

PETERBOROUGH COUNTY FOREST

ANNUAL WORK REPORT

FOREST MANAGEMENT ACTIVITIES

Year 2 of the 2020 - 2029 Forest Management Plan

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1.0 Introduction

This Annual Work Report has been prepared to track the progress of the Forest Management Plan for the Peterborough County Forest (PCF) 2020-2029.

The County Forest has been managed employing the principles of sustainable forestry and has sought the assistance and expertise of forest professionals. As a result, the County Forest remains healthy, provides habitats for a variety of wildlife, supports non-resource-based activities and generates revenues through the sale of forest products derived from the County's well-managed forests. Silv-Econ Ltd. has assisted in implementing management activities in the County Forest since 2012. Management activities are guided by forest management plans. The previous management plan expired in 2019. A new Forest Management Plan 2020-2029 was prepared by Silv-Econ and approved by County Council on June 3, 2020. The management activities during 2021 are described below. Table 1 provides details of the work program in the PCF during 2021.

2.0 Planning

The 2020-2029 Forest Management Plan established a set of resource management principles and several objectives to guide resource management activities on the County Forest. Management activities have been scheduled for individual stands (compartments) for the 2020-2029 operating period.

3.0 Forest Certification

Since 2001, the Peterborough County Forest has been Forest Stewardship Council® (FSC®) certified by NEPcon (previously Smartwood) under Silv-Econ Ltd.'s group certificate (NC-FM/CoC-001769). Forest certification involves adherence to FSC Principles and Criteria for sustainable forest management. Timber produced from certified forests can be marketed as such and sold to mills that have FSC chain-of-custody arrangements.

Certification requires annual compliance reviews and five-year certificate renewal audits of Silv-Econ's certificate. The PCF is classified as a Small Low Intensity Managed Forest (SLIMF) under the FSC and NEPcon criteria and accordingly it does not need to be audited annually. The County Forest was audited in October 2021 during Silv-Econ's five-year renewal audit.

4.0 Silviculture

Forest management embodies a suite of activities designed to maintain and enhance the health of the forest. These include silvicultural management such as stand improvement thinning, tree planting in areas where natural regeneration is absent, tending to remove undesirable competing vegetation, and activities to protect the forest from natural and human-induced disturbances where possible. In 2021, hardwood stands in the Cavan and Havelock Depot blocks were marked for a selection thinning by certified tree markers from Silv-Econ. Silvicultural prescriptions were prepared to guide the tree marking and harvest by David Puttock, R.P.F., Silv-Econ Ltd.

5.0 Forest Inventory Updates

A forest inventory is a fundamental tool for assessing the current state of a forest. In 2018 a new forest inventory was completed for the Cavan block. Work on the new forest inventory for the Dummer-Belmont and Havelock Depot blocks began in 2020 and was 95% completed in 2021. There are inventory plots in two the northern lots in the Dummer-Belmont block remaining to be assessed in 2022.

6.0 Monitoring and Assessment

Regular monitoring of the health of the forest is an important component of sustainable forest management. Silv-Econ staff inspected access roads in the Dummer-Belmont and Havelock Depot blocks during the work on the new forest inventory. Two sections of the main road in the Dummer-Belmont block were identified for repairs and reported to the County.

7.0 Forest Health

The County Forest is a thriving, healthy forest ecosystem with diverse forest communities. Pathogens, insects, and weather-related disturbances contribute to small-scale changes in forest structure that are part of successional change. However invasive plants and insects can have a serious detrimental effect on the native vegetation communities represented in the PCF.

Silv-Econ staff have been conducting annual inspections of a number of forest stands in the Dummer-Belmont block for the presence of Emerald **Ash Borer** (EAB) (www.invasiveinsects.ca.) and **Dog Strangling Vine** (DSV) since 2012. To date we have not observed symptoms of EAB infecting the ash trees in this block of the County Forest. Annual inspections have revealed a few small colonies of the DSV in the Dummer-Belmont block. DSV was observed in compartments 538 & 540 in the Cavan block during the 2018 forest inventory. These colonies have not expanded in area since that time.

Lymantria dispar (LDD), commonly known as the gypsy moth, populations have surged across southern Ontario in 2020 and 2021. Silv-Econ foresters inspected trees in the Dummer-Belmont and Havelock Depot blocks for the presence of LDD egg masses during their work on the forest inventory in September 2020. The inspection revealed a high number of egg masses in the Havelock Depot block and defoliation in this block was heavy in 2021. Visual observations in the fall 2021 indicate fewer egg masses than in fall 2020. The LDD appear to have been affected by three biological agents: a parasitic wasp, a fungal disease, and a virus.

Hemlock woolly adelgid (HWA) (www.invasiveinsects.ca) is a serious non-native pest of our Eastern hemlock (*Tsuga canadensis*). Originally from Asia, the insect was first detected in Virginia in the 1950's and has since spread throughout the Eastern U.S. It has recently been detected in Ontario and Nova Scotia. Eastern hemlock appears to have little resistance to the feeding activity of the insect and infected trees succumb quickly. Foresters from Silv-Econ are checking hemlock trees as they are encountered during our work on the new forest inventory. However, HWA is difficult to detect because the feeding activity occurs high in the tree crowns. Silv-Econ is also coordinating an HWA forest manager's working group to be proactive in responding to the threat

posed by HWA. One of the working group initiatives is to assemble a database on the distribution of Eastern hemlock across the Ontario landscape. The County Forest is participating in the database. The new forest inventory will help foresters identify those stands in the county Forest that are most at risk from HWA.

8.0 Other Management Activities

Foresters from Silv-Econ noted two sections of the main forest road in the Dummer-Belmont block that required repairs. The repairs were carried out by County staff.

TABLE 1

**REPORT OF FOREST MANAGEMENT ACTIVITIES
PETERBOROUGH COUNTY FOREST
YEAR 2 - 2021**

| Activity | Block | Area (Ha) | Expenses (\$) | Revenues (\$) | Notes |
|---|----------------------------|----------------------|--------------------------|--------------------------|--------------|
| Planning & Administrative Support Prepare annual report of forest management | All | 2130 | 850 | | |
| Forest Certification Annual certification fee County share of NepCon audit expense in 2021 | All | 2130 | 10,420 4,489 | | |
| Silviculture 1. Silvicultural prescriptions & tree marking in the Cavan and Havelock Depot Blocks 2. 3. Complete forest inventory for Dummer-Belmont & Havelock Depot | Cavan Havelock Depot | 14.6 30.4 | 2,453 5,107 9,442 | 37,388 Excl. HST | 1 |
| Monitoring & Assessment 1. Forest health assessments – included with forest inventory update | | | 0 | | |
| Infrastructure Improvements Two sections of the main road in the Dummer-Belmont block were repaired by County staff | | | | | |
| Other Activities | | | | | |
| Total | | | 32,761 | 37,388 | |

Notes:

1. Timber sale awarded to Fairview Trucking, Cavan. Harvesting expected to begin in winter 2021/2022