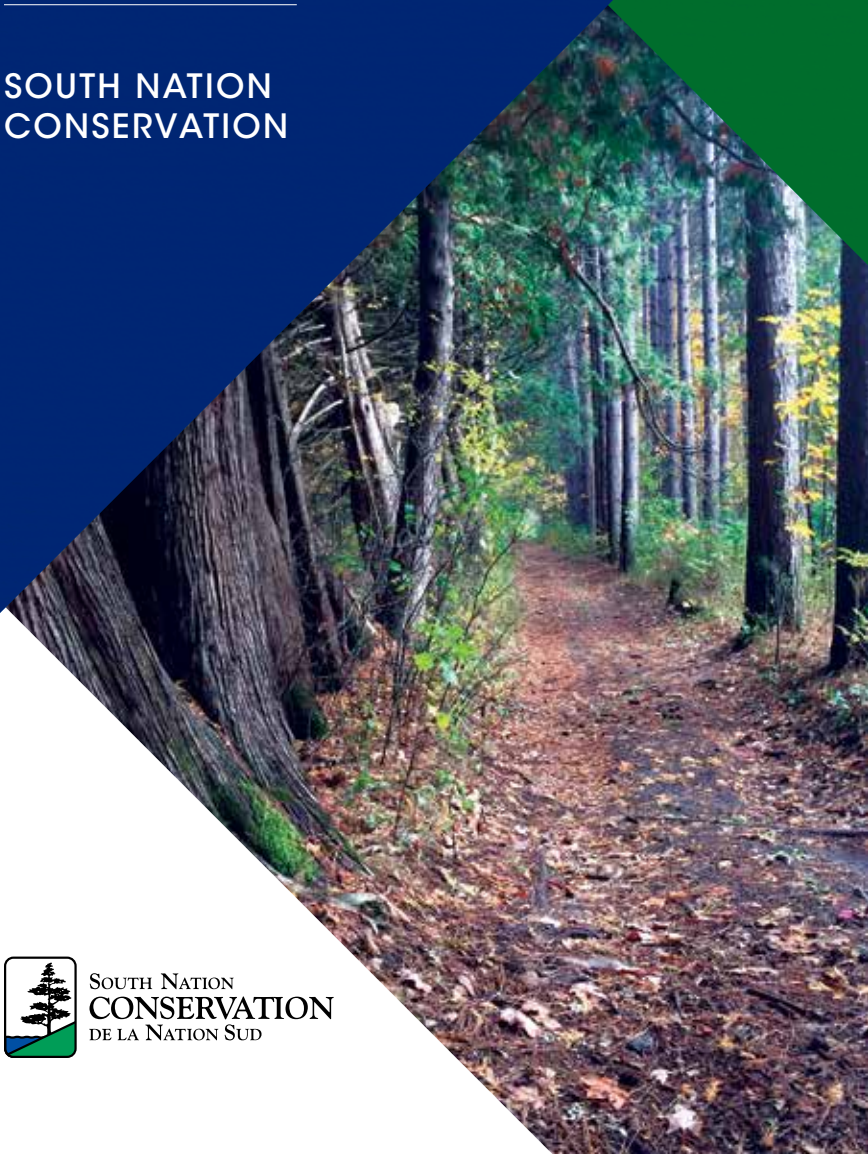
COMMUNITY LANDS GEOPASSPORT TOUR

SOUTH NATION CONSERVATION



South Nation CONSERVATION de la Nation Sud

South Nation
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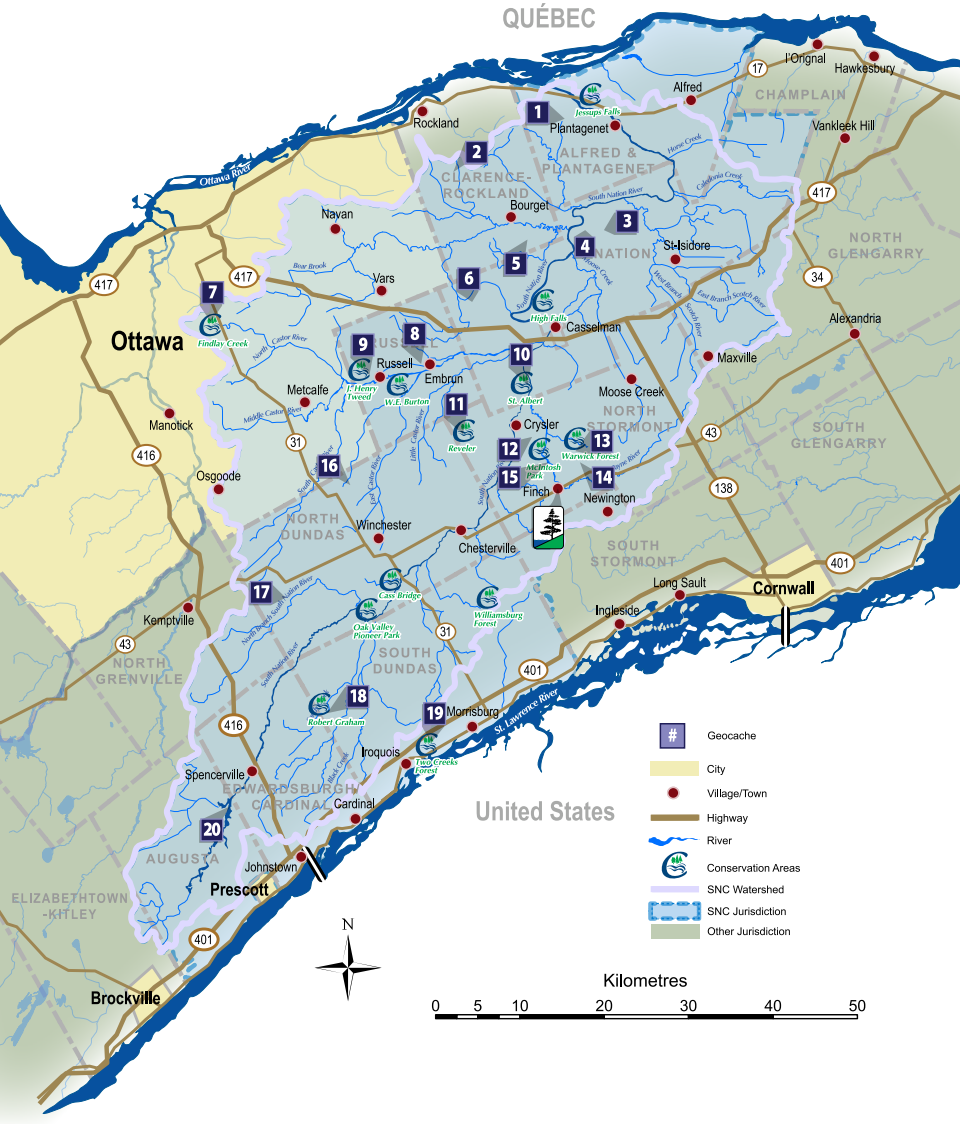
de la Nation Sud



GEOCACHING

With support provided by: Ontario

WELCOME TO SOUTH NATION CONSERVATION'S **COMMUNITY LANDS GEOPASSPORT TOUR**

This passport guides users through a real-life adventure within South Nation Conservation's (SNC) jurisdiction in Eastern Ontario, featuring twenty geocaches to help you discover the ecological, economical and social benefits of forests in the area.

In 2016, SNC published a report titled 2016 Forest Cover Trends Analysis, which reported declines of 4.1% forest cover from 2008-2014. In the jurisdiction, current forest cover falls below the minimum threshold of 30% recommended by Environment and Climate Change Canada.

Forests are an essential part of a healthy watershed. Trees filter our air and water, prevent flooding and erosion, as well as provide food and habitat for wildlife. They also provide many economic, recreational, and aesthetic benefits.

We all have a role to play in the management and sustainability of our community lands. Today, SNC works with municipalities, partner organizations and residents to increase local forest cover. Tree planting, the Woodlot Advisory Service, and land acquisitions and donations are just some of the programs that SNC offers to revitalize the loss of forest cover in Eastern Ontario!

INSTRUCTIONS

1. Register your free username at **Geocaching.com**
2. Print out a SNC Community Lands GeoPassport Answer Key
3. Bring along a handheld GPS device or use the geocaching app on your smartphone
4. Fill out the Community Lands GeoPassport as you find the hidden caches

PRIZES & RULES

- Be sure to mark the code word in the Community Lands GeoPassport
- If you find 15 of the 20 hidden caches, you are eligible to receive a special-edition SNC geocoin. To claim your geocoin, please mail, fax, email, or drop-off the completed form to:
  38 Victoria Street
  P.O. Box 29
  Finch, Ontario K0C 1K0

MEDICINAL TREES

N 45° 31.853 | W 75° 04.163 **CACHE 1**

While trees have many ecological functions, they also offer important medicinal and cultural services. First Nations used over a thousand different plants and trees for food, medicine, materials and in cultural traditions. This traditional knowledge of plants and their uses allowed First Nations to thrive in diverse environments. Many traditional uses have evolved for use in modern life.

Black Ash tree splint and sweetgrass baskets have been deeply rooted in Mohawk identity for many generations. The art of basket-making ensures unbroken and continued ties to the land and the environment, allowing many to reflect upon their cultural past and share ideas for the future.

Birch, Cedar and Spruce trees are also used to this day to create canoes.

The endangered Butternut tree has similar ties to the environment and First Nations. Butternuts can be used medicinally to treat toothaches, injuries and digestive problems.

SNC works closely with partners to provide Black Ash tree harvest sites and compensation projects where new Butternut trees are planted on public land to replace dying or removed trees.

POINTS OF INTEREST

Jessup's Falls Conservation Area

CODE WORD:

coord.info/GC7M2JF

HISTORIC FOREST COVER

CACHE 2 N 45° 28.850 | W 75° 14.686

Prior to settlement, the First Nations people had minimal impact on the forested land. Post-European settlement drastically disrupted the landscape with incentives to clear the land and send timber off to Europe for ship building.

By the late 19th Century, Eastern Ontario experienced severe flooding, droughts and erosion due to a declining forest cover, an attribute closely linked to ecosystem health. Forest cover was below 30% in 32 townships in the region, and in some, less than 10%. Severe deforestation, poor land management practices and flooding, led to the creation of Conservation Authorities in Ontario. With support of government agencies, the Ministry of Natural Resources and Forestry and Conservation Authorities began land restoration activities through intensive replanting efforts to increase local forest cover.

SNC has been in the business of forest management and tree planting since 1960. Landowners can benefit from SNC's portfolio of forestry programs including, the Woodlot Advisory Service, the Managed Forest Tax Incentive Program and Tree Planting.

FUN FACT

This property is home to the most note-worthy and oldest Red pine plantation within SNC's jurisdiction.

CODE WORD:

coord.info/GC7M2JG

HUNTING, TRAPPING AND FISHING

N 45° 25.136 | W 75° 00.773 **CACHE 3**

Plant and animal species depend on forests for protection, nesting sites, migratory corridors and foraging opportunities. Forests are vital to species biodiversity and are essential for life.

Do you know what kind of species live outside your front door? Sustainable hunting, trapping and angling practices play an important role in the management and conservation of wildlife in Eastern Ontario.

The South Nation River sustains a vigorous fishery that lures anglers from across the region. Shoreline, fly, and small boat fishing exist at several Conservation Areas which boast several warm-water sport fish species such as Pike, Walleye, Muskie, Catfish, and Carp.

A range of hunting opportunities also exist on SNC's land for species such as White-tailed deer, moose, waterfowl and upland game. Hunting permits are required from SNC and hunters and trappers must hunt in-season and only the number of animals that their permit from the Ministry of Natural Resources and Forestry specifies.

Every year, SNC welcomes youth to participate in Youth Fish Camps and Youth Hunts through their apprenticeship program. The programs are designed to provide young hunters and anglers with the knowledge they need to practice safe and ethical hunting and fishing.

FUN FACT

The streams, rivers and wetlands in the South Nation Watershed provide habitat for 72 fish species.

CODE WORD:

coord.info/GC7M2JH

FORESTED RIPARIAN ZONES

CACHE 4 N 45° 24.829 | W 75° 02.539

The quality of forest conditions is often based on: forest cover – the total area that is covered in trees; forest interior – the wooded area that is more than 100 metres from the forest's edge; and forested riparian zone – the amount of forest within 30 metres on either side of a watercourse.

Riparian areas surround bodies of water and link water to land. They are composed of moist to saturated soils, water-loving plants and associated ecosystems, and also play a prominent role in urban tree cover. People have long relied on riparian areas for the abundant food, water and material resources that they supply.

Historically, they provided transportation corridors for travel by boat and were often the only flat areas suitable for building roads, farms and cities.

Loss and removal of riparian areas comes with a cost, threatening the survival of wildlife, increasing the risk of erosion and flooding, and impacting ecosystem connectivity across the landscape.

Every year, SNC conducts stream restoration projects along the South Nation River and its tributaries to improve water quality, biodiversity, and repair degraded streambanks and shorelines.

FUN FACT

Canada's beloved Beaver has a strong presence in this forest – see if you can spot the Beaver ponds along the historical Riceville Ridge.

CODE WORD:

coord.info/GC7M2JJ

MAN-MADE FORESTS

N 45° 24.386 | W 75° 07.919 **CACHE 5**

Not all trees are created equally – the local climate, soil-type, and a tree's biological needs, shape and size at maturity, all play a role in determining whether a tree will thrive in your local environment.

Larose Forest is one of the largest man-made forests in Canada encompassing over 11,000 hectares of land with some trees reaching 27 metres high.

As most of the forest was planted on failed agricultural lands back in the 1920's and 1930's many straight agriculture ditches are found throughout the forest. Over the years, these ditches have created wet conditions, leading to the failure of some red pine plantations and the need for restoration efforts.

SNC works with partner organizations like Ontario Power Generation to revitalize and enhance at-risk ecosystems like the Larose Forest, to help improve forest cover, increase biodiversity and sustain woodlots.

SNC's Woodlot Advisory Service and tree planting programs provide free advice on what trees should be planted based on soil and environmental conditions. Some trees tolerate water more than others, need varying amounts of sunlight, and prefer different soil types.

FUN FACT

This forest gets its name from Ferdinand Larose, the Ontario Department of Agriculture employee with the vision to conquer Eastern Ontario's declining forest cover through the planting of trees in this area.

CODE WORD:

coord.info/GC7M2JK

NATURE'S FOUNDATION

CACHE 6 N 45° 20.409 | W 75° 12.802

Forests are homes and travel corridors for many wildlife, including those that are at-risk and endangered due to declining habitat and increases in human activity.

SNC monitors rare turtles in its jurisdiction through a turtle watch program , which expanded in 2009 to include habitat enhancement efforts. Sites like these are selected due to observations of heavy nest activity on the shoulders of roads. Habitat enhancements are designed to replicate natural turtle nesting areas typically found on roadsides.

Turtles travel from their forested wetland habitat to find habitat suitable for nesting. Unfortunately, the gravel found on roadsides is prime nest sites and turtle populations are decreasing due to accidents on roadways.

In Ontario, most turtle offspring have only a 1% chance of survival and each turtle must survive for several years or decades before it too can mate and lay eggs. The creation of enhancement sites is a great way to help conserve populations.

If you see any turtles on your travels, be sure to give SNC a call!

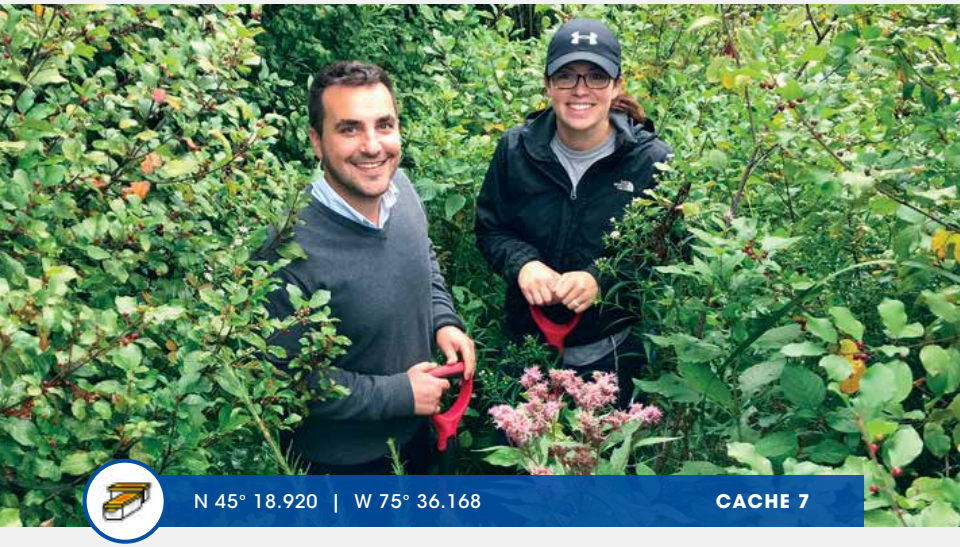
POINTS OF INTEREST

High Falls Conservation Area

CODE WORD:

coord.info/GC7M2JM

INVASIVE SPECIES MANAGEMENT



N 45° 18.920 | W 75° 36.168 **CACHE 7**

Nature is an astonishing and complex puzzle composed of millions of diverse flora and fauna. If our actions lead to even the loss of one species, the delicate harmony of the area's ecosystem can be disrupted.

One of the current impacts affecting the composition of Ontario's forests is the introduction of invasive, or non-native, species and diseases. Invasive species management initiatives help to protect biodiversity across the jurisdiction.

In 2017, SNC took on a new forestry management practice to help do battle against the destructive Emerald Ash Borer (EAB). The EAB is an invasive beetle, native to Asia, that has caused considerable damage to Ash trees throughout the region. SNC is helping manage the invasive EAB by releasing tiny wasps within controlled areas on private and public land. These non-stinging wasps (1 mm in size) target EAB eggs and larvae and work to slow the damage caused to Ash trees. Work will continue, in partnership with the Canadian Forest Service, to help ensure longevity of future Ash trees.

POINTS OF INTEREST

Findlay Creek Boardwalk

The Leitrim Wetland

CODE WORD:

coord.info/GC7M2JP

FROZEN FORESTS

CACHE 8 N 45° 16.367 | W 75° 17.412

From snowshoeing to cross-country skiing and skating figure eights on frozen waterways, some outdoor experiences can only be had during Canada's coldest season! Even with treetops dusted in snow, forests provide a natural space where it's possible to escape the hustle and bustle of modern life, explore the countryside, and get your daily steps in.

Every winter, SNC invites residents to dawn their favourite winter attire and discover over 30 km of groomed trails at Conservation Areas across the jurisdiction. SNC also works with municipal partners to keep a number of parks and trails groomed, helping to increase winter recreational opportunities for residents and visitors year-round.

FUN FACT

This 7.2 km trail once served as a railway passage between Ottawa and New York from 1898 to 1957.

CODE WORD:

coord.info/GC7M2JT

THE ROOT OF EROSION CONTROL

N 45° 15.710 | W 75° 22.044 **CACHE 9**

Forests act as a natural barrier to soil erosion caused by wind and water, but there's more to a tree's role in erosion prevention than meets the eye, especially underneath the surface.

Eastern Ontario has experienced a number of natural disasters over the last century that have inflicted many dramatic changes to local woodlands. Of these natural disasters, this region is particularly prone to landslides. Two of the most memorable landslides include the Father's Day Landslide of 1993 and the May 16th Landslide of 1971.

Perhaps nature's best defense against the undesired movement of soil are tree root systems. Tree roots hold soil in place, bind soil to the land, and absorb large amounts of water during heavy rainfalls.

SNC works with municipalities to map natural hazards, including floodplains and unstable slopes, to protect people and property. The area between the villages of Casselman and Lemieux is mapped and designated a potential retrogressive landslide area.

POINTS OF INTEREST

J. Henry Tweed Conservation Area

W.E. Burton Conservation Area

CODE WORD:

coord.info/GC7M2JV

URBAN FORESTS

CACHE 10 N 45° 15.398 | W 75° 07.620

The urban forest is where most of us work, socialize with friends and family, and go home at night. It's the trees in our public parks, along roadsides, and our neighbours' yards. Often, the trees and shrubs found in our urban areas are our closest interaction with woodlands daily, and are key contributors to local forest cover.

The placement of urban forests has many environmental, economic, and social benefits.

Trees and shrubs actively remove harmful pollutants from the air we breathe, store carbon inside the tree, release oxygen into the atmosphere, and provide wildlife habitat in urban centres. Planting trees on your property can also increase your home's property value and reduce your energy bills during warmer months from the shade provided. Perhaps more importantly, urban trees increase recreational opportunities which contributes to one's psychological and physical well-being.

SNC works with residents and partner organizations every year to spruce up schoolyards, roadways and parks. Urban residents can also benefit from many recreational opportunities like hiking, bicycling, and birdwatching at one of SNC's Conservation Areas!

POINTS OF INTEREST

St. Albert Conservation Area

King Fisher Canoe/Kayak Route

CODE WORD:

coord.info/GC7M2JW

UN-BEE-LIEVABLE POLLINATORS

N 45° 12.429 | W 75° 13.540 **CACHE 11**

Did you know that bees and other pollinators keep our local forests abuzz? Many leafy trees like willow and poplar, rely on the transfer of pollen to prosper and reproduce.

Pollinators also play an essential role in the preservation of native grassland habitat, where rare bird species including the Bobolink and Eastern Meadowlark reside.

Of course, we can't forget that bees also supply us with one of our favourite sticky and sweet woodland treats – honey! SNC owns over 13,000 acres of community land, with some properties ideal for honey production. SNC currently partners with local producers, where land is made available for free through lease agreements to provide homes for honey bees.

POINTS OF INTEREST

Reveler Conservation Area

CODE WORD:

coord.info/GC7M2JY

ROADSIDE TREE PLANTING

CACHE 12 N 45° 11.822 | W 75° 07.570

SNC works closely with member municipalities and partners to spruce up local spaces and add trees to the landscape!

SNC's Roadside Tree Planting Program is a good example of municipal partnerships at work. There are many benefits to having trees along roadsides, including absorbing and cleaning roadside runoff, serving as natural snow fences and windbreaks, providing habitat and food for wildlife and pollinators, and reducing noise pollution.

SNC offers a variety of tree planting subsidies and support for idle land, stream banks and buffer strips. Programs such as these contribute to enhancing public spaces and local forest cover while leaving a natural legacy for future generations!

POINTS OF INTEREST

Launch and dock your boat with ease at the Crysler River Access and take in the view of the Crysler Dam.

CODE WORD:

coord.info/GC7M2K1

SUSTAINABLE FOREST MANAGEMENT

N 45° 11.004 | W 75° 03.404 **CACHE 13**

No discussion on the benefits of forest cover would be complete without reference to Canada's economic engine for communities coast to coast; the forestry industry. This sector supplies many economic and social benefits to citizens nation-wide, through the creation of jobs – for foresters, scientists, engineers and skilled tradespeople, and through forest products like timber, paper, and food. This industry is the sustainable, main economic driver for communities in Northern Ontario. And, though not done sustainably, was the only driver in Eastern Ontario not-too-long-ago.

SNC's Forests are managed by standards designed to improve forest health, increase forest productivity, protect species diversity and wildlife habitat, and maintain social and cultural benefits.

Tree harvesting is a common practice undertaken on community lands across the watershed. Forestry Technicians work to carefully select and remove lesser quality trees while retaining those of good quality, to improve overall forest growth and health, and ensure that forests remain sustainable for future generations.

FUN FACT

Warwick Forest is a collection of several parcels of land owned by the United Counties of Stormont, Dundas and Glengarry, SNC and the Province of Ontario, and features a 6-km interpretive trail.

CODE WORD:

coord.info/GC7M2K2

GETTING TO KNOW H_2O

CACHE 14 N 45° 10.492 | W 75° 03.210

Summer recreational activities like swimming, paddling and fishing would not be possible without the conservation of our local rivers, streams and creeks.

Many are surprised to learn that forests play a direct role in the health of our waterways, fisheries and the water cycle. Two-thirds of Canadians also rely on surface water, including lakes and rivers, for their supply of drinking water.

Trees are designed by nature to purify and store water for natural and human use. As a result, a large portion of water comes from forested areas. As precipitation reaches the forest floor, it becomes cleaner as the soil filters out minerals and pollutants.

Forests are natural combatants against floods, soil erosion and droughts by reducing sediment from going into waterways and increasing water absorption into the ground.

FUN FACT

Black locust trees are scattered across this property. These non-native trees were once used as natural fence posts, and mark the remains of an existing homestead.

CODE WORD:

coord.info/GC7M2K3

TREES AND ME

N 45° 10.319 | W 75° 06.074 **CACHE 15**

Oxygen release, recreation, wildlife habitat, aesthetic benefits and industry goods – are just some of the words that come to mind when we think of these green giants. Everyone can benefit from planting suitable tree species on their property. SNC takes steps towards slowing down deforestation by planting over 100,000 trees and shrubs every year.

Each spring, SNC invites residents to purchase over-the-counter deciduous and coniferous seedlings as part of forestry and stewardship efforts through SNC's Tree Planting Program. Grants, subsidies and planting assistance provided by SNC.

Across the road from this site you will find the McIntosh Park Conservation Area. Many of the trees found in this park have been donated through SNC's Tree Dedication Program. The program allows for trees to be planted by way of donation, to commemorate loved ones while demonstrating a commitment to the environment and local community.

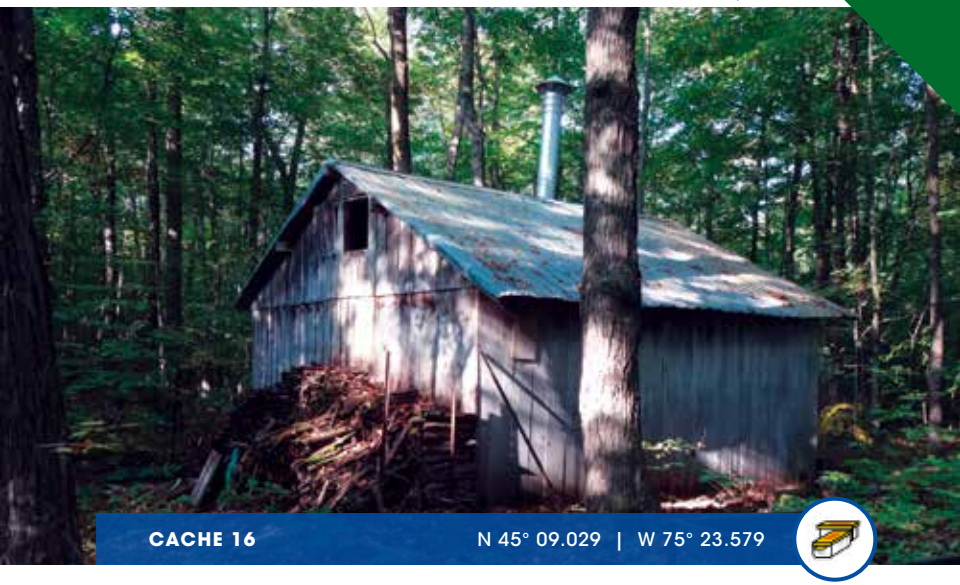
POINTS OF INTEREST

McIntosh Park Conservation Area

CODE WORD:

coord.info/GC7M2K6

A NATURAL LEGACY



CACHE 16 N 45° 09.029 | W 75° 23.579

"I wanted to ensure that this property was going to be cared for, so we donated it to SNC; to remain a healthy, vibrant forest." Those were the words spoken by George Oschmann at the Oschmann Forest Property Opening on June 2017, marking the 18-acre treed site's official entrance into the fold of SNC public, community lands.

The act of donating land is as much about preserving the past as it is about providing hope for the future. SNC is a member of the Ontario Land Trust Alliance and is approved to accept donations of land through Canada's Ecological Gifts Program. These community lands help to ensure a healthy environment, support a variety of wildlife species, and provide public recreation areas.

SNC strives to acquire two new forested properties each year to add to the over 13,000 acres of land owned and managed by the Conservation Authority. Managed for their posterity, these lands provide a natural heritage legacy for those who donate, while contributing to the improvement of local forest cover!

POINTS OF INTEREST

Cass Bridge Conservation Area

CODE WORD:

coord.info/GC7M2K8

MAPLE SYRUP: NATURE'S SWEETEST GIFT

N 45° 01.089 | W 75° 29.160 **CACHE 17**

Each spring, the snow starts to melt and animals come out of hibernation, a sure sign that maple syrup season is upon us! First Nations were first to discover this sweet treat.

Today, maple producers are committed to conserving the health and longevity of their trees. The use of a forest to produce maple syrup ensures its continuing role in providing habitat for a wide range of plant and animal species, contributes to the protection of water resources, and provides sought-after recreational opportunities.

The Canadian maple syrup industry produces 80% of the world's maple syrup! Be sure to visit a cabane-à-sucre this spring to enjoy an experience that is truly Canadian!

FUN FACT

SNC has the potential for approximately 2,200 taps from its maple forests, which could make 825 gallons of maple syrup annually.

CODE WORD:

coord.info/GC7M2K9

REFORESTATION

CACHE 18 N 44° 53.916 | W 75° 26.085

Did you know that even squirrels contribute to reforestation? Buried nuts and seeds grow into full trees and help move species through a forest!

Reforestation often begins with the replanting of trees, but sometimes old trees are able to help reforest an area on their own. When seeds are released by a tree the wind or even other animals carry those seeds where they may later grow, ensuring the genetic diversity of the forest.

All seedlings planted by SNC across the jurisdiction are sourced from SNC's seed zone and are native stock to Ontario, to ensure that species thrive under local climatic conditions.

Tree orders accepted year-round through SNC's Tree Planting Program – Call SNC today!

POINTS OF INTEREST

Robert Graham Conservation Area

CODE WORD:

coord.info/GC7M2KB

FLOOD PREVENTION

N 44° 52.281 | W 75° 16.835 **CACHE 19**

Extreme weather makes the news frequently and SNC manages a flood forecasting and warning system to inform, update, and provide advanced warning of flood events.

Locally, SNC operates several water control structures including dams, weirs, and berms to reduce risk to life and damage to property. Although we rely on these man-made structures to manage flows during periods of heavy rainfall, Mother Nature has her own defence against potential natural disasters.

Forested watersheds absorb, reroute, and hold onto water during periods of severe precipitation, before slowly releasing it back into our streams, creeks, and rivers. Leaves, roots, and downed woody debris also play an essential role in flood prevention. Leaves collect and reduce the amount of falling precipitation, roots absorb moisture to help stabilize the ground's surface, and woody debris acts as a super sponge helping soils to absorb excess water!

POINTS OF INTEREST

Two Creeks Forest Conservation Area

CODE WORD:

coord.info/GC7M2KE

FORESTED WETLANDS

CACHE 20 N 44° 47.930 | W 75° 34.495

A wetland is an area that is seasonally or permanently saturated with water, and home to a distinct ecosystem. It may be surprising to learn that wetlands also play an important role in local forest cover, the two often coexist.

In Canada, around 70% of wetlands have disappeared or degraded in settled areas due to agricultural expansion, urban development, and even invasive species.

Natural wetlands and temporary ones like vernal pools, offer many important ecosystem and environmental services, which we rely on.

Vernal pools, or wildlife ponds, are shallow depressions in the ground where seasonal run-off water can collect. These temporary pools serve as a home and breeding ground to many distinct and at-risk plant and animal species such as, the Western Chorus Frog.

Healthy wetlands can reduce the occurrence of floods, sustain water during dry spells and can increase spawning opportunities for fish.

Although most vernal pool habitats are small, their complex food webs sustain many larger species of birds, mammals, amphibians and reptiles, and complement a healthy ecosystem.

POINTS OF INTEREST

Spencerville Mill

CODE WORD:

coord.info/GC7M2KF

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