

9

YORK REGION FOREST COVER UPDATE

The Transportation Services Committee recommends the adoption of the recommendation contained in the following report dated June 6, 2011, from the Commissioner of Transportation Services.

1. RECOMMENDATION

It is recommended that this report be received for information.

2. PURPOSE

This report is to advise Council of the Region's updated forest cover information.

3. BACKGROUND

The extent of forest cover within the Region is determined by undertaking an analysis of aerial photography

York Region has almost 40,000 hectares of forest; 95% is in private ownership and 5% is owned by The Regional Municipality of York. Forests cover approximately 22.5% of the Region's land base. The Regional Official Plan identifies a 25% forest cover target. Through initiatives such as land use planning, and strategic programs such as the Greening Strategy, the Region protects and restores forests. Forest cover is one measure by which we can understand our forests. Species, volume of wood, number of trees and vegetative community are all ways to understand our forest resource. The extent of forest cover is often used as a measure of environmental health, and is reported on through Corporate initiatives such as Vision 2026.

In order to monitor trends in Regional forest cover, aerial photographs are used to generate a forest cover layer which can then be quantified by area at the Regional, local, watershed, or other relevant scale. In 2010, an update to the data was undertaken as the current forest cover statistics are primarily based on 1999 aerial photography.

4. ANALYSIS AND OPTIONS

Forest cover updates should be undertaken every ten years to measure the success of forest protection and reforestation efforts

A number of growing seasons (ten or more) are required before new forests, either naturally regenerating or newly planted, to be captured through interpretation of aerial photography. The Region's existing forest cover of 22.5% of the land base was originally calculated using 1999 aerial photography. There is general concurrence among the scientific community that ten years is a good interval to assess and quantify change in forest cover. Accordingly, an update the Region's forest cover mapping was completed in 2010, using 2009 aerial photographs.

Naturalization projects, including those undertaken through the Greening Strategy over the last ten years, which use young tree seedlings, may not be captured in this forest cover update. Recent and on-going reforestation programs are important contributors to help increase forest cover in York Region. It is the results of these initiatives that will be enjoyed by future generations and captured in future forest cover updates.

With the improved and standardized methodology, the 2010 forest cover data should be regarded as baseline data against which to assess changes in forest cover in the future. Updates to the data every ten years are recommended.

Mapping based on 2009 aerial photography confirms the Region's forest cover remains at 22.5% (40,000 hectares) of the land base

The 2010 forest mapping update is more accurate than previous assessments due to better aerial photography, the application of clearer definitions and improved methodology. The results of the 2010 update are shown in Table 1, with reported 1999 data. The 2010 data, which is more accurate, actually shows no change in forest cover in 10 years.

Table 1
Forest Cover within York Region

Local Municipality	1999		2010	
	Hectares	Percent	Hectares	Percent
King	7,749	23.0%	8,127	24.1%
Whitchurch-Stouffville	5,897	27.9%	6,036	28.6%
Richmond Hill	1,262	12.4%	1,290	12.7%
Markham	1,292	6.1%	1,313	6.2%
Aurora	860	17.4%	859	17.4%
Newmarket	342	8.9%	327	8.6%
East Gwillimbury	7,448	30.1%	7,430	30.0%
Vaughan	3,234	11.8%	3,057	11.1%
Georgina	11,943	39.3%	11,525	37.9%
York Region	40,027	22.5%	39,964	22.5%

It should be noted that while there has been significant population growth in the Region over the past decade, there has been both incremental losses and gains of forests which contribute to the overall retention of 22.5% forest cover. Within the study margins of error it is reasonable to conclude there has been little overall change in forest cover at the Region scale.

5. FINANCIAL IMPLICATIONS

The forest cover update was undertaken in partnership with the University of Toronto

Financing of the forest cover update occurred within existing budgets and utilized existing Regional data (2009 aerial photography) and the expertise of an University of Toronto Masters of Forest Conservation candidate.

6. LOCAL MUNICIPAL IMPACT

Local municipalities are updated on programs and initiatives through York Region Urban Forest Forums held quarterly. The updated forest cover data will be shared with the local municipalities to help them manage and achieve their forest cover objectives.

7. CONCLUSION

The Region continues to demonstrate leadership through vigorous monitoring of its forest resources, supported by strategic policy and partnership development. The current forest cover in the Region remains at 22.5% (40,000 hectares of forest). Ongoing and future

partnerships will ensure that the ecological goods and services provided by the Region's forests are defined and maximized to the extent possible.

For more information on this report, please contact Ian D. Buchanan at Ext. 5204.

The Senior Management Group has reviewed this report.