up critical energy reserves. Staying out will also prevent the spread of WNS.

### **Maintain or enhance habitat.**

Bats use forests in spring, summer, and fall. They need a source of water, an area to forage, and large trees/snags for roosting. You can help bats by providing a landscape with these elements. Protect both occupied and potential roost trees, which typically have cavities, crevices, loose/shedding bark, and larger diameters.



*Little brown bat in flight.  
Photo credit: Merlin Tuttle*

### **Count them!**

Each summer, UNH Extension and NH Fish & Game Department look to volunteers to count bats as they emerge from their maternity colonies at night. The data from these summer bat counts by volunteers are critical to see where bats exist currently and in what numbers. It also helps us understand what is potentially special about the sites where bats exist and are maybe even thriving. Counts are conducted at least twice per summer – once in June, and once in July. We also welcome individuals to report bat colonies (at least 10 bats or more) around the state.

There are many resources available for more information, including the NH Fish & Game Department's website on bats in New Hampshire, US Fish & Wildlife Service's website on WNS, and Bat Conservation International's website for building bat houses.

One of the best things you can do for bats in New Hampshire is to learn more and share with others. It is going to take conservation efforts from many to support New Hampshire's species in the face of white-nose syndrome and the other threats they face.

## GMCG joins Plastic Free July

**By Madison Martin  
AmeriCorps Member  
GMCG Conservation Assistant**

GMCG is participating in Plastic Free July and encourages Ossipee Watershed Towns to take up the challenge! Plastic Free July is a global movement organized by the Plastic Free Foundation to create solutions and raise awareness about plastic pollution.

Center Harbor and Dover have already made formal proclamations asking their business and residents to voluntarily reduce the use and distribution of single-use plastic during the month of July. In the interest of protecting local water bodies, GMCG encourages other towns to do the same.

Any town, business, organization, or individual can participate in Plastic Free July by taking steps to reduce the use of single-use plastic and spreading awareness of plastic pollution through social media and word of mouth. Individuals can also urge state legislators to pass Zero Waste laws that will hold companies responsible for the plastic waste that they create with their disposable packaging. These laws will require companies to redesign their packages to reduce waste and exclude toxic chemicals. Visit [plasticfreejuly.org](http://plasticfreejuly.org) to learn more.



# Enhance your property for pollinators

**By Wendy Scribner**  
**Forestry Field Specialist**

Every year I try to add a few more flowering perennials to my flower gardens. I enjoy seeing the bees, butterflies, and hummingbirds visiting the plants to collect their food. For me it is a win-win. I get to enjoy not only the flowers, but the insects and birds that visit them, and they get what they need to survive. The fact that there is less lawn to mow is an added bonus.

A frequently cited statistic is that “one of every three bites of our food comes to us courtesy of pollinators” who pollinate the flowers that produce many of our fruits, vegetables, and nuts. Pollinators include not only honeybees, but native bees, butterflies, moths, and other insects, as well as birds and bats. As these creatures visit plants foraging for food (pollen and nectar), they move pollen around, providing a vital service, helping plants reproduce.

While beekeepers manage large colonies of honeybees to pollinate crops, we also have a variety of native bees that help pollinate our plants. It is estimated that around 200 species of native bees are found in New England. Many of our native bees nest either singly or in small groups in the ground, hollowed out plant stems, and other materials - so they do not draw the same level of attention that honey bees do.

In recent years, concerns have been raised about the health of our pollinators. Beekeepers have recognized significant losses in their bee colonies while researchers have identified declines in native bee abundance and species diversity. Lack of suitable habitat and chemical use are often cited culprits.

We can help our pollinators by considering their habitat needs as we landscape our properties. Even small areas can provide important food sources and nesting sites.



*A bumble bee visits GMCG's pollinator garden at the Blue Heron House this spring.*

To make your property more appealing and beneficial to pollinators:

## **Provide pollen and nectar sources from early spring to late fall**

Different pollinator species may be actively foraging anytime from March through November. Look at what you already have in your yard and evaluate which plants bloom early, in the middle, or late in the season. Identify gaps in blooming and add plants that bloom during those times.

Some early-season flowering plants include wild columbine, wild lupine, and spiderwort as well as a variety of tree species including willows, apples, and cherries. Summer flowering plants include bee balm, cone-flowers, and black-eyed susans. Asters and sedums provide fall blossoms.

## **Plant in groups**

Plant flowers in clumps rather than planting scattered individuals to make the plantings more visible to pollinators and to help them be more efficient in their gathering of pollen and nectar.

## **Choose a variety of colors and flower shapes to attract different pollinators**

Different colors and flower shapes will appeal to different pollinators. Some bee species have shorter tongues which limit the types of flowers they can access for

nectar and pollen. Butterflies like to land on flowers when they are feeding, so consider adding plants that produce clusters of smaller flowers or flowers with larger petals for them. Providing diversity in flower colors and shapes will provide more feeding opportunities for different species.

## **Reduce your lawn area**

Leave some corners and/or edges of your lawn unmown (mowing them once at the end of the season). Many of our native wildflowers such as golden rod, phlox, milkweed, clover and asters will grow in these areas if they are given the chance. These undisturbed areas will also provide bee nesting opportunities.

## **Incorporate different canopy layers in your landscaping**

Grouping trees, shrubs, and annual and perennial plants together mimics the way plants grow together in natural systems. These groupings provide a variety of niches for insects and other animals to find food, nesting sites and shelter.

## **Provide water sources**

If you already have a birdbath, consider adding a few flat stones to create spots for butterflies and bees to land and safely access water. You do not need a lot of space to provide good habitat for pollinators. You can create an attractive landscape and also help our pollinators survive and thrive.

Researchers at UNH have been studying pollinators, identifying flower preferences, and conducting research trials to evaluate the best techniques for establishing wildflower meadows. For more information about how to successfully establish wildflower meadows and pollinator plantings, please visit the UNH Cooperative Extension web page: <https://extension.unh.edu/agriculture-gardens/landscaping/wildflower-meadows>

Last summer, GMCG worked with volunteers, businesses, residents, and AmeriCorps members to install a pollinator garden at Blue Heron House to demonstrate how we can all help create habitat for pollinators like birds, bees, butterflies, moths, flies, and beetles. GMCG's pollinator garden features over forty native flowering plants with labels that share plant names (common and scientific) and which pollinators they benefit. All of the plants were donated by Susan Copen of NH Native Perennials in Silver Lake and members of the Mt. Washington Valley Plant Exchange Facebook group. Volunteer Kristy Foster-Carbone and husband Mark of Eaton helped to design and install the garden with GMCG staff and AmeriCorps members. Visit [www.nhnativeperennials.com](http://www.nhnativeperennials.com) to learn about native plants in your area.

Wendy Scribner is a Natural Resources Field Specialist with UNH Cooperative Extension in Carroll County. For more information please call (603) 447-3834 or email [wendy.scribner@unh.edu](mailto:wendy.scribner@unh.edu)



*Landscape designer and former GMCG board member Kristy Foster-Carbone and husband Mark Carbone lead AmeriCorps members in planting GMCG's first pollinator garden last summer.*

## Meet the new half-term GMCG AmeriCorps Members



*"Hi, my name is Maddy and I'm the new AmeriCorps Conservation Assistant at GMCG. I grew up in Londonderry, NH and spent most of my childhood swimming and running barefoot through the woods. I graduated from Ithaca College last May with a degree in writing and a minor in environmental studies. Last year I worked as an editor at The Ithacan and interned with Novel Slices. Now I'm back in my home state and ready for the next adventure. As a writer, science communication is important to me and I strive to help others better understand the world around them and maybe find some wonder along the way. In my free time, I write bizarre short stories, crochet stuffed animals, and carve spoons from wood I found in the woods." - Madison Martin*



*"Hi, I'm Brittney, a GMCG AmeriCorps Conservation Assistant. I grew up in New Jersey and spent my summers visiting my grandparents in Ossipee, NH, where a love for the outdoors and awareness of the importance of conservation was instilled in me. I completed an undergraduate degree in Biology with a concentration in Ecology and Conservation at West Chester University of Pennsylvania followed by pursuing a career in Environmental Stewardship. I have spent the last seven years, in the western US working in partnership with federal agencies, including the U.S. Forest Service and National Park Service. Most of my experience has been working on Healthy Forest Restoration projects in the Sierra Nevada Mountains and regulatory compliance and monitoring for the federally listed desert tortoise (*Gopherus agassizi*) throughout the Mojave Desert. I am excited to be back in New Hampshire where I am able to serve to protect our freshwater ecosystems. I have a lot to learn, but through this experience I am able to contribute to making a difference." - Brittney Semone*

# GMCG in action



Water Quality Coordinator Jill Emerson presents preliminary findings on microplastics in the Ossipee Lake system at the NH Lakes Congress on June 3<sup>rd</sup> in Meredith, NH.



Executive Director Matt Howe survived GMCG's 4<sup>th</sup> Annual Polar Plunge on April 1<sup>st</sup> (photo courtesy of Rachel Sharples, Conway Daily Sun).



AmeriCorps member Bethany works with a student during our Less Plastics Initiative Recycled Art programming at the Conway Library in April.



Sixth grade students from Pine Tree Elementary in Conway NH release about 300 brook trout they raised from eggs into the Swift River as part of the Trout in the Classroom program.



AmeriCorps members Bethany (L), Maddy (C), and Brittney (R) monitor the water quality of White Pond in Ossipee, NH.



AmeriCorps member Caitlin takes a Secchi Disk reading during a recent lake sampling on Danforth Bay in May.



GMCG volunteer and board member Dana Simpson (L) helps a local Girl Scout Troop build a bat house at a recent workshop.



GMCG volunteers collect microplastic samples on the Ossipee Lake system using the Manta net during May's water quality monitoring event.



AmeriCorps members share the new interpretive guide with local children at GMCG's Natural Area trail opening.



GMCG partnered with the Madison Dept. of Public Works to present a Road Salt Reduction Workshop and showcase the town's new salt brine dispensing truck.

# Save the date! 2022 Summer calendar

---

**Mondays, July 11, 18 & 25: Nature Story and Discovery Time** on select Mondays in July. Join us from 10:30 to 11:30 a.m. at Blue Heron House for Nature Story and Discovery Time! This free and open to the public program will include a story as well as songs, crafts, games, and nature discovery time around the day's theme. Activities are tailored for children ages 4-8 and their caregivers. The themes this summer will be: *Monday, July 11 – Vernal Pool & Pond Creatures; Monday, July 18 – Weather; and Monday, July 25 – Beavers*. Meet at the Blue Heron House located at 236 Huntress Bridge Road, Effingham, NH 03882. Please RSVP by emailing Bethany at [education2@gmcg.org](mailto:education2@gmcg.org) or call 603-539-1859.

**Saturday, July 16: Green Mountain Forestry & Fire Tower Hike** from 9 a.m. to 1 p.m. Join GMCG and the Forest Society for a guided hike of Green Mountain to the Forest Society High Watch Forest Reservation and fire tower and see some great views of the Ossipee Watershed. The hike will be led by Field Forester, Steve Junkin, and Senior Director of Education, Dave Anderson, of the Forest Society. We will hike via the Libby Road Trail, with a side trip to visit the area of a 2018 harvest which created 40 acres of early successional openings to learn about why these were created and observe the regeneration at the site. Next, we will head to the summit for lunch and more views. Be prepared for a three-mile round-trip hike with some steep terrain. Please bring a lunch and water, and pre-register for the hike by contacting [education@gmcg.org](mailto:education@gmcg.org) as space is limited.

**Wednesday, July 27: GET WET! Drinking Water Program at the Cook Memorial Library in Tamworth** from 2 to 3:30 p.m. This outdoor event will feature the Groundwater Education Through Water Evaluation and Testing program with Green Mountain Conservation Group staff, AmeriCorps members and volunteers. Participants will be able to test their well water for six different parameters, learn about common water quality issues, local water resources, groundwater research, and how to test well water for other contaminants of concern. There will be a station for testing samples for microplastics where participants can learn all about GMCG's microplastics research. This program is made possible by support from The Tamworth Foundation. Please pre-register for the program by contacting [education@gmcg.org](mailto:education@gmcg.org). This program is free and open to the public, including children and families. Participants may conduct their own water tests with guidance from GMCG, or have their samples tested for them. For more information and how to take your water sample, visit [www.gmcg.org](http://www.gmcg.org).

**Now through Monday, August 15: "Wonders of Water" 2022 Community Art Exhibition** GMCG is happy to announce the third annual, 2022 "Wonders of Water" (WOW) community art exhibition happening this September as an online show and traveling banner, viewable at GMCG and your local library. GMCG welcomes artists of all ages and inclinations to explore the meaning of water through the medium of their choice. Submissions will be accepted through Monday, August 15, 2022. Submissions must be made through email. Email a digital file of your artwork to [info@gmcg.org](mailto:info@gmcg.org). No files over 10 megabits in size will be accepted. No more than three pieces of art per artist please. In the email include your name, title of your artwork, medium, original dimensions, and anything else you would like the viewer to know about how you made the art and what inspired you. Artists have the option of displaying up to three individual pieces of artwork in the online exhibition. Only one piece of artwork per person will be shown on the traveling banner. For assistance with digitizing a physical piece of art GMCG staff are available to help. Contact [info@gmcg.org](mailto:info@gmcg.org) for more information.

**Tuesday, August 16: GMCG's 25<sup>th</sup> Anniversary Celebration at The Preserve in Chocorua** from 4 to 6 p.m. The GMCG community will gather to celebrate the organization's 25th Anniversary! This complimentary event will feature refreshments, a social hour and our annual volunteer recognition and presentation of the Highwatch Award for exemplary volunteer service to GMCG. Register by contacting [info@gmcg.org](mailto:info@gmcg.org) with the names of those who will be attending.

**Wednesday, August 24: Wild Edibles Herb Walk with Carol Felice** from 9 to 10:30 a.m. at GMCG's Blue Heron House. Turn every simple walk outdoors, whether across a lawn or through a forest, into a familiar supporting environment by learning the edible and medicinal plants that abound. We will taste, sniff, feel, see, and listen to their differences. Bring a camera or notepad if you like or just enjoy meeting these new friends. Please pre-register by contacting [education@gmcg.org](mailto:education@gmcg.org) as space is limited.

**Saturday, October 1: Wild Mushrooms of Fall with Stephanie Doyle** from 10:30 a.m. to 12 p.m. at GMCG's Blue Heron House. Join mushroom enthusiast Stephanie Doyle to learn the correct tools and skills to identify mushrooms. Stephanie will teach which mushrooms are edible, poisonous, and common where we live. The walk will take place on GMCG's Blue Heron Trail. Come prepared to walk outside in the forest in variable weather.

# Conservation conversations

## **Editor's Note:** *Conservation*

*Conversations provides a forum for the seven towns of the Ossipee Watershed to share news of their conservation and planning activities and an opportunity to find creative solutions to challenges.*

### **Eaton Conservation Commission**

Dennis Sullivan will be presenting the Eaton Natural Resources Inventory website which he created on July 21 at 6:30 to 8 p.m. at the Eaton Town Hall, as part of the Conservation Conversations, hosted by the Conservation Commission. Future topics include water, forests, and wildlife. Bring your own laptop or device and learn what an NRI can allow you to do. It is specific to Eaton, but may be of interest to towns considering creating one.

### **Effingham Conservation Commission**

Winners of the annual Earth Day Poster Contest sponsored by the Effingham Conservation Commission (ECC) received their prizes in May. The theme of the contest was Solar Energy: Earth-Friendly Energy for All.



*The Earth-Friendly Energy for All winners and their posters. Left to Right: Matthew Sawyer, Imogen Bull, Tiernan McCarthy, Reaghan Ranly, Rixon Ranly, Christopher Elliott, Kenadie Vittum.*

ECC spring activities included the annual Roadside Trash Cleanup on Saturday, April 30. The volunteer effort netted 167 of the official blue bags, up from the previous year's ominous low of 67 bags. Independent volunteers may have brought their litter to the transfer station in different bags, but it was still an encouraging rebound from last year.

The new trail segments have been laid out in the Pine River

Cherubini Preserve on Pine River Road. Construction is ongoing.

ECC will host a presentation on Birds of Prey, by the Center for Wildlife, from Cape Neddick, Maine, on Saturday, Aug. 20 in conjunction with the Effingham Street Fair on Town House Road. Details will be publicized closer to the event.

Locally, ECC funded the participation of four Effingham school children in GMCG's bat house building workshop on Friday, June 17.

## Planned Giving Glossary

*Giving water to the roots...the seeds we have sown need plenty of it!*

### **By Matt Howe**

#### **Executive Director**

GMCG intends to be around more than another 25 years. We plan to be here when your children and grandchildren and their children are living here, working here, hiking, swimming, birdwatching, kayaking, and fishing here in clean, healthy waters. That is the simple truth of environmentalism – we toil at this work, we volunteer and give what we can – because we know that if we do not, those who follow us may not enjoy what we had. There may even be ways to restore some of these resources to something even better than we knew. Planned giving is a way to think down the road – to help GMCG in a way you cannot help today, and to be a part of the future

of safeguarding the Ossipee Watershed. Here is a list of some of the most common ways to incorporate charitable giving into your estate plan.

#### **Bequest**

A transfer of property or cash to an individual or organization under a will.

#### **Charitable Gift Annuity**

Allows the donor to transfer an irrevocable gift of cash or securities to a nonprofit in exchange for a fixed income payment for life. This gift entitles the donor to an immediate charitable income tax deduction. At the end of its term, the CGA balance goes to the nonprofit.

#### **Charitable Lead Trust**

After a donor makes a gift, the Charitable Lead Trust pays income to the donor's designated charity first, for a term of years or for the donor's lifetime. After that, the trust assets are passed back to the donor or designated beneficiaries.

#### **Charitable Remainder Unitrust**

A charitable trust that pays a percentage of its principal to the donor and/or other income beneficiaries the donor names for life, for a term of up to 20 years, or for a combination of both. Because it is revalued annually, payments may increase over time. The donor receives a charitable income tax deduction for a portion of the value

of the assets placed in the trust. After the Charitable Remainder Unitrust terminates, the balance goes to the nonprofit.

### Health Savings Account

A savings account that allows the owner to set aside money on a pre-tax basis to pay for medical expenses. If the owner and spouse do not deplete the HSA during their lifetimes, what is left becomes taxable income to the beneficiaries. However, the owner can bequeath leftover HSA balances to charity and eliminate the tax issue.

### IRA Rollover

Also referred to as a QCD: qualified charitable distribution. Allows donors 70½ or older to make tax-free IRA charitable rollover gifts of up to \$100,000 per year directly from their Individual Retirement Accounts to eligible nonprofits. The funds must be transferred directly to the charity; withdrawing them first will result in a tax penalty.

### Life Insurance

A donor can designate a charity as a policy beneficiary. When the



*Lady slippers bloom in the hills of Eaton. Photo by Matt Howe.*

time comes, the nonprofit receives the proceeds. This allows the donor to provide a large gift to benefit a nonprofit —often more than they would be able to donate outright. The donor’s heirs benefit as well, because policy proceeds distributed to a nonprofit are exempt from estate tax.

### Real Estate

A donor can gift real estate to a nonprofit, removing a large taxable asset from their estate and benefiting by receiving an income

tax deduction equal to the appraised fair market value of the property, with no capital gains tax due on the transfer. The nonprofit can then sell the real estate or keep it for its own use.

### Retained Life Estate

A donor transfers a property deed — residence, vacation home, farm, etc. — to charity, but retains the right to use (including rent out) or live in the property for life or a term of years. In exchange, the donor receives an immediate income tax deduction based on the fair market value of the property minus the present value of the retained life estate. The donor must cover any expenses and maintenance costs associated with the property during their lifetime.

### Retirement plans

A donor can name a nonprofit as the beneficiary of a portion or all of his/her IRA, 401(k), or other Retirement Plans. When the donor’s estate is settled, the amount designated passes to the nonprofit and the donor’s heirs avoid income and estate tax.

*Source: [www.plannedgiving.wiki](http://www.plannedgiving.wiki)*

***Please continue your support today! Every drop counts. Thank you!***

*Please make checks payable to Green Mountain Conservation Group Box 95, Effingham, NH 03882*

*You may also donate online at [www.gmcg.org/donate](http://www.gmcg.org/donate)*

**My/our gift of \$ \_\_\_\_\_ is enclosed.**

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

PHONE \_\_\_\_\_ EMAIL \_\_\_\_\_



GMCG is a nonprofit 501(c)(3) tax-exempt organization.

**GMCG’s Federal Tax Identification Number is: 02-0498020**





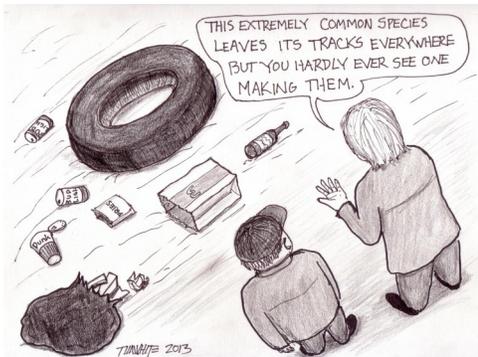
# THE WATERSHED NEWS

A Quarterly Publication for the Ossipee Watershed

Nonprofit  
Organization  
U.S. Postage Paid  
Effingham, NH  
Permit No. 10

PO Box 95  
236 Huntress Bridge Road  
Effingham, NH 03882  
(603) 539-1859  
info@gmcg.org

**SAVE THE DATE!**  
GMCG 25<sup>th</sup>  
Anniversary Celebration  
At The Preserve at Chocorua  
Tuesday, August 16  
4 to 6 p.m.



**25 YEARS**  
A QUARTER OF A CENTURY  
OF RESEARCH, EDUCATION, ADVOCACY  
AND LAND PROTECTION.  
WOW, WE'RE OLD!

Cartoons by Tim White

## In This Issue:

- GMCG celebrates 25 years of watershed protection
- NH's bats and bat conservation
- Gardening to help pollinators
- Is your drinking water safe?
- "Wonders of Water" community art exhibition

Contributors: Haley Andreozi, Jill Emerson, Matt Howe, Wendy Scribner, Tara Schroeder, Moselle Spiller, Bethany Mestelle, Caitlin Noseworthy, Madison Martin, Brittney Semone

Comments, questions, or ideas for a future article? Please write to info@gmcg.org