

December 2023 Issue 4

The HalifACT community update is an overview of the many projects that are happening in the municipality as part of our once-in-a-generation <u>HalifACT Climate Action Plan</u>. This issue provides an update on the new work that the municipality and its partners are doing to mitigate and prepare for the impacts of climate change.

HalifACT is one of the most ambitious climate action movements in Canada and we're committed to keeping residents informed of the ways we're leading, collaborating and supporting the climate movement in the Halifax region.

INTRODUCTION

Water is a prominent feature of the landscape here in Nova Scotia. People come from all over the world to experience the beauty of our coastal region. Our province boasts around 7,500 km of shoreline and, for over a century, has been called "Canada's Ocean Playground."

Along with the many benefits of being surrounded by water, these coastal regions are also more prone to flooding. We were reminded of this in July when Nova Scotia experienced the hottest summer on record and was drenched by three months' worth of rain in 24 hours. Four people tragically lost their lives in the flooding. Other lives were turned upside down by the destruction of homes and damage to more than 500 roadways.

Nothing reminds us of the need for urgent action like the loss of life. As a municipality, we are committed to advancing climate adaptation by investing in making critical infrastructure more resilient and by helping people and communities be better prepared and able to withstand severe climate impacts.

It can be difficult to see the connections between climate change and the frequency of extreme weather. When it comes to the flooding seen here and in places like Libya, Pakistan, Greece, Brazil and France, the greenhouse effect is making flooding more intense. Every extra degree of warming increases the air's ability to hold water vapour, setting the stage for climate events like the one we saw in July.

We are now at a point where the amount of carbon dioxide (CO₂) in the Earth's atmosphere is the highest it's ever been in human history. The last time this much CO₂ was in the atmosphere was more than three million years ago. Global temperatures were between 2.5 and 4°C warmer and sea levels were as much as 25 metres higher than they are now.



Describing the record shattering climate impacts we've seen this year as part of a "new normal" is not totally accurate. What we're facing is more like a new reality, one that includes the greater likelihood of intense flooding.

One of the things we can do to prepare is invest in community and share resources and knowledge. The municipality coordinated the distribution of hundreds of storm kits to residents ahead of Hurricane Lee who may not be able to afford emergency supplies. This was done in partnership with the Halifax Public Libraries and YMCA. The kits included items such as a lantern, a portable phone charger and information about how to prepare for heat waves, hurricanes and other extreme weather.

Resilience to the effects of climate change starts with how we help each other. It's inspiring to see what community members are capable of when a situation requires cooperation, communication and collaboration to respond to an emergency.

Mike Savage, Mayor of Halifax, Shannon Miedema, Director, Environment & Climate Change (E&CC), and Shannon Fernandes, member of the E&CC team, attended the **28th Annual Conference of the Parties to the United Nations**Framework Convention on Climate Change (COP28) in the United Arab Emirates to advance municipal climate mitigation and adaptation work.







Investments in the Halifax





One North End and The ReCover Initiative

A key partner in HalifACT's mission to address the climate emergency locally is the <u>Halifax Climate Investment, Innovation and Impact Fund</u> (HCi3). HCi3 supports visions for a greener, cleaner municipality by investing in climate action and an equitable transition to clean energy. One of the most exciting recent HCi3-funded projects is led by <u>One North End</u> and <u>The ReCover Initiative</u>. These organizations aim to address employment barriers by helping African Nova Scotians acquire the high-demand engineering skills that will be necessary for our municipality to achieve the goal of doing deep energy retrofits on all community buildings.

For a clearer understanding of what a "deep energy retrofit" is, visit ReCover's website for a <u>simple explanation</u> of the work involved in doing an efficiency renovation on an existing building.



Rodney Small of One North End facilitates a community engagement session.



Rita Joe gets a fresh coat

HalifACT is helping to fund new projects that are aimed at reducing the municipality's impact on the environment.

One of those projects is in support of Halifax Transit's new biocide-free, anti-fouling coating for our ferries. During regular maintenance, the Rita Joe ferry received a fresh coat of this unique solution, which will prevent build-up of marine growth that slows vessels down. Lowering sea growth is expected to increase the ferry's efficiency and reduce the amount of fuel required to transport passengers across the harbour.

The anti-fouling coating used on the Rita Joe was developed by Graphite Innovation Technologies (GIT) and is made of a sustainable marine coating that solved the issue of marine growth without using toxic substances in the design. Mervin David, who supervises the Ferries Division of Halifax Transit, says the recoating of the Rita Joe is about looking for more ways to "deliver something tangible" to help the environment.



Electrifying the fleet

The Parking Services team replaced some of its gas-powered vehicles with electric bikes, supporting HalifACT by decarbonizing transportation. These ebikes allow our employees to move through downtown traffic faster than if they were driving. Parking Services started with just four ebikes, but they were so popular that the program grew to seven units. So far, our growing fleet of ebikes has saved more than 1,000 km in fuel-dependent vehicle use.



Corporate Fleet's new compact electric sidewalk sweeper

HalifACT supported Corporate Fleet in acquiring the Tenax 2.0 EVOS, a fully electric sidewalk sweeper. This compact and quiet piece of equipment replaces a diesel machine that consumed around 4 L of fuel per hour when in use. That amounts to 650 L of diesel per month that is no longer being burned, preventing more than 1700 kg of CO₂ emissions from being released. At the end of its run, the sweeper's components will be 90 per cent recyclable, reducing the environmental footprint of the vehicle.



The Urban Forestry team gave away hundreds of trees to residents in August 2023 and encouraged them to plant and care for them as a way of reducing air pollution and carbon dioxide. About one-third of the trees were fruit trees, thanks to meaningful collaboration with the <u>JustFOOD</u> team, a group of local stakeholders working to fight food insecurity in the region.





Scaling up solar

In October, the municipality completed the installation of a rooftop solar panel system on the Sackville Transit Terminal. This is one of six installations that has been completed since fall 2022. Pending a structural analysis at some sites, another eight rooftop solar panel systems are expected to be installed by the end of 2024. Installing solar at these facilities is expected to produce over three million kWh of renewable electricity annually, saving \$350,000 in annual electricity costs.

These efforts support the municipality's ambitious targets to decarbonize its corporate buildings by 2030 as outlined in HalifACT.

For more information on solar energy systems at municipal sites, visit halifax.ca



Sackville Transit Terminal



Keep an eye out for our first electric bus which will be starting road trials in the near future. This bus, the first of 60 being added to the fleet, will help us reach the goal of net-zero municipal emissions outlined in the HalifACT plan.







The JUNOS come to Halifax

In March 2024, the JUNO Awards will take place in Halifax for the first time since 2006. Environment & Climate Change is part of this year's team and, as part of the municipality's efforts, we'll be providing free public transportation for JUNO volunteers, installing music-themed bike racks and much more.



Allegra Swanson of Music Nova Scotia





A new view at Grahams Grove

On August 21, we held the grand opening of the new <u>Kiwanis Grahams Grove Community</u> <u>Building</u>. Despite the rain, residents gathered to enjoy live music, free ice cream and a roster of speakers who celebrated how the design of the building blends the goals of HalifACT with community partnership and a vision for reconciliation with Indigenous peoples.

The new structure features wood rather than concrete as the main building material, making it lighter on the land. That lightness is also featured in the way the building is powered and heated: the roofs have a south-facing slope, perfect for the solar panels installed on top to provide 16 kW of renewable power, expected to save around \$3,000 of electricity per year. The building also has a heat pump for improved energy efficiency and is ready for a future electric vehicle charging station to be installed at the location.





Kevin Boutilier and Martha Horsman at Electric Avenue

Electric Avenue

Each year in honour of World EV Day on September 9, Next Ride hosts Electric Avenue, a public event where attendees are offered a chance to test drive an electric vehicle (EV). For the second year in a row, the HalifACT team has attended the event to speak with residents about our <u>Municipal Electric Vehicle Strategy</u>. This year, Kevin Boutilier and Martha Horsman from the municipality's Environment & Climate Change team shared information about the financial and environmental benefits of switching to electric transportation and addressed questions about EV charging and range anxiety. It was also a great opportunity to speak with residents about the upcoming installation of EV charging stations at 18 municipal sites across the region.



Acting on climate with Halifax Public Libraries

In July 2023, we released a <u>final report</u> on the engagement sessions held with Halifax Public Libraries earlier this year. From February to April, members of the community shared their thoughts and questions about climate change. The results show that residents have real concerns about the climate emergency and want to learn more about the kinds of actions they can take to address the threats climate change poses.

In response, HalifACT and Halifax Public Libraries partnered to host A Call to Climate Action: HalifACT Human Library & Ideas Fair on November 10 at the Paul O'Regan Hall at Central Library. The event featured a congregation of committed people with hands-on experience in climate action, who made themselves available to attendees for short conversations on the work they are doing. Residents were able to ask questions about how partners and experts are building a greener, cleaner world by reshaping our food system, constructing more efficient buildings, decarbonizing transportation, and strengthening the sense of community in Nova Scotia to act on climate together.



Members of the HalifACT team attended the Alderney Farmers Market on October 28 and November 4 to promote the *A Call to Climate Action* event and have conversations with residents about climate action throughout the region.







Attendees of the HalifACT Human Library event found common ground in climate action

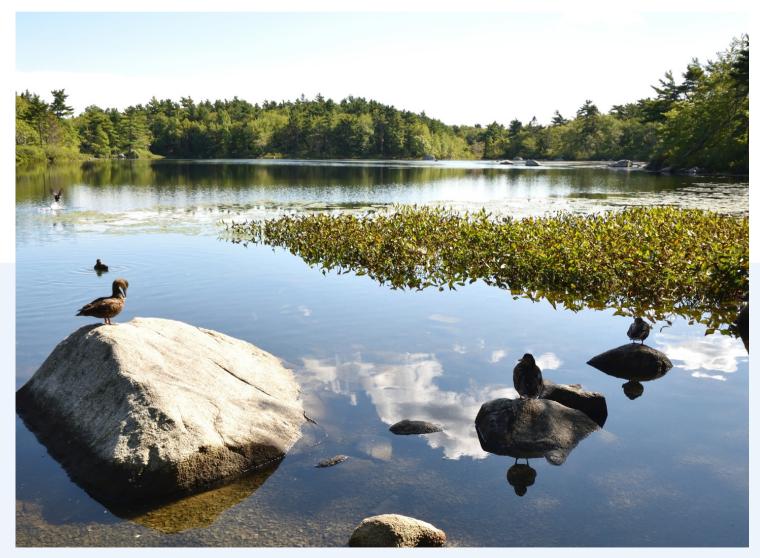


LakeWatchers is expanding

LakeWatchers, the municipality's community-based lake monitoring program, is closing out its second year of sampling with double the number of volunteers from 2022. Those who participated in the summer sampling said they think LakeWatchers is a great way to help out in the community while learning new skills that gave them a better understanding of the health of our many lakes.

Residents can expect to read more about the results from the first two years of LakeWatchers in the program's first report card, expected to be available in spring 2024.

The next round of sampling will take place in April 2024.



Frog Lake Pond.









The Youth Climate Council

Clean Foundation has created the first ever Youth Climate Council of which Zaina Lamontagne from the municipality's Environment & Climate Change team is a member. Zaina's commitment to, and expertise in, climate communication is helping the group advise the provincial government on the challenges and opportunities that are involved in fighting climate change. In her role on the Council, Zaina will deliver training for youth in Nova Scotia, design grant-writing programs to support youth climate action and develop a bursary program to help more youth participate in the climate movement.

The Climate Futures Lab

In September 2023, <u>Youth Challenge</u>
<u>International (YCI)</u> launched the <u>Climate Futures</u>
<u>Lab</u> with support from HalifACT. This innovative project is organized by YCI, a youth development organization that will give 50 young people in Halifax a chance to create solutions for climate-related issues that are specific to a particular place. In small teams, participants in the Climate Futures Lab will develop local approaches to climate mitigation, adaptation and resilience.



Assistant Chief, Sherry Dean, Halifax Regional Fire & Emergency



In September, Halifax Regional Fire & Emergency Assistant Chief Sherry Dean was invited to speak at the UN Climate Ambition Summit in New York, during a session promoting carbon pricing hosted by Prime Minister Justin Trudeau. During the panel, Chief Dean stressed that "people of Nova Scotia have no question that we are experiencing climate change affecting our communities and our livelihoods."



Resilient home retrofits

With funding from HalifACT and the Nova Scotia Department of Environment and Climate Change, <u>Clean Foundation</u> is providing free flood risk assessments to 20 homes in Spryfield and Upper Hammonds Plains. From those 20 homes, 10 will be selected for free home upgrades that will be completed by community-based contractors with expertise in how to reduce the risk of flooding. The <u>pilot program</u> also includes a free home energy assessment and guidance on how to access provincial and federal energy rebates.

The municipality is collaborating with organizations like the <u>Intact Centre on Climate</u> <u>Adaptation</u>, <u>University of Waterloo</u> and <u>Net Zero New Glasgow</u> to explore how a program like this could be expanded to serve other communities.

Leading the discussion

On October 5, Sera Thompson, Manager, Collective Impact, and Scott Stoneman, Marketing Advisor, delivered a presentation to hundreds of students at Dalhousie University on behalf of the municipality's HalifACT team. The presentation discussed the causes of climate change, the progress the municipality is making in addressing the current climate emergency and how residents can get involved in the climate movement.

On November 2, Shannon Miedema, Director, Environment & Climate Change, presented on HalifACT as part of the Ransom A. Myers panel discussion on climate adaptation at Dalhousie University. Her presentation explored how we can thrive in a new climate reality, with an emphasis on the courage it takes to address the costs and consequences of climate change.







Sun shines bright on Solar City

Solar City, the municipality's solar energy program, is celebrating 10 years of collaboration between residents and our growing solar industry. To date, Solar City has helped bring 757 solar projects to our region. These projects are expected to save property owners a total of \$1.43 million annually in utility costs and reduce our community's yearly greenhouse gas emissions by more than 6,000 tonnes of CO₂. This amount of carbon dioxide could fill around three million CO₂ fire extinguishers.

From 2016 to 2023, the number of solar program contractors increased from five to 42. With eight times more solar capacity, a renewable energy future is within our grasp.

Partnering with Portsmouth

Earlier this year, the municipality formed a partnership with our sister city, Portsmouth in the United Kingdom. Portsmouth's ambitious climate plan aims to reduce emissions by investing in EV charging infrastructure, installing solar panels at its international port, improving rail transit and cycling routes and implementing "Clean Air Zones" across parts of the city's centre. Motorists are charged a fee when they enter a Clean Air Zone in a vehicle that does not meet strict emissions standards. HalifACT shares many of the same climate goals, so we are excited to work alongside another municipality on the path to net zero.

The first meeting of the signatories to the <u>CEO</u>
<u>Climate Action Charter</u> took place in November. Energy producers and universities, as well as members of the business community, spoke about how they can actively work together to achieve climate goals.





Launching BTZx

On October 25, <u>Building to Net Zero Exchange</u>, or BTZx, was launched - an initiative focused on greening the building sector throughout the municipality by driving local innovation and raising awareness about climate change. BTZx is one of a number of initiatives contributing to the HalifACT objective of retrofitting and constructing buildings more efficiently at a large scale.

The <u>Carbon Disclosure Project (CDP)</u> has recognized HalifACT's action on climate by awarding the municipality "A List" status. CDP is a global, non-profit charity that runs the world's disclosure system for investors, companies, cities, states and regions to assess their environmental impact. Being in CDP's top tier means that we are showing "ambition, leadership and transparency on climate action" by building resilience and working to sharply reduce our greenhouse gas emissions to "safeguard the planet, economy and citizens" from the effects of climate change.



