

# FIVE-YEAR FOREST OPERATING PLAN 2008-2012 YORK REGIONAL FOREST

## Executive Summary



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## YORK REGIONAL FOREST

### Executive Summary

The York Regional Forest was first established in 1924. The forest presently consists of 19 tracts of land with a total area of approximately 2130 hectares (ha). Management objectives for the forest are described in a 20-year Forest Management Plan 1998-2018 and accompanying Five-Year Operating Plans. This Five-Year Operating Plan provides a summary of management activities completed during the 2002-2007 operating period, identifies activities for the next five years, and provides a discussion of current and potential management issues.

The acquisition of the Hall Tract Extension, the Hall-Patterson link, and the Nobleton Tract during the 2003-2007 operating period added a total of 68 ha to the Regional Forest. Other activities of note during the 2003-2007 operating period included the renewal of the FSC/SmartWood Certification, completion of several capital infrastructure projects, an extensive survey of forest use, planting of approximately 57,600 trees, and stand improvement harvests on 444 ha.

Forests are routinely subjected to a variety of natural disturbances including wildfires, severe wind events, pathogens, insects and non-native invasive species. These natural disturbances can alter the forest structure and species diversity of the forest. Human-induced disturbances arising from public use can also affect the ecology and natural features of the forest.

The recent decline of many of the red pine plantations in the York Regional Forest and elsewhere across southern Ontario appears to be associated with two pathogens, *Heterobasidion annosum* (Annosus root rot) and *Armillaria* spp (Shoestring root rot). Both pathogens are difficult to control. Recently the frequency and extent of red pine mortality and decline in vigour of mature red pine trees has increased. An assessment of red pine stands in 2005 revealed that 22 stands contained significant levels of red pine decline. In response, Regional Forest managers are evaluating a number of new silvicultural treatments for managing red pine plantations. The Region has also implemented a Hazard Tree Strategy to identify and remove dead red pine and other hazard trees adjacent to parking lots, access roads, and recreational trails.

Non-native invasive plants can quickly occupy a forest site excluding native flora and overtopping small trees and shrubs. Of particular concern are dog strangling vine (*Vincetoxicum nigrum*) and garlic mustard (*Alliaria petiolata*). The extent and distribution of both of these invasive plants is increasing across southern Ontario and both are present in the York Regional Forest. Once established, these plants are difficult to control by means other than the use of herbicides.

The emerald ash borer (EAB) (*Agrilus planipennis*) and the Asian longhorned beetle (ALHB) (*Anoplophora glabripennis*), are two non-native insects that have been found in southern Ontario in recent years. Emerald ash borer has been observed in southwestern Ontario since 2002. Efforts to control the spread of the insect have generally been unsuccessful and, in 2007 the species was discovered in north Toronto near the southern border of York Region. The Region is currently assessing the potential impact of EAB on the ecology of the Regional Forest.

The ALHB was discovered in the Toronto/Vaughan area in September 2003. The Toronto/Vaughan population appears to have been contained through the removal and chipping of infested trees and removal of non-infested host trees surrounding the infested area, and by restricting the movement of woody materials within the infested area.

Sirex woodwasp (*Sirex noctilio*), an insect native to Europe, Asia, and Northern Africa, has recently been introduced to North America. Sirex woodwasp adults have been found in Prince Edward County and near Prescott, Uxbridge and Cambridge. In 2007 the species was also trapped in the North Tract of the York Regional Forest. Sirex woodwasp can attack healthy pines. However at low populations, the insect selects suppressed, stressed, and injured trees for egg laying. Silvicultural treatments to maintain and enhance stand vigour are important in the management of the woodwasp. The Region is participating in monitoring and research programs for these three species of non-native insects.

Regional Forest managers are concerned about the potential impacts from public use to the soils, vegetation, and wildlife and also to the enjoyment of the forest by all users. From June 2006 to April 2007, the Region undertook a forest use survey to monitor the frequency and type of forest use. It can be conservatively estimated that the York Regional Forest provides an annual recreational venue for 6,700 forest users and has a total annual and daily visitation of 600,000 and 1,644 respectively. Of these, approximately 66% are from households surrounding the forest. The remaining visitation comes from persons who drive to the forest. This use is distributed across all forest tracts with the Eldred King, North, Hollidge, Brownhill, Bendor & Graves, and Hall tracts accounting for 75% of the total forest use. Dog walking, walking/hiking, equestrian, and cycling are the most common recreational activities in the Regional Forest.

Of particular concern are the impacts associated with the use of All Terrain Vehicles (ATV's) and motorcycles in several of the York Regional Forest tracts, e.g. Metro Road, Cronsberry, Pefferlaw, Zephyr, and Clarke Tracts. These vehicles cause excessive rutting, soil disturbance, widening of the trails, loss of vegetation along the trails, and affect the recreational experiences and enjoyment of the forest by other users. The Region will continue to limit the use of ATV's and motorcycles in the Regional forest by erecting and maintaining fencing, gates, and signage and by increasing public awareness of the potential impacts of these motorized vehicles on the environment.

The Regional Forest is also the venue for public education programs through Forest Festivals and Events and the Nature's Classroom program for schools and community groups. From 2003 to 2007, the Region held 65 Forest Festivals and Events attended by 3154 participants. During the same period, approximately 4500 people participated in Nature's Classroom program. These successful public education programs will continue during the 2008-2012 operating period.

Silvicultural management for the 2008-2012 operating period will involve a suite of management practices and treatments for maintaining the ecological functions of the forest, advancing forest health, and promoting species and habitat diversity. This will include stand improvement harvesting to enhance forest health and wildlife habitat and to promote natural regeneration of native trees and shrubs, under-planting in mature stands where regeneration is lacking, restoring forest cover to fields and open areas, and monitoring forest health.

In 2002, the Region embarked on an annual program to plant white pine seedlings in mature conifer stands that were lacking in regeneration. From 2002-2007, approximately 16,500 white pine seedlings were planted for this purpose. Under-planting will continue during the 2008-2012 operating period and the program will be expanded to include tree species that are under

represented in the York Regional Forest. Tree planting also involves afforestation of fields and open areas. Afforestation of the Nobleton Tract began in 2007 on 6 ha. Afforestation of the remaining 33 ha of agricultural fields is scheduled to continue during 2008-2011 with the planting of 71,000 trees. Additional afforestation opportunities may arise during this operating period if new properties are acquired.

Periodic thinning of the forest is prescribed to enhance forest health and wildlife habitat and to promote growth in natural regeneration of native trees and shrubs. Stands are identified for treatment based on a number of criteria including forest type, time since last treatment, abundance of regeneration, age, stand basal area, growth rate, and forest health including the presence of red pine decline and insects or disease. The total area scheduled for thinning in each forest type over the five-year operating period is specified by a sustained-yield forest plan. During the 2008-2012 operating period, approximately 446 ha are scheduled for treatment. Implementation of the treatments involves pre-harvest assessment and development of silvicultural prescriptions by a Registered Professional Forester and tree marking of selected stands by Provincial Certified Tree Markers.

The 2004 York Regional Forest Capital Plan identified a number of infrastructure requirements including access controls, additional parking lots, fencing, signage, and road repairs. Many of these improvements were completed during the past operating period. Additional improvements are scheduled during the 2008-2012 operating period. Most of the scheduled projects involve access control (e.g. fencing, gates) and repairs to forest access roads.