Stories from Canada's Conservation Network

CHIGNECTO ISTHMUS WILDERNESS AREA, NOVA SCOTIA

CONSERVING BIODIVERSITY WHILE SAFEGUARDING DRINKING WATER

Photo: Government of Nova Scotia

OTHER EFFECTIVE AREA BASED CONSERVATION MEASURE (OECM)

An 'isthmus' is a narrow strip of land with sea on either side that forms a link between two larger land areas. In Canada's Maritimes, the Chignecto Isthmus is the narrow strip of land connecting Nova Scotia to New Brunswick. It is also the only land bridge that connects Nova Scotia to the rest of North America.

The Chignecto Isthmus is an important place for biodiversity. Only 21 kilometres wide at its narrowest point, the area contains tidal marshes, tidal rivers, mud flats, inland freshwater marshes, coastal saltwater marshes, and mixed forest. It includes many rare plant species, more than 220 bird species, and provides an important stopover site for migratory birds. It also allows for the movement of land mammals between Nova Scotia and New Brunswick, including the endangered mainland moose and Canada lynx, making it a vitally important corridor for the genetic health of these populations.

The Isthmus is also an important place for people. On top of being a critical land route for trade and tourism, the Town of Amherst Nova Scotia is located near the west end of the Isthmus and uses the area's groundwater as its sole source of drinking water. In the early 1990s,

the Town of Amherst and the municipality it resides in created the first formalized protection on the Isthmus to safeguard their water resource. They created the North Tyndal Protected Water Area, which included developing an intermunicipal planning strategy and land-use by-law to oversee these lands. In 2008 the town asked the province to further protect the area through its Parks and Protected Areas plan. Updates since then have added corridors between the protected wilderness areas to allow wildlife to move more freely between them. The area has now expanded from less than 1,000 hectares to over 3,750 hectares and growing, and includes lands owned by the town, lands owned by the province, and several properties secured by the Nature Conservancy of Canada.

Many of the conservation areas within the Chignecto Isthmus are Protected Areas as conservation is their primary purpose. However, the main purpose of the 964-hectare Chignecto Isthmus Wilderness Area, which includes the North Tyndal Protected Water Area, is water supply protection. This supports the area being recognized as an Other Effective Area Based Conservation Measure or OECM.

HOW DO WE KNOW THAT THE CHIGNECTO ISTHMUS WILDERNESS AREA IS AN OECM?



Does the property have a defined geographical space?

Yes! The boundaries of the Chignecto Isthmus Wilderness Area are well identified and can be accurately placed on a map.



Is there an effective way of ensuring that biodiversity will continue to be conserved into the future?

Yes! The lands conserved within the Chignecto Isthmus Wilderness Area are protected under Nova Scotia's *Wilderness Protection Act*. The area is managed collaboratively by the government of Nova Scotia and the Town of Amherst.



Is there an expectation that the biodiversity on the site will be conserved for the long term?

Yes! Due to its critical purpose of protecting the water supply for the Town of Amherst, and with the backing of the Government of Nova Scotia, this area is expected to conserve biodiversity for the long term.



Is biodiversity conservation the primary objective of the area?

No – and that's okay! The Chignecto Isthmus Wilderness Area's purpose is to safeguard the water supply for the Town of Amherst. While conservation of biodiversity isn't the primary purpose, the management standards for the area still ensure that biodiversity is conserved.

Quick tip

Lands in the Isthmus that have a "yes" answer for this question would likely be assessed as Protected Areas. Both types of areas are important, and both achieve biodiversity conservation.



Is biodiversity on the site conserved?

Yes! The Chignecto Isthmus Wilderness Area contributes to the network of areas helping to conserve the biodiversity of the Isthmus.



Near the southwestern edge of Algonquin Park hides a forest within a forest. Known as the South Freezy Lake Old Growth Forest, it is a privately owned managed forest that has been recognized as an Other Effective area-based Conservation Measure (OECM), and the first OECM in Canada to be led by the forest industry.

The South Freezy Lake Old Growth Forest is home to sugar maples, eastern hemlocks, American beeches, and white pines, with some trees more than 150 years old. Part of Haliburton Forest & Wild Life Reserve, Canada's first forest certified by the Forest Stewardship Council, the South Freezy Lake Old Growth Forest is a relatively small 20-hectare area with immense ecological significance. Surrounded by wetlands and steep cliffs, the area is naturally difficult to access and has no history of industrial activity, allowing the site to maintain the

classic features and habitat of an old growth forest.

Conserved by Haliburton Forest & Wild Life Reserve Ltd., with support from the Nature Conservancy of Canada, the South Freezy Lake Old Growth Forest has been recognized by the Governments of Ontario and Canada as being part of the network of protected and conserved areas across Canada. The site will continue to be monitored to ensure the forest structure and biodiversity are maintained. The company has also voluntarily included South Freezy Lake as a priority site for monitoring, providing additional oversight to help ensure the area is kept healthy and resilient for years to come.

HOW DO WE KNOW THAT THE SOUTH FREEZY LAKE OLD GROWTH FOREST IS AN OECM?



Does the property have a defined geographical space?

Yes! Located within Haliburton Forest, the boundaries of the South Freezy Lake Old Growth Forest are well identified and can be accurately placed on a map.



Is there an effective way of ensuring that biodiversity will continue to be conserved into the future?

Yes! The lands are fully owned by Haliburton Forest, which has a Forest Management Plan in place, including a no-harvest policy for old growth areas like the South Freezy Lake Old Growth Forest. Haliburton Forest is also certified by the Forest Stewardship Council, which requires that Forest Management Plans and related policies are followed.



Is there an expectation that the biodiversity on the site will be conserved for the long term?

Yes! Haliburton Forest intends to keep the South Freezy Lake Old Growth Forest area set aside from harvest for the long term, and is committed to following its forest management planning process.



Is biodiversity conservation the primary objective of the area?

No – and that's okay! Sustainable forests are managed to achieve a variety of environmental, social, and economic objectives. Ongoing forest management activities help maintain the ecological functions and species in parts of the forest without harvesting or other industrial activities. This allows set-asides like the South Freezy Lake Old Growth Forest to contribute to the overall health of Haliburton Forest.

Quick tip

If this answer was "yes" for the South Freezy Lake Old Growth Forest it would likely be assessed as a Protected Area. Both types of areas are important and both achieve biodiversity conservation.



Is biodiversity on the site conserved?

Yes! As clearly set out in its Forest Management Plan, there will be no timber harvesting, resource extraction or development in the South Freezy Lake Old Growth Forest. Instead, the forest will be left to grow and develop on its own, maintaining its biodiversity and ecological functions into the future.



Supporting conservation is a key factor in the lives of many Canadians. And for some Canadians, this dedication to nature continues even after their lives are over.

Located off the east coast of Vancouver Island, Salt Spring Island is the largest and most highly populated Southern Gulf Island in the Strait of Georgia, the water body that separates Vancouver Island from the mainland. The island is also home to the Salt Spring Island Natural Cemetery, Canada's first entirely green burial cemetery that offers services to the public.

The cemetery owners are island farmers whose land has split zoning – 70 acres are agricultural, and another 14 acres are zoned rural. When the owners noticed that many surrounding properties with rural zoning were being subdivided for development, they wanted to find a way to keep their land in a more natural state both now and into the future. The green burial cemetery was established in part to help conserve this part of their property and create additional income for their family farm, while providing a more natural interment option for

those seeking a final resting place outside of a conventional cemetery.

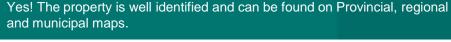
Unlike most cemeteries seen across Canada that have manicured lawns, decorative flowers and little wild nature, the Salt Spring Island Natural Cemetery's mission is to return the property's forest to one with giant Douglas firs. Using caskets and burial shrouds made from natural materials, and avoiding the use of chemical embalming, natural burial is the most ecologically friendly end-of-life option. Graves are marked with natural stones from the property and the area is allowed to re-wild with native plants after a burial to help sustain the ecosystem.

By doing things differently, the cemetery helps to protect and grow the trees within the area's Coastal Douglas fir ecosystem. Their efforts also contribute to sustaining an old growth forest and helps conserve the area's biodiversity. The Salt Spring Island Natural Cemetery highlights the role private landowners can play in protecting nature as part of the global effort to counter biodiversity loss and climate change.

HOW DO WE KNOW THAT THE SALT SPRING ISLAND NATURAL CEMETERY IS AN OECM?



Does the property have a defined geographical space?





Is there an effective way of ensuring that biodiversity will continue to be conserved into the future?

Yes! The land is privately owned and is protected through a provincial Certificate of Public Interest and its license as a Provincial Place of Interment. These provisions allow for the enforcement of laws and bylaws related to cemetery operations and land use.



Is there an expectation that the biodiversity on the site will be conserved for the long term?

Yes! The BC Cemetery and Funeral Services Act says that properties for interment can only be used for burials. As well, the contracts put in place with those who buy plots in the cemetery include the promise that the property will be managed and funded to support the local ecosystem into the future.



Is biodiversity conservation the primary objective of the area?

No – and that's okay! The cemetery operates as a place of interment for those who buy the right to use the site as a final resting place. However, since the cemetery's mission is to operate in ways that support the area's Coastal Douglas fir ecosystem, their work helps to ensure that biodiversity is conserved.

Quick tip

If this answer was "yes" for the Salt Spring Island Natural Cemetery it would likely be assessed as a Protected Area. Both types of areas are important, and both achieve biodiversity conservation.



Is biodiversity on the site conserved?

Yes! The work being done by the Salt Spring Island Natural Cemetery ensures that the biodiversity in the area is conserved. Find out more about the Salt Spring Island Natural Cemetery at www.saltspringcemetery.ca.

QUEEN'S UNIVERSITY BIOLOGICAL STATION, ONTARIO

WHERE EDUCATION MEETS CONSERVATION



OTHER EFFECTIVE AREA BASED CONSERVATION MEASURE (OECM)

The Queen's University Biological Station (QUBS) is a globally unique research and teaching facility located in southeastern Ontario. The station occupies more than 3400 hectares and is home to a wide variety of habitats, including mature second-growth forests, lands previously used for farming, wetlands, lakes, and streams, which support species that are typical of both the Canadian Shield and the Great Lakes Basin. For many of these species, the conservation value of the QUBS property is substantial.

QUBS offers a range of educational programs, including undergraduate and graduate courses, field courses, and

workshops. Researchers at QUBS focus on a variety of topics, including ecology, evolution, biodiversity, conservation biology, and environmental science. In addition to its research and educational programs, QUBS is committed to promoting environmental stewardship and sustainability and engaging in public outreach.

QUBS' efforts to support their education and research programs ensures that the property is managed in ways consistent with biodiversity conservation.

HOW DO WE KNOW THAT THE QUEEN'S UNIVERSITY BIOLOGICAL RESEARCH STATION IS AN OECM?



Does the property have a defined geographical space?

Yes! The boundaries of the QUBS property are well identified and can be accurately placed on a map.



Is there an effective way of ensuring that biodiversity will continue to be conserved into the future?

Yes! As the landowner for QUBS, Queen's University has the responsibility and authority to make decisions about the site and how it's managed. Since QUBS supports many programs, students and researchers working in environmental fields, sustaining the biodiversity at the biological station is essential to the ongoing operations of QUBS.



Is there an expectation that the biodiversity on the site will be conserved for the long term?

Yes! There is no intention to change or remove the site, so the biodiversity on QUBS is expected to remain conserved to help QUBS meet its education and research needs for the future. QUBS has also partnered with the Nature Conservancy of Canada and local land trusts to conserve additional adjoining lands, which will further support biodiversity in the area.



Is biodiversity conservation the primary objective of the area?

No – and that's okay! The purpose of QUBS is research and education, but they meet their programming needs in a way that provides protection for the ecosystems, habitats, and species on their property.

Quick tip

If the answer to this question was "yes!" the area would likely be assessed as a protected area instead of an OECM. Both types of areas are important, and both achieve biodiversity conservation.



Is biodiversity on the site conserved?

Yes! While the site is managed as a university research and teaching facility, the nature of the activities on the site mean that biodiversity is also conserved.



Rooted in the Catholic Christian tradition. the century-old Ignatius Jesuit Centre in Guelph, Ontario, shares the sacredness of creation through its public programs in spiritual development, education, community, and through their plans to restore an old-growth forest for the next 500 years.

Founded in 2006 by the Ignatius Jesuit Centre, in collaboration with the Guelph International Resource Centre, the Old-Growth Forest Project uses communitybased restoration to engage the community in healing the Earth. This 93-acre nature sanctuary includes trails, forests, meadows, wetlands and waterways that create a green corridor connecting the Guelph Lake Conservation Area to the Guelph-Eramosa Trail. It also supports the health of the Grand River watershed and the Great Lakes. Part of the traditional territory of the Anishnaabe, the Attawandaron, and the Haudenosaunee, and on the land of the Between the Lakes Treaty with the

Mississaugas of the Credit, much of the original forest on the site was removed during colonization, with some portions converted to agricultural land. Now, through an ecological restoration vision that incorporates Indigenous knowledge, the Centre is working with local students and community volunteers to restore and protect the area's diverse ecology to create an oldgrowth forest.

The Centre has already added over 11,000 native trees and shrubs to the site, and has successfully decommissioned the Marden Creek dam, freeing the creek for the first time in 180 years and allowing the return of its cold-water creek ecosystem. The site offers a beautiful and peaceful setting for forest hikes, spiritual renewal and nature connection. The Centre also offers a range of programs and activities that help participants gain skills in ecology, reforestation, stream rehabilitation and natural approaches to invasive plant control.

HOW DO WE KNOW THAT THE IGNATIUS OLD **GROWTH FOREST PROJECT IS A PROTECTED AREA?**



Does the property have a defined geographical space?



Yes! The boundaries of the Ignatius Jesuit Centre Old-Growth Forest Project are well identified and can be accurately placed on a map.

Is there an effective way of ensuring that biodiversity will continue to be conserved into the future?





Is there an expectation that the biodiversity on the site will be conserved for the long term?

Yes! The easement agreement says it is intended to protect the land forever. The Ignatius Jesuit Centre describes the area as a 500-year project, and the project is intended to continue even if legal agreements change. Public involvement in the project also supports the protection of the site for years – even centuries – to come.



Is biodiversity conservation the primary objective of the area?

Yes! Jesuit ministries are required to care for, protect and restore creation. The Pope has urged all people to take urgent action against the injustice of climate change and the ecological crisis. The Ignatius Jesuit Centre's Restoration Plan respects these principles by ensuring that long-term restoration and conservation objectives are met, and that the area's biodiversity is conserved.

Quick tip

if this answer was "no" for the Ignatius Jesuit Centre Old-Growth Forest Project it would likely be assessed as an Other Effective Area Based Conservation Measure, or OECM. Both types of areas are important and both achieve biodiversity conservation.



Is biodiversity on the site conserved?

Yes! The work of the Ignatius Jesuit Centre ensures that the site's biodiversity is conserved now and into the future. Check out www.ignatiusguelph.ca for more information about the Old-Growth Forest Project and how you can get involved.

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