BMBCL could become a national urban park.
PHOTO: Simon Ryder-Burbidge

How the Blue Mountain-Birch Cove Lakes Wilderness Area Could Contribute to a More Climate-Resilient HRM

by **MAKAYLA CARNEVALE** /// EAC Volunteer

When I first began my studies at Dalhousie University, one of my earliest experiences was a field trip to Point Pleasant Park. We spent the day exploring the woods, learning to identify various trees and ecosystems. During our trek, we came across a stand of hemlock trees and took refuge in under their densely woven canopy. The temperature dropped noticeably, and our professor seized this moment to share a fascinating insight: trees do more than just provide shade – they actively cool their surroundings. Through the release of organic compounds, (much like how they release oxygen), trees attract water droplets in the air, increasing the speed of cloud formation. These clouds in turn reflect sunlight away from the Earth, cooling down local environments and potentially the globe. This moment was a revelation for me: it illustrated how landscapes could actively regulate climate and their potential as a climate adaptation tool.

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Fast forward a year, and I am standing in the parking lot of the Kent in Bayer's Lake. If you follow the winding footpath past the paved asphalt edge of the business park, you'll enter a realm of lakes, wetlands, and Wabanaki Forest. That is where I found myself – staring out at the placid waters of Susie's Lake for the first time. Poised there above the water, the city skyline had been replaced by forest, the thrum of cars by the whistle of wind through leaves and the smell of exhaust by the smell of pine needles, wet earth, moss and wood.

This patch of land is among the last wild spots in the city. Known as Mnikwaqnik, it is a place where the Mi'kmaq used to hunt caribou, harvest birch bark and build birch bark canoes. In more recent years it has been a beloved spot for hiking, canoeing, birding and outdoor recreation among Haligonians. Today it goes by another name: the Blue Mountain - Birch Cove Lakes Wilderness Area (BMBCL). This particular plot is one of several, scattered between watercourses and developments, that together make up the BMBCL's 1,782 hectares of wilderness.

Since 2021, the Friends of the BMBCL, in partnership with Halifax Regional Municpality (HRM) and Parks Canada, have been working toward establishing BMBCL as one of Canada's next urban national parks. Pre-feasibility studies have identified four key objectives of the

potential BMBCL Urban National Park: environmental protection and conservation, enhancing ecological connectivity, providing access to nature-based education and recreational opportunities and Indigenous reconciliation. One glaring omission was climate change adaptation.

Climate change is often thought of in terms of carbon emissions and reduction technologies; it can often feel as nebulous as the clouds of carbon emission in our atmosphere. But it doesn't have to be. It can be as real and tangible as stepping into a grove of trees and feeling the temperature drop. By linking climate adaptation efforts to the land and recognizing its role in mitigating climate change, we can tackle both climate change and the biodiversity crisis simultaneously.

Ecosystems critical to species' survival were the original carbon capture and reduction technology. The most well-known examples are forests. We've all heard it – the growing cycle of a tree draws down carbon from the atmosphere in exchange for oxygen, storing that carbon in its roots, leaves and branches. The ecosystems that capture and store the most carbon are also the healthiest, most suitable habitat for species. Forests are not the only natural carbon storehouse; ecosystems like wetlands and their soils can store large amounts of carbon too. If left untouched, these natural storehouses can remove carbon from the atmosphere for hundreds of years and provide critical habitat for many species.

The forests within the BMBCL are not only a powerful carbon capture and reduction tool, but they also play a crucial role in protecting against floods and heatwaves. When it rains the forest canopy acts like one giant umbrella, slowing the descent of raindrops to the forest floor. Once the rain reaches the forest floor, roots within the soil absorb it like a sponge. These roots also aerate the soil, creating pathways for water to seep through the soil and replenish groundwater supplies. Another key ecosystem within the BMBCL is wetlands. These natural holding tanks collect and store excess water like rain and runoff, and gradually release it back into the environment. Together these ecosystems reduce the risk of flash floods, landslides and erosion in the neighbourhoods surrounding the BMBCL.

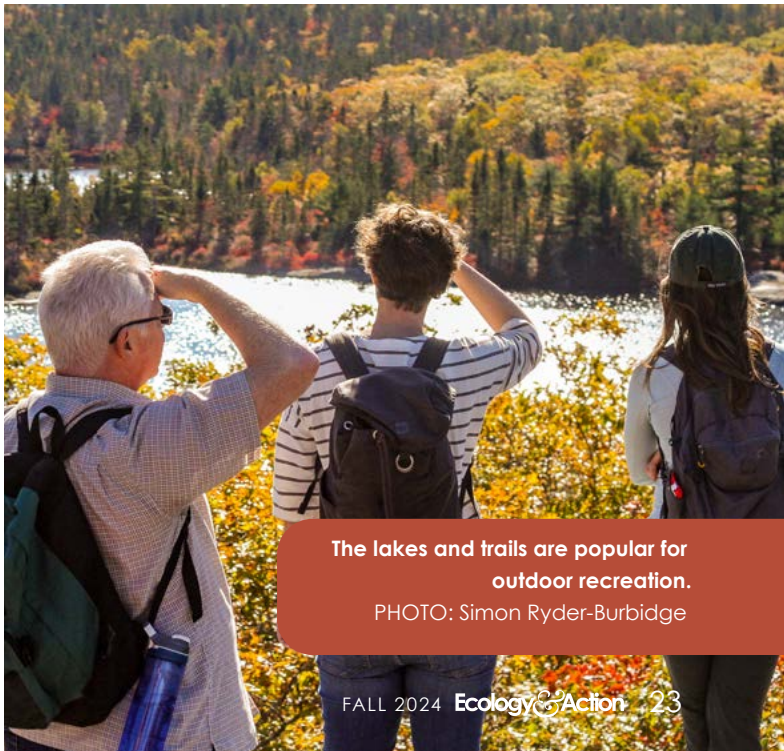
During heatwaves, green, leafy spaces like those in the BMBCL lower surface and air temperature by providing shade and through evapotranspiration – essentially the way in which a plant sweats. Evapotranspiration uses heat from its surroundings to transform water into vapour and cools the air in the process. Lakes and other waterbodies in BMBCL also play an essential role keeping temperatures cooler. As climate change progresses, cities will become hotter and harder to live in, including the HRM. In the past year alone, our province has experienced a severe winter storm, a record-breaking heat wave and deadly flash flooding. Functioning ecosystems like those within the BMBCL will be necessary for the well-being of those living within the HRM, both human and animal alike.

As climate change continues to degrade and fragment vital habitats, wildlife will increasingly need safe passage to more climate-resilient refuges. The BMBCL is uniquely positioned in Nova Scotia to serve as a critical corridor for our native species, offering them a lifeline to escape the pressures of a changing climate. This area is intricately connected with nearby green spaces, including the Ingram Wilderness Area and Five Bridges Lakes Wilderness Area. Along with the Sandy Lake – Sackville River area and the Halifax Backlands, the BMBCL forms the Halifax Greenbelt, a vital network of green spaces that spans the city. Preserving these connections, along with the habitat patches between them, is essential to safeguarding our native species.

The BMBCL is on track to becoming a national urban park, which would result in increased recognition, accessibility and Mi'kmaq involvement. However, this designation may not include legal protection of more land, and this uncertainty means this landscape's resilience to climate change is not guaranteed. For the BMBCL to succeed as a resilient urban national park, strategic land acquisition is key. Without it, natural features critical to climatic resilience, ecological integrity and the identity of the BMBCL may be lost to development. Choices made for the BMBCL today will set the precedent for land protection tomorrow. Will our future be one defined by environmental protection and sustainability – or by the unchecked spread of development? The answer is in our hands.

TAKE ACTION

Help protect BMBCL by becoming a member of, volunteering with or donating to Friends of Blue Mountain-Birch Cove Lakes at **https://bluemountainfriends.ca**



The lakes and trails are popular for outdoor recreation.
PHOTO: Simon Ryder-Burbidge