# *Greening the Hill: Our Community, Our Future*

## Draft Environment Strategy Update

April 2022

GREENING THE HILL
Our Community Our Future

Richmond Hill

# Executive Summary – Environment Strategy Update: the quick take

*Our Vision:*

Richmond Hill: a community that protects, enhances and restores its natural environment

*Our Mission:*

To achieve our vision by engaging and inspiring residents, leading by example and encouraging sustainable growth

We've prepared this update to our Environment Strategy – *Greening the Hill: Our Community, Our Future* – to reflect what we've heard and learned since it was first approved in 2014.

While our Vision and Mission will continue, the updated Strategy brings a stronger lens to how we can all work together to protect our environment as the City grows and as climate change impacts intensify.

It sets out goals in 10 theme areas that will help focus actions by the City, our partners and residents over the coming years:

| | | | | |
|---|---|---|---|---|
| **Energy**<br>To improve energy efficiency, reduce GHG emissions and mitigate climate change | **Transportation**<br>To establish a lower-carbon transportation network with options that are more accessible, reliable and equitable | **Water Resource Management**<br>To conserve and protect our water resources by managing water quality, water quantity and stormwater infrastructure | **Water Conservation**<br>To use water wisely and promote the wise use of water | **Sustainable Land Development**<br>To foster sustainable development and redevelopment |
| **Natural Heritage and Urban Forest**<br>To establish, protect and improve the extent and quality of natural heritage and the urban forest | **Invasive Species**<br>To prevent and actively manage the impacts of invasive species | **Wildlife**<br>To protect, preserve and sustainably manage a healthy diversity of native wildlife | **Local Food and Pollinators**<br>To improve access to local food and support pollinators and their habitat | **Waste**<br>To reduce the waste burden by encouraging reuse and facilitating waste diversion |

*Figure 1: Environment Strategy Themes and Goals*

Taken together, the actions outlined in this update show us how to make Richmond Hill a more sustainable and resilient community by Greening our Consumption, Greening our Natural Spaces and Greening our Growth. The outcome will be a more sustainable, resilient low-carbon city where green spaces are woven throughout – as parks and protected areas, streetscapes, naturalized lawns and restored valleylands – and where growth gives us new neighbourhoods that are compact, walkable and welcoming.

While the focus is on protecting and preserving our natural environment, these actions can also benefit the community by:

- Making it easier to be active and enjoy the outdoors in more ways, including walking, cycling, hiking and gardening
- Giving all of us, including vulnerable populations, more options for how we get around, and better access to local food
- Trimming our energy and water bills and keeping the costs of waste management down

We heard loud and clear as we updated the Strategy that our residents support a greener future and want to be personally involved. As we move forward, we will continue to engage with residents, businesses, and others to share knowledge and forge the partnerships that are essential to achieving our Vision.

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# Welcome to Richmond Hill's Updated Environment Strategy

Over several centuries, the lands presently known as Richmond Hill have been cared for by many First Nations and Indigenous peoples from across the region. To this day, we benefit from their stewardship and enjoy a rich collection of unique and valuable natural features: woodlands, wetlands and water bodies, and of course the Oak Ridges Moraine.

To continue protecting and enhancing our environment, the updated *Greening the Hill: Our Community, Our Future* lays out a strategy for our growing city to respect the past while creating a more resilient and sustainable future. This update builds upon the successes and commitments of *Greening the Hill*, which was first approved by Council in 2014.

The first edition of the Environment Strategy laid out three phases of work to 2031. Since 2014, we have started almost all short-term and short-medium term actions and completed many of them.

Throughout this update, we outline many of the key accomplishments since 2014. With the first phase completed in 2020, this update focuses on the next two phases of work out to 2031. This involves working on actions from 10 interconnecting themes that, together, benefit our land, air and water – and our city.

Since the launch of *Greening the Hill*, we've taken great strides to engage residents through social media, community events, and other education and outreach activities beyond just the specific actions of the original Strategy. We also engaged with residents and stakeholders directly to produce this update.

One of the most important things we've heard is that residents would like more information about how to help our environment so they can take a more active role. So in addition to explaining how we've updated the Strategy and describing our goals and actions for each theme, we're also including more ideas, tips and advice about how to get involved.

## *Why update the Environment Strategy?*

A lot has changed since the Strategy was adopted in 2014. Climate change has emerged as one of the most critical global issues of our time. As Richmond Hill grows, the City and our residents are more committed than ever to reducing our carbon footprint and supporting ecosystems under pressure from a changing climate and increased development. These considerations form the foundation of this update.

## *A call to action*

Since 2014, the Environment Strategy has focused on *what* we want to protect, enhance and restore – our air, land and water. This update shifts the focus to *how* we can protect, enhance, and restore these elements. This shift from *what* to *how* is a call to action. It is built on three guiding or "greening" principles that name the behaviours to help achieve this Strategy:

- Greening our Consumption;
- Greening our Natural Spaces; and
- Greening our Growth.

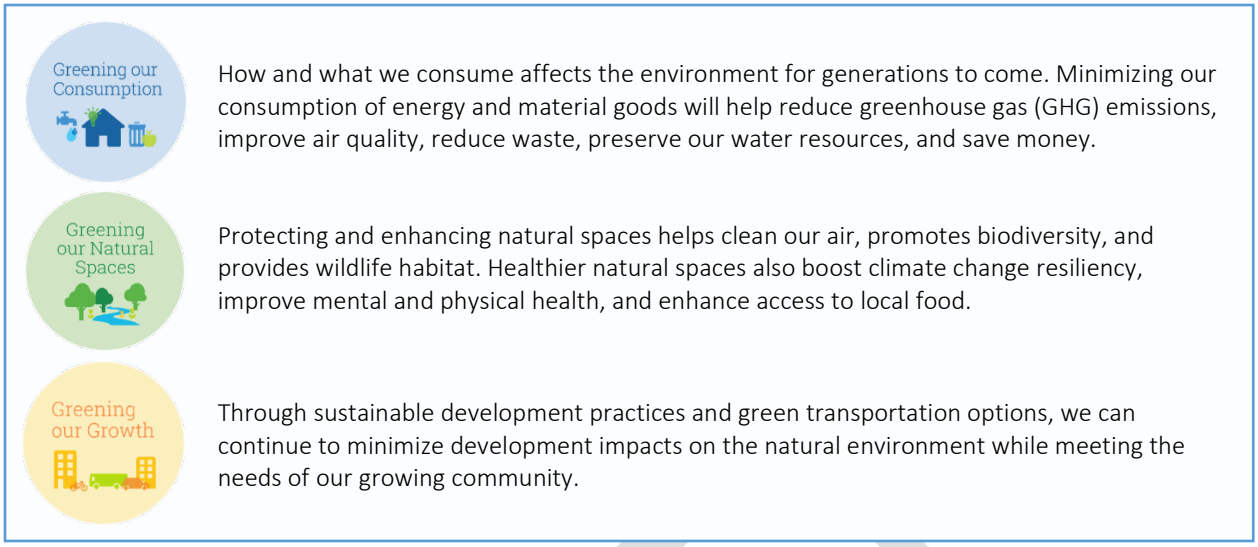


*Figure 2: Environment Strategy Update Greening Principles*

The update reflects what we have learned since 2014 through discussions with City departments and outreach to our community, as well as research and analysis:

- **Residents and stakeholders understand the important role of the Strategy in enhancing our environment.** For the community, minimizing the environmental impacts of development is paramount. So is the need to articulate the urgency of the climate crisis in developing and delivering actions.
- **Partnerships and collaboration are key.** Achieving the goals of the Strategy relies on City departments working together and in partnership with residents, businesses and community partners. A very important strand of this work is supporting diversity, equity and inclusion through the Strategy.
- **We are making progress in many areas.** Our first Environmental Scorecard, released in 2021, provides a snapshot of the City's environmental progress and achievements since 2014, and our annual progress reports summarize the many accomplishments of the Environment Strategy to date. Much of the progress ties back to the work of an internal steering committee created in 2014 to help set priorities, share information and collaborate on strategic actions. Key Scorecard trends are featured throughout this Strategy, and the full Scorecard can be viewed at RichmondHill.ca/Environment.

Together, this work guided us in developing the 10 themes that underpin the updated Strategy:

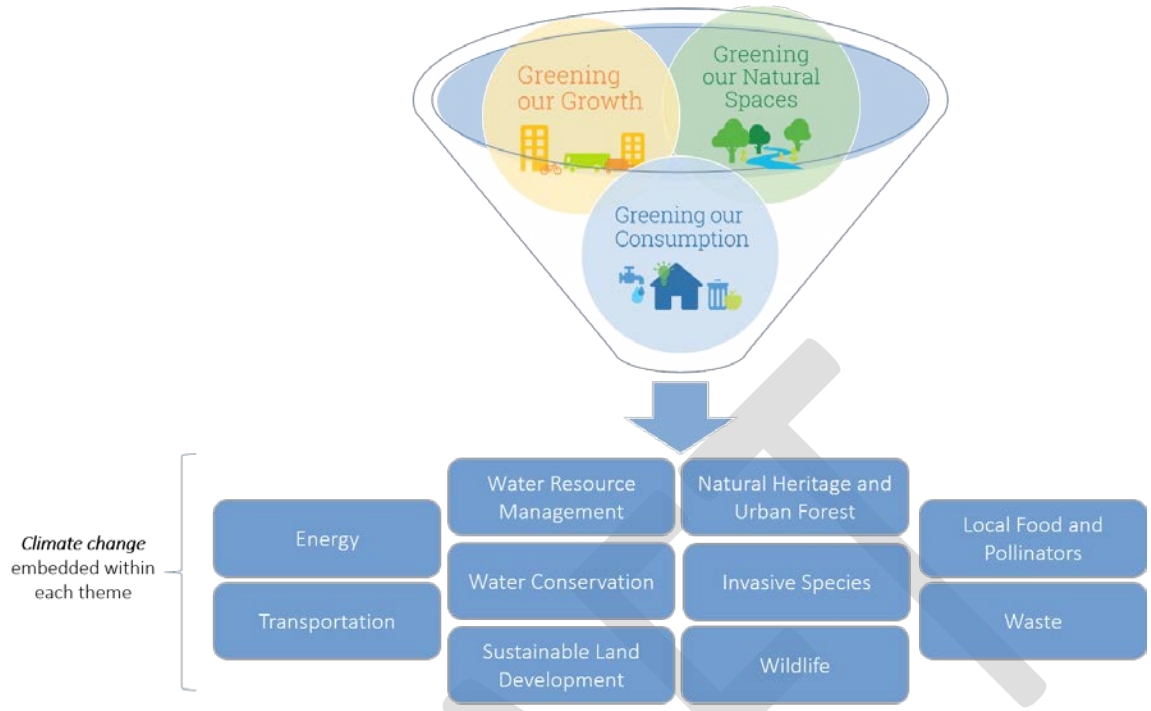


*Figure 3: Environment Strategy Update Approach: Greening Principles and Themes*

These 10 themes are linked to one another in many ways: for example, increasing tree cover and connecting natural areas, which are aspects of the Natural Heritage and Urban Forest theme, also benefit our wildlife, pollinators and water resources. There can also be tensions between some of the themes – for example, building trails and bike lanes benefits pedestrians and cyclists, but can impact surrounding trees and vegetation – so we recognize the need to find the right balance as we act on the Strategy.

These tensions remind us that the Strategy needs to be flexible to adapt to changing conditions and needs. We must also be open to innovation, especially as new technologies become available and new challenges arise. We can embrace and explore new ideas through pilot and demonstration projects.

A major unforeseen change since 2014 was a widespread shift to working from home brought about by workplace closures during the global COVID-19 pandemic. While long-term trends are still far from certain, both workers and employers support the idea of continued working from home at least some of the time. This could have environmental benefits, which we will continue to assess as the post-pandemic situation becomes clearer.

The Strategy is also connected to key City and Council priorities and policies, including land use planning, asset management planning, zoning by-laws, operational standards and transportation planning, and in some cases to York Region and external agency plans. Like many of those documents, this Strategy also considers the opportunities that will be created by extending the subway to our City, which will reduce fossil fuel use while bringing urban growth and economic opportunities.

Additionally, this Strategy provides a crucial connection to the City's ISO 14001-registered Environmental Management System (EMS) – a set of internal processes and practices which help the City manage the impacts of its day-to-day operations on the environment. The goals, objectives and actions of the Strategy enable and complement the EMS and chart a course to improve sustainability of our municipal

operations. The Strategy also complements Richmond Hill's Asset Management Plan through continued consideration of the implications of climate change and environmental changes on the City's assets.

### *Climate change urgency underlies the entire Strategy*

We are already feeling climate change impacts in southern Ontario through higher temperatures, more frequent and more intense wind, rain, ice and snow storms, widespread flooding and a rise in invasive pests and pathogens.

The good news is that the City is taking action to mitigate climate change and plan for its impacts:

- The corporate Climate Change Framework looks at how local climate change impacts will affect the City's own programs and services, and identifies opportunities to improve resiliency.
- The City's first-ever Community Energy and Emissions Plan sets a target of net-zero emissions for Richmond Hill by 2050. It is supported by a conversation toolkit called *A Guide to Talking to People in Your Life about Climate Change* and the Resilient Richmond Hill educational campaign.
- The Corporate Energy Plan has the main goal of managing the City's energy consumption and exploring ways to conserve energy.

Trying to mitigate the impacts of climate change and adapt to what can't be avoided are essential parts of this Strategy update.

- Mitigating climate change by reducing reliance on fossil fuels will largely be achieved through the Energy, Transportation, and Waste themes. Water Resource Management, Water Conservation and Sustainable Land Development can also support mitigation by reducing energy needs, GHGs, and planning for conservation. Actions within the Natural Heritage and Urban Forest theme are also critical because trees, vegetation, and healthy soils store carbon, which helps to offset greenhouse gases (GHGs) that are produced.
- **Adapting to climate change** and protecting the natural environment from its impacts are important elements of the Invasive Species, Wildlife and Local Food and Pollinators themes. Natural Heritage and Urban Forest, Water Resource Management and Sustainable Land Development also link to adaptation because our natural spaces and features as well as sustainable buildings can help reduce and manage runoff and provide shade and cooling benefits. We need to keep these natural spaces healthy and plan accordingly as climate-related stresses increase.

### *What's in this updated Environment Strategy, and how to read it*

The balance of this document explains each of the 10 themes in more detail, including a central goal for each theme and the objectives and strategic actions intended to reach the goal.

The **objectives** for each theme relate to one or more of Richmond Hill's three main areas of activity as a municipality:

- **Regulation and influence**: The City's policies, by-laws and development approvals as well as advocacy and the ability to influence other levels of government.
- **Municipal services and operations:** How the City operates and provides services, including its use of buildings, equipment, vehicles and technology.
- **Community programming and education**: Initiatives, often with partner organizations, to educate and inspire the community to get involved and take action.

Our **strategic actions** comprise new, revised and continuing initiatives. They have been shaped by our research and experience, best practices we've seen in other municipalities, and the priorities voiced by our own community, as well as regulatory and policy requirements. Where applicable, strategic actions will highlight critical links between a specific theme and high-level City or Regional guidance.

**Timing** for delivery of our actions is marked by the two remaining phases of this Strategy: Phase 2 actions will be implemented between 2022 and 2026, and Phase 3 actions between 2027 and 2031. Actions that are implemented continually or on an annual basis are referred to as "ongoing".

Each action connects to at least one of our three **greening principles**, shown by the use of these symbols throughout this document:


Greening our Consumption


Greening our Natural Spaces


Greening our Growth

We've also made sure that each theme contains actions and tips to inspire residents to try new ideas and think in new ways.

### *Moving ahead*

Updating the Strategy gave us an opportunity to revisit our goals and planned actions and make adjustments. More than that, it painted a much clearer picture for us of what residents are thinking – and doing – about our environment. This was a reminder that we as a City need to continue engaging with residents, businesses, stakeholders and other municipalities to share knowledge, expand the conversations that *Greening the Hill* started, build on our momentum and continue forging essential partnerships.

## Energy

Using energy more efficiently, relying less on fossil fuels in homes, office buildings and other spaces, and being conservation-minded are all ways to cut GHG emissions – a key part of curbing climate change impacts – and can save money in the long run.

Some of the ways we can achieve energy efficiency include renewable energy sources such as rooftop solar power, geothermal heating and cooling, passive solar heating and cooling, and district energy systems. We can also conserve energy through building envelope improvements, more efficient lighting, equipment and landscaping, smart building operation technology and improved operating processes.

> ***Getting to net-zero together***
>
> When it comes to creating a low-carbon future, we can all play a part. Richmond Hill's Community Energy and Emissions Plan spells out how. By using low-carbon forms of transport, making homes and buildings more energy-efficient and reducing waste, all of us – residents, businesses and the City – can cut greenhouse gas emissions radically by 2050 and offset the rest, creating a healthy net-zero future.

### *What have we accomplished so far?*

Richmond Hill has been pursuing energy efficiency in its own facilities for many years. The City has won several awards for energy conservation, including the Living City Energy Efficiency Leadership Award from the Mayors' Megawatt Challenge Program in 2017, 2018, and 2019 for surpassing corporate energy targets. Richmond Hill also received the Lowest Energy Use Intensity Leader Award in 2019 from the ClimateWise Building Challenge Program.

The Environmental Scorecard shows a drop of nearly 22% in corporate GHG emissions per square foot of City building space from 2014 to 2019, due to LED conversion of indoor, street, park, and parking lot lights, as well as adoption of innovative energy-saving projects and process improvements in City buildings, coupled with reduced emissions from provincial electricity generation.

To tackle climate change at the community level, Richmond Hill released its Community Energy and Emissions Plan in 2021. Developed collaboratively with residents, businesses and community partners, it has a goal of net-zero emissions by 2050. Net zero means that GHG emissions are reduced as much as possible and any remaining emissions are offset, for example through tree planting.

### *What have we heard and learned?*

Community energy use and emissions rose at a rate less than the rate of population growth between 2015 and 2019, and we heard from the community that it is essential to keep bending the energy-use curve downward. Together, our Corporate Energy Plan and Community Energy and Emissions Plan set the direction for these reductions, and the actions below call out their primary role. We will continue to enable and encourage energy retrofits in new and existing homes, businesses and other buildings through implementation of Official Plan policies, incentive programs and education.

### *How will we continue to improve?*

Goal: To improve energy efficiency, reduce GHG emissions and mitigate climate change.

#### Objectives and Actions:

*1: Improve energy efficiency, reduce GHGs and promote renewable energy in new and redeveloped areas through City policies and plans.*

| Action | Timing | Greening Principles |
|---|---|---|
| **1.1** Explore opportunities to implement district energy in line with the City's Community Energy and Emissions Plan and Richmond Hill Centre Secondary Plan. | Phase 2 |  |
| **1.2** Through the policies and implementation of the City's Official Plan, encourage and/or require area-specific community energy plans in growth areas and energy strategy reports for major development. | Phase 2 |  |

*2: Show leadership by reducing energy consumption, fuel use and GHGs and supporting renewable energy in municipal operations.*

| Action | Timing | Greening Principles |
|---|---|---|
| **1.3** Adopt a net zero-emissions target for municipal buildings by 2050 to align with the Community Energy and Emissions Plan. | Phase 2 |  |
| **1.4** Continue to implement the Corporate Energy Plan for City facilities, and update the Plan every five years. Report facility energy consumption and GHG emissions annually. | Ongoing |  |
| **1.5** Regularly review and report corporate and community GHG emissions every 5 years to inform future projects that reduce GHG emissions. | Ongoing |  |

*3: Help residents and businesses achieve energy efficiency and a lower-carbon future through conservation programs and outreach.*

| Action | Timing | Greening Principles |
|---|---|---|
| **1.6** Explore and implement ways to support deep energy retrofits in a range of buildings, such as through Property Assessed Clean Energy (PACE) or related subsidies.<br>  *This action connects to Sustainable Land Development* | Phase 2 |  |
| **1.7** Showcase and pilot projects that reduce GHG emissions through innovative technology and approaches. | Ongoing |  |
| **1.8** Work with partners to educate residents and businesses about how to conserve energy and shift to renewable or alternative energy sources. | Ongoing |  |

## Transportation

Transportation accounts for more than 40% of our community's total GHG emissions, so achieving reductions in this area will be key to a net-zero future. This is supported by the City's Community Energy and Emissions Plan and will be a focus for the Transportation Master Plan Update as it progresses.

Key options for more accessible, reliable, and sustainable transportation include:

- Walking, cycling, and taking public transit more often
- Switching to lower-carbon vehicles, including electric vehicles and micromobility (e-bikes, cargo e-bikes, e-scooters, etc.)
- Shared mobility such as bike share, scooter share, car share and carpooling.

### *Electric vehicles now come in all sizes*

More Canadians are choosing a low-carbon future for themselves and their communities by purchasing an electric vehicle (EV). There are great reasons to join them. In addition to cutting greenhouse gases, EVs cost far less to run and maintain – one-fifth or less – than their fossil-fueled equivalents. For short hops, a micromobility option like an e-bike or e-scooter might be even more appealing – and fun. They cost less, don't add to traffic congestion, and are simple to park. Whichever option you choose, look into incentives and rebates for both the vehicle and home charging.

With continued growth, the City must address traffic congestion in part by providing infrastructure and supporting policies to make other options, like walking, cycling, micromobility and transit, more convenient. In addition to reducing the City's carbon footprint, sustainable transportation options will help to make streets more welcoming, reduce noise and air pollution as well as toxins and petrochemicals in stormwater runoff. For residents, other benefits include better health, increased social interaction, less traffic-induced stress, and a stronger sense of community.

The City's Transportation Master Plan will envision several important elements of a lower-carbon transportation future, including the Yonge subway extension, increased bus rapid transit, electric vehicle accommodation, and enhanced active transportation and trails infrastructure.

### *What has been accomplished so far?*

As a result of continued advocacy by Richmond Hill, senior governments have committed to fund the major costs of the Yonge North Subway Extension, which is expected to be complete within a decade. The Line 1 subway extension will reduce traffic and emissions and make it easier and faster to reach key destinations. It is a defining element of this Strategy's Transportation theme.

Other key accomplishments include expanding and improving the City's cycling and walking paths, including building over 13 kilometres of the Lake-to-Lake Cycling Route and Walking Trail in partnership with the Province, York Region and the Toronto and Region Conservation Authority.

The Environmental Scorecard shows that the length of City trails and bike lanes increased by over 7% and 4%, respectively, since 2015. This growth is expected to continue as the City updates and carries out its Transportation Master Plan. The City also offers free public access to electric vehicle charging stations at our municipal offices, and continues public outreach and engagement to promote sustainable travel.

### *What have we heard and learned?*

We heard from the community that improving public transit, walking, and cycling infrastructure are important for cleaner air, better health and lower GHG emissions. We also heard that the City should

continue planning for mobility and technology shifts, including electric vehicles and micromobility options. The actions in this theme align with those directions.

### *How will we continue to improve?*

Goal: To establish a lower-carbon transportation network with options that are more accessible, reliable and equitable.

#### Objectives and Actions:

*1: Advocate for and develop policies to provide active and sustainable transportation options.*

| Action | Timing | Greening Principles |
|---|---|---|
| **2.1** Develop a city-wide Transportation Demand Management (TDM) Plan and a Parking and TDM Strategy for New Developments. | Phase 2 |  |
| **2.2** Advocate to all levels of government for sustainable travel options, such as the Yonge-North Subway Extension, electric vehicles, more bus rapid transit, and micromobility. | Ongoing |  |

*2: Lead by example in encouraging active and sustainable transportation.*

| Action | Timing | Greening Principles |
|---|---|---|
| **2.3** Update City standards, policies and plans to ensure walking and cycling considerations are incorporated into more of the City's capital works projects. | Phase 2 |  |
| **2.4** Expand and improve Richmond Hill's active transportation network. | Ongoing |  |
| **2.5** Continue the shift to using electricity in place of fossil fuels for the City's fleet vehicles and equipment.<br>*This action connects to Energy* | Ongoing |  |

*3: Encourage and inspire community and business use of active and sustainable transportation options.*

| Action | Timing | Greening Principles |
|---|---|---|
| **2.6** In partnership with other agencies and businesses, research and develop an electric vehicle charging network.<br>*This action connects to Energy* | Phase 2 |  |
| **2.7** Explore opportunities to encourage the use of micromobility options, such as e-bikes and e-scooters. | Phase 2 |  |
| **2.8** Continue promoting programs that encourage and educate residents about healthy, active and sustainable ways of travelling. | Ongoing |  |
| **2.9** Research, monitor trends, showcase and pilot sustainable transportation ideas that use new technology and/or approaches. | Ongoing |  |

## Water Resource Management

Our water resources include lakes, rivers, streams, ponds, wetlands and underground aquifers. Together, these form complex systems across watersheds that support plant and animal life, as well as human habitation, industry and farming.

Climate change, pollution and development can put pressure on water systems. When overwhelmed, systems lose their natural ability to safely absorb rainwater and snow melt, leading to flooding and other damage. Policies and actions to enhance water resources will help to protect private and public property and keep our rivers and lakes clean.

### *Putting the 'LID' on flooding risk*

When the runoff from heavy storms pours into creeks and rivers, it can spread pollutants and lead to flooding. Low impact development or "LID" practices help prevent both problems. They mimic nature, using plants and soil (instead of hard surfaces like asphalt and concrete) to absorb stormwater runoff and filter out pollutants Richmond Hill is using and promoting these practices. You can help by using permeable pavement around your home, collecting rainwater for your garden or planting a rain garden.

### *What has been accomplished so far?*

The 2015-2019 Environmental Scorecard focused on Lake Wilcox, the City's largest kettle lake (a kettle lake is like a water-filled crater formed by a receding glacier). While the level of phosphorus – which can lead to an overabundance of algae – declined, the level of salt increased. Many municipalities face this challenge in urban areas, because salt needed for public safety on roads can make its way into local water bodies. The City will continue to explore best practices through its Salt Management Plan, which was updated in 2016. An update to the Lake Wilcox Management Plan was completed in 2020, and its recommendations will be carried out alongside this Strategy.

Through upgrades to our stormwater management infrastructure and restoration of our valleylands, the City continues to protect against flooding, reduce erosion and improve water quality. We've also taken steps to make sure our stormwater infrastructure functions better, and will continue to do so moving forward. In 2022, existing design standards were updated and new ones developed to improve the benefits from future stormwater and LID projects.

### *All about inflow and infiltration (I&I)*

*When stormwater (from rain and snow melt) enters the wrong sewers, it can overwhelm the wastewater system, leading to basement and roadway flooding, and strain treatment plants. "Inflow" occurs when stormwater enters the system directly through improper plumbing, cross-connections with storm drains, and holes in maintenance hole covers. "Infiltration" occurs when groundwater seeps into the system through holes and cracks in sanitary laterals and sewer pipes. Reducing I&I helps to conserve water, reduce costs, and protect infrastructure, property and the environment from sewage overflows. It also builds resilience to climate change, especially from increased precipitation and extreme rain events.*

### *What have we heard and learned?*

Community members told us that protecting and enhancing water quality is important to them. To that end, this theme includes actions to monitor, maintain, and improve management of stormwater and other run-off, including run-off into Lake Wilcox. Actions also aim to build community knowledge and promote at-home stormwater management practices. Additional actions around using LID in higher-density urban areas, which residents also consider important, are included in the Sustainable Land Development theme.

## *How will we continue to improve?*

Goal: To conserve and protect our water resources by managing water quality, water quantity and stormwater infrastructure.

### Objectives and Actions:

*1: Ensure robust and evidence-based measures to protect water resources and manage stormwater as the City grows.*

| Action | Timing | Greening Principles |
|---|---|---|
| **3.1** Create a Stormwater Network Model to plan for the impacts of climate change and growth on the City's stormwater systems and infrastructure, including low-impact developments.<br>*This action connects to Sustainable Land Development* | Phase 2 |  |
| **3.2** Use the Stormwater Network Model to review and update the City's Master Drainage studies and plan for future stormwater needs.<br>*This action connects to Sustainable Land Development* | Phase 3 |  |
| **3.3** Improve monitoring and enforcement of development projects requiring Erosion and Sediment Control Plans.<br>*This action connects to Sustainable Land Development* | Phase 2-3 |  |
| **3.4** Carry out and regularly update the Stormwater Management Rate Program to provide funding for improvements that reduce runoff and erosion, improve water quality, protect infrastructure, and improve climate resiliency. | Ongoing |  |

*2: Maintain and upgrade the City's own infrastructure and leverage related plans to benefit water resources.*

| Action | Timing | Greening Principles |
|---|---|---|
| **3.5** Put the Stormwater Infrastructure Capital Plan into action to improve the City's stormwater facilities and valleylands. Re-assess and update the plan as needed. | Ongoing |  |
| **3.6** Carry out the City's stormwater infrastructure monitoring and inspection program, updating it as required. | Ongoing |  |
| **3.7** Strive to improve the health of Lake Wilcox by carrying out and routinely updating the Lake Wilcox Management Plan. | Ongoing |  |
| **3.8** Continue to assess watershed health and protect natural assets through the City's Watershed Monitoring Program. | Ongoing |  |
| **3.9** Follow and periodically update the City's Salt Management Plan, explore salt management alternatives, and work with residents and businesses to reduce the use of salt. | Ongoing |  |

| Action | Timing | Greening Principles |
|---|---|---|
| **3.10** Protect the built and natural environment and improve climate resilience by carrying out the City's Inflow and Infiltration Program.<br>*This action connects to Water Conservation* | Ongoing |  |

*3: Promote increased awareness, understanding and stewardship of our water resource systems and stormwater infrastructure through partnerships, public education and outreach initiatives.*

| Action | Timing | Greening Principles |
|---|---|---|
| **3.11** Work with partners to help educate residents on how they can become stormwater stewards and reduce stormwater impacts. | Ongoing |  |
| **3.12** Undertake pilot projects, potentially involving citizen science, to protect and improve water resource systems and stormwater infrastructure. | Ongoing |  |
| **3.13** Increase climate resilience and reduce the risk of home flooding during severe weather events through the Backwater Valve Subsidy Program. | Ongoing |  |
| **3.14** Monitor and enforce existing by-laws (such as the Sewer-use By-law) to reduce hazardous spills on land and water. | Ongoing |  |

## Water Conservation

As our population grows and the climate changes, water security will be increasingly vital. We need to work together to reduce water use to avoid the risk of shortages and to become more resilient to drought.

Saving water also reduces energy use and GHG emissions, as less water needs to be pumped, treated and heated. This reduces costs for the City, residents and businesses.

### *Little steps can save a lot of water – and money*

Conserving water protects our environment and water resources and reduces energy use. Conservation saves money, too! Little steps add up when it comes to cutting water use.

- Buying a new dishwasher or washing machine? Check out its water use per load first – and run it only when you have a full load.
- Turn off the tap except to rinse when you're brushing your teeth, shaving or washing your hands.
- Water your lawn only when it really needs it and use soaker hoses to cut water use by up to 70% compared to sprinklers.
- Leave grass trimmings after you mow – they contain lots of water and they'll fertilize the lawn as well.

### *What has been accomplished so far?*

Results from the 2015-2019 Environmental Scorecard show a significant drop in the City's water consumption, thanks to projects such as pool filtration upgrades, installing low-flow fixtures and aerators in City buildings, and water conservation and reuse technologies at parks and splash pads. As just one example, a 2021 project to replace the water level control system at the Elgin West Community Centre will result in cost savings of over $100,000 and water savings of over 21 million litres each year.

The Scorecard also shows a decline in community water use, reflecting education and awareness efforts, greater use of water-saving appliances and equipment, and measures like enforcing the City's Water Use Conservation By-law. Each year through the Healthy Yards program, the City offers residents the chance to buy rain barrels, which save water and reduce runoff by storing rainwater for future reuse.

### *What have we heard and learned?*

Through consultation with the community, we have heard that conserving water remains an important aspect of environmental protection. The actions outlined below will enable the City to continue leading by example by exploring and testing innovative water conserving pilot projects and initiatives. We also learned that there is an interest in encouraging greater water conservation through techniques such as rainwater harvesting and grey-water reuse in new developments, and strengthening outdoor water use restrictions.

### *How will we continue to improve?*

Goal: To use water wisely and promote the wise use of water.

#### Objectives and Actions:

*1: Achieve greater water efficiency and conservation in new construction, in redevelopment and throughout the community.*

| Action | Timing | Greening Principles |
|---|---|---|
| **4.1** Promote ways to conserve water in the community, including through lawn-watering restrictions. | Phase 3 |  |

| Action | Timing | Greening Principles |
|---|---|---|
| **4.2** Promote water conservation and water-efficient technologies in new construction and redevelopment.<br>*This action connects to Sustainable Land Development* | Ongoing |  |

*2: Further reduce the City's own water consumption.*

| Action | Timing | Greening Principles |
|---|---|---|
| **4.3** Prioritize and act on City responsibilities set out in the York Region Long-Term Water Conservation Strategy. | Phase 3 |  |

*3: Work with partners to encourage and demonstrate the wise use of water in the community.*

| Action | Timing | Greening Principles |
|---|---|---|
| **4.4** Support pilot programs for water re-use technologies and applications. | Ongoing |  |
| **4.5** Work with partners to show residents and businesses how they can conserve water and protect water resources. | Ongoing |  |

## Sustainable Land Development

Accommodating sustainable growth and intensification in Richmond Hill is an important way to curb urban sprawl and help protect our sensitive natural areas and features. However, growth can bring challenges like traffic congestion, air pollution, flooding risk, and loss of greenspace and habitat. Sustainable land development minimizes the impacts of growth on the natural environment in all settings.

For that reason, it intersects with all other themes in this Strategy: it can help conserve water and energy, reduce waste, protect our natural environment and water resources, enhance wildlife and pollinator habitat, encourage local food production, and provide active and sustainable transportation options.

### *Designing for sustainable growth*

Richmond Hill's award-winning Sustainability Metrics program is a green scoring system that encourages sustainable land development. The program requires new developments to incorporate sustainable design features based on a menu of options. Projects have achieved high scores by building to the LEED Gold standard, installing green roofs, surpassing Canada's energy code, using rainwater recycling for irrigation, and locating buildings near public transit.

Sustainable land development practices include green infrastructure and low-impact development (LID) measures, and sustainable design is promoted through the City's Sustainability Metrics program.

Land-use planning at the local, regional and provincial level plays an important role, too. The City's Official Plan is a key policy driver that proactively shapes future growth and development. It envisions and enables the planning of more compact, mixed-use, transit and pedestrian-oriented communities, also known as "complete communities." Designing and building such communities will help protect and enhance our greenspace, limit urban sprawl, transform the way people move around the City, and forge our path to a net-zero future.

### *What has been accomplished so far?*

In partnership with the Toronto and Region Conservation Authority, the City completed a Sustainable Neighbourhood Action Program (SNAP) in the Lake Wilcox area. Through an eco-landscaping program, it leveraged LID features to reduce stormwater runoff, improve water quality, conserve water, and promote biodiversity.

Corporately, the City has led by example by constructing and renovating buildings, including the Oak Ridges Library and Ed Sackfield Arena, to meet LEED Silver standards. Additionally, in 2022, the City's Products, Standards and Design Criteria Manual was updated to strengthen environmental protections, including requirements for stormwater management, erosion and sediment control, tree planting and protection, outdoor lighting, and pedestrian and cycling facility design.

The Sustainability Metrics program has been key to identifying, measuring and achieving more sustainable development in both public and private buildings since 2014. In 2016, the City developed a tool to track and assess progress. Results in the 2015-2019 Environmental Scorecard show that while developments achieved "good" and "very good" scores, there are opportunities to raise the bar when it comes to sustainable development and design. To address this, the Metrics program was updated in 2021-22 with the goal of encouraging more innovative, sustainable and resilient design features in developments.

### *What have we heard and learned?*

Consultation with the community showed that Richmond Hill residents care about growing sustainably, limiting urban sprawl while protecting greenspace, and incentivizing sustainable design and construction practices. The updated Sustainability Metrics program will continue to promote these goals for home and commercial development; the City is also exploring ways to design its own infrastructure to be more sustainable and climate resilient. Bolstering education on sustainable development approaches, home efficiency, and climate resilience, with a particular focus on multi-residential developments, will be key. We also heard about the need to incorporate more LID practices on public and private land, which we aim to achieve by working with developers and partners to test, pilot and incentivize LID approaches.

### *How will we continue to improve?*

Goal: To foster sustainable development and redevelopment.

#### Objectives and Actions:

*1. Encourage greater use of sustainable design approaches through planning and policy tools.*

| Action | Timing | Greening Principles |
|---|---|---|
| **5.1** Consider incorporating sustainability elements in strategic locations within City parks to help adapt to the effects of our changing climate and promote resiliency.<br>*This action connects to Natural Heritage and Urban Forest* | Phase 2 |  |
| **5.2** Provide incentives to encourage developers to exceed minimum threshold scores under the Sustainability Metrics Program. | Phase 2 |  |
| **5.3** Showcase examples of innovative design ideas resulting from the Sustainability Metrics program. | Ongoing |  |

*2. Lead by example in the use of sustainable, resilient and low-impact design in municipal buildings and infrastructure.*

| Action | Timing | Greening Principles |
|---|---|---|
| **5.4** Explore whether an equivalent alternative, such as the Sustainability Metrics Program, could replace LEED Silver as the standard for new buildings and major renovations of large City facilities.<br>*This action connects to Energy* | Phase 2 |  |
| **5.5** Develop a list of standard climate interactions to identify climate risks and plan for climate and asset resiliency of municipal infrastructure projects.<br>*This action connects to Water Resource Management* | Phase 2 |  |
| **5.6** Create climate change design briefs for City facilities and other capital structures.<br>*This action connects to Water Resource Management and Energy* | Phase 3 |  |

| Action | Timing | Greening Principles |
|---|---|---|
| 5.7 Seek ways to incorporate sustainable and resilient features into the design and construction of City buildings and other assets.<br>*This action connects to Water Resource Management* | Ongoing |  |

*3. Promote the adoption of sustainable development features and practices in the community through outreach, education and partnerships.*

| Action | Timing | Greening Principles |
|---|---|---|
| 5.8 Launch an initiative to reach out to residents in multi-residential buildings to explain and encourage choices that benefit the environment.<br>*This action connects to all themes* | Phase 2 |  |
| 5.9 Work with developers and other partners to pilot, test feasibility and incentivize LID and other green infrastructure ideas.<br>*This action connects to Water Resource Management and Energy* | Phase 3 |  |
| 5.10 Work with local partners to pilot and showcase ways that residents can make their homes more energy efficient and resilient to climate change.<br>*This action connects to Water Resource Management* | Ongoing |  |
| 5.11 Provide education and outreach to residents about sustainable development approaches, home efficiency, and climate resiliency improvements.<br>*This action connects to Water Resource Management and Energy* | Ongoing |  |

## Natural Heritage and Urban Forest

Natural heritage is an interconnected network of landscape features and functions – such as forests, woodlands, meadows, wetlands, lakes, rivers, and streams – that characterize a particular place.

The urban forest comprises all trees, shrubs and their growing environments, whether on public or private land, in Richmond Hill.

Today, Richmond Hill's urban forest is made up of about 2.6 million trees, providing a canopy cover of nearly 30% (canopy cover is how much land is covered by trees and shrubs). This makes the urban forest an important part of the natural heritage system in our City.

Trees and natural areas provide numerous ecosystem services and valuable benefits to our community. As the City grows and urbanizes, preserving and enhancing our urban forest and natural heritage systems will be vital, especially in higher-density areas. With urban growth, it will be critical to leverage as many natural assets as possible – including woodlands, wetlands, fields, meadows and valleylands – to maintain and create links between the patchwork of greenspaces in our City that serve as corridors for wildlife. Connecting people and nature within our built environments and communities will become increasingly important.

### *The Power of Trees*

Trees and shrubs make our communities more welcoming and livable in so many ways: they clean the air, shade us from extreme heat, shelter against cold winds, capture carbon, and reduce flooding and erosion by slowing stormwater runoff.

Trees and shrubs also provide habitat, food and pathways for wildlife, offer opportunities for creative play and recreation, increase property values, visually enhance neighbourhoods, and can help reduce energy costs.

### *Get to know the greenway*

An important way that the City protects, establishes, and connects our natural spaces is through our greenway system. The greenway is an interconnected system of environmental, agricultural and urban open space lands that is protected, enhanced, and actively managed over the long term through implementation of Richmond Hill's Official Plan. Actions in this Strategy help reinforce the City's efforts to manage and enhance the natural features, functions and connections of the greenway.

Healthy and diverse natural heritage systems play a major role in reducing climate change impacts by shading and cooling built-up areas to protect against urban heat island effect, helping to manage flooding risk and storing carbon. At the same time, climate change and invasive species present major threats to trees and other natural heritage features. They will need our support so we can continue to depend on their important services.

### *What has been accomplished so far?*

The City's successful community stewardship and restoration initiatives, as well as forward-thinking policies, guidelines and invasive species management practices have all contributed to more canopy cover, healthier trees and a more robust and connected natural heritage system in Richmond Hill.

Between 2010 and 2016, canopy cover grew from 25% to nearly 30% (that's a net gain of more than 100,000 new trees and shrubs!). Since 2015, the City has restored more than 32 hectares of natural area and worked with the community to plant more than 60,500 trees and shrubs. We have also worked with partners to lead hundreds of tree planting and outreach events, workshops, and webinars.

The popular Healthy Yards program, which intersects with many themes in this Strategy, has provided more than 21,000 wildflowers, nearly 8,000 trees and shrubs, 1,500 rain barrels and 850 backyard composters to residents, all at a subsidized rate, to enhance natural heritage by making yards more welcoming to native species, as well as more resilient and attractive.

In 2020, Council approved Richmond Hill's first Urban Forest Management Plan, which will build on these successes by guiding efforts to strengthen, manage, and maintain a healthy urban forest over the next 20 years. Priority actions from the Plan have been incorporated into this Strategy.

In addition to receiving awards for its Community Stewardship Program and restoration projects, Richmond Hill was recognized in 2021 as a "Tree City of the World" by the Arbor Day Foundation and the Food and Agriculture Organization of the United Nations for its commitment to the urban forest.

### *What have we heard and learned?*

Natural spaces remain very important to the Richmond Hill community. We will explore ways to continue increasing canopy and protecting trees along streets, in parks, and around buildings, especially in intensification areas. Key themes that emerged in consultations included equity and inclusiveness. As a result, in creating a tool to help prioritize areas for protection and enhancement, we will look at equitable access to greenspace as well as opportunities to incorporate traditional ecological knowledge. There is also an interest, especially among younger residents, in playing a bigger role in stewardship. As we continue to deliver our Community Stewardship Program, we will also consider leveraging citizen science.

### *How will we continue to improve?*

Goal: To establish, protect and improve the extent and quality of natural heritage and the urban forest.

Objectives and Actions:

*1. Establish, protect and connect Richmond Hill's greenway system, natural areas and urban forest.*

| Action | Timing | Greening Principles |
|---|---|---|
| **6.1** Strive to increase tree canopy cover along streets, in parks and around buildings in new growth and high-density areas.<br>*This action connects to Sustainable Land Development* | Phase 2 |  |
| **6.2** Include natural assets, such as trees, woodlands and meadows within the City's Asset Management Program. | Phase 2 |  |
| **6.3** Support trees on private lands by exploring opportunities to incorporate standards that provide space for tree protection and/or establishment through the Comprehensive Zoning By-law.<br>*This action connects to Sustainable Land Development* | Phase 2 |  |
| **6.4** Explore the creation of tree canopy cover targets for different land uses. | Phase 2-3 |  |
| **6.5** Create a prioritization tool and supporting documents to help establish and improve connections between natural heritage | Phase 2-3 |  |

| Action | Timing | Greening Principles |
|---|---|---|
| features, leveraging traditional ecological knowledge where possible and promoting access to green spaces for all.<br>*This action connects to Sustainable Land Development and Wildlife* | | |

*2. Manage and enhance natural areas and track their health.*

| Action | Timing | Greening Principles |
|---|---|---|
| 6.6 Improve coordination and management of ecological data between departments, including data obtained from developers.<br>*This action connects to Sustainable Land Development and Wildlife* | Phase 2 | |
| 6.7 Update the City's Natural Area Inventory and regularly assess publicly owned natural areas to better understand the health of natural spaces and habitat for native species.<br>*This action connects to Wildlife* | Phase 2 | |
| 6.8 Undertake ecological restoration to protect and enhance the City's natural areas. | Ongoing | |

*3. Continue and expand outreach to encourage environmental stewardship.*

| Action | Timing | Greening Principles |
|---|---|---|
| 6.9 Develop an education and best practices program for naturalization in City parks.<br>*This action connects to Local Food and Pollinators* | Phase 2 | |
| 6.10 Continue working with partners to deliver the Community Stewardship Program to restore and enhance Richmond Hill's natural environment.<br>*This action connects to Water Resource Management and Invasive Species* | Ongoing | |
| 6.11 Continue the Healthy Yards Program, which helps homeowners plant native trees, shrubs and flowers to attract more pollinators and other native species.<br>*This action connects to Local Food and Pollinators* | Ongoing | |
| 6.12 Get residents, and especially young people, excited about the urban forest and natural systems through education, engagement and citizen science initiatives. | Ongoing | |
| 6.13 Carry out pilot projects for urban forest and natural heritage improvement. | Ongoing | |

## Invasive Species

Invasive species pose a threat to our City's natural heritage system, urban forest, water resources, and in some cases the built environment. They also make our environment less resilient to stress caused by storms, drought or other pests. Because they often lack natural predators or population controls, they can spread rapidly.

With climate change, new invasive species are likely to appear in Richmond Hill. Planning for that challenge is essential. One way is to increase the presence of native species – plants and shrubs that have developed naturally and are well-adjusted to our local climate and soil – and keep them healthy. Another important way is monitoring to try to prevent invaders from getting a foothold.

### *What are invasive species?*

"Invasive species" are plants, animals, insects and pathogens that are introduced from an area outside of their natural range and cause harm to the environment, economy, or society. "Non-native species" come from an area outside of their natural range, but may not cause the same level of negative environmental, economic, or social impacts.

### *What has been accomplished so far?*

The Environmental Scorecard showed that the number of native species in Richmond Hill rose slightly between 2014 and 2019 as we worked with partners such as York Region, the Toronto and Region Conservation Authority, Ontario Streams and Local Enhancement and Appreciation of Forests (LEAF) to remove invasive species and add native ones.

As well, the City's Urban Forest Planting Guidelines for street tree replacements and new developments, released in 2016, are helping foster a more resilient and diversified urban tree canopy. The benefits of native plants continue to be promoted through our Community Stewardship and Healthy Yards programs, social media, workshops and webinars, the City's website, and displays at community centres.

### *Watching out for oak wilt*

Today Ontario faces an emerging challenge, oak wilt, a devastating beetle-spread fungus that can kill an oak tree in under a year. This fungus is spreading in the United States, and its appearance in Richmond Hill would be devastating for our urban forest, where oaks make up 8% of street and park trees and include many large and mature specimens. Symptoms of the disease in red oaks include leaf discoloration and rapid wilting, with the leaves changing colour near the top of the tree first and turning bronze as the disease progresses. In areas of infestation, holding off on pruning until late summer helps to reduce the risk of infection. Together, we can work to prevent the onset of oak wilt in our city. If you are interested in learning more, contact the Invasive Species Centre. You can report a sighting using www.eddmaps.org or by calling the hotline at 1-800-563-7711.

The Emerald Ash Borer is an invasive beetle that has destroyed thousands of ash trees in Richmond Hill. For more than a decade, the City has acted on a strategy to manage its impacts by removing and replacing dead ash trees, managing woodlots, and selectively using pesticides to save ash trees where possible.

### *What have we heard and learned?*

It's important for us to be prepared to respond as quickly and effectively as possible when invasive species threats emerge. We heard that residents would like to help our efforts by watching for and reporting invasive species they encounter at home or in the community. To help align work by the City, our partners and residents, we need a comprehensive invasive species management strategy. Because this will take some time, we will also develop a protocol to guide the City's response to emerging invasive species issues in the interim.

## *How will we continue to improve?*

Goal: To prevent and actively manage the impacts of invasive species.

### Objectives and Actions:

*1. Develop and implement policies that prevent the introduction and slow the spread of new and existing invasive species.*

| Action | Timing | Greening Principles |
|---|---|---|
| **7.1** Develop a comprehensive Invasive Species Management Strategy and Action Plan; review and update as necessary.<br>*This action connects to Natural Heritage and Urban Forest* | Phase 2-3 |  |
| **7.2** In the interim, develop a protocol to guide how the City responds to and manages emerging invasive species. | Phase 2 |  |

*2. Take action to reduce the impact of invasive species through our municipal planning and operations.*

| Action | Timing | Greening Principles |
|---|---|---|
| **7.3** Continue to implement the Emerald Ash Borer Management Strategy. | Ongoing |  |
| **7.4** Carry out pilot projects to plan for and manage invasive species using innovative techniques and tools. | Ongoing |  |

*3. Work with the community and local partners to increase awareness of invasive species and manage their impact.*

| Action | Timing | Greening Principles |
|---|---|---|
| **7.5** Educate residents about how to monitor for and manage invasive species on their own property and in the community.<br>*This action connects to Local Food and Pollinators* | Ongoing |  |
| **7.6** Work with partners to monitor and manage invasive species in the community. | Ongoing |  |

## Wildlife

Wildlife is at the heart of a healthy and diverse environment. Watching and studying birds and other animals also enriches the lives of residents and builds understanding of the natural world.

Urban development, however, reduces the space available for wildlife, such as beavers, coyotes, owls, white-tailed deer, bats, turtles and frogs, that depend on natural areas for survival. With greater urban density comes more windows, which can increase the likelihood of bird fatalities. It also brings people and their vehicles closer to those areas, which can result in more frequent interactions and conflicts. Working to address these challenges will be key as the City grows.

Climate change increases pressure on wildlife through severe weather and warmer temperatures. This is an added reason to protect and enhance wildlife and their habitat.

### *Moraine shelters some endangered species*

Not all our neighbours in Richmond Hill live in houses or apartments. We share our city with a wide variety of other residents, both plant and animal, especially within the Oak Ridges Moraine in the northern part of the city. Interesting to learn about and fun to observe, these residents also play a key role in warning us of possible environmental pressures. Two in particular, the Jefferson salamander and Blandings turtle, are endangered today in Ontario. Both species depend on clean water for their survival, so the key to saving them is preserving the ponds and wetlands they call home. Doing so helps us too, because ponds and wetlands are great natural storage systems for carbon, offsetting greenhouse gas emissions. What's more, a healthy Oak Ridges Moraine can more effectively carry out its important roles of filtering rainfall and snowmelt, storing the water in aquifers and feeding some 65 river systems that flow north to Lake Simcoe and south to Lake Ontario.

### *What has been accomplished so far?*

The Environmental Scorecard shows an increase of more than 7% in the number of native wildlife species in Richmond Hill from 2014 to 2019, as identified through natural area inventories. City-led restoration projects and community stewardship initiatives to protect and enhance wildlife habitat contributed to this improvement. In 2019, the City created a program to educate residents about local wildlife that included postcards and a series of workshops.

The City continues to discourage residents from feeding wildlife because it does more harm than good. It can cause geese, ducks, coyotes and other animals to lose their fear of people and become a nuisance or even a safety risk. It can also harm the animals' health, since human food typically does not meet their nutritional needs and may be indigestible. Wildlife can also become habituated and reliant on humans, causing them to lose their natural ability to hunt and forage for their own food. To help educate residents on the dangers of feeding animals – and keep our wildlife wild – the City is updating its Parks Use By-law to make wildlife feeding in parks and open spaces illegal.

### *What have we heard and learned?*

We heard that collisions between vehicles and wildlife are a growing safety concern. An emerging field called "road ecology" focuses on making it safer for wildlife to use natural passages without crossing roads. Actions in this Strategy aim to improve wildlife road safety through measures such as eco-tunnels and fencing.

Through the Strategy, we will continue to help foster peaceful coexistence between residents and wildlife in Richmond Hill by educating residents, carrying out existing programs and exploring innovative approaches to reducing conflicts.

### *How will we continue to improve?*

Goal: To protect, preserve and sustainably manage a healthy diversity of native wildlife.

#### Objectives and Actions:

*1. Sustainably manage wildlife and their habitats.*

| Action | Timing | Greening Principles |
|---|---|---|
| **8.1** Continue to manage conflicts between people and geese and beavers through the City's Canada Goose Management Strategy and Beaver Management Policy. | Ongoing |  |

*2. Protect and enhance wildlife survival and habitat through City projects and operations.*

| Action | Timing | Greening Principles |
|---|---|---|
| **8.2** Where possible, make wildlife survival part of the design and building of new City infrastructure, including roads (for example, considering rolled curbs in turtle crossing areas). | Phase 3 |  |
| **8.3** Explore ways to protect wildlife and their habitats through City operations and maintenance practices. | Phase 3 |  |
| **8.4** Explore policies and initiatives to create a more bird-friendly Richmond Hill.<br>  *This action connects to Sustainable Land Development and Natural Heritage and Urban Forest* | Ongoing |  |

*3. Encourage a harmonious relationship between residents and local wildlife through public education and outreach initiatives.*

| Action | Timing | Greening Principles |
|---|---|---|
| **8.5** Educate residents about interactions with and the benefits of local wildlife and biodiversity. | Ongoing |  |
| **8.6** Carry out pilot projects to protect wildlife and enhance habitat using innovative techniques and tools. | Ongoing |  |

## Local Food and Pollinators

Growing food locally – whether on a balcony, a home garden or a community plot – offers healthier and more reliable food choices and reduces the GHG emissions from long-distance transport.

When people grow and harvest their own food it gives them outdoor exercise and other health benefits. There is abundant evidence that gardening increases well-being and longevity. Providing space for community plots also enables knowledge-sharing and a stronger sense of community, which are linked to better health outcomes.

> ***Pollinator power!***
>
> It is estimated that 35 per cent of global crop production relies on pollinators! Without them, we would have much less food and much less variety. Pollinators are important members of our communities, but they are under pressure. Why not give them some help by planting purple coneflower, milkweed, wild bergamot and other native flowers? To be even more welcoming, go wild in places. Lay down stones in sunny spots. Provide damp areas, patches of bare ground and, if possible, a source of water. Plant native grasses or sedges, avoid over-tidying in fall or early spring, and leave bark, sticks and leaves on the ground as safe places to overwinter.

Pollinators and local food production go hand-in-hand. Many plants depend on bees, butterflies, hummingbirds and even bats to spread the pollen needed to produce fruit and seeds. Gardens and food crops, in turn, provide valuable habitat and food sources for pollinators. Diverse and healthy gardens and food landscapes also support beneficial insects that control pests.

Unfortunately, pollinators such as bees, butterflies, and other beneficial insects are under pressure from loss of habitat and use of chemical pesticides. The best way to support them is by providing habitat where they can thrive – by planting food and flower gardens, naturalizing yards and other parts of properties by replacing manicured lawn with plants, more diverse grasses and other features of the natural landscape, and cutting the use of broad-based pesticides.

### *What has been accomplished so far?*

The Environmental Scorecard shows that from 2015-2019, the number of community gardeners in Richmond Hill increased by nearly 120%. In 2017, Council approved a Community Garden Policy to help create even more gardens across the City and enhance pollinator habitat to improve local food security and reduce GHG emissions from food transportation. This will allow us to explore opportunities to encourage gardening in new developments and intensification areas.

Since 2015, the City's Healthy Yards program has also helped increase access to local food by offering fruit trees and shrubs to residents at a subsidized price.

The City has also taken great strides to educate residents and promote protection of pollinators through participation in the National Wildlife Federation's Mayor's Monarch Pledge, Flight of the Monarch Day, Bee City Canada designation, and David Suzuki Foundation's "Butterflyway" project.

### *What have we heard and learned?*

Talking to residents confirmed that supporting pollinators must be a key component of the Environment Strategy, and we have developed objectives and actions to protect, enhance, and promote pollinators and their habitat on public and private property.

We also heard recommendations for more community gardens to ramp up local food production and improve access, especially in areas with vulnerable populations. We have developed actions to enable urban agriculture in developments, bolster education and engagement, and collaborate with community groups to achieve these objectives.

### *How will we continue to improve?*

Goal: To improve access to local food and support pollinators and their habitat.

#### Objectives and Actions:

*1. Establish policies and initiatives that encourage urban gardening to enhance pollinator habitat and increase access to local food.*

| Action | Timing | Greening Principles |
|---|---|---|
| **9.1** Seek ways to increase urban agriculture and pollinator-friendly gardens in new and re-development projects especially in densely populated areas and in proximity to vulnerable populations. | Ongoing |  |

*2. Protect, enhance and increase pollinator habitat and promote local food production on City land.*

| Action | Timing | Greening Principles |
|---|---|---|
| **9.2** Expand pollinator habitat and local food production on City land through planning and infrastructure projects.<br>  *This action connects to Invasive Species, Natural Heritage and Urban Forest, and Wildlife* | Ongoing |  |
| **9.3** Carry out pilot projects to expand local food production and protect pollinators on public property. | Ongoing |  |

*3. Improve access to local food and encourage pollinator protection through community partnerships, education and engagement.*

| Action | Timing | Greening Principles |
|---|---|---|
| **9.4** Explore passive education opportunities, such as signage in community gardens or parks, to teach residents about local food and pollinators. | Phase 2 |  |
| **9.5** Develop outdoor education programs with a focus on local food production. | Phase 2 |  |
| **9.6** Seek partnerships with residents and organizations to promote and encourage local food security and production. | Ongoing |  |
| **9.7** Create and expand community gardens in line with the City's Community Garden Policy. | Ongoing |  |

| Action | Timing | Greening Principles |
|---|---|---|
| 9.8 Participate in partnership programs that promote pollinator protection. | Ongoing |  |
| 9.9 Encourage residents and businesses to plant pollinator-friendly native plants and naturalize their properties.<br>  *This action connects to Invasive Species, Natural Heritage and Urban Forest, and Wildlife* | Ongoing |  |

## Waste

In Richmond Hill, sustainable waste management is guided by the "4R" approach: reduce, reuse, recycle and recover.

Reducing and reusing cuts the amount of waste we create. What's left is then recycled or recovered to the greatest extent possible through blue box, green bin, yard waste, electronic waste, and household hazardous waste programs. Most residual waste goes to an energy-from-waste facility rather than landfill, where it is used to generate electricity and heat for use as power.

***Want to trim your waste? Give these ideas a try!***

- Buy in bulk and bring your own containers – or choose products sold in refillable containers
- Get together with friends to "shop your closets" for clever reuse ideas and swaps
- Try your hand at upcycling second-hand furniture treasures
- Use long-lasting, sustainable alternatives to everything from diapers to paper towels to food storage
- Join the sharing movement by using public "lender" libraries and maker spaces

Collecting and processing waste produces GHG emissions, so reducing the amount of waste we generate in the first place is crucial to curbing climate change. It also helps keep our natural spaces clean and healthy.

Richmond Hill continues to work with York Region to prepare for the transition to full producer responsibility for the blue box program, expected to take place by the end of 2025. The goal is to ensure that the producers of products and packaging are fully responsible for recycling those items and the associated costs. Shifting the end of life waste management cost from consumers to producers incentivizes them to use less material in their products and packaging and opt for materials that are easier to separate and recycle.

The producer responsibility model is an important step in advancing the "circular economy." In the circular economy, products and materials are reused, repaired, refurbished, remanufactured, repurposed, or recycled so that nothing goes to waste. Moving to this approach can protect our environment, drastically reduce waste, and save money.

Single-use items and packaging (such as disposable cutlery, straws, stir sticks, shopping bags, and take-out containers) are a special concern because they are often made from non-renewable resources, are difficult to recycle and can end up in our natural spaces as litter. Reducing reliance on these items will require a shift in thinking, which is already underway through federal regulations and the circular economy movement.

### *What has been accomplished so far?*

The Environmental Scorecard shows that waste generation and diversion rates in Richmond Hill remained stable from 2015 to 2019 and that, at almost 70%, Richmond Hill has one of the highest diversion rates in Canada. This progress can be attributed to the City's efforts, in partnership with York Region, to educate and make it easier for residents to divert their waste, especially in multi-residential buildings, in public spaces and community centres.

Since 2019, the City has required three-stream (organic, recycling, and garbage) infrastructure and collection in all new multi-residential developments. In older buildings, we are working to ensure organics

are properly separated and collected and have ramped up education on the importance of separating waste streams. We have also enhanced the capacity to track and collect data in this area.

From 2016 to 2020, the City piloted and established service levels for diversion programs, including at parks, super mailboxes, the downtown core, and community centres.

In 2020, the City released a Single-Use Plastics Reduction Strategy, which aims to reduce reliance on these items through a corporate policy, a public education campaign, and a business engagement program to support businesses implementing voluntary reduction measures.

### *What have we heard and learned?*

Residents are interested in efforts to reduce single-use plastics and litter, especially in our parks and community spaces. Implementing the Single-Use Plastics Reduction Strategy and continuing our annual "Clean Up, Green Up" community event will help address these concerns. We also heard that interest in the circular economy is growing. Actions below that promote community waste reduction education and community reuse will help Richmond Hill become part of this important movement.

### *How will we continue to improve?*

Goal: To reduce the waste burden by encouraging reuse and facilitating waste diversion.

#### Objectives and Actions:

*1. Develop and implement policies and programs to help advance strategies for waste reduction and diversion.*

| Action | Timing | Greening Principles |
|---|---|---|
| **10.1** Reduce single-use plastics by carrying out a corporate policy, a public education campaign, and a business engagement program. | Phase 2 |  |
| **10.2** Work with York Region and the Province to ensure a smooth and fair transition to producer responsibility for recycling. Monitor and address issues, as needed. | Phase 2 |  |

*2. Reduce and divert waste generated in City buildings and at City events.*

| Action | Timing | Greening Principles |
|---|---|---|
| **10.3** Work to reduce and divert more waste at City events. | Phase 2 |  |
| **10.4** Reduce and divert waste through waste audits, waste reduction plans, source separation programs and education at applicable City facilities. | Ongoing |  |

*3. Provide education, outreach and community programming to advance the circular economy.*

| Action | Timing | Greening Principles |
|---|---|---|
| **10.5** Carry out pilot projects to reduce and divert waste through innovative techniques, tools and partnerships. | Ongoing |  |

| Action | Timing | Greening Principles |
|---|---|---|
| **10.6** Educate the community on how to reduce the amount of waste they generate and divert more waste through the blue box and organics programs. | Ongoing |  |
| **10.7** Explore ways to improve waste diversion in multi-residential buildings, and encourage diversion in schools. | Ongoing |  |
| **10.8** Promote and support community reuse opportunities. | Ongoing |  |
| **10.9** Undertake events like the City's Clean Up, Green Up Weeks to encourage waste stewardship and reduce litter. | Ongoing |  |

## Implementing the Updated Environment Strategy

The preceding pages set out our roadmap to a more sustainable and resilient Richmond Hill.

Our strategic actions will be incorporated by staff into long-term work plans and budget cycles. This will include setting priorities and timeframes and identifying markers of project success.

Where possible, we will seek opportunities for funding and partnerships with the community, local businesses, and partner organizations to help achieve our vision. We also acknowledge that certain projects and initiatives may benefit from the wisdom and input of Indigenous peoples and other City stakeholders and we will seek to engage these groups as necessary.

To continue the momentum developed since 2014, and to assess and report our progress as we did in Phase 1, we will:

- Publish an Environmental Scorecard at five-year intervals to report key trends and progress from phase 2 and 3 implementation of this Strategy.
- Provide annual progress updates and report milestone achievements to Council and the community.
- Develop a tool to track and/or map sustainability improvements throughout the City.
- Implement and routinely update the City's Environmental Communications Plan to deliver outreach and education for each theme.
- Continue to hold regular meetings with the internal Environment Strategy Steering Committee to prioritize, discuss progress on, and work together to implement the Strategy's actions.

As we reach the end of the current time horizon, a new Environment Strategy will be developed to guide environmental improvements beyond 2031.

## Conclusion

Richmond Hill's Environment Strategy Update describes how we will reach our vision of a community that protects, enhances and restores its natural environment. It outlines a suite of actions to green our consumption, natural spaces and growth, and emphasizes a commitment to innovation and collaboration through partnerships, education and outreach. The Strategy also demonstrates and acts upon Richmond Hill's continued commitment to climate action.

Together, we can foster a sustainable and resilient community that values the environment and makes active decisions to protect it in our daily lives.

To learn more about what we're doing and how you can help, visit RichmondHill.ca/Environment.