
7.0 SUGGESTED SUSTAINABILITY PLANNING APPROACH(ES) FOR PEEL

From the various approaches outlined in Section 3 of this paper, we can distill a set of required steps for effective sustainability planning. Peel has already taken some of these steps; others require further attention and could be the focus of Phase 2.

1. Commitment to initiating the process (political will and requisite human and financial resources)
2. Research and analysis of past trends and the “current reality”.
3. Engagement of key stakeholders
4. Identification of sustainability principles
5. A visioning process, preferably one that involves stakeholders including some representatives of the general public.
6. Development of an Action Plan with goals and targets and timelines
7. Careful review and revision of key planning documents (such as ROP, infrastructure master Plans, etc) and policies.
8. Development of a system of metrics and indicators to monitor progress
9. Changes in the decision making processes to ensure sustainability-based governance
10. Ongoing professional development, education and training to ensure requisite skills and knowledge
11. Continuous learning and refining of the management process

As pointed out earlier, Peel would benefit from a “Sustainability Strategy” aimed at providing overall direction and coherence to the various planning components currently in place or under development.

For the Phase 1 PROPR, a key requirement is to achieve direction and coherence among the 14 other “projects” to review particular aspects of the Plan; and to ensure that the final document is framed in terms of sustainability concepts and objectives. The latter requires a significant introductory section that would appear in the new plan. A draft of that section follows.

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Suggested Introductory Section to the ROP:

The theme of this Plan is sustainable development. In recent years sustainable development frameworks have been formulated to provide holistic approaches to planning, action and measurement. By adopting the framework, the Plan will guide the Region in its quest to become and remain a sustainable community.

The framework is based on “**Prospective**” Thinking (futures-oriented vision) that sets intergenerational responsibility for four integrated imperatives:

1. **Ecological imperative** of living within the global biophysical carrying capacity, maintaining biodiversity and *minimizing our ecological footprint*.
2. **Social imperative** of ensuring healthy communities and the development of democratic systems of governance including a commitment to social cohesion, social harmony, and social inclusion that will ensure that basic needs are met. We are striving to have a society that *fosters respect for one another; inclusiveness, kindness and human dignity that includes new arrivals with grace and speed; and that ensures a civil and peaceful society for all people*.
3. **Economic imperative** of ensuring a *vibrant economy* that operates on sustainability principles (eco-efficiency, pollution prevention etc.) and provides for adequate local employment and sustainable livelihoods *where all people can realize their full potential*.
4. **Cultural imperative** of arts, culture and heritage, and quality of place that *will attract and retain talented people, and encourage creativity and entrepreneurship; create buildings and public spaces that are beautiful and accessible; build on our distinctive human, cultural, historical and natural characteristics, where people take personal responsibility for the success of our community; and promote social cohesion among the many diverse ethnic, religious, cultural and racial groups that make up the rich fabric of Peel’s population*.

Objectives and policies in the Plan are integrated between environment, economy, society and culture to reinforce them within each sector of the Plan. The governance and decision making that has created the plan was a participatory process that heard representatives from all key stakeholder groups. Policies address implementation through direction, encouragement and collaboration of the stakeholders. Where possible, objectives have been stated with targets, performance indicators and outcomes to be achieved.

Italicized phrases are taken from the vision for sustainable communities articulated by the Prime Minister's External Advisory Committee on Cities and Communities. In summary, the themes of the Plan are to Care for the earth, Care for each other, Care for the future (and get on with action)!



Questions to consider

- 7.1 Is the draft statement of the sustainable development framework suitable for all ROP themes?

8.0 CHALLENGES AND OPPORTUNITIES:

Consolidated “Questions to Consider”

- 2.1 ROP Section 1.3.5 - Themes of the Plan currently adopts three themes: ecosystem approach (environment), sustainable development (economic) and healthy communities (people and society). However, properly understood sustainable development comprises four pillars: environment (ecosystem approach), social (healthy communities), economic (prosperous sustainable economy) and culture. Should this section of the plan be rewritten to establish sustainable development as the overall framework for policy development?
- 2.2 If sustainable development is adopted as the overarching framework for the plan, then at what levels of the plan should it be applied: individual policies, policy areas and/or the plan as a whole?
- 2.3 How will the definitions in the Glossary at the back of the ROP need to be changed to reflect a sustainability approach?
- 3.1 How should the framework of sustainable development be applied to PROPR and subsequent sustainability initiatives?
- 3.2 How can the Region of Peel’s sustainability efforts connect with and complement the sustainability plans of other municipalities within Peel and surrounding areas.
- 3.3 If sustainable development is a process rather than an end state, how can the process be continued after the conclusion of the PROPR exercise?
- 3.4 How can Peel Region and its area municipalities attract and support sustainability-based companies and enterprise?

In terms of the Regional Official Plan, there are some key questions that must be considered:

- 4.1 How should climate change considerations (both mitigation and adaptation) be included in the new ROP?
- 4.2 How should the Regional Official Plan address the development of energy efficient systems as cogeneration and geothermal energy plants, and distributed energy systems and encourage area municipalities to develop renewable energy systems.
- 4.3 How should disparate plans (ROP, ICSPs, area municipality plans, Region strategic plans and capital/community improvement plans) be integrated? How can such integration be achieved?
- 4.4 Should Peel’s ROP be its Integrated Community Sustainability Plan, or should the ICSP comprise several Region documents (or be a separate stand-alone document)?

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Going beyond the Official Plan review process, the Region should also consider the following as it moves forward into subsequent stages of its sustainability planning exercise:

- 4.5 What is the most effective way to include people from the community in the planning process in order to fulfill an important principle of sustainability governance? What do we mean by “community” as it relates to Peel. Does the term apply to the entire Region of Peel as a community, or are there several communities / sub communities within Peel, with different conditions and needs?
- 4.6 How could Peel prepare to be sustainable beyond a car oriented culture? What are the land use and transportation options?
- 4.7 While various current and future documents such as the Regional Official Plan, the Strategic Plan, area municipal official plans and future sustainability plans are undertaken with a significant amount of collaboration, should any or all of these documents be integrated? How can such integration be achieved?
- 5.1 How is sustainable development planning different from the planning approach used in the past and how should this new approach be articulated in official plans?
- 5.2 How can we immediately support sustainable transportation as called for in the transportation planning work, given that the world’s oil production is very near (or perhaps beyond) its peak?
- 5.3 To what extent can policies on air quality change the quality of our air?
- 5.4 What policy directions on climate change can make a meaningful overall contribution to global greenhouse gas (GHG) emissions reduction?
- 5.5 What housing policies can address sustainability? Should the form/design/layout/ and structural changes be called for in policy circles?
- 5.6 What policies could significantly encourage the use of local foods and local food production? What is the role of urban agriculture?
- 5.7 What sustainability indicators and other metrics will be required to monitor progress on these and other ROP policies?
- 6.1 What is our vision for the future of Peel?
- 6.2 Should our vision include such aspects as education and health?
- 6.3 How will we develop a vision that all or most of us share? Can we build on the vision articulated in Liveable Peel?



- 6.4 What should the ROP say about sustainable transportation? What policies are needed to move Peel toward a more sustainable transportation system? How should we shape our road patterns, pedestrian and cycle ways to achieve greater sustainability?
- 6.5 What will be required to achieve the intensity targets set out by the Province?
- 6.6 How can convenient and low-cost transportation be provided so that all Peel residents can get to and explore the natural and rural parts of Peel?
- 6.7 Should we develop goals for biodiversity across the Region or just in Caledon?
- 6.8 What use can be made of taxes and levies to encourage sustainability in Peel?
- 6.9 How could the mix of housing, commercial, industrial and open space be changed to enable people to rely much less on automobiles?
- 6.10 From a sustainable development point of view, what is the ideal split in housing types: single family, multiple family, and high density? How would the ideal split be determined?
- 6.11 How could we use indicators and reporting to encourage greater awareness of and commitment to sustainability goals and targets? What other education and awareness strategies are needed?
- 6.12 Should the ROP specify that Peel develop and implement a sustainability-based procurement policy?
- 7.1 Is the draft statement of the sustainable development framework suitable for all ROP themes?

9 GLOSSARY

CMHC	– Canada Mortgage and Housing Corporation
CSII	– Canada's Sustainability Indicators Initiative
CVCA	– Credit Valley Conservation Authority
ESDI	– Environment and Sustainable Development Indicators
GGH	– Greater Golden Horseshoe
GTA	– Gas Tax Agreement
ICLEI	-- International Council on Local Environmental Initiatives
ICSP	– Integrated Community Sustainability Plan
LEED	– Leadership in Energy Efficient Design
MFA	– Municipal Funding Agreement
NRTEE	– National Round Table on the Environment and the Economy
OMB	– Ontario Municipal Board
PPS	– Provincial Policy Statement
PROPR	– Peel Region Official Plan Review
ROP	– Regional Official Plan
ROPA	– Regional Official Plan Amendment
ROPSU	– Regional Official Plan Strategic Update
TAC	– Technical Advisory Committee
TNS	- The Natural Step
TRCA	– Toronto Region Conservation Authority
WSSD	– World Summit for Sustainable Development
WBCSD	– World Business Council for Sustainable Development
ESMI	– Environmentally Sustainable Municipal Infrastructure
CIP	– Capital Investment Plan

Liveability is about building stronger local communities and enhancing quality of life through action to improve the quality of local environments and the places where people live." UK Parliamentary answer, April 2003.

The classic definition of **sustainable development** is from the 1987 report of the Brundtland Commission, formally the UN World Commission on Environment and Development (WCED): "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" meaning development that takes full account of the social, economic and environmental impacts of decisions, over the long term.

Other Definitions⁴¹:

Sustainable development requires environmental health, economic prosperity and social equity.

Earth Council

Sustainable development involves the simultaneous pursuit of economic prosperity, environmental quality and social equity. Companies aiming for sustainability need to perform not against a single, financial bottom line but against this triple bottom line.

[The World Business Council for Sustainable Development](#)

Improving the quality of life while living within the carrying capacity of supporting ecosystems.

World Conservation Union

Each generation is entitled to the interest on the natural capital, but the principal should be handed on unimpaired.

Canada's Commission on Conservation (in 1915)

Sustainable development means implementing a process that integrates environmental, economic and social considerations into decision making. This reinforces the World Commission on Environment and Development's conclusion that development should be sustainable for the benefit of current and future generations.

[Environment Canada](#)

Living on the earth's income rather than eroding its capital. It means keeping the consumption of renewable natural resources within the limits of their replenishment. It means handing down to successive generations not only man-made wealth, but also natural wealth, such as clean and adequate water supplies, good arable land, a wealth of wildlife, and ample forests.

The United Kingdom's Sustainable Development Strategy

⁴¹ Taken from *The Sustainability Report*
(<http://www.sustreport.org/background/definitions.html#experts>)

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APPENDIX A: PLACES TO GROW IN THE GREATER GOLDEN HORSESHOE (EXCERPTS)

1.2 Vision for 2031 for the Greater Golden Horseshoe

More than anything, the Greater Golden Horseshoe (GGH) will be a great place to live in 2031. Its communities will be supported by the pillars of a strong economy, a clean and healthy environment and social equity.

The GGH will offer a wide variety of choices for living. Thriving, liveable, vibrant and productive urban and rural areas will foster community and individual well-being. The region will be supported by modern, well-maintained infrastructure built in accordance with a broad plan for growth. Residents will have easy access to shelter, food, education and health-care facilities, arts and recreation and information technology.

Getting around will be easy. An integrated transportation network will allow people choices for easy travel both within and between urban centres throughout the region. Public transit will be fast, convenient and affordable. Automobiles, while still a significant means of transport, will be only one of a variety of effective and well-used choices for transportation. Walking and cycling will be practical elements of our urban transportation systems.

A healthy natural environment with clean air, land and water will characterize the GGH. The Greenbelt, including significant natural features, such as the Oak Ridges Moraine and the Niagara Escarpment, has been enhanced and protected in perpetuity. These will form the key building blocks of the GGH's natural systems. The GGH's rivers and streams, forests and natural areas will be protected and accessible for residents to enjoy their beauty. Open spaces in our cities, towns and countryside will provide people with a sense of place. Unique and high-quality agricultural lands will be protected for future generations. Farming will be productive, diverse and sustainable.

Urban centres will be characterized by vibrant and more compact settlement and development patterns and will provide a diversity of opportunities for living, working and enjoying culture. The evolving regional economy of the GGH will have matured into an economic powerhouse of global significance. It will function as Canada's principal international gateway.

The Greater Toronto and Hamilton area will be a thriving metropolis with an extraordinary waterfront. At the heart of this metropolis will be Toronto, a celebrated centre of influence for commerce, culture and innovation. All of this will translate into a place where residents enjoy a high standard of living and an exceptional quality of life.

1.2.2 Guiding Principles

The vision for the GGH is grounded in the following principles that provide the basis for guiding decisions on how land is developed, resources are managed and public dollars invested:

- Build compact, vibrant and complete communities.

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- Plan and manage growth to support a strong and competitive economy.
 - Protect, conserve, enhance and wisely use the valuable natural resources of land, air and water for current and future generations.
 - Optimize the use of existing and new infrastructure to support growth in a compact, efficient form.
 - Provide for different approaches to managing growth that recognize the diversity of communities in the GGH.
 - Promote collaboration among all sectors – government, private and non-profit – and residents to achieve the vision.

As the GGH grows, so will the overall demand for water, energy, air, and land. The ongoing availability of these natural resources is essential for the sustainability of all communities.

4.2.4 A Culture of Conservation

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
 - 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
 - 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
 - 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.

Compact Urban Form

A land-use pattern that encourages efficient use of land, walkable neighbourhoods, mixed land uses (residential, retail, workplace and institutional all within one neighbourhood), proximity to transit and reduced need for infrastructure. Compact urban form can include detached and semi-detached houses on small lots as well as townhouses and walk-up apartments, multi-storey commercial developments, and apartments or offices above retail.

Complete Communities

Complete communities meet people's needs for daily living throughout an entire lifetime by providing convenient access to an appropriate mix of jobs, local services, a full range of housing, and community infrastructure including affordable housing, schools, recreation and open space for their residents. Convenient access to public transportation and options for safe, non-motorized travel is also provided.

Transit-supportive

Makes transit viable and improves the quality of the experience of using transit. When used in reference to development, it often refers to compact, mixed-use development that has a high level of employment and residential densities to support frequent transit service. When used in reference to urban design, it often refers to design principles that make development more accessible for transit users, such as roads laid out in a grid network rather than a discontinuous network; pedestrian-friendly built environment along roads to encourage walking to transit; reduced setbacks and placing parking at the sides/rear of buildings; and improved access between arterial roads and interior blocks in residential areas.

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APPENDIX B: PROVINCIAL POLICY STATEMENT 2005 (EXCERPTS)

Part IV: Vision for Ontario's Land Use Planning System

The long-term prosperity and social well-being of Ontarians depend on maintaining strong communities, a clean and healthy environment and a strong economy.

Ontario is a vast province with diverse urban, rural and northern communities which may face different challenges related to diversity in population levels, economic activity, pace of growth and physical and natural conditions. Some areas face challenges related to maintaining population and diversifying their economy, while other areas face challenges related to accommodating and managing the development and population growth which is occurring, while protecting important resources and the quality of the natural environment. The Provincial Policy Statement reflects this diversity and is based on good planning principles that apply in communities across Ontario.

The Provincial Policy Statement focuses growth within settlement areas and away from significant or sensitive resources and areas which may pose a risk to public health and safety. It recognizes that the wise management of development may involve directing, promoting or sustaining growth. Land use must be carefully managed to accommodate appropriate development to meet the full range of current and future needs, while achieving efficient development patterns.

Efficient development patterns optimize the use of land, resources and public investment in infrastructure and public service facilities. These land use patterns promote a mix of housing, employment, parks and open spaces, and transportation choices that facilitate pedestrian mobility and other modes of travel. They also support the financial well-being of the Province and municipalities over the long term, and minimize the undesirable effects of development, including impacts on air, water and other resources. Strong, liveable and healthy communities enhance social well-being and are economically and environmentally sound.

The Province's natural heritage resources, water, agricultural lands, mineral resources, and cultural heritage and archaeological resources provide important environmental, economic and social benefits. The wise use and management of these resources over the long term is a key provincial interest. The Province must ensure that its resources are managed in a sustainable way to protect essential ecological processes and public health and safety, minimize environmental and social impacts, and meet its long-term needs.

It is equally important to protect the overall health and safety of the population. The Provincial Policy Statement directs development away from areas of natural and human-made hazards, where these hazards cannot be mitigated. This preventative approach supports provincial and municipal financial well-being over the long term, protects public health and safety, and minimizes cost, risk and social disruption.

Taking action to conserve land and resources avoids the need for costly remedial measures to correct problems and supports economic and environmental principles.

Strong communities, a clean and healthy environment and a strong economy are inextricably linked. Long-term prosperity, environmental health and social well-being should take precedence over short-term considerations.

The fundamental principles set out in the Provincial Policy Statement apply throughout Ontario, despite regional variations. To support our collective well-being, now and in the future, all land use must be well managed.

The Vision for Ontario's Land Use Planning System may be further articulated through planning direction for specific areas of the Province issued through provincial plans, such as those plans created under the *Niagara Escarpment Planning and Development Act* and the *Oak Ridges Moraine Conservation Act, 2001*, which are approved by the Lieutenant Governor in Council or the Minister of Municipal Affairs and Housing.

**APPENDIX C: EXCERPT FROM REGION OF PEEL MEMO ON ICSP
PROPOSAL FOR PEEL (SEPT. 12, 2007)**

**Overview of Regional Planning Initiatives Alignment with ICSP Principles &
Objectives**

Planning Initiatives	Coordinated Approach <i>(Linkages of various plans)</i>	Integrated Planning <i>(pillars of sustainability)</i>	Collaboration with Other Municipalities	Engaging Residents in Long Term Visioning and Planning	Contributes to Key Sustainability Objectives <i>(e.g. cleaner water and air)</i>
LIVEABLE PEEL <ul style="list-style-type: none"> o Community visioning o Consultation o Research & assessment <ul style="list-style-type: none"> o Immigration o Watersheds o Housing o Raising Awareness of sustainability 	While there are linkages with the Region's strategic plan, the ROP review, there is room for improvement	√ (all pillars)	√	√	√
COLLABORATION WITH CONSERVATION AUTHORITIES ON Developing watershed plans Terrestrial and natural heritage studies	√	Focus on Environmental pillar but integrates the other pillars	√	√	√
COLLABORATION WITH PEEL NEWCOMERS STRATEGY AND WORKING GROUP Parallel community led initiative that complements the immigration work being done under Liveable Peel	√	Cultural Pillar mostly which positively affects the others	√	√	√
PEEL REGION OFFICIAL PLAN REVIEW – Conformity to provincial policies Focus areas for research & policy updates including Sustainability, air quality, energy, transportation & managing growth.	√	(All pillars)	√	√	√

APPENDIX D: EXCERPTS FROM REGION OF YORK'S ADVISORY GROUP ON SUSTAINABILITY

The Advisory Group set up by York Region to help propel it along the path “toward sustainability” offered the following advice about changes needed in York’s ROP:

Natural Environment

- Invest in protecting, enhancing and restoring York Region extensive greenlands system
- Invest in protecting the Region’s precious aquifers
- Invest in providing green connections between core areas in order to create a linked Greenland system.
- Create a land securement reserve larger than the current \$1.4 million per year
- Establish immediate and long-term time frames for creating Greenland linkages and carrying-out acquisitions
- Develop comprehensive natural heritage mapping with partners.
- Support Conservation Authorities in the development of new Hazard/Fill/ Floodplain Mapping
- The emphasis should be on quality not just quantity natural heritage land protection
- Identify innovative natural heritage enhancement projects
- Develop a Bio-Diversity Strategy for York Region.
- Reduce the Region’s per capita ecological footprint.
- Develop a series of standards or a checklist to ensure continuing protection of Regional greenlands
- Protect the Region’s system of Kettle lakes
- Continue Greening Strategy implementation

Infrastructure

- Utilize emerging technology and engineering best practices to limit impact on the natural heritage and landscape.
- Emphasize public transit and the need for a GTA integrated transit system.
- Increase modal split throughout York Region.
- Provide a system of walking and cycling paths.
- Mitigate impacts of infrastructure construction.
- Utilize best practice green infrastructure construction techniques to minimize and mitigate impact.
- Emerge as a leading edge municipality for environmental solutions for restoration and BMPs
- Utilize individual Environmental Assessments (EAs) for major projects and group projects together in order to assess total impact.
- Develop an Emergency Preparedness Action Plan.

Water Conservation

- Develop a broad water strategy for York Region including water budgeting.
- Develop a water conservation program for York Region buildings.

- Play a key role in the preparation and implementation of Source Water Protection Plans.
- Develop a surface permeability standard for new development.
- Develop a comprehensive groundwater database with partners and adjacent municipalities.
- Support the Lake Simcoe Water Quality Improvement Program and LSEMS Strategy.
- Develop a River Restoration Strategy.
- Support the Lake Ontario Restoration Initiative.
- Examine innovative ways to improve storm water quality and reduce the quantity of runoff.

Economic Vitality

- Develop stronger relations with the business community.
- Develop long-term infrastructure plans with significant lead time for approval/construction.
- Create an investment climate that encourages private sector involvement.
- Ensure efficient movement of goods.
- Encourage sustainability-focused businesses to locate in York Region.
- Promote a sustainable agriculture system in York Region, including an emphasis on organic and local food sources.
- Promote York Region as a “Centre” or “Campus” of Innovation.

Energy

- The Region, in the long term, should be an exporter of renewable energy.
- The Region should partner with energy providers.
- Solicit creative energy solutions (e.g. wind power, LEED buildings).
- Work to include a wider range of energy efficient technology in homes and business, including green roofs, building materials, solar panels, district heating, Energy Star and R2000 construction standards.
- Petition the Province and Federal Governments to institute a comprehensive program of energy efficiency incentives.
- Promote and develop renewable energy sources in York Region.
- Encourage green building standards for York Region community building.
- Promote and support local food production in York Region.

Intensification

- Achieve 40% intensification in built areas.
- Focus on Centres and Corridors to accommodate growth.
- Establish compact, transit supportive development standards for new development (i.e. the other 60%)
- Encourage mixed use, multi-storey retail/commercial development.
- Petition the Province for more effective planning and fiscal tools to achieve intensification.
- Province should provide “as of right” development (pre-zoning) in Centres and Corridors where full planning studies have been completed.

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- Help broker a development industry/ environmental sector campaign to proactively support intensification.
 - Housing affordability and choice are key ingredients to a sustainable community
 - Encourage a mix of uses.
 - Develop and implement “Alternative Development Standards” for the design and construction of communities.
 - Emphasize quality urban design to create attractive communities with a sense of place.
 - Implement transit supportive Land Use Planning Guidelines.
 - Organize a design charrette with all stakeholders to explore the issues and opportunities in developing new Greenfield communities.

Social/ Cultural

- Recognition and curation of Aboriginal Heritage.
- Strengthen cultural heritage policies.
- Highlight and address human health issues in York Region such as exposure to toxins and youth obesity.

Implementation/Measuring Success

- Develop clear targets and indicators to measure success in the economy, environmental protection and enhancement, as well as quality of life/ community
- Report regularly to the public and stakeholders on progress
- Be prepared to adjust or augment policy programs and operations as the result of monitoring.
- Develop a budget for the implementation of TSYR recommendations that outlines short-, medium- and long-term funding priorities, sources of funding and other cost considerations.

Public/ Stakeholder Engagement

- Region should develop a sustainable development communication plan.
- Promote ongoing Public Information Centre.
- Utilize the internet to make information and reports readily available.
- Develop an outreach program to schools and youth.⁴²

⁴² Towards Sustainability in York Region Advisory Group, *Advice for a more Sustainable Regional Official Plan And a Sustainable Infrastructure Strategy For York Region*. Final Report, April 2006. Not all elements of this advice were adopted but York Region has undertaken a comprehensive strategy to establish sustainability as a core element of all policies and actions.

APPENDIX E: LIKELY IMPACTS OF CLIMATE CHANGE IN ONTARIO

A Senior Climatologist for Environment Canada, has evaluated the most significant storms in Ontario for the first few years of the 21st Century including studies of heavy rainfall events in Spring and Summer 2000 (7 storms, including the Walkerton event); the Northwest Ontario flood of 2002; the 2004 Peterborough storm; the 2004 remnants of Hurricane Frances; and the 2005 storm in Toronto. As an outcome of these in-depth studies, also citing the International Joint Commission reports and the report, *Climate Change*, Environment Canada reports the following:

- There are no consistent trends in extreme rain events in Ontario to date, but there is an increasing societal vulnerability to extremes
- Modeling of Ontario predicts an increase in extreme rain events (30 to 50% increase in days with 25 mm or more rainfall by late 21st century)
- A storm of a given size will occur more frequently (i.e., storm return values (2 to 100-year) will increase by 20 to 70% by late 21st century)
- Modeling predicts continued or worsening dry conditions in mid- to late-summer, but an increase of rainfall from April to November, which means that there will be heavier spring and fall storms with continued low water conditions in summer.
- As a result, flooding conditions will occur more frequently (a 10 to 80% increase is predicted for stream flow return periods by late 21st century).

On a regional basis, severe storms are becoming more common, with severe results:

- The remnants of Hurricane Frances in 2004 brought a new one-day rainfall record to Ottawa
- Over \$200 million was spent to address infrastructure deficiencies following the Peterborough storm; about \$87 million in insurance claims were reported
- The majority of the Peterborough storm sewer system was designed for the 2-year storm event; during the storm the groundwater inflow to the storm sewer system was five times normal
- The 2005 Toronto storm that tore out a portion of Finch Street was the most expensive storm in Ontario history with a cost of about \$500 million
- The 21st century has already redefined the regional storm for northwest Ontario, and

Toronto has seen 7 storms in 20 years that have 25-year return periods (i.e., large storms that one would “expect” to see only once every 25 years)⁴³.

⁴³ This section is drawn from Citu of Kingston, “Sustainability and the New Official Plan: Official Plan Review Background Report” (2008)

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APPENDIX F: SUSTAINABILITY PLANNING IN THE CITY OF LONDON (UK)

City of London, U.K. has taken leadership on a broad range of sustainability planning issues, including climate change. The City has an impressive array of documents outlining key sustainability commitments, plans and policies. Its “Sustainability publications” are listed here⁴⁴

[City of London's Sustainability Policy](#)

The City of London has a proud history of looking to the welfare of future generations and has long been aware that a clean environment and economic prosperity go hand in hand with quality of life. Following that tradition, this document outlines the principles of sustainability which the City of London Corporation, its staff and contractors are expected to follow in all their activities, plans and projects.

[Financing the Future, London Principles Report 2002](#)

Outlines the seven London Principles of Sustainable Finance which propose conditions under which financial market mechanisms can best promote the financing of sustainable development. The Principles are intended as a framework to allow financing institutions and policy-makers to identify where future innovation is needed, in order to improve the way the financial system as a whole finances sustainable development.

[London Principles - three years on from Johannesburg](#)

This is a critical review of the London Principles by the Forum for the Future three years on from the Johannesburg Earth Summit. The report highlights a number of successes, but also points to areas where more needs to be done and makes recommendations to Government.

[Sustainability of tall buildings research](#)

This programme examined the options available for constructing sustainable tall buildings against a background of pressure for change. The programme looked at the effect of tall buildings on their local environment and analysed new developments in their design, construction and operation.

[Liveable City Handbook](#)

A practical handbook for organisations wishing to improve the all round sustainability of their operations, in a manner that links environmental concerns to social and economic progress. The Liveable City is a major initiative of the Sustainable City Forum, a body of representatives from the Square Mile's residential and business community brought together by the City of London in 1998.

[The Sustainable City - Protecting the quality of life into the 21st century](#)

This document is the local Agenda 21 action plan for the Square Mile and outlines how the City of London and its partners are working towards a sustainable future.

⁴⁴ All of these publications are available at http://www.cityoflondon.gov.uk/Corporation/living_environment/sustainability/publications.htm

APPENDIX G: ICLEI – LA21 TO LOCAL ACTION 21

The movement from LA21 [Local Agenda 21] to Local Action 21 will reflect the following advances in local sustainable development planning and management.

First, the creation of sustainable communities and cities will be furthered by identifying and removing barriers to sustainable development. Barriers such as poverty; injustice, exclusion and conflict; an unhealthy environment; and insecurity, will be proactively addressed through strategies to create viable local economies, just and peaceful communities, eco-efficient cities, and resilient communities and cities.

Secondly, Local Action 21 will reduce cities' further contribution to the worldwide depletion of resources and environmental degradation, which have severe repercussions for cities and their inhabitants. Local government involvement in global campaigns and programs such as the Water Campaign, the Cities for Climate Protection Campaign, and others, will work to protect global common goods.

Thirdly, Local Action 21 will introduce management instruments that will ensure unwavering implementation, effective monitoring, and continual improvement of municipal sustainability management. Municipal sustainability management will incorporate practices such as eco-procurement and instruments such as *ecoBUDGET*® or triple bottom line reporting, to anchor these concepts in political and administrative routines. The adoption of principles such as the *Earth Charter* or the *Melbourne Principles* will serve to guide these actions.

<http://www.iclei.org/index.php?id=802>

The movement from Local Agenda 21 to Local Action 21 ushers local governments from general sustainable development planning to working with local stakeholders address inter-related challenges to poverty and sustainability. ICLEI seeks to build **Sustainable Communities and Cities** by enabling local governments achieve justice, security, resilience, viable economies, and healthy environments. The four initiatives are: (a) Resilient Communities and Cities, (b) Just and Peaceful Communities, (c) Viable Local Economies, and (d) Eco-efficient Cities.

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