



Natural Heritage

DISCUSSION PAPER



This discussion paper was prepared to provide context for a new generation in natural heritage protection planning in York Region. York Region has faced significant growth over the past 25 years. This growth will continue and has the potential to place considerable additional pressure on the Region's natural heritage system.

Ensuring a strong, robust natural heritage system integrated into the new communities of York Region, and enhanced and restored in the Region's intensifying urban areas will help ensure the long term health of the system and contribute to a sustainable York Region.

FOREWARD

York Region contains some of the most significant and environmentally sensitive geological landforms in Ontario; the most predominant being the Oak Ridges Moraine. The landscape is composed of a complex geological system which has been shaped by glacial movement, former glacial lakes and river systems, and the underlying bedrock material which has influenced the character of York's natural areas. From the shores of Lake Simcoe to the major valleys of the Humber, Don, Rouge, Black, Holland and Maskinonge Rivers, to the intervening woodlands, York's natural areas are also dependent upon, and contribute to, a complex system of surface and subsurface water, plant and animal communities which go beyond local municipal and regional boundaries.

We know that a robust natural heritage system is key to ensuring the sustainability of York Region. A healthy natural heritage system is fundamental and provides key benefits which can be analysed from a triple bottom line assessment (simultaneous benefit of environmental, social, and economic benefits).



"Natural heritage systems support life and health for people, plants and wildlife. They clean our air and water, regulate flooding and drought, and support our province's biodiversity providing habitat for wildlife, including species at risk. The identification and protection of natural heritage systems can improve Ontarians' quality of life, provide recreation and opportunities to enjoy nature and the outdoors, and encourage sustainable growth. Natural heritage systems also are an important part of the foundation for our rural economies. Many rural communities rely almost entirely on the attractions of their natural heritage assets for their residents' livelihoods."

Ministry of Natural Resources, 2006

Regional efforts to protect and enhance natural heritage have proven to be successful over the past 15 years, but, we know we still have a long way to go. In the face of the Places to Grow and Greenbelt Plans, there is a new context for planning in the Province. As a result of this, the Region will be faced with significant growth pressures within limited "whitebelt" areas remaining outside of the Greenbelt and intensification within our existing urban areas, which has the potential to place enormous pressure on the Region's natural systems in order to accommodate the forecasted population, jobs, and the necessary human services and infrastructure. York Region is committed to planning for and designing this growth better than we have ever done in the past.

Given this, it is time for a new way of thinking about, and protecting our natural heritage system.

¹ Nature Count\$: Health, Wealth, and Southern Ontario's Greenspace, Canadian Urban Institute & Natural Spaces Alliance, 2006, pg. 10

² Nature Count\$: Health, Wealth, and Southern Ontario's Greenspace, Canadian Urban Institute & Natural Spaces Alliance, 2006, pg. 19

The Region is committed to a Sustainable approach to the growth challenges ahead. The newly endorsed draft Sustainability Strategy will be the lens through which new initiatives are examined. As one of the core tenants of sustainability, the health of our natural heritage system is integral to ensuring overall sustainability.

Sustainability is a holistic and cyclical process which requires a continuous re-examination of policies and practices with a goal toward improvement. This Natural Heritage Discussion Paper is ensuring that this process occurs by;

- Examining where we are in the context of natural heritage planning and protection,
- Integrating what we know;
 - o incorporating the new policy context for natural heritage protection and
 - o what we have heard through our consultation process;
- To be able to inform where we are going to ensure successful implementation.

The approach to natural heritage planning is based on these key principles:

- ✎ Ensuring Sustainability of York Region's Natural Heritage System
- ✎ Raising awareness for the importance of Natural Heritage System
- ✎ Creating new and nurture existing partnerships in natural systems planning
- ✎ Integrating natural heritage goals and infrastructure planning, design and construction
- ✎ Identifying action areas for implementation

The purpose of this discussion paper is to raise awareness of the issues related to Natural Heritage protection in light of the growth challenges faced by the Region. Natural Heritage System planning requires the protection remaining areas, and restoration of degraded areas, with the goal of enhancing and strengthening the Natural Heritage System to ensure a sustainable York Region.

I. REVIEWING WHERE WE ARE:

OUR VISION

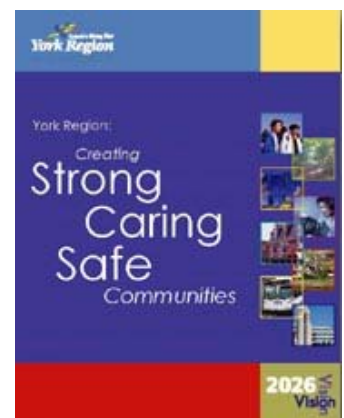
York Region has placed significant emphasis on the identification, protection, restoration and enhancement of the Region's Natural Heritage System through Vision 2026 which supports and promotes this commitment by balancing growth and environment. It encourages the integration of natural heritage values into development in order to ensure well-designed and liveable communities and

VISION 2026 **Goal 2: Enhanced Environment, Culture and Heritage**

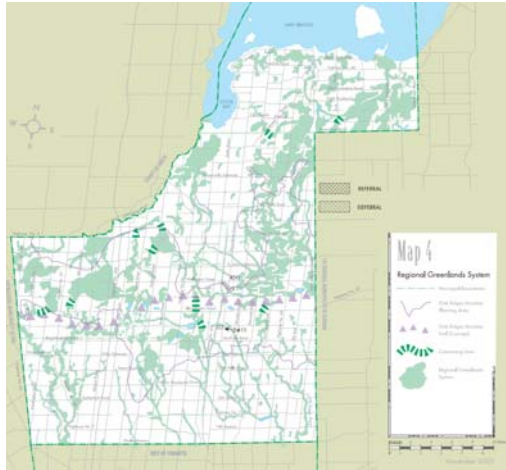
In 2026, York Region residents will continue to value and embrace the Region's unique natural heritage (land, air, water) and cultural heritage by:

- ✎ Securing a Green Region
- ✎ Encouraging Clean Water & Air
- ✎ Promoting Conservation
- ✎ Building Pride in Our Heritage and Culture
- ✎ Sustaining our Agricultural Base

addressing development and the provisions of services in a manner that "residents will continue to value and embrace the Region's unique natural heritage (land, air, water) and cultural heritage". These goals form the foundation of the policies of the Regional Official Plan and are implemented through the Regional Greening Strategy.



TURNING THE VISION INTO POLICY: THE EXISTING GREENLANDS SYSTEM



The policies of the Official Plan are a reflection of the Region's commitment to identifying, protecting, and restoring/enhancing the natural systems and recognizing natural heritage as an important ingredient for York's quality of life and economic prosperity. Section 4 of the Regional Official Plan "Sustainable Natural Environment" identifies natural areas and links them together into a Regional Greenlands System. The Greenlands System was created to identify a linked, sustainable, natural environment system as a permanent resource for the Region. The Regional Greenlands System, is based on the integration of 3 key components:

- ✂ Earth Sciences (geological conditions, slope and the presence of significant landforms);
- ✂ Major valley corridors and aquatic areas (including kettle lakes); and
- ✂ Life science areas including Areas of Natural and Scientific Interest (ANSIs), Environmentally Significant Areas (ESAs) that support important vegetation communities and provide wildlife habitat.

Environmental Policy Areas are also identified in the ROP and include Areas of Natural and Scientific Interest (ANSIs), Environmentally Significant Areas and Wetland Areas. Forest Resource Areas, Air and Water Quality/Quantity are similarly protected through the policies of the Official Plan.

IMPLEMENTING THE VISION: THE REGIONAL GREENING STRATEGY

In order to implement the vision and policies for the natural heritage system, the Greening Strategy was adopted, with a commitment of \$1.4 million dollars annually to ensure its success. Since the approval of the Strategy in 2001, the Region has demonstrated significant successes in natural heritage protection and enhancement. Regional Council adopted the Greening Strategy to provide a context for Regional decision making that affects the natural environment. Responsibilities include program development, implementation and administration of this corporate initiative. Projects are delivered in partnership with other Regional Departments and external stakeholders.



The Greening Strategy's Action Areas:

1. **Information Management:** GIS natural heritage database to ensure information is available to stakeholders and the public
2. **Naturalization and Rehabilitation:** creating and rehabilitating natural areas with partners.
3. **Securement of Priority Greenlands:** is actively pursued through partnerships.
4. **Education and Promotion:** Awareness of the health and economic benefits of our natural heritage is essential.
5. **Regional Operations:** York Region will lead by example.
6. **Legislation:** advance legislation protecting natural heritage at all levels.
7. **Urban Forest:** plays a very significant role greening and will be increased.
8. **Green Partnerships:** Involving all sectors of the York Region community is essential for a successful Greening Strategy.
9. **Monitoring Results:** An annual report is prepared outlining the status of the Greening Strategy initiatives.

OUR SUCCESSES:

- ✂ *The Oak Ridges Moraine: Proposal for the Protection and Management of a Unique Landscape* report prepared with Durham and Peel Regions which called on the Province to protect the Oak Ridges Moraine;
- ✂ Regional Forests totalling 2078 ha (5134 acres);
- ✂ Over half a million trees and shrubs have been planted through rural naturalization initiatives and urban tree planting programs;
- ✂ 560 ha (1388 acres) of lands have been secured through donations, conservation easements, purchases, and other opportunities through high level partnerships with the Nature Conservancy of Canada, the Oak Ridges Moraine Land Trust, the Oak Ridges Moraine Foundation, and others;
- ✂ In 2006 alone, over 100 hectares (250 acres) of key greenlands were secured including the Slokker property in King Township which has secured the first Regional Forest Tract in the western portion of York Region;
- ✂ Nature's Classroom, the Region's Forest Education program has provided education to over 7500 Regional residents;
- ✂ The Corporate Clean Air Task Force (CCATF) was created to oversee the Region's actions towards improved air quality and reduce and monitor Regional Operations on air quality;
- ✂ The Adopt a Stream Crossing Program targets the rehabilitation of 4 to 8 road crossings annually, and in 2006 over 1800 trees and shrubs were planted on 13 sites;
- ✂ York Region contributed to the Rouge Watershed Wetland Creation Project which is creating 25 hectares of new wetlands in the headwaters of the Rouge;
- ✂ Through the York Natural Planting Partnership, 40,000 trees and shrubs were planted in 2006 on 23 hectares with 16 private landowners; and
- ✂ Four local municipal naturalization projects were supported in 2006 resulting in approximately 2000 trees and shrubs being planted on 4 hectares of land.

York Region's successes in Natural Heritage protection and enhancement are significant; however, we are faced with significant challenges ahead. This will require a fresh approach to natural heritage planning to ensure that we continue to work toward achieving ecological sustainability.

II. INTEGRATING WHAT WE KNOW

Growth in York Region

According to the Provincial forecasts contained in the Places to Grow Plan, the Region is expected to have 1.5 million residents, 800,000 jobs, and approximately 500,000 households by 2031. To accompany these forecasts, the *Places to Grow Plan* and the *Greenbelt Plan* have established parameters on where and how this growth will be distributed.

Towards a Sustainable Region: Informing our Decisions through a Sustainability Lens

We understand that the growth in York Region will place significant pressure on our natural, social and economic spheres. The Region has developed the draft **Sustainability Strategy** in order to provide a framework for smarter, better decision making. The strategy will provide a long-term framework for making smarter decisions about growth management and undertaking municipal responsibilities that better integrate the economy, environment and community. The Sustainability Strategy will be the lens through which all corporate initiatives and new policy initiatives will be examined, and will play a coordinating function of compiling all of the Region's sustainability initiatives under one strategic plan. In this way, the Region can better evaluate and strengthen our progress in order to fully realize the Region's impact on sustainability planning. This too, will be the way the Region will be examining natural heritage planning.



A NEW POLICY CONTEXT FOR NATURAL HERITAGE

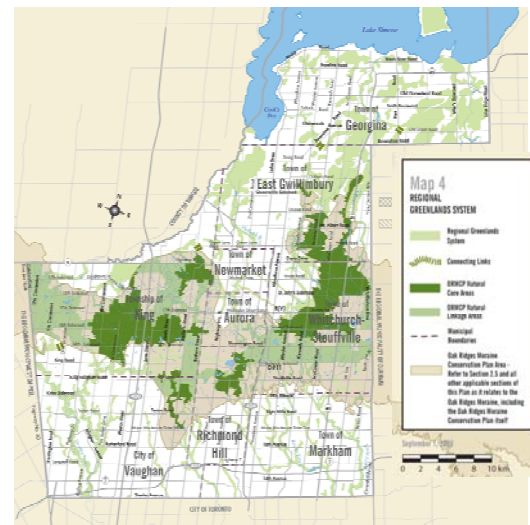
The Provincial Policy Statement was updated in 2005 to reflect the change in understanding of natural heritage as a system, and defines Natural Heritage Systems as “a system made up of natural heritage features and areas, linked by natural corridors which are necessary to maintain biological and geological diversity, natural functions, viable populations of indigenous species and ecosystems. These systems can include lands that have been restored and areas with the potential to be restored to a natural state.”

GREENBELT

In 2005, the Province released the *Greenbelt Plan*, which identifies where urbanization should not occur in order to provide permanent protection to the agricultural land base and the ecological features and functions across the Greater Golden Horseshoe. The Greenbelt encompasses the existing features of the Niagara Escarpment, and the Oak Ridges Moraine, and adds the “Protected Countryside”. Together these areas create a linked system of 1.8 million acres of land. The Greenbelt, including the Oak Ridges Moraine, covers 69% of the Region.

The Region is required to update the Official Plan to conform to the provisions of the Greenbelt Act and Plan. The conformity exercise will occur in concert with the Official Plan review, including Places to Grow conformity.

The Oak Ridges Moraine



The Regional Greenlands System was expanded in 2004 with the passing of ROPA 41 (Oak Ridges Moraine Conformity Amendment) to include those areas of the ORM plan which were designated as Natural Core Area and Natural Linkage Area, increasing the land base of the Greenlands System to 60,174 ha (148,692 acres), which covers 31% of York Region.

CONSERVATION AUTHORITY STRATEGIES

Both the TRCA and the LSRCA are creating natural heritage strategies.

The TRCA's Terrestrial Natural Heritage System Strategy protects and restores a regional system of natural heritage areas to improve biodiversity by increasing the quality and amount of natural heritage cover. The system has been mapped and analysed for current health, and strategic (target) areas have been identified to improve the overall health of the system. The strategy attempts to model the impacts of changing land use patterns on existing natural areas in order to provide a policy response for protection and enhancement of the system.

As a part of the Lake Simcoe Environmental Management Strategy (LSEMS) a natural heritage system for the Lake Simcoe watershed is being created by LSRCA. The study identifies a natural heritage system for the Lake Simcoe watershed based on the Provincial Policy Statement and devises a policy strategy to protect its features and functions.

Common Elements of Natural Heritage Strategies:

- ✎ Systems Approach to natural heritage;
- ✎ Core Areas identified by features and functions;
- ✎ Connection of cores through integrated strategic linkages to form a network of core and corridor areas;
- ✎ Strengthening the system through strategic restoration and enhancement to improve size, shape, and biodiversity; and
- ✎ System is for a range of uses; natural protection and human health and recreation

Protecting Lake Simcoe

The LSEMS (Lake Simcoe Environmental Management Strategy) is a program to improve and protect the health of the Lake Simcoe watershed ecosystem and improve associated recreational opportunities by: restoring a self sustaining coldwater fishery; improving water quality, reducing phosphorus loads to Lake Simcoe; and protecting natural heritage features and functions.

To ensure the continued health of the Lake the Assimilative Capacity Study (ACS) of Lake Simcoe has developed specific scientific modeling, which can support and assist municipalities in predicting the impacts of land use, through development scenarios on the water quality of Lake Simcoe.

Together, these initiatives are working to ensure the health of Lake Simcoe is protected and enhanced.

GATHERING PUBLIC OPINION ON NATURAL HERITAGE PROTECTION

The Region has been actively encouraging dialogue around growth, sustainability, and natural heritage issues through public engagement and consultation. The **Towards Sustainability in York Region (TSYR) Advisory Group**, which was established to provide advice to York Region on how to make our Regional Official Plan more sustainable and provide suggestions for a Sustainable Infrastructure Strategy made some key recommendations for natural heritage protection including:

- ✧ Commit to becoming a leader in sustainability-based governance and decision making;
- ✧ **Complete a linked Natural Heritage System** in consultation with local municipalities and conservation authorities that identifies Key Natural Heritage areas to be protected from development and enhanced;
- ✧ Develop a transportation master plan which respects the integrity of an interconnected natural heritage system.

We have heard from our partners and stakeholders that although we have had significant successes in natural heritage planning and protection, we need to be doing more to protect our natural heritage in the face of the growth that the Region will be facing in the next 25 years.

The discussion on growth management, new communities and natural heritage protection is not over. The Region will be continuing this discussion throughout 2007 and 2008 to ensure that that we are getting it right. This dialogue is an integral part of the re-evaluation process for continuous improvement.

Public Consultation in 2006 & 2007

✧ <i>Towards a Sustainable Region Symposium</i>	March 2006
✧ <i>Town Hall Meetings</i>	March/April 2006
✧ <i>Special Interest Group Meetings</i>	April/May 2006
✧ <i>Natural Heritage Workshop</i>	November 2006
✧ <i>New Communities Workshop</i>	November 2006
✧ <i>Town Hall & Stakeholder Meetings</i>	May 2007
✧ <i>Infrastructure Master Plans</i>	September 2007

Summary of Key Messages

- ✧ *Natural heritage protection should be updated, based on a systems approach of linked core areas which are connected beyond York Region (Toronto, Peel, Durham, Simcoe);*
- ✧ *There needs to be a better integration with Natural Heritage System features, function, and goals for the system with infrastructure planning;*
- ✧ *We need to have measurable targets for the system; limits to impacts that the system can withstand (carrying capacity); a simple approach to implement the targets, annual reporting; and*
- ✧ *The treatment of the natural heritage system within the new (whitebelt) communities of the Region is going to be critical in determining the overall success and health of the system.*

III. TO INFORM WHERE WE ARE GOING:

Based on where we are and what we know, it is time to chart a fresh new path for natural heritage planning for York Region. This will be based on 8 action items:

1. Update our Natural Heritage System
2. Incorporate The Greenbelt Plan Into The Regional Official Plan
3. Make Connections in New Communities.
4. Restore and Strengthen the Natural Heritage System
5. Adopt a New Approach to Infrastructure.
6. Establish a Regional Trail Network.
7. Advance the Greening Strategy.
8. Continued Awareness and Dialogue.

ACTION 1: UPDATE OUR NATURAL HERITAGE SYSTEM

It is time to create an updated linked natural heritage system for York Region. The Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and Natural Heritage Strategies of the LSRCA and TRCA all share common principles for natural heritage system creation; to create a system of linked core areas. This concept is central to landscape and conservation ecology. These core and corridor areas provide an interconnected network of natural habitats³. Such a system has been noted to be essential to the long term survival and sustainability of biological diversity.⁴

"A natural heritage systems approach is founded on the premise that individual areas and features have strong ecological ties to other features and areas across the landscape... It is the recognition that various natural features work together as a natural system, just as various organs in the human body work together to keep us functioning."

Ministry of Natural Resources, 2006

The Region's updated Natural Heritage System should consist of an integrated network of core natural areas which are strategically linked to optimize the quality of the overall system.⁵ We need to protect remaining rare habitats, undertake habitat restoration to enhance these core areas and establish habitat connections. The Natural Heritage System needs to be fully integrated into the planned growth for York Region, in order for it to be woven into the landscape fabric of the future Region.

CORES ARE THE FOUNDATION

The foundations for the system are the core areas or areas of high conservation values, and the greatest concentrations of natural heritage features. These areas should receive top priority protection from development or site alteration, with appropriate **ecological buffers** to ensure impacts from adjacent uses are mitigated.

The natural heritage system for York Region would identify core areas to establish the foundations of the system some of which have been identified through Provincial plans such as the Oak Ridges Moraine Conservation Plan, and the Provincial Policy Statement. They could include features such as:

Focus on the Cores:



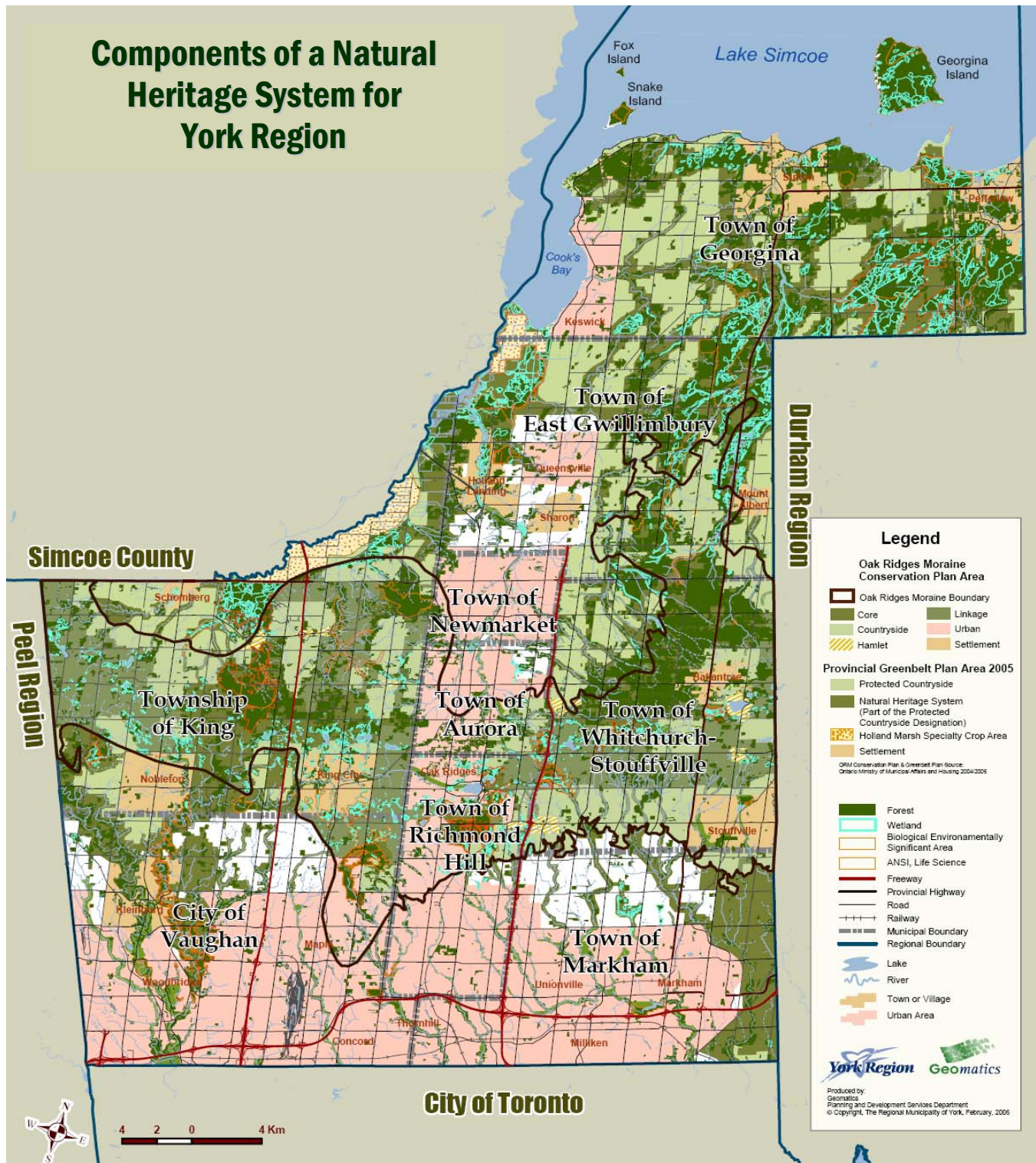
The largest natural environment park in York Region, Rouge Park is a key core natural heritage feature. At over 4672 hectares (2646 ha in York Region) Rouge Park contains vast wetlands, sandy beaches, meadows and upland woodlands; it is a reservoir for biodiversity. Such significant areas play a key role in York Region's future natural heritage system.

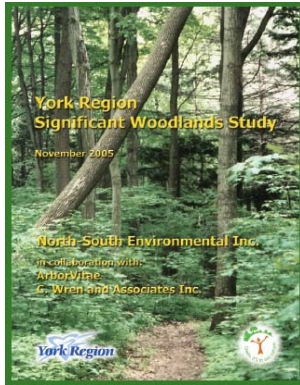
³ Cores and Corridors: The Importance of a Green System in Southern Ontario. Federation of Ontario Naturalists

⁴ Cores and Corridors: The Importance of a Green System in Southern Ontario. Federation of Ontario Naturalists

⁵ Riley, J.L and P. Mohr (1994). The Natural Heritage of Southern Ontario's Settled Landscapes. Ontario Ministry of Natural Resources.

-  Natural Core Area within the Oak Ridges Moraine
-  Areas of Natural and Scientific Interest (Provincial and Regional)
-  Environmentally Significant Areas (ESAs)
-  Significant Woodlands
-  Wetlands
-  Valleylands
-  Fish and Wildlife Habitat
-  Waterbodies, watercourses
-  Species at Risk
-  Lands owned by TRCA and LSRCA





The updated natural heritage system for York Region will incorporate the findings of the **Significant Woodlands Study** which was completed in 2005. The study identified significant woodlands throughout the Region through a scientific analysis by creating criteria for identifying significant woodlands, updating the woodland information based on the identified criteria, and identifying opportunities for restoration and stewardship of regenerated and/or new woodlands in York Region.

Other **natural heritage inventories** are currently underway to ensure that natural heritage data throughout the Region is up-to-date. These include new and updated wetland evaluations, and identification of priority sites in the Rouge and Humber watersheds for wetland restoration. Special surveys within the Regional forests to inventory rare plants and animals will also be

undertaken. These data updates serve to ensure that natural heritage information is current for use within both Regional Official Plan updates and the Greening Strategy initiatives.

MAKING THE CONNECTIONS

The Core areas must be interconnected by natural or restored corridors in order to provide for a system that facilitates the movement of animals, plant dispersion, and provide opportunities for pathways for walking and cycling. Woodlands, wetlands, stream corridors and habitats of significance are some of the features that are fundamental components of the cores and linkages in natural heritage systems.

In developing a natural heritage system, we need to examine the landscape features, both natural (river valleys, woodlands, old fields) and non-natural (rights-of-way, hedgerows, utility corridors) which may be potential elements of connecting corridors and linkages.

We will need to examine the appropriate widths, locations, and uses of linkage areas to optimize the benefits to the system.

STRENGTHENING THE SYSTEM

The entire system should be strengthened through the application of ecological buffers and strategic restoration and enhancement. The gaps within the core areas can be enhanced to ensure terrestrial species diversity and core habitat function are maintained or created.

Where natural corridors are fragmented on the landscapes areas, it may not be possible to identify connected natural heritage systems; however, these areas can become a part of a connected system by restoring linkages to other natural areas over time.



The critical element will be to evaluate where the most beneficial locations for the linkages are, and identify them through the planning process to ensure that they are preserved corridors which can be targeted for restoration in the future. Priority will be placed on including as much of the remaining natural area as possible within the system, and secondly, lands which can be identified for restoration and rehabilitation.

The natural heritage system may include some important natural areas that cannot be directly connected to other areas in the system. It will be essential to ensure that these areas are robust enough to exist in a healthy state in the future.

The appropriate application of ecological buffers and widths must be examined. Both the Oak Ridges Moraine Conservation Plan and the Greenbelt Plan have established 30m ecological buffers (called Minimum Vegetation Protection Zones) from key natural heritage features and key hydrologic features

which are identified in the respective plans. Within the urban communities, a discussion of appropriate ecological buffers is necessary for ensuring a strong system region-wide.

SECURING THE SYSTEM

In order to ensure the successful implementation of the new natural heritage system, it is critical to create new **partnerships** and nurture the existing ones to ensure continued successes in natural heritage. York Region currently has established many partnerships in meeting natural heritage goals. Establishing and maintaining partnerships will contribute significantly to our effective use of resources, as well as the sharing of expertise and experiences. Coordinated direction and efforts of organizations – public, private and non-profit – will lead to positive natural heritage results across the Region.

We need to investigate using creative **implementation tools** to provide for the successful execution of the goals of the system through both the land use planning process and through private land stewardship.

EXISTING PARTNERSHIPS



Area Municipalities
York Environmental Stewardship
Ontario Streams
Environmental Earth Angels
Nature Conservancy of Canada
Oak Ridges Moraine Land Trust
TRCA
LSRCA
The Ministry of Natural Resources
University of Toronto
Oak Ridges Moraine Foundation
Natural Resources Canada
GTA Clean Air Committee

In order to ensure implementation of the natural heritage system **private land stewardship incentives and assistance** for the lands within the Greenbelt and the Oak Ridges Moraine will also be examined. These could include providing assistance for tree planting or creation of a Managed Forest Plan in order to utilize the Ontario Managed Forest Tax Incentive Program (MFTIP).

Financial tools will also be needed to ensure that the system is implemented to ensure financial stability. Development charges may be investigated as an option for implementing natural heritage related projects such as trail development in the urban areas.

York Region has been extremely successful at leveraging funding for the Greening Strategy for partnership projects. In 2006, the leverages were at a 5:1 ratio of Regional funding of \$1.4 million to partner funding. We need to examine continued opportunities to maximize Regional dollars through new and continued partnerships.

All public and private sector funding opportunities will be examined to ensure full utilization of any programs providing funding which would assist in the securement, protection, or restoration/enhancement of the natural heritage system. Public Sector funding is available through all levels of government, and government agencies. We need to invest in our natural heritage system, and encourage the Federal and Provincial government to do the same.

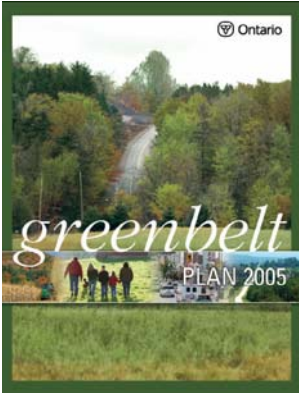
THE UPDATED NATURAL HERITAGE SYSTEM

The updated natural heritage system for York Region will build on the Greenlands System in the Regional Official Plan (ROP); connect the policies of the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and the Provincial Policy Statement to establish a unified natural heritage system within York Region, respecting the varying policy contexts for protection.

Natural heritage systems can also be used to monitor cumulative environmental effects and assess appropriate levels of landscape change and associated impacts.⁶ Once the system is formulated, it will be used to assess the various growth management scenarios and integrated into the infrastructure master plans in order to determine the most appropriate scenario for implementation.

⁶ Riley, J.L and P. Mohr (1994). *The Natural Heritage of Southern Ontario's Settled Landscapes*. Ontario Ministry of Natural Resources.

ACTION 2: INCORPORATE THE GREENBELT PLAN INTO THE REGIONAL OFFICIAL PLAN



Section 9 of the *Greenbelt Act, 2005* requires municipalities to bring their Official Plans into conformity with the Greenbelt Plan. However, no deadline for the passage of conformity amendments was established in the *Act* nor a procedure for Ministerial approval of the conformity amendments approved.

Regional staff in consultation with area municipalities will undertake the preparation of a work plan and timetable for addressing conformity. The conformity official plan amendment process for the Greenbelt Plan will be occurring in concert with the conformity process for the *Places to Grow Act* and the Growth Plan for the Greater Golden Horseshoe. This process will require an update to the policies of the Regional Official Plan to reflect the content of the Plan, as well as mapping amendments which will reflect the natural and hydrological features identified for protection by the Greenbelt Plan in addition to designations. It is expected that this amendment

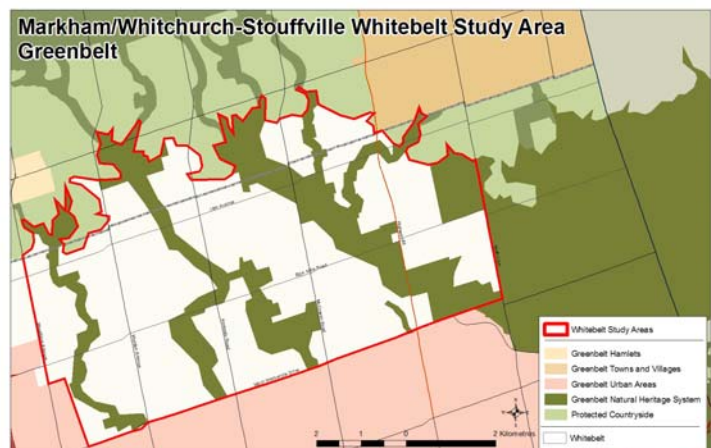
process will be initiated in the Fall of 2007, and proceed throughout 2008.

The Greenbelt conformity process will satisfy one of the many “layers” of the updated natural heritage system for York Region, building on the Oak Ridges Moraine conformity.

ACTION 3: MAKE CONNECTIONS IN NEW COMMUNITIES

York Region must devise an innovative approach to developing a natural heritage system within the whitebelt areas, and complementary policies to ensure its successful implementation.

The whitebelt areas within the Region are connected to the surrounding natural heritage systems created by the Oak Ridges Moraine and the Greenbelt. It will be critical to ensure a linkage between these areas to ensure a fully connected system. This will be implemented through collaboration with affected area municipalities and will attempt to create a sustainable balance between natural heritage, community building and economic objectives.



We need to explore all available planning tools to ensure successful implementation. These could include targeting elements of the system for priority securement, identify areas of restoration and enhancement and ensure policies are in place to secure implementation through the development process. Through the land use planning process, lands contributing to the natural heritage system can be secured and enhanced through subdivision plan or site plan.

The Natural Heritage System in the Whitebelt will:

- ✎ Identify the system in the white belt for protection (including the cores and the linkages);

- ✓ Target key elements of the system for securement;
- ✓ Strategically identify areas for enhancement/restoration to maximize the quality of the entire system;
- ✓ Ensure that policies are in place to implement the goals of the system; and
- ✓ Involve extensive consultation on this strategy with our implementation partners and stakeholders.

The successful implementation of the natural heritage system through the whitebelt areas will be key in creating healthy, liveable new communities.

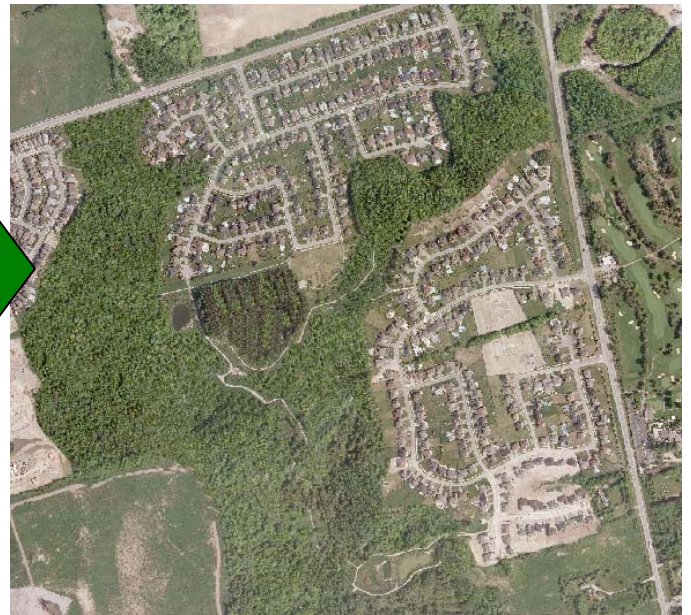
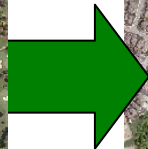
ACTION 4: RESTORE AND STRENGTHEN THE NATURAL HERITAGE SYSTEM

The natural heritage system as it exists today is fragmented, and in some cases in poor ecological condition. The updated natural heritage system will identify strategic areas for enhancement and restoration which would have the most positive impact on the system.

Strengthen the core areas to ensure that the foundations of the system are strong.



CORE AREA BEFORE ENHANCEMENT



CORE AREA AFTER ENHANCEMENT

Corridors, both natural and non-natural, will be examined for their **enhancement potential** to ensure that they fully function as connecting links of the system.



Increase natural cover through the existing urban areas to intensify urban canopy cover, and meet targets for natural cover. The Regional Official Plan has a target of forest cover of 25%. The Region is continuing to work toward this target and provide direction for the strategic enhancement of the forest cover throughout the Region. Specific examination will be given to the existing urban areas to strengthen the system as it exists within the often constrained and limited land base set aside for natural heritage within the urban areas. These areas will be intensifying through the implementation of the Growth Plan, and therefore priority should also be given to intensifying the natural heritage system within these areas.

Strategic direction will be provided on priority areas for enhancement and restoration within both the existing urban areas, and throughout the entire system to optimize natural heritage system health.

ACTION 5: ADOPT A NEW APPROACH TO INFRASTRUCTURE

New infrastructure will be needed to accommodate the growth in the Region. This infrastructure needs to be coordinated and located in a way that minimizes impacts on the natural system and the social fabric. The Region is taking a new approach to infrastructure planning that protects and enhances the Natural Heritage System. This will be aided by applying best practices in planning, innovation in design and construction and continued consultation with stakeholders.

We have heard loud and clear that we need a new approach to infrastructure planning, design, and construction which has a genuine connection to the natural heritage system with a goal to minimizing, mitigating and monitoring impacts, and to examine opportunities where infrastructure projects can be used as a catalyst to protect and enhance the natural heritage system. We need to examine the opportunities to apply best practices in planning, innovation in design and construction of Regional infrastructure.

PLANNING

The Region is currently undertaking Infrastructure Master Plans for Water and Wastewater, Transportation, and Pedestrian and Cycling which are being undertaken concurrently with our Growth Management Plan to ensure an integrated process and are developing Sustainability Principles. These principles will be based on the Region's Sustainability Strategy to ensure that the Master Plans implement the sustainable vision for the future growth in York Region. The updated natural heritage system will form the basis for analysing infrastructure options for the Transportation Master Plan and the Water and Wastewater Master Plan.

Both the Transportations Master Plan and the Water and Wastewater Master Plan are reviewing sustainable infrastructure best practices from other jurisdictions to inform the planning, design, and implementation options for the master plans.



4 R Approach to Sustainable Transportation:

1. **R**educe the need to travel: growth management and better land uses
2. **A**lternative modes: policies and support infrastructure and improve services
3. **P**ublic **T**Ransit (& School Bussing): build infrastructure and improve services
4. **O**ptimize **R**oads: maximize/optimize existing capacity and expand if necessary.



4 R Approach to Water & Wastewater :

1. **R**estrict the waste consumption rate by intensification
2. **R**educe water consumption by enhancing the Water for Tomorrow program
3. **R**ecover the capacity by reducing infiltration/inflow in sanitary pipes and water leakage
4. **N**ew **u**Rban Infrastructure by applying innovative technologies in building more efficient infrastructure.

The Master Plans follow the Municipal Class Environmental Assessment master planning process in order to better evaluate the economic, social and environmental impacts of infrastructure projects. Master Plans are long range plans that integrate infrastructure requirements for existing and future land uses with environmental assessment principles. These plans examine the entire infrastructure system as a group of related projects in order to strategically and holistically plan for the future infrastructure needs of the Region. This approach recognizes that there are benefits to the process when long range comprehensive studies are undertaken for projects that have some common elements.



DESIGN

Infrastructure design should protect, enhance, and restore the features and functions of the natural heritage system, and where appropriate, provide opportunities to enjoy the system. Infrastructure designs can be aligned to natural heritage goals and be sensitive to the natural heritage context in terms of the protection, and enhancement/ restoration of the natural heritage system including ensuring the system is connected.



CONSTRUCTION

Construction techniques can be examined which minimize impact to the natural heritage system as a first principle, and ensure that construction is sensitive to the features and functions of the system.

Communities need to be designed and constructed in a manner that maximizes the full potential of infrastructure in terms of utility and accessibility and is supportive of sustainable infrastructure goals and principles.

INFRASTRUCTURE SUCCESSES: There have been key successes in the integration of infrastructure projects with natural heritage goals. These successes need to be expanded through the next phase of growth in York Region.

- The 2002 Transportation Master Plan was awarded the Transportation Association of Canada's Sustainable Urban Transportation Award in recognition of its integration of land use and transportation growth management policies.
- Transit expansions to Viva and YRT
- Smart Commute Initiative (carpooling, incentives for transit/bike users, alternative work arrangements, promotion of alternative modes)
- Pedestrian and Cycling Master Plan
- ITS (Intelligent Transportation System) Strategic Plan
- Context Sensitive Road Designs (eg. St. John's Sideroad)
- Infiltration/inflow Monitoring and Reduction Program
- Creation of Transit Oriented Development Guidelines (2006)



- ◆ Currently 20.33 million litres of sustained water savings per day;
- ◆ Reduction of 21,367 tonnes per year of greenhouse gas emissions;
- ◆ Over 106,000 low-flow showerheads installed;
- ◆ Over 245,000 early-closing toilet flappers installed;
- ◆ Sixty industrial/institutional water audits completed; and
- ◆ Over 1,800 km of municipal watermain tested for leakage.



ACTION 6: ESTABLISH A REGIONAL TRAIL NETWORK

Hiking and cycling are among some of the most popular and fastest growing activities for residents of York Region. People are recognizing the importance of natural heritage experiences to their quality of life and are associating their measure of fitness and improved health with active recreation and active transportation.

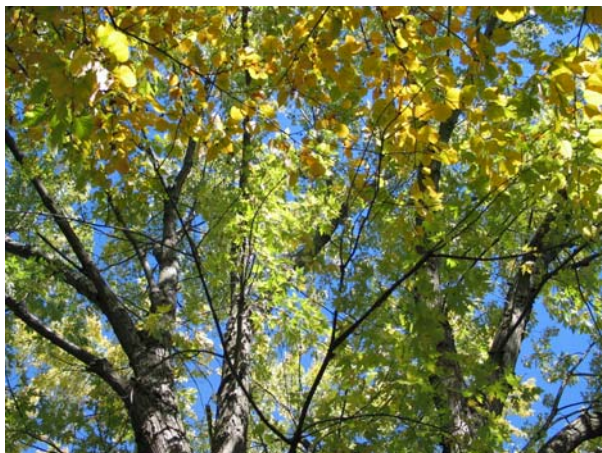
A regional trail system that connects local municipal trail systems, provides residents with the opportunity to experience the natural heritage system throughout York Region. The Region currently promotes public use of these amenities through a number of different programs including the “Take a Walk Through the Forest” program that includes hikes led by naturalists and others as well as the creation of the “Take A Hike Trail Guide” that was developed by the Region in association with Local Municipalities and Conservation Authorities.

In recognition of these important connections between health, and liveable communities, the Region will undertake a study to define a Regional Trail connected through the Region’s Natural Heritage System, and to existing regional and inter-regional trails. This study will determine role of the Region in regional trail planning and development, develop a set of objectives to guide the study as well as appropriate trail route selection criteria for new trails; and identify potential additions/improvements to the existing regional trail system.



ACTION 7: ADVANCE THE GREENING STRATEGY

The Greening strategy is entering its 6th year. Its successes are impressive and have been key in implementing the vision and the policies associated with natural heritage protection and enhancement. As we are re-evaluating our approach to natural heritage protection and planning, it is time to breathe new life into the Greening Strategy.



The Greening Strategy will be reviewed and overhauled by:

- ✓ Further defining the strategy by setting goals and objectives;
- ✓ Establishing targets and specific measurable deliverables;
- ✓ Expanding and improving implementation opportunities through partnerships and sustainable funding arrangements; and
- ✓ Reviewing the current financial structure to ensure financial sustainability.

The updated natural heritage system will also be used to advance the Greening Strategy by targeting key restoration areas for enhancement of the entire system, private land stewardship initiatives, and further refining securement priorities within the updated system.

ACTION 8: CONTINUED AWARENESS AND DIALOGUE

To build on the stakeholder consultation which has already occurred throughout the Growth Management, we will be continuing to consult with our stakeholders throughout the process of creating our natural heritage system and throughout conformity process for Places to Grow and the Greenbelt Plan.

The challenges faced with natural heritage protection in the context of growth will require the continued education and engagement of our public and stakeholders. Awareness of the value and benefits of our natural resources is an essential factor towards securing a healthy natural heritage system for future generations.

Phase 2 of the Growth Management Public Engagement will occur in May 2007. Comments on this paper and all Planning for Tomorrow initiatives are welcome through York Region's website at www.york.ca (click on the "Planning for Tomorrow" icon on the main page), or in writing to e-mail futureyork@york.ca or:

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Developing sustainable communities in York Region is dependent on the integration of Sustainable Natural Environment, Healthy Communities and Economic Vitality. A robust natural heritage system is an integral component of the future of York Region's communities. We are committed to implementing an updated natural heritage system for the Region which will be connected through the whitebelt and enhanced through the intensifying urban areas, and fully integrated into infrastructure planning, design, and construction.

This paper is intended to stimulate discussion around natural heritage issues in York Region. We encourage your input on these issues and respectfully request that all comments on this discussion paper be provided by June 15, 2007.