

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



The Regional Municipality of York

April 2006

Transmittal Letter

To Region of York Council

We are pleased to submit the Report of the *Toward Sustainability in York Region (TSYR) Advisory Group*.

When York Region encountered controversy over a number of major infrastructure projects, including the expansion of the Region's sewer capacity, it made a public commitment (favourably noted in the October 1, 2004 letter from former Ontario Minister of the Environment, Leona Dombrowsky) to "initiate a multi-stakeholder advisory mechanism to provide advice on an overall sustainable development strategy to address growth management, infrastructure planning, and environmental protection, including water budgeting."

Hence the TSYR Advisory Group was formed, consisting of six members from environmental organizations, Conservation Authorities, and the development industry. York Region CAO Michael Garrett was the host and a full participant in the Group. Several senior officials from the Region attended the meetings, and Keith West from the Ministry of Environment had observer status. Craig Mather coordinated this initiative for the Region, and David Bell served as Chair/Facilitator. John Waller and Dawn Seetaram provided staff support.

Following an initial planning meeting on July 21 2005, the Advisory Group held seven 3-hour sessions between September 15th and January 23rd 2006. The purpose of these discussions was twofold:

- To provide advice to the Region on how to make the *Regional Official Plan* a more "sustainable" plan, including next steps;
- To provide advice to the Region on the development of a "Sustainable Infrastructure Strategy", including next steps.

The discussions ranged broadly around these two topics. Although our mandate called for a long term perspective, several members of the group pressed for adoption of some early initiatives (quick starts) and an indication from the Region that the work of the Advisory Group would be taken seriously. Accordingly, Regional Chair Bill Fisch agreed to attend the first session (September 15), and Regional Council at its meeting of September, 22, 2005 endorsed the workplan of the Advisory Group.

One proposed quick start which several members of the Advisory Group felt was particularly urgent concerned the proposed extension of the Pine Valley Road through the Boyd Conservation area. Given the importance of that area ecologically, these members urged the Region to signal the seriousness of its commitment to adopting a new approach to planning and development by withdrawing its support for the project. The Region responded that the project was currently undergoing an Environmental Assessment (EA) in the course of which concerns about environmental and social impacts would be examined. Ultimately, the issue was resolved on February 15, 2006 when the current Ontario Minister of the Environment,

Laurel Broten, amended the EA workplan to exclude the Boyd Conservation area as a possible route for the proposed road.

All members of the TSYR Advisory Group recognize that population growth in York Region is inevitable over the next 25 – 50 years. They also agree that this growth will pose a number of profound sustainability challenges for the Region, including reducing congestion, managing rapid growth, providing appropriate infrastructure and human services, achieving environmental protection and nurturing a vital economy. The Advisory Group was keenly aware of contentious issues regarding the pace of growth and of intense public and stakeholder reaction to some infrastructure initiatives.

Notwithstanding these issues, the members of the Advisory Group were unanimous in the belief that in responding to these challenges, the Region can and should continue to take a leadership position in sustainability-based planning. The advice to Council contained in this Report is intended to assist the Region in achieving this ambitious objective.

The York Region Official Plan already contains a number of elements that could contribute toward sustainability in the region. These elements include stated commitments in favour of:

- protection of a Regional Natural Heritage System
- creation of a diverse, sustainable economic base that contributes to cultural, recreational and institutional opportunities
- promoting integrated community structure and design to ensure a broad mix and range of lot sizes and housing units, including policies on compact urban form and linking a majority of new housing with transit services and employment opportunities

The community-building portions of the plan and the Centres and Corridors Strategy are especially commendable.

However, in spite of these good intentions, there remains a significant gap between the objectives and policies of the Official Plan and the present-day reality of development within York Region. Here is a sample of the current challenges to sustainability in York Region:

- up to the present time, development in York Region continues to be characterized by outward expansion of highway and sewer and water infrastructure
- Although 42% of new housing completions in 2004 were multiple units, current housing stock is 73% single family dwellings.
- The majority of growth in York Region in the past has been single form residences on Greenfields in new surrounding areas (e.g. Queensville, etc). The YDSS system has been designed to service those areas. A greater proportion of development needs to be directed to existing built areas and in a more compact form in order to protect the countryside.

- despite goals of 20% and recently 30% intensification, over the past 13 years the region has achieved only 17% intensification
- Despite significant investment in transit, commuting is overwhelmingly by private automobile.
- Greater emphasis needs to be placed on identifying and protecting linkages in the Natural Heritage System. Assessment of all proposed plans and projects should be required to take into consideration their impact on the integrity of the Natural Heritage System.

The TSYR Advisory Group's participants and observers brought a wealth of knowledge and goodwill to these deliberations. The members of the Advisory Group looked at York Region's growth challenges through a sustainability lens that complements the Region's own stated goals of achieving a sustainable natural environment, healthy communities, and economic vitality. Indeed one of our principal recommendations is to encourage the Region to make more explicit the sustainability elements already implicit in its policies (including the Regional Official Plan) in order both to strengthen these policy instruments and to better "brand" the Region's accomplishments and commitments.

The process and time frame under which the TSYR Advisory Group operated did not allow the participants to develop specific recommendations for action by York Region Council. Rather, the Advisory Group provided a forum for a wide-ranging and often frank conversation about the challenges of moving toward sustainability in a rapidly growing urban region.

Given the relatively small number of meetings we held, it is not surprising that we found it impossible to drill down to the level of detail and complexity required to translate these broad recommendations into a systematic program of implementation. For that to occur, this group (or one established for this purpose) would need additional ongoing meetings. One of our recommendations is that York Region establish such an ongoing process of deliberation.

Achieving sustainable communities, infrastructure, and economy in York Region will require a fundamental shift in vision, commitment, and behaviour from leaders and decision-makers. Some of the recommendations outlined in this Report could be implemented relatively quickly, but many will require action over the medium to long term. The Advisory Group feels that of all the recommendations proposed in this report, the following 7 represent the key recommendations that should be implemented within a short-term time frame:

1. The Region and its local municipalities, in consultation with the Conservation Authorities, should complete a linked Natural Heritage system that identifies Key Natural Heritage areas to be protected from development and enhanced. The Region should also develop a transportation master plan that respects the integrity of an interconnected Regional Natural Heritage System.
2. The Region's current growth management review which will update the Regional Official Plan and Master Plans should build on a sustainable development theme. York Region

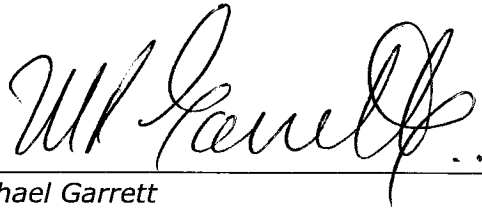
- should prepare a set of recommendations for OP amendment to incorporate the Advisory Group's advice.
3. York Region should consider the establishment of an Office of Progress Toward Sustainability to monitor and provide advice regarding adjustments necessary to achieve OP objectives.
 4. York Region should improve Sustainability Monitoring and Reporting (an adaptation and extension of the existing indicator work being carried out for the Vision 2026 project, SOE report etc.) and establish indicators for measuring progress toward each objective in the OP.
 5. York Region should strengthen Sustainability Dialogue processes including facilitating informal meetings between stakeholders and the CAO and Chair; establishing working groups or charettes on topics like intensification, biodiversity, natural heritage system requirements, energy etc; and the reconvening of a Sustainability Advisory group periodically to advise the Region on the implementation of these recommendations.
 6. York Region should commit itself to becoming a leader in sustainability-based governance and decision-making. This might entail:
 - a. Capacity-building – appropriate forms of training and professional development should be devised for members of Council, Senior Management and Staff;
 - b. Modified decision-making practices to ensure that there is a sustainability support, appropriate tools for “integrated” decision making that incorporates the 3 components of sustainability, and a management system to embed appropriate targets and expectations in job descriptions and performance reviews; and,
 - c. A culture shift to encourage “sustainability ingenuity” and continuous learning.
 7. Triple bottom-line assessments should be undertaken for the key recommendations of this Advisory Group. Considerations should include timing, funding, and responsibility.

The quest for a more sustainable York Region is a journey of long duration. Many steps must be taken, and not all of them will be easy or painless. As York Region progresses along the path to sustainability, our advice will, we hope, help identify important requisites for future success, including specific targets and signposts and more general changes in organizational capacity and leadership.

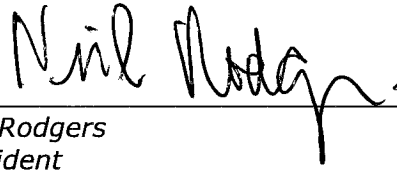
We would welcome the opportunity to meet in person with Council to discuss our Report. As part of our commitment to this process, we pledge to work with our respective organizations to encourage support for the new direction it outlines.

Sincerely,

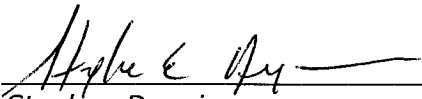
The Towards Sustainability in York Region Advisory Group.



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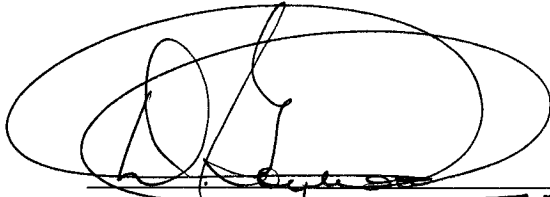
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President
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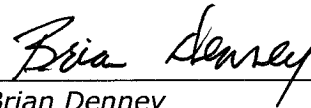
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1 Introduction

1.1 What is Sustainability?

Sustainable development (SD)¹ is first and foremost a legacy issue. It asks about the kind of world we want to leave for posterity. Stated so boldly, it invites the response satirized by Kenneth Boulding – “What has posterity done for me lately?” But when put in more personal terms – “What sort of world would we like to leave for our children and their grandchildren?” – It evokes a very different response. Invariably, attention is paid to at least three components of a sustainable future: the economic, the environmental, and the social.

In effect, sustainable development proposes a new paradigm of decision making that entails a long-term perspective on present-day issues and challenges, and requires a better appreciation of the complex interconnections between the economic, social and environmental aspects of current challenges.

Though it has antecedents that stretch far back into the past, the concept of sustainable development entered the present-day lexicon with the publication in 1987 of the report to the United Nations of the World Commission on Environment and Development (WCED) chaired by the then Prime Minister of Norway (and current head of the World Health Organization) Gro Harlem Brundtland. Many definitions of sustainable development appear in the Brundtland Commission's Report, but the one that has been inscribed in policy discourses around the globe defines SD as *“development that meets the needs of the present generation without precluding the possibility of future generations meeting their own needs.”*

In response to the WCED Report the United Nations organized the first UN Conference on Environment and Development (the “Earth Summit”) held at Rio de Janeiro in 1992. An important product of that conference was the adoption by all countries in the world of “Agenda 21”, a 40-chapter document that some have called a “blueprint for the 21st century.” Chapter 28 recognizes that a number of the most difficult sustainability challenges emanate from local communities and that effective responses to these challenges will require concerted local action:

- ◆ “local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and subnational environmental policies,”
- ◆ they are “the level of governance closest to the people, [and] play a vital role in educating, mobilizing and responding to the public to promote sustainable development.”

The Brundtland definition of sustainable development has been adapted and modified for application at the local level, where it is used to describe a “sustainable

¹ For the purpose of this Report, the terms sustainable development and sustainability will be treated as equivalent. Some argue that sustainability is the desired end state, SD the process required to approach it.

community.” In a paper prepared for Environment Canada’s presentation to the World Summit on Sustainable Development (WSSD - the UN conference held at Johannesburg in 2002 as a follow up to the Earth Summit), Stephen Peck defined a sustainable community as one that

“makes choices that simultaneously enhance or maintain the wellbeing of both people and ecosystems while not placing unbearable burdens -- environmental, economic, or social -- on future generations. To achieve this vision all community members - individuals groups and organizations in all sectors, need to adopt sustainability as a core value to guide to decisions and actions.”

Solutions to growth and development challenges that simultaneously create economic, environmental and social value and benefit are referred to as “triple bottom-line sustainability”. An example of triple bottom-line sustainability would be public transit in that it achieves the following sustainable development objectives.

- | | |
|------------------------|--|
| Environmental benefit: | Public transit reduces greenhouse gas emissions attributed to carbon dioxide from automobile usage. |
| Social benefit: | Public transit ensures that all segments of the population and labour force have access to efficient, affordable and quality transportation. |
| Economic benefit: | Public Transit ensures a higher and more efficient movement of goods and people by reducing automobile congestion. |

1.2 Federal Government Sustainability Initiatives

The Federal Government’s commitment to sustainability traces back to the formation of the National Task Force on Environment and Economy (NFTEE) in 1986 as a response to the Brundtland Commission, which held 6 public hearings in Canada the year before the publication of its now famous report *Our Common Future*. Outcomes of the work of NRTEE included the founding of the National Round Table on Environment and Economy and the later adoption by the Mulroney Government of the Green Plan.

In 1995, the Chrétien Government amended the Auditor General Act to establish within the Office of the Auditor General, the new office of the Commissioner of the Environment and Sustainable Development. The legislation also requires all federal Departments and key Agencies to produce a Sustainable Development Strategy (updated every 3 years) on which the Commissioner reports annually to Parliament.

The Martin Government has supported and deepened these commitments by establishing a Cabinet Committee on Sustainable Development and introducing the *New Deal for Cities and Communities* which has a strong emphasis on sustainable development. The Former Minister of Infrastructure and Renewal, John Godfrey, explained on June 10, 2005 that his Ministry will award gas tax funding to municipalities that undertake sustainability projects in the areas of public transit, clean water, wastewater, waste management and energy. He further explained that gas tax funding will be tied to a community sustainability plan that offers an integrated strategy on how these projects will be achieved and evaluated. Other federal

government funding programs connected to SD principles include the Green Municipal Enabling Funds, the Partners for Climate Protection (PCP) Program, and the Canada Strategic Infrastructure Fund (CSIF).

1.3 Provincial Government Direction regarding Sustainability Planning and Development

Under the Conservative governments of Mike Harris and Ernie Eves, sustainability commitments entered provincial policy in fact though not in name in the form of the Oak Ridges Moraine Act (2001) and the Oak Ridges Moraine Conservation Act (2002), and also through the Provincial Government's Smart Growth Principles. A stronger, more formal commitment to sustainability was made under Premier McGuinty. The *Greenbelt Plan* and the *Places to Grow, Draft Growth Plan*, align closely with the notion of sustainable development. For example, the *Places to Grow* document outlines a Vision for the Greater Golden Horseshoe for the year 2031 based on the "pillars of a strong economy, clean and healthy environment, and social equity" and requires that 40% of new development occur through intensification (i.e., within current "built boundaries") by 2015.

The *Provincial Policy Statement* is replete with sustainability-related requirements for compact form mixed-use intensification and urban redevelopment, transit-supported settlement, and designated growth areas to accommodate an appropriate range and mix of employment opportunities. It indicates that the long-term ecological function and biodiversity of natural heritage systems should be maintained, restored or, where possible, improved. The importance of linkages between and among natural heritage features and areas, surface water features and ground water features is also recognized.

New provincial legislation regarding the Oak Ridges Moraine and the Greenbelt has changed the context for population growth and development within York Region, adding importance and urgency to the imperatives for a sustainability-based approach to planning and infrastructure development.

1.4 Challenges

The Region will face a number of growth management challenges over the next 25 years including:

Healthy Communities:

- Accommodating a rapid pace of growth;
- Implementing the Provincial target of 40% intensification;
- Providing a range of housing options that includes affordable housing;
- Implementing the Regional Transit and Rapid Transit Plans;
- Building an infrastructure system to keep pace with growth.
- Providing adequate and quality human services;
- Engaging the public and Regional stakeholders; and,
- Providing an environment which promotes a healthy community.

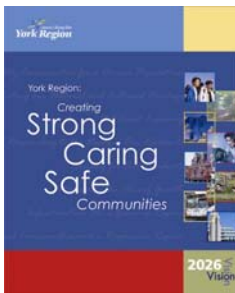
Sustainable Natural Environment

- Enhancing, restoring and investing in the Regional green infrastructure system;
- Protecting the Countryside and other natural core areas and linkages to natural core areas;
- Improving air quality;
- Protecting the quality and quantity of the Region’s ground and surface waters; and,
- Restoring environmentally degraded areas.

Economic Vitality

- Strengthening and diversifying the Regional economy;
- Creating jobs to match residential growth; and,
- Ensuring Regional fiscal sustainability.

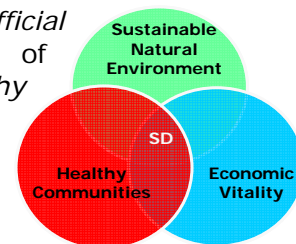
1.5 York Region’s Approach to Sustainable Development



York Region’s stated goals of achieving a sustainable natural environment, healthy communities, and economic vitality constitute an implicit commitment to follow the path of sustainable development. York Region has made significant steps forward through its Greening Strategy, Human Services Plan, Centres and Corridors Strategy, VIVA rapid transit system, and other initiatives. *Vision 2026* incorporates many of the sustainable development principles highlighted by the United Nations and speaks to triple bottom-line sustainability through its goal areas. The document and

process calls for engagement and interaction between the public, all relevant stakeholders and Regional Staff. Moreover, a monitoring system and documentation are in place for annual performance evaluations.

Similarly, the main objective and structure of the *Regional Official Plan (ROP)* focuses on interconnecting the three themes of *Sustainable Natural Environment*, *Economic Vitality* and *Healthy Communities* - which are the three elements of sustainable development according to the United Nations framework.



1.6 Advice on the Overall Perspective²

The themes Global Context, Sustainability and Leadership emerged as core values in the Advisory Group discussions. It is recognized that the current ROP contains sustainability concepts. However, the Plan as well as other Regional initiatives, programs, and decisions should be more explicitly based on sustainability, and should also be strengthened and refined to incorporate the following core values:

Global Context

- Broad goal should be a more sustainable Region.
- Effect on and consequences of climate change should be considered.
- International business opportunities and environmental advances should be pursued.

Sustainable Development

- The ROP and on-going Growth Management work should build on a sustainable development theme.
- Governance, public involvement and decision-making should be based on sustainability principles.
- Triple bottom-line assessments should be undertaken for all initiatives.
- The Region should be a centre of expertise for sustainable practices.
- The Region should showcase success stories and demonstration projects including the LEED Building for LSRCA.
- Partner on the TRCA's *Kortright Centre Sustainable Communities* initiative.

Leadership

- The Region should take a leadership role in Ontario and Canada in sustainable development planning.
- The Region should lead by example with specific projects/ initiatives.
- Important leadership role need to be played by the Province and Federal Government in terms of policy and investment.

² The following points summarize the advice of the Advisory Group with regard to general, high-level principles and approaches. Some aspects of the advice from the advisory group have already gone to Regional Council in the form of the York Region Sustainable Development Initiative and proposed Workplan which was received by the Planning and Economic Development Committee October 12, 2005.

2 Advice for a Sustainable Regional Official Plan

Further to the consensus reached on the context and direction (Section 1.6 – Advice on Overall Perspective above), a number of specific themes received considerable support in Advisory Group discussions, and taken together form the basis for the Advisory Group's advice for refining the Regional Official Plan.

Key Themes

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

Infrastructure³

- 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

³ This part of the Advice pertains to the treatment of infrastructure within the ROP. Note as well the broader discussion of recommended sustainable infrastructure initiatives that appears in Section 3 of this Report.

- 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.

Intensification⁴

- 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.
- 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/ Cultural⁵

- 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.

⁴ The Advisory Group discussed some of the drivers for growth including immigration policy, noting that there has been little consideration locally, provincially or nationally of the environmental impacts of increasing population growth; or of the notion of adjusting growth in particular parts of the country to the ecological capacity of various regions. The Advisory Group was reminded that the Region’s planned growth numbers are lower than the growth numbers the Province has recommended. Some members questioned whether future development should be governed by a prescribed increase in the population or whether an acceptable upper limit should be established only after an analysis of a maximum feasible number based on ecological limits. The Advisory Group did reach consensus on infrastructure planning based on an “ultimate growth scenario” to ensure the adequacy of infrastructure for a wide range of growth outcomes.

⁵ Although the Advisory Group has not given this dimension the attention it deserves, some excellent work has been done by the Region in its Vision 2026 work. The document “Towards the Vision: Indicators of Progress” contains suggested indicators that could be used for most of the goals related to improved social/cultural (and other dimensions of) sustainability.

- 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.

3 Advice on a Sustainable Infrastructure Strategy

In her October 1, 2004 letter to York Region, Minister Dombrowsky encouraged the Region to pay special attention to “infrastructure planning” as a key component of the Region’s new “overall sustainability initiative”. Indeed it was public controversy over some of the Region’s large scale infrastructure projects that occasioned her letter. Accordingly we have devoted a section of our report to this topic.

The concept of sustainable infrastructure is relatively new but of growing importance in civil engineering education, research and application. For example, the National Research Council of Canada has established a “Centre for Sustainable Infrastructure Research” in Regina.

The University of Toronto Civil Engineering Department defines Sustainable Infrastructure Engineering as “The design of new infrastructure, and the re-design, rehabilitation, re-use or optimization of existing infrastructure, which is consistent with the principles of urban sustainability and global sustainable development.” Infrastructure must be examined through a triple lens. This requires new thinking, greater ingenuity, and different governance arrangements to allow sustainability-based decision-making.

The result is not to increase costs but to make wiser investments that will yield multiple benefits. In the long run costs should be lowered and waste (of economic, environmental, social and human resources) reduced. This transformation will not happen without leadership, political will, institutional commitment, and improved management and staff capacity.

Greater Cleveland’s sustainability initiative has identified the following principles for sustainable infrastructure:

1. Promote long-term regional sustainable development through the integration of economic, environmental and equity issues and concerns, that:
 - a. improves the economic vitality of the region’s urban cores with particular emphasis on leveraging investments in priority municipal/county/regional economic development programs;
 - b. improves the quality of our region’s natural environments, taking into consideration air, land and water quality; species diversification; habitat preservation; conservation and restoration of resources; and minimization of waste; and
 - c. support the social cohesion of communities and improves the quality of life for all segments of society.
2. Preserve, rehabilitate and/or maintain elements of the existing infrastructure system.
3. Enhance the total regional infrastructure network, comprised of a variety of “upstream” and “downstream” public and private facilities and systems.
4. Pursue “best practices,” ecological considerations, and technological innovations in design, construction and operation.
5. Seek the most favourable cost/benefit ratio and lowest life-cycle costs after fully considering all related economic, environmental and equity issues.

6. Support consensus community, inter-governmental and public/private processes and plans.
7. Ensure that each investment will be maintained, and its benefits sustained, in the long term.

Examples of sustainable infrastructure can be found in many jurisdictions at national and local levels. The Advisory Group's task is to help York Region transform its infrastructure planning and development to fully embrace sustainability. Fortunately York Region already has in place many infrastructure initiatives that can be further developed or enhanced as outlined below.

In 2006, York Region infrastructure master plans will be updated. This provides a significant opportunity to rethink these plans and to integrate them with the Regional Official Plan update.

The Advisory Group identified the following themes that should inform the Infrastructure Master Plans Updates.

Key Themes

Strategic Approach

- It is recognized that a systematic approach to infrastructure is required (i.e. water, wastewater, roads and transit systems).
- Consider infrastructure system options that minimize impacts on the long-term natural heritage system.
- Infrastructure systems and long-term land use plan should be integrated.
- Rethink infrastructure requirements to match intensification and compact development principles.
- Other infrastructure systems need to be considered (i.e. waste disposal, energy, schools etc.)

Master Plan Process

- Master Plans for transportation, water and wastewater should be done in conjunction with land-use planning.
- Master Plans should be the first step in the EA process.
- Plan for the "ultimate" longer growth scenario.
- Master Plans should include a broad public consultation program.
- Master Plans should be endorsed by the Region and the Province.
- Lobby the Province to give status to Master Plans.
- Minimize the number of corridors in order to limit impact on the natural environment.
- Undertake a charrette that integrates environmental, social and economic layers in order to identify potential "infrastructure corridors".

Provincial Infrastructure

- Advocate for a clear Provincial Infrastructure Plan that will set the stage for municipal infrastructure system.
- Need a multi-year Provincial capital investment plan.

- Lobby the Province to re-balance Provincial infrastructure investment to emphasize more sustainable infrastructure (i.e. transit).
- Consider multi-use infrastructure corridors in order to minimize impact on the natural heritage system.

Natural Environment

- A comprehensive natural environment system should be the starting point for planning.
- Consider land-use/infrastructure system alternatives that minimize impact on the natural environment.
- Consider initiatives to increase bio-diversity.
- Establish a financing strategy for Stormwater Pond maintenance.
- Recognize that continuous transit/road collectors will require more sensitive stream crossings.
- Invest in minimizing the impact of environmental corridor crossing.
- Each project should develop appropriate weighting to better integrate environmental, economic and community considerations.
- Identify “zones of exclusion” that represents high priority environmental areas.

Standards & Techniques

- Infrastructure standards may have to be revisited due to climate change implications.
- Legislative standards (i.e. building codes) may have to be revised to promote innovation.
- State of the art innovations need to be considered for dealing with urban runoff (e.g. stormwater retrofits, floating islands, permeability standards).
- Reduce greenhouse gas emissions through green infrastructure design.

Public Awareness and Education

- Develop public consultation programs that stress Regional commitment to protecting existing natural environmental areas while servicing growth.
- Foster a full open dialogue with the public.
- Clarify how infrastructure and land-use are related in order to avoid public mistrust.
- Clarify what development is permitted and not permitted in the Oak Ridges Moraine and Greenbelt.

4 Conclusions and Next Steps

York Region is bound to experience significant growth over the next 25 years, as it has over the past 25 years. The *Towards Sustainability in York Region Advisory Group* accepts that growth is inevitable. There may be some debate about how much growth is desirable, and whether a growth target should lead or follow from an assessment of its sustainability impacts on the Region. The Advisory Group is unanimous, however, in recommending that future growth in the Region must be managed according to sustainability principles in order to maintain, and more importantly, to better the quality of life for the Region's residents and employees for future generations.

The main objective of the *Towards Sustainability in York Region (TSYR) Advisory Group* is to provide infrastructure and land-use planning advice to the Region that integrates the elements of sustainability. The Advisory Group noted that in the past, it was publicly perceived that the Region did not accord the natural environment as high a priority as the economic vitality and healthy communities' components in its infrastructure and land-use projects and decisions. In this respect, it is the goal of TSYR to provide the Region with advice that equally emphasizes economic, social and environmental values at the front-end of Regional processes and decision-making by elevating the importance of environmental goals such as protecting and restoring the Region's natural areas, supporting biodiversity, ensuring clean water and air, and encouraging sustainable production and use of energy.

The Advisory Group also reached agreement on several big picture sustainability principles. Perhaps foremost among these, is the recognition of the need to protect and restore the natural environmental system, and to ensure that development does not undermine the integrity of that system. The emphasis should be on preserving the "quality" of the natural environmental system rather than simply maximizing the quantity of protected areas. This entails looking first at preserving our existing natural heritage features (as set out in provincial legislation to protect the Greenbelt, the Oak Ridges Moraine etc); assessing next the areas that need to be restored to create a linked natural heritage system; and then locating future development accordingly. The Advisory Group also agreed that future development should be based on the principles of intensification and should be compact and transit supportive. Approvals for this type of urban development located within approved growth areas should be expedited. Every effort should be made to match growth in jobs to population growth. Infrastructure must be planned with the long term in view and should be designed to accommodate the "ultimate" long-term growth.

4.1 Leadership and Sustainability Governance

Fortunately, York Region has embarked along a path toward sustainability-based planning. However, the Region's commitment to sustainable development needs more explicit attention and broader application throughout the various policies and practices of the Region.

York Region's capacity for sustainability-based governance must also be strengthened by emphasizing better implementation and stronger sustainable development management system

While we recognize that York Region has already embarked on the path toward sustainability, we are proposing a more systematic and comprehensive approach to this journey. In essence, we recommend that the Region adopt sustainability governance as a core value for both internal decision-making and for its relations with external stakeholders. This in turn will require a reassessment of existing strengths and likely some reorganization and internal capacity building. To be successful, this effort must be championed and led from the top of the organization by the CAO and the Commissioners; and it must enjoy strong support from the Chair and Regional Council.

As with any strategic initiative of this importance, an action plan must be developed that considers goals and targets, time frames, resource needs, responsibilities, as well as metrics and indicators. All Regional level programs should be reviewed to determine where sustainable development considerations could be improved. Similarly Regional Councillors should become more informed on sustainability governance to better allow them to approach the Region's decisions from a sustainability perspective.

One way of defining sustainability is "[informed] conversations about the future." This definition highlights the importance of on-going dialogue involving all key stakeholders, informed (we suggest) by effective consultation and the use of various advisory groups, including a continuing multi-stakeholder advisory group that would meet from time to time with Councillors and Regional officials both to review the Region's progress toward achieving its sustainability commitments and to offer advice on specific issues as requested.

4.2 The Challenge of Collaboration and the Problem of "Scale"

The Advisory Group is well aware that most local sustainability problems "spill over" into adjacent regions and therefore require coordinated action from other jurisdictions. In Canada, coordinating action with other jurisdictions is complicated by the proliferation of local jurisdictions. Even at the regional level, the Greater Toronto Area is comprised of a number of municipalities. Another complicating factor is federalism which divides power between federal and provincial governments, giving formal responsibility for local government to the provinces while leaving some of the key tools in the hands of the federal government. Effective policy coordination is additionally complicated by the division of responsibilities among various ministries and departments at both the provincial and federal level. In light of these challenges, the Advisory Group offers the following observations:

- The dominant theme for effective sustainability planning and action is "partnerships and collaboration", both with the public sector and the private sector;
- York Region has a wide ambit of possible actions it can undertake on its own or in partnership with local groups and organizations in order to advance its sustainability agenda; and,

- Sustainability is less about reaching a specific destination than it is about the process of changing the trajectory of development in order to “bend the curve” toward a more sustainable future.

4.3 Next Steps

Some of the recommendations outlined in this Report could be implemented relatively quickly, but many will require action over the medium to long term. The Advisory Group feels that of all the recommendations proposed in this report, the following 7 represent the key recommendations that should be implemented within a short-term time frame:

1. The Region and its local municipalities, in consultation with the Conservation Authorities, should complete a linked Natural Heritage system that identifies Key Natural Heritage areas to be protected from development and enhanced. The Region should also develop a transportation master plan that respects the integrity of an interconnected Regional Natural Heritage System.
2. The Region’s current growth management review which will update the Regional Official Plan and Master Plans should build on a sustainable development theme. York Region should prepare a set of recommendations for OP amendment to incorporate the Advisory Group’s advice.
3. York Region should consider the establishment of an Office of Progress Towards Sustainability to monitor and provide advice regarding adjustments necessary to achieve OP objectives.
4. York Region should improve Sustainability Monitoring and Reporting (an adaptation and extension of the existing indicator work being carried out for the Vision 2026 project, SOE report etc.) and establish indicators for measuring progress toward each objective in the OP.
5. York Region should strengthen Sustainability Dialogue processes including facilitating informal meetings between stakeholders and the CAO and Chair; establishing working groups or charettes on topics like intensification, biodiversity, natural heritage system requirements, energy etc; and the reconvening of a Sustainability Advisory group periodically to advise the Region on the implementation of these recommendations.
6. York Region should commit itself to becoming a leader in sustainability-based governance and decision-making. This might entail:
 - a. Capacity-building – appropriate forms of training and professional development should be devised for members of Council, Senior Management and Staff;
 - b. Modified decision-making practices to ensure that there is a sustainability support, appropriate tools for “integrated” decision making that incorporates the 3 components of sustainability, and a management system to embed

- appropriate targets and expectations in job descriptions and performance reviews; and,
 - c. A culture shift to encourage “sustainability ingenuity” and continuous learning.
7. Triple bottom-line assessments should be undertaken for the key recommendations of this Advisory Group. Considerations should include timing, funding, and responsibility.

5 Appendix: TSYR Group Members

Michael Garrett - Chief Administrative Officer, Regional Municipality of York - Host

Brian Denney - Chief Administrative Officer, Toronto and Region Conservation Authority

Gayle Wood – Chief Administrative Officer, Lake Simcoe and Region Conservation Authority.

Stephen Dupuis - Executive Vice-President, Greater Toronto Home Builders Association

Wendy Francis - Director of Conservation and Science, Ontario Nature

Neil Rodgers - President, Urban Development Institute.

Rick Smith – Executive Director, Environmental Defence Canada

David V. J. Bell, Ph.D. (Chair/Facilitator) – Consultant; Professor Emeritus, Senior Scholar and Former Dean, Faculty of Environmental Studies, York University

Craig Mather (Coordinator) Consultant; former CAO, TRCA