

Protecting natural resources in the Ossipee Watershed since 1997



The Ossipee River's water levels are unusually low this fall due to the extended drought.

Ossipee Watershed faces continued drought conditions

By Jill Emerson,
GMCG Water Quality Coordinator

As if 2020 hasn't already been challenging enough, New Hampshire finds itself in the middle of a very noticeable and prolonged drought. We have definitely seen it as we monitor tributaries for our RIVERS program – water levels are extremely low in many places, with some of our tributaries dried up altogether. And it's not just our state – all of New England is experiencing severe drought conditions. Take a look at the map on page three from The National Drought Mitigation Center at the University of Nebraska-Lincoln: Much of it shows the New England region in D2, or severe drought conditions. New England has seen a 25-50% reduction in the volume of rain it would normally receive this year, which is having major impacts across the region (1). This summer Maine has experienced the most forest fires it has had in a decade (910 and counting) while Massachusetts is

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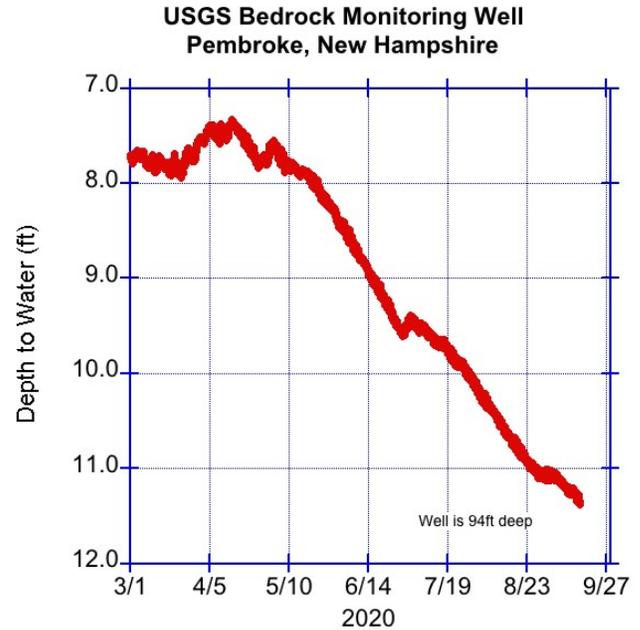
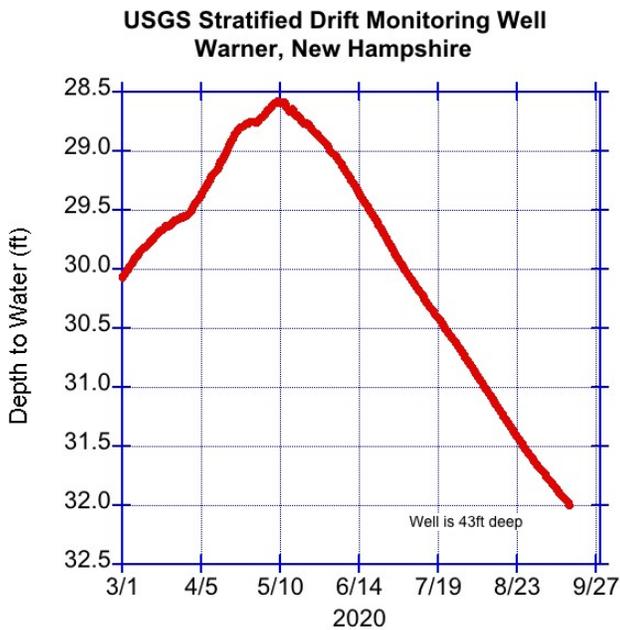
GET WET! Program in Sandwich spurs students to action

By Justin Chapman,
6th Grade Sandwich Central School Teacher

In February of 2020, the Sixth Grade Class at Sandwich Central School participated in the GET WET Program (Ground Water Education through Water Evaluation and Testing). GET WET is a program that comes out of the University of Maine, and GMCG staff and volunteers help implement the program at schools throughout the Ossipee Watershed. The program's mission is "To bring collaborative environmental research into the community through the classroom in order to understand local environmental changes and promote public health through safe drinking water."

This past year, 17 students and Sandwich Central School tested their home well water for the following parameters: chloride, nitrates/nitrites, pH, hardness, iron, and conductivity.

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These graphs show the trends in water levels in two of the USGS monitoring wells in New Hampshire from March, 2020 through September, 2020. One in a stratified drift aquifer and the other in a bedrock aquifer. Shallow dug wells that are in glacial till are most susceptible to going dry in the drought. ~ Dr. Robert Newton, former Professor of GeoSciences at Smith College

unfortunately catching up with 900 fires recorded and counting. At least 70% of pasture lands in Massachusetts, Connecticut, and Rhode Island reported very poor conditions, leaving some farmers to switch to hay or supplemental feeding for their livestock. Crop based industries are also seeing decreased production numbers due to the drought conditions. Some smaller hydroelectric plants have had to shut down this summer due to low lake levels. Many areas in the region have enacted water restrictions in an effort to conserve what is left.

In New Hampshire approximately 40% of people rely on private wells for drinking water (2), and 71% of people in the Ossipee Watershed (Andrew Madison, NH DES 2018). During times of drought, it's important to know what signs to look for if your well is beginning to deplete:

- 1) Drops in water pressure/pressure surges
- 2) Cloudy/silty water
- 3) Air bubbles coming out in non-aerated faucets
- 4) No water

Some wells may be more susceptible to drought conditions, such as dug wells and other shallow constructed wells, so if you are unsure of your well type many states and local municipalities keep records of

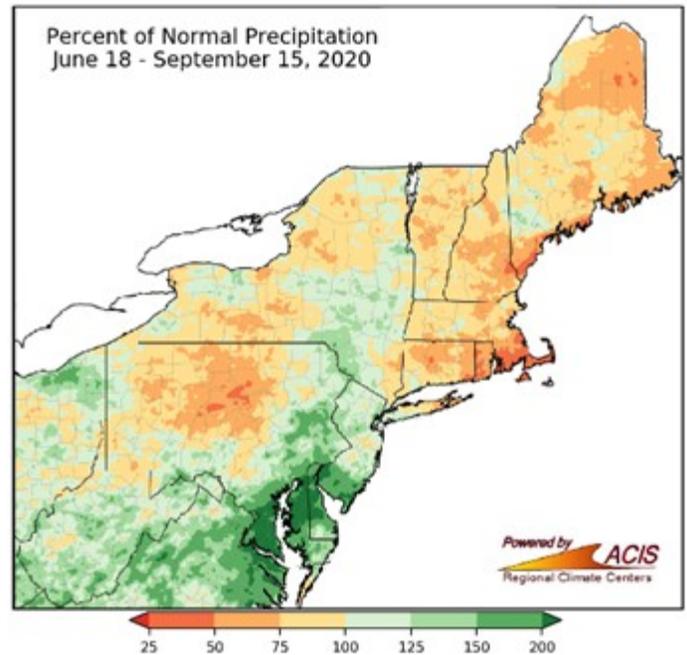
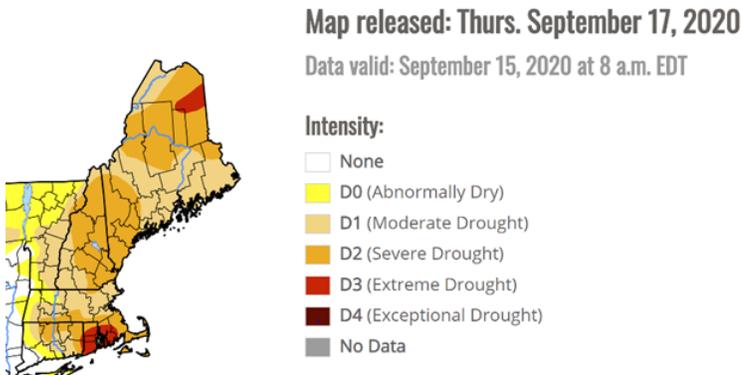
private well types that can be referenced. If you think your well is experiencing any of these signs, call a licensed well driller to further evaluate (while the above are signs of a drought, it can also signal other issues with your well).

If you are worried about your water supply, there are things you can do to help lessen the stress you put on your system. You can replace old fixtures, like your dishwasher, toilets, and washing machine, with newer models that use less water (certified as ENERGY STAR). If you can't replace old fixtures, then check them for leaks and replace broken parts. A leaking toilet, which can't always be heard, can waste hundreds of gallons of water. Cut back on nonessential water use, like car washing and lawn watering, and reduce the amount of time in the shower. Install simple rain barrels outside your home to catch and store rainwater for irrigation use when times are dry. And of course, there's the age old "if it's yellow, let it mellow..." around bathroom use that we all know the rest to (and if you don't a quick two second Google search will answer that burning question for you).

As of press time, there appears to be no end to the drought in sight. Many people view NH as a water-rich state, and with almost one thousand lakes, it's easy to think that. However, NH is just as susceptible (if not more so due to its geology) to drought as other places.

Which is why it's important to plan ahead for drought conditions before it becomes a problem for your well system.

- (1) Northeast Regional Climate Center, Cornell University
- (2) New Hampshire Department of Environmental Services



There have been 174 wildfires in NH so far this season, which is about average, but due to the pandemic and the higher use of NH's forests and parks by recreationists, combined with the projected early dropping of leaves and extreme fire danger, there is a high level of concern there will be more fires. <https://www.wmur.com/article/dry-conditions-raise-brush-fire-concerns-in-nh/34032999>

Best Management Practices installed around Ossipee Lake

By Moselle Spiller,
GMCG Outreach Coordinator

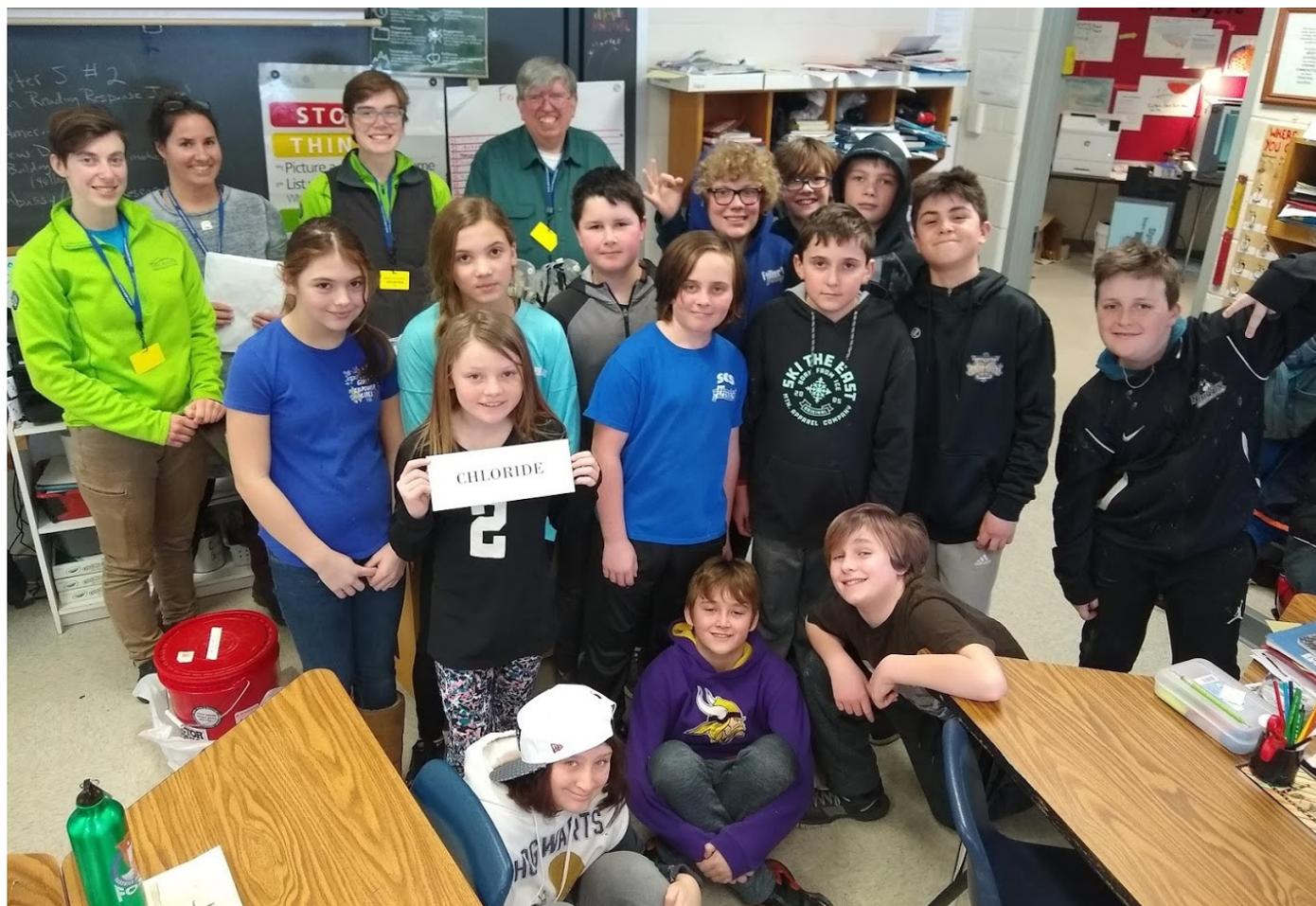
Since the spring of 2019 GMCG has been forging ahead with "Project BMP" a watershed wide campaign to advocate for and assist with building Best Management Practices (BMPs) surrounding Ossipee Lake. BMPs protect shared water resources through the reduction of pollutant loads and reduction of stormwater run-off, using structural designs such as rain gardens, vegetated buffers, drainage ditches, swales, retention walls, and basins. BMPs also include proper septic system maintenance. Funding for this project is provided in part by a Watershed Assistance Grant from the NH Department of Environmental Services with Clean Water Act Section 319 funds from the U.S. Environmental Protection Agency.

As stated in the 2015 (Phase I) and the 2018 (Phase II) Ossipee Watershed Management Plans, shorefront residential property was identified as a significant threat to Ossipee Lake water quality. Direct shoreline areas are typically among the highest for pollutant loading given their proximity to the water. According to the 2015 shoreline survey, 62% of shoreline parcels showed characteristics detrimental to lake water quality, such as inadequate buffers, evidence of bare soil, and structures within 75 feet of the shoreline.

Improvement of shoreline conditions has great potential to protect water quality. Pollutant load reductions can be achieved through a combination of small-scale shoreline and larger-scale watershed BMPs.

During the summers of 2018, 2019, and 2020 Ossipee Lake experienced several cyanobacteria blooms exacerbated by nutrient loading from stormwater runoff entering the lake from residential properties. Numerous calls were made to the GMCG office from concerned residents, and for good reason. Cyanobacteria is a harmful toxin to both humans and pets. The importance of the 2018 Watershed Management Plan and BMPs to protect water quality and public health are becoming more apparent.

GMCG partnered with multiple private residents, businesses, and summer camps located on shoreline properties in Effingham, Freedom, and Ossipee. GMCG worked with these partners to design and install rain gardens, waterbars, vegetated buffers, infiltration steps, and dry wells engineered specifically to reduce the amount of stormwater entering the lake. These "showcase" designs are meant to be duplicated by other property owners not just on Ossipee Lake but anywhere in the watershed and throughout New Hampshire. Please visit www.gmcg.org/project-bmp to see photos and videos documenting these recent projects and learn more about how you can make a difference on your property.



Sandwich Central School 6th graders worked with GMCG's Education Coordinator Tara Schroeder, AmeriCorps members Ellie Stoermer and Sarah Goldsmith, and GMCG volunteers Karen and Victor Vitek of Tamworth to test drinking water for GET WET!

In addition to testing their home well water, many of the students in the class also wanted to test the water coming out of our school's water fountain. The school's drinking water, while tested regularly for bacteria and other contaminants, has always tasted notoriously bad. The students figured that GET WET might help them reveal the culprit of the poor tasting water. What they found prompted them to write a letter to the Inter-Lakes School District facilities manager, Brian Swanker. In that letter they wrote:

We have a concern about the water coming from the water fountains at Sandwich Central School. For all the years we have attended SCS it has tasted salty and rather unpleasant...

...The average chloride levels for the water coming from our home wells was 19.4 mg/L and the school's chloride

level was 335 mg/L. That's quite high. Furthermore, we found that the average sodium chloride level was 5 mg/L, while the school's was 107 mg/L. The average conductivity for the private wells was 175.8 μ /s, while the school's was 1141 μ /s. These numbers concern us and probably explain why our school's water tastes so bad....

We are wondering why these numbers are so high? We have been told that our water is regularly tested and treated. We are wondering if there is a good way that we can lower the salt levels, have healthy water, and make the water taste better. We would be interested in hearing back from you and talking to you more about this concern.

*Sincerely,
Sandwich Central School Sixth-Graders
David, Abigail, Samuel,
Leopold, and Elise*

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The response from Mr. Swanker was encouraging! He thanked them for their efforts and acknowledged that the school has taken a number of steps to ensure that the water is safe to drink but that minerals such as salts and manganese remain in the water, causing the poor taste. He explained the factors related to our school's well that are attributing to the problem- mainly the use of road salt and the fact that we have a particularly shallow well. He also discussed several options for addressing the issue- from drilling a new well (expensive and no guarantee to solve the problem) to installing a full-scale reverse osmosis filtration system for the school (expensive). He went on to share the following compromise and cost-effective solution:

...Another way to address the removal of the salt from the water is with reverse osmosis. To treat the entire school with reverse osmosis is very expensive as well, however, with the effort you have shown with your GET WET project and our previous attempts to correct the water chemistry at the school, I am proposing to install one (1) point of use water bubbler that has a reverse osmosis filter built right into the unit. If this unit provides water that corrects the taste, I would try to plan to fully replace all the bubblers in the school with this type of unit over a period of time. These units also have a high price tag, but I can manage the cost and replacement over time without an abrupt impact on the school budget.

You all have done an excellent job in writing your letter and I truly appreciate the desire to have great tasting water...

*Regards,
Brian Swanker
Director of Facilities*

Without question, the GET WET! program is fulfilling its mission here at Sandwich Central School. Thank you to the University of Maine and Green Mountain Conservation Group for bringing collaborative environmental research into our community through the classroom so that our students could better understand local environmental changes and promote and advocate for public health through safe drinking water.

Congratulations to the sixth graders at Sandwich Central School for taking the initiative to write to our Facilities Director, as SCS students will be drinking delicious water for years to come. And thank you to Facilities Director, Brian Swanker, for the thoughtful response, logical problem solving, and caring about the well-being of our students.

A success story, all around.

Justin Chapman
Grade Six Teacher,
Sandwich Central School



Sandwich Central School 6th graders helped raise awareness about the school's water quality issues which led to the installation of a new water bubbler at the school this year.



GET WET! stands for *Groundwater Education through Water Evaluation & Testing.*

GMCG offers in-person and virtual watershed education programs

By Tara Schroeder,
Education Coordinator

The 2020-2021 start to the school year has been challenging, to say the least. Students in Ossipee Watershed communities are learning in-person, remotely and through homeschooling. There are new school safety protocols, and GMCG has had to draft protocols for in-person programs to keep everyone safe as well.

The fall's regular Volunteer Biological Assessment Program where we monitor rivers and streams with local school groups for macroinvertebrates is still happening this year, with a little creativity and a lot of extra precautions. Opportunities for online learning with GMCG are happening through Google Meet and Zoom with schools that cannot meet in person. GMCG is still adding content to its YouTube Channel and remote learning page. And, to connect students to their watershed and provide more real-time opportunities, GMCG is providing livestream programming every Monday at 1pm on our Facebook page.

October is Drinking Water Protection Month in the Watershed!

Learn about the Ossipee Aquifer and local geology and hydrology, how you can test your well, common pollutants, health impacts, and ask your questions to a hydrogeologist! Tune in to GMCG's FaceBook page



Youngsters can still find ways to explore nature and participate in citizen science through GMCG's in-person and virtual programs this fall.

at 1pm on 10/5, 10/19, and 10/26 to learn about GMCG's groundwater study results with Smith College, contaminants like nitrates, bacteria, salt, uranium, fluoride, heavy metals and more! GMCG's Facebook Page: <https://www.facebook.com/gmcgnh>



Tara Schroeder gives a presentation on macros beside the Ossipee River via live video streamed on Facebook.

GMCG's YouTube channel provides budding conservationists with videos on wetlands, vernal pools, salamanders, pitcher plants, nurse logs, science experiments, crafts, and more! Visit www.gmcg.org/remote-learning/



Dobsonflies visit Blue Heron House every summer, having hatched from their aquatic, larval forms as hellgrammites, possibly attracted to the lights on the building. Dobsonflies are a part of the Megalopteran order of insects and live for only about a week as adults. While for the most part they are considered harmless to people, females can bite but the mandibles on males are too long for biting (believed to be a secondary sex characteristic) (Source: Wikipedia). Hellgrammites are popular among anglers as bait, and are one of the macroinvertebrates that indicate high water quality since they are intolerant to pollution. When studying local rivers and streams in the fall we often find hellgrammites with the students.

Fish and aquatic macroinvertebrate assessments being conducted in the Beech River and Dan Hole River watersheds

By Ben Nugent, Fisheries Biologist NH Fish & Game

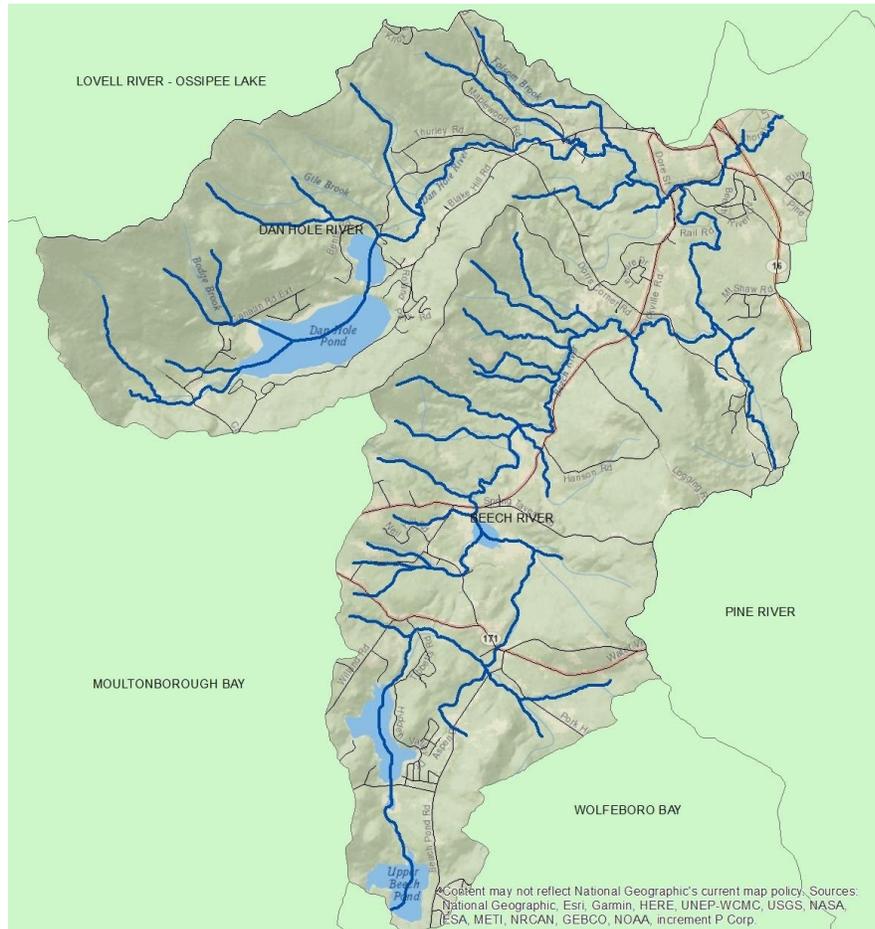
The New Hampshire Fish and Game Department is partnering with Green Mountain Conservation Group and the Saco Trout Unlimited chapter to assess fish and aquatic macroinvertebrate communities in the Beech River and Dan Hole River watersheds.

These assessments have three primary objectives:

- 1) To collect information to help determine better the implications of a dam removal along the lower reach of the Beech River to fish communities in these watersheds;
- 2) To collect baseline information to assess the status of populations of wild brook trout and other species of greatest conservation need; and
- 3) To use this information in conjunction with stream crossing (culverts and bridges) assessment information to help prioritize stream crossing structure replacement projects.

We have a standardized methodology to conduct these assessments which involves 100 meters of electrofishing at the approximate midpoint of every catchment within each watershed. After fish are collected, we measure and weigh them before releasing them back into the stream. NH Department of Environmental Services' Rapid Bioassessment protocols are used to collect macroinvertebrates. The assemblage and number of these species generates an index for water quality. These surveys also include identifying opportunities for future restoration, enhancement and protection. After we complete these assessments, the data will be summarized and presented to communities and conservation groups throughout the watershed.

Brook trout are the only native stream dwelling trout species in New



GMCG is working with NH Fish and Game to assess fish and aquatic macroinvertebrate communities in the Dan Hole River and Beech River watersheds.

Hampshire, having a historic range that extended from Georgia to eastern Canada. It is believed that wild brook trout were once present throughout all watersheds in New Hampshire. Increased stream temperatures, changes to water chemistry, habitat fragmentation, predation and competition, loss of spawning locations, and loss of stream habitat complexity have led to reduced and isolated populations of wild brook trout in New Hampshire and throughout the species' native range in the eastern United States. The species is thought to be extirpated in almost half of the watersheds in their native range in the United States. In particular, historic self-sustaining, wild populations that once occupied larger river systems and lakes and ponds have been significantly reduced.

Wild brook trout depend on cold, well-oxygenated water and access to a variety of aquatic habitat types. If streams become too warm and oxygen deprived, wild brook trout populations can be significantly impacted. This is often observed when land use practices remove shoreline vegetation that shade and cool streams. The presence of impoundments can slow water and allow the temperature to warm; altering aquatic habitat into something more desirable to non-native species (i.e. smallmouth bass). Storm water discharged into streams from large sun-warmed impervious surfaces (i.e. large parking lots) can raise stream temperatures, as well as increase the amount of sediments and pollutants entering the stream.

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GMCG staff, board members, volunteers, and AmeriCorps members received field training for conducting the surveys from Ben Nugent of New Hampshire Fish and Game.



Brook trout are the only native stream dwelling trout species in New Hampshire. Perched culverts like the one pictured below act as a barrier to fish and other aquatic organisms.



An example of a perched culvert. The loss of streambed material at the downstream side of this culvert has created a barrier to fish and other aquatic organisms.

Habitat fragmentation and alterations to the natural geomorphology of a stream from road/stream crossings are some of the most commonly observed impacts within rivers and streams in New Hampshire. Until recently, the primary focus on addressing issues associated with the lack of aquatic habitat connectivity was concentrated on dams. Although these structures negatively affect aquatic habitats, road stream crossings are much more numerous across New Hampshire's landscape. New Hampshire has an estimated 17,000 road stream crossings.

Stream crossing structures installed without consideration of flow variability and natural sediment transport during the design phase could limit aquatic organism passage (AOP) and are often more vulnerable to failure during flooding events. Additionally, the rates of streambed and streambank erosion on the downstream side of the crossing and aggradation on the upstream side of the crossing are often amplified. A suitable stream crossing is installed and sized appropriately to convey a given variety of flows with expected sediment, wood, and ice with desired hydraulics for both public safety and AOP.

If a structure cannot accommodate the immediate conveyance of the full flow, a constriction occurs. This increases the pressure on the flow being forced through the constricting structure, increasing the velocity and energy of flows exiting the downstream side of the crossing structure. Greater energy on the downstream side of the structure results in increased erosion rates on the streambed and streambanks. Over time, high rates of scour result in the elevation of the streambed to drop with scour pools developed at the downstream end of undersized crossings. As the stream bed elevation continues to drop, the vertical distance between the bed and outlet of the crossing structure increases. This creates a waterfall or cascade type feature, making it difficult for fish and other aquatic organisms to ascend through the stream crossing. This is what is commonly referred to as a *perched culvert*.

After we complete these assessments, the data will be summarized and presented to communities and conservation groups throughout the watershed.

The fine art of forest restoration

By Matt Howe,
Executive Director

Many conservation easements allow timber harvesting, typically with provisions intended to protect fragile natural areas, wetlands, animal habitat and water quality. A standard easement will also require that any logging must be done in accordance with a detailed forest management plan prepared by a licensed professional forester.

Violations are rare when the landowners conducting the harvest are the same owners who created the easement. Yet problems can arise when an easement has changed hands and the new owners are not familiar with the land or do not have the same relationship with the loggers or foresters who created the Forest Management Plan. In other cases, communication failures between a forester and a logger, or inadequate oversight by a forester can result in over-cutting or forestry practices that cause environmental harm.

In 2018 a GMCG easement was compromised when loggers did not follow the protocol for Best Management Practices and over-cutting. This led to serious erosion on steep slopes which in turn created significant sediment loading into a stream running across the property. Fortunately, after a series of negotiations led by the GMCG Land Trust Committee, the property owners



Recon Trail Design's Matt Coughlan led a tour of his site work on August 8, 2020.

agreed to a financial settlement to fund restoration of the damaged areas prior to the sale of the property.

This summer GMCG contracted with Matt Coughlan of Recon Trail Design in Porter, Maine to do the work. Due to the steep terrain and the extent of the damage, it was a highly technical endeavor. Matt and his associate, Sean Ashe, faced numerous obstacles, not to mention the blazing July heat and a limited budget.

After a tour of their work, GMCG Land Trust Committee members Dan Stepanauskas

and Rich Fahy, along with Blair Folts, Matt Howe and new land owner Steve Page all concurred that Matt and Sean had done a stellar job.

What Matt and Sean encountered were three steep, fall-line skidder trails that were draining into a lower primary skidder trail causing channelized erosion and sediment movement. The primary skidder trail was experiencing slow regrowth and no regrowth in active water flow areas partly due to the bedrock slope.

Their main goal, therefore, was to slow and fragment surface water

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Matt Coughlan stands by the newly created vernal pool.

flow. Through an elaborate combination of water bars, check dams and berms they managed to slow water down and reduce its potential to gain volume and velocity, and thus reduce sediment movement.

In the photo above there are two large reinforced berms that created a vernal pool that will add diversity to the property by providing a micro-habitat suitable for wetland-type vegetation, amphibians, insects, birds, and mammals. The vernal pool functions as a retention pond. The berms were seeded with inoculated red clover and Carroll County Conservation grass mix. They also installed three sections of silt fence on the skidder trail below the retention pond, and two water bars above the berms.

Pictured on page nine is the primary skidder trail where Matt and Sean constructed seven large water bars and installed additional silt fencing to stem sediment flow between the

disturbed and undisturbed areas.

Every effort was taken to reduce further erosion damage on the property. Recently fallen trees were used to reinforce the berms and the vernal pool area. Logs are sometimes used under soil to help stabilize or above ground to slow water and to provide habitat for micro-organisms, fungi, and vegetation as the logs decay. Matt and Sean also were able to repair machine tracks and naturalize the old skidder trails by planting native material.

As this damaged landscape recovers over the coming year, the next step will be to plant streambank shrubs along exposed areas that will provide shade for the stream, aid bank stabilization, and provide forage for wildlife. During their three weeks on site, Matt and Sean saw, or saw signs of moose, white-tailed deer, black bear, coyote, red fox, raccoon,

porcupine and dozens of birds including broad-winged hawks, pileated woodpeckers, scarlet tanagers, and great crested flycatchers.

Going forward, the site will be monitored to ensure continued natural regrowth of tree species such as oak, maple, hemlock and white pine; and to ensure that the erosion mitigation structures are performing their intended role. Additional seeding and plantings around and above this area will further reduce erosion and sedimentation.

GMCG and Recon Trail Design extend their gratitude to the new landowners Karen McCall and Steve Page who purchased the property after the settlement. We appreciate their support and cooperation with this project. We also owe thanks to GMCG Land Trust Committee members Carol Felice and Dan Stepanauskas for their coordination; and to Blair Folts for guiding all parties to a constructive solution.

Land trusts endure because of the legal power behind the words of conservation easements and property deeds as well as annual monitoring of properties. When an easement is violated, it is the obligation of land trust leaders to diligently pursue enforcement. Without accountability we cannot guarantee conservation.

Article by Matt Howe, with an abundance of technical support from Matt Coughlan

AmeriCorps: Getting Things Done in the Ossipee Watershed



Ellie Stoermer, Education and Outreach Assistant (right) and Sarah Goldsmith, Water Quality Resources Assistant (left).

AmeriCorps is a voluntary civil society program supported by the U.S. federal government, foundations, corporations, and other donors engaging adults in public service work with a goal of “helping others and meeting critical needs in the community.”

By Ellie Stoermer, Education and Outreach Assistant

AmeriCorps is from its very roots an opportunity to learn. Opportunity for growth is built into the program and is a big draw to many of those interested in the education award grant AmeriCorps members receive at the end of their term.

When I started at GMCG back in November of 2019, I had an idea of what I may learn. I hoped to learn about water quality, and techniques for teaching nature programs. I didn't know I would be learning on the fly how to care for around 400 baby brook trout, or more than I ever wanted to know about the state of the culverts I drive over every single day, or a million other little and big things that I could not have predicted.

An AmeriCorps term isn't very long, just ten months, but that gives members a chance to see another place come into focus. The people, plants, and animals that live there, the water that flows and falls, and all the life that visits. For a snapshot of a year, we AmeriCorps get a picture of not only

the problems a community faces, but also the endlessly creative solutions that can arise. At the end of our term, even if the problems may continue, we take the lessons we learned with us. Wherever we end up we may bring those lessons and solutions to our new endeavors and that is how we help things grow.

I am always excited about new AmeriCorps members. Because more than job experience to help on a résumé, serving at GMCG and with AmeriCorps is an opportunity to spread experience. The lessons we learn make new and old members just a little bit better and a little bit more resilient. This past year with GMCG has been very wonderful and very strange but I am glad to be carrying everything I've learned forward.

Learn more about GMCG's partnership with the AmeriCorps program and meet the current members here:
www.gmcg.org/ameriCorps/

Notes from Downstream

By Dalyn Houser
Executive Director, SRCC

Greetings from your friends at the Saco River Corridor Commission (SRCC). The Commission has had an extremely busy summer reviewing around 15 permit applications for development within the Corridor every month. The Commission's August permit review meeting lasted until close to midnight! Thank you to all our dedicated Commissioners who volunteer their time to ensure the preservation of the Saco River Corridor. Without the SRCC, the Corridor (500 feet from the Saco, Ossipee, and Little Ossipee Rivers and up to 1,000 feet from the rivers in areas of the 100-year floodplain) would be a much different place. The Commission is a quasi-state regulatory agency tasked with the protection of the Saco River Corridor.

The Saco River Corridor Act has laws that are unique from Shoreland Zoning, that seek to act as added environmental protections. For instance, with Shoreland Zoning homes can be built at a minimum setback of 100 feet from the shoreline. However, the Saco River Corridor Act requires homes to be set back further from the rivers based on the amount of frontage. The setback and frontage of the river must meet the aggregate limit of 500 feet. This provision helps to preserve the natural shoreline, natural vegetative buffer areas, screen development from the river, prevent overcrowding, and protect water quality.

The Commission has board member seats open in Acton, Newfield, and other nearby towns. Contact our office for further information on how you can

participate in the shape of development occurring in your community.

The Commission is wrapping up the 19th year of our Water Quality Monitoring Program. We would like to extend a big thank you to Rachelle Averill, SRCC WQM Coordinator, for all her hard work and dedication to the program. We would also like to thank our volunteers for your dedication to the program as we would not be able to sample at over 40 sites, along 130 river miles, without your help. We have also finalized the EPA/NH DES/ ME DEP approved QAPP that dictates the requirements of our program. It was a major project and endeavor as the document

required revisions from all three environmental agencies. A big thank you to Jill Emerson, SRCC WQM Program Manager, for all her hard work to make this happen. We are also approaching the one year anniversary of our new Administrative Assistant, Keisha Garnett, who has made an excellent addition to the SRCC staff. Thank you to all our volunteers, staff, and supporters. We would not be here without all their hard work, passion, and dedication to the preservation of the Saco River Corridor. Keep up the good work!



Executive Director's Corner We Must All Stand for Science

By Matt Howe

"Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world. Science is the highest personification of the nation because that nation will remain the first which carries the furthest the works of thought and intelligence." - Louis Pasteur

These days leading up to the 2020 Presidential Election, and the days that follow, are sure to be among the most extraordinary any of us have ever known. Fundamental norms and principles that have held our country together for over two centuries will be tested. We will learn about the capacity of our electoral system to withstand relentless attacks against it. People of all beliefs and backgrounds are praying for a peaceful outcome.

At GMCG we don't take political sides. Our mission is to work with citizens of every political persuasion, gender, race, religion, sexual orientation and gender identity to protect the natural resources of the Ossipee Watershed. Environmentalism, by definition, must be an all-inclusive endeavor. If your groundwater is contaminated or your well runs dry, we don't care what the signs say on your lawn. We care about the principle that everyone should have access to a supply of safe drinking water.

However, when it comes to science, we are not impartial. We take the side of science, and we advocate for a culture in our watershed where all stakeholders share a commitment to objective research and fact-based solutions to human and environmental problems.

When science is under siege, silence is not an option. We must raise our

voice on behalf of what we know to be accurate observations and measures about the human and natural worlds.

September 20, 2020 was the final day of the hottest summer ever recorded in the Northern Hemisphere. That is a fact that does not have two sides. When record-breaking heat, drought and fires devastate California and Oregon at the same time, that is not a coincidence.

When scientists and educators and professional organizations like GMCG are working to communicate the facts about climate change, it is not helpful when public figures respected by members of the community assert that climate change is a hoax.

In the midst of the COVID-19 pandemic it is not helpful when a public figure respected by members of the community publicly repudiates or contradicts the most basic steps that science is telling us we must take to prevent its spread.

Over these next 40 days and beyond, each of us as citizens will engage in the process and vote in the ways we choose. That's what citizens do.

Wherever you may be on the political spectrum, we ask you to join GMCG in resolute defense of science. Climate change is real. COVID-19 is most commonly transmitted through airborne respiratory droplets. Wearing masks and social distancing reduces its spread and saves lives. If we stand with science, we stand a chance.

Stock Donator.com makes giving stock simpler than ever *Not to mention the tax advantages!*

By Matt Howe
Executive Director

For those in a position to do so, giving shares of appreciated securities has several advantages over giving cash. It is a way to leverage assets to give more than one otherwise might, and it is almost always beneficial at tax time.

The math is simple. Let's say you purchased 100 shares of company ABC ten years ago for \$10/share at a cost of \$1,000. Today the shares are worth \$50/share. Your investment is now worth \$5,000. If you sell the 100 shares you will owe taxes on a \$4,000 long-term capital gain.

However, if you donate the stock to a nonprofit organization and you itemize your deductions, you will earn a federal charitable tax deduction of \$5,000 and avoid capital gains taxes altogether.

Wait a second, you think, "I will no

longer own that stock – that charity just ran off with my money!" Well, yes, that's true, but the assumption is that you did intend to support that fine organization in some way. If you had held onto the stock and instead given \$5,000 in cash, you may have earned a tax deduction but you might be feeling a little short on cash, and you would still be holding onto that highly appreciated asset.

Then you say, "Well, you have a point, but I liked owning company ABC. I think it had a lot more potential to grow." If that's the case, then you still have \$5,000 in cash that you can use to purchase 100 new shares with a new tax-basis. Both you and the charity have come out ahead.

GMCG has partnered with Stockdonator.com to accept stock donations. Through this secure,

fast and simple online platform, you can donate publicly traded stocks directly to GMCG. Here's how it works:

1.) Go to <http://www.gmcg.org/donate-stock/> click on the link to Stock Donator and follow the prompts.

2.) Stock Donator collects all entered information and generates the required forms to send to your brokerage.

Note: Some firms may use Medallion Signatures (MS) as an additional means to validate the donation request. If so, this will be facilitated.

3.) Stock Donator receives the stock donation from your brokerage firm.

4.) Stock Donator liquidates the shares immediately and transfers the funds, less a 1.9% fee, to GMCG.

5.) Stock Donator then provides you with a receipt needed to claim the tax deduction.

Stock Donator provides built in support for leading brokerage houses including Scottrade; Wells Fargo Advisors (Wells Trade); Etrade; TD Ameritrade; Fidelity; T. Rowe Price; Schwab; Vanguard; Merrill Edge; and USAA.

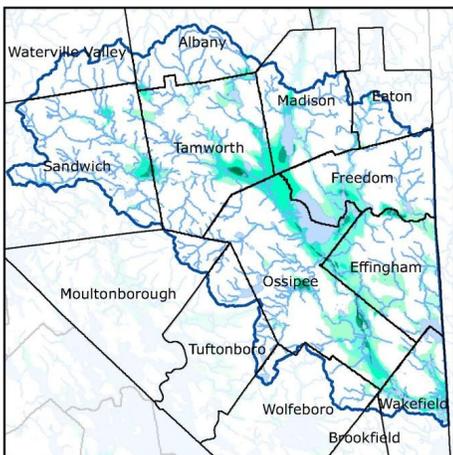
Perhaps you own some shares that have appreciated significantly in recent years. Or maybe your portfolio has been thrown out of balance by a surge in one particular stock. Or it might just be time for a routine re-balancing of your investments. Any of these scenarios could make this a good time to consider a gift of stock to GMCG and other charities, and to consult your financial advisor about how to proceed.

Should you prefer to transfer shares in a more traditional fashion, GMCG has a brokerage account with Vanguard and we can forward instructions for processing a transaction. Contact Executive Director Matt Howe, director@gmcg.org, 603-539-1859.

Conservation Conversations

Editor's Note: *Conservation Conversations is intended to provide 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.*

The following updates are provided by the various town conversation commissions within the watershed.



Effingham CC

Who knew, when we met in March, that we would not see each other again until July? Hopefully, we looked forward to the presentation on black bears by a speaker from the Fish and Game Department in April at the library, and a summer program on Birds of Prey, to be hosted in the Effingham Historical Society building after their ice cream social on June 20 in conjunction with the Effingham Preservation Society's street fair.

All of this was canceled. We hunkered in our lairs, venturing out only for the essentials as a mysterious new disease flared up around the world, including in our own quiet neighborhood. Sure, it wasn't refrigerated trucks full of corpses outside of overloaded hospitals, but we didn't know then – and still don't, really – how far it will go around here.

Effingham Conservation Commission did not meet between March and July. In July the commission met to continue work it had begun on a model solar energy ordinance for the town's comprehensive zoning ordinance. The

bulk of the work had been done by Kamal Nath to compile the building blocks from existing templates derived from the state and from other towns that had already put together their own. Commission members edited and refined the ordinance and finally submitted it to the Effingham Planning Board after the August meeting.

Meetings since July have been conducted outside at the picnic table beside the town offices. In addition to wanting to avoid getting the virus, any responsible citizen wants to be careful not to pass it on to others. The ECC plans to continue meeting outdoors as long as weather permits.

The annual roadside trash cleanup in April collected more than 200 bags of rubbish, from which was separated aluminum worth \$400, and 350 pounds of glass, to support a fundraiser for renovations of the historic town hall building. Additional help for roadside cleanup came from volunteers provided by Effingham Elementary School, who had time available due to the COVID-19 school closure. This initiative was led by EES Principal Patty Morrissey. Thanks go also to the Board of Selectmen for collecting the blue bags from the roadside and delivering them to the Transfer Station. These special efforts turned a year that could have been a meager showing or even canceled due to the pandemic into a big success and an example of community involvement.

Other issues before the commission have included a bit of a resurgence of milfoil after last year's wonderfully low survey totals, a site visit to a culvert rebuilt on Molly Philbrick Road, and some research for the Nature Conservancy on conservation easements as they relate to wildlife corridors in town. Support for the Province Lake Association's Lake Host Program, and GMCG's RIVERS water quality monitoring has been ongoing.

Freedom CC

Trying to work around the Covid-19 pandemic has been challenging! The

Freedom Conservation Commission has been conducting monthly meetings utilizing the Zoom platform. A curtailed training program continues to be conducted by online participation. Commission members assisted Effingham conduct the 2020 Hazardous Material Collection on 1 August 2020. The annual Town Forest State Easement Monitoring site visit conducted on 22 July went well with no findings. The Commission is coordinating a burn in the Pine Barrens with The Nature Conservancy which is planned for 2021.

Like other towns, Freedom was once again visited by the cyanobacteria in Middle Danforth Pond. Advisory cyanobacteria signs were posted around the pond. The Commission is currently assisting the Planning Board write the Shoreland Management Plan. It is also preparing to participate in additional lake and pond testing with the LLMP at UNH Extension.

Madison CC

The Madison Conservation Commission is expanding its look at local conservation efforts to now include clean power, aquifer health, lake life-cycle health, and aquatic invasive species, to name a few items. While the Commission's focus on land acquisition and trails continues, this broader view will encompass a more comprehensive list of conservation areas of interest. We are excited to broaden our horizons!"

Tamworth CC

The Conservation Commission helped a Tamworth resident successfully complete the donation of a conservation easement on 28 acres of forest adjacent to Hemingway State Forest. This parcel also contains a portion of the Tower to Town trail.

Updated trail maps have been posted at all Tamworth hiking trails. These updated maps can also be found at: www.tamworthconservationcommission.org

Fall Schedule

All programs are online, unless otherwise noted. Please visit www.gmcg.org for meeting links and details.

Thursday, October 8 from 6:00-7:00pm: "Preventing Cyanobacteria: Next steps for Danforth Bay" GMCG Water Quality Coordinator Jill Emerson will speak about the science of how and why the cyanobacteria blooms are occurring and GMCG's recent sampling and monitoring on Danforth Bay. GMCG Outreach Coordinator Moselle Spiller will share proactive steps to preventing blooms such as structural BMPs that capture and infiltrate stormwater runoff, a major contributor to nutrient loading causing algal and cyanobacteria blooms. Moselle will share photos and video from recent installations around Danforth Bay and Ossipee Lake including rain gardens, infiltration steps, waterbars, vegetated buffers, and rain barrels.

Saturday, October 10 from 3:00-4:00pm: "Wild Mushrooms of Fall"

Join mushroom enthusiast Stephanie Doyle of the New Hampshire Mushroom Company to develop skills and learn the correct tools to identify mushrooms. Stephanie will teach which mushrooms are edible, poisonous and common where we live. Stephanie will go over a few mushroom basics and discuss the rules of mycophagy. Not sure what mycophagy is?? Come find out!

Wednesday, October 21 from 7:30-9:30am: "Cold Hard Facts– Data Driven Winter Maintenance Planning"

GMCG is pleased to partner with the UNH Technology Transfer Center to bring this program to the Ossipee Watershed as it supports our efforts to reduce the impacts of road salt on water resources. Tracking winter maintenance efforts and costs supports better future planning, efficiency and saves time and money! Join us as we discuss what data to track and how to capture it. Refresher course for certified salt applicators, free for municipalities, \$50 private/contractors. Registration and details at: <https://t2.unh.edu>. This workshop is approved as a Green Snowpro Refresher.

Wednesday & Thursday, October 28 and October 29 from 7:30-10am: Green SnowPro Virtual Training Workshop

GMCG is pleased to partner with the UNH Technology Transfer Center to bring this program to the Ossipee Watershed as it supports our efforts to reduce the impacts of road salt on water resources. Winter operations, especially the use of salt, are a large portion of parking lot and roadway maintenance in NH. This workshop will address the environmental impacts of salt and why it is important to be conscious of these effects. We will cover everything from how to prepare for winter to cleaning up after a storm, all while minimizing salt use. Liability management through developing customer-specific winter maintenance policies will be discussed, as well as the other economic benefits of becoming certified. Full certification course of 2.5 hours each day, free for municipalities, \$150 private/contractors. Registration and details at: <https://t2.unh.edu>. This workshop is a Green SnowPro Salt Applicator Eligible Training.

 **PLEASE! Renew your membership 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/we-need-your-help/

Vernal Pool ___\$25 Stream ___\$50 River ___\$75 Pond ___\$100 Bay ___\$250 Lake ___\$500 Aquifer ___\$1000
Other _____

NAME _____
ADDRESS _____
PHONE _____ EMAIL _____

Are you interested in being a GMCG Volunteer? YES

GMCG is a nonprofit 501(c)(3) tax-exempt organization funded by grants, memberships, and donations.





THE WATERSHED NEWS

A Quarterly Publication for the Ossipee Watershed

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

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236 Huntress Bridge Road
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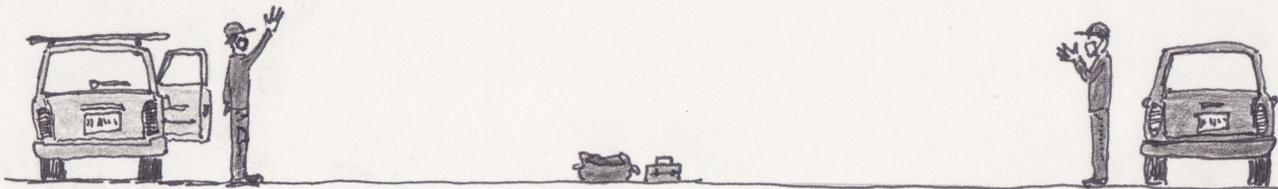
GMCG 2020 Annual Business Meeting

Thursday, November 19, 2020, 7 pm
via Zoom

Pre-registration required

Nominations
for board of directors accepted thru
October 15, 2020

See insert for more details



EQUIPMENT TRANSFER, 2020

TIM WHITE 2020

Together, we did it!

On August 31st the 2020 Watershed Challenge soared past our \$45,000 goal, concluding with a final tally of \$47,475 raised since January. More than 300 members of the GMCG community are responsible for earning the \$45,000 matching grant from a generous friend of the Watershed. From all of us here, thank you for doubling your conservation!