

8.0 Sustainability

8.1 Introduction

With a growing collective awareness concerning the environment, climate change and conservation, sustainability has become a common term in our everyday vocabulary. Definitions of this term vary widely. Taking the broadest perspective, the concept of sustainability is, at least in urban planning and community development vernacular, increasingly described in terms of the 'triple bottom line' approach. This refers to a comprehensive evaluative approach to community development that measures organizational (or in this case municipal) success in terms of environmental, economic and social factors.

For the purposes of this chapter, environmental sustainability and its achievement through planning, urban design and built form interventions, will be the primary focus. The Vaughan Official Plan (December, 2009) establishes detailed policies aimed at ensuring environmental sustainability through the planning of its municipal services, utilities and infrastructure (Section 8.0) and green development (Section 9.1.8).

8.2 Upper Tier Policy Direction

8.2.1 What does the Province Say?

With the release of the current Provincial Policy Statement and Greenbelt Plan in 2005, the Growth Plan for the Greater Golden Horseshoe in 2006, and amendments to the Planning Act under Bill 51, the promotion of sustainable development has moved to the forefront of planning and development policy decision-making in Ontario.

The recent amendments to the Planning Act under Bill 51 are arguably the most direct policy measures implemented by the Province towards promoting sustainability. The amendments not only make the endorsement of sustainable



development a matter of provincial interest (Section 2), but also effectively provide municipalities with the authority to regulate exterior building design and sustainable design elements (Section 41 (4)).

Provincial Policy Statement (2005)

The Provincial Policy Statement (PPS) establishes broad policy directives promoting sustainable development in terms of sustainable growth and land use, economic development, water and resource management, natural heritage preservation, agriculture and food production, energy efficiency, and air quality.

In terms of direct sustainable design measures, energy and air quality policies provide the most explicit direction (Section 1.8):

“1.8.1 Planning authorities shall support energy efficiency and improved air quality through land use and development patterns which:

- a) promote compact form and a structure of nodes and corridors;
- b) promote the use of public transit and other alternative transportation modes in and between residential, employment (including commercial, industrial and institutional uses) and other areas where these exist or are to be developed;
- c) focus major employment, commercial and other travel-intensive land uses on sites which are well served by public transit where this exists or is to be developed, or designing these to facilitate the establishment of public transit in the future;

- d) improve the mix of employment and housing uses to shorten commute journeys and decrease transportation congestion; and
- e) promote design and orientation which maximize the use of alternative or renewable energy, such as solar and wind energy, and the mitigating effects of vegetation.

1.8.2 Increased energy supply should be promoted by providing opportunities for energy generation facilities to accommodate current and projected needs and the use of renewable energy systems and alternative energy systems, where feasible.

1.8.3 Alternative energy systems and renewable energy systems shall be permitted in settlement areas, rural areas and prime agricultural areas in accordance with provincial and federal requirements. In rural areas and prime agricultural areas, these systems should be designed and constructed to minimize impacts on agricultural operations.”

Places to Grow: The Growth Plan for the Greater Golden Horseshoe (2006)

Building on the Provincial Policy Statement, Places to Grow positions its environmental sustainability directives through the promotion of a ‘culture of conservation’. Section 4.2.4 of Places to Grow establishes the requirement for municipalities to implement strategies, through their Official Plans, to address water conservation, energy conservation, alternative energy generation, air quality protection, integrated waste management as well as cultural heritage conservation objectives.

1. Municipalities will develop and implement official plan policies and other strategies in support of the following conservation objectives:

- a) Water conservation, including –
 - i. water demand management, for the efficient use of water; and ,
 - ii. water recycling to maximize the reuse and recycling of water.
- b) Energy conservation, including –
 - i. energy conservation for municipally owned facilities;
 - ii. identification of opportunities for alternative energy generation and distribution;
 - iii. energy demand management to reduce energy consumption; and,
 - iv. land-use patterns and urban design standards that encourage and support energy-efficient buildings and opportunities for cogeneration.
- c) Air quality protection, including reduction in emissions from municipal and residential sources.



- d) Integrated waste management, including –
 - i. enhanced waste reduction, composting, and recycling initiatives and the identification of new opportunities for source reduction, reuse, and diversion where appropriate;
 - ii. a comprehensive plan with integrated approaches to waste management, including reduction, reuse, recycling, composting, diversion, and the disposal of residual waste;
 - iii. promotion of reuse and recycling of construction materials; and,
 - iv. consideration of waste management initiatives within the context of long term regional planning, and in collaboration with neighbouring municipalities.

- e) Cultural heritage conservation, including conservation of cultural heritage and archaeological resources where feasible, as built-up areas are intensified.

Greenbelt Plan (2005)

By its very purpose to ensure the protection of southern Ontario's agricultural land base and ecological and hydrological resources, sustainable development and environmental protection are overarching themes in the Greenbelt Plan. Building on the Oak Ridges Moraine Conservation Plan (2002), the Greenbelt Plan broadly promotes sustainability through objectives for water conservation and watershed management, protection and enhancement of natural heritage systems, preservation of

agricultural lands, promotion of sustainable tourism, and broader economic development opportunities.

8.2.2 What does the Region Say?

Region of York

Responding to recommendations in the 2007 Sustainability Strategy: Towards a Sustainable Region, the Draft York Region Official Plan places considerable emphasis on sustainable development, establishing a 'triple bottom line' framework as its basis. As articulated in Section 2.1 – Towards a Sustainable Region:

"Sustainability is the lens through which York Region formulates, enhances and implements policy. The award-winning York Region Sustainability Strategy: Towards a Sustainable Region provides a long term framework for making smarter decisions about all municipal responsibilities that fully evaluates economic, environmental and community considerations. This "triple bottom line approach" will be used to evaluate a number of key emerging trends facing York Region, including:

- an aging and diverse society;
- an urbanizing region defined by vibrant centres;
- the impact of the built environment on social cohesion among and within communities;
- climate change, energy conservation and renewable sources of energy; and,
- societal health issues such as obesity, mental illnesses, and cardiovascular and respiratory diseases

This Official Plan represents York Region's ongoing

collaboration with its partners and stakeholders to rethink the way communities are designed, serviced and supported. Key elements of this Plan include:

1. City building, focusing on Regional Centres and Corridors and including innovation in urban design and green building.
2. A minimum of 40% residential intensification within the built-up area.
3. New community areas, designed to a higher standard that includes requirements for sustainable Buildings, water and energy management, public spaces, mixed-use, compact development, and urban design.
4. The protection of employment lands from non-employment uses.
5. Promotion of a well-designed and intensified built form for new commercial, industrial and institutional developments.
6. Updated York Region Master Plans for transportation and transit, water and wastewater, and pedestrian and cycling.
7. Enhanced mobility systems using a "people and transit first approach" to connect land use and transportation planning.
8. Progressively higher standards in energy and water efficiency, renewable energy systems and waste reduction.



9. Urban development and infrastructure projects that contribute enhancements to the Regional Greenlands System.
- 10.A natural heritage legacy based on a linked and enhanced Regional Greenlands System.
- 11.A minimum 25% affordable new housing units.
- 12.A full-cost accounting approach to financial management that considers the economic, environmental and social costs.
- 13.Protection of the rural and agricultural countryside.

The policies in this Plan will strengthen the connections between the natural and built environment, job opportunities, human services, transportation, public health and fiscal capacity. Making these connections will also foster citizen participation in the economic, social and cultural development of the Region's communities."

Accordingly, the DYROP establishes a wide range of specific policy measures which set a direction and standards for sustainable community development and building design, the integration of green building technologies, and opportunities for renewable/alternative energy production (Section 5.2).

Comprehensive in scope, the DYROP also incorporates adopted standards referencing LEED (Leadership in Environmental and Energy Design) criteria, EnergyStar, the Model National Energy Code for Buildings, the Ontario Building Code as well as explicit direction on associated transit and pedestrian-supportive land use and urban design strategies.

8.3 Recommendations

Sustainable initiatives, in all their forms, will be one of the most significant influences on the way we design and build our communities. Therefore, sustainability must be an integral component of the Focus Area Review process.

Sustainability must be applied to all aspects of the built and natural environment to ensure that objectives for economic vitality, social vibrancy and the preservation and enhancement of the natural environment are integrated into all aspects of planning and design.

The Focus Area Review process provides a platform for the incorporation of future sustainable development policies. Introducing sustainable policies now will help ensure compatibility with Regional best practices and will aid in setting a high environmental standard for future development.

In terms of other specific measures, consideration should be given to strengthening policies encouraging the achievement of LEED standards, particularly with respect to public facilities.

In addition, careful consideration should also be given to integrate enhanced transportation policies within an overall sustainability strategy, including policies and guidelines pertaining to Transportation Demand Management, active transportation and facilitating Transit Oriented forms of development.