

Natural Heritage Strategic Directions Final

January 16, 2008



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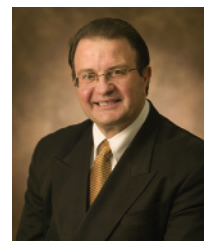
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A Message from York Regional Council

York Regional Council is pleased to present the *Natural Heritage Strategic Directions Paper*. This paper is based on stakeholder responses to a June 2007 discussion document on updating our natural heritage system. Thanks to stakeholders' ideas and input, we have this strategic directions paper to guide us in updating York Region's natural heritage plan.

Through the consultation process, our stakeholders reinforced the importance of the eight action areas identified for implementation. Protecting and restoring protected areas in the Oak Ridges Moraine and the Greenbelt is a key part of the strategy. These are fundamental building blocks of a Regional natural heritage system that requires careful stewardship.

Our strategic directions include updating York Region's existing Greenlands system to incorporate the provincial Greenbelt Plan and creating a linked system of green areas and corridors as well as a Regional trail network. We will coordinate a Regional strategy with existing local strategies and we will work with local municipalities and conservation authorities.

York Regional Council will continue to invest in our green infrastructure. As York Region continues to grow, we will integrate our natural heritage system into new and existing communities in York Region.

A strong, robust, natural heritage system will make our communities more liveable and our residents healthier. In turn, this helps us attract the best and brightest minds whose innovative leadership will make our economy more competitive and sustainable.

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

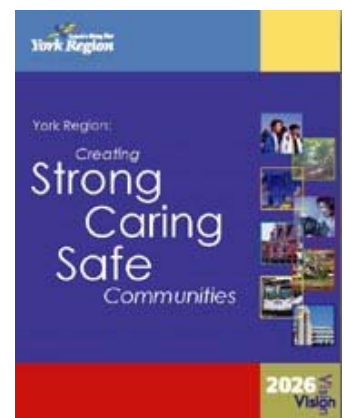
York Region has placed significant emphasis on the identification, protection, restoration and enhancement of the Region's Natural Heritage System through Vision 2026 which supports and promotes this commitment by balancing growth and environment. It encourages the integration of natural heritage values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

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

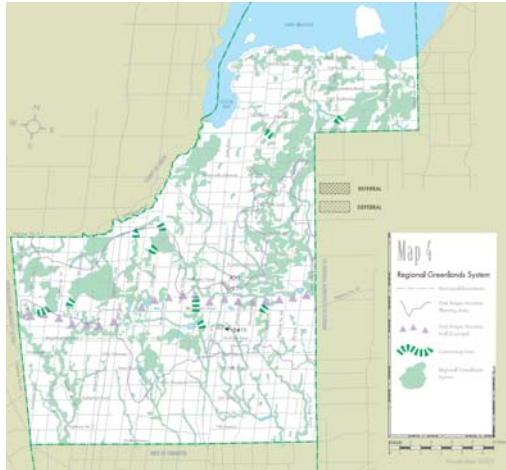
In 2026, York Region residents will continue to value and embrace the Region's unique natural heritage (land, air, water) and cultural heritage by:

- ✎ 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 adopted a **Sustainability Strategy** in order to provide a framework for smarter, better decision making. The strategy provides 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.



The following action areas in the Sustainability Strategy speak directly to natural heritage:

- ❖ Identify and adopt an updated linked natural heritage system for York Region in collaboration with the stakeholders, area municipalities and conservation authorities.
- ❖ Update the Greening Strategy and Land Securement Initiative for York Region based on sustainability values.
- ❖ Review the Regional forest cover target of 25% in the context of the updates to the Greening Strategy, Natural Heritage System and Regional Official Plan.
- ❖ Investigate and adopt principles for sustainable green communities in order to create more liveable, energy efficient communities with smaller ecological footprints.
- ❖ Continue street tree and reforestation programs to increase green cover in the Region.

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.

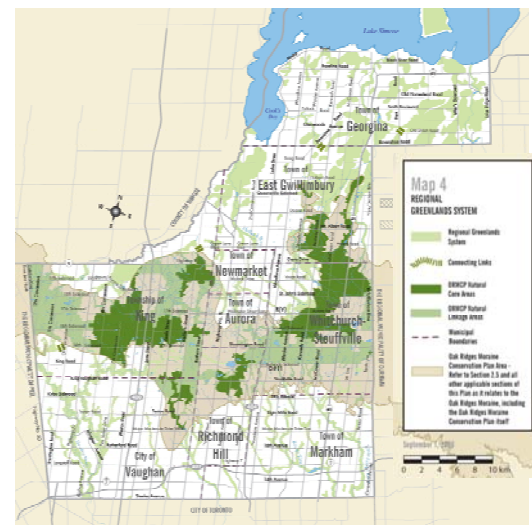
The Region is required to update the Official Plan to conform to the provisions of the Greenbelt Act and Plan. The conformity exercise will occur in concert with the Official Plan review, including Places to Grow conformity.

CONSERVATION AUTHORITY STRATEGIES

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

The TRCA's Terrestrial Natural Heritage System Strategy proposes the protection and restoration of 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.

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.

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

As a part of the Lake Simcoe Environmental Management Strategy (LSEMS) a natural heritage system for the Lake Simcoe watershed has been identified 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.

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.

Public Consultation in 2006 & 2007 Natural Heritage Discussion Paper Consultation

✓ Towards a Sustainable Region Symposium	March 2006
✓ Town Hall Meetings	March/April 2006
✓ Special Interest Group Meetings	April/May 2006
✓ Natural Heritage Workshop	November 2006
✓ New Communities Workshop	November 2006
✓ Town Hall & Stakeholder Meetings	May 2007
✓ BILD York Region Chapter Consultation	September 17, 2007
✓ Environmental Stakeholders Growth Management/ Natural Heritage Discussion Paper Consultation	September 27, 2007
✓ Joint focus group on sustainability strategy, natural heritage discussion paper and infrastructure master plan update	October 9, 2007
✓ Infrastructure Master Plans	November 2007

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.

Summary of Key Messages from Natural Heritage Discussion Paper Consultation

- ❖ *Linked Natural Heritage System is strongly supported*
- ❖ *Work with local municipalities and conservation authorities to develop the system*
- ❖ *Coordinate the Regional Strategy with Existing Local Natural Heritage Strategies*
- ❖ *Recognize the relationship between Natural Heritage and Growth Management*
- ❖ *Regional Trail Network is highly supported*
- ❖ *Invest in Green Infrastructure similar to investment in hard infrastructure such as transit and roads.*

III. TO INFORM WHERE WE ARE GOING:

The 8 Action Areas identified in the *Natural Heritage Discussion Paper* and are the key implementation areas for ensuring a comprehensive strategy for protecting and enhancing the Region's natural heritage. The action areas are intended to take York Region to the next level in Natural Heritage planning and protection. The following provides a discussion of each of the action areas, and strategic direction on the implementation, next steps, timing, and deliverables.

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

An updated linked natural heritage system will be created for York Region. The Oak Ridges Moraine Conservation Plan, the Greenbelt Plan, and Natural Heritage Strategies of the LSRCA and TRCA are 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

The Region's updated Natural Heritage System will 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

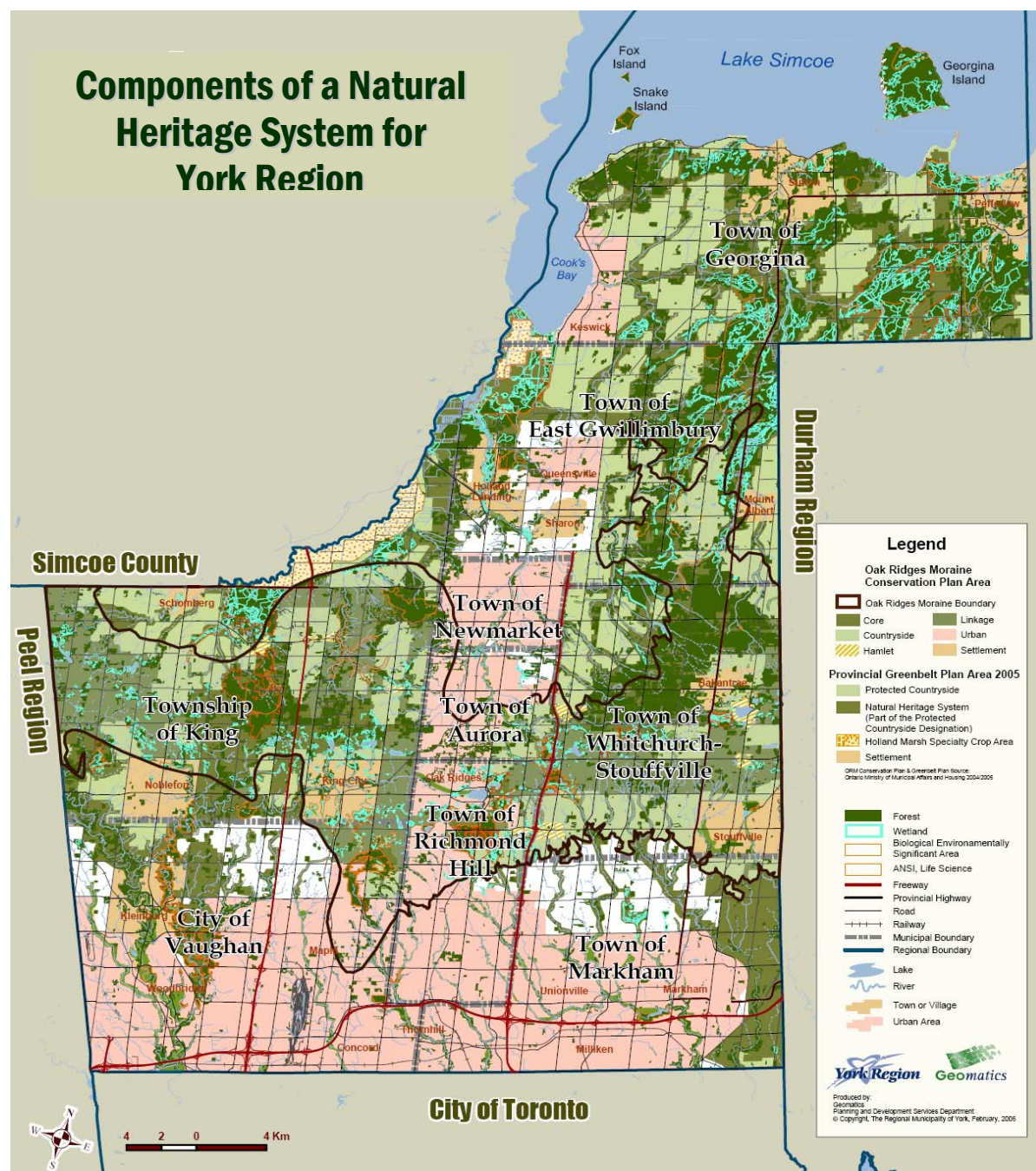
³ *Cores and Corridors: The Importance of a Green System in Southern Ontario. Federation of Ontario Naturalists*

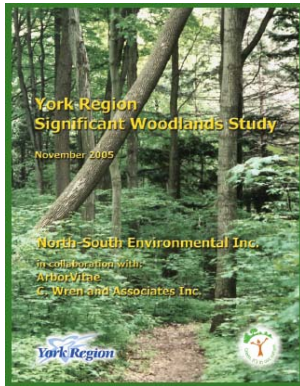
⁴ *Cores and Corridors: The Importance of a Green System in Southern Ontario. Federation of Ontario Naturalists*

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

Ridges Moraine Conservation Plan, and the Provincial Policy Statement. They could include features such as:

- ✂ Natural Core Area within the Oak Ridges Moraine
- ✂ Areas of Natural and Scientific Interest (Provincial and Regional)
- ✂ Environmentally Significant Areas (ESAs)
- ✂ Significant Woodlands
- ✂ Features identified by the *Oak Ridges Moraine Conservation Plan* and *Greenbelt Plan*.
- ✂ Wetlands
- ✂ Valleylands
- ✂ Fish and Wildlife Habitat
- ✂ Waterbodies, watercourses
- ✂ Species at Risk
- ✂ Lands owned by TRCA and LSRCA, and natural heritage areas owned by the Local Municipalities





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 will 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 be examining 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.

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 will be investigating 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 will 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.

Action Area #1 Next Steps

Regional staff have been working with LSRCA and the TRCA on their identified Natural Heritage Systems and the implementation of these systems through the Region's natural heritage strategy. Of consideration

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

to the implementation of these systems are the following: connection to Regional interests and priorities, whitebelt community building considerations, and ensuring a connected system.

Regional staff have also been working closely with the local municipalities who are currently updating their natural heritage systems to ensure coordination. In particular, Markham and East Gwillimbury are advanced in their work and staff have been actively involved in their strategies.

The proposed updated Regional Natural Heritage System will have 3 components and corresponding policies;

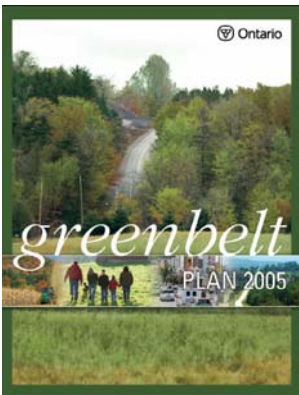
1. Greenbelt/Oak Ridges Moraine
2. Whitebelt
3. Existing Urban Areas

The system will be mapped and a draft system will be presented to Planning and Economic Development Committee in Spring 2008 for public comment.

Timing and Deliverables:

- ❖ Draft system for review and consultation Spring 2008
- ❖ Consultation on draft system Spring 2008
- ❖ Refinements to system Summer/Fall 2008
- ❖ Adoption of Updated Regional Natural Heritage System Fall/Winter 2008

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 Area #2 Next Steps

Staff will be reporting on the preliminary work plan for Greenbelt conformity early in 2008 at Planning and Economic Development Committee. This report provides a time frame and process for conformity and consultation with the local municipalities and the public.

There are 3 main background studies which inform the Greenbelt Conformity Amendment. These include:

- ❖ Agricultural/Rural Designation Refinement
- ❖ Natural Heritage System Review and Update
- ❖ Wellhead Protection and Vulnerable Area and Review and Update

One of the required background information pieces which is key to the Greenbelt Conformity exercise will be the updated natural heritage system for the Region. As referenced in Action Area #1 above, the Greenbelt/ORM will be one of the main components of the Natural Heritage System Update. The system and associated policies will be developed in the Greenbelt for the conformity exercise.

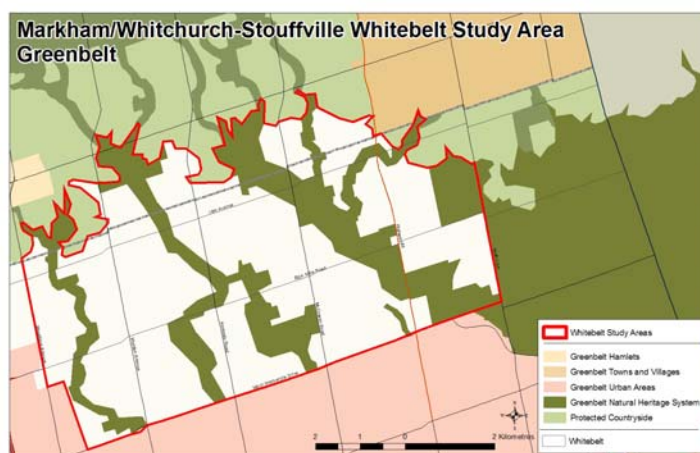
Timing and Deliverables:

- ❖ Staff Report on conformity process early 2008
- ❖ Consultation with Local Municipalities and Public Winter 2008
- ❖ Conformity Amendment Spring 2008

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 Area #3 Next Steps

Regional staff have ongoing discussions with the local municipalities regarding the natural heritage systems within the whitebelt areas (Markham, Vaughan, and East Gwillimbury).

Discussions have been had with both the TRCA and LSCRA with regard to how the Region can best integrate the appropriate portions of their natural heritage strategies into the Regional system within the whitebelt. The whitebelt has a number of competing interests. The natural heritage system in the whitebelt will have to balance between community building objectives, infrastructure needs and natural heritage objectives.

The system in the whitebelt will be defined to ensure the system is connected from the existing urban areas, through the whitebelt into the Greenbelt and Oak Ridges Moraine.

Timing and Deliverables:

- ❖ Ongoing work with Markham, Vaughan, and East Gwillimbury.
- ❖ Finalize Systems through Whitebelt Areas - early 2008 for land budget and incorporation into Regional Natural Heritage System.

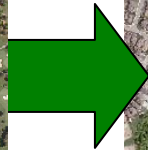
ACTION 4: RESTORE AND STRENGTHEN THE NATURAL HERITAGE SYSTEM

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 Area #4 Next Steps

Regional staff will be examining areas for strategic restoration and enhancement in the 3 natural heritage policy areas: Greenbelt/Oak Ridges Moraine, Whitebelt, and Existing Urban Areas.

Further examination of the funding associated with restoration and enhancement will include a consideration of the following elements:

- i. Greenbelt/Oak Ridges Moraine: public investment in green infrastructure, partnerships with local municipalities and conservation authorities, and private land stewardship;
- ii. Whitebelt: potential opportunity through development applications, secondary plans, subdivisions and infrastructure projects; and
- iii. Existing urban areas: partnerships with local municipalities and conservation authorities, intensification and infill development applications, infrastructure projects.

Timing and Deliverables

- ❖ Identify Cores and Linkages Spring 2008
- ❖ Identify priority areas for restoration and enhancement Spring 2008
- ❖ Examine opportunities for implementation and implementation mechanisms Spring 2008

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.

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.

Action Area #5 Next Steps:

The Regional Natural Heritage Strategy has an important connection with the ongoing infrastructure master plans updates. Both the Water and Wastewater and Transportation Master Plans are currently being updated. The process is an iterative one with the Planning For Tomorrow Growth Management Strategy.

To support the Region's Draft [Sustainability Strategy](#), a set of guiding principles have been developed for both Master Plan to ensure that the Transportation Master Plan and the Water and Waste Water Master Plan will encourage sustainable transportation and servicing policies and practices in York Region.

A sample of the sustainability principles are as follows:



- ◆ 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.

Transportation	Water and Waste Water
❖ Integrating transportation and land use planning ❖ Protecting and enhancing the environment and cultural heritage ❖ Adopting energy efficient transportation systems ❖ Putting pedestrians and transit first	❖ Ensuring safe and clean drinking water ❖ Maintaining healthy watersheds ❖ Respecting our natural and cultural heritage ❖ Planning for climate change and energy efficiency

A joint focus group on the Sustainability Strategy, Natural Heritage Discussion Paper and the Infrastructure Master Plans was held in October 2007. This session brought together key stakeholders from a variety of disciplines and organizations to discuss the integration of the strategies, natural heritage action areas, and the sustainability principles. Regional staff are working to ensure an ongoing coordination in these efforts to ensure that a new approach to infrastructure is taken at York Region.

Timing and Deliverables

- ❖ Sustainability Principles created Fall 2007.
- ❖ Round 2 Public Consultations on Infrastructure Master Plans November 2007.
- ❖ Ongoing work with Infrastructure Planning through to finalization of Master Plans.

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 Area #6 Next Steps

The Regional Natural Heritage Trail Concept Study is currently underway and being undertaken by consultant (The MMM Group).

Staff reported to Regional Council in June 2007 with the process, timing, and consultant selection for the trails concept study. An internal Technical Advisory Team (TAC) has been created to help guide the study. The TAC is comprised of staff members from Long Range and Strategic Planning, Geomatics, Infrastructure Planning, and Forestry and Natural Heritage.

Focused consultation is planned with the conservation authorities, local municipalities, and the Pedestrian and Cycling Master Plan Public Advisory Committee regarding Regional role in trail planning, and schematic trail corridors.

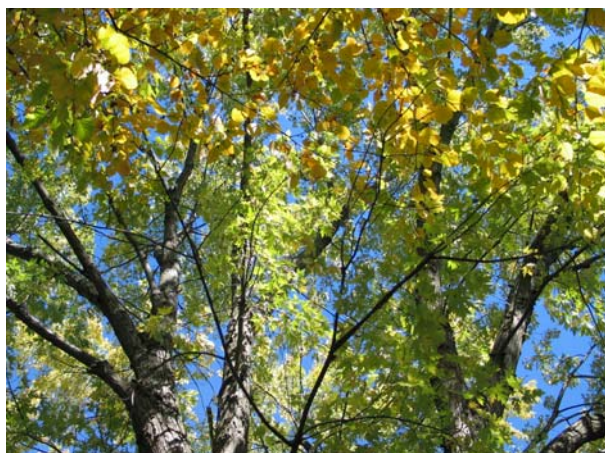
Staff will be reporting back to Committee in Spring 2008 regarding the results of consultation on what stakeholders think the Region's role is in trails, and potential trail corridors.

Timing and Deliverables

- ❖ Regional Natural Heritage Trail Concept Study currently underway
- ❖ Focused consultation throughout early 2008
- ❖ Report back to Planning and Economic Development Committee in Spring 2008 on results of consultation.

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 Area #7 Next Steps

The Greening Strategy has been very successful. To ensure continued success and connection to the Action Areas and updated Regional Natural Heritage System, the strategy will be reviewed to examine relevant targets, benchmarks, program objectives.

In the context of the update, the following elements will be considered:

- ❖ Connection to Action Areas within the Sustainability Strategy;
- ❖ Reviewing current forest cover target of 25% in Regional Official Plan and the need for new or other targets;
- ❖ Adequacy of current investment in the strategy;
- ❖ Land Securement Criteria to meet other action area objectives (i.e. target areas, passive recreation, and education); and
- ❖ Private land incentive and stewardship programs.

Timing and Deliverables:

- ❖ Greening Strategy Update Joint Report Planning and Natural Heritage and Forestry Services Spring/Summer 2008;
- ❖ Consultation on proposed Greening Strategy Update together with draft Natural Heritage System Spring 2008; and
- ❖ Adoption of Updated Regional Natural Heritage System and Greening Strategy Fall/Winter 2008

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.

Action Area #8 Next Steps

The Natural Heritage Discussion Paper was distributed widely for comment to all local municipalities, Municipal Commissioners and Directors, school boards, libraries, provincial ministries, stakeholders involved in Growth Management, all environmental stakeholders, development industry representatives. The paper was also distributed at the Growth Management Public consultation meetings in Spring 2007.

Focused consultation was also held on the paper:

- ❖ BILD York Region Chapter Consultation September 17, 2007.
- ❖ September 27, 2007 Environmental Stakeholders Growth Management/Discussion Paper Consultation.
- ❖ Joint focus group on sustainability strategy, natural heritage discussion paper and infrastructure master plan updates October 9, 2007.

In general, the comments were supportive of the action areas represented in the Discussion Paper, in particular updating the Regional Greenlands System to ensure a linked natural heritage system throughout the Region was highly supported. There were several expressions of interest in continued partnerships and participation in the Regional Natural Heritage Trails Concept Study, Greening Strategy and Restoration and Enhancement.

Linked Natural Heritage System Support

There is a high level of support for the Region to update the existing Greenlands System and ensure a linked natural heritage system throughout the entire Region.

Working Together to Develop the System

The local municipalities, and the Conservation Authorities have requested continued consultation on the Region's Natural Heritage System update, and we will continue to work together throughout the development of the system.

Coordinate with Existing Local Natural Heritage Strategies

Many local municipalities are currently undertaking, or have recently adopted their own natural heritage strategies. It has been requested that the Region recognize the work that has been undertaken, and continue to work with the municipalities which are currently working toward updating their strategies (i.e., Markham and East Gwillimbury).

Relationship between Natural Heritage and Growth Management

Several comments reflect the need to examine the balance between natural heritage protection and meeting the Region's Growth Management objectives.

Support for a Regional Trail Network

The *Natural Heritage Discussion Paper* Action Area #6: Establish a Regional Trail Network has received support from the local municipalities and groups such as the Oak Ridges Trail Association. Specific comments on this action area include the recognition of the existing inter-municipal trails including the Nokiidaa Trail.

Investing in Green Infrastructure

There is a high level of support for continued and increased investment in green infrastructure, including restoration and enhancement efforts of our natural heritage system. Investing in our green infrastructure in a similar manner to the investments made in built infrastructure such as roads and sewers has been identified as a key priority.

Timing and Deliverables

- ❖ Consultation occurred on the Discussion Paper throughout Spring/Summer 2007.
- ❖ Ongoing consultation with Local Municipalities and Conservation Authorities throughout process.
- ❖ Consultation on draft system Spring 2008.

Conclusions

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. The Region is 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 provide strategic direction on how to move forward on natural heritage issues in York Region.