

It's in our

NATURE

Management Plan for the York Regional Forest

2019-2038 SUMMARY



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Management Plan for the York Regional Forest



*Ontario Archives. White Pine Stump.
Ontario. Circa 1900's*



*Source unknown. Bare sand and white
pine stumps. Ontario. Circa 1900's.*

The York Regional Forest has its origins in the provincial *Reforestation Act of 1921*, which responded to the devastating impacts of deforestation across southern Ontario and especially on the Oak Ridges Moraine. Through the Act's Agreement Forest Program, the province provided and planted trees and managed forests on degraded lands held by many southern Ontario counties. The York County Agreement Forest, now the York Regional Forest, began in 1924 with the planting of trees on land owned by the county in what is now the Hollidge tract in the Town of Whitchurch-Stouffville.

In 1998, York Region developed a 20 year forest management plan to guide the York Regional Forest. Two years later, the agreement with the province was terminated and the Region officially assumed full management responsibility.

The previous management plan focused on:

- ecological integrity
- recreational and educational use
- silvicultural management

A major goal of managing the Forest has been to bring it closer to its condition before European settlement.

Early history

After the last glacier retreated from what is now southern Ontario roughly 12,500 years ago, nomadic Indigenous peoples roamed a landscape of tundra and lived off the land by hunting, fishing and gathering. Despite more permanent settlements and growth in indigenous agriculture over the following centuries, at least 80 per cent of what is now York Region was covered with mature and diverse forests at the time of first European contact in the 1600's.

Increasing European settlement and lumbering in the 1800's cleared almost all of these woodlands. By late in that century, the devastating impacts were clear. Rivers and streams alternated between drying out and flash flooding, water tables became unstable, and "blow sands" covered roads and fields. Impacts were felt most strongly on the Oak Ridges Moraine, a massive ridge deposited by glaciation and characterized by light, sandy soil. Farms were lost, and commerce and travel hampered. These conditions, worsened by further abandonment of farms after the First World War, prompted provincial action through the Reforestation Act of 1921. This led to the creation of 59 Agreement Forests across southern Ontario. Initial management focused on planting rows of conifers, such as red and white pine, to stabilize the soil.

These plantations were thinned from time to time, allowing more light to reach what is called the "understory," where a mix of other trees, shrubs and plants could grow. This process began to move the Forest from areas of single-species reforestation to mixed woodlands more typical of south-central Ontario. The Region's first plan (1998-2018) successfully continued and enhanced this work, and this new management plan reaffirms and strengthens the direction it set.

Why a Forest Management Plan is important

A well-designed management plan is critical to achieving specific goals for a forest, such as sustainability and biodiversity, by setting out the related principles, practices and actions. When the Region assumed management of the Forest, developing a forest management plan was a provincial requirement.

The management plan also links to third-party certification and key Regional plans:

- Certification by the Forest Stewardship Council in 2000 required the management plan to align with that organization's principles
- The Regional Official Plan (2010) policy 2.2.51 states that the Regional Forest is to be sustainably managed

In 2017, including the Regional Forest as part of the Region's green infrastructure asset management plan highlighted its ongoing contributions to the Region as well as its investment needs. Recognizing the value of the Forest as infrastructure requires a plan to meet asset management goals, and the new Forest Management Plan is designed with that in mind.

Achievements of the previous plan

The Regional Forest grew and flourished under the 1998-2018 Forest Management Plan. It now consists of 23 tracts totaling roughly 2,400 hectares, with the Region's Greening Strategy adding 344 hectares since 2001. Reflecting an early focus on deforested areas where farming had failed, most of the tracts are located on the Oak Ridges Moraine.

Under the plan, reforested areas have continued the transition to more mixed, native woodlands. The Forest today is roughly split between reforestation and natural tree communities. Fourteen tracts contain Legacy Conservation Forests, which are areas within the Regional Forest that warrant special attention because of their unique and important natural features and functions. In addition, the Region has added new habitats – prairie, meadow and oak savanna – and encouraged more native species in forested areas. These measures have strengthened biodiversity of plant and wildlife species.

The Regional Forest is also a place where people can reconnect with nature and learn more about the benefits of trees. It welcomes more than 600,000 visits a year from residents of the Region and beyond, and hosts dozens of environmental education events each year.

York Regional Forest is recognized for excellence in forest management, invasive species management, accessibility and public programs.

Milestones achieved over the last two decades under the previous Forest Management Plan:

- 2000:** Became the first public forest in Canada to be Forest Stewardship Council certified
- 2010:** Regional Forest Advisory Team received the Oak Ridges Moraine Hero's award
- 2012:** Created a Legacy Conservation Forest Strategy to designate areas of the Forest with unique ecological features and functions
- 2013:** Developed and implemented Accessibility Design Guidelines for York Regional Forest trails
- 2017:** Received the Forest Stewardship Council Leadership award for the Bill Fisch Forest Stewardship and Education Centre in the Hollidge tract
- 2018:** The Bill Fisch Forest Stewardship and Education Centre became the first building in Canada to be Living Building Challenge certified

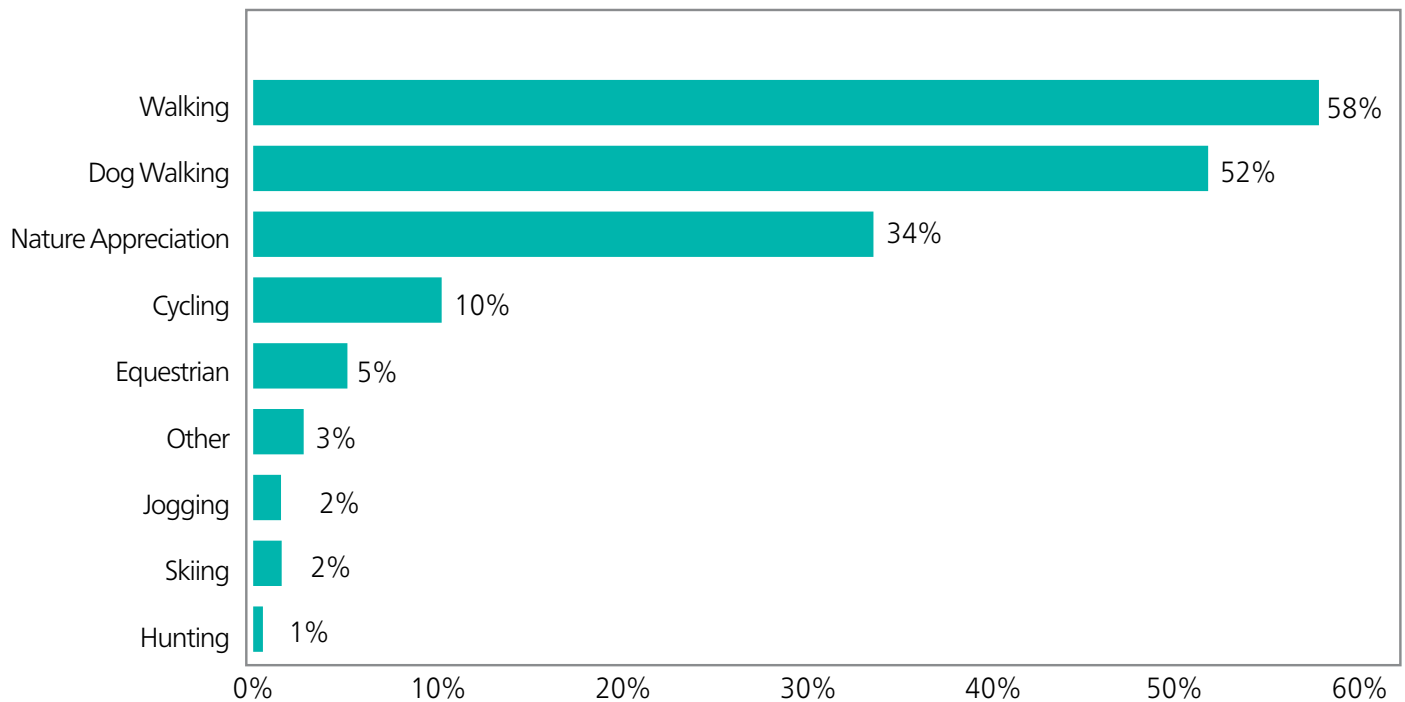
The Regional Forest is a destination

Recreation and personal well-being are important social benefits of the Forest. Its trail network of almost 150 kilometres, portions of which are designed to be accessible to people of varying abilities, welcomes a wide range of visitors and activities. The trail connections between Forest tracts and other natural areas enrich the recreational possibilities.

When compared to previous surveys, a user survey completed in 2016-17 showed that types of uses have not changed significantly over the years. Walking, often with a dog, and nature appreciation remain the top reasons to visit the Forest. The survey also showed that the Forest is a year-round destination, with residents enjoying the Forest across the seasons.

Top Public Uses in 2016-2017 Forest User Survey

NOTE: Respondents could select more than one activity - percentages add up to more than 100%



How this Plan was developed

In developing this Plan, the Region drew on the expertise, advice and views of a wide range of people, including a technical advisory team, a group comprising key stakeholders, and the Regional Forest Advisory Team. In addition, several public open houses allowed for

broad community engagement. Other work included developing and analyzing the 2016-2017 and 2017-2018 surveys, and researching best practices in forest management and use of public lands.



What the Region heard through engagement with residents:

- Existing management practices are sound
- Balancing environmental protection while providing benefits to residents is key
- The plan must address impacts of climate change and invasive species
- There is a need to manage increasing use and review dog-walking activities
- Existing public use rules work well and the focus should be on education

The vision and goals

The work put into developing the Plan was critical to crafting the following vision for the Forest:

**As the heart of the Region's natural landscape,
a healthy and ecologically diverse York Regional Forest
sustains its communities and inspires its people.**



The Vision for the Forest will be achieved through the following three goals and related objectives and actions under each goal:

Goal 1: Strengthen Ecological Integrity

Continue to strengthen the health, diversity, resiliency, and sustainability of the York Regional Forest

Objectives:

- Protect ecological features and improve ecosystem integrity and biodiversity
- Use innovative practices to restore and protect the Forest
- Implement best practices to prevent and mitigate impacts of invasive species
- Manage the Forest to increase ecological resilience and minimize the impacts of climate change

This goal reflects the ongoing restoration of the Forest from barren land to conifer plantations and then, over the past several decades, to a much more diverse system of native plant communities and wildlife habitats. This has moved it toward greater ecological integrity.

For the York Regional Forest, ecological integrity means a condition that is characteristic of its natural region, including the composition and abundance of native species and biological communities, and abiotic factors like soil, rock and climate.

The Region advances the Forest's ecological integrity by several means, including silvicultural management. Silvicultural management is a way of actively influencing the speed and pattern of growth in the forest. This involves, for example, thinning trees to provide more light, water and other resources to native species underneath and, where natural regeneration is not taking place, underplanting with native species. These practices replicate natural disturbance in woodlands. In non-woodland areas, the Region uses other ecological restoration tools, for example controlled burns in prairie habitat to encourage fire-dependent plant species and remove competing vegetation.

The Region adapts and refines its management practices as it works to mitigate threats from climate change and invasive species. Impacts of climate change, such as destructive wind bursts, ice storms and periods of drought, are already being felt in the Forest. Climate change will continue to bring more volatile and extreme weather along with warmer temperatures. A key action under the new plan is to assess the Forest's vulnerability to climate change and develop an adaptation plan.

Non-native invasive plants, insects and pathogens are also threats to the Forest. Invasive plants, such as dog-strangling vine, garlic mustard and buckthorn, can quickly take over a forest site, crowding out native species. Non-native insect threats include the emerald ash borer, gypsy moth, Asian long-horned beetle, and hemlock woolly adelgid. As well, invasive fungal diseases are putting the health of a number of species at risk.

Key actions for Goal 1

Short-term (2019-2023)

1. Assess the vulnerability to climate change and develop an adaptation and mitigation plan
2. Update invasive species inventories, review mitigation practices, and develop an invasive species action plan

Medium-term (2024-2028)

1. Review Legacy Conservation Forest Strategy
2. Review science-based silvicultural practices to inform management and operating procedures
3. Develop an information system to capture ecological features, species at risk, invasive species and infrastructure assets

Goal 2: Foster an Understanding of the Broader Benefits

Demonstrate that the Forest provides a wealth of environmental and social benefits, making it key to the Region's vision of healthy, thriving communities.

Objectives:

- Review and assess the environmental and social benefits of the Forest
- Ensure the Forest continues to demonstrate leadership through science, innovation and sharing best practices

This goal recognizes the increasing environmental and social benefits of the Forest that extend beyond its boundaries.

The Forest provides important ecosystem services to communities by:

- Absorbing carbon dioxide, which is a major greenhouse gas, storing the carbon in the tissues of trees and other vegetation in a process known as sequestration, and releasing the oxygen into the environment. The Region's Green Infrastructure Asset Management Plan (2017) estimated that every year, the Forest sequesters 5,717 tonnes of carbon
- Reducing air pollution caused by particles and gases like ozone, sulphur dioxide, carbon monoxide and nitrogen dioxide, all of which are linked to respiratory problems. Each year, the Forest captures 166,800 kilograms of polluting substances
- Naturally managing the flow of water by absorbing rainwater and snow melt, which helps to manage the risk of flooding, filters out many contaminants and reduces the need for costly built infrastructure. The Forest absorbs 642,600 cubic metres of rainwater and snow melt each year

Woodlands also provide social benefits like reducing stress and encouraging a more active lifestyle. While these benefits are more difficult to quantify, studies have

shown that the availability of green space is associated with reduced mortality, obesity, depression, anxiety and cardiovascular disease, and even with healthier newborns. Natural spaces give people a place to restore their mental health, reduce their level of stress, and spend quality time with others.

Research into the Japanese practice of "forest bathing," in which people spend time walking deep in the woods, away from technology and other distractions, has shown that calming impacts are greater than from walking in urban areas.

Key actions for Goal 2

Short-term (2019-2023)

1. Develop a comprehensive monitoring framework that includes ecological and social values

Medium-term (2024-2028)

1. Review and refine forest stewardship and education programs to capture the broad benefits of the Regional Forest

Studies have shown that forests improve:

- Air quality
- Water quality and quantity
- Migratory bird habitat
- Carbon sequestration
- Mental health and well-being
- Community cohesion
- Outdoor recreation and physical activity
- Stormwater interception
- Local biological diversity
- Natural shade and UV Ray protection

Studies have shown that forests reduce:

- Risk of developing chronic diseases
- Flood risk
- Urban heat island effect
- Energy consumption
- Climate change
- Airborne pollutants

The Region's current educational programs help users better understand and respect the Forest:

- **Guided Walks**

Attendance at these monthly themed walks in various tracts has increased in recent years, especially among families with children. On average, nearly half those attending an event are doing so for the first time.

- **Forest Festivals**

Seasonal festivals connect people with nature through a variety of activities. Visitors learn about the Forest, how it was established, how the Region manages it for future generations, and sustainable forestry practices.

- **Nature's Classroom**

These educational sessions for groups of 10 to 25 people are designed to teach participants about the forest ecosystem and its importance to the community. Each session includes a guided forest hike and programs focus on diverse themes including trees, wildlife, the Forest at night, fitness activities and snowshoeing.

The Region offers a variety of other educational and outreach programs in the Forest and at the Bill Fisch Forest Stewardship and Education Centre, an award-winning building in the Hollidge tract designed to complement and integrate with the forest surrounding it.

In 2017, the Region completed the Green Infrastructure Asset Management Plan. The plan is one of the first plans in Canada to recognize green assets and its supporting built infrastructure. The plan highlighted the ongoing contributions and investment needs of the York Regional Forest.

This will ensure that environmental and health benefits of the York Regional Forest are optimized for residents over the long term, and that assets are managed sustainably over their life cycle.



Goal 3: Inspire People

Encourage public use that inspires respect for the Forest and a connection with nature.

Objectives:

- Provide an exceptional visitor experience
- Ensure that public use and facilities are managed to protect the Forest and keep visitors safe

The Region gets feedback and educates Forest users about etiquette, rules and Forest safety through signage, events, its website and the Regional Forest Advisory Team. As well, the Green Infrastructure Asset Management Plan makes recommendations on providing a safe and functional environment.

The management plan reflects a review of acceptable and prohibited activities.

Acceptable Activities:	Prohibited Activities:
Walking, running, hiking	Lighting fires
Dog walking	Private access/entranceways
Cycling and mountain biking	Paint balling, air gun, or pellet gun use
Horseback riding	Littering or Dumping
Cross-country skiing	Camping
Snowshoeing	Encroachment
Snowmobiling (only on OFSC trails)	Damaging or removing trees, plants, fungi or other materials
Nature appreciation and wildlife viewing	Operation of unmanned aerial vehicles (drones)
Hunting (limited to specific tracts in the Town of Georgina)	Cooking or heating devices (use of BBQ or other portable cooking devices is prohibited)
Fishing	Fireworks
Permitted activities by clubs, associations and for profit organizations (requires a Forest Use Permit)	Property and trail altering or trail creation
Scientific research (requires a Forest Use Permit)	Use of unauthorized vehicles, including ATV's and dirt bikes
Geocaching	Alcohol consumption
	Smoking

The new management plan builds on this by setting out guiding principles to assess proposed new activities in the Regional Forest. These guiding principles can be summarized as follows:

- The environmental impact of the activity must be manageable
- The activity must not detract from other users' enjoyment of the Forest
- The activity must not put Forest users or the Region at an unacceptable level of risk
- The activity must consider costs to the Region

Compliance is achieved through education and enforcement. Education opportunities include Forest Festivals, Nature's Classroom, other programs and events promoting education and stewardship, and the work the Regional forest Advisory Team (RFAT). Enforcement tools include legislation and support from a York Regional Police liaison officer.

Certain organized uses by clubs, associations, service groups and for-profit organizations such as film production may be permitted, but only under a Forest Use Permit. Scientific research also requires a Forest Use Permit.

Key actions for Goal 3

Short-term (2019-2023)

1. Review dog walking practices and options to better balance visitor experience with ecological integrity
2. Develop a visitor experience plan to enhance residents' connections with nature

Medium-term (2024-2028)

1. Develop a trails strategy to guide management of trail infrastructure, support wayfinding and contribute to an exceptional visitor experience

York Region will continue to be recognized as a leader in working with nature, communities and people for the benefit of the Forest.

Putting the Plan into Action

The Plan will be implemented through five-year operating plans. These operating plans will deliver the 10 key actions to advance the Plan's vision, goals and objectives, as well as ongoing management practices such as harvesting and capital improvements. Successful existing practices and initiatives will continue.

The Region will regularly monitor the Forest and survey users to assess the impacts of the actions, and will use results of monitoring to adjust plans as necessary.

Into the next century of restoration

The renewed forest management plan will usher in a second century of restoration in the York Regional Forest, which will mark its one-hundredth year in 2024. This new plan will guide the care and management of the Forest to 2038, and continue work to nurture more native plant and animal species. At the same time, it will recognize and build on the value of the Forest to the communities around it and people who visit it. A key goal will be balancing increasing and varied public use with ecological protection.

While focusing on the 20 years to 2038, actions will be informed by a much longer-term vision for the forest, one that acknowledges a time frame measured in the centuries over which forests evolve and makes the Forest an enduring legacy to future generations.

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Management Plan for the York Regional Forest 2019-2038

Summary of Participation in Forest Management Plan Development

York Regional Forest Advisory Team

Canadian Recreational Horse and Rider Association
Durham Mountain Biking Association/York Mountain Biking Association
Forest Education, Nature's Classroom
Georgina Sportsmen Alliance/Ontario Federation of Anglers and Hunters
Huronian Loggers Association
Local Resident/Forest Neighbour
Oak Ridges Trail Association
Ontario Trail Riders Association
Richmond Hill Naturalists
South Lake Simcoe Naturalists
York Regional Police

Indigenous peoples

Chippewas of Georgina Island
Métis Nation of Ontario - Toronto and York Métis Council

Technical Advisory Team

County of Simcoe
Lake Simcoe and Region Conservation Authority
Nature Conservancy of Canada
Toronto and Region Conservation Authority
York Region Environmental Services
York Region Legal Services

Key Stakeholders Group

Regional Forest Advisory Team
Technical Advisory Team
Forest Gene Conservation Association
Forests Ontario
York Region District School Board
Mycological Society of Toronto
Oak Ridges Moraine Land Trust
Ontario Woodlot Association
Parks Canada
City of Markham
City of Vaughan
Town of Aurora

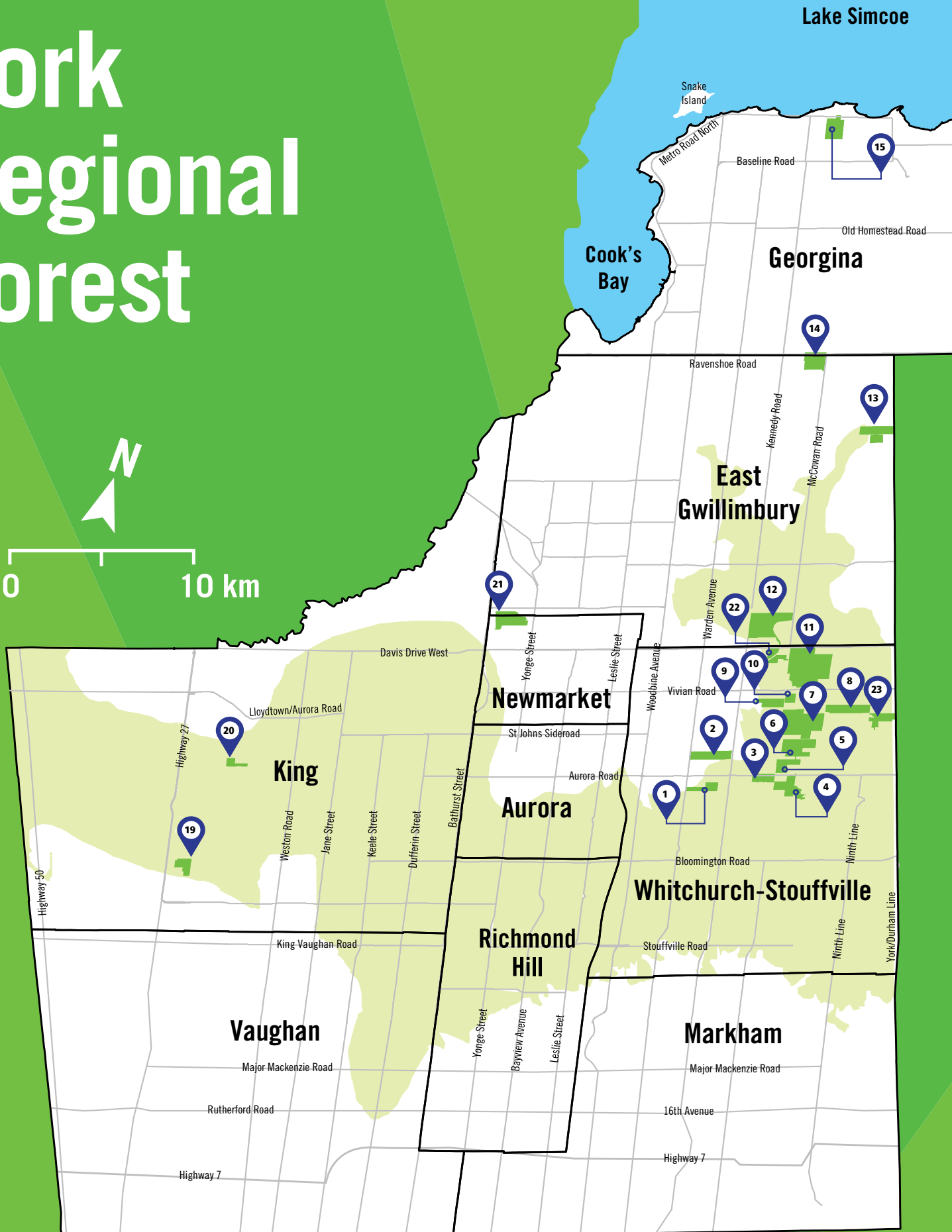
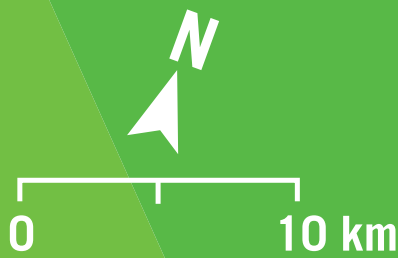
Town of Georgina
Town of East Gwillimbury
Township of King
Town of Newmarket
Town of Richmond Hill
Town of Whitchurch-Stouffville
York Region:

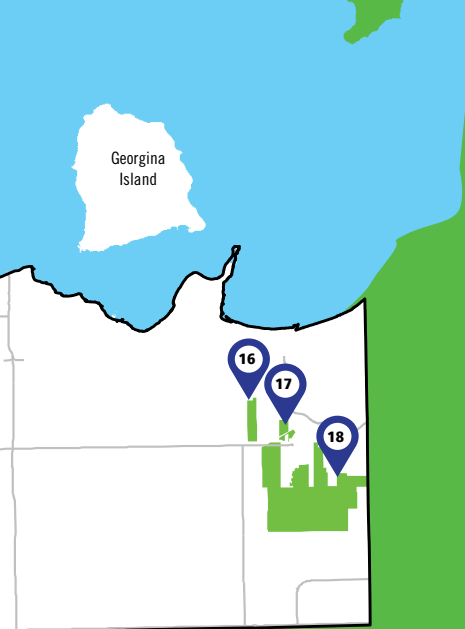
Community and Health Services, Accessibility
Corporate Services, Long Range Planning
Community and Health Services, Health Living
Community and Health Services, Seniors Strategy
Environmental Services, Environmental Promotion and Education
Finance, Risk
Office of the CAO, Emergency Management
Transportation Services, Active Transportation

Residents

Forest User Survey
Public Open Houses
Online Feedback

York Regional Forest





Legend

- York Regional Forest Tracts
- Oak Ridges Moraine
- Municipal Boundary
- Road

York Regional Forest

23 tracts, totalling 2,379 hectares

1	Robinson Tract	(43 ha)	13	Zephyr Tract	(87 ha)
2	Porritt Tract	(80 ha)	14	Brown Hill Tract	(83 ha)
3	Dainty Tract	(41 ha)	15	Metro Road Tract	(84 ha)
4	Clarke Tract	(85 ha)	16	Cronsberry Tract	(39 ha)
5	Patterson Tract	(50 ha)	17	Godfrey Tract	(20 ha)
6	Hall Tract	(109 ha)	18	Pefferlaw Tract	(579 ha)
7	Eldred King Woodlands	(221 ha)	19	Nobleton Tract	(44 ha)
8	Hollidge Tract	(83 ha)	20	Happy Valley Tract	(26 ha)
9	Scout Tract	(48 ha)	21	Peggy's Wood	(19 ha)
10	Mitchell Tract	(21 ha)	22	Davis Drive Tract	(49 ha)
11	North Tract	(332 ha)	23	Drysdale Woods	(55 ha)
12	Bendor and Graves Tract	(181 ha)			



DISCOVER

YOUR YORK REGIONAL FOREST



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2019-2038 | SUMMARY

york.ca/forestry