

The Regional Municipality of York

Committee of the Whole
Environmental Services
May 13, 2021

Report of the Commissioner of Environmental Services

2020 Greening Strategy Achievements and State of the Forest

1. Recommendation

The Regional Clerk circulate this report to the Clerks of the local municipalities, Chippewas of Georgina Island First Nation, Environment and Climate Change Canada, Natural Resources Canada, Ontario Ministry of Natural Resources and Forestry, Ontario Ministry of Environment, Conservation and Parks, Lake Simcoe Region Conservation Authority and Toronto and Region Conservation Authority.

2. Summary

This report provides Council with an update on activities, partnerships, significant 2020 Greening Strategy achievements and progress towards canopy and woodland cover objectives.

Key Points:

- Canopy cover and woodland cover in York Region have increased to 33.4% and 23.6%, respectively
- While the timeframe to achieve 40% canopy cover by 2051 remains the same, the date for achieving 25% woodland cover will be revised from 2031 to 2051 through the Municipal Comprehensive Review. This allows time to better reflect gains in woodland cover as natural regeneration and past tree planting efforts materialize
- 2020 Greening Strategy achievements include planting 60,539 trees and shrubs, inspiring residents to action through 108 events, and leveraging \$534,000 in external funding
- York Regional Forest has experienced a significant increase in visitors during the COVID-19 pandemic. Increased monitoring and additional temporary parking locations have been implemented to ensure a safe and positive visitor experience
- *Lymantria dispar dispar* (European Gypsy Moth) monitoring has identified the potential for severe tree defoliation in 2021; steps are being taken to protect Regional assets and support residents in managing their trees

3. Background

Regional Greening Strategy delivers on-the-ground action through adaptable partnerships and programs that strengthen the natural environment

The [Greening Strategy](#), developed in 2001 and updated in 2012, delivers on-the-ground action to help achieve the Region Official Plan goal of a sustainable natural environment. Actions such as environmental land securement and restoration contribute to Official Plan objectives to protect and enhance the Regional Greenlands System and associated features including forests, wetlands and grasslands (Figure 1). Through its four action areas, the strategy supports healthy natural environments that improve the quality of life for residents across the Region. Success is achieved through innovative and adaptable partnerships that enable the Region to deliver programs that inspire resident action. The Strategy continues to be a key delivery mechanism for increasing canopy and woodland cover across the Region.

Progress towards canopy and woodland cover targets are reported through the State of the Forest report

Trees and forests provide a multitude of environmental, health and economic benefits that make our communities more sustainable and help the Region mitigate and adapt to climate change. In recognition of the vital role that trees and forests play, Council approved the York Region Forest Management Plan on [November 17, 2016](#). The Plan expands on the Greening Strategy and identifies a series of short-, medium- and long-term actions focused on increasing canopy and woodland cover (Figure 1).

A goal of the Plan is to increase tree cover working towards targets to grow canopy cover to 40% by 2051 and woodland cover to 25% by 2031. Progress towards these targets is reported through the State of Forest report (Figure 1). Canopy and woodland cover was last reported to Council on [March 23, 2017](#) as 31% and 23.2%, respectively.

Figure 1

Key Strategies and Plans Deliver on Regional Official Plan Objectives



4. Analysis

Regional Greening Strategy’s diverse partnerships demonstrate resilience delivering on-the-ground action in challenging times

In 2020, implementation of Greening Strategy actions delivered tangible, on-the-ground results despite challenges posed by COVID-19. These achievements (Table 1) represent the Region’s ongoing commitment to a sustainable natural environment. Staff and partners quickly pivoted programs to reflect changing COVID-19 public health measures while managing an increased demand from residents to access natural areas and participate in programs.

While some partners made the decision to cease or reduce operations, others were able to shift to virtual and socially distanced program delivery. As a result, over 60,000 trees and shrubs were planted and 108 events were held, contributing the creation of 24.8 hectares of new woodland.

Table 1
Greening Strategy 2020 Achievements

Action Area	Goal	Target (Minimum)	2020 Achievement
Stewardship and Education	Educate residents about the value of the natural environment and provide opportunities to connect with nature and inspire action	100 outreach events Engage 50,000 residents	108 outreach events Over 50,000 residents engaged
Enhancement and Rehabilitation	Enhance and rehabilitate the natural environment on both public and private lands	Plant 70,000 trees and shrubs	60,539 trees and shrubs planted
Environmental Land Protection and Preservation	Restore linkages and protect core natural areas including forests, wetlands and significant habitat	Increasing area (hectares) of environmental lands secured	No hectares of environmental land secured
Leadership, Innovation and Knowledge	Share knowledge, demonstrate leadership and be innovative in the protection of the natural environment	Host four technical regional forums Present at two science and technology forums	10 forums hosted with agencies and local municipalities 16 presentations at science and technology forums

The Greening Strategy strengthened the natural environment in 2020 through projects and programs that resulted in planting 4,034 pollinator and grassland plants, distributing 1,500 pollinator seed packets, enhancing 14 hectares of in-stream and streambank habitat, and creating habitat for five species at risk. Securing land in 2020 posed a challenge as landowners were hesitant to make large financial decisions while facing the uncertainties of COVID-19. Despite this challenge, work continued with partners to engage over 30 landowners regarding future securement opportunities. To continue engagement during COVID-19, programs were adapted to allow residents to participate through self-guided activities, webinars, and other virtual events. In place of in-person York Regional Forest events, staff delivered Discover Your Forest Kits with self-guided activities.

In 2019, York Region was approved for \$10 million in funding through Infrastructure Canada's Disaster Mitigation and Adaptation Fund (DMAF) to implement a natural infrastructure project. The project will result in over 400,000 trees and shrubs being planted across the Region, including establishing 100 hectares of new woodland by 2027. On-the-ground implementation of the DMAF project was initiated in 2020 with the planting of over 2,600 trees and shrubs to help mitigate the impacts of extreme heat in urban areas.

York Region has been recognized as a Tree City of the World

In March 2021, York Region was recognized as a Tree City of the World. Tree Cities of the World program is an international effort to recognize cities and towns committed to ensuring their urban forests and trees are properly maintained, sustainably managed and duly celebrated. The program, established in 2019, is administered by the Arbor Day Foundation and the Food and Agriculture Organization of the United Nations. Over 100 cities in 23 countries are currently recognized including the Cities of Richmond Hill, Toronto, Mississauga, Guelph, and Whitby.

There are five standards that must be met to be recognized: Establish responsibility (individuals dedicated to management), set the rules (policies, bylaws, standards and plans), know what you have (inventory, cover assessments, studies), allocate the resources (budget, staff, and/or volunteers), and celebrate achievements (events, media, promotion). York Region has demonstrated ongoing commitment in each of these five standards.

State of the Forest Report demonstrates an increase in canopy cover to 33.4% and woodland cover to 23.6%

The 2021 State of the Forest report (Attachment 1), contains an updated assessment of canopy and woodland cover across the Region. Canopy cover is the measure of land area covered by tree canopies on both public and private lands. The 2021 assessment was completed with the University of Vermont using high resolution satellite imagery and LiDAR imagery. Canopy cover in York Region was measured at 33.4%, an increase of 2.4% since 2017 (31%). Improved assessment methods and technology attributed to 1.4% of this increase with the balance resulting from planting and growth of young trees. The addition of a 40% canopy cover target in the Regional Official Plan will be considered through the current Municipal Comprehensive Review.

Woodland cover is a subset of canopy cover and measures larger and more densely treed areas in York Region. The 2021 assessment measured woodland cover at 23.6%, an increase of 0.4% since 2017 (23.2%). Approximately half of this increase is related to improved methods and the remainder to natural expansion of woodland edges and large-scale tree plantings which outpaced the loss of woodland due to clearing (a net gain of 261 hectares).

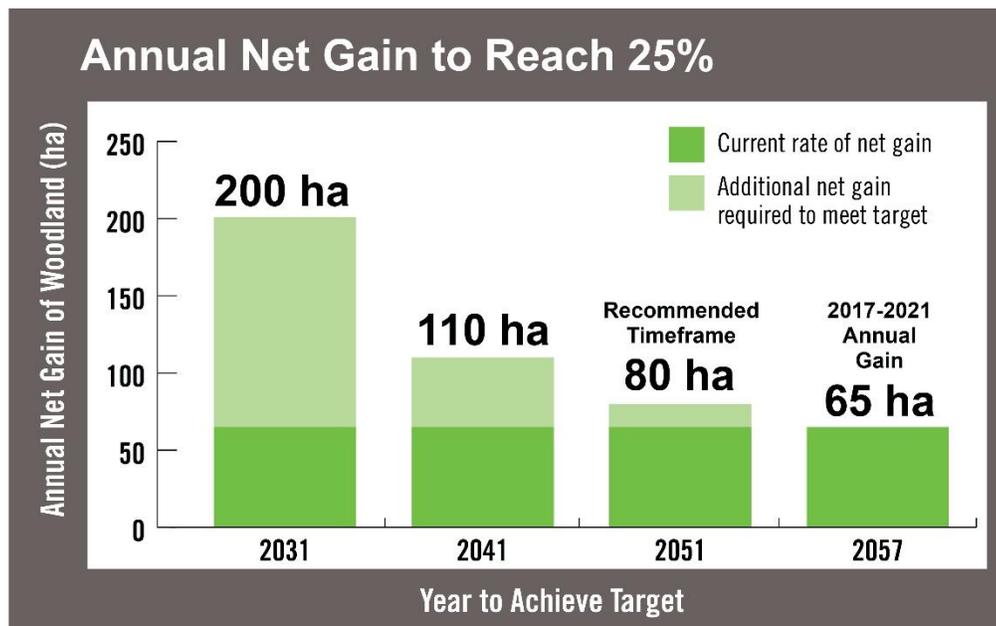
Timeframe to achieve the woodland cover target will be revised to 2051 to better reflect actual increases being achieved

Based on the 2021 analysis of woodland cover and recent annual gains, the Region is unlikely to meet the target of 25% woodland cover by 2031. To achieve this goal by 2031 we would need to increase the rate of gain annually from our current 65 hectares per year to 200 hectares per year. The lower rate of increase in woodland cover over the previous twenty years represents a balance between gains from tree planting and natural growth, and losses to development, agriculture and other uses. While the actual rate of increase, 65 hectares annually, is less than anticipated, reasonable gains are being made given the pressure from different land use needs. The Region is achieving a desired balance among the multiple goals and objectives in the Official Plan. Other challenges to increase woodland cover

include impacts of invasive species, funding for land acquisition and tree planting programs, and landowner participation in planting programs.

Despite these challenges, the Region has seen gains in woodland cover with each assessment. With a modest increase in the annual net gain from 65 hectares to 80 hectares, 25% woodland cover can be reasonably achieved by 2051 (Figure 2). Increases in woodland cover are realized through natural expansion of woodlands and through large-scale tree planting. The recent woodland cover analysis revealed that there is an eight to ten-year delay before new plantings show up as woodland cover in the assessment, which also signifies a lag time between removals and the contribution of compensation plantings. Progress towards canopy and woodland cover targets will be assessed every five years allowing future refinement of targets and timeframes based on measured growth of trees and forests. The revised timeframe for achieving woodland cover will be reflected through the updated Regional Official Plan.

Figure 2
Annual Net Gain to Reach 25% Woodland Cover



York Region Forest Management Plan sets out a roadmap to increasing canopy and woodland cover

Goals and actions in the York Region Forest Management Plan (2016) set the roadmap to increase canopy cover to 40% and woodland cover to 25%. The actions address the challenges associated with increasing canopy and woodland cover including landowner engagement programs, communicating the value of trees and forests, and impacts of invasive species. To date 41 of the 63 short-term and medium-term actions have been completed or are being delivered annually. Of the remaining 22 actions, work has commenced on seven, with the remainder scheduled to commence in future years.

Recent initiatives such as development of a tree planting prioritization tool and Benefits of Trees and Forests Communications strategy combined with the two billion tree program Federal Government funding announcement further support annual tree planting initiatives. These recent initiatives support the projected annual increase in tree planting from 65 to 80 hectares.

To achieve an annual net gain of 80 hectares staff will also focus on actions to increase tree planting capacity and program uptake, including working with partners to refine large-scale tree planting programs and implement strategies from the Benefits of Trees Communications strategy to increase awareness of tree planting programs.

In partnership with each local municipality and conservation authority, the Region will undertake forest studies across the Region. These studies will be completed between 2021 and 2025. Outcomes will be reported in the 2026 State of the Forest report along with updated canopy and woodland cover metrics. Results will be used to identify the greatest opportunities for increases and inform the York Region Forest Management Plan update ensuring strategies and actions remain effective.

Urban expansion into whitebelt lands to accommodate Provincially mandated growth will influence progress towards canopy and woodland cover targets. Through protection policies in Regional and local official plans key natural heritage features, including woodlands, are protected and compensation plantings implemented to offset losses. With urban expansion into whitebelt lands it is anticipated that canopy cover will increase over time as new trees are planted and mature trees continue to grow within streetscapes, urban parks and residential backyards.

Invasive species continue to impact York Region's trees and natural areas

Many invasive insects and plants continue to impact or pose a threat to the Region's urban landscapes and natural areas. Priority invasive species in York Region are identified where they pose a significant risk based on potential impacts to residents, Regional assets, natural heritage features and public health. The Region continues to collaborate with local municipalities, provincial and federal governments, and non-governmental organizations to manage invasive species, while also providing education and resources to residents.

Examples of priority invasive species currently found in York Region include emerald ash borer, wild parsnip, dog-strangling vine, and Phragmites. Priority invasive species not currently found in the Region but found either in Ontario or close to the border in the United States include hemlock woolly adelgid, oak wilt and spotted lanternfly. In 2020, staff piloted best management practices to address priority populations of Phragmites and the effectiveness of these efforts will be evaluated in 2021. Based on the pilot's success, staff will continue these efforts in collaboration with partners to manage Phragmites.

Invasive moth *Lymantria dispar dispar* outbreak is expected to cause severe tree defoliation in parts of York Region in 2021

Originating from Europe, this invasive moth was first detected in Ontario in the 1960's, however widespread defoliation was not observed until the late 1980's. The last notable

outbreak in York Region was in the early 1990's. The moth population quickly crashed during this outbreak and management was not required. This invasive moth is now well established and will likely never be eradicated. During June and July caterpillars eat the leaves of host species such as oak, birch, maple and elm, and can be a nuisance by leaving droppings and bits of foliage on decks and walkways near infested trees. As with most forest pests, their population growth is cyclical, with populations growing to high numbers in certain locations and then crashing to almost undetectable levels for years after.

Surveys completed in the fall of 2020 identified high populations throughout the Region and potential for severe tree defoliation in 2021. A communications strategy has been prepared to inform residents of the potential defoliation and direct them to resources for managing their trees. Control measures in the form of pesticide treatment will be implemented to protect high value Regional street trees. Results of the survey have been shared with local municipal staff, conservation authorities and partners, and work is underway to coordinate communications and response.

York Regional Forest is experiencing significant increase in visitors during the COVID-19 pandemic

Outdoor recreation spaces, including the York Regional Forest, are experiencing a significant increase in use during the pandemic. With many activities reduced or suspended due to public health measures, residents have sought opportunities to explore natural areas. Residents spending more time in nature is one of the positive outcomes of COVID-19.

Increased use of the Forest has resulted in challenges during peak periods as parking lots frequently exceed capacity. Through collaboration with Regional departments and local municipalities, strategies are being implemented to ensure a safe and enjoyable visit. A communication strategy was developed to direct users to less popular tracts while providing key messages related to public health measures. Staff presence at busy parking lots and addition of temporary parking are helping to manage use during peak periods. Use is expected to decline once public health measures are relaxed, but we anticipate many users who discovered the Forest during the pandemic will continue to visit in the future. Construction of additional parking capacity will be considered based on post pandemic use and budget availability.

5. Financial

Through partnerships, the Greening Strategy leverages significant resources and funds for each action area. In 2020, \$1,895,000 was approved in the operating budget for the Greening Strategy, including \$974,000 for environmental land purchases (Table 2). The remaining \$921,000 supports operating programs and partnerships including large scale reforestation, backyard tree planting, outdoor education, and land securement.

In 2020, program partners leveraged the Region's investment by securing an additional \$534,000 in funding for program delivery through grants and matching funds. For example, Ontario Streams secured over \$50,000 in funding to support the Adopt-a-Stream program

and tree planting in York Region through grants such as the Federal Canada Nature Fund and through private foundations such as the Echo Foundation.

Table 2
Greening Strategy 2020 Operating Budget Overview

Program	2020 Budget
Environmental Land Purchases	\$974,000
Greening Strategy Implementation	\$921,000
Total 2020 Operating Budget	\$1,895,000

The approved 2021 operating budget includes \$1,940,000 to support Greening Strategy initiatives.

6. Local Impact

Canopy and woodland cover assessments support local municipal efforts to plan and manage trees and forests locally. Results of these assessments are shared with local municipalities to inform development of their own urban forest management plans and policies. The Region is also partnering with each municipality and conservation authorities to initiate the 2021-2025 forest studies. These studies will provide a better understanding of what trees we have, vulnerabilities to our trees and forests, and quantify the benefits provided by them. The studies, completed every 10 years, support forest management planning at the Regional and local municipal level.

Greening Strategy programs provide local municipalities and residents with opportunities to enhance the natural environment. Greening initiatives support protection of Regional and local natural heritage systems, which in turn support sustainable communities. In 2021, staff will consult with local municipalities and partners to update the Greening Strategy ensuring that programs and projects continue to support the four action areas of the Strategy. This update to the Greening Strategy will be brought to Council in 2022.

7. Conclusion

Trees and forests contribute to healthy, sustainable and livable communities throughout York Region. Canopy and woodland cover across the Region are increasing despite ongoing pressures from invasive species, extreme weather events and intensification. The timeframe to achieve 25% woodland cover will be revised to 2051 through the Municipal

Comprehensive Review which will better reflect gains. Implementation of the York Region Forest Management Plan will continue to guide our actions to achieve canopy and woodland cover objectives.

The Region's Greening Strategy continued to deliver results despite challenges from the global pandemic in 2020. The ability to continue to deliver successful programs and projects was due to the flexibility and resilience inherent in working with multiple partners to deliver the Greening Strategy. These achievements will continue to support the health of the natural environment and contribute to a high quality of life for York Region residents.

For more information on this report, please contact Laura McDowell, Director, Environmental Promotion and Protection 1-877-464-9675 ext. 75077. Accessible formats or communication supports are available upon request.

Recommended by:  Per: **Erin Mahoney, M. Eng.**
Commissioner of Environmental Services

Approved for Submission:  **Bruce Macgregor**
Chief Administrative Officer

April 23, 2021
Attachment (1)
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