

APPENDIX 'A'

Executive Summary

Natural heritage planning is a municipal responsibility defined through Provincial legislation and policy. The foundation for this activity is the Provincial Policy Statement (PPS). Municipalities must be consistent with Provincial Policy. The PPS states that:

The diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and ground water features.

More recently the Province has enhanced and provided greater clarity regarding natural heritage protection through the Oak Ridges Moraine Conservation Plan, Greenbelt Plan, Clean Water Act and Growth Plan for the Greater Golden Horseshoe. In addition to these substantial legislative requirements, the Town of Markham contains a significant portion of the Rouge Park, one of the largest urban wilderness parks in North America.

The Environmental Policy Review and Consolidation Study was initiated by the Town of Markham with the goal of defining a comprehensive vision that will guide environmental planning over the long term. The study was undertaken with the following objectives:

- To provide a comprehensive inventory and review of all of the existing land use policies that govern the protection and management of natural heritage resources and functions within the Town of Markham;
- To compile a complete inventory of existing natural heritage features utilizing existing mapping and data from various government agency databases;
- To develop a plan for a Natural Heritage Network (NHN) for the Town of Markham that is founded on a natural heritage systems planning approach and built on the inventory of natural heritage features and composite of existing policies;
- To evaluate the NHN in comparison to local and regional natural heritage targets and strategies;
- To recommend a consolidated environmental Official Plan policy framework that is aimed at implementing the NHN and integrating existing policies governing the protection and management of environmental resources and open spaces within the Town; and
- To implement aspects of the Greenbelt Plan and Oak Ridges Moraine Conservation Plan in the Town of Markham Official Plan.

The Environmental Policy Review and Consolidation was completed to ensure that the environmental and open space policies of the Town of Markham's Official Plan are as up to date as possible, and are in conformity with or are consistent with, current Provincial and Conservation Authority policies, including the Greenbelt Plan and relevant aspects of the Growth Plan for the Greater Golden Horseshoe.

The study process was comprised of the following broad components:

- Compilation and review of the existing environmental and planning policies of the Town, Toronto and Region Conservation Authority (TRCA), Region of York, and Province of Ontario;
- Sourcing and consolidation of natural heritage features mapping from the various agencies;
- Delineation of the preliminary future Rouge Park boundary;
- Confirmation of natural heritage objectives and the delineation of a proposed Natural Heritage Network (NHN);
- Development of a proposed Greenway System for Markham to address the NHN and other environmental policies within Markham, including the Greenbelt Plan;
- Preparation of a draft Background Report and Policy Framework;
- Consultation with agencies, stakeholders and the public to guide the refinement of the documents and mapping; and
- Preparation of a final Consolidated Report and Policy Framework for approval by the Town of Markham Council.

All of the comments that were provided as a product of this consultation process were recorded and a record of how each was responded to in the study process is included in the "Response Document" that is appended to this report.

The strategy being recommended through this study comprises a Town-wide Greenway System which contains three distinct components:

- Natural Heritage Network
- Natural Heritage Network Enhancement lands (Corridors and Core Areas)
- Greenbelt Agriculture

The Greenway System is intended to function as an interconnected and multifaceted system that permanently links environmental features, rural lands and recreational resources both within and beyond the boundaries of the Town. The Greenway System would provide for a multitude of functions that are intended to maintain and enhance natural heritage and hydrological features and agricultural areas and support opportunities for public use within the Town's Greenway System.

The Natural Heritage Network comprises a combination of existing natural and hydrological features and policy areas requiring protection for natural heritage purposes identified by the Town and Province. These include:

- Flood plain lands, watercourses and stream corridors
- Wetlands meeting Provincial or TRCA criteria
- Woodlots meeting Provincial, Regional, TRCA and Town criteria, including zoned woodlots
- Meadows that are contiguous with a valley corridor or other listed feature

- Naturalized stormwater management ponds that are contiguous with a valley corridor or other listed feature
- Habitat for rare, threatened or endangered species, as well as species of concern ranked by the TRCA as L1 to L3 that are contiguous with a valley corridor or other listed feature
- Environmentally Significant Areas identified by the TRCA
- Locally Significant Areas identified by the Town
- Environmental Protection Areas identified by the Town
- Rouge North Management Lands delineated by the Town
- Key Natural Heritage Features and Key Hydrological Features identified by the Province on Greenbelt lands and including the Greenbelt corridors along the Bruce Creek, Berczy Creek, Robinson Creek, Mount Joy Creek, and Little Rouge Creek

These lands are intended to be protected as conservation lands and enhanced over the long term. The policies recognize existing uses, particularly agricultural activities and these uses will be supported as a right with within the Natural Heritage Network where not impacting existing natural features.

The Greenway System also comprises Natural Heritage Network – Enhancement lands. These lands comprise core areas and linkages of sufficient size and connectedness to ensure long term ecological integrity and improve biodiversity of the system. NHN Enhancement Areas are proposed in strategic locations to achieve the following fundamental ecological objectives:

- Enhancement of connectivity and corridor function by contributing to the creation of the proposed 200m corridors that will link features and form inter-subwatershed linkages;
- Contribution to the creation of the proposed core areas of biodiversity that will have an area of at least 50 ha and enhancement of the size, shape and resilience of habitat patches by:
 - Infilling openings in habitat patches to create larger consolidated areas of habitat;
 - Reducing the extent of edge conditions in relation to patch size;
 - Providing connections between two or more proximate, yet disparate habitat patches;
 - Connecting complimentary habitats to each other, for example, connecting woodland to wetland or riparian habitat, to enhance habitat diversity.

Natural Heritage Network enhancement areas are intended to support the overall ecological integrity of the NHN. Enhancement lands were identified using ecological principles of connectivity, supporting Provincial documentation on achieving connectivity and the TRCA's Terrestrial Natural Heritage System Strategy. Wherever possible, connections are recommended where natural features exist.

The report acknowledges that lands designated as Natural Heritage Network – Enhancement (NHNE) are of significant importance in achieving the inter-subwatershed connectivity necessary to support the ecological function of the Natural Heritage Network.

Lands bearing this designation therefore represent a high priority for acquisition and should be prime candidates for funding under the Town's Environmental Land Acquisition Fund Program.

The final component of the Greenway System is the Greenbelt Agriculture lands. These lands comprise all the lands within the Provincial Greenbelt Plan area that are not encompassed in the Natural Heritage Network. These lands are predominantly existing agricultural lands and are identified as "prime" within the Provincial Policy Statement. The study recommendations support the continued long-term use of the lands for agricultural purposes with environmental conservation and restoration uses as secondary to agriculture. Site specific policies would need to be introduced for this designation to reflect the specific requirements of the Greenbelt natural heritage policies.

The EPRC study also addresses the review of the Town's Hamlet boundaries in accordance with the Greenbelt Plan policies and the review of Special Policy Area land use designations. Other policy guidance is provided in the report to address Markham's Small Stream Study recommendations, TRCA watershed plan implementation and the implementation of a monitoring program to track progress made toward achieving NHN objectives.

The Environmental Policy Review and Consolidation establishes the foundation for the implementation of a functional Natural Heritage Network within the context of an overall Greenway System in Markham. The NHN is comprised of existing features and lands protected from future development by existing policies as well as "enhancement" areas that are intended to achieve the NHN vision of a system of core "Centres of Biodiversity", and connectors that will provide linkages between the subwatersheds of the Rouge River, Don River and Highland, Petticoat and Duffins / Carruthers Creeks. The NHN was conceived as a means to maintain biodiversity and ecological connectivity in order to mitigate the impacts of conversion of the landscape matrix from agricultural to urban in Markham. The realization of the NHN and Greenway System will contribute to the ecological integrity of the landscape within Markham and beyond and will benefit the health and well-being of Markham residents for generations to come.