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YORK REGION SIGNIFICANT WOODLANDS STUDY

The Transportation and Works Committee recommends:

1. The deputation and written submission by Dr. Margaretha Vandervelden, President, North East Sutton Ratepayers Inc. be received;
2. The presentation by Sandra Malcic, Regional Greening Co-ordinator and Karoleigh Miller, GIS Technologist be received; and
3. The recommendations contained in the following report, December 14, 2005, from the Commissioner of Transportation and Works and the Commissioner of Planning and Development Services be adopted:

1. RECOMMENDATIONS

It is recommended that:

1. Attachment 1, York Region Significant Woodlands Study Draft Final Report, dated November 2005, be adopted by Regional Council.
2. The following criteria for determining woodland significance as defined in the study be adopted.
 - I. Any woodland that supports a species designated by the Province or the Country as being significant (threatened, endangered, etc.)
 - II. Any woodland that is within 30 metres of a watercourse, surface water feature or evaluated wetland.
 - III. Any woodland over 2 ha:
 - a. that is within 100 metres of another significant feature, or
 - b. that occurs within the Regional Greenlands System.
 - IV. Any woodland south of the Oak Ridges Moraine that is greater than or equal to 4 ha in size.
 - V. Any woodland north of the Oak Ridges moraine that is greater than or equal to 10 ha in size.
 - VI. Any woodland that occurs on the Oak Ridges Moraine will be evaluated for significance based on the requirements of the Oak Ridges Moraine Conservation Plan and associated guidelines
3. The Regional Clerk forward this report to the Minister of Municipal Affairs and Housing, the Minister of Natural Resources, and other Provincial staff responsible for preparation of Greenbelt Implementation Guidelines, including the Natural Spaces

Alliance, to be considered as input to the Provincial process to identify and protect a healthy natural heritage system within the lands subject to the Greenbelt legislation.

2. EXECUTIVE SUMMARY

The purpose of this report is to have the Significant Woodlands Study (*Attachment 1*) adopted by Regional Council and to direct staff to distribute the Study to Provincial Ministries and Committees. Staff was directed to retain North-South Environmental Inc. to undertake the Significant Woodlands Study in June 2004 and report back on the study.

The analysis and process undertaken by North-South Environmental Inc. to complete the Significant Woodlands Study was comprehensive. An extensive literature review was undertaken and a Technical Advisory Team was established to provide technical advice and peer review. Public and stakeholder consultation included working sessions with local municipal staff, conservation authorities and the public.

In accordance with the Terms of Reference for the Study, an update to the Region's forest cover data was undertaken, criteria were proposed and applied to the data, findings were summarized and recommendations were made with respect to implementation of the Significant Woodlands Study Report. The study has verified that existing forest cover within the Region is 22.5% of the land base, and that the amount of forest cover within the Region has not measurably changed since last reported on in 1994. The figure was reported as 16 -18% in 1994, which included Regional lands within Lake Simcoe; 18% of the entire Region is equivalent to approximately 22.5% of the land base. The study has also concluded that approximately 97% of our existing forest cover (79% of individual forest patches) is Regionally Significant. In order to be deemed Regionally Significant, a woodland must satisfy at least one of the following criteria.

- I. *Any woodland that supports a species designated by the Province or the Country as being significant (threatened, endangered, etc.).*
- II. *Any woodland that is within 30 metres of a watercourse, surface water feature or evaluated wetland.*
- III. *Any woodland over 2 ha:*
 - a. *that is within 100 metres of another significant feature, or*
 - b. *that occurs within the Regional Greenlands System.*
- IV. *Any woodland south of the Oak Ridges Moraine that is greater than or equal to 4 ha in size.*
- V. *Any woodland north of the Oak Ridges moraine that is greater than or equal to 10 ha in size.*
- VI. *Any woodland that occurs on the Oak Ridges Moraine will be evaluated for significance based on the requirements of the Oak Ridges Moraine Conservation Plan and associated guidelines*

Based on the Study findings, the consultant has also provided the following recommendations.

1. *Refine Regional Official Plan policies to protect Significant Woodlands in York Region.*
2. *Undertake additional Geographic Information Systems (GIS) analyses to assist with determining 2-3 top priority areas for restoring large areas (>500 ha) of native woodland.*
3. *Continue to refine the Regional forest layer to provide an accurate representation of the woodlands in York Region.*
4. *Continue to implement and expand Greening securement, naturalization and stewardship programs and partnerships using the Securement Guidelines recommended in this report.*

When implemented, these will contribute to protecting the natural environment and healthy communities in a sustainable Region. This study will assist the Region in continuing to demonstrate leadership in the environmental field through sustainable planning and development functions, delivery of the Greening and Securement Strategies, and implementation of the Forest Conservation By-law.

3. PURPOSE

In June 2004, Regional Council approved retaining North-South Environmental Inc. to undertake a Significant Woodlands Study for York Region. The purpose of this report is to have the Significant Woodlands Study adopted by Regional Council and to distribute the study to Provincial Ministries and Committees for their consideration when developing guidance documents to protect significant woodlands within the Greenbelt Plan area.

4. BACKGROUND

In 2001, the Region initiated an Official Plan amendment (ROPA 37) which was designed to update environmental mapping within the ROP through updated GIS techniques and information. Following a public meeting on the amendment, it was decided that the portions of the amendment dealing with Significant Forests and their identification should be held in abeyance pending the completion of a Significant Woodlands Study.

The Region has a strong commitment to the protection of woodlands and forest cover as a key component of its diverse environmental resources and natural heritage. Through the goals of Vision 2026, the sustainable natural environment policies in the Regional Official Plan (ROP), the implementation of the Greening Strategy and the administration

of the Forest Conservation By-law, the Region has demonstrated leadership in the protection, restoration and enhancement of the natural environment.

The Significant Woodlands Study inventoried and mapped existing woodland cover, developed proposed criteria to determine significance, applied the criteria to the woodlands to determine and assign a level of functional significance, and developed guidelines to assist in Greening Strategy naturalization, securement and stewardship initiatives. This study was designed to provide sound science to:

- Direct, refine and improve mapping of the Region's forest cover.
- Investigate whether there is a scientific basis for different approaches to be used to protect the Region's remaining forest cover.
- Provide a basis for refinement of ROP mapping and policies.
- Identify naturalization, stewardship and securement opportunities to link forested lands to improve connectivity and linkages in the Greenlands System in the Region and beyond.
- Provide mapping to assist with implementation of the Forest Conservation By-law.

During the development of this Significant Woodlands Study, the Province advanced policy for the Oak Ridges Moraine Greenbelt for significant natural feature, including woodland protection. The Region's Study further refines and complements the Provincial activities.

4.1 Methodology of the Study

The key components of the Study included:

1. GIS analysis to identify and update York Region's existing forest cover data layer using the 2002 aerial photography to delineate existing forest cover.
2. Review of existing significant woodland criteria in use by other jurisdictions and stakeholders with other regional and local municipalities, Provincial Ministries, Conservation Authorities and several non-profit organizations (e.g. Ontario Nature).
3. Development and application of a suite of draft and final recommended significant woodland criteria.
4. Review of the extent and distribution of York Region's existing forest cover and development of recommendations to proceed with an update to the Regional Official Plan, Forest Conservation By-law administration and Greening Strategy and Securement program delivery.
5. A comprehensive agency, stakeholder and public consultation program including:
 - Public Open Houses (2) presenting the study and seeking input on potential criteria.
 - Ongoing consultation with a Technical Advisory Team consisting of Conservation Authority, Ministry of Natural Resources, Ontario Nature and University of Toronto staff.
 - Presentation to various stakeholder groups including but not limited to local municipal staff and Environmental Advisory Committee members, and local agricultural groups.

- Direct electronic distribution of public open house notices, draft criteria and preliminary findings to various stakeholders including the Rouge Park, Oak Ridges Moraine Foundation, Oak Ridges Moraine Land Trust, Ducks Unlimited, York Environmental Stewardship, and the Urban Development Institute.

4.2 Required Deliverables of the Study

In order to meet the objectives of the study, the following deliverables were required:

1. A York Region Significant Woodlands Report including specific criteria and rationale used to define significant woodlands, and all background material.
2. The following maps/GIS datasets:
 - a. Significant Woodlands data layer.
 - b. Woodlands greater than 0.2 hectares (0.5 acres), for Forest Conservation By-law administration.
 - c. Prioritized strategic restoration guidelines to assist in directing securement, stewardship and naturalization Greening Strategy initiatives.

5. ANALYSIS AND OPTIONS

The analysis and process undertaken by North-South Environmental Inc. to complete the Significant Woodlands Study was comprehensive. The project was reviewed by the Technical Advisory Team to ensure scientific rigour at critical steps in the work program. In addition to meeting the requirements of the Terms of Reference, the consulting team was innovative in approach and adaptive in dealing with the comments and recommendations put forward by the Technical Advisory Team. The Significant Woodlands Study – Draft Final Report is attached (*Attachment 1*).

5.1 Key Study Deliverables and Summary

In accordance with the Terms of Reference for the Study, an update to York Region's forest cover data was undertaken, criteria were proposed and applied to the data set, and findings were summarized. The consultant has also made recommendations with respect to implementation of this report.

5.1.1 Forest Cover Data Update

York Region's existing forest cover data layer was based on 1999 aerial photography. Through this study, existing forest cover data were updated using 2002 aerial photographs. The data were updated to:

- Delete woodlands that were subject to complete or partial removals between 1999 and 2002.
- Add successional forest areas that had regenerated to a point that they could be identified as woodlands on the aerial photography.

It should be noted that since the 2002 aerial photography has better resolution than the 1999 photography additional forest patches have been identified which may not have been discernable as woodland in 1999.

The Study recommends that, in the future, this data layer be routinely updated by the Geomatics Division, in consultation with the Natural Heritage and Forestry Services Section as new information becomes available.

5.1.2 Significant Woodlands Criteria

The success and effectiveness of significant woodlands studies is primarily dependant on the strength of the criteria proposed within them. Accordingly, research, consultation and analysis were critical to formulating a set of criteria to define significant woodlands relevant to York Region's landscape. In most cases, these criteria or variants of them have been used in other jurisdictions around the Province or by other agencies involved in natural resource management.

5.1.2.1 Criteria Review Process

Following a review of the literature, and consideration of existing approaches, twenty-five potential criteria for significance were evaluated. These criteria represented a composite of those used, or considered, by other groups across the province including all three levels of government, conservation authorities and non-profit environmental groups (e.g. Ontario Nature, Eastern Ontario Woodlot Owners Association). The potential criteria covered a number of environmental functions including those related to wildlife habitat, the hydrologic cycle, significant species, habitat composition and representation, and more.

These potential criteria were analysed and reviewed by the consulting team, the Technical Advisory Team, stakeholders, municipal planning and forestry staff and the public. The recommended criteria used to define significant woodlands, considered the collective opinions of those groups and the suitability of the criteria for application within York Region. The final significant woodlands criteria are, in the opinion of the consulting team and Regional staff, scientifically defensible, quantifiable, cost effective and appropriate for use in York Region.

5.1.2.2 Final Suite of Draft Criteria for Determining Regionally Significant Woodlands

The final suite of draft criteria take into consideration the presence of rare species, proximity to sensitive natural features, size of the woodland, and existing ORM legislation. In order for a woodland to be deemed significant in York Region, one (or more) of the following criteria needs to be met:

1. *Any woodland that supports a species designated by the Province or the Country as being significant (threatened, endangered, etc.).*

2. *Any woodland that is within 30 metres of a watercourse, surface water feature or evaluated wetland.*
3. *Any woodland over 2 ha:*
 - i) *that is within 100 metres of another significant feature, or*
 - ii) *that occurs within the Regional Greenlands System.*
4. *Any woodland south of the Oak Ridges Moraine that is greater than or equal to 4 ha in size.*
5. *Any woodland north of the Oak Ridges moraine that is greater than or equal to 10 ha in size.*
6. *Any woodland that occurs on the ORM will be evaluated for significance based on the requirements of the Oak Ridges Moraine Conservation Plan and associated guidelines.*

The proposed criteria meet the requirements of the Provincial Policy Statement and are consistent with the Technical Guidelines provided in their support. While these criteria are specific to York Region, and are reflective of our environmental conditions, they are compatible with criteria used by other municipalities. All municipalities consulted have criteria related to size, proximity to water features and criteria that strive to recognize the value of woodlands linking or proximate to other natural features. Half of the municipalities consulted have a rare species criterion.

5.1.3 Study Findings

The study has verified existing forest cover at 22.5%. While these data should not be directly compared to the previously reported forest cover percentage (primarily because of the poorer resolution of the 1999 aerial photography), existing forest cover seems to have remained relatively constant since 1994.

In 1994, the Regional Official Plan reported that York Region had 16-18% existing forest cover. This statistic included the portion of York Region within Lake Simcoe. It is more accurate to report on existing forest cover as a percentage of the land base, as this is the area that historically included forest communities. The current 22.5% cover is approximately equivalent to 18% of the Region if you include Lake Simcoe in the overall calculations.

The proposed Significant Woodlands Criteria have been applied against the updated woodland cover data. The result is that approximately 40,000 hectares out of the 41,000 hectares of existing forest cover is deemed significant (i.e. 97% of existing forest cover). The criteria are designed to capture the most significant of woodland patches, which are generally the larger woodlands in close proximity to other natural features. As a result, the 97% forest cover (area) deemed significant is captured within 79% of the existing woodlands (number of patches). The remaining 21% (of patches) are small woodlands (but greater than 0.2 hectares / 0.5 acres) that are isolated from other natural features and functions and therefore do not satisfy the criteria.

5.1.4 Recommendations of the Study

Based on the findings of the Significant Woodland Study, the consultant has provided a number of recommendations. When implemented, these will contribute to protecting the natural environment and healthy communities in a sustainable Region, by:

- Providing refined and updated mapping of forest resources.
- Establishing the scientific basis for reviewing and refining Regional Official Plan policies and mapping for significant woodlands.
- Provide a sound basis to continue monitoring woodlands.
- Contribute to the protection and restoration of forest cover and Greenlands in the Region by identifying key restoration and enhancement areas to focus efforts.
- Provide mapping and information to assist with Forest Conservation By-law implementation.

The Study also recommended a series of next steps:

1. *Refine Regional Official Plan policies to protect Significant Woodlands in York Region.*
2. *Undertake additional GIS analyses to assist with determining 2-3 top priority areas for restoring large areas (>500 ha) of native woodland.*
3. *Continue to refine the regional forest layer to provide an accurate representation of the woodlands in York Region.*
4. *Continue to implement and expand Greening securement, naturalization and stewardship programs and partnerships using the Securement Guidelines recommended in this report.*

Regional staff is supportive of the study's directions and recommendations. It is recognized that a number of these will require further analysis and discussion of the rationale, benefits, costs, opportunities and implementation options. These discussions will take place during the implementation phases as outlined below.

5.2 Implementation Phases

The Significant Woodlands Study was undertaken to provide direction to three main Regional initiatives: The Regional Official Plan, the Forest Conservation By-law and the Greening and Securement Strategies. There are a number of action areas that fall out of these recommendations.

5.2.1 Regional Official Plan

Regional Amendment 37 was initiated in 2001 to update and refine Regional Official Plan environmental mapping and policy. After public review of this amendment, it was recommended that the portions of the Amendment dealing with changes to policy and mapping of Regional forest cover be deferred pending completion of a Study of Forest Significance.

In addition, Regional Council at their meeting of October 27, 2005, endorsed Clause 2 of Report No. 8 of the Regional Planning and Economic Development Committee which recommends the development of a Sustainable Development Strategy as part of ongoing Growth Management work and inclusion of Sustainable Development principles in Regional undertakings.

It is recommended that changes to the Regional Official Plan dealing with refinements to Regionally Significant Forested Lands mapping and policy modifications be considered as part of the Region's Sustainable Development and Growth Management work. Regional Planning and Development Services staff will bring forward a work plan to a future Planning and Economic Development Committee and Council identifying the tasks, timeline and public consultation process for proceeding with any refinement of Regional policies and mapping as part of these initiatives.

5.2.2 Forest Conservation Bylaw

The recommendations of this study will also be used to assist in the protection of woodlands through the administration of the recently adopted Forest Conservation By-law. Better quality data, as well as knowledge of which woodlots exhibit features and functions of Regional significance will allow for more informed decision making on permit applications under the new by-law.

5.2.3 Greening and Securement Strategies

The Significant Woodlands study recommendations will also be used to provide more detailed direction to the Greening and Securement Strategies in order to focus the Region's activities on real and achievable successes. Specifically, this report contains the scientific basis required to focus our naturalization, private land stewardship and securement efforts and resources in areas that will be of most value to the Region and a healthy natural heritage system for future generations. Should changes be proposed to these strategies, further reports will be brought forward to Committee and Council for consideration.

5.3 Relationship to Vision 2026

Adoption and implementation of this study will continue to support Vision 2026 and such key goal statements as:

"In 2026, York Region residents will continue to value and embrace the Region's unique natural heritage (land, air, water) and cultural heritage (sites and buildings important to our history, faiths and cultures)."

"In 2026, York Region will have grown at a pace that supports healthy communities, economic vitality, sustainable natural environment and effective human services."

The study strengthens the Region's commitment to focus on Vision 2026 actions areas including:

- Protecting sensitive features such as forests, watershed, the Oak Ridges Moraine and Lake Simcoe.
- Promoting a permanent linked Greenlands system.
- Continuing to develop and build strategies for a green sustainable Region, such as the York Regional Forest Management Plan, the Greening Strategy, and the Greenlands Property Securement Strategy.
- Taking a leadership role in the development and implementation of environmental strategies and conservation activities.

6. FINANCIAL IMPLICATIONS

The Significant Woodlands Study was undertaken within the limits of the budget (\$58,246.52) as set out in the Council approved contract (P-04-22). Costs of incorporating the findings of the Significant Woodlands Study into the Regional Official Plan are anticipated to be accommodated within the existing Planning Department budget and staffing allocation. Implementing the findings and recommendations through Forest Conservation By-law, Greening Strategy, and Securement Strategy implementation will be accommodated within existing Transportation and Works Roads Operations, Greening and Securement budgets.

7. LOCAL MUNICIPAL IMPACT

Local municipalities were consulted throughout this undertaking and will be extensively consulted as part of future implementation activities. The findings and data will be shared with local municipalities to assist them with implementation of a variety of woodland protection, restoration and rehabilitation initiatives. The local municipalities will be further consulted as an update to the Regional Official Plan is considered.

8. CONCLUSION

The Region has had a number of environmental successes over the past several years including the Greening Strategy, the Securement Strategy and its partnerships with the Natural Conservancy and the Conservation Authorities. To provide additional assistance and take these initiatives into the future, this study provides necessary background information and continues to demonstrate that York Region is a leader in matters of environmental protection and enhancement.

The need for a York Region Significant Woodlands Study has been identified through a 2001 review of Regional Official Plan environmental policy and mapping review, Forest Conservation By-law implementation, as well as the development and implementation of

the Regional Greening Strategy. The Study provides up-to-date forest cover data and emphasizes the need to protect and link these areas.

Since the commencement of the Study, the Province has clarified their interest in wider natural feature protection through the Greenbelt Plan. Provincial staff are currently preparing key natural heritage feature mapping and criteria to guide implementation of the Greenbelt Plan at the municipal level. It is recommended that this study be forwarded to staff of the Provincial Ministries to assist in their discussion and choice of Key Natural Heritage Feature criteria in the Greenbelt Plan area. The Regional Significant Woodlands Study provides a refinement and compliments the Provincial work.

Adoption of Significant Woodlands Study by Council will assist in the effective delivery of a number of key programs, including advancing an update and refinement of the ROP regarding Significant Woodlands, Forest Conservation By-law administration and implementation of the Greening and Securement Strategies.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)