



RIPARIAN READS

Newsletter of the Kennebecasis Watershed Restoration Committee

Winter 2020-2021



Manager's Message

Many people often ask, “What do you guys do during the winter?” It is a common belief that once the snow starts to fly that our work is done. Well that is far from reality. The Kennebecasis Watershed Restoration Committee has worked hard over the years to create partnerships and projects that allow us to stay as busy in the winter as we are in the summer.

What many people don't realize about the work that we do is that the planning and reporting work often takes place through the winter months. The riparian restoration projects and monitoring projects that we carried out in 2020 likely began with funding proposals written in November and December of 2019. Those same projects require reporting to those who funded them, and we usually complete these reports in January and February. So, proposals and reports are one task that keep us busy through the winter months.



We also monitor ice conditions and snow depths across the watershed on a regular basis. A project contract with the Department of Environment and Local Government (DELG) means we have resources throughout the winter to contribute to the ongoing employment for two team members. They will collect information and data on how the river ice conditions look and how much snow is on the ground. This work spans a large geographic area and contributes to flood forecasting models for DELG and Emergency Measures Organization.

Even when the rivers are frozen water is still flowing underneath the ice and changes can occur to the water quality. Some of our industrial stakeholders still have requirements for water quality monitoring and through some strategic contracts that help us maintain our capacity, the KWRC completes weekly water sampling at 7 sites within the Kennebecasis. This monitoring helps identify changes to water quality during the winter while also providing a watchful eye for environmental infractions during the winter months.

This means that just because we aren't planting trees, or monitoring fish populations, that we aren't busy. We hope you all have a fun and exciting winter of 2021 and can find ways to enjoy our river.

See you on the water!

~Ben Whalen

Project Manager



Project with UNB 2020-2021



This year, the KWRC has partnered with the University of New Brunswick's Faculty of Forestry and Environmental Management. A group of students in the Environment and Natural Resources degree program have been working hard on developing a management plan for ash trees within the Trout Creek sub-watershed.

Ash trees in New Brunswick are currently in danger due to the presence of emerald ash borer (EAB). EAB is a wood-boring beetle that lays eggs in ash trees, with the larvae feeding underneath the bark. As this is extremely detrimental to ash trees, the management plan created by the students will help to advise us on the location of ash trees within the watershed and how the potential loss of this species will affect the riparian ecosystem here. They will recommend future strategies for the KWRC to use to ensure a diverse riparian habitat is maintained.

Emerald ash borer can spread long-distances when people unknowingly move infested wood to new areas in the province. To help prevent the spread of EAB in New Brunswick, do your best to buy wood products where you will use them!

~Rachael Moran

Habitat Improvement Coordinator



Education and Outreach

Our Education and Outreach Officer Lauren has been hard at work over the past few months working to connect with people in our communities and provide educational programs for all ages.

One of Lauren's favorite projects that she got to work on in late fall was planting a rain garden with students from Norton Elementary School. With guidance from the KWRC, grade 4 students helped plant over 30 native species in the garden which will benefit pollinator species in our watershed, such as monarch butterflies.

The students had a great time learning about rain gardens and how stormwater affects our ecosystems. They also had a wonderful time getting some hands-on experience in conservation and restoration.

Thank you, Mrs. Sampson's grade 4 students, for all your hard work!



“Something that I am looking forward to this winter is to collaborate with school and community groups to do some outdoor education!

The KWRC is developing educational content that will be delivered to a variety of groups in Sussex and the surrounding area focusing on winter habitats, animal track identification, winter weather and more!”

If you are interested in learning more about our watershed and the wildlife that inhabit it, get in touch with us! Email educationoutreach@kennebecasisriver.org to book your outdoor outreach event today!



~Lauren Verner
Education and
Outreach Officer



Winter in our Watershed

Just like our changing weather, our watershed is undergoing changes as well. Seasonal changes such as cooler water temperature, ice freeze-up, and ice break-up all play a vital role in the health of the river during the winter season. Cooler air means cooler water, which greatly benefits multiple fish species we have in our rivers. When water gets cold it can hold more oxygen, allowing the fish to breathe better, and reduce their stress levels to settle in for the winter months. Cold water also decreases the amount of bacteria (such as E. coli), since it tends to thrive in warmer environments.

Once the river begins to freeze, different ice formations begin to occur. These formations are called border ice, frazil ice and thermal ice cover. Border ice starts forming near stream banks and begins spreading to the middle of the stream. Frazil ice is the most common ice formation in New Brunswick and is described as ice particles adhering to each other to form “clusters” of ice. These clusters are buoyant and rise to the surface. The last ice formation is thermal ice cover, which forms thin sheets of ice and begins to grow downward, creating a thicker ice sheet.



Ice break-up often happens during late January and early February when a high rate of snowmelt occurs. This can result in ice jams and flooding. Ice jams are created when significant break-up events occur, and the broken ice accumulates in one area. Ice jams can be problematic, as the ice will begin to scour trees in the riparian zones and could potentially cause extreme flooding.

The KWRC actively monitors our watershed to ensure that the water quality is suitable and any potential ice jams are reported to The Department of Environment and Local Government. Cooler temperatures bring new scenarios to our rivers, so it is important that we capture data during this period as well. Ice break-ups can significantly impact the health of the watershed, which is why the KWRC prioritizes this type of monitoring during the winter months. For more information on seasonal changes in our watershed, check out: <https://www2.gnb.ca/content/dam/gnb/Departments/env/pdf/Publications/RiverIceManual.pdf>

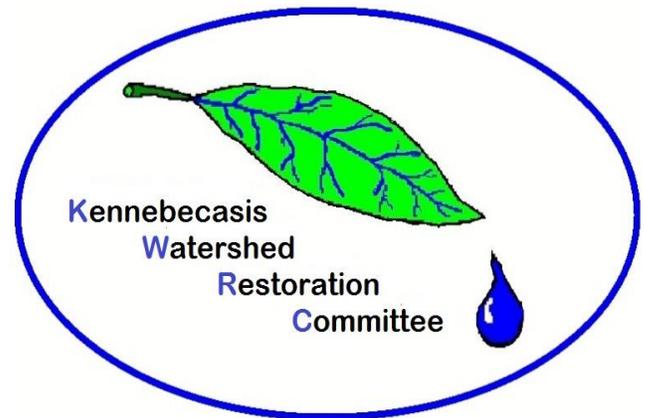
~Lezley Mcalister

Monitoring Coordinator



Summer Student Employment Opportunities with the KWRC in 2021

If you are a high school or university student that is looking to gain experience in the fields of environmental science, monitoring or education, please consider coming to work with the KWRC for the summer of 2021! Applications for habitat technician, monitoring technician and education outreach assistant will open in February, so be sure to check out our website www.kennebecasisriver.org for details and deadlines as they become available!



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