

WINTER 2020



A Field Season of Stream Work

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Established in 1992, the Bedeque Bay Environmental Management Association (BBEMA) is a not-for-profit charitable organization focusing on conserving and enhancing the environment through planning, education, partnerships and projects.

BBEMA supports community action environmental initiatives that mitigate climate change, maintain water quality and improved the ecosystem biodiversity.

This summer was a physically demanding one, but the staff rose to the challenge! The majority of restoration and enhancement work was focused on the Dunk River this season. Over a thousand trees were planted around the Dunk and 4.3 km of stream were initially cleared, the section that is vital for spawning was re-cleared after the Hurricane. This work included the clearing of the lowest tributary on the Dunk, a section that has never been enhanced. In addition to this the South West Brook was cleared up to Kinkora. This section was chosen due to its current condition and its high value as spawning habitat. To enhance these areas the staff removed any overgrowth that

was obstructing the stream, creating full blockages. One thing the staff is always careful about how much they remove from the stream. This type of enhancement is a delicate balance of removing enough material from the stream to allow proper stream flow but not removing too much opening the stream section up to additional erosion, reducing hover habitat, causing overexposure raising stream temperatures and maintaining water flow for optimal stream health. Over the past few years the staff have become adept at identifying value added large woody debris and how to make it work in the system. With this work completed we expect to see additional spawning activity in the area and will be

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reaching out to the angling community to mon-



Hurricane Dorian Aftermath

This year we were hit with a strong early fall hurricane, and although our watershed was not hit as hard as others there was still a great deal of damage done in localized areas. Most of the damage was from lost spruce, poplar, mountain maple and larch trees. Although there were other species lost these seem to be the ones that came down the most. As a result of the hurricane all watershed groups were given an

extension on their permits to clear storm damaged sections by removing large downed trees. Staff also helped the local community by putting our regular work on hold for a few days to assist community members who were



This storm also caused considerable damage to the riparian zones in the Dunk and Wilmot rivers. In the Dunk the section of the South West Brook that was initially cleared was re-cleared with the help of the Holland College Transitions class. Although the Wilmot was hit harder this section was given priority because it is one of the most active Redd areas in the system.

unable to clear downed trees themselves.

Creating a Memorable Space

Work on the Summerside Ice Pond continued this summer with the leveling of the property, planting of trees and shrubs and the seeding of clover to help stabilize the soil. This has helped lead to the area starting to look like a park.

Staff also started a Go-FundMe campaign to help fund additional work to be done in the park. It was their belief that if people donated their time or money to the park it would give the com-

munity a sense of ownership of the space and make them more willing to help in its upkeep and protection.

One of the first gardens to be installed into the park was an edible garden, this was chosen to be the first garden installed to show the community that we intend for the space to be inclusive and for everyone.

This garden highlights well known edibles such as blueberries, apples and fiddle heads but also incorporates less well known edibles such as pansies, wood

sorrel and a variety of herbs.

Over the coming years the perennial plants that were planted will become stronger and will be supplemented with annuals to provide more variety and add more attraction to the garden.



Did You Know??:
Aluminum can be recycled continuously, as in forever. Recycling 1 aluminum can save enough energy to run our TVs for at least 3 hours.

Taking out the Trash

This fall the seasonal staff spent a few days going around the watershed to clean up roadside and field dump sites. These are areas where callous people decide is easier to put their trash instead of to the curb or take it directly to the municipal dump where they would have to pay a small fee to drop it off. This idea is foolish to us here at BBEMA because if you are caught illegally dumping you could face a much larger fine.

For anglers littering while fishing could cost them much more. If an angler or hunter is caught littering they could be fined and lose their hunting/fishing privileges taken away. This is something we do not want to see, because we feel everyone deserves a chance to enjoy nature as much as we do.

After staff cleaned up a few known dump sites they called a conservation officer to let them know where this activity was going on and so they could open an investigation, and we want to encourage anyone who comes across a dump site to do the same. The reason being they may be able to set up cameras and catch the person in the act.

After speaking with the authorities staff loaded up the BBEMA trailer and did a dump run. This part of the job is not glamorous and is not something that staff look forward to doing, however, they do it for the good of the environment. This type of work is of great importance as over time some of this trash can break down and



leech into the ground, poisoning wildlife and impacting the environment for a long time to come.



More Fun Facts:
Beavers have transparent eyelids so they can see underwater with their eyes shut



Did You Know??: Many areas are using a beet juice and salt mixture on their roads to keep them from freezing over. The beet juice prevents roads from icing over in temperatures up to -25°C, making it more effective than using a salt brine. A beet juice mixture is also less toxic to the environment

Deflection Protection

One of the biggest projects this field season was the building of two estuary deflectors. Two years ago staff built a wooden crib deflector in the Dunk River estuary. Since its installation this structure has had a net positive impact on the stream in that area. It has helped to deepen the main channel, allowed for the expansion of the wetland surrounding the structure and has helped stabilize the bank from erosion downstream. The added benefit to this structure has been the increase in wildlife activity in the area around it.

This structure has also been popular with the local angling community who have notice an increase in the depth and flow in the stream reach where the deflector is located.



This year staff completed a 5 year construction plan that involved installing a stone triangle deflector and three large, 80ft+, wooden crib deflectors. The field work for the structures built this year began in May when staff did a drone photo series to get a photographic baseline of the area to monitor any changes. These photos were backed up with water depth measurements that were

taken before and after the structures were built. Access paths were then built and by July the work began in earnest.

Hot, wet weather prevailed but so did the staff. After lifting 100 16ft 6x6 posts, driving 100 6ft length of rebar, nailing 500 spikes, filling and stacking 200 50lb sandbags and moving tonnes ,6 dump truck loads,

of shot-rock the structures were complete. A final photo drone run was completed and history was made. Because this is the



first known use of this structure for this type of work on PEI we are eager to see how the section will change in the future. From early indications the new builds are acting in the exact way the original did and already having a positive impact on the system. Over the

course of the winter the major work will be done by the stream and then newly deepened channel should expose new hiding habitat for migrating fish as well as provide a host of other ecological benefits to the area. We will continue to work with the local anglers to monitor these structures and will be ready to act if it is causing unforeseen effects.



**“Everywhere is walking distance if you have the time”
- Steven Wright**

EVEN more Fun Facts:
More than 25% of bottled water actually comes from municipal tap water

Upcoming BBEMA Activities

Heading into the winter things always slow down at BBEMA but that does not mean we stop activities. This winter we are looking to host a cooking demonstration to teach people how they can incorporate edible plants from their gardens into their diets. This is a great way to promote a healthy life-

style and will add even more benefits to having a home garden for people in any living arrangement.

We are also looking to engage island seniors with a workshop on healthy lifestyles whit ways they can stay active and help

the environment in a variety of ways.

Finally the BBEMA Board of Directors is now in the process of updating our management plan for the Bedeque Bay watershed and would love to have input from the community on what is important to them and how we can work togeth-

er to achieve this new outlook for the area, so make sure to check our Facebook page and website for up to date information on when and were this will be happening.

