

## Attachment 1: Recommended Policy Revisions Incorporated with the In-Force Official Plan

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[...]

#### List of Maps

[...]

##### Map 9A Natural Heritage System

[Amend Map 9 by: 1) expanding the natural heritage system to include key hydrologic features that extend beyond the natural heritage system and areas that are within the Ravine and Natural Feature Protection bylaw that extend beyond the natural heritage system; 2) adding a new layer called "TRCA contributing areas"; and 3) changing the number to Map 9A.]

##### Map 9B Water Resource System: Key Hydrologic Features

[Add new map]

##### Map 9C Water Resource System: Key Hydrologic Areas

[Add new map]

[...]

##### Map 12A Environmentally Significant Areas

[Amend Map 12 by: 1) adding four new Environmentally Significant Areas and expanding the boundaries of two existing Environmentally Significant Areas; and 2) changing the number to Map 12A.]

##### Map 12B Provincially Significant Wetlands and Areas of Natural and Scientific Interest

[Add reference to map in Table of Contents]

[Amend Map 12B by adding one new Provincially Significant Wetland]

[...]

**Chapter 1 MAKING CHOICES**

[Updates related to environment and climate change are being considered for Chapter 1. This will include updates to add focus to climate change and sustainability in the Principles for a Successful Toronto section. These updates will be presented at a later stage of the Municipal Comprehensive Review]

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## Chapter 2. SHAPING THE CITY

[...]

### 2.1 BUILDING A MORE LIVEABLE URBAN REGION

(Preamble p.2-1)

Toronto cannot plan in isolation or expect to stand alone in dealing with the effects of urban growth. Our view of the quality of urban life tends to be based on the local conditions in our own neighbourhoods. These conditions are in turn affected by events happening in the larger region. The quality of the air, water, services and region-wide transport systems all affect the quality of life in our neighbourhood, where we work and where we play. Connected natural spaces and a regional natural heritage system with thriving biodiversity are necessary components for our communities to adapt to and mitigate the impacts of climate change locally. The way in which growth and change are managed in Toronto must mesh with that of our neighbours because we are integrally linked in many ways:

[...]

#### Policies

1. Toronto will work with neighbouring municipalities, conservation authorities, and the Province of Ontario to address mutual challenges and to develop a framework for dealing with growth across the GTA which:

[...]

k) protects, enhances and restores the region's system of green spaces, water resources, natural heritage features and functions, and the natural corridors that connect them;

l) recognizes the role of river valleys that connect the Greenbelt to Lake Ontario and protects the region's prime agricultural land;

m) mitigates and adapts to the impacts of climate change, improves resilience, reduces greenhouse gas emissions, and contributes to greater environmental sustainability.

[...]

### 2.2 STRUCTURING GROWTH IN THE CITY: INTEGRATING LAND USE AND TRANSPORTATION

[...]

#### Service Foundations For Growth

[...]

#### Policies

[...]

5. The City's water, wastewater and stormwater management infrastructure will be maintained and developed to support the city building objectives of this Plan by:

[...]

b) supporting, encouraging and implementing policies, programs, and measures which: reduce water consumption, groundwater discharge to municipal sewers, wastewater and stormwater flows, greenhouse gas emissions and energy use; improve water quality; enable heat recovery and/or rejections; and address the cumulative impacts of a

changing climate and extreme weather, in accordance with best management practices developed by the City for this purpose;

c) acquiring land or easements, where appropriate and where funds allow, to:

i. keep ravines and watercourses in a natural state; or

ii. implement other stormwater management, and sanitary and water distribution improvements;

d) ensuring appropriate sizing and location of infrastructure to accommodate intense storm events;

[...]

## **2.2.2 CENTRES: VITAL MIXED USE COMMUNITIES**

[...]

### **Policies**

[...]

2. Each *Centre* will have a Secondary Plan that will:

[...]

n) assess opportunities for:

i. achieving net zero greenhouse gas emissions, including impacts from embodied emissions from materials;

ii. energy conservation and peak demand management;

iii. resilience to power disruptions; and

iv. low carbon thermal energy solutions, including district energy systems, as well as local renewable electricity production and storage through preparation of a Community Energy Plan; and

v. reducing the emissions associated with transportation by reducing single-occupant vehicle trips, supporting active transportation infrastructure, and encouraging the use of zero and low-emissions vehicles;

o) assess opportunities for green infrastructure including tree planting and green roofs, which are integrated with the stormwater management strategy.

(White text sidebar p. 2-15)

Climate change poses a serious challenge for maintaining existing infrastructure and planning for new infrastructure, however, vulnerability assessments can help to identify risks and options for enhancing resilience. Similarly, comprehensive stormwater management planning, including the use of green infrastructure and appropriate low impact development, can increase the resiliency of our communities.

(White text sidebar p2-17)

### **Community Energy Planning**

Community Energy Planning (CEP) is a process that considers energy needs early in the land use and infrastructure planning process. CEP identifies opportunities to integrate local energy solutions at a building or neighbourhood-scale, with the overall goal of reducing energy use and increasing the use of renewable and low-carbon energy sources. Examples of CEP include the extensive greening of homes and buildings, and the development and use of District Energy Systems.

### 2.2.3 AVENUES: REURBANIZING ARTERIAL CORRIDORS

[...]

#### Policies

[...]

2. To facilitate and shape growth, each Avenue Study will engage local residents, businesses, the TTC, Toronto Parking Authority and other local stakeholders and will set out:

a) investments in community improvements by public agencies or public/private partnerships that are needed to support city living and make the area attractive for residents and businesses including:

[...]

vi. consideration of the impacts of a changing climate.

[...]

6. In addition to satisfying all other policies of this Plan, including in particular the neighbourhood protection policies, development in *Mixed Use Areas* on and *Avenue* that precedes the completion of an *Avenue Study* will

[...]

vii. be encouraged to incorporate environmentally sustainable building design and construction practices that:

[...]

3) reduce waste, promote recycling, and promote food and organic waste diversion.

[...]

### 2.3.2 TORONTO'S GREEN SPACE SYSTEM AND WATERFRONT

[...]

(Preamble p2-32)

[...]

The *Green Space System* provides many benefits for the City. These lands:

- form the core of the City's natural ecosystems providing habitat for flora and fauna and including most of our significant water resource and natural heritage features and functions;

[...]

## Chapter 3. Building a Successful City

[...]

### 3.1 THE BUILT ENVIRONMENT

(Preamble)

[...]

Civic pride is infectious. The City and the private sector should work together as partners in creating a great city and achieving Toronto's architectural and urban design potential. The City can play its part by organizing, designing, maintaining and improving the streets, parks and public buildings. The private sector can do its part by building the structures and landscapes that define and support these public places. This Plan demands that both the public and private sectors commit to high quality architecture, landscape architecture and urban design, and environmentally sustainable design that work together to mitigate and adapt to the impacts of climate change.

[...]

#### 3.1.1 THE PUBLIC REALM

[...]

#### Policies

[...]

5. City streets are significant public open spaces which connect people and places and support the development of sustainable, economically vibrant and complete communities. New and existing City streets will incorporate a Complete Streets approach and be designed to perform their diverse roles by:

[...]

a) balancing the needs and priorities of the various users and uses within the right-of-way, including provision for:

[...]

v) shade to ensure pedestrian comfort related to higher heat conditions in the summer;

(White text sidebar p.3-3)

#### **Green Infrastructure and Low Impact Development**

Green infrastructure means natural and human-made elements that provide ecological and hydrological functions and processes. Green infrastructure may include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs.

Low impact development is a component of Green Infrastructure, which is an approach to stormwater management that seeks to manage rain and other precipitation as close as possible to where it falls to mitigate the impacts of increased runoff and stormwater pollution. It typically includes a set of site design strategies and distributed, small-scale structural practices to mimic the natural hydrology to the greatest extent possible

through infiltration, evapotranspiration, harvesting, filtration, and detention of stormwater.

(White text p.3-15)

### **3.1.5 HERITAGE CONSERVATION**

[...]

The conservation of natural heritage and water resource features are also an important element of heritage conservation in Toronto. The Official Plan provides for the conservation of Toronto's urban forest, ravines and river valleys in the policies of Section 3.4 and Maps 9A and 9B of the Plan. The conservation of important heritage resources includes those policies protecting Toronto's natural heritage and water resource features.

### **3.3 BUILDING NEW NEIGHBOURHOODS (p3-36)**

[...]

#### **Policies**

1. New neighbourhoods will have a comprehensive planning framework reflecting the Plan's city-wide goals as well as the local context. The framework should include:

[...]

f) a strategy for:

- i. net zero greenhouse gas emissions development, including embodied emissions from materials;
- ii. energy conservation and peak demand management;
- iii. resilience to power disruptions and small local integrated energy solutions that incorporate renewables;
- iv. low carbon thermal energy solutions, including district energy systems; and
- v. local electricity production;

g) a strategy for stormwater management and water conservation that integrates green infrastructure where appropriate, addresses the impacts of a changing climate, and identifies appropriate adaptation strategies; and

h) a strategy for integrated waste management, source reductions, adaptive reuse and construction waste diversion.

### **3.4 THE NATURAL ENVIRONMENT (p.3-38)**

(Preamble)

Strong communities and a competitive economy need a healthy natural environment. Clean air, soil and water and abundant trees, parks and open spaces, underlie our health and well-being and attract people to work and invest in the City. Building the City while protecting and enhancing the natural environment is the aim of good stewardship. The natural environment is complex. It does not recognize boundaries and there are limits to the stresses resulting from human activity that it can absorb. To be good stewards of the natural environment we must acknowledge that it has no boundaries and we must respect its limits.

By promoting growth in locations and in compact forms that support the use of transit, we will reduce harmful greenhouse gas emissions and air pollution caused by auto use. Through sustainable design and construction practices we can save energy, water, and reduce the impacts of stormwater run-off through the use of green infrastructure (including low impact development). Environmental considerations must also be part of our everyday decision making because interaction with the environment is constant. The impacts of growth on the natural environment must be anticipated and assessed if we are to have a healthy environment.

The impacts of a changing climate need to be fully considered in new development and redevelopment activities, in our stewardship of the natural environment and in infrastructure planning and watercourse management. Future weather studies undertaken by the City indicate an expected increase in the magnitude and frequency of heat waves and intense precipitation events. The weather changes associated with climate change must inform new ways of planning and design to promote a healthy natural environment and safe, resilient communities.

Human settlement has dramatically changed the landscape of Toronto. Our remaining natural features and functions require special attention. They are an evolving mosaic of terrestrial and water resource features and areas that supports the variety of life in the City and provides important ecosystem functions. The City's significant natural heritage and water resource features and functions are shown as the natural heritage and water resource systems on Map 9A, 9B and 9C. The natural heritage and water resource systems are important to the City, both within and beyond our boundaries, and need to be protected for the long term. It is made up of areas where protecting, restoring and enhancing these natural features and functions should have high priority in our city-building decisions. We must be careful to assess the impacts of new development and infrastructure in areas near these systems. The size of this adjacent impact zone will vary across the City, depending on the local characteristics of the natural heritage and water resource systems and adjacent areas. The natural heritage system shown on Map 9A is an evolving natural system that may grow beyond these boundaries. There are other areas with natural heritage or hydrologic value that are not shown on the map. As well, there may be other such areas in the future that will have to be identified and protected.

The urban forest is essential to the City's character. More than three million trees dominate our ravines, line our boulevards and beautify our parks. They provide shade and habitat, help clean the air, contribute to the green links between our streets, neighbourhoods, employment areas and parks, and support ecosystem diversity. City-building and development pressures, however, can create a difficult environment in which to sustain the urban forest canopy. We must not only protect the existing urban forest, but also enhance it, especially by planting native trees and trees that increase canopy coverage and diversity, or other non-invasive species where urban conditions may limit the survival of native species.



Toronto's natural heritage system, water resource system, and urban forests play a critical role in addressing climate change and building resilience by offsetting greenhouse gas emissions and acting as carbon sinks. Protecting Toronto's natural environment and urban forest should not be compromised by growth, insensitivity to the needs of the environment, or neglect. To this end, proposals for new development may need to be accompanied by a study assessing their impact on the natural environment and considering vulnerabilities to climate change. We must also be ready to seize opportunities to restore, enhance and extend the natural heritage system through new developments or partnerships with other agencies and institutions.

Waste reduction activities and greenhouse gas emissions reductions can simultaneously achieve the same goals. The City's environmental goals will be supported by reducing waste through the design process of new development, as well as by increasing waste diversion from landfill. This Plan encourages programs that: reduce, reuse, and recycle waste; as well as, identifies opportunities for resource recovery, including food and organic waste diversion. Planning principles that support a circular economy, sustainable consumption and waste reduction, will in turn support the natural environment and contribute to thriving, sustainable, and equitable communities.

This Plan looks at the natural environment as a series of "layers". The natural heritage and water resource systems shown on Map 9A, 9B, and 9C should be considered together with the natural hazards regulated by the Toronto Region and Conservation Authority. In turn, the policies for the Green Space System and the Parks and Open Space Areas designation provide a clearer guide to the limits on development contemplated for some key elements of the natural environment.

## **Policies**

1. To support strong communities, a competitive economy and a high quality of life, public and private city-building activities and changes to the built environment, including public works, will be environmentally friendly, sustainable, low carbon, and resilient to climate change based on:

- a) protecting and improving the health of the natural ecosystem, by:
  - i. minimizing air, soil and water pollution;
  - ii. recognizing rainwater and snowmelt as a resource to improve the health of Toronto's watercourses and the near shore zones of Lake Ontario;
  - iii. managing the quantity and improving the quality of stormwater, and encouraging infiltration of water where feasible;
  - iv. minimizing the extraction and discharge of clean groundwater into the City's sewer system;
  - v. minimizing the use of road salt;
  - vi. cleaning-up contaminated soils, sediment, groundwater, watercourses and buildings;
  - vii. utilizing best practices for the management and reuse of excess soil;
  - viii. mitigating the unacceptable effects of noise and light;
  - ix. minimizing the release and proliferation of invasive species and mitigating their impacts;

- x. minimizing hazards to local and migratory birds;
- xi. maintaining pervious area where possible and identifying opportunities to reduce impervious area through redevelopment, especially in ecologically significant groundwater recharge areas and contributing areas; and
- xii. avoiding or minimizing infrastructure within valley lands and ravines, and appropriately sizing and locating crossings to protect natural features and maintain ecological connectivity.

[...]

c) addressing environmental stresses caused by the consumption of natural resources, by reducing:

- i. the amount of solid waste requiring disposal in landfill by promoting: circular economy principles; and programs for reducing, reusing, recycling, food and organic waste diversion, and resource recovery;
- ii. consumption of water and generation of wastewater;
- iii. energy consumption and greenhouse gas emissions; and
- iv. reliance on carbon-based fossil fuels for energy; and
- v. the amount of energy and emissions-intensive materials in new construction

d) preserving and enhancing the urban forest by:

- i. providing suitable growing environments for trees, including adequate soil volumes;
- ii. increasing tree canopy coverage, distribution, and diversity, especially of long-lived native and large shade trees;
- iii. regulating the injury and destruction of trees, and protecting mature and native trees; and
- iv. supporting the health of street trees to grow to maturity.

e) reducing the risks to life, health, safety, property, and ecosystem health that are associated with: flooding; extreme heat; unstable slopes; erosion and contaminated lands; and

f) reducing vulnerabilities to the impacts of climate change that may increase the risk associated with these natural hazards;

g) reducing the adverse effects of stormwater and snow melt based on a hierarchy of watershed-based wet weather flow practices which recognize that wet weather flow is most effectively managed where it falls, supplemented by conveyance, then end-of-pipe solutions;

h) protecting, improving or restoring the quality and quantity of water and drinking water sources; and

i) providing green infrastructure to complement infrastructure.

[...]

11. Development is generally not permitted in the natural heritage system illustrated on Map 9A. Where the underlying land use designation provides for development in or near the natural heritage system, development will:

[...]

13. All proposed development in or near the natural heritage system will be evaluated to assess the development's impacts on the natural heritage system and identify measures to mitigate negative impact on and/or improve the natural heritage system, taking into account the consequences for:

- a) terrestrial natural habitat features and functions including wildlife habitat;
- b) key hydrologic features and functions;
- c) significant physical features and land forms;
- d) riparian zones;
- e) buffer areas and functions;
- f) vegetation communities and species of concern; and
- g) the shoreline of Lake Ontario

To assist this evaluation, an impact study may be required in accordance with guidelines established for this purpose.

[...]

14. Areas of land or water within the natural heritage system with any of the following characteristics are particularly sensitive and require additional protection to preserve their environmentally significant qualities:

[...]

Development or site alteration, with the exception of trails, where appropriate, and conservation, flood and erosion control projects, is not permitted on lands within the natural heritage system that exhibit any of these characteristics. Activities will be limited to those that are compatible with the preservation of the natural features and ecological functions attributed to the areas. New or expanding infrastructure should be avoided unless there is no reasonable alternative, adverse impacts are minimized and natural features and ecological functions are restored or enhanced where feasible. An impact study, as referred to in Policy 13, will be required for any proposed undertaking in those areas not already the subject of an Environmental Assessment under the Environmental Assessment Act.

[...]

19. Innovative energy producing options, sustainable design and construction practices and green industry will be supported and encouraged in new development and building renovation through:

[...]

e) designs that facilitate waste reduction, reuse, and diversion from landfill, including: allocating space for recycling, food and organic waste diversion, and additional waste streams (e.g. household hazardous and electronic waste); construction and demolition material recovery; and other innovative, management technologies and practices.

[...]

23. Prior to development occurring on known or potentially contaminated sites, or on sites on or within 500 metres (or within a previously determined area of influence) of a known or suspected former waste disposal site, potential adverse impacts will be identified and assessed through a study, and any measures needed to remediate or mitigate the contamination will be identified and implemented.

White text (sidebar, p. TBD)

### **Circular Economy**

A circular economy aims to reduce waste and maximize resources by focusing on keeping materials and products in use for as long as possible. This is a shift away from a linear approach of take-make-dispose, by integrating design principles that focus on longevity, renewability, reuse, recovery and/or repair. Planning for a built environment where circular economy principles are at its core can ensure that the planning decisions support the health of ecological systems and contributes to natural process.

Circular economy strategies consider resource consumption and material efficiency for their potential to impact climate change, mitigate environmental degradation, and improve social outcomes. The City of Toronto has developed a Long Term Waste Management Strategy, which identifies an aspirational goal of zero waste and a circular economy, and a Net Zero Strategy, which seeks pathways to more sustainable consumption in City operations and Toronto's economy.

White text (sidebar p.3-37/38)

### **The Natural Heritage System and Inventory**

Toronto's natural heritage system is an evolving mosaic that integrates the following natural heritage and key hydrologic features and functions:

- significant landforms and physical features, including drumlins and the Lake Iroquois shorecliff;
- key hydrologic features and functions, including permanent and intermittent streams; inland lakes and their littoral zones; seepage areas and springs, and wetlands;
- the riparian zone which encompasses the aquatic habitat adjacent to the watercourse that is essential to a healthy stream;
- valley slopes and floodplains;
- terrestrial natural habitat types, including forest, wetland, successional, meadow, and beaches and bluffs;
- the shoreline of Lake Ontario;
- vegetation communities and species of concern; and
- significant natural heritage and hydrologic features that are directly addressed by Provincial policy, such as Areas of Natural and Scientific Interest and Provincially Significant Wetlands.

The natural heritage system is illustrated on Map 9A, which is not a statutory map. When development is proposed on or near lands shown as part of the natural heritage system, the proposed development's impact on the system is to be evaluated and an

impact study may be required. As part of the evaluation, the natural heritage and hydrologic features, and associated natural hazards on or near the property in question and their location will be more precisely defined.

The City of Toronto and the Toronto and Region Conservation Authority have developed an Inventory, as part of a Natural Heritage Study, which identifies and contains data on the various components of the natural heritage system and provides strategic direction for improving the natural ecosystem and increasing biodiversity. This inventory information, and any other relevant information provided through impact studies, will be made public, subject to statutory constraints, and used to evaluate development proposals and identify priority locations where the system should be protected, restored and enhanced.

The City has undertaken a program of further study and fieldwork to confirm and identify areas within the natural heritage system that are particularly sensitive and require additional protection to preserve their environmentally significant qualities. These areas are shown on Map 12A. Most Provincially Significant Wetlands and Areas of Natural and Scientific Interest that have been identified by the Province are shown on Map 12B. Where development is proposed adjacent to these areas, their boundaries will be more precisely determined and any negative impacts will be identified through an impact study as referred to in Policy 12. Further study and fieldwork will continue to update and refine the natural heritage system inventory and assist in identifying strategic directions for improving natural ecosystems, promoting biodiversity and increasing resiliency.

White text (p3-39)

### **Climate Emergency**

Climate change is the biggest challenge facing our planet. In 2019 Toronto City Council voted unanimously to declare a climate emergency and accelerate efforts to mitigate and adapt to climate change. In 2021 Council adopted the Net Zero Strategy to reduce community-wide greenhouse gas (GHG) emissions in Toronto by 2040.

Meeting the City's future GHG reduction targets will require rapid action to scale up existing programs and significant levels of investment and coordination with other levels of government. Implementing the Toronto Green Standard plays an important role in reducing GHG emissions in new development by requiring and incenting higher performance, leading to net zero emissions new construction by 2028.

Toronto's Resilience Strategy stated that the City needs to become more resilient to the shocks and stresses of a changing climate. Projections indicate that human-caused climate change will result in shocks and stresses felt across Toronto in the near future. Flooding and extreme heat are hazards exacerbated by climate change and increased urbanization throughout our watersheds pose the greatest and fastest growing risk to residents.

Applying an equity lens, actions to prioritize planning and investment to mitigate risk through improved resiliency should focus on areas with the most vulnerable populations to each hazard.

White text (sidebar p3-40)

### **Buffers**

Buffers are strips of land that are contiguous to natural features and help to protect its natural features and functions from the negative impacts of adjacent development. Buffers, referenced in policy 3.4, may extend beyond lands required to set back development from natural hazards. Lands set aside for buffers are generally kept in a vegetated state and can include existing vegetated areas and areas that can be vegetated. Buffer widths vary depending on the sensitivity and functions of the natural feature and the proposed development. Buffer widths may be greater than set-backs required from natural hazards. Where development is proposed adjacent to natural features, buffer widths should be established through an impact study. In general, buffer widths should be at least 10 metres from the limit of the natural feature. In the case of wetlands, the buffer widths should be at least 30 metres from the limit of the wetland. Feature limits must be staked in Consultation with City and TRCA staff.

White text (sidebar p 3-42)

### **Managing Wet Weather Flow**

Wet weather flow (stormwater and snowmelt) has degraded Toronto's environment as the City has developed, particularly because it pollutes rivers and the lake and also because it causes flooding and erodes the streams and valleys.

*A Wet Weather Flow Management Master Plan* with associated policies and guidelines was developed to improve the way that wet weather flow is handled. This Master Plan provides a broad context from which to review all municipal undertakings and development activities affecting wet weather flow. Its key principles are:

- that rainwater and snowmelt is a valuable resource;
- that wet weather flow should be managed on a watershed basis; and
- that wet weather flow is most effectively managed where it falls, before it enters the sewers, watercourses or the Lake.

White text (sidebar p3-42)

### **The TRCA: The City's Partner in Managing the Natural Environment**

[...]

The TRCA was a partner in the City's *Natural Heritage Study* and has identified the City's water resource system, which provides the basis for identifying the natural heritage system for the Plan, as well as advancing TRCA's Living City vision. The Plan sets the stage for the City and TRCA to continue its partnership to create a healthy and sustainable integration of natural ecosystems and human communities in the City and the region beyond.

White text (sidebar p TBD)

### **The Water Resource System**

The water resource system consists of key hydrologic features and key hydrologic areas as defined in the Growth Plan for the Greater Golden Horseshoe and the Provincial Policy Statement. Toronto's water resource system is illustrated on Maps 9B and 9C which are not statutory maps.

The key hydrologic features illustrated on Map 9B include permanent and intermittent streams; inland lakes and littoral zones; seepage areas and springs; and wetlands. These hydrologic features are also part of the natural heritage system shown on Map 9A.

The key hydrologic areas illustrated on Map 9C contribute to the hydrologic function of the watershed and may overlap with the natural heritage system. They help maintain ground and surface water quality and quantity by collecting, storing and filtering rainwater and overland flow, recharge aquifers and feed downstream tributaries, lakes, wetlands and discharge areas. Ecologically Significant Groundwater Recharge Areas directly support sensitive areas such as cold water streams and wetlands; Significant Groundwater Recharge Areas are found where groundwater is replenished through the infiltration of water; and Highly Vulnerable Aquifers are areas underground that contain water that is being withdrawn for human use. Significant Surface Water Contribution Areas are areas that are significant to the overall surface flow volumes within a watershed.

The Toronto and Region Conservation Authority consolidated the various mapping layers for the water resource system and worked with the City of Toronto to develop policies for protecting, restoring and enhancing the quality and quantity of the water resource system and maintaining water resource functions.

White text (sidebar p TBD)

### **Historical Watercourses**

Urbanization has resulted in extensive creek burial and diversion of water flows into sewers leading to extensive changes to natural drainage patterns, and hydrological and ecological functions. The loss of natural creeks in Toronto began in the 18th century and accelerated with increased development during the 19th and 20th centuries. These buried or lost features are referred to as historical water courses. Extensive and well documented mapping work has been done to identify the location of historical water courses in Toronto, mainly by community organizations such as the Toronto Green Community's Lost Rivers group. Restoration or daylighting historical watercourses is associated with positive outcomes such as restored hydrological or ecological functions and community engagement. Opportunities to restore or daylight historical watercourses on public parklands or as part of comprehensive redevelopment should be considered where there is an opportunity and it is technically feasible.

White text (sidebar p TBD)

**Watershed Planning**

Watershed planning provides a framework for establishing goals, objectives, and direction for the protection of water resources, the management of human activities, land, water, aquatic life, and resources within a watershed and for the assessment of cumulative, cross-jurisdictional, and cross-watershed impacts. The City of Toronto works with the TRCA and other municipalities to undertake watershed planning to inform the protection, enhancement and restoration of the quality and the quantity of water and decisions related to planning for growth. Watershed plans can inform land use, infrastructure, and development decision and identify opportunities to restore and enhance natural features and areas.

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## **Chapter 4. LAND USE DESIGNATIONS**

### **4.2 APARTMENT NEIGHBOURHOODS**

[...]

6. All proposed development on a site with an existing building subject to demolition should be evaluated to: identify opportunities for reuse of demolition waste; and assess embodied emissions from materials.

To assist this evaluation, a study may be required in accordance with guidelines established for this purpose.

7. On larger sites which have the opportunity for more than one new building, a framework of additional public streets, shared driveways, new parkland and shared open space may be required to create infill development that meets the objectives of this Plan.

### **4.4 UTILITY CORRIDORS**

[...]

#### **Policies**

[...]

6. Protection, enhancement or restoration of the natural heritage system within Utility Corridors will be pursued wherever possible, as shown on Map 9A.

[...]

## **Chapter 5. IMPLEMENTATION: MAKING THINGS HAPPEN**

[...]

### **5.1.3 SITE PLAN CONTROL (p: 5-5)**

[...]

#### **Policies**

[...]

3. To help achieve environmentally sustainable development, the City may use subsection 114(5)(2)(iv) and (v) of the City of Toronto Act, 2006 to secure the following sustainable design features in development that address exterior building and site matters in Tier 1 of the Toronto Green Standard:

[...]

h) dedicated areas for collection and storage of recycling; food and organic waste; and where appropriate, for localized material recovery and reuse, and other waste materials that can be diverted from landfill to reduce solid waste.

[...]

### **5.2.1 SECONDARY PLANS: POLICIES FOR LOCAL GROWTH OPPORTUNITIES**

[...]

#### **Policies**

[...]

4. City-building objectives for Secondary Planning areas will identify or indicate the following:

- a) overall capacity for development in the area, including anticipated population;
- b) opportunities or constraints posed by unique environmental, economic, cultural and other features or characteristics;
- c) opportunities to protect, restore, and enhance natural heritage and water resource systems;
- d) affordable housing objectives;
- e) land use policies for development, redevelopment, intensification and/or infilling;
- f) urban design objectives, guidelines and parameters;
- g) necessary infrastructure investment with respect to any aspect of: transportation services, environmental services, community and social facilities, cultural, entertainment and tourism facilities, pedestrian systems, parks and recreation services, or other local or municipal services;
- h) opportunities for stormwater management and locations where the use of green infrastructure can be prioritized;
- i) constraints and impacts of potential groundwater discharges on servicing capacity and water resources posed by development and area-specific hydrogeological characteristics;
- j) opportunities for reducing greenhouse gas emissions, including embodied emissions from materials, energy conservation, peak demand management, resilience to power

disruptions, low carbon energy solutions (including district energy systems), and local electricity production and storage through development of a Community Energy Plan; and

k) where a Secondary Planning area is adjacent to an established neighbourhood or neighbourhoods, new development must respect and reinforce the existing physical character and promote the stability of the established neighbourhoods.

White text (sidebar p TBD)

### **Area Based Stormwater Management**

Large scale development proceeding by way of Secondary Plan will be supported by area based stormwater management planning that incorporates an integrated treatment approach, to minimize stormwater flows, and identifies opportunities and constraints for green infrastructure. The approach will be informed by local drainage patterns and outlets, groundwater and hydrogeology, and risks associated with contamination, utility conflicts and flooding. The approach will identify locations where the use of green infrastructure can be prioritized and locations that maximize contributing drainage areas.

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## **Chapter 7. SITE AND AREA SPECIFIC POLICIES**

### **141. Lands North of Twyn Rivers Drive, East of Staines Road**

Map 2: Greenbelt Natural Heritage System, Areas of Natural and Scientific Interest and Environmentally Significant Areas

[Amend map by removing wetlands and changing title]

Map 3: Water Resource System

[Add new map]

[Amend the last sentence of the footnote at the bottom of Table 1 to read "Known areas are shown on Map 2 and Map 3"]

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**Schedule 3: APPLICATION REQUIREMENTS**

[...]

**Natural Heritage Impact Study** – if the proposed development is likely to have impacts on the Natural Heritage System shown on Map 9A.

[New requirement for applications requiring Official Plan and Zoning bylaw amendments and Plan of Subdivision]

[...]

Net Zero Emissions Strategy for large development proposals or for development proposals within a Community Energy Plan area.

[...]

Toronto Green Standard Checklist.

[...]

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**MAPS**

Map 9A Natural Heritage System  
[Insert amended Map 9A here]

Map 9B Water Resource System: Key Hydrologic Features  
[Insert new Map 9B here]

Map 9C Water Resources System: Key Hydrologic Areas  
[Insert new Map 9C here]

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