

# Going Beyond 72-Hour Preparedness in Tantramar Municipalities: Community Resiliency Skills and Planning



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By

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- Members of the Chignecto Climate Change Collaborative for collaborating on sea level rise signs, the video challenge, networking, and collaborating on regional adaptation.
- Open Sky Co-operative for partnering on food preservation workshops.
- Corey Allen's Plumbing for offering a discount for the sump pump bulk purchase.
- The steering committee, key informants, focus group participants and community survey respondents for input into the community-based climate change resilience guide for Sackville.
- Everyone who entered videos in the climate change video challenge.
- Countless other volunteers and supporters for their help.

## Summary

Due to its low-lying coastal location, the Tantramar Region and its municipalities are some of the most vulnerable areas to climate change in New Brunswick. Storm events, floods, power outages and the associated clean up can last much longer than in the past. Going beyond 72-hour preparedness is crucial. Local residents, businesses, schools and organizations want to focus on traditional skills, becoming more self-reliant and resilient in order to adapt to climate change. To support adaptation in our region and help build long-term resilience, EOS set out to raise awareness of sea level rise and coastal flooding, offer helpful workshops on traditional skills, support progress on municipal adaptation plans, showcase local climate impacts and residents' climate adaptations in a video challenge, coordinate a comprehensive resilience guide for the community in Sackville, create educational resources for children and youth, and offer a sump pump bulk purchase program. The project took place during the COVID-19 pandemic, which presented some challenges but also tested people's resilience and placed a new interest on the importance of self-reliance and the ability of communities to adapt to adversity.

## Introduction

Due to its low-lying coastal location, the Tantramar Region and its municipalities are some of the most vulnerable areas to climate change in New Brunswick. Storm events, floods, power outages and the associated clean up can last much longer than in the past. Going beyond 72-hour preparedness is crucial. Local residents, businesses, schools and organizations want to focus on traditional skills, becoming more self-reliant and resilient in order to adapt to climate change. To support adaptation in our region and help build long-term resilience, EOS set out to raise awareness of sea level rise and coastal flooding, offer helpful workshops on traditional skills, support progress on municipal adaptation plans, showcase local climate impacts and residents' climate adaptations in a video challenge, coordinate a comprehensive resilience guide for the community in Sackville, create educational resources for children and youth, and offer a sump pump bulk purchase program. The project took place during the COVID-19 pandemic, which presented some challenges but also tested people's resilience and placed a new interest on the importance of self-reliance and the ability of communities to adapt to adversity.

This final report summarizes the project goals, methods, challenges, results, community impacts and next steps. The project was successful, and we completed our deliverables.

## Goals

The goals of the project were:

- 1) Promote going beyond 72 hours preparedness;
- 2) Increase the resiliency and self-reliance of communities and residents; and
- 3) Enhance regional collaboration on climate change adaptation challenges.

## Methodology

The project methodology consisted of six interconnected parts. Specifically, we followed all COVID-19 safety precautions and charted these steps:

- 1) EOS organized three virtual self-sufficiency workshops in partnership with Open Sky Co-operative during the summer, which focused on food preservation skills. These were advertised with posters, via our mailing list, EOS website, social media sites, New Brunswick Environmental Network calendar of events, etc. Creating Facebook Events helped promote the workshops far and wide. See the Appendix for selected media coverage of these and other aspects of the project.

- 2) EOS coordinated virtual meetings and initiatives of the Chignecto Climate Change Collaborative (CCCC) (a network of adaptation professionals), including a year-long video challenge and a series of educational sea level rise signs and markers across the Chignecto Isthmus.
- 3) EOS worked with implementation committees in Sackville, Port Elgin and Dorchester, NB to develop progress reports on their adaptation plans.
- 4) EOS coordinated and compiled a community resilience guide for Sackville residents, businesses and organizations. The community-based guide complements the Town of Sackville's municipal adaptation plan (2016). To gather input for the guide EOS staff gathered a steering committee of local residents, performed literature reviews, examined other small town resilience plans, interviewed key informant experts, ran focus groups using Zoom (with seniors and other vulnerable adults, experts, etc.) and organized online community surveys for residents, students and businesses. Students from Marshview Middle School, Tantramar High School and Mount Allison University responded to the student survey. EOS promoted the surveys at an info booth during the Sackville Farmers Market, a radio interview, via the EOS mailing list, posters, EOS social media posts, Town of Sackville Facebook page, on the EOS website. The business survey was sent to Sackville Mainstreet Redevelopment, and a business and organization contact list created by the new Tantramar Covid Task Force.
- 5) EOS coordinated a sump-pump bulk purchase with a local plumber who provided a discount. We promoted the program via the EOS mailing list, posters, social media posts, on our website and with a bilingual press release.
- 6) Finally, EOS created a unique New Brunswick-based year-long kid's guide to climate resilience. It features a collection of hands-on activities and informative colouring pages for each season of the year to help kids learn about climate change and how they and their families can build resilience. The activity book is also being translated into French and can be used by children, youth, teachers, parents, families and summer camps. EOS also visited Port Elgin School via Zoom to chat with grade 3 and 4 classes about climate change, resilience, eco anxiety and climate art. Students then created climate art pieces and did a show and tell for EOS. Their masterpieces are being showcased in the windows of the Port Elgin Village office and an example is provided later in this report. EOS has been invited to go to Dorchester Consolidated School in March to run activities focused on ways to adapt to climate change and be resilient.

## Challenges and Opportunities

Due to large indoor gatherings not allowed due to the COVID-19 pandemic and also receiving less funding than hoped, fewer workshops had to be planned and the spring Sustainable Home Show did not take place. All events that took place were done virtually over Zoom or outside. There are some advantages to doing workshops online (and with the option to phone in). They allow those without transportation to participate, reduce emissions from transportation, and some platforms allow the session to be recorded so people can access it later if they were not able to attend the live event. We added the videos to the EOS YouTube channel. Online workshops allowed people from Sackville, Dorchester, Port Elgin, across the Maritimes and around the world to participate and benefit from the information we were sharing. All workshops had large participation numbers which we were pleased with. Getting the word out about our events and activities seemed challenging though. The local Sackville Tribune-Post closed shortly after the pandemic began, there were not as many businesses that would allow posters because they did not want people lingering, and not everyone is on-line or can afford a computer. Despite a reduction in advertising options, we had good uptake for all our events and activities. The timing of this project was very helpful because people were even more interested in resilience and self-sufficiency because of the COVID-19 pandemic and its impacts on food supply chains.

## Traditional Skills Workshop Series

Canning and preserving food are important traditional skills which build our self-reliance. Being able to store foods for winter means we are prepared for storms and better able to feed our families in times of crisis – whether it is a pandemic or a severe storm. In August and September EOS partnered with Open Sky Cooperative to offer three workshops on food preservation skills. Specifically, they were on pickling, canning salsa, and dehydrating foods. The video of the workshops are available from Open Sky at the following links:

Pickles: <https://youtu.be/jzpdGWSk9iw>

Salsa: <https://youtu.be/UWFOWKtSVz4>

Dehydrating: <https://youtu.be/wvxBwn0Yreo>





Mary Gillespie and her daughter show participants on Zoom how to make pickles from the kitchen at Open Sky Co-operative. Photo: A. Marlin

## Picking Workshop

27 people attended the online workshop on the evening of August 12, 2020. We began by explaining the background to the workshop, why EOS is interested in food preservation and its links to climate adaptation and resiliency. ETF as the funder was mentioned as well. We asked where people were listening in from and found out we had participants from Lake Echo, NS, Halifax, Dartmouth, Elsipogtog First Nation, Riverview, Sackville, etc. Many were first time canners and some were also new to growing their own vegetables because of the pandemic. Open Sky staff explained all the equipment needed to make pickles and can vegetables using a hot water bath canner (not a pressure cooker). They also explained safety procedures, tips and warnings. Some of these things included:

- Always use new lids and do not boil them, just wash and keep in warm water (to ensure a proper seal)
- Use 5% acidity for vinegar to prevent bacteria growth
- It's necessary to leave an appropriate head space in the top of the jar (don't fill it full) to ensure a proper seal on the jar. And remove any air bubbles before putting the lids on gently (not tight).
- There's no need to sterilise jars as long as you process them in the hot water canner for at least 10 minutes. If foods have a lower acid content, then they will need to be boiled longer.
- In the hot water canner, the jars must have 1 inch of water covering them and a full rolling boil.



- Keep the jars in the hot water canner for 5 minutes with the heat off after boiling time (to ensure a proper seal)
- Leave on the counter upright and undisturbed for 24 hours. Jars that have sealed properly will have lids that curve down. They can be stored in a dark, cool place for up to 1 year. Any that don't seal to go in the fridge, they cannot be boiled again.
- Don't use flour in mustard pickle recipes anymore because it can leave pockets of unmixed flour which can lead to bacteria growth in the jars.

Dilly beans and bread and butter pickles were demonstrated, and the recipes can be found in the Appendix. During the workshop, when we were waiting for things to boil, etc. we asked participants why they decided to attend the workshop. Some of the reasons included: Learning new techniques and being interested in survival skills, resiliency skills. 14 of the 27 participants answered our online evaluation form. All participants rated the workshop a 4 or 5 out of 5 overall. Most participants new little or nothing about canning at the start of the workshop. Some were also new to gardening this year. All respondents (14) said after the workshop that they now know more or a lot more than before. 13 were now more likely to can and make pickles as a result of attending the workshop. Some of the comments received about the workshop included:

- *Very clear instructions. good demonstration. straightforward and helpful*
- *I found it interesting and helpful to see someone make pickles an answer questions as we went.*
- *That we could choose to watch, take notes or follow along at home.*
- *Hearing from other folks in the Maritimes*
- *I liked the engagement with the questions from the other folks and the little tips around what is and is not safe.*

Interestingly, 71% of respondents found out about the workshop via Facebook and 21% from the EOS Newsletter. The rest were from word of mouth.

### **Salsa Workshop**

Twenty-one people attended the workshop online the evening of August 26<sup>th</sup>. Mary with Open Sky explained the equipment needed, some safety precautions and how to make salsa. Some of the interesting tips learned during the workshop included:

- Because salsa is a high acid food, it makes it safe to can with a hot water canning process.

- Botulism is a bacterium that can grow in a vacuum but doesn't like acid so the acid content in canning recipes is critical.
- Always use vinegar with at least 5% acidity.
- Paste tomatoes, such as roma tomatoes have few seeds than regular tomatoes so they make a better salsa, but the regular slicing tomatoes are fine. You can also squeeze some of the seeds out.
- The heat in hot pepper is actually found in the white ribbing of the peppers and not the seeds.
- Tricks were shown for how to peel tomatoes and cut onions quickly.
- Picking salt has no additives and allow for a clear brine when pickling
- You need to boil/process jars for 20 minutes when making salsa. The longer boiling time is due to the natural acidity level of the vegetables you are canning.



During the workshop EOS staff mentioned ETF support and that EOS is interested in helping residents increase their self-sufficiency skills in an effort to build resilience to climate change and promote sustainable living practices. Participants listened in from Riverview, Sackville, Memramcook, French Lake, Lower Ship Harbour, Fredericton, Dorchester, Oromocto, Joggins and elsewhere.

Eleven participants filled in the online workshop evaluation form. The vast majority gave the workshop a 4 or 5 out of 5 overall including the speaker, content of the talk, time and format. There were various levels of familiarity with salsa making before the workshop, but all participants reported knowing more about it after the workshop. Respondents found the workshop interesting and mentioned in particular the great explanations, tips on what is new in the canning world, new safety guidelines, best equipment for the job, the close-up format to see what is done, Q and A time, and the environmentally conscious approach. Nearly all participants (10/11) said they were now going to make some salsa as a result of attending the workshop. Facebook continues to be the number one way that participants found out about this EOS event.

## Dehydrating Workshop

This workshop took place on a sunny afternoon and 12 people participated. Additional people who signed up but were not able to attend asked for the video recording afterwards. During the workshop, Open Sky staff demonstrated how to dehydrate fruits and some vegetables and herbs. We were told that dehydrating with an electric unit is not energy intensive and takes much less energy than using your stove. Also, foods retain their nutritive value, and the process takes out the water which reduces the opportunity for bacteria to grow. There are other types of dehydrating including air drying (good for flowers and herbs) and also solar dehydrating using a solar unit, but it is not great in our climate due to the humidity levels. In terms of what to dehydrate in an electric home dehydrator, choose low fat foods (no avocado!), also don't use old or overripe foods since the process concentrates the flavour. Some tips include blanching some vegetables, so they keep their colour better and using ascorbic acid to help keep colour (rather than lemon juice which imparts a flavour). The dryer things get, the longer they will keep, but chewier is okay, especially if you plan to use the product sooner. Season things before they dry such as with salt and pepper if making veggie chips. Slice things in uniform slices. A coffee grinder can be good for making your own garlic powder, onion powder, spice mixes, etc. The length of dry time depends on the food and the local humidity level. To rehydrate things, you can soak them in olive oil or warm water (usually 2x the volume of liquid to dry food). For food safety issues you should not start and stop the dehydrator. During the workshop it was mentioned that some great things to dehydrate include carrots, zucchini, chives, garlic scapes (to make garlic scape powder), apples, cantaloupe, peaches, and meat jerkies can also be made.



Four of the participants provided some feedback to our online evaluation form. All respondents gave the speaker a 4 or 5 out of 5 for the workshop. And all respondents said they were now much more likely to dehydrate foods as a result of taking the workshop. Respondents found the variety of things that you can dehydrate the most interesting aspect of the workshop, as well as being able to ask questions. All respondents said they plan to dehydrate soon and use the tips and tricks learned.

## Chignecto Climate Change Collaborative

The Chignecto Climate Change Collaborative (CCCC) working group met five times during 2020-21 with a final meeting planned for March 2021. Over the course of the year the CCCC coordinated two initiatives. The first was a year-long climate change video challenge and the

second was a series of educational sea level rise signs. Updates were also made to the CCCC webpage.

### Climate Change Video Challenge



*Bilingual posters promoting the video challenge.*

Chignecto area residents of all ages were invited to create short homemade videos depicting climate change impacts they have seen locally and/or how they are addressing climate change and adapting to the impacts. The contest was promoted by CCCC members on their social media sites, to local schools, on the EOS website, with a few posters across the region, on EOS social media pages and via the EOS mailing list. The social media posts reached 1000s of people. We received 11 excellent videos, many were made by local students at Port Elgin School, which were also produced bilingually. Some of the videos focus on erosion, pollution, storms, raising chickens, and many other topics. The videos were posted to the EOS YouTube channel and website: <https://eosecoenergy.com/en/videos2020/>. The videos were made public and showcased during Tantrammar Climate Change Week in February 2021 during a virtual online screening. Students at Marshview Middle School got to watch the videos during their lunch breaks. It was great to hear about students teaching each other and cheering each other on.





Image of one of the video entries.

#### Climate Change Week



On February 4<sup>th</sup> it was National Sweater Day. Due to our interruption's mid-week, Marshview took on celebrating National Sweater Day on Friday the 5<sup>th</sup>. Since 2010, more than a million Canadians have shown their support for limiting global temperature rise to 1.5 degrees Celsius by turning down their thermostats by the same amount (or more) and wearing their favourite sweaters to stay warm. Students in multiple classes viewed the Climate Change Video Challenge Showcase hosted by EOS on Friday afternoon. We were thrilled to see student videos from our friends at Port Elgin as well as interesting clips from around our region.



Snapshot of the Marshview Middle School Newsletter, February 5, 2021

## Sea Level Rise Signs

The Tantramar region of southeast New Brunswick lies between the Upper Bay of Fundy and the Northumberland Strait. The area is low-lying and subject to coastal floods and storm surges which will be made worse overtime due to sea level rise caused by climate change. EOS and the CCCCC wanted to educate the general public about sea level rise and natural adaptation options by erecting a series of sea level rise signs and flood markers. EOS obtained support from the New Brunswick Environmental Network and their BRACE program to print and install the signs.

The signs include information about sea level rise and show a marker for a flood level from a historical storm and a second marker for the flood level if the same storm were to occur in 2100 with added sea level rise of about 1m. The signs also include a variety of ways that nature can

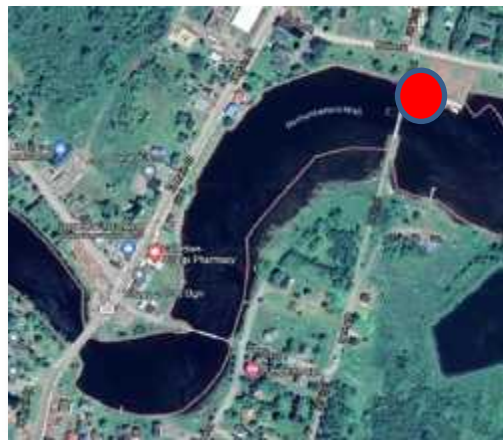
help us adapt to sea level rise and things we can do to take action. The signs also have a QR code and website link for more information about sea level rise in our region: <https://eosecoenergy.com/en/slr/>. The website explains why seas are rising, what could happen as a result of sea level rise, more things we can do to prepare, ways to help slow down climate change and sea level rise, and how nature can help. There is a helpful list of native plants to plant to stabilize shorelines and reduce coastal erosion. Flood risk maps and a list of additional helpful resources and weblinks is also provided. The French version of the website is: <https://eosecoenergy.com/fr/enm/>. Sea level rise calculations for the signs were provided by staff at the Southeast Regional Service Commission. Once the information for the signs was finalized, the signs were designed by Royama Design and printed by Graeme Mesheau who is also doing the installations.

To remain within budget, 4 locations were selected and 8 signs were created (4 in English and 4 in French). The sites are along a trail at Cape Jourimain Nature Centre, Port Elgin village wharf, Baie Verte Community Park, and the Nature Conservancy of Canada's shore bird interpretive centre at Johnsons' Mills along the upper Bay of Fundy. The four sites are all coastal and well trafficked, popular locations that will get a lot of visibility.

*Locations of Sea Level Rise Signs*



*Cape Jourimain by Trail*



*Port Elgin Village Wharf Parking Lot*



*Baie Verte Community Park by Gazebo*



*Johnson's Mills by Entrance to NCC Centre from Parking Lot*

The Cape Jourimain, Port Elgin and Baie Verte signs all use a storm from 2010 with a flood level of 1m as the historical flood marker. With sea level rise this same storm could have a flood level in these locations of 2m. The Johnson's Mills sign uses the Saxby Gale storm of 1869. At that time the location saw a flood of about 0.9 m and could flood up to 2.1m in 2100. Sea levels have risen between 1869 and today so this accounts for the additional increase in the upper marker compared to the three other locations. Images of the signs are on the following pages.



# SEA LEVELS ARE RISING

## NATURE HELPS

Natural coastal areas help stabilize & protect shorelines from erosion.

Saltmarshes help reduce wave energy and can rise along with the sea.

Dune systems help absorb wave action and storm surges.

Coastlines are always changing. We can't stop coastal erosion, but we can try to minimize our impacts.



## TAKE ACTION

Have an emergency kit. Flood proof your home.

Build back from the coast or higher.

Move or protect existing assets.

Protect and restore natural coastal habitat.

Plant native trees, shrubs and other hardy vegetation along the coast.

Maintain a vegetated natural buffer between you and the water by not mowing or clearcutting up to the shoreline.

Reduce emissions by saving energy and using renewable energy.

Based on the latest science (IPCC AR5) sea levels are rising due to human-caused climate change. In the Maritimes sea levels are increased by subsidence or the sinking of coastal lands. Due to these factors, sea levels in this location may rise by about 1 metre or more by 2100. Sea level rise is dependent on global emissions levels so we must work together to reduce emissions. The markers on this sign show a historic flood level from a past storm and the flood level if the same storm takes place in 2100. There are many things we can do to address rising sea levels.



FOR MORE INFORMATION:  
[eosecoenergy.com/en/slr](http://eosecoenergy.com/en/slr)

Brought to you by: **Chignecto Climate Change Collaborative**



Supported by Natural Resources Canada's Building Regional Adaptation Capacity and Expertise Program



# LE NIVEAU DE LA MER MONTE

## LA NATURE PEUT AIDER

Les zones côtières naturelles aident à stabiliser et à prévenir l'érosion des rivages.

Les marais salés réduisent l'énergie des vagues et peuvent reculer quand la mer monte.

Les dunes aident à absorber l'énergie des vagues et des ondes de tempête.

Les côtes sont constamment en train de changer. Nous ne pouvons pas mettre fin à l'érosion côtière, mais nous pouvons tenter de minimiser nos impacts.



## ACTIONS À PRENDRE

Préparez une trousse d'urgence.

Préparez votre maison pour les inondations.

Bâtissez dans un endroit élevé ou loin de la côte.

Déplacez ou protégez les bâtiments qui existent déjà.

Protégez et restaurez les habitats côtiers naturels.

Plantez des plantes indigènes comme des arbres et des arbustes ainsi que d'autres plantes résistantes le long de la côte.

Gardez une zone tampon de végétation entre vous et l'eau en évitant de tondre le gazon ou de couper des arbres jusqu'au rivage.

Réduisez vos émissions en économisant de l'énergie et en utilisant de l'énergie renouvelable.

Selon les dernières études scientifiques (Rapport AR5 du GIEC), le niveau de la mer monte à cause des changements climatiques causés par les humains. Dans les provinces maritimes, le niveau de la mer augmente également à cause de l'affaissement des terres côtières. Ainsi, le niveau de la mer pourrait monter d'un mètre ou plus par l'an 2100. Le niveau dépend des émissions mondiales de gaz à effet de serre; nous devons donc travailler ensemble afin de les réduire. Les marques sur cette affiche indiquent le niveau de l'eau lors d'une inondation qui a eu lieu dans le passé à cause d'une tempête, ainsi que le niveau de l'eau si la tempête avait lieu en 2100. Il y a plusieurs choses que nous pouvons faire afin d'aborder la montée du niveau de la mer.



POUR PLUS D'INFORMATION, CONSULTEZ:  
[eosecoenergy.com/fr/enm](http://eosecoenergy.com/fr/enm)

Présenté par: **Chignecto Climate Change Collaborative**



Avec de l'appui du Programme Renforcez la capacité d'expertise régionale en matière d'adaptation



Bilingual Sea Level Rise Signs



Mock-up of a Sea Level Rise Sign to Scale with Historical and Future Flood Markers

The educational sea level rise signs with flood markers are a great way to help educate the public about sea level rise as they provide visual indicators of previous and predicted future flood levels at each selected location. People reading the signs can look around the location and visualise the flood level and potential impacts. The signs provide many options for adaptation actions such as protecting shoreline, vegetated buffers, etc. and explain some of the ways that nature can help. The signs include information on dunes, saltmarshes and coastal areas. The signs will be installed in the coming weeks as soon as the ground is thawed enough. EOS plans to promote the signs in the media and on social media in the spring and summer and invite the public to visit the sign locations.

### CCCC Webpage

Edits and additions were made to the CCCC webpage. We added links to member group webpages, and links to CCCC projects such as the sea level rise signs and video challenge. The webpage can be visited at: <https://eosecoenergy.com/en/projects/climate-change-adaptation/tantramar-climate-change-adaptation-collaborative/>

## Sackville Community Climate Change Resilience Guide

To gather input for the guide, called *50 Great Ideas for Inspiring Community Resilience to Climate Change in Sackville*, EOS staff performed a literature review, and looked at other rural and small-town climate change resilience and adaptation plans. A steering committee of ten local residents was formed to help guide the project and included representatives from local businesses, organizations, Mount Allison University, students, municipal staff, and provincial government. EOS interviewed key informants and experts from across Canada, and performed 4 community focus groups with local experts, community residents, and vulnerable populations (seniors and adults with disabilities) for a total of 31 participants. EOS also conducted resident, business and student surveys to gather information about perceptions of risk, climate change concerns, existing adaption actions, perceptions of community strength, barriers and challenges, and ideas for enhancing community resilience to climate change. A total of 262 people (ages 11 to 75+) responded to the surveys. Summaries of the surveys can be found on the EOS website at <https://eosecoenergy.com/en/sackville-community-climate-change-resilience/>. And the survey questionnaires are included in the Appendix.



The overall aim of this guide is to help residents, businesses, organizations and institutions in Sackville, NB (and beyond) to plan, prepare, adapt, and respond to climate change. There are

ideas for household and community projects, and for influencing political action for more widespread adaptations. The guide begins with background information on the Sackville community; the top climate change concerns felt by adults, students and businesses; how resilient they currently feel and what they think a resilient community looks like.

The 50 Great Ideas are in no particular order, and all are important interconnected actions. They are grouped together in themes including Health and Wellness, Education and Skill Building, Food, Green Spaces, Water, Flood Risk, Emergency Planning, Energy, Transportation, Local Economy, Communication, and Citizen Engagement.

Along the way the reader will find inspiring stories from Sackville area residents, businesses and organizations that are already taking steps to be more resilient. The guide includes links to additional resources, canning recipes, a family flood plan template, a how-to guide about rain gardens, climate resilient tree species list, resources for food forests, tips for managing stress, etc. The guide wraps up with an implementation plan. Contact information for organizations mentioned throughout the guide are listed in a Resource Directory.



A PDF of the guide is available for download here:

<https://eosecoenergy.com/en/wp-content/uploads/2021/02/50-Great-Ideas-FINAL.pdf> and

an online toolkit version of the guide is available here: <https://eosecoenergy.com/en/great-ideas/>.

The online version can be added to overtime as more ideas and resources are collected. EOS is planning creative ways to promote the guide and online toolkit in March and if we receive funding, we will continue promotion and begin implementation during the 2021-2022 project year.



Promotional poster about the 50 Great Ideas

## Sump Pump Bulk Purchase

Climate change means that precipitation patterns are changing and the Tantramar region is seeing more intense precipitation events which can lead to flooded basements and homes. Many homes lack sump pumps and insurance companies are starting to require them. In order to help provide homeowners with an incentive to adapt as well as a chance to save a bit of money, EOS partnered with Corey Allen's Plumbing of Sackville, NB to offer a bulk purchase and installation of sump pumps. Battery back-up sump pumps were also an option. The battery back-up option includes a marine deep cycle battery with a 152-hour run time and a trickle charger for when not in use. Bilingual posters were created and promoted on social media sites, via the EOS mailing list, website, and in a few local stores across the Tantramar region. A bilingual press release was sent, and EOS staff did an interview with the local CHMA radio station available at: <https://www.chmaf.com/welcome/eos-wants-to-help-you-get-sump-pumped/>. At the time of writing this final report, 10 people had signed up to participate. The plumber needed at least 6 orders to provide the 15% discount, so the program is already successful. The plumber will visit homes and provide quotes and begin installations in March.

**SUMP PUMP BULK PURCHASE**



Protect your home from flooding by purchasing a sump pump! Designed to evacuate flood waters, a sump pump can save you from costly flood damage.



By participating in the bulk purchase order, you could **save 15% off the cost of the sump pump or battery back up sump pump** when installed by Cory Allen's Plumbing & Heating.

.....

Contact EOS Eco-Energy to register or for more info.  
Deadline to order is **February 24, 2021**.  
**506-536-4487**  
**info.eos@nb.aibn.com**



**ACHAT EN VRAC DE POMPES DE PUISARD**



Protégez votre maison contre les inondations en achetant une pompe de puisard! Elles sont conçues afin d'évacuer les eaux de crue et peuvent protéger votre maison contre des dommages coûteux.



En participant à l'achat en vrac, vous pouvez économiser **15% sur le coût d'une pompe de puisard ou une pompe de puisard avec pile de secours** en la faisant installer par Cory Allen's Plumbing & Heating.

.....

Contactez EOS Éco-énergie afin de vous inscrire ou pour obtenir plus d'information. La date limite pour les commandes est le **24 février 2021**.  
**506-536-4487**  
**info.eos@nb.aibn.com**



Bilingual Sump Pump Posters

## Education and Community Outreach

The pandemic forced many community events and festivals to be cancelled during 2020-2021 which meant not as many events for EOS to attend, but we did attend the outdoor Sackville Farmers Market to promote some of our activities in the summer. We also create a kid's guide to climate resilience and visited (virtually) schools in the Tantramar Region, and shared many social media posts.

### Information Booth

EOS staff attended the Sackville Farmers Market twice in August and had an information booth to promote the community resilience survey and the upcoming food preservation workshop. People were able to sign up for the workshops and pick up cards with the weblink for the survey. Not as many people were visiting the Farmers Market due to the Pandemic as previous summers, but we spoke to a couple of dozen people about our project.



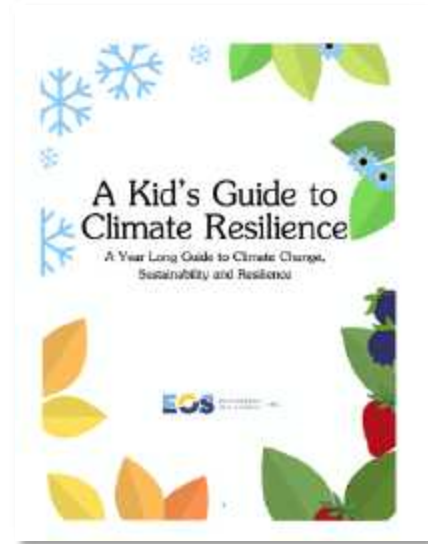
*EOS Information Booth at the Sackville Farmers Market. Photo: Lauren Clark*

### A Kid's Guide to Climate Resilience

The kids guide to climate resilience was coordinated by an EOS student intern during her Bachelor of Education. It was reviewed by The Gaia Project and government of New Brunswick staff. The guide is a year-long journey for children to learn more about climate change, the seasons and how to prepare and adapt all year long. There are hands on activity ideas, activity pages, colouring sheets and more. In the winter the focus is on learning about weather forecasts, storm preparedness and safety. Spring features information and activities about spring flooding, including a page about rain gardens and reducing flood risk at home. Summer



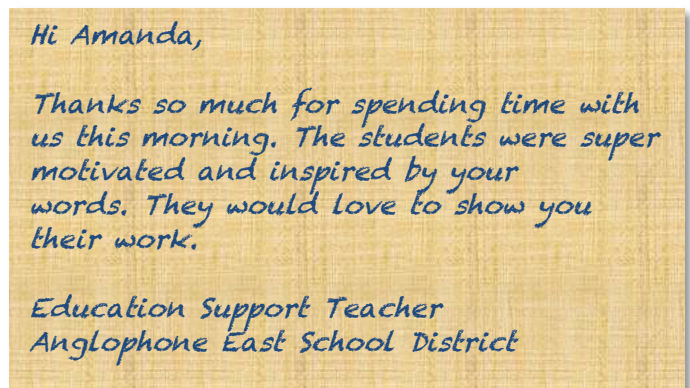
is of course all about gardening and food and includes a fun recipe for pickled dill beans. Fall focuses on getting kids to learn more about their communities and how they can be more sustainable, self-sufficient and resilient. It includes worksheets about transportation, renewable energy, draft-proofing and ends with coping strategies to deal with climate stress and eco anxiety. The activity book ends with mentioning connections to the United Nations Sustainable Development Goals, which more and more teachers are using in their classrooms. The activity book is free to print here: <https://eosecoenergy.com/en/wp-content/uploads/2021/02/A-Kids-Guide-to-Climate-Resilience-FINAL-Feb-2021.pdf>. EOS plans to promote the guide and use it with students and summer campers during 2021-2022 if we obtain further funding. It is currently being translated to French and will be available soon on the French EOS website at: <https://eosecoenergy.com/fr/>.



### School Visits

During fall 2020 EOS visited (via Zoom) three grade 6 classes at Marsh view Middle School which included about 75 students. We chatted about climate change, what it means to be resilient, and that EOS was seeking input for the Sackville community climate resilience guide. We explained the online survey to students and then the grade 6 youth had time during their Technology Class to use iPads to fill in the survey online.

In February 2021 EOS visited grade 3 and 4 classes at Port Elgin Regional School (virtually via Zoom) to chat about climate change impacts, community-based actions, ways to be resilient and then the students worked on creating climate change art pieces to be displayed in the Port Elgin Village office windows for the public to see. The art is full of messages of hope, fear, worry, actions, visions of the future, etc. The students later did a show and tell with EOS staff. A photo of some of their artwork is presented on the following page.





Virtual student climate change art show. Photo: Amanda Marlin

During March 2021 EOS will be working with staff and students at Dorchester Consolidated School on a dream cities project to plan a resilient Dorchester of the future. We will be talking about what makes a community resilient and we'll do some fun activities for students learn more about their community.

### Local Media Articles and Social Media Posts

During 2020-2021, with the lack of in-person events and community festivals to attend, EOS relied more heavily on our website, social media pages, EOS and community newsletters to get the word out about our events, surveys, programs and activities. Our newsletter has a readership of over 450 people. The Dorchester Community Newsletter goes out to village population of 1,000 residents, and the Town of Sackville newsletter is sent to 480 people currently. The EOS Facebook page has over 770 likes with more than 880 people following us. During January and February 2021, we reached over 6,400 people with our Facebook posts. See selected media and promotional coverage in the Appendix.

## Progress and Updates on Adaptation Plans in Tantramar

This past year EOS helped Sackville compile a progress report on its corporate climate adaptation plan for municipal operations, and Dorchester and Port Elgin with progress reports for their community-based adaptation plans. The 2020 reports are included in the Appendix and selected highlights are presented on the following pages.

### **Sackville**

Seven people met to report on the progress of the Sackville municipal adaptation plan. Town staff members are working their way through the plan. A generator for the Civic Centre (emergency centre) has been approved and a tender went out. It should be installed in spring 2021. There have been many presentations on the stormwater retention ponds, and interpretive panels were erected in three languages. The town is looking to plant edible trees and explore options for more edible landscaping on municipal property. The Town EMO plans to help coordinate a tabletop dyke breach emergency scenario with EOS in 2021-2022 if funding from NB ETF can be secured. The Town and EOS are partnering on an expansion to the town hall green roof to be installed in spring 2021 with Eco Action funding. The Town hopes to hire a climate change coordinator if their 2021-2022 NB ETF funding application is successful. This position would help further advance municipal climate action.

### **Port Elgin**

Five people met to go over the Port Elgin community-based adaptation plan. Port Elgin is progressing through its plan. The Village would still like to find funding to address erosion along the Gaspereau River, and the engineering analysis is still needed for the low-lying sewage lagoon. Zoning updates still need to be done by the Southeast Regional Service Commission. Port Elgin is waiting for a generator for its warming centre. Thanks to EOS and the CCCC, an educational sea level rise sign is going in at the Village Wharf and there are plans for a community food forest at Port Elgin school, if funding from NB ETF and elsewhere can be obtained. EOS hopes to help the community further implement its plan if we can obtain NB ETF funding in 2021-2022.

### **Dorchester**

Three people worked on the Dorchester progress plan update. Dorchester is working its way through its community-based adaptation plan. The Village and EOS planted a 350 sq ft rain garden in summer 2020 with funding from Eco Action and TD Friends of the Environment. The EMO committee is still non-existent. Some of the larger and/or more expensive actions remain out of reach for the Village including a generator for the emergency centre, a bridge in dire condition, flood risk to the penitentiary lagoon, and risk of a wastewater system flooding. Finally, the Village is working on a long-term vision to plant more trees including food forests. EOS hopes to help the community further implement its plan if we can obtain NB ETF funding in 2021-2022.

A new webpage was created on the EOS website to house all of the Tantramar adaptation plans. It can be viewed at: <https://eosecoenergy.com/en/adaptation-plans/>.



## Results – Tracking Priority Measures

According to our updated workplan submitted in spring 2020, EOS would track the number of events, the number of people who attended events, and the length of each event. We also tracked the number of adaptation plans created and completed other project deliverables. Our results are presented on the following pages.

### 1. Number of Adaptation Plans Developed

The goal was one plan for the community of Sackville (to complement the municipal adaptation plan) and this was achieved. *50 Great Ideas for Inspiring Community Resilience to Climate Change in Sackville* is complete. The online and PDF versions are available here: <https://eosecoenergy.com/en/great-ideas/>.

### 2. Addressing Climate Change

This measure tracked the number of people attending events and we also tracked the length of each event and type of event. In summary we organized 25 events for a total of 44 hours and reached more than 3700 people. Despite needing to change some of our plans due to obtaining less ETF funding and covid-19 restrictions, we organized more events and online meetings than originally planned. We also pivoted to offer creative alternatives such as a video challenge, educational signage, social media posts, community surveys, etc. By sharing event recordings online and erecting educational signage in public locations, the impacts of our community outreach will be felt for a long time and experienced by many more people than just those listed here. In addition, by hosting events online, we were able to reach people far beyond our local area for a larger, more value-added impact. The results are presented in the table below.

Event type	Number	Hours	People	Details about the Changes
Workshop (original plan was 8 workshops, 3 hours each, 100 people total, the updated spring workplan listed 2-4 workshops).	3 zoom workshops	6	60	As planned, we hosted 3 workshops. They focused on food preservation techniques using traditional skills like canning and pickling.
Sustainable Home Show (original plan was one show, 8 hours long, 500 people attending, but the updated spring workplan removed this show).	0	0	0	Due to COVID-19 we had to cancel the home show.
Information booths (original plan was 4 info booths, 5 hours each, 3000 people, but community events where	2 booths and many social media posts to	10	Engaged 24 people at information booths and 3000	Due to COVID-19 large community festivals did not happen this year. We did get to two Sackville Farmers Markets to have information booths though. But we interacted online with social media posts,

EOS Eco-Energy - February 2021

we normally have booths, did not take place).	make up for lack of other events to attend		reached via social media and online	etc. Our newsletter has a readership of over 450 people. The Dorchester Community Newsletter goes out to village population of 1,000 residents, and the Town of Sackville newsletter is sent to 480 people currently. The EOS Facebook page has over 770 likes with more than 880 people following us. During January and February 2021, we reached over 6,400 people with our posts. There would be some overlap in these groups, so an estimate of 3000 people reached is fair.
CCCC workshop (original plan was 1 workshop, 8 hours, 50 people, the updated workplan in the spring listed a video challenge instead, which we did successfully).	0	0	0	Because of the pandemic, we did not host a CCCC conference this year but instead coordinated a year-long video challenge. We have 11 videos entered and there have been 264 views on our YouTube channel so far. There are also more views on our website but those are harder to track.
CCCC meetings (not in original event calculations).	6	12 hours	10-12 people at each meeting	One more CCCC meeting is planned for March for a total of 6 meetings and 12 hours.
Resiliency skills education in local schools (originally 5 visits, 8 hours total and 200 students). The updated spring workplan said we were not sure if we would be able to visit schools. In the end, we did do some short virtual visits with small classes.	7 visits to 5 classrooms	4 hours	115 students and staff	Visited 3 Marshview Middle School Grade 6 classes to talk about community resiliency (75 students), visited 2 Port Elgin schools to talk about climate change resilience (40 students). A visit to Dorchester school is planned in March but numbers and hours are not included here.
Climate Change Video Screening (new event).	A self-serve virtual video screening with 11 videos	Each video is about 2-5 minutes (so a total of about 30 minutes of view time)	264 views total and increasing!	11 videos were entered in the challenge and there have been 264 views and counting. Each video has about 29 views. Total run time for all videos is about 30 minutes. People can screen the videos anytime they'd like.
Key informant and focus group meetings for the Sackville resilience guide (new events).	3 meetings	3 hours	31 people	Rather than having information booths and in person meetings to collect ideas for the guide, we held virtual meetings over Zoom.
Respondents to the Sackville community	3 surveys (residents,	The survey	262 people	Because we could not hold in person public meetings, we coordinated three surveys

resilience survey (new, not listed in original proposal).	businesses, students)	took about 15-20 min to complete		and heard from 262 people, which is more than what we may have seen in person.
Municipal adaptation plan progress meetings (not in the original calculations).	3	4.5 hours	15	Zoom meetings with implementation committees.
TOTALS (originally 19 events, 68 hours and 4000 people)	25 events and meetings	44 hours	3783+	Despite covid-19, we organized more events than originally planned and reached nearly the same number of people as originally hoped. We also pivoted to offer creative alternatives such as a video challenge, educational signage, social media posts, community surveys, etc. By posting events and erecting educational signage the impacts of our community outreach will be experienced by many more people than those listed here and for a long time. In addition, by hosting events online, we were able to reach people far beyond our local area for a larger, more value-added impact.

Apart from the number of events/workshops/meetings, number of participants and length of events, the project also resulted in the following important deliverables:

- Sackville community resilience survey summaries: <https://eosecoenergy.com/en/sackville-community-climate-change-resilience/>
- Climate Change Video Challenge with 11 videos entered: <https://eosecoenergy.com/en/videos2020/>
- Four educational sea level rise signs and website: <https://eosecoenergy.com/en/slr/>
- Kid’s guide to climate resilience: <https://eosecoenergy.com/en/wp-content/uploads/2021/02/A-Kids-Guide-to-Climate-Resilience-FINAL-Feb-2021.pdf>
- Adaptation plan progress reports for Sackville, Port Elgin and Dorchester (see Appendix)
- Sump pump bulk purchase with 10 participants (at time of writing this report)

## Summary - Impacts and Community Benefits

In summary, the project had a positive impact on communities in the Tantramar-Memramcook region and helped build community resilience. The project goals were achieved. We promoted the importance of preparing for longer than 72 hours and the pandemic showed how important it is to be ready for a crisis. The pandemic has impacted food security, food supply chains and livelihoods, and the climate crisis is expected to have an even larger impact. Storms and floods are likely to impact food supplies and disrupt supply chains. It is imperative that communities focus on local food security as a critical part of climate change adaptation. Residents throughout the pandemic were concerned with feeding their families and many took

up gardening and canning for the first time. Families are also concerned about how climate change will impact the health and safety of their families. The EOS food preservation workshops were extremely timely. The traditional skills build self-sufficiency for a number of possible emergencies and crises including pandemics, storm events, climate change, etc.

We thereby increased the resiliency and self-reliance of local communities and residents who participated in our activities such as the sump pump program, and educational workshops. We also have a better idea of what it means to be resilient and how resilient local residents feel as a result of the community surveys. The Sackville community resilience guide provides an excellent list of ideas and actions for people to focus on long-term adaptation while increasing the sustainability and vibrancy of their community.

As a result of the project, EOS has improved regional collaboration on climate change challenges. The CCCC worked together on informative sea level rise signs, students collaborated on climate change videos, residents came together to chart a path for climate resilience in Sackville. Community and municipal implementation committees continued to push adaptation plans forward. Adaptation must be a holistic, collaborative, team effort to be effective, meaningful and long-lasting.

Finally, our project has helped advance New Brunswick's climate change action plan, *Transitioning to a Low-Carbon Economy*, specifically actions #9 (incorporate climate change into education at all levels), #12 (create linkages and partnerships to increase local capacity), #76 (NGOs guiding communities through adaptation process), and #95 (opportunities to share information amongst adaptation practitioners).

## Recommendations and Next Steps

As a result of the project, EOS recommends and plans on promoting the sea level rise signs and getting people to visit them in 2021. As a follow up, we hope to coordinate a tabletop dyke break with the CCCC and local EMOs. We want to use the unique kids' guide to climate resilience with local youth and promote it for use by other groups across the province.

We recommend further promoting the 50 Great Ideas for Community Resilience to Climate Change in creative ways in 2021-2022 so as not to lose momentum and so that a wide variety of community members and groups can turn ideas into actions. EOS recommends beginning to implement ideas in the guide, starting with the most popular ideas, which include planting trees and food forests. Residents not just in Sackville, but in Memramcook, Port Elgin and Dorchester are all interested and excited to increase their resilience, self-reliance, and community food security by planting a series of urban community food forests, with climate resilient tree species, native plants, edible shrubs and fruit trees and more. Trees and food forests provide many ecosystem benefits including flood risk reduction, purifying and cooling water, recharging groundwater, improving biodiversity, providing habitat and supporting

pollinators. Food forests are resilient ways to grow foods that require less water, less fertilizer and less maintenance because they mimic a forest ecosystem and incorporate a design of mutually beneficial companion plants.

We hope to focus more in 2021-2022 on the vast benefits of green or natural infrastructure and educate the public on ecosystem services with a workshop series and conference. Finally, because climate adaptation requires a collaborative approach and a lot of capacity, we hope to be able to further support the small villages of Dorchester and Port Elgin to further advance their community-based adaptation plans, and continue the coordination of the CCCC.

## Appendix 1 – Selected Media and Promotional Coverage



Times and Transcript Twitter post about the food preservation workshops.



News post on the EOS website about the climate change video challenge.

### Sackville Community Climate Change Resilience Survey

By Amanda Martin, Executive Director

Have you filled in an EOS survey about resiliency to climate change in Sackville yet? Do you live in or run a business or organization in Sackville? Have you filled in our residential survey and/or business survey about how we can make Sackville stronger as we live through climate change? Do you want to build community food forests together? Learn traditional skills? Get an emergency preparedness kit? Have your say today and tell EOS what you need to adapt to climate change. **Deadline to respond is August 16th.** For more about this project and links to the surveys, click below. This project is made possible with funding from the NB Environmental Trust Fund and will help inform a community-based guide to enhancing resiliency in Sackville.

Residential Survey



Business Survey



Story about the climate change resilience survey in the EOS summer 2021 newsletter.

### EOS and Open Sky Hosting Canning and Dehydrating Webinars in August and September

By Amanda Martin, Executive Director

EOS and Open Sky will be co-hosting three online workshops throughout August and September on how to make pickles, jams and dehydrate fruit. All ages are welcome to attend these fun interactive webinars. Learn traditional skills together and then stock your cupboards for winter. Recipes will be provided. EOS has funding from the Environmental Trust Fund to help build local resiliency skills and self-reliance through the live workshops. During the workshops, we'll also chat a bit about what else we can do to be prepared for climate change and other crises like the pandemic. Contact EOS at [eos@eos.abn.com](mailto:eos@eos.abn.com) to register and get the Zoom link in detail. We'll send you the recipes too. More details below.



Learn traditional skills together - All ages welcome  
To register & get Zoom details, see here: [eos.abn.com](https://eos.abn.com) or 546-4447



Article about food preservation workshops in the EOS summer 2021 newsletter.



<https://dorchester.ca/wp-content/uploads/2020/10/OCTOBER-2020-Ne...> Positive



**CLIMATE CHANGE VIDEO CHALLENGE**  
OPEN TO EVERYONE IN THE TANTRAMAR-CHIGNECTO BORDER AREA.

Create a short video exploring climate change impacts or ways you are adapting to the changes  
Submit your video and be entered for a chance to win a prize pack with local foods!

Deadline for submissions is January 31st 2021  
For inspiration and to see video submissions visit:  
[eosenergy.com/en/videos2020/](https://eosenergy.com/en/videos2020/)  
The best videos will be featured during Tantrammar Climate Change Week 2021!

Contact [eos@nb.albn.com](mailto:eos@nb.albn.com) for submission instructions  
Videos should be 5 minutes max.

Chignecto Climate Change Collaborative



Video challenge ad in the October 2020 Dorchester Village Newsletter



### EOS Offers Sump Pump Bulk Purchase

EOS Eco-Energy and Cory Allen's Plumbing & Heating are happy to announce they are partnering to offer a sump pump bulk purchase. Homeowners in the Tantrammar-Chignecto region can sign up starting today until February 28th, 2021.

By participating in the bulk purchase, you get a 15% discount off a sump pump or battery back-up sump pump. The battery back-up design protects your home from costly flood damage even when the power goes off, intended to evacuate flood waters. Sump pumps are a useful investment, especially if you live in a low-lying area or a flood zone. Due to increasingly severe rain events, even homes on high ground are susceptible to flooding and would benefit from a sump pump. Many insurance companies require battery back-up sump pumps now. The installation must be completed by Cory Allen's Plumbing & Heating to be eligible for the discounted sump pump.

EOS has been awarded New Brunswick Environmental Trust fund funding to coordinate this program. Please contact EOS Eco-Energy (506-536-4407 or [info.res@nb.albn.com](mailto:info.res@nb.albn.com)) for more information or to register for the bulk purchase.



### Tantrammar Senior's College Winter Online Courses



The Tantrammar Senior's College is offering free online courses to any senior who is interested in taking part. Although the deadline to register for courses has come and gone, there is still some spaces available. You can see the full list of opportunities on the Senior's College website.

Interested seniors (over 50) should contact John Walz, the TSC coordinator at [tc coordinator@gmail.com](mailto:tc coordinator@gmail.com) if they are interested.

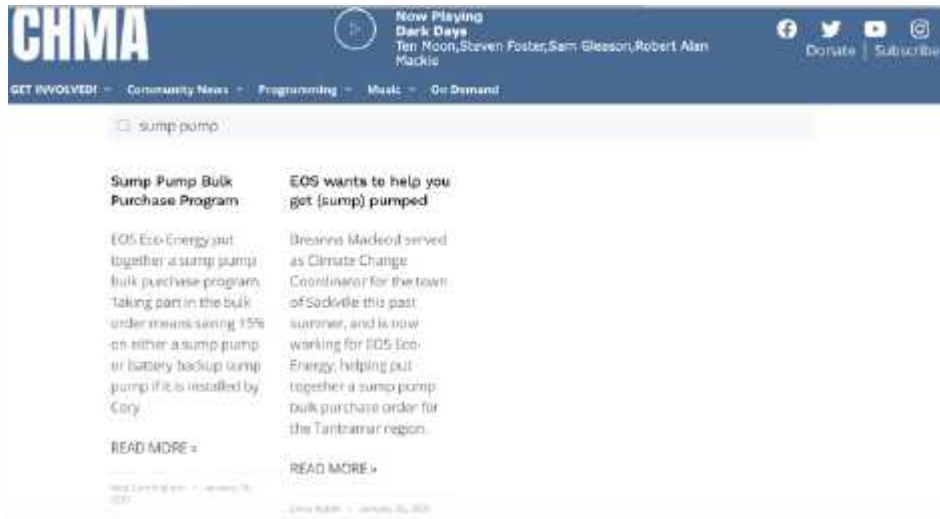
### The Sackville Farmer's Market

The Sackville Farmers Market website opens during the bulk share with seniors.





The Town of Sackville provided details on the EOS sump pump bulk purchase in their January newsletter.



Sump pump articles on CHMA at <https://www.chmaf.com/welcome/>

## Appendix 2 – Food Preservation Equipment and Recipes

### Recommended Equipment:

	<p>Water bath canner</p> <p>These usually come with a metal insert that helps keep jars in place during canning and which can be lifted out after. It is possible to can without the insert, but jars will move around as the water boils and can get damaged. The insert also ensures that there is space between the jars so that the heat can penetrate the jars evenly.</p>
	<p>These four simple tools make canning much, much easier. The lifter enables you to put jars into hot water and remove them safely. The funnel speeds up filling the jars and makes it less messy. The blue magnet stick makes it easy to pick up lids and the plastic blade is good for removing air bubbles and measuring head space.</p>
	<p>For canning, always use new lids. It is tempting to try to reuse old lids, but for safety and maintaining good quality canned goods, new lids are essential. The company Tatler makes a two-piece reusable lid system that you can order online. Rings can be reused, but should be clean and without any rust.</p>
	<p>Canning jars are designed to withstand repeated changes of temperature without breaking. Because they can be used and re-used indefinitely, they are a worthwhile investment. It's often possible to find a great deal on used jars on Kijiji or Facebook marketplace. Ensure that jars you use for canning do not have any chips on the edges. Chipped jars should be discarded.</p> <p>Jam and condiment jars from commercially purchased products are not designed for repeated reheating and changes in temperature.</p> <p>For the Pickle workshop, we will be using 500 ml (1 pint) jars.</p>

Additional tools/equipment:

- a ladle for spooning pickles into jars
- clean cloth for wiping edges of jars

For a clear introduction to introduction to hot water canning, check out this resource from Bernardin: <https://www.bernardin.ca/en/howtoguide.htm>

## Recipes:

### "DILLY" GREEN BEANS (recipe from *Putting Food By*)

Yield: 7 (1 pint / 500 ml) jars

#### Ingredients:

- 4 lbs whole green beans (choose produce in good condition with no soft spots or blemishes)
- 1-1/2 teaspoons dried red chili flakes
- 3-1/2 teaspoons dried dill seed, or 7 fresh dill heads
- 7 cloves fresh garlic, peeled
- 5 cups vinegar
- 5 cups water
- 7 tablespoons pickling or coarse salt

#### Method:

*Fill your water bath and bring to a boil while you prepare the beans and jars.*

1. Wash beans thoroughly. Remove stems and tips. Cut beans into uniform lengths as much as possible. They should stand upright in jars and reach the shoulder of the jars.
2. Have jars clean and hot. **Always check your jars to make sure there are no chips out of the edges of the jars. Do not use jars that are damaged.** Cover the canning lids with hot water and aside. Choose canning rings that are in good condition with no signs of rust. Clean and set aside.
3. In each jar, place:
  - ¼ teaspoon chili flakes
  - ½ teaspoon dill seed or 1 dill head
  - 1 garlic clove
4. Pack beans upright in jars, leaving one inch of headroom (headroom is the distance between the top of the produce and the edge of the jar).
5. Heat together water, vinegar and salt. Bring to a boil, remove from heat and carefully fill each jar with the hot liquid leaving a ½ inch of space between the top of liquid and the edge of the jar. Run a plastic knife around the edge of the jars to remove any air bubbles.

6. Place lids on jars and secure rings over jars. Tighten the rings until you have resistance – do not over-tighten. Place filled jars in water bath. The water should cover the jars by at least one inch. Bring the water back to a boil, cover, and simmer for 10 minutes.

7. Turn off heat and remove lid from water bath. If you are able to move the water bath off the burner safely, you can move it to a cool burner. Let the jars sit for 5 minutes before removing from the water. This depressurizes the jars and prevents leaking and breakage.

8. The rings will have become loosened during canning. This is normal. You should start to hear sharp ‘pings’ as the vacuum seal is created in the jars. You can tell if your jars are properly sealed by pressing gently on the centre of the lid. If there is no movement of the lid, your jars are sealed. If you can feel a little bump that you can press up and down, the jars are not yet sealed. Give the pickles a few minutes to cool and try again. **Any jars that have not sealed properly should be put in the fridge.**

9. **Let the beans sit for two weeks to develop their flavour.** Label your jars with the name of the product and the date it was made. Properly sealed beans can be stored for a year.

### **“SHORT-FORM” BREAD-AND-BUTTER PICKLES** (recipe from [Putting Food By](#))

**YIELD:** 6 pints (or 6 500 ml jars)

**Note:** Cucumbers and onions need to be prepared and left to sit with the salt added for 3 hours before making the pickles. **To prepare cucumbers:** wash thoroughly. Remove stem and blossom ends and slice thinly and as uniformly as possible. You can use the slicing side of a grater, a food processor or slice by hand. Do the same with the onions.

#### **Ingredients:**

- 3 quarts (12 cups) thinly sliced pickling cucumbers
- 3 medium onions, thinly sliced
- ¼ cup pickling / coarse salt
- 3 cups vinegar
- 2¼ cups sugar
- ¼ cup whole mustard seed
- 1½ teaspoons celery seed

#### **Method:**

1. Place sliced cucumbers and onions in a stainless steel or glass bowl and add the pickling salt. Toss gently to distribute the salt throughout the vegetables. Let the vegetables sit for three hours, then drain but do not rinse them.

2. Fill water bath and bring to a boil while you prepare vegetables and jars. Have jars clean and hot and pour hot water over lids.

3. Combine the vinegar, sugar, mustard seed and celery seed in large stainless-steel pot and bring to a boil. Add the drained cucumbers and onions.

4. Over medium heat, bring the mixture back up to a low boil then immediately pack into your jars. Leave a ½ inch headroom. Adjust lids and put on rings, tightening only until you meet resistance – do not over-tighten.
5. Place jars in water bath. When water has returned to a boil, cover and boil pickles for 10 minutes.
6. Turn off heat and remove lid from water bath. If you are able to move the water bath off the burner safely, you can move it to a cool burner. Let the jars sit for 5 minutes before removing from the water. This depressurizes the jars and prevents leaking and breakage.
7. The rings will have become loosened during canning. This is normal. You should start to hear sharp ‘pings’ as the vacuum seal is created in the jars. You can tell if your jars are properly sealed by pressing gently on the centre of the lid. If there is no movement of the lid, your jars are sealed. If you can feel a little bump that you can press up and down, the jars are not yet sealed. Give the pickles a few minutes to cool and try again. **Any jars that have not sealed properly should be put in the fridge.**
8. **Let the pickles sit for two weeks to develop their flavour.** Label your jars with the name of the product and the date it was made. Properly sealed pickles can be stored for a year.

## Appendix 3 – Community Climate Resilience Surveys

### How can Sackville thrive & be more resilient during climate change?

Help inform a new community-based guide for residents, businesses and organizations in Sackville, NB.

**Residents:** have your say today by filling in this quick survey.

**Deadline August 16, 2020**

This survey is for residents of Sackville – both teens and adults. By completing it, you can enter to win an EOS Eco-Energy Prize Pack with local food products! Input in the survey is anonymous and voluntary. There are 14 questions and it should take about 15-20 minutes to complete. EOS Eco-Energy received funding from the NB Environmental Trust Fund to create a Climate Change<sup>1</sup> Resilience Guide based on your input. The community of Sackville has learned valuable lessons about resilience<sup>2</sup> already due to previous storm events and the covid-19 pandemic. EOS wants to incorporate existing knowledge and ideas into the community-based guide to help residents, businesses and organizations thrive and be better prepared in the future. The community guide will complement Sackville’s corporate climate adaptation plan for municipal operations. For more information or if you would like to complete this survey by telephone, please contact EOS at (506) 536-4487. This survey is also available online at [bit.ly/eos-survey](http://bit.ly/eos-survey)

#### Section 1: Climate change risks and impacts in Sackville

1. Are you currently a resident of Sackville, NB?

- Yes
  No
  Other: \_\_\_\_\_

2. Please rate your concern about the following climate change risks and impacts for Sackville:

	Not concerned	somewhat concerned	neutral	concerned	very concerned	unaware of this
Risks:						
Sea level rise						
More powerful hurricanes and storm surges happening more often						

<sup>1</sup> If you are curious to learn more about climate change and impact in Canada, please visit the Climate Atlas: <https://climateatlas.ca/topic/climate-science>

<sup>2</sup> Resilience means the ability to bounce back after hardship.

	Not concerned	somewhat concerned	neutral	concerned	very concerned	unaware of this
More rain and snow but falling less often						
More severe winter storms						
Ice storms						
More or longer heat waves						
Droughts						
More extreme wind storms						
Other: _____						
Other: _____						
Impacts:						
Coastal erosion						
Coastal flooding, dyke breach						
Freshwater (inland) flooding						
Power outages						
Invasives – ticks, etc.						
Agriculture, food supply						
Transportation challenges						
Human health impacts (due to mental health, polluted flood waters, heat alerts, ticks, hunger, etc).						
Economic costs of storm damage						
Loss of cultural or historical landmarks						
Other: _____						
Other: _____						

**Section 2: How prepared are we now?**

3. How much do you agree with the following statements?

Perception	Strongly disagree	somewhat disagree	neutral	somewhat agree	strongly agree
I am confident in my ability to respond and adapt to climate change					
I have been involved with helping Sackville prepare for or respond to an emergency or disaster					
I have talked with my neighbours about preparing for an emergency or disaster					
I have confidence in community leaders and decision-makers regarding effects of climate change.					
I am confident that I can be of help to my neighbours or community, and they can help me, in					

the event of a disaster, such as flooding or power outages, etc.					
People in Sackville feel like they belong in the community					
People in Sackville are committed to the well-being of the community					
People in Sackville have hope about the future					
I feel that the Sackville community has the resources it needs to address future climate risks effectively					
I feel that people in Sackville are able to get the services they need					
I feel that people in Sackville know how to work together to help each other prepare, respond to and recover from times of need or crisis					
People in Sackville are aware of community issues that they might address together					
Other: _____					

4. What do you think are Sackville’s greatest strengths and resources that could help the community be stronger during climate change.

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**Section 3: What are you doing to deal with climate change?**

5. Have you taken any household actions to address climate change? Check all that apply
- o I have a 72-hour emergency kit
  - o I am familiar with local areas that may flood
  - o My household has a family flood plan
  - o I have taken measures to reduce flooding on my property (rain garden, filled cracks in foundation, etc.)
  - o I can operate a ham/amateur radio
  - o I grow my own food either at home or in the Sackville community garden
  - o I raise livestock (chickens, goats, pigs, etc.)
  - o I gather my own food (wild plants, fish, hunt)
  - o I compost my food scraps and use the compost
  - o I preserve/can/dehydrate my own food for winter
  - o I know about what things are available in Sackville and choose to buy them locally
  - o I have a relationship with a local farmer and buy things from them
  - o I have water-saving measures at home (high efficiency shower head, rain barrel, etc.)
  - o I have a backup power source (generator, etc.)
  - o I have a backup heat source (wood heat, etc.)
  - o Air leaks in my home have been sealed
  - o There are energy saving devices in my home
  - o My household uses solar power
  - o I drive a Hybrid or EV
  - o I ride a bike when possible
  - o I carpool when possible
  - o Other: \_\_\_\_\_



6. Have you, or would you like to, attend a workshop or know more about any of the following topics that could help build resilience to climate change and other crises?

Topic	Have attended	Want to attend	Not interested
First Aid/CPR			
Mental Health First Aid			
Flood Risk Reduction			
Climate Stress			
Vegetable Gardening			
Permaculture Gardening			
Food Preservation (canning, dehydrating, cold storage, etc.)			
Emergency Preparedness			
Climate Change Awareness			
How to be Resilient			
Home Retrofits to Save Energy			
Solar Energy			
Political Organizing Skills			
Water Conservation (How to make a rain barrel, etc.)			
Regenerative Agriculture			
Wild Foraging Skills (wild edibles, etc.)			
Hunting and/or Fishing			
Survival Skills			
Amateur Radio Operators Licence			
Sewing, Mending or Knitting			
Small scale livestock farming (chickens, goat, etc.)			
Other _____			
Other: _____			
Other: _____			

**Section 4: How can Sackville thrive during climate change?**

7. Which of the following actions would you be most interested in seeing residents, businesses, and/or organizations in Sackville take part in? Check all that apply.

- o Planting trees
- o Planting community gardens
- o Planting rain gardens
- o Having more people with ham radio skills
- o Doing a 72 hour emergency kit bulk purchase
- o Depaving spaces and creating green spaces
- o Hosting community cooking events
- o Hosting workshops on food preservation
- o Doing a backyard compost bin bulk purchase
- o Starting a community compost program
- o Creating community cooling areas when it's hot
- o Creating more affordable housing
- o Enhancing community transportation services
- o Saving, capturing, or reusing water
- o Having more solar powered homes, businesses
- o Developing community-owned renewable energy (solar or wind farms that power Sackville)

EOS Eco-Energy - February 2021

- o Creating a community greenhouse to be used year-round
- o Creating community food forests and permaculture systems
- o Creating a community cold storage facility or community root cellar
- o Creating new ways for people and organizations to come together to help each other
- o Making resources and information about resilience more accessible to Sackville residents
- o Starting a newcomer welcome program
- o Getting to know my neighbours better
- o Getting involved with a community organization or initiative
- o Other: \_\_\_\_\_
- o Other: \_\_\_\_\_

8. What are the largest challenges for you to be better prepared for climate change and other crises? Check all that apply.

- o I feel prepared
- o Need money/ too expensive
- o Need more information or knowledge
- o Need better skills
- o Need more time/ too busy
- o My home's location
- o Municipal Government
- o Provincial Government
- o Federal Government
- o Not interested/ don't care
- o Other: \_\_\_\_\_

9. If you have any information or suggestions about increasing community resilience to climate change impacts in Sackville, or anything else you need to be more resilient, please comment here:

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**Section 5: General Information**

10. Age:  15-24     25-34     25-44     45-54     55-64     65-74     75 +

11. Gender:  Female     Male     Prefer not to say     Other: \_\_\_\_\_

12. How many years have you lived in Sackville?  Less than 5     6 to 15     More than 15

13. Is your home in Sackville a:  house     apartment     farm     MTA residence room

14. Please enter your email or phone number here if you would like to be included in a draw for an EOS prize pack with local food products: \_\_\_\_\_

**Thank you!**

If you have any additional questions or comments, please feel free to contact EOS Eco-Energy at info.eos@nb.aibn.com or (506) 536-4487.



## How can Sackville thrive & be more resilient during climate change?

Help inform a community-based guide for residents, businesses & organizations in Sackville, NB.

**Businesses, organizations and community groups:** Have your say today by filling in this quick questionnaire.

### Deadline August 16, 2020

EOS Eco-Energy is coordinating the climate change<sup>3</sup> resilience guide with funding from the NB Environmental Trust Fund and is seeking input from the community. Sackville businesses, organizations, non-profits, and community groups are invited to answer the following 8 questions. (There is a separate survey for Sackville residents available online at: [bit.ly/eos-survey](http://bit.ly/eos-survey). The community of Sackville has learned valuable lessons about resilience<sup>4</sup> already due to previous storm events and the covid-19 pandemic. EOS wants to incorporate existing knowledge and ideas into a community-based guide to help residents, businesses and organizations thrive and be better prepared in the future. The community guide will complement Sackville's corporate climate adaptation plan for municipal operations. Input in the questionnaire is anonymous, voluntary and should take about 15 minutes to complete. **If you would prefer to answer this questionnaire over the phone, please call EOS at 536-4487.** This survey is also available online at [bit.ly/eos-business](http://bit.ly/eos-business)

1. I run a Sackville-based business\_\_\_\_\_ organization\_\_\_\_\_ or community group\_\_\_\_\_ (check one)
2. How resilient do you feel your business, organization or community group is to climate change and other disasters? How much do you agree with the following statements?

Perception	Strongly disagree	somewhat disagree	neutral	somewhat agree	strongly agree
I am confident in my business' ability to respond and adapt to climate change					
I have experience with responding to a disaster or emergency as a business/org/group leader					
I have confidence my staff could deal with an emergency or disaster					
I have control over my physical location, my landlord is helpful					
I feel that my business/org/group can help my customers or community in the event of a disaster					
My customers/members in Sackville feel like they belong to a community					

<sup>3</sup> If you are curious to learn more about climate change and impacts in Canada, please visit the Climate Atlas: <https://climateatlas.ca/topic/climate-science>

<sup>4</sup> Resilience means the ability to bounce back after hardship.

My customers/members in Sackville would support my business/organization/group in an emergency					
My business/org/group has hope about the future					
I feel that businesses/orgs/groups in Sackville have the resources they need to address future climate risks effectively					
I feel that businesses/orgs/groups in Sackville are able to get the services they need					
I feel that people in Sackville know how to work together to help each other prepare, respond to and recover from times of need or crisis					
I feel that businesses/org/groups in Sackville would get the assistance they need from municipal government in a time of emergency.					
Other: _____					

3. How concerned are you that climate change will have an impact on your business, organization or group?

[ ] Not at all [ ] somewhat [ ] very much

4. If you are concerned, what are the greatest risks that concern you?

Impact	Not concerned	somewhat concerned	neutral	concerned	very concerned	Not applicable
Reduction in number of customers/members						
Difficulty communicating with customers/members						
Loss of employees/staff						
Difficulty hiring and retaining employees/staff						
Adequate emergency training of employees/staff						
Loss of regular vendors or suppliers						
Interruption in shipping, regular delivery schedules for supplies						
Difficulty getting supplies essential to your operation						
Damage to your physical location						

Temporary closure of your physical location						
Loss of street access to your physical location						
Loss of power						
Changes in water supply						
Interruption in internet service						
Interruption in other utilities ie. propane						
Damage to essential equipment						
Having backup stock on hand to operate						
Having emergency supplies on hand						
Loss of income due to prolonged closure						
Financial challenges due to changes in operation						
Inability to run regular programs						
Other: _____						

5. Have you taken any steps to adapt your business to climate change impacts? If so, please explain?

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6. What are the biggest challenges preventing your business, organization or group from being more resilient to climate change?

- I feel prepared
- Need money/ too expensive
- Need more information or knowledge
- Need better skills
- Need more time/ too busy
- The location of my business
- Municipal Government
- Provincial Government
- Federal Government
- Not interested/ don't care
- Other: \_\_\_\_\_

7. How could businesses, organizations, and community groups help build resiliency to climate change in Sackville?

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8. Is there anything else you would like to add?

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Thank you for your input!

If you have any questions, please feel free to contact EOS Eco-Energy at [info.eos@nb.aibn.com](mailto:info.eos@nb.aibn.com) or (506) 536-4487



## **Appendix 4 – Municipal Adaption Plan Progress Reports**

See progress reports for Port Elgin, Sackville and Dorchester on the following pages.

## Sackville Corporate Adaptation Plan Review and Update

November 2020

Sackville Corporate Adaptation Plan Implementation Committee

Implementation Committee Members Present:

Jamie Burke CAO, Kieran Miller Senior Manager of Corporate Projects, Amanda Marlin EOS Eco-Energy, Craig Bowser Fire Chief, Lori Bickford Representative from SERSC, Dwayne Action Town Engineer, Breanna McLeod Student Climate Change Coordinator

Timeline	Original Actions	Update as of November 2019	Update as of November 2020
Ongoing	<ul style="list-style-type: none"> <li>Flat bottom boat inventory</li> <li>Find more resources for dyke maintenance</li> <li>Sentinel Emergency Alert System</li> </ul>	<ul style="list-style-type: none"> <li>Continues to be updated regularly by Fire Chief. EMO plan recently updated.</li> <li>Ongoing. Chignecto Isthmus study underway. Mayor continues to look for more funding. Good relationship with Dept of Infrastructure</li> <li>Still use it. Still do training, exploring another service provider. May use Everbridge in the future, which is what MTA uses already. Not many people signing up lately but there are currently 734 self-subscriptions. Some are families.</li> </ul>	<ul style="list-style-type: none"> <li>Continuing, but not a lot of success, there are quite a few boats, putting out a notice to promote the inventory and enable people to sign up.</li> <li>Stantec study is ongoing with bore hole drilling, etc. looking at soil, depth of bedrock, Town will give data.</li> <li>Sentinel is ongoing – have 750-800 participants, but looking at other software platforms that can tie into fire department. Sentinel has not been that user friendly. Looking to use Guardian out of Australia or Voyant Alert out of Calgary. Staff do quarterly training sessions with Sentinel.</li> </ul>



	<ul style="list-style-type: none"> <li>• Continual testing of EMO response plan</li> <li>• Education and awareness regarding climate change and adaptation</li> <li>• Culvert replacement program</li> <li>• Climate change-resistant tree planting program</li> </ul>	<ul style="list-style-type: none"> <li>• Still done several times a year. Scenarios are done with town staff.</li> <li>• Ongoing – Mayor’s Round Table on Climate Change, participation in the Chignecto Climate Change Adaptation Collaboration. Emergency Prep Week in May, draw for 72 hour kit. Sustainable Home Show. Help promote Climate Change Week. Education around Lorne St storm mitigation with BRACE funding, signage, workshops, presentations. Budgeted for generator for warming centre at Civic Centre. Permeable pavement project and promotion with EOS summer 2019.</li> <li>• Ongoing. King St was done in 2019.</li> <li>• CN recently donated 100 trees to Sackville. Will be planted by spring 2020. Plus there is a town operational budget for annual tree</li> </ul>	<ul style="list-style-type: none"> <li>• Tabletop exercise planned in December to exercise plan. Helps get bugs out (internet access, etc.). Enhanced off site response centre at MTA with backup generator now.</li> <li>• Generator approved by council and tender has been awarded to J and D Electric. March-April 2021 timeline to have it commissioned at Civic Centre.</li> <li>• Numerous Presentations on stormwater retention pond</li> <li>• Interpretive panels in Lorne St. Ponds translated into three languages.</li> <li>• 2021 for booster pump (wooden culvert collapsed), Crescent St (corrugated metal culvert collapsed), Ogden Mill Road, and ongoing discussions with CN for 106.</li> <li>• 100 trees were planted. Now looking to plant edible climate resilient trees and fill flower</li> </ul>
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		planting program. Using a list developed at MTA for appropriate tree species.	boxes with some edible annuals to help increase local food security.
Short (2016-2017)	<ul style="list-style-type: none"> <li>• Emergency Measures Plan review and update</li> <li>• Hydro-Technical Study of Carter’s Brook</li> <li>• Municipal plan and land use bylaws review and update 2016 (completed)</li> <li>• Install highway closure gates and variable message boards at both on-ramps to TransCanada Highway</li> <li>• Highway closure communication procedure</li> </ul>	<ul style="list-style-type: none"> <li>• Done</li> <li>• Done, was also revised with new CN data on culverts.</li> <li>• Done</li> <li>• Closure gates have been installed.</li> <li>• Variable message boards are along highway.</li> </ul>	<ul style="list-style-type: none"> <li>• And done again</li> <li>• Completed</li> <li>• Planned again in 2021 or 2022. Currently working on municipal plan amendment. Having issues with covid-19 and getting a good turnout.</li> <li>• Town can only react to closures. Would like communication and collaborate to close the highway when needed.</li> <li>• Message board doesn’t blink anymore, trying to get a message on it such as drive safe.</li> </ul>

<p>Medium (2018-2021)</p>	<ul style="list-style-type: none"> <li>• Lorne St. and area stormwater infrastructure and utility upgrade</li> <li>• Integrated stormwater management plan</li> <li>• Stormwater retention pond (eg. Lorne St.)</li> </ul>	<ul style="list-style-type: none"> <li>• 2 of 4 phases complete. Lorne St ponds done. Ducks Unlimited naturalized pond compound is complete. Quarry and last stormwater pond remain. Marketing and promotion will include a climate change walking tour.</li> <li>• Plan exists for Lorne St area which is main area of concern.</li> <li>• Done (See above)</li> </ul>	<ul style="list-style-type: none"> <li>• No update on quarry (was denied first attempt at funding because government priorities changed). Application is ready to go. (phase 3)</li> <li>• Last done before 2014 but not extensive. Still wanting to do. Expensive, but would make town engineer's work easier. Could look to implement a stormwater runoff bylaw.</li> <li>• Completed</li> </ul>
<p>Long (beyond 2021)</p>	<ul style="list-style-type: none"> <li>• Municipal plan and land use bylaws review and update 2021</li> <li>• EMO flood exercise with a dyke breach</li> </ul>	<ul style="list-style-type: none"> <li>• Scheduled for 2021</li> <li>• Not confirmed</li> </ul>	<ul style="list-style-type: none"> <li>• Will get started in 2021.</li> <li>• CCCC will plan to organize a mock table top exercise using sand tables from the NB Department of Natural Resources (Dan Mesheau) in 2022.</li> </ul>

	<ul style="list-style-type: none"> <li>• Additional stormwater retention ponds</li> <li>• Raising roads (eg. a portion of Rte 935)</li> </ul>	<ul style="list-style-type: none"> <li>• Looking at requirements for private developments in other parts of town but nothing formal yet.</li> <li>• May not be needed as province put in new aboiteau at Rt 935.</li> </ul>	<ul style="list-style-type: none"> <li>• No action yet. Potential for properties on Lorne St, Fairfield, Wright St. and other upper reaches of the town limits.</li> <li>• Province replaced aboiteau to deal with more and heavier rain events. But still an issue with 106 and 935 flooding, due to culverts under CN tracks. But aboiteau has helped a lot.</li> </ul>
<p>New actions added</p>		<ul style="list-style-type: none"> <li>• Staff want to adopt new sea level rise maps, waiting for updated maps.</li> <li>• Moving MTA weather station to town hall roof</li> <li>• Raised beds on town hall green roof</li> <li>• Marketing and promotion for stormwater management will include a climate change adaptation walking tour.</li> </ul>	<ul style="list-style-type: none"> <li>• Has not yet been updated (there was a data error), waiting on Lidar contractor. It should be soon.</li> <li>• Had a site visit in 2020, still planning to be moved.</li> <li>• Town and EOS have signed an MOU. EOS has obtained funding from Eco Action for engineering assessments and a 1000 sq ft green roof. Installation will take place summer 2021.</li> <li>• Town staff have hosted Marshview School students on</li> </ul>

		<ul style="list-style-type: none"> <li>• Mayor’s Roundtable on Climate Change has been formed.</li>   <li>• Energy audits have been done at Bill Johnstone and the VIC. Plans for solar projects. Could be 2020-22.</li>   <li>• Trailblazers program for outdoor skills is ongoing for youth.</li>   <li>• Maybe climate change art installation related to Saxby Gale.</li> </ul>	<p>walking tours of the retention pond in 2020.</p> <ul style="list-style-type: none"> <li>• Meetings and work of the round table is ongoing. A brainstorming event with the public was hosted during Tantramar Climate Change Week 2020 where presentations were made to a panel of Roundtable members. Members are also helping to create interpretive panels for the new climate change art installation in town. Town staff plan to formalize the Roundtable in 2021 and require vote from council.</li>   <li>• Maybe in 2022, town has \$25,000 budgeted for solar projects.</li>   <li>• Program could not take place this year due to pandemic.</li>   <li>• An art installation called “Chignecto Balance” is being installed in the new wetland</li> </ul>
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			<p>retention ponds. Will be in by end of December 2020.</p> <p><u>New actions added in Fall 2020:</u></p> <ul style="list-style-type: none"> <li>• Town hired a summer climate change student intern position in 2020. She organized various climate change events.</li> <li>• A community recycling pilot project is underway in 2020 for apartment buildings.</li> <li>• In 2020 EOS Eco-Energy is coordinating a community-based climate change resilience guide for Sackville residents, businesses and organizations to complement the Town's municipal adaptation plan. It is being funded by ETF and will be ready by March 2021.</li> <li>• Looking to hire a municipal climate change coordinator. The position will be contracted out to EOS during a two year</li> </ul>
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			trial phase to test capacity for a full-time coordinator position.
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## Port Elgin Adaptation Plan Review and Update

November 4, 2020

Compiled by Port Elgin Implementation Committee: Amanda Marlin (EOS), Lori Bickford (NBSE), Terry Murphy (EMO), Val MacDermid (Village councillor), Donna Hipditch (Village Clerk)

Timeline	Original Actions	Update as of November 2019	Update as of November 2020
Ongoing	<ul style="list-style-type: none"> <li>Wet proofing in the downtown area (sump pumps, backflow valves, sandbags, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>EOS conducted a second backwater valve bulk purchase promoted across Tantramar during summer 2019 and while there was uptake in Sackville, there were no participants in Port Elgin. It is up to business owners in the downtown to install sump pumps, etc. The Village wants to do a mailout with tips to mitigate flooding in 2020.</li> </ul>	<ul style="list-style-type: none"> <li>Mail outs may not be effective. Radio media PSAs on CFTA with flood mitigation information (e.g. Nursing Homes without Walls). Notices on "Port Elgin Events" Facebook group</li> </ul>

	<ul style="list-style-type: none"> <li>• Awareness and education program on climate change adaptation and emergency preparedness (workshops; bulk purchases of emergency kits, sump pumps; etc.)</li> <li>• Investigate funding sources for erosion work along the Gaspereau River</li> <li>• Where there is space, plant natural grasses to limit erosion along Gaspereau River</li> </ul>	<ul style="list-style-type: none"> <li>• Since 2016 workshops have taken place on climate stress, food dehydrating, emergency preparedness, etc. Port Elgin Committee would like to do another emergency kit bulk purchase. Workshops are ongoing and there are new plans for 2020-21 to focus on traditional and survival skills, food preservation, etc.</li> <li>• This is still ongoing. No apparent grants available currently and Port Elgin cannot afford any more loans.</li> <li>• Nature NB, EOS Eco-Energy, Shediac Bay Watershed Association and the Village partnered to plant trees along the Gaspereau River on the trail by the sewage lagoon during fall 2019.</li> </ul>	<ul style="list-style-type: none"> <li>• EOS organized a backwater valve bulk purchase in winter 2019 and is planning a sump pump bulk purchase in winter 2020. EOS has also hosted additional webinars on food preservation skills during fall 2020.</li> <li>• The trees that were planted on the half of the trail closest to the mouth of the river appeared to accelerate erosion. Chunks of land where the trees were planted collapsed onto the beach. Planting was done too late while erosion and storm surges were already impacting the area. A Village Worker "repaired" this area by adding shale and then top soil to widen the trail to where it was before but the committee is not sure this will help. Looking at purchasing big rock, but may cause more</li> </ul>
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	<ul style="list-style-type: none"> <li>• Wood heat inventory (for winter storms)</li> </ul>	<ul style="list-style-type: none"> <li>• Port Elgin EMO coordinator has 4 homes on his wood heat inventory. These homeowners are willing to take people during winter power outages.</li> </ul>	<p>erosion elsewhere. Plan to focus on area between lagoon and the trail.</p> <ul style="list-style-type: none"> <li>• There are a few names on the list already and more promotion is planned.</li> </ul>
Short (2016-2017)	<ul style="list-style-type: none"> <li>• Engineering analysis of lagoon</li> <li>• Determine elevation of selected location for fire station</li> <li>• If need be, determine alternate locations for fire station</li> </ul>	<ul style="list-style-type: none"> <li>• Crandall has agreed to do an engineering study in spring 2020 for no charge while they are doing other work in the village.</li> <li>• This is not applicable anymore as the fire station went ahead with construction in the originally selected location.</li> <li>• This is not applicable anymore as the fire station went ahead with construction in the originally selected location. It could be cut off from the village in its new location.</li> <li>• No update</li> </ul>	<ul style="list-style-type: none"> <li>• Study has not happened yet, but Crandall had a look at the space a year ago. Village will follow up.</li> <li>• No update</li> </ul>

	<ul style="list-style-type: none"> <li>• Installation of cribwork along Gaspereau River (start in 2017 and continuing)</li> <li>• Engineering analysis of erosion</li> <li>• Inform New Brunswick government about climate related risks for Magee House</li> <li>• Update zoning regulations for Main Street to include adaptation considerations</li> <li>• Update EMO plan to include specific measures for winter storms</li> </ul>	<ul style="list-style-type: none"> <li>• This has not yet been done as funding is needed.</li> <li>• The New Brunswick government in general is aware of climate change risks in New Brunswick.</li> <li>• The update is over due and beyond the 5 year deadline. SERSC staff have started the process to combine zoning and municipal bylaws into one rural plan but the legal process for adoption has not started yet. It is planned for 2020.</li> <li>• A contingency plan may be needed for the new fire station as it could get cut off during a flood event.</li> <li>• Wood heat inventory has begun.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding still needed</li> <li>• This did not happen, 2021 would be the new target. And the Village having difficulty getting residents to take adaptation considerations into account, could have insurance implications for homeowners (could put in newsletter).</li> <li>• Warming centre at fire hall, people won't be turned away. But waiting for generator. May be able to use Tantramar Civic Centre along with Sackville.</li> <li>• A few people on the list. Covid-19 complicates</li> </ul>
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			things. Will promote on Facebook page, newsletter, etc.
Medium (2018-2021)	<ul style="list-style-type: none"> <li>• Build up the berm around the sewage lagoon</li> <li>• Complete research to move the sewage lagoon</li> <li>• Plant trees, grasses, etc. along path by riverside of lagoon</li> <li>• Fix erosion by Main St. lift station</li> <li>• Culvert assessment by professional engineer</li> </ul>	<ul style="list-style-type: none"> <li>• Crandall will complete an engineering study in the spring.</li> <li>• This will depend on the engineering study by Crandall.</li> <li>• Nature NB, EOS Eco-Energy, Shediac Bay Watershed Association and the Village partnered to plant trees along the Gaspereau River on the trail by the sewage lagoon during fall 2019. Erosion is happening quickly though and it may be too late for the trees to help. Time will tell.</li> <li>• Committee will check with village staff if this has been completed.</li> <li>• This has not been done yet due to lack of funding. It is costly and not the main priority for the Village at this time.</li> </ul>	<ul style="list-style-type: none"> <li>• The study has not been completed yet. Crandall was going to volunteer their time.</li> <li>• Concrete blocks were placed around the lift station, keeps current away.</li> <li>• Not been done</li> </ul>

	<ul style="list-style-type: none"> <li>• Build and restore wetlands within the village (start in 2018 and continuing)</li> </ul>	<ul style="list-style-type: none"> <li>• No action yet.</li> </ul>	<ul style="list-style-type: none"> <li>• No action on wetlands but possibly more rain gardens in the future with EOS. EOS did a Rain barrel give away in fall 2020 thanks to Eco Action Funding.</li> </ul>
Long (beyond 2021)	<ul style="list-style-type: none"> <li>• Sewage lagoon moved to a safer location with higher elevation</li> <li>• Relocation of buildings from Station Street to less vulnerable location</li> </ul>	<ul style="list-style-type: none"> <li>• No action yet.</li> <li>• No action yet. Costly.</li> </ul>	<ul style="list-style-type: none"> <li>• No action, will be incredibly expensive. Dependent on provincial and federal funds. No further action possible by Village</li> <li>• Could there be land swaps? Need government support (similar to Saint John River programs). Some residents purchased properties long before climate change issues were known. Need proactive provincial and federal governments to help.</li> </ul>
Additional Actions		<ul style="list-style-type: none"> <li>• New fire station will also be warming station eventually. They are waiting to be able to purchase the necessary components. The Schools and Westford Nursing</li> </ul>	<ul style="list-style-type: none"> <li>• Covid-19 makes it impossible to use Westford Nursing Home right now, may also be hard to use the school.</li> </ul>

		<p>Home have also need used as emergency shelters as long as they have power.</p> <ul style="list-style-type: none"> <li>• Community resiliency planning and skills workshops – food preservation, climate stress, etc. by EOS in 2020-21 dependant on funding application</li> <li>• Sea level rise signs to be erected in 2020-21 by EOS and its Chignecto Climate Change Collaborative.</li> <li>• Depaving projects (Main St area) are a possibility. EOS and Village looking at options.</li> </ul>	<ul style="list-style-type: none"> <li>• Three webinars took place in fall 2020 on food preservation skills. All were very well attended with participants from across the Maritimes and first time gardeners and canners, etc.</li> <li>• EOS has funding (thanks to NBEN and NRCan) and is working to put up signs, one will be at the Port Elgin wharf.</li> <li>• This is not happening as no appropriate locations were found.</li> </ul> <p>Additional plans actions to add in 2020-21 and beyond:</p> <ul style="list-style-type: none"> <li>• Village plans a Facebook Page and hard copy newsletter</li> </ul>
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			<ul style="list-style-type: none"> <li>• Sump Pump bulk purchase planned by EOS for winter 2021</li> </ul>
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## Dorchester Adaptation Plan Progress Report

Last Updated: November 24, 2020

Dorchester Implementation Committee: Ben Edgett, Jenn Borne, JJ Bear, Lori Bickford, Amanda Marlin, Sam Malenfant-Edgett, Bob Hickman

Report compiled by: Amanda Marlin, Jenn Borne, Bob Hickman

Timeline	Original Actions	Update as of November 2019	Update as of November 2020
Ongoing	<ol style="list-style-type: none"> <li>1. Public education regarding limited fuel and food supply in the Village and the region being cut off due to flooding</li> <li>2. Continuous Public Education on 72 Hour Preparedness</li> </ol>	<ol style="list-style-type: none"> <li>1. Education is ongoing</li> <li>2. EMO will teach seniors how to put their own kit together and fire prevention on December 5<sup>th</sup>, 2019</li> </ol>	<ol style="list-style-type: none"> <li>1. No update, pandemic issues have taken priority.</li> <li>2. Continue to push, events shared on Facebook and newsletter, etc.</li> </ol>

	<ul style="list-style-type: none"> <li>3. Place Engine 3 on other side of tracks stocked with medical supplies</li> <li>4. Install additional rain gardens and rain barrels</li> </ul>	<ul style="list-style-type: none"> <li>3. For Cape side Village places a 1979 fire truck across tracks.</li> <li>4. Richard Park has water coming from somewhere. Could be a potential spot for a rain garden. EOS Eco-Energy watershed coordinator to investigate and apply for funding.</li> </ul>	<ul style="list-style-type: none"> <li>3. This doesn't happen anymore.</li> <li>4. EOS, village and volunteers planted a 350 sq ft garden in summer 2020 with funds from TD and Eco Action. EOS also organised a free rain barrel giveaway with Eco Action funds and numerous Dorchester and Fort Folly residents participated.</li> </ul>
<p>Short (2017-2018)</p>	<ul style="list-style-type: none"> <li>5. Bulk Purchase of Red Cross 72 Hour Emergency Kits</li> <li>6. Inform New Brunswick Government about climate risks and its impacts on Shiretown Manor</li> <li>7. "Adopt a Neighbour" Program</li> </ul>	<ul style="list-style-type: none"> <li>5. Completed</li> <li>6. Discussion is ongoing.</li> <li>7. Village advertises its welcome wagon service. Still want to make it an annual event. "Meet your neighbour" is for everyone. Village does heritage nights too.</li> </ul>	<ul style="list-style-type: none"> <li>5. Have promoted to seniors, have given some away.</li> <li>6. Still ongoing.</li> <li>7. Due to New Horizons grant we now have a better sense of what seniors need, help each other, call neighbours, etc. But the pandemic has caused challenges with helping neighbours due to bubble rules and risks.</li> <li>8. Still waiting.</li> </ul>



	<p>8. Signage at corner of King St. and Woodlawn Rd.</p> <p>9. Contact and obtain letters of support from neighbouring communities and partners regarding the need to improve Walker Rd.</p> <p>10. Meetings with MLA and Dominic LeBlanc MP regarding Walker Rd.</p> <p>11. Re-establish EMO committee</p> <p>12. Create an emergency measures plan for Dorchester, including emergency preparedness for winter storms</p>	<p>8. Still a 2 year waiting list. This issue came up at meeting with MLA Mitton recently.</p> <p>9. Fort Folly said they would back the Village.</p> <p>10. Ongoing</p> <p>11. We have a lot of people that help in the event of emergencies. We have a semi active EMO committee. We go to for NS training as it is free of charge.</p> <p>12. Just needs to be cleaned up, nearly done. The all hazards assessment is done. Council then needs to approve the plan.</p>	<p>9. Still working in this.</p> <p>10. Province has shaled the stretch past Sackville town limits and plows it in winter</p> <p>11. Non-existent, but Judy Morrison is the Village's liaison on the Tantramar Covid Task Force. EMO should be more active. ICS training was done by Village staff in Amherst last fall (2019).</p> <p>12. No movement yet.</p>
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	<p>13. Establish Dorchester Consolidated School as a muster point for emergencies</p> <p>14. Begin discussions with the Province and CN Rail about at-risk areas of the rail bed</p> <p>15. Begin discussions with Correctional Services Canada about state of the Penitentiary lagoon and possible safety issues arising from an overflow due to flooding</p> <p>16. Begin discussion with MLA regarding the need to strengthen bridges to address runoff and erosion</p>	<p>13. VCC is now the emergency centre.</p> <p>14. Andersons Mills and the Cape crossing are our concerns but these areas are in the outlying LSD.</p> <p>15. No further action is possible from the Village.</p> <p>16. DoT was supposed to let Village know about bridge on Hwy 106. And water and sewer service to Fort Folly goes there too.</p>	<p>13. VCC has been used as warming centre during storms.</p> <p>14. No update.</p> <p>15. Still hoping for progress here.</p> <p>16. No progress but bridge is in dire condition.</p>
<p>Medium (2019-2021)</p>	<p>17. Emergency operation centre at Dorchester Veterans Memorial Centre to have generator</p> <p>18. Bulk purchase of sump pumps and back flow valves</p>	<p>17. Still waiting on generator purchase. \$20-30,000 short.</p> <p>18. EOS did a bulk purchase in 2019 promoted across Tantramar but no Dorchester interest from homeowners. All municipal buildings have backwater valves.</p>	<p>17. Still raising funds.</p> <p>18. EOS is planning sump pump bulk purchase in winter 2020 and hoping for uptake from Dorchester homes.</p>

	<p>19. Contingency plan for the municipal lagoon</p> <p>20. Incorporate freshwater flood maps and scenarios</p>	<p>19. Lagoon has been fenced now to keep people out. New sign erected. But no engineering study has been completed yet due to lack of funding.</p> <p>20. No update.</p>	<p>19. Fencing has been successful to keep people out. No progress on funding to address possible risk of flooded sewage lagoon.</p> <p>20. No update.</p>
<p>Long (2022 and beyond)</p>	<p>21. Create a looped wastewater system for Fort Folly to address flood risk of Water St. lift station</p> <p>22. Assess suitability for naturalized storm water retention ponds and potential wetland restoration sites</p> <p>23. Develop a storm water management plan</p> <p>24. Culvert assessment</p>	<p>21. No further action. Funding needed.</p> <p>22. No further action. CSC has discussed agricultural potential again.</p> <p>23. No further action yet. Village is reporting seeing more intense rain events.</p> <p>24. Didn't have enough students. Hard to get engineering students. Will try to reapply again this year.</p>	<p>21. No update but still a risk.</p> <p>22. No update.</p> <p>23. No update.</p> <p>24. Public works to work with local contractor.</p>
<p>New actions added in 2018</p>	<p>25. An asset management plan was completed in 2018. Phase 2 may include climate change information.</p>	<p>25. Was submitted.</p>	<p>25. Nothing to bring forward from the plan.</p>

<p>New actions added in 2019</p>		<p>26. Develop rec centre into a community resources centre - somewhat like PEDVAC in Port Elgin. Have food bank open twice a month (instead of once), provide other services, meeting space, family resources, office hours for different services. A benefit for local food security, charity store, used clothing store.</p> <p>27. Energy efficient upgrades for village buildings - office, windows for Veteran's Centre, insulation for rec centre, etc. Funding needed.</p> <p>28. Plant trees - more fruit trees, native trees, provide tree voucher, plant food forest, volunteers could plant trees (Girl Guides, school, etc). Funding needed.</p> <p>29. Rain garden for Richard Park</p>	<p>26. Still a dream but needs funding. Need a full-time position. Lots of potential.</p> <p>27. Heat pumps installed at a few buildings. Have saved energy but could be due to less programming right now during pandemic. Library has a new heat pump.</p> <p>28. Still interested and plans to work with new council on long-term vision. CSC planted about 20-30 maple trees this past year. Also, EOS and Dorchester School plan to partner to plant a food forest on school property in summer 2021 for benefit of the community.</p>
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		<p>30. Support for EOS' sea level rise signs in local area</p> <p>31. Community-based resiliency workshops, go beyond 72 hour preparedness with EOS in 2020-21 dependent on funding</p>	<p>29. EOS and the Village planted a 350 sq ft garden in summer 2020. Stone sign installed too.</p> <p>30. SLR sign going in at Johnson's Mills later in fall 2020.</p> <p>31. Three food preservation workshops hosted by EOS (canning, pickling, dehydrating) took place in fall 2020 via Zoom (due to covid-19) with ETF funding. All were very well attended with people from across the region and Maritimes.</p>
<p>New actions added in Nov 2020</p>			<p>32. Assessment for VCC to improve heating costs, maybe look at solar to help adapt to power outages, etc.</p> <p>33. Look at lock box for temperature control for users of the VCC so they cannot waste heat.</p> <p>34. Food forest project with EOS at Dorchester</p>

			Consolidated School planned for summer 2021 if successful with funding
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