



*Our Forest, Our Future:*  
Dufferin County Forest Operating Plan  
2021-2026





## EXECUTIVE SUMMARY

The Dufferin County Forest is a 1,066 hectare (2,636 acre) multi-tract forested area owned and managed by the County of Dufferin. The Forest serves important functions in terms of erosion and water control, natural heritage protection, biodiversity, wildlife habitat, recreational opportunities, and support of the rural economy through timber production and employment opportunities.

*Our Forest, Our Future:* Dufferin County Forest Management Plan 2016-2036 was approved by County Council on March 10, 2016. The recreational use policy for the County Forest was approved on May 11, 2017. This five year operating plan (2021-2026) outlines how environmental, economic, and social sustainability will be achieved for the Dufferin County Forest over the next five years, building on the County's strategies as outlined in the twenty-year management plan (2016-2036).

The goal of the twenty-year management plan is: *To protect the quality and integrity of ecosystems in the Dufferin County Forest, including air, water, land and biota; and, where quality and integrity have been diminished, to encourage restoration or remediation to healthy conditions; while providing a variety of social and economic benefits to the public.*

In order to achieve this goal, the following key actions will be taken in each of the three areas of sustainability during the period of this operating plan:

### Environmental Sustainability

- ❖ provide proper environmental conditions for wild life;
- ❖ protect against floods and erosion;
- ❖ maintain natural forest characteristics as much as possible and;
- ❖ protect the Forest from the threats of invasive species and climate change by improving overall forest health and by maintaining, and, where possible, increasing, biodiversity.

### Economic Sustainability

- ❖ maintain sustainable levels of timber harvesting throughout the planning period;
- ❖ seek forest certification to increase the demand for timber products from the County Forest and;
- ❖ continue to develop alternative revenue streams that will not compromise environmental sustainability.

### Social Sustainability

- ❖ continue to work with the Friends of the Dufferin County Forest on the implementation of on-the-ground activities in the Forest;
- ❖ continue to gain input into management of the Forest from the Dufferin County Forest Advisory Team;
- ❖ maintain an active relationship with users and other stakeholders;
- ❖ promote the benefits of forest protection/conservation;
- ❖ continue to inform residents of Dufferin County, in particular, youth, about the County Forest and;
- ❖ continue to update and implement the recreational use policy that was approved on May 11, 2017.



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## **1.0 INTRODUCTION**

This operating plan is for the Dufferin County Forest, a 1,066 ha (2,636 acre) multi-tract forested area owned and managed by the County of Dufferin. The Forest serves important functions in terms of erosion and water control, natural heritage protection, biodiversity, wildlife habitat, recreational opportunities, and support of the rural economy through timber production and employment opportunities.

From the first purchase of property in 1930 until 1991, the Forest was managed on behalf of the County by what is now the Ministry of Natural Resources and Forestry (MNR). This relationship was governed by twenty-year agreements made under the *Forestry Act*. In 1991, the most recent of these agreements expired. This fact, combined with changes to the MNR's private land forestry policy, resulted in the development of a new management plan for the Forest in which the County took the lead role, assisted by MNR. Dufferin was the first County in Ontario to take the lead in developing a management plan for its forest properties. The process to develop the plan started in earnest in July, 1994 with the hiring of a Forest Management Plan Author. Less than one year later, on June 8, 1995, Dufferin County Council approved the final draft of the plan. Throughout the process, there was participation from the MNR, a Forest Advisory Team, and the general public, all of whom provided valuable input and comments.

In 1995, the County took over the control and co-ordination of all activities having to do with the Dufferin County Forest. In order to fulfill this new role, Dufferin hired a County Forest Manager, the first County in Ontario to do so.

In 2005, the Dufferin County Forest celebrated its 75th anniversary.

In 2013, work began on a new twenty-year forest management plan, as the 1995-2015 plan was nearing expiration. Preparatory activities conducted in 2013 included a forest inventory, user surveys (online and on-site), a mailing to forest property neighbours and users regarding management plan development, a random household survey, and an initial meeting of the Forest Plan Advisory Team. In 2014, work continued with the development of a draft management plan, meetings of the Forest Plan Advisory Team, public open houses, and a public comment period. At its October, 2014 session, County Council deferred further action on the forest management plan and the associated recreation policy to the new Council.

During 2015 work continued on the development of a new twenty-year forest management plan and associated recreation policy. Early in the year, the Forest Operation Review Committee was established in order to consider the County's forest operation at a high level. The Committee met three times, moving quickly from a high level review of the County Forest operation to a review of an updated draft of the twenty-year forest management plan. Once the forest management plan was approved by County Council, the Committee proceeded to the development of the associated recreation policy.

The long-term forest management plan, *Our Forest, Our Future: Dufferin County Forest Management Plan 2016-2036*, was approved by County Council on March 10, 2016. The Recreational Use Policy was passed by County Council on May 11, 2017. The associated by-law (2017-39) was passed by County Council on September 14, 2017. The by-law has since undergone several updates, the most

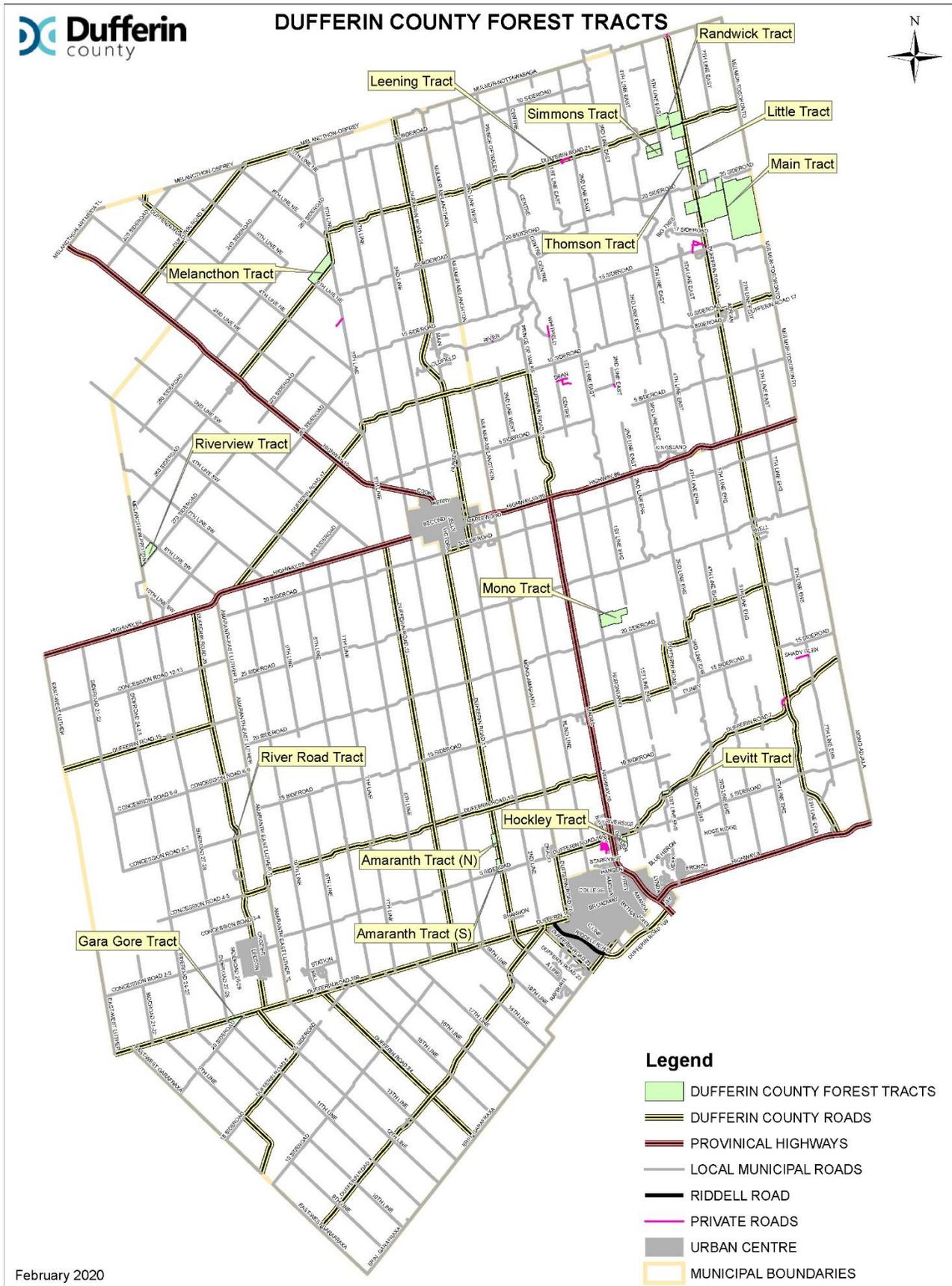
recent version is in Appendix E.

This five year operating plan (2021-2026) outlines how environmental, economic, and social sustainability will be achieved for the Dufferin County Forest over the next five years, building on the County's strategies as outlined in the twenty-year management plan (2016-2036).

## **2.0 CURRENT RESOURCES OF THE DUFFERIN COUNTY FOREST**

The Dufferin County Forest is a former agreement forest of 1,066 hectares (2,636 acres). The forest is divided into fourteen tracts located in all of Dufferin's rural municipalities: Amaranth, East Garafraxa, Grand Valley, Melancthon, Mono, and Mulmur. The largest single area is the Main Tract (607 hectares, 1,501 acres) in Mulmur Township. Figure 1 shows the location of the individual tracts within Dufferin County. Table 1 describes the significant characteristics of the Dufferin County Forest on a tract-by-tract basis.

Figure 1: Tracts of the Dufferin County Forest



**Table 1: Tracts of the Dufferin County Forest**

Tract	Amaranth North/South	Gara Gore	Hockley	Leening	Levitt
Municipality	Amaranth	East Garafraxa	Mono	Mulmur	Mono
Area (ha/acres)	24/59	15/37	20/51	8/20	4/10
Year Acquired	1940	1934	1976	1976	2010
Zoning	environmental protection	environmental protection	environmental protection	Niagara Escarpment Rural Area	Niagara Escarpment Natural Area
C.A.	NVCA	GRCA	NVCA	NVCA	NVCA
Parent Material	---/ loess or alluvium over loam till	loam and silt loam till	loess or alluvium over loam till	glacial till	esker and kame gravel
Topography	smooth basin/ smooth very gently sloping	smooth gently sloping	smooth moderately sloping	irregular steeply sloping	irregular moderately sloping
Soil Type	---/fine sandy loam	loam	silt loam	loamy	sandy loam
Drainage	---/imperfect	good	good	good	good
Primary Overstorey Coverture	Laurel Wetland Complex/ tolerant hardwoods	white spruce	Orangeville Wetland Complex	white spruce	white cedar
Secondary Overstorey Coverture	---/white spruce	---	---	white pine	hard maple
Invasive Plant Species	European buckthorn	---	European buckthorn, Scots pine	---	periwinkle, European buckthorn
Known Wildlife Species	snapping turtle, muskrat, raccoon, beaver, mink, fox, coyote, white-tailed deer, colonial waterbirds, pied-billed grebe, northern harrier, mink frog/---	---	muskrat, beaver, mink, fox, coyote, raccoon, waterfowl, various amphibians and reptiles	---	---
Cistern(s)/ Fire Pond(s)	0/0	0/0	0/0	0/0	0/0
Aggregate	other	other	secondary significance	other	tertiary significance
Recreation	few trails/few trails	few trails	one interpretive trail	few trails	few trails
Special Features	wetland/---	---	significant woodland, wetland	activities restricted as stipulated by donor	activities restricted as stipulated by donor, SAR, deer winter concentration area

--- insufficient data

**Table 1: Tracts of the Dufferin County Forest (continued)**

Tract	Little	Main	Melancthon	Mono	Randwick
Municipality	Mulmur	Mulmur	Melancthon	Mono	Mulmur
Area (ha/acres)	44/109	607/1,501	59/146	71/175	117/289
Year Acquired	1972-1973	1930-1963	1945	1942, 1963	1940-1944
Zoning	open space	open space	open space conservation/ general agricultural	open space	open space
C.A.	NVCA	NVCA	GRCA	NVCA	NVCA
Parent Material	outwash sand	outwash sand-sandy loam till	esker and kame gravel	outwash fine sand	outwash sand
Topography	smooth very gently sloping	irregular very steeply sloping	smooth basin/ irregular steeply sloping	irregular moderately sloping	smooth very gently sloping
Soil Type	loam sand	loam sand-sandy loam	sandy loam	sandy loam	loam sand
Drainage	good	good	good	good	good
Primary Overstorey Covertypes	mixedwood	red pine	Melancthon 1 Wetland Complex	red pine	red pine
Secondary Overstorey Covertypes	---	red oak	white spruce	tolerant hardwoods	tolerant hardwoods
Invasive Plant Species	Scots pine	autumn olive, dog-strangling vine, European buckthorn, garlic mustard, Norway maple, Scots pine	garlic mustard, purple loosestrife	dog-strangling vine, garlic mustard	dog-strangling vine, garlic mustard, Scots pine
Known Wildlife Species	white-tailed deer, wild turkey, small mammals	white-tailed deer, ruffed grouse, wild turkey, fox, porcupine, racoon, small mammals	bullfrogs, muskrat, racoon, beaver, white-tailed deer, colonial waterbirds	white-tailed deer, wild turkey, small mammals	white-tailed deer, wild turkey, small mammals
Cistern(s)/ Fire Pond(s)	0/0	0/0	0/1	0/0	0/2
Aggregate	tertiary significance	tertiary significance	primary significance	tertiary significance	tertiary significance
Recreation	one interpretive trail	extensive trail system, one interpretive trail	two trails	extensive trail system	extensive trail system
Special Features	significant woodland, creek	significant woodland, ANSI, Pine River floodplain, deer winter concentration area, SAR, linkage	significant woodland, wetland, deer winter concentration area	significant woodland, linkage	SAR, significant woodland, wetland, shoreline

--- insufficient data

**Table 1: Tracts of the Dufferin County Forest (continued)**

Tract	River Road	Riverview	Simmons	Thomson
Municipality	Grand Valley	Melancthon	Mulmur	Mulmur
Area (ha/acres)	5/12	40/99	40/99	12/29
Year Acquired	1963	1949	1967-1968	2018
Zoning	environmental protection	open space conservation/ general agricultural	open space	countryside area/environmental protection for creek
C.A.	GRCA	GRCA	NVCA	NVCA
Parent Material	fine sandy loam material over outwash gravel	loam till	outwash sand	outwash sand
Topography	smooth very gently sloping	smooth level/smooth gently sloping	smooth very gently sloping	smooth very gently sloping
Soil Type	fine sandy loam	loam	loam sand	loam sand
Drainage	good	poor/good	good	good
Primary Overstorey Covertypes	red pine	Melancthon 2 Wetland Complex	red pine	white spruce
Secondary Overstorey Covertypes	---	white pine	white pine	mixedwood
Invasive Plant Species	---	purple loosestrife, European buckthorn	Scots pine	Scots pine
Known Wildlife Species	---	bullfrogs, muskrat, racoon, ruffed grouse, waterfowl, small game	white-tailed deer, wild turkey, small mammals	---
Cistern(s)/ Fire Pond(s)	0/0	0/1	0/0	0/0
Aggregate	other	tertiary significance	tertiary significance	tertiary significance
Recreation	no trails	two trails	extensive trail system	no trails
Special Features	---	significant woodland, wetland	significant woodland	creek

--- insufficient data

## 2.1 Forest Inventory

The most recent full inventory of the Dufferin County Forest was conducted in 2013. A summary of the estimated production forest<sup>1</sup> area and volume is shown in Table 2.

**Table 2: Summary of Estimated Production Forest Area and Volume, Dufferin County Forest**

Working Group	Area (ha)	% of Total Area	Volume (m <sup>3</sup> )	% of Total Volume
Red Pine	328	37	73,202	48
Red Oak	218	25	24,951	16
Mixedwood	112	13	19,342	13
White Pine	90	10	15,928	10
Hard Maple	77	9	7,843	5
White Spruce	55	6	10,928	7
Bottomland	7	0.8	1,196	0.8
<b>Total</b>	<b>887</b>	<b>100.8<sup>1</sup></b>	<b>153,390</b>	<b>99.8<sup>1</sup></b>

<sup>1</sup>Totals are not equal to 100 due to rounding.

Due to the relatively low volume of wood that is removed from the Dufferin County Forest annually, there are no mills that depend on it for a significant portion of their supply. The thinning of red pine plantations produces pulpwood, sawlogs, and poles. Hardwood sawlogs and fuelwood are supplied through improvement harvests in the hardwood stands. The standing trees are sold on a tender basis. Buyers of standing timber from the Dufferin County Forest have come from all over Ontario. Table 3 shows the annual harvest area and volume 2000-2019.

**Table 3: Annual Harvest Area and Volume 2000-2019**

Year	Area Harvested (ha)	Volume Harvested (m <sup>3</sup> )
2000	28.8	1,094
2001	43.3	2,010
2002	30.0	1,540
2003	34.0	1,469
2004	31.0	1,744
2005	28.0	1,409
2006	35.0	972
2007	47.0	1,911
2008	60.0	2,235
2009	58.0	2,436
2010	36.0	1,308
2011	20.0	1,237
2012	33.0	1,322
2013	32.0	3,170
2014	18.0	421
2015	38.0	1,344
2016	63.0	4,333
2017	48.0	2,157
2018	29.0	1,958
2019	0 <sup>1</sup>	0 <sup>1</sup>
<b>Average</b>	<b>35.6</b>	<b>1,704</b>

<sup>1</sup> Due to unforeseen circumstances, there were no timber sales in 2019.

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<sup>1</sup> Production forest: all productive forest land managed primarily for human benefit, unless otherwise reassigned.

### **Regeneration**

Regeneration is the term used to describe young trees with a DBH (diameter at breast height) of 6-8 cm. Trees taller than breast height (1.3 m) are classed as advanced regeneration, trees less than breast height are classed as early regeneration. The quantity and species of regeneration depends mainly on the shade tolerance of the species forming the overstorey. Species which are shade intolerant (e.g. red pine, poplar) regenerate with great difficulty under their own canopy. The understorey in these stands will be limited or will be formed by more shade tolerant species such as maple or ash. Shade tolerant species will usually regenerate under their own canopy.

In the Dufferin County Forest, most regeneration is hard (sugar) maple (*Acer saccharum*), white ash (*Fraxinus americana*), white pine (*Pinus strobus*), ironwood (*Ostrya virginiana*), red maple (*Acer rubrum*), and beech (*Fagus grandifolia*). Early red oak (*Quercus rubra*) regeneration occurs in some areas where there is red oak in the overstorey.

Ninety-two percent of the forest area has advanced regeneration. The lack of regeneration on 8% of the forest may be caused by high overstorey density, lack of a seed source for species that would normally grow in the understorey, or otherwise inhospitable site conditions for regeneration.

### **Understorey Vegetation**

Besides regeneration, most forest stands have some shrubs, plants, mosses, and grasses and sedges in the understorey. The species and amount of these varies with the site type, stand history, and current stand structure. The most common plants in the understorey are: maple-leaved viburnum, red osier dogwood, raspberry, bracken fern, Canada mayflower, sarsaparilla, mosses, and grasses.

## **2.2 Wildlife**

Animals which are present in the Dufferin County Forest include: white-tailed deer, ruffed grouse, wild turkeys, woodcocks, Canada geese, mallards, wood ducks, pheasants, snapping turtles, muskrats, raccoons, beavers, mink, coyotes, foxes, porcupines, cottontail rabbits and various small mammals. Not all of these species exist on all of the tracts, as some are associated with wetland habitat types (e.g. snapping turtle), while others are associated with upland types. The main wildlife species known to be associated with each tract can be found in Table 1.

The Ministry of Agriculture and Food lists a number of shrubs in its *Farm Forestry and Habitat Management* guide that are important for many different wildlife species. Of those, Virginia creeper, wild grape, red osier dogwood, alternate-leaved dogwood, elderberry, staghorn sumac, and wild apple are known to exist in the Dufferin County Forest.

The Ministry of Natural Resources and Forestry, which is responsible for wildlife management in Ontario, does not collect census data for the wildlife species in the Dufferin County Forest. Wildlife management is based on a habitat management approach, i.e. the forest is managed for different habitat types rather than being directly managed for different wildlife species. The Dufferin County Forest currently includes the following habitat types: non-treed wetlands, treed wetlands/bottomland conifers, bottomland hardwoods, creeks, ponds, mixedwoods, upland tolerant hardwoods, upland oak, and conifer plantations.

Deer winter concentration areas are important for the survival of white-tailed deer over the winter. Generally speaking, these areas provide conifer cover which intercepts snow, allowing deer to move

around with lower energy losses. The “core” of a deer yard is that portion of the yard where use by deer is highest during winters that are severe. The Levitt, Main, and Melancthon Tracts are part of identified deer winter concentration areas. The Hockley, Leening, and Mono Tracts are adjacent to identified deer winter concentration areas.

Habitat types other than those listed above which are adjacent to the Dufferin County Forest include cultivated fields, meadows, river valleys, stream corridors, and small woodlands.

### 2.3 High Conservation Value Forests

In the Dufferin County Forest, there are a number of high conservation value forests that require special attention in the planning process. These can be grouped as follows: evaluated wetlands; old growth forest; Areas of Natural and Scientific Interest (ANSIs); species at risk habitat; and critical fish habitat. A summary of the high conservation value forests is shown in Table 4; the values are described in more detail in the twenty-year forest management plan.

**Table 4: High Conservation Value Forests in the Dufferin County Forest**

Tract (Compartments)	Working Group	Area (ha)	Conservation Value
<b>Amaranth (42a), Laurel Wetland Complex</b>	Mr	12	provincially significant wetland
<b>Amaranth (43b, 43c), Farmington Swamp</b>	hardwoods	10	locally significant wetland
<b>Hockley, Orangeville Wetland Complex</b>	Ce, Po	20	provincially significant wetland
<b>Leening</b>	Po, Pw, Sw	8	Niagara Escarpment Rural Area; donor restrictions
<b>Levitt</b>	Ce	4	Niagara Escarpment Natural Area; donor restrictions
<b>Little</b>	mixedwood	44	developing old growth
<b>Main (11, 20a, 21b, 23c, 24a, 25a, 26-30, 31a, 31d), Oak Ridges South Slope Forest</b>	Or	266	life science ANSI
<b>Main (31b, 31c)</b>	Po	24	locally significant wetland
<b>Melancthon (33a, 33c, 33d, 34a, 35a), Melancthon 1</b>	Ce	48	provincially significant wetland
<b>Randwick (4d), Walker’s Creek Wetland</b>	Ce	2	locally significant wetland
<b>Riverview (37a, 38c, 38d), Melancthon 2</b>	Po	13	locally significant wetland
<b>Total</b>		451	

The type of old growth forest that is developing at the Little Tract is generally assessed using four parameters: average age of live trees, number and size of snags (standing dead trees), amount and size of downed woody debris (logs on the ground), and length of time without significant human disturbance. An inventory completed by Forestry Summer Students in 2020 showed that the Little Tract more than meets the old growth criteria for snags and downed woody debris. It has not had significant human disturbance since at least 1971 when the County purchased it. The average age of the trees is still about 70 years away from being old growth.

### 2.4 Forest Health

The health of the forest is impacted by numerous factors, many of which are a natural part of the forest ecosystem. Overall, the Dufferin County Forest is in good health. By increasing forest diversity and promoting vigorous growth the County will strive to maintain the healthy condition in the face of some notable threats, both biotic and abiotic.

**Evaluation of Insect and Disease Populations**

Insects and diseases are monitored by the Ministry of Natural Resources and Forestry’s Forest Health Technicians, the Canadian Food Inspection Agency, and County Forest staff. Specifically, emerald ash borer, Asian long-horned beetle, oak wilt, gypsy moth, beech bark disease, butternut canker, and red pine decline are of primary concern. Red pine decline is a complex of issues, the remaining are alien invasive species and therefore have the potential to cause a great deal of harm due to lack of native parasites and predators and the ability to take over ecological niches occupied by native species. Other than Asian long-horned beetle, emerald ash borer, and Sirex woodwasp these are all known to be in the Dufferin County Forest. Emerald ash borer has been detected in Dufferin County, but is not confirmed to be present in the County Forest.

**Alien Invasive Plants**

Alien invasive plants have great potential to alter the ecology of the terrestrial habitats of the Dufferin County Forest. Since the Dufferin County Forest does not contain a significant number of watercourses, aquatic invasive species are of lesser concern. The invasive species recorded in the 2013 forest inventory were Manitoba maple (*Acer negundo*), European buckthorn (*Rhamnus cathartica*), and garlic mustard (*Alliaria petiolate*); none in extensive amounts.

During the summer of 2015, the Forestry Summer Student surveyed the trails in the most-visited tracts – Hockley, Little, Main, Mono, and Randwick - for dog-strangling vine (*Vincetoxicum rossicum* and *V. nigrum*). One small patch was found, in the Mono Tract. Since then, dog-strangling vine has been found in three locations at the Main Tract and two locations at the Randwick Tract. During the summer of 2020, the Forestry Summer Students conducted more extensive surveys to look for key invasive species (dog-strangling vine, European buckthorn, garlic mustard, and Scots pine) in the majority of the areas designated as Natural Forest (Table 8). Since these areas have been determined to be ecologically more significant, the inventory and management of invasive species is a priority. Table 5 shows the known presence of the higher risk alien invasive plants in the tracts of the Dufferin County Forest.

**Table 5: Higher Risk Alien Invasive Plants Present in the Dufferin County Forest**

Tract	Autumn Olive	Dog-Strangling Vine	European Buckthorn	Garlic Mustard	Japanese Knotweed	Norway Maple	Periwinkle	Scots Pine
Amaranth North			X					
Amaranth South			X					
Gara Gore								
Hockley			X					X
Leening								
Levitt			X				X	
Little								X
Main	X	X	X	X		X		X
Melancthon				X				
Mono		X		X				
Randwick		X		X				X
River Road								
Riverview			X					
Simmons								X
Thomson								X

### ***Abiotic Factors***

Abiotic factors (fire, extreme weather) can also have a significant impact on forest health, and these are expected to increase with climate change.

### ***Wildfires and Prescribed Burns***

In order to reduce the potential for wildfires, the County has maintained the fire ponds at the Melancthon, Riverview, and Randwick Tracts that were established by MNRF; equipped all tracts with signs indicating the rural address (emergency number) and “In case of emergency, call 9-1-1.”; and made it illegal through the County Forest by-law (2017-39 as amended) to have campfires in the Forest.

### ***Access Restriction***

The main entrances at all of the tracts have been gated to reduce unauthorized vehicular access and the related activities of garbage and yard waste dumping, illegal removal of wood, partying, and introduction of invasive plant species.

## **2.5 Ecosystem Services**

Ecosystem services are benefits that flow to society from nature. These benefits include such things as: decomposition of and detoxification of human wastes, carbon sequestration, erosion prevention, water holding capacity, pollution absorption, and the improvement of physical and mental health.

Ecosystem services are being given monetary value so that more of the benefits and values of natural areas are explicitly taken into account when making decisions that impact those natural areas. To date, these mostly include decisions about future development and compensating landowners who voluntarily conserve and/or enhance ecosystem services on their properties. Measuring more of the ecosystem services explicitly allows us to better assess the potential impact of our decisions on ecosystem health.

In 2009, the MNRF commissioned a report titled *Estimation of Ecosystem Service Values for Southern Ontario*. The study took into consideration a number of ecosystem values, including recreation, aesthetic/amenity, other cultural services, pollination and seed dispersal, habitat refuge and biodiversity, atmospheric regulation, soil retention and erosion control, water quality maintenance and nutrient/waste regulation, water supply and regulation, and disturbance avoidance<sup>2</sup>.

As the MNRF was willing to provide the County with the dataset used to produce the report, ecosystem service values for the tracts of the Dufferin County Forest were determined. The tracts with wetlands were rated the highest, namely Amaranth and Hockley. Ecosystem service values for all of the tracts are shown in Table 6. Ecosystem service values were taken into consideration when designating the High Conservation Value Forests (Table 4).

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<sup>2</sup> Disturbance avoidance is the ability of natural environments to shield humans and their infrastructure from extreme weather events such as high winds and floods.

**Table 6: Ecosystem Service Values for Tracts of the Dufferin County Forest**

Tract	Natural Heritage	Estimated Ecosystem Service Value \$/year
<b>Amaranth</b>	provincially significant wetland	\$2.1 million – \$5.7 million
<b>Gara-Gore</b>	n/a	\$132,000 - \$330,000
<b>Hockley</b>	significant woodland, provincially significant wetland	\$1.8 million - \$4.8 million
<b>Leening</b>	Niagara Escarpment Rural Area	\$44,000 - \$105,600
<b>Levitt</b>	SAR, Niagara Escarpment Natural Area, deer winter concentration area	\$35,200 - \$88,000
<b>Little</b>	significant woodland, creek	\$96,800 - \$193,600
<b>Main</b>	significant woodland, ANSI, Pine River floodplain, deer winter concentration area, SAR, linkage	\$1.3 million - \$2.7 million
<b>Melancthon</b>	significant woodland, provincially significant wetland, deer winter concentration area	\$519,200 - \$1.3 million
<b>Mono</b>	significant woodland, linkage	\$156,200 - \$312,400
<b>Randwick</b>	SAR, significant woodland, wetland, creek	\$257,400 - \$514,800
<b>River Road</b>	n/a	\$11,000 - \$22,000
<b>Riverview</b>	significant woodland, locally significant wetland	\$220,000 - \$528,000
<b>Simmons</b>	significant woodland	\$88,000 - \$176,000
<b>Thomson</b>	creek	\$30,000-\$60,000

## 2.6 Aggregates

Aggregate extraction will not occur in the current operating plan period (2021-2026), it conflicts with the other environmental and resource management objectives, as it would necessitate removal of the forest cover and alteration of the landscape. However, the County will assess the aggregate resources on all newly acquired forest properties in order to maintain a current database of all resources associated with the Dufferin County Forest. Table 7 summarizes the aggregate resources present in the Dufferin County Forest, compiled from the *Aggregate resources inventory of Dufferin County, southern Ontario; Ontario Geological Survey, Aggregate Resources Inventory Paper 163—Revision 2*.

**Table 7: Aggregate Resources in the Dufferin County Forest**

Tract	Municipality	Description of Aggregate Resource
<b>Amaranth</b>	Amaranth	other surficial deposits or exposed bedrock
<b>Gara-Gore</b>	East Garafraxa	other surficial deposits or exposed bedrock
<b>Hockley</b>	Mulmur	selected sand and gravel resource area, secondary significance
<b>Leening</b>	Mulmur	other surficial deposits or exposed bedrock
<b>Levitt</b>	Mono	sand and gravel deposit, tertiary significance
<b>Little</b>	Mulmur	sand and gravel deposit, tertiary significance
<b>Main</b>	Mulmur	sand and gravel deposit, tertiary significance
<b>Melancthon</b>	Melancthon	selected sand and gravel resource area, primary significance; sand and gravel deposit, tertiary significance
<b>Mono</b>	Mono	sand and gravel deposit, tertiary significance
<b>Randwick</b>	Mulmur	sand and gravel deposit, tertiary significance
<b>River Road</b>	Grand Valley	other surficial deposits or exposed bedrock
<b>Riverview</b>	Melancthon	sand and gravel deposit, tertiary significance; other surface deposits or exposed bedrock
<b>Simmons</b>	Mulmur	sand and gravel deposit, tertiary significance
<b>Thomson</b>	Mulmur	sand and gravel deposit, tertiary significance

## 2.7 Recreation

The recreational use policy for the County Forest was passed on May 11, 2017. The policy is

**Figure 2: Kiosk at Main Tract**



supported by a County Forest by-law (2017-39 as amended) which was passed on September 14, 2017. The current by-law (which includes the recreational use policy) can be found in Appendix E. The by-law/policy has undergone several amendments.

In 2018, a new information kiosk (Figure 2) was erected at the Main Tract parking lot. The information available at the kiosk is being updated and expanded on an ongoing basis.

Most of the tracts have at least a rudimentary trail system that is, depending on the tract, used for a variety of recreational activities including dog walking, hiking, wildlife viewing, nature appreciation, cross-country skiing, snowmobiling, mountain biking/fat biking, and horseback riding.



The Little Tract has a parking area, a sign describing the history of the Tract, and an interpretive trail.

The Hockley Tract has a parking area, fully accessible trail, and interpretive signs.

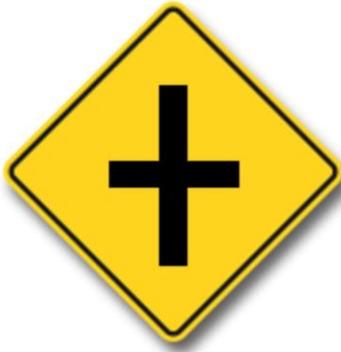
The Main Tract has a parking area, an interpretive trail, an information kiosk, and a staging/camping area for large, organized recreational events.

In 2019, wayfinding signs (Figure 3) were installed throughout the Main Tract.

In 2020, signs marking the intersections (Figure 4) of mountain biking/fat biking and horseback riding trails were installed throughout the Main Tract.

In 2020, a new sign (Figure 5) was erected at the entrance to the Main Tract to provide information

**Figure 4: Main Tract Intersection Sign**



about recreational events, hunting seasons, and general reminders about recreational use.

All of the entrances to the County Forest tracts have rural address numbers posted for wayfinding and emergencies.

The Mansfield Outdoor Centre, a private recreational complex, leases trails in the southern part of the Main Tract for cross-country skiing, generating revenue anywhere between \$500 and \$1,000 annually for the County, based on the number of skiers in the prior season.

Ontario Federation of Snowmobile Clubs (OFSC) trails run through the Main Tract, Mono Tract, Randwick Tract, Riverview Tract, and adjacent to the Simmons Tract.

The recreational use policy outlined a new process and requirements for organized recreational events. There are currently about eight groups with about 14 events annually, mostly in the Main Tract, but also in the Mono Tract.

**Figure 5: Main Tract Entrance Sign**



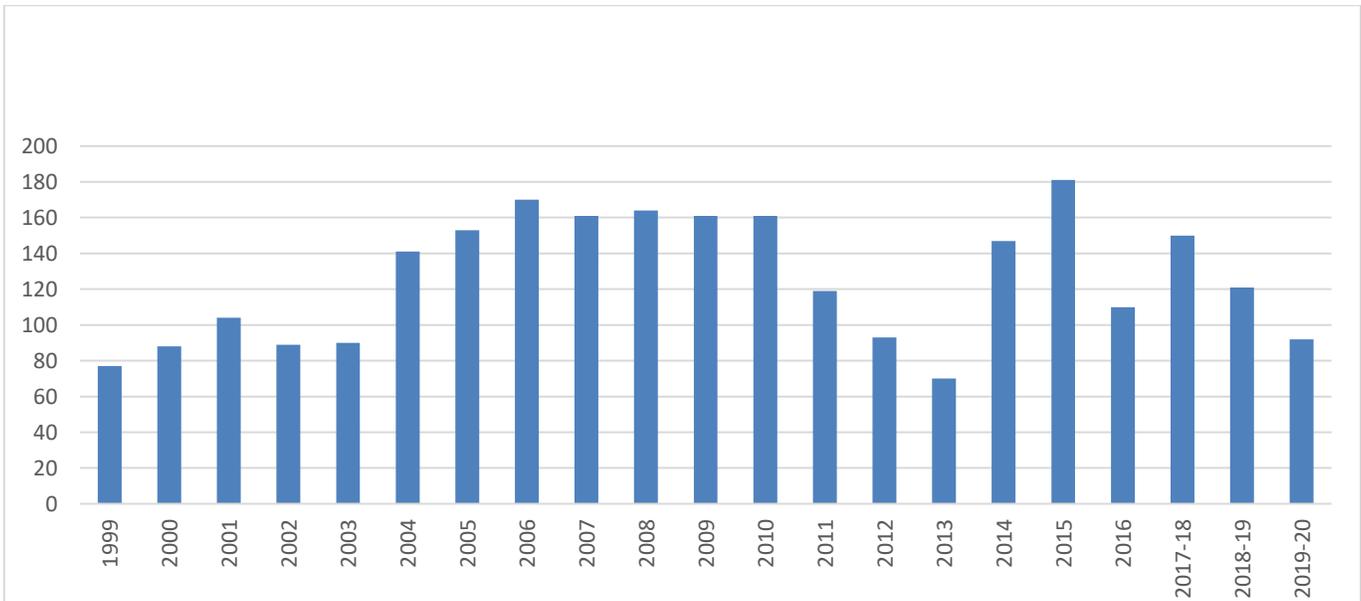
Hunting in the Dufferin County Forest focuses on white-tailed deer and wild turkey. The shotgun portion of the controlled white-tailed deer hunt takes place annually for five days at the beginning of November and five days at the beginning of December. The wild turkey shotgun hunt takes place from April 25 to May 31, as well as following Thanksgiving for a period of just under two weeks. The seasons for small game vary, but usually take place over the fall and winter. The hunting seasons and numbers of tags are determined each year by the Ministry of Natural Resources and Forestry (MNR) on a Wildlife Management Unit (WMU) basis. This ensures that wildlife populations in any given area are not exposed to undue hunting pressure. In the case of game animals, such as white-tailed deer, the number of tags in a given Wildlife Management Unit is determined on the basis of hunter success during the previous season and weather conditions over the past year. For example, a particularly hard winter will probably mean that fewer animals survived and a lower number of tags will be issued. Every year, the MNR publishes a guide for hunters explaining the current year's regulations and seasons. These guides are available from MNR offices across the province, at locations where hunting licenses are sold, and at [www.ontario.ca/hunting](http://www.ontario.ca/hunting).

Temporary signs were posted at a number of the tracts showing the dates of the spring wild turkey hunt, the fall wild turkey shotgun hunt, and the two five-day periods of the fall deer shotgun hunt. This is done to inform users of the concentration of hunters in the Forest during those periods. Additional signs urging hunters to “Exercise Extreme Caution” are posted around the southern section of the Randwick Tract. The “No hunting” signs that were posted along the boundary between the southern section of the Randwick Tract and the private land to the west in 1999 were monitored; no new signs were necessary.

Hunting is currently not allowed in the following tracts: north portion of Amaranth, Hockley, Leening, Levitt, Little, Mono, and Thomson.

Starting in 1997, the County adopted a permit system for hunters in order to pay for advertisements and signs informing non-hunters about the main hunting seasons (wild turkey and white-tailed deer). This was done to increase safety for all users of the Dufferin County Forest. Figure 6 shows the number of permits sold annually since 1999.

**Figure 6: Forest Use Permits (Hunting) Issued for the Dufferin County Forest 1991 to 2019-20**



The local Ontario Federation of Snowmobile Clubs (OFSC) member clubs (Dufferin, Orangeville, and Alliston & District) posted signs indicating the location of the OFSC trails through the Main, Mono, Randwick, Simmons, and Riverview Tracts of the Dufferin County Forest.

### **2.8 Public Relations and Education**

The County continues to make efforts to increase the knowledge about the County Forest within Dufferin County.

The primary activities conducted on an ongoing basis are:

1. placement and replacement of signs identifying all of the tracts and outlining the main stipulations of the County Forest by-law (2017-39 as amended);

2. tree and plant identification walks;
3. maintenance of the County Forest section on the County of Dufferin website (www.dufferincounty.ca);
4. attendance at various local events, including the spring home show;
5. production and periodic updating of various information products, including a general County Forest brochure; a recreational use brochure; a hunting brochure; a brochure describing the Little Tract interpretive trail; a brochure describing the Main

**Figure 7: Main Tract Interpretive Trail Brochure**



This pamphlet guides you along an interpretive trail at the Main Tract of the Dufferin County Forest. The Main Tract is located at 937513 Airport Road (on the east side, about 10 km north of Highway 89).

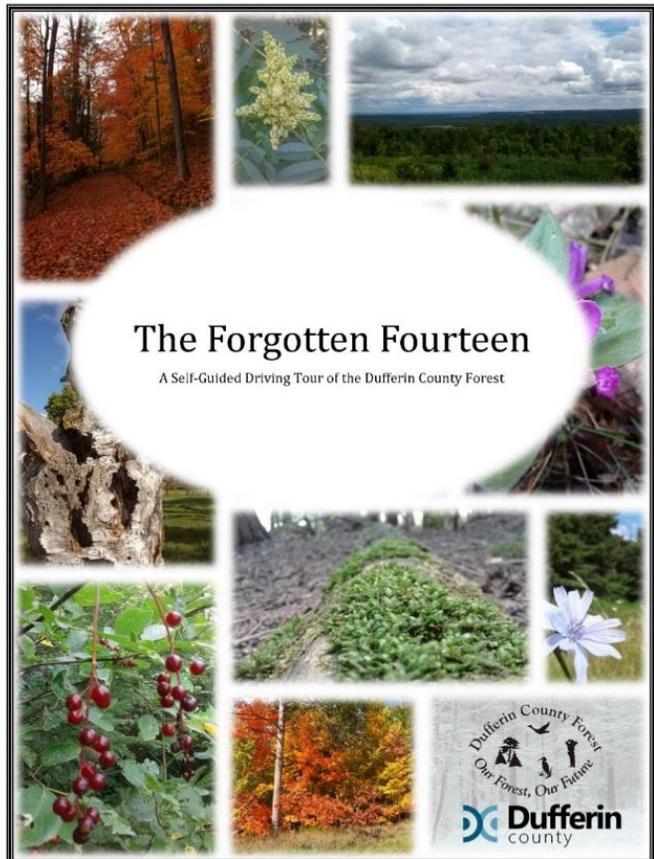
**Please respect the Main Tract:**

- No camping
- No campfires
- No motorized vehicles except snowmobiles on designated OFSC trails
- No littering or dumping

Tract interpretive trail; a trail map brochure for the Main Tract; and a brochure describing the driving tour.

There are interpretive trails at the Hockley, Little, and Main Tracts to educate users about the forest and forest management. In 2016-17, the Forestry Summer Student developed and established the interpretive trail at the Main Tract (Figure 7). In 2018, a plan for adding elements for the visually impaired to the trail at the Hockley Tract was developed by the Forestry Summer Student. In the short-term, some of these elements are being added to the natural playground at Island Lake, in co-operation with

**Figure 8: Driving Tour Brochure**



Credit Valley Conservation.

In 2019, the Forestry Summer Student developed a self-guided driving tour (*The Forgotten Fourteen: A Self-Guided Driving Tour of the Dufferin County Forest*, Figure 8), to encourage people to explore all of the fourteen tracts of the County Forest, many of which are unknown to even those who use the Main Tract on a regular basis. The tour includes clues that will complete a phrase that relates to the County Forest. If you complete the phrase correctly, you win a prize!

To assist in public education about forest management, a conifer plantation thinning demonstration area was established adjacent to the Main Tract parking lot in 1997. The area (2.5 hectares) was planted with red pine and some spruce in 1967. It was divided into four sections that were thinned in 1998 as follows: 50% removal, 25% removal, 33% removal, and 0% removal. The second thinning in half of each of the original four sections took place in 2009. The third thinning of seven of the resulting eight sections took place in 2017. The result of this is four sections that have been thinned three times, three sections that have been thinned twice, and one section that has not been thinned at all. This will enable the public to observe the impact of various thinning regimes on the growth of the trees and on the development of regeneration and understorey plants. Disks were collected from the trees at the time of thinning so that comparisons in annual growth can be made. The demonstration area is a valuable tool in the education of landowners and the general public about conifer plantation thinning.

In 2018, the Forestry Summer Student researched the possibility of finding remnants of buildings at the County Forest tracts. The tracts that were researched were Main, Randwick, Little/Thomson, and Simmons. The research involved the following:

- i. searching through the Land Titles for the different properties to find the owners and then reviewing the Tax Assessments for those same properties. The tax records reveal not only who owned the property but who was occupying the property (tenant, owner, not occupied, etc.), if the land was “built upon” (i.e. had a house), the value of the land and, if it was occupied, how many people were living on it.;
- ii. the ownership records were compared with the 1861 through 1901 census records to see the occupations of the owners. A “farmer” indicated a higher likelihood of someone living on the land.
- iii. the 1881 Simcoe County Atlas Maps (for Mono & Mulmur Township) and more modern maps were reviewed to determine the most likely location for a farm house; and
- iv. newspapers were examined to see if there were any reports of what was happening on the land e.g. farming, logging.

This research produced two notable results:

- i. the sign describing the community of Rookery Creek that is currently posted at the Little Tract should be more appropriately posted at the Thomson Tract and will, therefore, be relocated; and
- ii. what appears to be a building foundation was discovered at the Simmons Tract, inside the entrance at 878214 5th Line EHS (Mulumur).

## **2.9 Research**

A procedure for researchers to have access to the Dufferin County Forest has been developed. There have not been any research projects conducted in the County Forest since the passing of the long-term forest management plan in 2016.

## **3.0 OUR FOREST, OUR FUTURE: DUFFERIN COUNTY FOREST OPERATING PLAN 2021-2026**

This operating plan follows the goal, objectives, and actions developed in the long-term forest management plan in 2016. These have been reviewed and are still applicable to the management of the Forest.

In the following sections, the three objectives of environmental sustainability, economic sustainability, and social sustainability are presented as having equal importance. However, in situations where they may come into conflict, environmental sustainability will take precedence over the others.

### **3.1 Goal**

To protect the quality and integrity of ecosystems in the Dufferin County Forest, including air, water, land and biota; and, where quality and integrity have been diminished, to encourage restoration or remediation to healthy conditions; while providing a variety of social and economic benefits to the public.

### **3.2 Land Use**

Development and site alteration shall not be permitted in significant woodlands in Ecoregions 6E and 7E (including the Dufferin County Forest) in accordance with Section 2.1.5 b) of *the Provincial Policy Statement (2020)*. Further, there will be no development in the Leening and Levitt Tracts, as defined in the *Niagara Escarpment Planning and Development Act (1990)*.

The *Dufferin County Official Plan (2017)* proposes the preparation of a Natural Heritage System Strategy and includes a map of a County Preliminary Natural Heritage System. The County Forest is included as part of the preliminary system. The goal, objectives, and actions outlined in this document align with the objectives for natural heritage and water resources in the Official Plan. The County is currently undergoing a Municipal Comprehensive Review that will further address the role of the County Forest within the Natural Heritage System.

In order to facilitate future land use decisions, tracts (and sometimes parts of tracts) have been assigned to one of three classes that correspond to the three areas of sustainability described in this plan:

1. areas where the main focus is environmental sustainability are designated as natural forest;
2. areas where the main focus is economic sustainability are designated as managed forest; and
3. areas where the main focus is social sustainability (recreation) are designated as recreation forest.

#### ***Natural Forest***

These areas correspond to those identified as High Conservation Value Forests in Table 4. The only forest management activities that will be conducted in these areas will be maintenance or enhancement of notable features. In particular, this applies to the Oak Ridges South Slope Forest Area of Natural and Scientific Interest (ANSI) in the Main Tract, which, if left unmanaged, will succeed to a maple-beech forest and lose many of the characteristics that are the reason for the ANSI designation.

#### ***Managed Forest***

These areas are currently all of those that are not designated as Natural Forest. Forest management activities that conform to the goal and actions of the long-term forest management plan will be conducted.

**Recreation Forest**

There are currently no areas that are designated as Recreation Forest.

Table 8 shows the land use classes for the current tracts that make up the Dufferin County Forest. Tracts (or parts of tracts) that are added to the County Forest portfolio will be assigned to land use classes based on which of the three areas of sustainability are the main focus for the property (or part of the property). This will be done as soon as possible following acquisition.

**Table 8: Land Use Classes for Dufferin County Forest Tracts**

Tract (Compartments)	Land Use Class	Area (ha)	Conservation Value	Standard Forest Management <sup>1</sup>
Amaranth (42a), Laurel Wetland Complex	natural	12	provincially significant wetland	no
Amaranth (43b, 43c), Farmington Swamp	natural	10	locally significant wetland	no
Amaranth (43a)	managed	2		yes
Gara-Gore (44a)	managed	15		yes
Hockley (49), Orangeville Wetland Complex	natural	20	provincially significant wetland	no
Leening (50)	natural	8	Niagara Escarpment Rural Area; donor restrictions	no
Levitt (51)	natural	4	Niagara Escarpment Natural Area; donor restrictions	no
Little (48)	natural	47	developing old growth	no
Main (7-10, 12-19, 21a, 22, 23a, 23b, 24b, 24c, 25b, 25c)	managed	316		yes
Main (11, 20a, 21b, 23c, 24a, 25a, 26-30, 31a, 31d), Oak Ridges South Slope Forest	natural	266	life science ANSI	no
Main (31b, 31c)	natural	24	locally significant wetland	no
Melancthon (32a, 32b, 32c, 33a, 33b, 33d)	managed	12		yes
Melancthon (33a, 33c, 33d, 34a, 35a), Melancthon 1	natural	48	provincially significant wetland	no
Mono (39-40, 46)	managed	68		yes
Randwick (1-4c, 5-6)	managed	115		yes
Randwick (4d), Walker's Creek Wetland	natural	2	locally significant wetland	no
River Road (45)	managed	3		yes
Riverview (36, 37b, 37c, 37d, 37e, 38a, 38b)	managed	27		yes
Riverview (37a, 38c, 38d), Melancthon 2	natural	13	locally significant wetland	no
Simmons (47)	managed	42		yes
Thomson (52)	managed	12	creek	yes
<b>Total</b>		1066		

<sup>1</sup>In areas designated as “no” removal of hazard trees and invasive species may occur, as well as forest management activities that maintain or enhance notable features.

**3.3 Environmental Sustainability**

Action 1: Do not develop the County Forest properties.

Action 2: Harvest timber on a sustainable basis.

Action 3: Strive to improve stand quality.

Action 4: Emulate natural disturbances during all forest management operations to the extent possible.

Action 5: Promote the characteristics of a natural forest such as snags, cavity trees, downed trees, and mast trees.

Action 6: Promote natural regeneration.

Action 7: Maintain an up-to-date list of relevant species at risk and ensure that forest management operations are in accordance with their habitat requirements in areas where they are identified.

Action 8: Manage disturbances (invasive plants, wildfire, insects and disease, extreme weather events) for the overall health of the forest, while ensuring that human life and private property are protected from such disturbances.

Action 9: Minimize the impacts of climate change.

Action 10: Minimize the impacts of recreational activities.

***Sustainable Timber Harvesting***

The report *Sustainable Timber Management of the Dufferin County Forest*, produced in conjunction with the 2013 forest inventory, shows that selection harvesting of an average of 30 ha per year is sustainable over the long-term (Table 9).

**Table 9: Sustainable Timber Management Area Projections by Planning Period for all Forest Types 2014-2053**

Period	Total Area (ha)	Average Annual Area (ha)
2014-2023	424	42.4
2024-2033	440	43.9
2034-2043	374	37.1
2044-2053	318	31.7
Average	389	38.78

This figure is only slightly more than the average annual harvest from 2000-2019 which was 35.6 ha (Table 3). The County will target an average of 30 ha/year for selection harvesting. It is expected that areas harvested on an annual basis will fluctuate, and may change from those proposed in Table 10, depending on size of individual stands, silvicultural priorities, market conditions, and unpredictable natural events such as severe storms or insect or disease infestation.

**Table 10: Proposed Selection Harvesting 2021-2026**

Tract (Compartments)	Working Group	Area (ha)
Randwick (2b, 3b)	hardwoods	10
Randwick (5a, 6a)	white pine	12
Randwick (5b)	red pine	14
Main (8a)	red pine	2
Main (9b, 9c, 10c)	white pine	17
Main (11a, 11b)	mixedwood	23
Main (15c)	mixedwood	15
Main (16b)	red pine	4
Main (17b)	mixedwood	14
Main (23c, 24c)	red pine	7
Main (24a)	hardwoods	6
Main (26a)	red pine	8

<b>Tract (Compartments)</b>	<b>Working Group</b>	<b>Area (ha)</b>
<b>Simmons (47c)</b>	mixedwood	6
<b>Total</b>		<b>138</b>

***Pre-Harvest Silvicultural Prescriptions***

A number of the environmental sustainability actions will be fulfilled through pre-harvest silvicultural prescriptions. The purpose of the pre-harvest silvicultural prescription is to provide a framework for collecting information and making decisions regarding how to best use the natural productivity and potential of a site to serve specified management goals. The prescriptions must take into account not only the physical characteristics of the stand (including soils, hydrology, existing vegetation, and wildlife), but also the landowner’s objectives for that stand. All silvicultural prescriptions for the stands in the Dufferin County Forest must conform to the objectives for the forest as stated in this operating plan.

***White-Tailed Deer Winter Concentration Areas***

Areas of the Dufferin County Forest that are identified white-tailed deer winter concentration areas will be managed so that critical characteristics of the core areas and yarding areas are maintained. Briefly, this means maintaining as much conifer cover as possible in core areas and yarding areas. Due to the location of the core areas within the Dufferin County Forest (Levitt Tract, south end of Main Tract, and Melancthon Tract) it is not expected that there will be commercial harvesting within most of the core areas.

Maintaining openings to provide food sources in the white-tailed deer summer range is considered to be unnecessary given that the tracts of the Dufferin County Forest exist within a mosaic of meadows, regenerating fields and cultivated fields, and are largely not fenced, allowing deer easy access to adjacent properties.

***High Conservation Value Forests***

High conservation value forests (HCVFs) have particular values that require special attention during planning and management. In general, the HCVFs that are part of the Dufferin County Forest (Table 4) will undergo carefully considered, limited management aimed at maintaining or enhancing the feature(s) for which they are valued. In addition, recreational use in these areas will, in many cases, be restricted in order to support the maintenance/enhancement of values.

The County of Dufferin will ensure that the only management activities conducted in evaluated wetlands are those necessary to maintain or rehabilitate the wetland.

Areas of the Dufferin County Forest that are identified as habitat of species at risk will be managed so that the habitat requirements of these species are maintained.

Management activities in the Oak Ridges South Slope Forest ANSI will seek to maintain or enhance characteristics that the ANSI is being protected for.

***Evaluation of Insect and Disease Populations***

The County of Dufferin will assess insect and disease populations based on information provided by the MNR’s Forest Health Technicians, County Forest staff, and the Canadian Food Inspection Agency. Emerald ash borer, Asian long-horned beetle, gypsy moth, oak wilt, beech bark disease,

butternut canker, and red pine decline are of primary concern. Of these, gypsy moth, beech bark disease, butternut canker, and red pine decline are known to be in the Dufferin County Forest. Monitoring of these key insects and diseases will continue and integrated pest management plans will be developed as necessary.

Generally, forest management activities will tend to increase the diversity of the Forest and promote improved health and more vigorous growth, thereby reducing the potential impacts of insects and diseases. To further reduce the Forest's susceptibility, the following will apply to all forest management activities:

1. careful matching of species to site for reforestation;
2. promotion of a diversity of native species;
3. management of insects and diseases using an Integrated Pest Management approach and;
4. protection of the site, residual stems, and regeneration during all activities, including recreation.

### ***Red Pine Decline***

In recent years, the red pine plantations have started to suffer from red pine decline. This phenomenon is manifesting itself as the relatively rapid (sometimes in a matter of months) decline and death of red pine trees older than about sixty years. In the 2013 forest inventory, 50 ha (15%) of the red pine stands were identified as suffering from red pine decline. The County of Dufferin has participated in a southern Ontario-wide research project to attempt to determine the cause of this decline. The results of the research suggest that a combination of factors is involved, including two types of root rot (*Armillaria ostoyae* and *Heterobasidium annosum*), drought, and alkaline soil. When the trees are growing in soil that has an alkaline base their rooting depth can be significantly reduced. In long periods of dry weather, this reduced rooting depth puts the trees under moisture stress and makes them more susceptible to root rots and other insect and disease attacks. As a result of the research project, some management strategies have been formulated, as described in *Modified Management Recommendations for the Establishment and Management of Red Pine Plantations*. These management recommendations will be used to guide red pine plantation management in the Dufferin County Forest. In general, older red pine stands that are declining will be managed in such a way as to speed succession toward tolerant hardwoods while maximizing timber values.

### ***Oak Wilt***

Oak wilt is an exotic invasive disease that kills all species of oak, preferring those in the red oak group (red oak and black oak). The Canadian Food Inspection Agency (the lead agency in dealing with exotic invasives) is working hard to keep oak wilt out of Ontario, but it is currently only 500 m from the border (on Belle Island in the Detroit River). Infected red oak trees can die in as little as 30 days. Red oak is a significant component of the Dufferin County Forest, particularly the Main Tract. Many of these stands are also part of the Oak Ridges South Slope Area of Natural and Scientific Interest, which is recognized in part for its oak component. In addition, in 2005 red oak was declared as the official tree of Dufferin County.

Prior to oak wilt being found in Dufferin County, the following strategies are being implemented:

- i. public education to increase the number of people able to identify oak wilt and therefore increasing the chances of finding it and identifying it before it is widespread;
- ii. public education regarding the dangers of moving firewood, therefore reducing the chances of oak wilt arriving in Dufferin County through that avenue;

- iii. in the Dufferin County Forest, an immediate stop to harvesting of stands containing more than 5 m<sup>2</sup>/ha of red oak between April 1 and July 31. During this time of year, the sap-feeding beetles, which spread oak wilt and are attracted to open wounds on oak trees, are most active; and
- iv. public education to discourage private landowners from pruning or harvesting red oak between April 1 and July 31.

Once oak wilt is found in Ontario, a second phase of restrictions will be introduced. These will likely include a lengthening of the period during which pruning or harvesting of red oak is not permitted, as well as an expansion of pruning and harvesting restrictions to County operations outside of the County Forest (e.g. contracts for roadside tree pruning and removal).

Once oak wilt is found in the Dufferin County Forest, management strategies such as trenching to break root grafts will likely have to be implemented in order to contain or eradicate it.

### ***Emerald Ash Borer***

In 2013, the presence of emerald ash borer was confirmed in Dufferin County, at the south end of Orangeville. Public education regarding this pest is ongoing through events, and information at the Museum of Dufferin and on the County website. Since there is relatively little ash in the County Forest, and it has been in ill health since before the advent of emerald ash borer, it is anticipated that the impact of the emerald ash borer will not be significant in the County Forest itself. Dead or dying ash that are considered to be hazard trees due to their proximity to trails will be removed as soon as possible after they are identified. Stands with an ash component will be managed in accordance with the strategies outlined in *Managing Ash in Farm Woodlots; Some Suggested Prescriptions* (Williams & Schwan, 2011).

### ***Alien Invasive Plants***

Alien invasive plants have great potential to alter the ecology of the terrestrial habitats of the Dufferin County Forest. Since the Forest does not contain a significant number of watercourses, aquatic invasive species are of lesser concern.

A management plan will be developed, focusing on high risk invasive plant species. This plan will provide more detail on the monitoring and management of invasive plant species in the Dufferin County Forest.

Of those invasive species noted as present in the forest, garlic mustard (*Allaria petiolata*), European buckthorn (*Rhamnus cathartica*), dog-strangling vine (*Vincetoxicum rossicum* and *V. nigrum*) and Norway maple (*Acer platanoides*) are rated as high risk in the *A Guide to the Identification and Control of Exotic Invasive Species in Ontario's Hardwood Forests* (Derickx and Antunes, 2013) based on their potential environmental, economic, and social impacts.

It is anticipated that garlic mustard, dog-strangling vine, and European buckthorn will increase over time, due to their invasive nature and their spread being magnified by increased recreational use. (Seeds of these species can be transported from one area to another on bicycle tires, horses' hooves, and peoples' footwear.) The presence of invasive species will be monitored, particularly: in High Conservation Value Forests, before and after forest management operations, and along recreational trails. Where deemed necessary, appropriate control measures will be implemented in order to minimize the spread and invasion of these species in the County Forest.

The Norway maple in the area of the event field at the Main Tract will be removed. There are no other known areas in the County Forest where there are Norway maple.

Although Scots pine (*Pinus sylvestris*) is not rated as a high risk species, it is a persistent invader of old field sites. Other than at the Little Tract, there are no significant areas of Scots pine in the County Forest. These are being removed on an ongoing basis. Scots pine invading the roadsides at the County Forest tracts are being removed as time permits. The County has supported the Town of Mono's Scots pine eradication program by actively removing Scots pine from its own properties in the Town of Mono.

Other species that are rated as high risk that the County will be monitoring include Japanese knotweed (*Fallopia japonica*), and periwinkle (*Vinca minor*).

The website will be used to inform forest users about invasive species and give tips on how to reduce and prevent their spread. This information will be supplemented with signs placed at strategic locations in the Forest. The Friends of the Dufferin County Forest will assist with invasive species education and control.

Forest harvesting equipment will be required to arrive onsite clean and free of mud in order to reduce the spread of invasive plant species. On a tender by tender basis, restrictions may also be placed on the time of year that harvesting operations can take place in order to reduce the spread.

The County will keep abreast of developments with regard to the spread and control of invasive species through the Ontario Invasive Plant Council and the Invasive Species Centre.

### ***Wildfires and Prescribed Burns***

The fighting of wildfires on the County Forest properties will be conducted as described in individual municipal Emergency Plans. Roads in the Forest will be maintained and will act as firebreaks. In order to minimize the occurrence of wildfires, campfires will not be allowed. Signs may be posted at key locations in the County Forest reminding users that there are no campfires permitted, to carefully extinguish their cigarettes etc.

While wildfires have the potential to do great damage to the forest, prescribed burning (the knowledgeable application of fire to a specific land area to accomplish predetermined forest management or other land-use objectives) is an important forest management tool. This is especially true for the maintenance of mid-successional communities such as the red oak stands in the Dufferin County Forest. Therefore, although every effort will be made to control and suppress wildfires, prescribed burning will remain a part of the management strategy for the Dufferin County Forest.

### ***Soil Erosion***

In areas where there are currently erosion problems, the County will take reasonable measures to establish ground cover and stabilize the area.

The County of Dufferin will conduct periodic inspections of areas that have had erosion problems in the past and areas that are prone to erosion. If it is deemed necessary, these areas will have restricted recreational use until such time as the area is stabilized. If the County determines that the

erosion problem will continue, recreational use may be restricted permanently.

One of the predicted consequences of climate change is an increase in extreme weather events. Practising continuous cover forestry will minimize soil erosion that could result from more frequent, more intense, precipitation events.

### ***Climate Change***

The following projections, from *Climate change projections for Ontario: An updated synthesis for policymakers and planners*, were developed using a composite global climate model, averaging four models (CanESM2, MIROC-ESM-CHEM, CESM1-CAMS, and hadGEM2-ES). The ranges given below represent the ranges over three Representation Concentration Pathways (RCP 2.6, RCP 4.5, RCP 8.5)<sup>3</sup> as described in the Intergovernmental Panel on Climate Change Fifth Assessment Report.

Climate change scenarios for the Lake Huron Sub-Basin indicate that by 2040, we can expect changes within the following ranges compared to the 1971-2000 baseline data:

Mean Winter Temperature: +2.6°C to +2.9°C (36.7°F to 37.2°F)

Mean Winter Precipitation: +35.2 mm to +31.4 mm (+1.4" to +1.2")

Mean Summer Temperature: +1.9°C to +2.1°C (+35.4°F to +35.8°F)

Mean Summer Precipitation: +5.6 mm to -2.8 mm (+0.2" to -0.1")

Mean Annual Temperature: +2.3°C to +2.5°C (+36.1°F to +36.5°F)

Mean Annual Precipitation: +80.2 mm to +67.5 mm (+3.2" to +2.7")

In practical terms, these projections will mean more snowstorms and ice storms as both winter temperatures and winter precipitation are predicted to increase. Summers could be wetter or slightly drier than in the past. What is becoming clear is that precipitation events will be more extreme, more often resulting in flooding, erosion and sedimentation, and tree damage.

Since trees are unable to move other than through natural seed dispersal, and have long life spans, their ability to adapt to a rapidly changing climate on an individual basis is limited. However, there are some actions that will be taken to make the Forest as a whole more resilient to the impacts of climate change.

The key strategy will be to maintain, and where possible, increase, the diversity of species in the County Forest. In this way, if some species are affected by climate change more than others, the forest as a whole will be more able to absorb the effects. Therefore, the County will continue its management strategy of maintaining diverse tolerant hardwood stands and converting single species conifer plantations to tolerant hardwood or mixedwood stands. Increasing the diversity of the Forest has the added benefit of maintaining its carbon storage capacity over a longer period of

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<sup>3</sup> The Representation Concentration Pathways (RCPs) represent different levels of increased radiative forcing measured in watts/m<sup>2</sup>. Radiative forcing, or climate forcing, is the difference of insolation (sunlight) absorbed by the Earth and energy radiated back to space. A positive forcing (more incoming energy) warms the system, while negative forcing (more outgoing energy) cools it. Causes of radiative forcing include changes in insolation and the concentrations of radiatively active gases, commonly known as greenhouse gases and aerosols. The higher the RCP value, the more warming is predicted for the year 2100 relative to pre-industrial values. All of the considered pathways are possible outcomes, depending the level at which greenhouse gas emissions continue.

time and enhancing biodiversity.

Through the ongoing active management of the majority of the County Forest properties, stands will be maintained in a vigorously growing, healthy state, thereby better to resist the impacts of climate change. Stands that are declining due to pests, diseases, extreme weather events, or other factors related to climate change will have modified management strategies applied to them in order to bring them to a healthy state as quickly as possible. In the most extreme cases, this may include liquidating (clearcutting) the stand and re-planting the site.

Increased summer precipitation could have a positive impact on the growth and vigour of the forests on some of the properties as they are “high and dry”, with very well drained, sandy soil, if this is not outbalanced by higher summer temperatures that create drought conditions. This would apply primarily to the Main, Mono, Randwick, and Simmons Tracts.

Rapidly changing water levels combined with increased sedimentation due to extreme precipitation events have the potential to adversely impact the wetland properties that are part of the Dufferin County Forest, namely Amaranth, Gara Gore, Hockley, Melancthon, and Riverview.

One of the predicted consequences of climate change is an increase in extreme weather events. Managing the forest properties for greater diversity and resiliency and improving overall forest health will increase their ability to withstand such events. Practising continuous cover forestry will minimize soil erosion that could result from intense precipitation events. If required, areas will be re-planted following extreme weather events.

Climate change is likely to impact the spread and severity of non-native and possibly native species that are not currently significant threats to the ecosystems of the Dufferin County Forest. First, sleeper species may become invasive in a changing climate. Second, traditionally only non-native species have been considered to have the capacity to become “invasive” as the ecosystems they are invading are not adapted to their presence. However, the example of the mountain pine beetle in western Canada has demonstrated that climate change can allow the expansion (both in terms of range and population size) of a native species to such an extent that it can be considered invasive. The County will keep abreast of developments with regard to the spread and control of invasive species primarily through the Ontario Invasive Plant Council and the Invasive Species Centre. Monitoring and control of invasive species will occur as outlined in previous sections of this document; additional species will be considered for management and/or control as is deemed necessary.

The overall impact of the above factors is difficult to predict as some will have opposite effects and some will reinforce each other, as well as varying over the landscape of the Dufferin County Forest. Through ongoing monitoring, any resulting necessary adjustments to (in particular) harvesting levels and recreational uses will be made.

The federal government has done extensive work<sup>4</sup> on predicting the future ranges of tree species under various climate change scenarios. Data for the species common in the Dufferin County Forest, as well as those that may move into the area from further south, is shown in Table 11.

In the short term (2011-2040) we can expect the loss of white spruce, Norway spruce, balsam fir, and

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<sup>4</sup> For further details go to [www.planthardiness.gc.ca](http://www.planthardiness.gc.ca).

larch, even under the best-case scenario. This would impact the Gara Gore and Mono Tracts most, where white spruce and Norway spruce, respectively, form a significant proportion of the canopy. Both of these tracts also have a significant component of spruce regeneration. It may become necessary to artificially regenerate these tracts so that the future forest is not dominated by spruce that will be negatively impacted by the changing climate.

Looking ahead to the period 2071-2100, under the worst-case scenario predictions, it is expected that the Dufferin County area will lose all of the now common conifer species: red pine, white pine, hemlock, white spruce, Norway spruce, larch, and balsam fir.

Although red pine is currently the most common working group in the Dufferin County Forest (37% of total area), management regimes will reduce its dominance over time in favour of a more diverse, mixedwood condition.

Red oak, the second most common working group in the Dufferin County Forest (25% of total area), is expected to remain on the landscape even under the worst-case scenario predictions.

The remaining working groups are expected to fare as follows:

1. mixedwood (13% of total area): may lose some individual species, but overall its diversity should enable it to remain on the landscape;
2. white pine (10% of total area): is unlikely to remain on the landscape under the long-term (2071-2100) worst-case scenario;
3. hard (sugar) maple (9% of total area): is expected to remain on the landscape even under the worst-case scenario;
4. white spruce (6% of total area): is unlikely to remain on the landscape even under the short-term (2011-2040) best-case scenario; and
5. bottomland (0.8% of total area): is largely eastern white cedar and therefore unlikely to remain on the landscape under the long-term (2071-2100) worst-case scenario.

The species losses predicted through climate change are complicated by known insect and disease issues. For example, white ash is predicted to remain on the landscape even under the worst-case climate change scenario, but its presence has already been reduced significantly by the emerald ash borer.

**Table 11: Predicted Presence of Tree Species in Dufferin County Under Various Climate Change Scenarios**

Species	MaxEnt Composite AR5 RCP 2.6 2011- 2040	MaxEnt Composite AR5 RCP 8.5 2011- 2040	MaxEnt Composite AR5 RCP 2.6 2071- 2100	MaxEnt Composite AR5 RCP 8.5 2071- 2100
P - present A - absent M - marginal	(shorter term better case)	(shorter term worse case)	(longer term better case)	(longer term worse case)
<b>Species Currently Present in the Wild in Dufferin County</b>				
red oak	P	P	P	P
sugar (hard) maple	P	P	P	P
red (soft) maple	P	P	P	P
white ash <sup>1</sup>	P	P	P	P
black ash <sup>1</sup>	P	P	P	A

<b>Species</b>	<b>MaxEnt Composite AR5 RCP 2.6 2011- 2040 (shorter term better case)</b>	<b>MaxEnt Composite AR5 RCP 8.5 2011- 2040 (shorter term worse case)</b>	<b>MaxEnt Composite AR5 RCP 2.6 2071- 2100 (longer term better case)</b>	<b>MaxEnt Composite AR5 RCP 8.5 2071- 2100 (longer term worse case)</b>
<b>largetooth aspen</b>	P	P	P	A
<b>trembling aspen</b>	P	P	P	A
<b>American beech<sup>1</sup></b>	P	P	P	P
<b>white birch</b>	P	P	M	A
<b>American chestnut<sup>1</sup></b>	P	P	P	A
<b>butternut<sup>1</sup></b>	P	P	P	P
<b>red pine</b>	P	P	P	A
<b>white pine</b>	P	P	P	M
<b>white spruce</b>	M	M	A	A
<b>Norway spruce</b>	M	M	M	A
<b>larch</b>	M	M	M	A
<b>balsam fir</b>	A	A	A	A
<b>hemlock</b>	P	P	P	A
<b>eastern white cedar</b>	P	P	P	A
<b>Species Not Currently Present in the Wild in Dufferin County, But Present in the Deciduous Forest Region<sup>2</sup></b>				
<b>Kentucky coffeetree</b>	M	P	P	M
<b>cucumber-tree</b>	P	P	P	A
<b>tulip tree</b>	P	P	P	P
<b>sassafras</b>	P	P	P	P
<b>black maple</b>	P	P	P	M
<b>blue ash<sup>1</sup></b>	P	P	P	M
<b>pumpkin ash<sup>1</sup></b>	P	P	P	P
<b>eastern flowering dogwood<sup>1</sup></b>	P	P	P	P
<b>northern catalpa</b>	P	P	P	M
<b>black walnut</b>	P	P	P	P
<b>shagbark hickory</b>	P	P	P	P
<b>sycamore</b>	P	P	P	P

<sup>1</sup>Declining on the landscape largely due to pressure from non-native pests or diseases.

<sup>2</sup> This region borders the southeast shore of Lake Huron and the northern shores of Lakes Erie and Ontario.

Of concern in relation to climate change is the fact that virtually all of the regeneration in the Dufferin County Forest currently happens naturally and, as such, is adapted to the current climate conditions. This means that the young trees are adapted to the current growing conditions in the area, but not necessarily to future growing conditions. At the same time, it is illogical to destroy naturally-established trees to replace them, at significant expense, with trees that may not be adapted to future growing conditions either.

Where natural regeneration is not sufficient and planting is necessary in order to maintain tree cover or planting is required to regenerate an area following disturbance, there is a possibility of

establishing trees that are genetically better adapted to warmer regions of Ontario. However, it is unclear how effective this would be as current climate change predictions include not just warming, but also changes in precipitation patterns and increasing frequency and severity of storm events. Therefore, there are no current plans to establish trees (or tree species) that are adapted to warmer regions in the Dufferin County Forest. If it becomes apparent that this strategy needs to change, consideration will be given first to planting trees of existing tree species that are grown from seed from warmer seed zones and second to tree species from warmer regions (e.g. the deciduous forest region) that are not currently native to Dufferin County.

### ***Ecosystem Services***

The ecosystem services of the County Forest will generally be maintained through the application of the land use restrictions as described in section 3.2. There will be no development or site alteration, as defined in the *Provincial Policy Statement (2020)*, in the Dufferin County Forest. Further, there will be no development in the Leening and Levitt Tracts, as defined in the *Niagara Escarpment Planning and Development Act*.

In addition, the overall management strategy for the County Forest, increasing diversity and resiliency and improving forest health, will contribute to the maintenance and improvement of the ecosystem services provided by the Forest properties.

### **3.4 Economic Sustainability**

Action 1: Pursue third party forest certification.

Action 2: Generate revenue from the Dufferin County Forest without compromising its environmental sustainability.

Action 3: Assess the natural heritage and socio-economic significance of the Dufferin County Forest in order to facilitate the acquisition and disposition of properties.

### ***Forest Certification***

During the 2021-2026 planning period, the County will begin the process of gaining certification of its forest management operations. Forest certification is defined as: *a procedure whereby an independent third party inspects forest management and utilization practices to assess compliance with a set of ecological, economic and social standards for sustainable forestry*. There are two primary reasons for pursuing forest certification. First, since it is an independent assessment of forest management it serves to increase the confidence of the public in the management of the County Forest. Second, the demand for wood products from certified forests is increasing, giving such products increased market access and, in some cases, premium prices.

### ***Financial Stability***

One of the County's objectives for the Dufferin County Forest is that it generate revenue to support operations. At the same time, it is important to remember the non-monetary contributions of the Dufferin County Forest:

1. the Main Tract is one of few, large, publicly-accessible natural areas in Dufferin County;
2. the Forest contributes significant ecosystem services (for details see section 2.5);
3. the Forest, and in particular the Main Tract, is important for outdoor recreation and;
4. the Dufferin County Forest properties add to the value of the areas in which they are located both in aesthetic and monetary terms.

In order to make revenues more predictable, attempts will be made to level out the value of the wood products removed from the forest, while ensuring that the environmental sustainability of the forest is not compromised.

In the 2021-2026 period the County will establish a donation program for the Forest. Sponsorships and sales of branded gear will be investigated as potential additional sources of revenue.

***Property Assessment, Acquisition and Disposition***

In the past, the properties that make up the Dufferin County Forest were acquired by the County in a somewhat haphazard way. Since then, natural heritage and socio-economic assessments were done (Table 12) so that future acquisitions and dispositions of property would be subject to a more objective assessment. The underlying rationale is to increase the overall natural heritage and socio-economic value of the Dufferin County Forest within existing budget constraints.

The following will be considered as the priorities for acquisition:

1. properties adjacent to the Main Tract (large area of publicly-owned contiguous forest);
2. evaluated wetlands, especially those designated as provincially significant and;
3. significant natural areas as defined in the *Provincial Policy Statement (2020)*, in particular those that are adjacent to existing tracts of the Dufferin County Forest.

All forest properties that are being considered for acquisition will be assessed in terms of the criteria described in Table 12. Consideration will also be given to the following:

1. the cost of the property (e.g. if the property is donated there are minimal costs);
2. future maintenance costs over and above those that exist for all County Forest tracts (e.g. if the property has buildings) and;
3. any restrictions that the owner wishes to place on present and future uses of the property, including (but not limited to) those related to: use of the land, property, onsite buildings and/or facilities; special agreements and covenants; and financial and legal liabilities.

Any property disposition will be conducted in accordance with current County policy, as well as requiring the purchaser to comply with key aspects of this management plan as a condition of sale.

Despite the foregoing, active property acquisition or disposition is not contemplated within the period of this operating plan.

**Table 12: Natural Heritage and Socio-Economic Assessment of Dufferin County Forest Properties**

Tract	Natural Heritage	Ecosystem Service Value	Size	Species Variety	Site	Distance From Population Centre	Recreation Potential	Land Value (2012)	Total	Rank
<b>Amaranth</b>	provincially significant wetland	4	2	2	3	5	1	2	19	<b>4</b>
<b>Gara-Gore</b>	n/a	3	2	1	5	5	0	1	17	<b>5</b>
<b>Hockley</b>	significant woodland, provincially significant wetland	4	2	1	3	5	2	2	19	<b>4</b>
<b>Leening</b>	Niagara Escarpment Rural Area	2.5	1	2	5	3	0	1	14.5	<b>8</b>
<b>Levitt</b>	SAR, Niagara Escarpment Natural Area, deer winter concentration area	3	1	1	3	5	1	1	15	<b>7</b>
<b>Little</b>	significant woodland, creek	2	3	1	5	2	2	1	16	<b>6</b>
<b>Main</b>	significant woodland, ANSI, Pine River floodplain, deer winter concentration area, SAR, linkage	2	5	5	5	3	2	5	27	<b>1</b>
<b>Melancthon</b>	significant woodland, provincially significant wetland, deer winter concentration area	3	4	2	3	1	1	1	15	<b>7</b>
<b>Mono</b>	significant woodland, linkage	2	4	3	5	5	2	4	25	<b>2</b>
<b>Randwick</b>	SAR, significant woodland, wetland, creek	2	5	3	5	2	2	5	24	<b>3</b>
<b>River Road</b>	n/a	2	1	1	5	4	0	1	14	<b>9</b>
<b>Riverview</b>	significant woodland, locally significant wetland	2.5	3	2	3	1	1	1	13.5	<b>10</b>
<b>Simmons</b>	significant woodland	2	3	3	5	2	1	3	19	<b>4</b>
<b>Thomson</b>	creek	2	2	3	5	2	0	2	16	<b>6</b>

## **Criteria Used in Assessing Properties**

### **1. Natural Heritage**

as defined in the *Provincial Policy Statement (2020)*

### **2. Ecosystem Service Value Flow (\$/year/hectare) (refer to section 2.5 for details)**

\$44-\$440: 1; \$2,200-\$4,400: 2; \$8,800-\$22,000: 3; \$88,000-\$237,600: 4

### **3. Size**

under 10 hectares: 1; 10-30 hectares: 2; 31-50 hectares: 3; 51-75 hectares: 4; over 75 hectares: 5

### **4. Species Variety (number of overstorey working groups)**

one working group: 1; two working groups: 2; three working groups: 3; four working groups: 4; more than four working groups: 5

### **5. Site (average site class from Plonski's yield tables)**

site class three: 3; site class two: 4; site class one or better: 5

### **6. Distance From Population Centre (Orangeville)**

over 50 kilometres: 1; 41-50 kilometres: 2; 31-40 kilometres: 3; 20-30 kilometres: 4; under 20 kilometres: 5

### **7. Recreation Potential**

one point for each of: i. good trail system; ii. important or unique natural heritage feature(s)

### **8. Land Value (2012)**

under \$300,000: 1; \$300,001-\$600,000: 2; \$600,001-\$900,000: 3; \$900,001-\$1,200,000: 4; over \$1,200,000: 5

## **3.5 Social Sustainability**

Action 1: Develop a recreation policy for the Dufferin County Forest.

Action 2: Increase public awareness within Dufferin County and the surrounding area of the Dufferin County Forest and the opportunities and values it provides.

Action 3: Work in conjunction with the Museum of Dufferin to identify, protect and, where appropriate, promote cultural heritage resources.

Action 4: Cooperate with researchers and research agencies.

### ***Recreational Use of the County Forest Policy***

A recreational use policy for the County Forest was passed on May 11, 2017. The policy is supported by a County Forest by-law (2017-39 as amended). The current by-law (which includes the recreational use policy) can be found in Appendix E. The by-law/policy has already undergone several amendments and will continue to be amended as needed.

### ***Friends of the Dufferin County Forest (FDCF)***

The County of Dufferin has established the Friends of the Dufferin County Forest (FDCF) to assist in various aspects of the management of the County Forest. This group is mainly involved in on-the-ground activities in the Forest, such as trail maintenance and construction, sign posting, invasive species removal, promotion and education about the County Forest, and removal of litter. During the period of this operating plan, the County will continue to be involved with and support the activities of the Friends of the Dufferin County Forest.

### ***Dufferin County Forest Advisory Team (DCFAT)***

The Dufferin County Forest Advisory Team (DCFAT) is a group made up of five members of the public residing in Dufferin County, and one member of the County's Infrastructure and Environmental Services Committee. Representation is solicited to coincide with each new term of County Council, or as required to replace or add members.

The purpose of the Dufferin County Forest Advisory Team (DCFAT) is to:

- provide community input and advice to County staff regarding the Dufferin County Forest Management Plan and Dufferin County Forest Recreational Use Policy and;
- assist County staff in communicating plan and policy revisions.

During the period of this operating plan, the County will continue to consult with the Dufferin County Forest Advisory Team on matters dealing with the management of the Dufferin County Forest.

### ***Infrastructure***

The County will continue to maintain gates and other methods of access restriction to the forest tracts in order that unauthorized motorized vehicle use, garbage and yard waste dumping, illegal removal of wood, partying and introduction of invasive plant species can be curtailed.

Access road and parking lot maintenance will be conducted on an as needed basis.

Consideration will be given to providing toilet facilities at the Main Tract.

### ***Human Health***

The County Forest plays an important role in the health and well-being of the community. It is a low cost outdoor venue for physical activity for those living in or visiting the region. Many people find the forest environment enjoyable simply because of its peace and tranquility compared with the rest of their daily lives. As well, trees absorb carbon dioxide and pollutants from the air and release oxygen, providing very real air quality (and consequently, health) benefits.

However, the Forest also has the potential to have a negative impact on human health. The County will post information on the County Forest website and at the Main Tract kiosk regarding forest-related human health issues such as west nile virus, lyme disease, and poison ivy. Printed information regarding these issues will be available through the Museum of Dufferin and at public events where there is a County Forest presence. The primary information source regarding these topics will be the local health unit. Other human health issues will be added as appropriate.

### ***Signs***

During the 2021-2026 planning period, the County will post the following new signs:

1. red dots inside the perimeter of all of the forest properties as described in the *Trespass to Property Act*;
2. signs at all County Forest entrances prominently displaying the County Forest website address and/or a QR code to link to the website;
3. pictographic signs indicating permitted trail uses; and
4. for the Main Tract, “you are here” style maps.

Signs that are currently posted in the Forest will be replaced as needed.

### ***Information Products and Information Dissemination***

The County of Dufferin will continue to produce and update information products such as brochures, maps, and hunting information packages. These will be distributed through County offices, by postal mail, at the Main Tract kiosk, at the Museum of Dufferin, and on the website. The

County of Dufferin will handle requests for information, comments, and complaints about the Dufferin County Forest in a timely and appropriate fashion.

Information about what is happening with regard to the Dufferin County Forest will be distributed more regularly through the County Forest Mailchimp list and integrated with the County of Dufferin's social media channels.

Representatives of equine groups in Ontario will be specifically encouraged to subscribe to one or more of these information channels and/or to regularly check the County Forest section of the website for updates.

Information about the Dufferin County Forest will be distributed through local tourism organizations as well as related retail outlets. Any promotion of the County Forest to areas outside of Dufferin County will be through avenues in the County's tourism strategy.

The feasibility of a County Forest app will be investigated.

More of a focus of promotion will be on the Little Tract, as the "Jewel of Dufferin's Natural Heritage". The existence of off-road parking, an interpretive trail, and interesting natural features as the old growth forest develops will be used to draw potential visitors.

### ***Presentations, Schools, Walks, and Tours***

The County of Dufferin will ensure that knowledgeable guides are available to give tours of the Dufferin County Forest at the public's request, as well as organizing at least one event in the forest annually for the general public. These may be held in conjunction with National Wildlife Week, National Forest Week, Arbor Day, or Earth Day. Presentations for schools and other groups will be dealt with on an as-requested basis. School group activities may include a practical project in the forest such as invasive species removal or species inventory. The County Forest will be promoted at appropriate local events.

### ***Conifer Plantation Thinning Demonstration Area***

The most recent thinning of the demonstration area at the Main Tract took place in 2017. This entailed a further thinning of seven of the established blocks, which resulted in four blocks that have been thinned three times, three that have been thinned twice and one that has not been thinned at all. The next thinning is planned to take place in 2027.

### ***Interpretive Trails***

An interpretive trail focusing on wetland features will be established at the Melancthon Tract. Consideration will be given to expanding the Little Tract interpretive trail into the adjoining Thomson Tract. The interpretive trails at the Little Tract, Main Tract, and Hockley Tract will be maintained.

### ***Cultural Heritage Resources***

In cooperation with the Museum of Dufferin, the County will, as appropriate, identify, protect, and promote any identified cultural heritage resources within the Dufferin County Forest. As time permits, County Forest staff will continue to excavate the site of what appears to be a building foundation at the Simmons Tract.

### ***Researchers***

Researchers wishing to use the Dufferin County Forest will be encouraged to do so, as long as their project does not interfere with other objectives for the Forest. The County will work to promote the County Forest as a research location in order to increase the detail of its flora and fauna inventory.

## **4.0 MONITORING**

In order to ensure that all activities related to the Dufferin County Forest are achieving the objectives described in this operating plan, a number of monitoring activities will be undertaken. In cases where monitoring shows that objectives are not being achieved, management actions will be adapted in an effort to achieve the stated objectives.

Input from Forest users, especially in regard to enhancing inventory information, will be welcomed. Where necessary, information will be verified prior to being added to the inventory database.

### **4.1 Environmental Sustainability**

There are two methods for assessing if forest management operations and silvicultural activities are meeting stated environmental objectives: cut inspections and forest inventory.

#### ***Cut Inspections***

Cut inspections in the Dufferin County Forest will be conducted according to the following guidelines:

1. Inspections will be conducted at least weekly in areas where forest management operations are ongoing.
2. An inspection will be conducted within one week of the end of forest management operations.
3. Every inspection will ensure compliance with the applicable tender Specifications and Scope of Work, generally speaking:
  - i. the Contractor shall carry out operations in a professional manner, to minimize damage to unmarked trees, roads, trails, fences, culverts, bridges, etc.;
  - ii. the Contractor shall conduct logging so as to minimize damage to the residual stand and developing regeneration, and to agree with the County of Dufferin upon the method of felling forwarding and skidding prior to commencement of operations;
  - iii. the Contractor shall ensure that all roads, trails and watercourses remain free of logging debris, and roads are passable at all times;
  - iv. where fire hazard conditions make harvesting under this Tender dangerous, the County of Dufferin may, from time to time, notify the Contractor to suspend such operations for such a period as the County of Dufferin deems advisable, and the Contractor agrees to immediately suspend such operations for that period;
  - v. the Contractor shall cut all trees or rows that are marked in orange or yellow paint, utilize and remove all merchantable wood 2.54 metres in length and: in plantations down to 10 cm diameter outside bark top end; in natural stands where sawlogs are being cut, down to 20 cm diameter outside bark top end; in natural stands where fuelwood is being cut, down to 10 cm diameter outside bark top end; and
  - vi. the Contractor shall cut trees so that the stump heights are not over 30 cm. The

stump height may not be greater than its diameter and not over 60 cm. The butt mark is to remain.

### **Forest Inventory**

Forest inventory in the production forest area of the Dufferin County Forest will be conducted according to the following guidelines:

1. A forest inventory will be conducted for newly acquired properties within five years of their acquisition.
2. A forest inventory will be conducted in individual stands prior to the development of a prescription for forest management and within 18 months of the conclusion of a forest management operation. If a stand has not been subject to a forest management operation for a period of 15 years, a forest inventory will be conducted.
3. The forest inventory will include (at minimum):
  - i. a quantitative inventory of overstorey tree vegetation (variable-radius plot sampling);
  - ii. a quantitative inventory of regeneration (fixed-radius plot sampling);
  - iii. a quantitative inventory of understorey non-tree vegetation (fixed-radius plot sampling)
  - iv. a quantitative inventory of invasive plant species (fixed-radius plot sampling) and;
  - v. a quantitative or qualitative, as appropriate, inventory of wildlife, water resources, topography, aesthetics, and special habitat features.

In addition to cut inspections and forest inventory, the County of Dufferin will do the following to ensure that environmental sustainability is being achieved:

1. Annual inspections will be conducted in areas that are prone to erosion. Areas where erosion is reported by users will be inspected within three months of being reported.
2. The potential for insect and disease outbreak will be assessed as information is collected or reported.
3. Key invasive plant species will be monitored along recreational trails on an ongoing basis to allow for early detection and rapid response to reduce invasion potential.
4. Annually, the area of timber sold from the Dufferin County Forest will be monitored.
5. An identification and assessment of aggregate deposits will be conducted for newly acquired properties within five years of their acquisition.
6. Forest management operations that are conducted by contractors, such as non-commercial thinning, cleaning, or marking, will be audited by the County, the specific procedures will depend on the operation.

### **4.2 Economic Sustainability**

In order to ensure that the forest is economically sustainable, the County of Dufferin will do the following:

1. A budget for the Dufferin County Forest, including projected revenues and expenses and a capital budget, will be presented annually to Dufferin County Council.
2. The natural heritage and socio-economic value of the forest properties will be re-evaluated every ten years, in conjunction with operating plan development.
3. The criteria used for assessing the significance of the properties will be revisited every ten years, in conjunction with operating plan development, to ensure that they are still facilitating the achievement of the County of Dufferin's objectives for the Forest.

### **4.3 Social Sustainability**

The Recreational Use of the County Forest policy, and associated by-law 2017-39, have been amended three times since they were passed in 2017. They will continue to be amended as needed.

Anecdotally it is clear that recreational use of the County Forest, and in particular the Main Tract, is increasing. However, there is very little data to support these observations. In 2020, the County will embark on a program to measure recreational use in the Forest. This program will initially include three elements:

1. in-person counting/surveying of users;
2. trail counters; and
3. traffic counters.

The focus will be on the Main Tract, although other tracts may be added.

In addition, to ensure that the social sustainability objectives are being met, the County of Dufferin will do the following:

1. Maintain involvement with the Dufferin County Forest Advisory Team and the Friends of the Dufferin County Forest as well as other user groups and stakeholders;
2. Conduct informal oral and formal written (every five years or, if needed, more frequently) surveys of users and non-using ratepayers to determine if:
  1. they have gained knowledge about the Dufferin County Forest;
  2. there still exist knowledge gaps that the County of Dufferin can fill and;
  3. they have any safety or access concerns.
4. Assimilate and act on comments/concerns from users on an ongoing basis.
5. Maintain a dialogue with researchers and research agencies working in the Dufferin County Forest.

### **5.0 REPORTING**

All activities pertaining to the Dufferin County Forest will be reported as follows:

1. reports on specific subjects, as required, to Dufferin County Council;
2. an annual report to Dufferin County Council and the ratepayers of Dufferin County; and
3. a budget for the upcoming year and a financial report for the past year, presented to Dufferin County Council as part of the established budgetary process.

### **6.0 THE FUTURE OF THE PLANNING PROCESS**

Future land use decisions will be dealt with in the context of the three land use classes outlined in section 3.2.

Two additional five year operating plans will be written to fulfill the twenty-year management plan; for the periods 2026-2031 and 2031-2036. The operating plans will be supported by Annual Reports and Annual Work Schedules.

Toward the end of the twenty year management plan, a new twenty year plan will be written for the period 2036-2056. This plan will include a five year operating plan for the period 2036-2041.

## APPENDIX A: Glossary

**alien:** plants, animals and micro-organisms that have been accidentally or deliberately introduced into areas beyond their native range. Synonyms may include introduced, non-native, and exotic.

**ANSI:** Area of Natural and Scientific Interest. ANSIs are areas of land and water that represent significant geological (earth science) and biological (life science) features. Earth science ANSIs include areas that contain examples of rock, fossil and landform features in Ontario. These features are the result of billions of years of geological processes and landscape evolution. Life science ANSIs are areas that contain examples of the many natural landscapes, communities, plants and animals found in the 14 natural regions of the province. The *Ministry of Natural Resources and Forestry* identifies ANSIs that are “provincially significant” by surveying regions and evaluating sites to decide which have the highest value for conservation, scientific study and education.

**barren and scattered:** productive forest land which, because of natural or artificial disturbance, contains only scattered trees (*stocking* below 0.25) or no trees at all with either shrub cover or bare soil, but no significant regeneration.

**basal area:** the cross sectional area of a stem at breast height (1.3m), most commonly accumulated as square metres per hectare. Also see *normal basal area*.

**biodiversity:** the variety and variability (in time and space) among living organisms and the ecological complexes in which they occur. Biodiversity can be measured at the genetic, species and landscape levels.

**bog:** see *wetland*

**breast height:** 1.3m above the ground

**carr:** see *wetland*

**conifer (softwood):** needle-bearing tree that produces seeds in cones.

**continuous cover forestry:** is an approach to the sustainable management of forests whereby forest stands are maintained in a permanently irregular structure, which is created and sustained through the selection and harvesting of individual trees.

**deciduous forest region:** The deciduous forest is the southernmost region in Ontario, dominated by agriculture and urban areas. This forest generally has the greatest diversity of tree species, while at the same time having the lowest proportion of forest. It has most of the tree and shrubs species found in the Great Lakes–St. Lawrence forest region, and also contains black walnut, butternut, tulip, magnolia, black gum, many types of oaks, hickories, sassafras and red bud — species commonly found in Ohio, Pennsylvania and the Carolinas in the USA. The deciduous forest region has the most diverse forest life in Ontario, including many rare mammals, birds, plants, insects, reptiles and amphibians. This region is also referred to as

the Carolinian.

**deer winter concentration area (deer yard):** a forested area deer traditionally migrate to and where they spend the winter months. The “core” of a deer yard is that portion of the yard where use by deer is highest during winters that are severe. Boundaries of a deer yard tend to change over time.

**Department of Lands and Forests:** see *Ministry of Natural Resources and Forestry (MNR)*

**development** means the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the *Planning Act*, but does not include:

- a) activities that create or maintain *infrastructure* authorized under an environmental assessment process;
- b) works subject to the *Drainage Act*; or
- c) for the purposes of policy 2.1.4(a), underground or surface mining of *minerals* or advanced exploration on mining lands in *significant areas of mineral potential* in Ecoregion 5E, where advanced exploration has the same meaning as under the *Mining Act*. Instead, those matters shall be subject to policy 2.1.5(a). (*Provincial Policy Statement, 2020*)

**development:** includes a change in the use of any land, building or structure. (*Niagara Escarpment Planning and Development Act*)

**diameter at breast height (DBH):** the diameter of a tree taken at a height of 1.3m above the ground

**ecosystem services:** the benefits that people obtain, either directly or indirectly, from ecological systems. These services can be understood in ecological terms and they can also be translated into economic terms through valuation studies. These services are the foundation of human well-being and they also represent a significant part of the total economic value of our landscape and economy. And yet their value is most often uncounted, assumed to be ‘zero’. It is therefore important to be able to estimate the economic value of ecosystem services. Increasingly valuation is recognized as another useful tool in environmental decision making to weigh tradeoffs between conservation and land development.

**endangered:** a species that lives in the wild in Ontario but is facing imminent *extinction* or *extirpation*

**even-aged:** condition of a *stand* in which relatively small age differences exist between individual trees. The maximum difference in age is usually twenty years. Also see *uneven-aged*.

**extinct:** a species that no longer lives anywhere in the world

**extirpated:** a species that lives somewhere in the world, and at one time lived in the wild in Ontario, but no longer lives in the wild in Ontario

**fen:** see *wetland*

**forest inventory:** sample survey of a forest area to provide an estimate of timber by volume,

species, products, size, and other characteristics. Also assesses understorey and ground vegetation, wildlife, water resources, aesthetics and special characteristics of the forest. Also see *timber inventory*.

**forestry purposes:** includes the production of wood and wood products, provision of proper environmental conditions for wild life, protection against floods and erosion, recreation, and protection and production of water supplies; (*Forestry Act*, R.S.O. 1990)

**Great Lakes–St. Lawrence forest region:** The Great Lakes–St. Lawrence forest is the second largest forest region in Ontario. This forest extends along the St. Lawrence River across central Ontario to Lake Huron and west of Lake Superior along the border with Minnesota. The southern portion of the Great Lakes–St. Lawrence forest extends into the populated areas of Ontario. The Great Lakes–St. Lawrence forest is dominated by hardwood forests, featuring species such as maple, oak, yellow birch, white and red pine. Coniferous trees such as white pine, red pine, hemlock and white cedar, commonly mix with deciduous broad-leaved species, such as yellow birch, sugar and red maples, basswood and red oak. Much of the forest in the Great Lakes–St. Lawrence forest is uneven aged, meaning that young and old trees can be found within the same group of trees.

**hardwood:** leaf-bearing trees whose seeds are not produced in cones.

**high conservation value forest:** forest land managed primarily to exert beneficial influence on soil, water, landscape, or for any other purpose when production of merchantable timber, if any, is incidental

**high-grading (selective cutting):** the cutting of the largest and most merchantable trees in a stand. There are relatively few or no control measures.

**Integrated Pest Management (IPM):** refers to the practice of preventing or reducing damage caused by pests by using the best available information, along with a variety of ecologically and economically sustainable approaches and control methods.

**intolerant:** used to describe trees which do not tolerate shade (e.g. red pine, poplar). Also see *tolerant*.

**invasive:** *alien* species whose introduction or spread negatively impact native biodiversity, the economy and/or society, including human health.

**managed forest:** land use designation for areas of the Dufferin County Forest where the main focus is economic sustainability.

**marsh:** see *wetland*

**Ministry of Natural Resources and Forestry (MNRF):** the provincial ministry responsible for natural resources, including forests, wetlands, waters, and fish and wildlife. The MNRF was formerly known as the Department of Lands and Forests and the Ministry of Natural Resources (MNR).

**mixedwood:** a *stand* in which both the *conifer* and *hardwood* components are greater than 30%

**native:** usually, a species known to have existed on a site prior to the influence of humans.

**natural forest:** land use designation for areas of the Dufferin County Forest where the main focus is environmental sustainability.

**normal basal area:** the basal area for a given *working group* on a particular *site class* at a particular age, as given by Plonski's Normal Yield tables.

**prescribed burning:** the knowledgeable application of fire to a specific land area to accomplish predetermined forest management or other land-use objectives

**private land:** land not vested in Her Majesty in right of Ontario, but includes unpatented land that is located or sold under the *Public Lands Act*. Also see *public lands*.

**productive forest land:** all forest areas capable of growing commercial trees and not withdrawn from such use

**production forest:** all productive forest land managed primarily for human benefit, unless otherwise reassigned

**public lands:** the lands vested in Her Majesty in right of Ontario and under the management of the Minister [of Natural Resources], and includes the lands in respect of which a lease, licence of occupation or permit has been granted or issued under the *Mining Act*, the *Provincial Parks Act* or the *Public Lands Act*. Also see *private land*.

**recreation forest:** land use designation for areas of the Dufferin County Forest where the main focus is social sustainability (recreation).

**regeneration:** the renewal of a tree crop whether by natural (self-sown seed or by vegetative means) or artificial means (sowing and planting). This term may also be used to describe the young crop itself.

**selective cutting:** see *high-grading*

**selection system:** a periodic partial cutting, controlled by basal area, using vigour and risk characteristics to determine individual tree selection

**shelterwood system:** an *even-aged silvicultural system* where in order to provide a source of seed and/or protection for regeneration, the old crop is removed in two or more successive cuttings

**significant means:**

a) in regard to *wetlands, coastal wetlands* and *areas of natural and scientific interest*, an area identified as provincially significant by the Ontario Ministry of Natural Resources and Forestry using evaluation procedures established by the Province, as amended from time to time;

b) in regard to *woodlands*, an area which is ecologically important in terms of features such as species composition, age of trees and stand history; functionally important due to its contribution to the broader landscape because of its location, size or due to the amount of forest cover in the planning area; or economically important due to site quality, species composition, or past management history. These are to be identified using criteria established by the Ontario Ministry of Natural Resources and Forestry;

c) in regard to other features and areas in policy 2.1, ecologically important in terms of features, functions, representation or amount, and contributing to the quality and diversity of an identifiable geographic area or *natural heritage system*;

d) in regard to *mineral* potential, an area identified as provincially significant through evaluation procedures developed by the Province, as amended from time to time, such as the Provincially Significant Mineral Potential Index; and

e) in regard to cultural heritage and archaeology, resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the *Ontario Heritage Act*.

Criteria for determining significance for the resources identified in sections (c)-(d) are recommended by the Province, but municipal approaches that achieve or exceed the same objective may also be used. While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation. (*Provincial Policy Statement, 2020*)

**silviculture:** the science and art of cultivating forest crops. More particularly, the theory and practice of controlling the establishment, composition, constitution and growth of forests. Silviculture is a combination of three forestry activities: 1) timber harvest; 2) forest renewal; 3) subsequent maintenance of the new forest.

**silvicultural system:** a process, following accepted silvicultural principles, in which crops constituting forests are tended, harvested, and regenerated, resulting in the production of crops of distinctive form. Systems are conveniently classified according to the method of harvesting the mature stands with a view to regeneration and according to the type of crop produced.

**site alteration** means activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site. For the purposes of policy 2.1.4(a), site alteration does not include underground or surface mining of minerals or advanced exploration on mining lands in significant areas of mineral potential in Ecoregion 5E, where advanced exploration has the same meaning as in the Mining Act. Instead, those matters shall be subject to policy 2.1.5(a). (*Provincial Policy Statement, 2020*)

**site class:** a measure of the relative productivity of a site. Site classes 1a and X are the most productive; site class 3 is the least productive. Site class is determined using Plonski's Normal Yield Tables.

**sleepers species:** non-native species already present in an ecosystem that have the potential to be invasive, but are limited by factors such as climate or other species.

**special concern:** a species that lives in the wild in Ontario, is not endangered or threatened, but

may become threatened or endangered due to a combination of biological characteristics and identified threats

**species at risk (SAR):** species that are determined to need special care by an independent committee of experts, the Committee on the Status of Species at Risk in Ontario (COSSARO), which consists of people with expertise in scientific disciplines or Aboriginal Traditional Knowledge. Species at risk fall into one of five categories, depending on the degree of risk: *extinct, extirpated, endangered, threatened, or special concern.*

**stand:** a community of trees possessing sufficient uniformity in composition, constitution, age, arrangement or condition to be distinguishable from adjacent communities.

**stocking:** the actual *basal area* as a fraction of the *normal basal area*. Stocking can be more than 1.

**supercanopy tree:** a living tree that sticks up well above the main canopy of a forest stand.

**swamp:** see *wetland*

**threatened:** a species that lives in the wild in Ontario, is not *endangered*, but is likely to become *endangered* if steps are not taken to address factors threatening it

**timber inventory:** sample survey of a forest area to provide an estimate of timber by volume, species, products, size and other characteristics. Also see *forest inventory*.

**tolerant:** used to describe trees that can regenerate under a canopy (e.g. maple, hemlock). Also see *intolerant*.

**uneven-aged:** the condition of a stand in which trees markedly differ in age. Also see *even-aged*.

**wetland:** land that is seasonally or permanently covered by shallow water, as well as lands where the water table is close to or at the surface. In either case the presence of abundant water has caused the formation of hydric soils (characterized by an abundance of moisture) and has favoured the dominance of water-tolerant plants. The four major types of wetlands are **swamps, marshes, bogs** and **fens**. A **carr** is a waterlogged, wooded community, characterized by alders and willows. Wetlands in Ontario are evaluated based on their biological, hydrological, socio-economic and special features and designated as either provincially or locally significant.

	<b>Vegetation</b>	<b>Water</b>	<b>Soil</b>	<b>General Location</b>
<b>bog</b>	sphagnum moss	water from runoff and precipitation only	thick layer of peat (decomposed sphagnum moss), which is highly acidic, extends beneath bog	common to northern Ontario, but some in the south
<b>fen</b>	grasses, sedges	some flow-through	neutral and alkaline	rare in Ontario

	Vegetation	Water	Soil	General Location
<b>marsh</b>	cattails, sedges, rushes	very efficient at supplying water and nutrients to vegetation; occasional flooding; maintain some open water (less than 2 m in depth); will dry out during extended droughts	mineral; high organic matter content near surface	southern Ontario
<b>swamp</b>	shrubs and trees (e.g. soft maple and cedar)	occasional flooding	organically rich mineral soils	most common wetland in southern Ontario

**working group:** an inventory aggregation for management purposes. An aggregate of *stands*, including potential forest areas assigned to this category, having the same predominant species, and management under the same rotation and broad silvicultural system.

**APPENDIX B: Acronyms & Initialisms**

ANSI	Area of Natural and Scientific Interest
BA	Basal Area
CFIA	Canadian Food Inspection Agency
CO	Conservation Officer
DBH	Diameter at Breast Height
DCF	Dufferin County Forest
GIS	Geographic Information System
GPS	Global Positioning System
GRCA	Grand River Conservation Authority
MNR	Ministry of Natural Resources
MNRF	Ministry of Natural Resources and Forestry
MOC	Mansfield Outdoor Centre
MoD	Museum of Dufferin
NEC	Niagara Escarpment Commission
NVCA	Nottawasaga Valley Conservation Authority
OFRI	Ontario Forest Research Institute
OFSC	Ontario Federation of Snowmobile Clubs
SAR	Species at Risk
USDA	United States Department of Agriculture
WIA	Woodlands Improvement Act
WMU	Wildlife Management Unit

**APPENDIX C: Species Abbreviations**

Ab	black ash
Aw	white ash
Bd	basswood

Be	American beech
Bn	butternut
Bw	white birch
Ch	cherry
C	other conifers
Ce	eastern white cedar
Elm	American elm
H	other hardwoods
He	eastern hemlock
I	ironwood
La	tamarack/larch
Mh	hard/sugar maple
Mr	red maple
Or	red oak
Pj	jack pine
Po	poplar/aspen
Pw	white pine
Sb	black spruce
Sw	white spruce
Wn	black walnut

**APPENDIX D: Conversion Factors**

1 hectare (ha) = 10,000 m<sup>2</sup> = 2.47 acres

1 metre (m) = 3.26 feet = 1.09 yards

1 cubic metre (m<sup>3</sup>) = 35.7 cubic feet = 0.42 cords = 227 f.b.m.

**APPENDIX E: County Forest By-Law 2017-39 Consolidated Version**

(including County Forest Recreational Use Policy 4-6-1)



# Dufferin County Forest County Forest By-Law 2017-39 Consolidated Version

Amended By:

By-law 2018-25 - June 14, 2018 (Amended to Include Thomson Tract)

By-Law 2019-20 – April 11, 2019 (Amend Section 17, Schedule A & Schedule C)

By-Law 2020-31 – March 12, 2020 (Amend Section 7, 17 & 20, Schedule A & C)

(including County Forest Recreational Use Policy 4-6-1)



**CORPORATION OF THE COUNTY OF DUFFERIN**

**BY-LAW NUMBER 2017-39**

**BEING A BY-LAW TO GOVERN THE LANDS  
KNOWN AS THE DUFFERIN COUNTY FOREST  
AND TO REPEAL BY-LAW 2003-50**

WHEREAS by Section 8 of the Municipal Act, 2001, S.O. 2001, c.25, the Council of the Corporation of the County of Dufferin has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

AND WHEREAS by the *Trespass to Property Act*, R.S.O. 1990, c. T.21, as amended, the Council of the Corporation of the County of Dufferin is authorized to prohibit entry to land occupied by the Corporation of the County of Dufferin and the carrying on of certain activities on such land and for these purposes give notice thereof;

AND WHEREAS the Council of the Corporation of the County of Dufferin on May 11, 2017 approved the Dufferin County Forest Recreational Use Policy, which outlines the County's policies with regard to the recreational use of the lands occupied by the Corporation and generally known as the Dufferin County Forest;

NOW THEREFORE BE IT ENACTED BY THE MUNICIPAL COUNCIL OF THE CORPORATION OF THE COUNTY OF DUFFERIN ENACTS AS FOLLOWS:

**Definitions**

1. For the purposes of this by-law:

"Chief Administrative Officer" means the Chief Administrative Officer of the Corporation of the County of Dufferin;

"Council" means the Council of the Corporation of the County of Dufferin;

"County" means the Corporation of the County of Dufferin;

"Dufferin County Forest" and "Forest" means the forest lands owned by the Corporation of the County of Dufferin consisting of about 1,066 hectares in fourteen tracts generally known as: Amaranth Tract, Gara-Gore Tract, Hockley Tract, Leening Tract, Levitt Tract, Little Tract, Main Tract, Melancthon Tract, Mono Tract, Randwick Tract, Riverview Tract, River Road Tract, Simmons Tract, and Thomson Tract and further depicted in Schedule A (Dufferin County Forest Recreational Use Policy 4-6-1- Appendix A); **[Amended by By-Law 2018-25, June 14, 2018]**

"firearm" includes an air gun, pellet gun, bow or crossbow;

"hunting" includes, lying in wait for, searching for, being on the trail of, pursuing, chasing or shooting at wildlife, whether or not the wildlife is killed, injured, captured or harassed, or

capturing or harassing wildlife, except that "hunting" does not include, trapping, or lying in wait for, searching for, being on the trail of or pursuing wildlife for a purpose other than attempting to kill, injure, capture or harass it, unless the wildlife is killed, injured, captured or harassed as a result, and "hunt" and "hunter" have corresponding meanings;

"motorized snow vehicle" means a self-propelled vehicle designed to be driven primarily on snow;

"motor vehicle" means a motor vehicle within the meaning of the *Highway Traffic Act*, R.S.O. 1990, c. H.8, as may be amended from time to time and;

"management" includes all activities deemed by the Corporation of the County of Dufferin to be consistent with the goal and objectives set out in the document approved by Council on March 10, 2016 entitled *Our Forest, Our Future: Dufferin County Forest Management Plan 2016-2036* and amendments;

"property use agreement" means an agreement between the County and a person, user group, or organization outlining all requirements for use of the Dufferin County Forest;

"run at large" means being at any place other than the premises of the owner of the dog and not under the control of the owner ("under the control of" means when a dog is unleashed, that the dog is close to its owner, within sight and earshot of its owner, and it responds to voice commands and it is prevented from approaching within one metre of any animal or person without such person's consent);

"unmanned air vehicle" means a power-driven aircraft, other than a model aircraft, that is designed to fly without a human operator on board.

#### **Uses declared**

2. The Council of the Corporation of the County of Dufferin hereby declares the use of the lands known as the Dufferin County Forest to be for "forestry purposes", that is to include the production of wood and wood products, provision of proper environmental conditions for wildlife, protection against floods and erosion, recreation, and protection and production of water supplies. Schedule A shows permitted and restricted activities divided according to the land use classes in *Our Forest, Our Future: Dufferin County Forest Management Plan 2016-2036*. Users of the Dufferin County Forest shall abide by the Code of Conduct for County Forest Users as outlined in the Dufferin County Forest Recreational Use Policy. Users of the Dufferin County Forest shall not engage in any activity within a tract of the Dufferin County Forest other than those activities marked with a "y" for the tract in question on Schedule A (Dufferin County Forest Recreational Use Policy 4-6-1 – Appendix A) ;

#### **Exceptions**

3. This by-law shall not apply to an employee of the Corporation of the County of Dufferin while acting in the course of his or her employment in managing the Dufferin County Forest or any part thereof, or any person authorized by an employee of the Corporation of the County of Dufferin to carry out any duty relating to the management of the Dufferin County Forest or any part thereof.

**Motor vehicles**

4. No person shall enter the Dufferin County Forest or any part thereof for the purpose of bringing into the Forest any motor vehicle for the purpose of operating said motor vehicle in the Dufferin County Forest with the following exceptions:

a. Parking

any person who enters the Dufferin County Forest or any part thereof for the purpose of bringing into the Forest any vehicle which is drawn or propelled by a motor or any means of power other than by muscular power, to park such vehicle in any area marked or designated for parking or;

b. Motorized snow vehicles

any person who enters the Dufferin County Forest on a motorized snow vehicle on a designated Ontario Federation of Snowmobile Clubs (O.F.S.C.) trail, remains on such designated trails while in the Forest, and is in possession of a valid O.F.S.C. trail permit or;

c. Electric Vehicles

any person who enters the Dufferin County Forest on an electrically powered vehicle who has mobility difficulties and/or who is retrieving game.

**Campfires**

5. No person shall have an open campfire at any time in the Dufferin County Forest or any part thereof.

**Curfew**

6. No person shall remain in the Dufferin County Forest or any part thereof between the hours of 12:00 a.m. (24:00 hours) and 5:00 a.m. (5:00 hours) local time for any purpose, including camping, without prior written permission from the County Forest Manager or his or her designate.

**Garbage disposal**

7. No person shall discard refuse, including yard or garden waste, in the Dufferin County Forest or any part thereof. **[Amended by By-Law 2020-31, March 12, 2020]**

**Animal Excrement**

8. Any person who owns, harbours or possesses or is in control of any animal shall be responsible for the removal and sanitary disposition of any excrement of the said animal forthwith.

**Vandalism**

9. No person shall remove, alter, damage or destroy any property of the County in the Dufferin County Forest.

**Construction**

10. No person shall place signs, construct roads or trails, or construct obstacles such as ramps and bridges on any roads or trails in the Dufferin County Forest without prior written permission from the County Forest Manager or his or her designate.

**Safety**

11. All persons mountain biking, horseback riding, or snowmobiling in the Dufferin County Forest must wear an appropriate helmet.
12. No person in the Dufferin County Forest shall use an audio device that impairs their awareness of other users.

**Unmanned Aerial Vehicles**

13. The use of unmanned air vehicles (“drones”) is not permitted in the Dufferin County Forest without prior written permission from the County Forest Manager or his or her designate.

**Dogs**

14. Dogs are not allowed to run at large in the Dufferin County Forest.

**Foraging**

15. No person shall disturb, cut, kill, remove or harm any plant, tree or natural object in the Dufferin County Forest, including for the purposes of foraging.

**Signs and Markers**

16. No person shall disobey a posted sign or marker within a County Forest, including signs that restrict uses permitted on individual trails, as designated in Schedule C.

**Designated Trails & Trail Additions**

17. A group wishing to establish and maintain a trail or trail system in the Dufferin County Forest is required to seek the approval of the County of Dufferin.
  - a) If the primary consideration is safety of users, re-routes of existing trails will be at the discretion of the County Forest Manager in consultation with the Director of Public Works/County Engineer.
  - b) If the primary consideration is not safety, trail changes will be brought to a meeting of the Dufferin County Forest Advisory Team (DCFAT) for discussion and forwarded to the County Infrastructure and Environment Committee for approval.
  - c) The above guidelines will apply to any trail changes to the map that forms Schedule C of By-law 2017-39, whether they are completely new trails, or

additions of existing but unmaintained/unmapped trails. **[Amended by By-Law 2020-31, March 12, 2020]**

#### **Events**

18. No person or group shall have an organized event in the Dufferin County Forest without obtaining a permit.

#### **Hunting**

19. There shall be no hunting in the Dufferin County Forest except in accordance with all of the following:
- a. as permitted under the *Fish and Wildlife Conservation Act*, 1997, S.O. 1997, c. 41, and the associated regulations;
  - b. in a tract and during a time of year where hunting is listed as permitted in Schedule A; and a permit issued under s. 20 of this By-law, including any terms or conditions of such permit.

#### **Permit Required**

20. All persons wishing to hunt in the Dufferin County Forest must be a member of a recognized organization that provides a minimum of \$5 million liability insurance for its members while they are engaged in hunting activities and obtain a Forest User Permit (Hunting) from the County that shall be in the form described in Schedule B and will be valid from the date of issue or October 1, whichever is later, until the following May 31. Forest Use Permits (Hunting) must be authorized by the signature of the County Forest Manager or his or her designate. **[Amended by By-Law 2020-31, March 12, 2020]**

#### **Treestands and Blinds**

21. Treestands and blinds must be of a freestanding, portable design and must be removed after every use.

#### **Discharge of Firearms**

22. No person shall discharge a firearm at any time for any reason in the parts of the Dufferin County Forest where hunting is not permitted according to Schedule A.
23. No person shall discharge a firearm in any part of the Dufferin County Forest for any reason between June 1 and September 30.
24. No person shall discharge a firearm in any part of the Dufferin County Forest for the purpose of patterning/sighting said firearm.

#### **Offences**

25. Every person who contravenes any provision of this by-law is guilty of an offence and upon conviction is liable to a fine or penalty as provided for in the *Provincial Offences Act*, R.S.O.

1990, c. P.33, as may be amended from time to time.

**Enforcement**

- 26.
- a. Any police officer, provincial offences officer, or employee of the County designated by the Chief Administrative Officer is authorized to inform any person of the provisions of this by-law and to request compliance therewith.
  - b. In addition to any other authority they may have, any police officer, provincial offences officer or municipal law enforcement officer, is authorized to order any persons believed by such officer or employee to be contravening or who has contravened any of this by-law,
    - i. to desist from the activity constituting or contributing to such contravention;
    - ii. to remove from the Dufferin County Forest anything owned by or in the control of such person which the officer believes is or was involved in such contravention, or
    - iii. to leave the Dufferin County Forest.
  - c. Any police officer, provincial offences officer or municipal law enforcement officer may enforce the provisions of this by-law.
  - d. Where any person contravenes any of the provisions of this by-law, or fails to comply with the order referred to in subsection (b) hereof, the permission and licence of such person to remain in the Dufferin County Forest is revoked.

**Severability**

27. If a court of competent jurisdiction should declare any section or part of a section of this by-law to be invalid, such section or part of section shall not be construed as having persuaded or influenced Council to pass the remainder of the by-law and it is hereby declared that the remainder of the by-law shall be valid and shall remain in full force and effect.
28. By-law 2003-50 is hereby repealed.
29. Schedules A, B and C shall form part of this by-law.

This by-law shall come into full force and effect on the date of passing.

READ a first, second and third time and finally passed this 14th day of September, 2017.

\_\_\_\_\_  
Darren White, Warden

\_\_\_\_\_  
Pam Hillock, Clerk

Schedule A – County Forest Recreational Policy 4-6-01 – By-Law 2017-39



**POLICY & PROCEDURE MANUAL**

<b>SECTION</b>	RECREATION AND CULTURE	<b>POLICY NUMBER</b>	4-6-1
<b>SUB-SECTION</b>	County Forest	<b>EFFECTIVE DATE</b>	May 11, 2017
<b>SUBJECT</b>	Dufferin County Forest Recreational Use		
<b>AUTHORITY</b>	Community Services Dufferin Oaks – April 25, 2017 Council Motion #23 - May 11, 2017 Amended – Public Works – April 26, 2018 Council – May 10, 2018 Amended – Infrastructure & Environmental Services – February 28, 2019 Council – March 14, 2019 Amended – Infrastructure & Environmental Services – January 23, 2020 Council – February 13, 2020		

**PURPOSE:**

To effectively manage recreational use of the Dufferin County Forest in accordance with the social, environmental, and economic sustainability objectives in *Our Forest, Our Future: Dufferin County Forest Management Plan 2016-2036*.

**STATEMENT:**

This policy applies to all tracts of the Dufferin County Forest.

**PROCEDURES:**

1. **Generally Accepted Uses**  
 Unless otherwise restricted in this policy and associated by-law, generally accepted outdoor recreational activities are permitted in the Dufferin County Forest.
2. **Main Permitted and Restricted Activities by Land Use Classes**  
 Appendix A shows the main permitted and restricted activities divided according to the land use classes in *Our Forest, Our Future: Dufferin County Forest Management Plan 2016-2036* (Table 7, pgs. 36-37).
3. **Trails**  
 Users must stay on established trails at all times while in the Dufferin County Forest.
4. **Motorized Vehicles**  
 Motorized vehicles, other than snowmobiles, are not permitted in the Dufferin County Forest.
5. **Electric Vehicles**  
 Access by electric motorized vehicles is permitted for users with mobility difficulties and for game retrieval.

<b>Recreational Use of the County Forest</b>	<b>POLICY NUMBER</b>	4-6-1
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**6. Parking**

Parking is permitted only in designated areas.

**7. Hunting, Fishing, Trapping**

In general, hunting is not permitted in all tracts of the Dufferin County Forest, please refer to Appendix A for tracts where hunting is permitted.

There is no hunting or discharge of firearms allowed in any Dufferin County Forest between June 1 and September 30.

Patterning/sighting of firearms is not permitted in the Dufferin County Forest.

Between October 1 and May 31, hunting and discharge of firearms are permitted only on the tracts as listed in Appendix A and within the seasons and other restrictions and requirements as determined by the Ontario Ministry of Natural Resources and Forestry.

Only temporary portable tree stands, which must be removed after every use, are permitted.

Hunters are required to purchase a permit from the County for hunting in the Dufferin County Forest. The permit will be valid from October 1 of a given year until the following May 31. If deemed necessary, the County may restrict the number of permits issued.

All hunters must be members in good standing of a recognized organization that provides a minimum of \$5 million liability insurance for its members while they are engaged in hunting activities and are required to present proof of membership prior to obtaining a permit to hunt in the Dufferin County Forest. **[Amended by By-Law 2020-31, March 12, 2020]**

Fishing is permitted only within seasons and other restrictions and requirements as determined by the Ontario Ministry of Natural Resources and Forestry. However, there are no significant fishing opportunities in the Dufferin County Forest.

Trapping is permitted only within the seasons and other restrictions and requirements as determined by the Ontario Ministry of Natural Resources and Forestry and only at the following tracts: Melancthon, Riverview, and Amaranth South. Trapping areas will be assigned on a first come, first serve basis, renewable annually at the County's discretion. All trappers are required to present proof of membership in the Ontario Fur Managers Federation prior to being granted permission to trap.

**8. Snowmobiling**

Snowmobiling in the Dufferin County Forest is permitted on designated Ontario Federation of Snowmobile Clubs (OFSC) trails only. Snowmobilers must display a current OFSC trail permit and follow all OFSC rules/regulations while using the designated trails in the Dufferin County Forest.

**9. Foraging**

In order to conserve the natural environment, users are not permitted to disturb, cut, kill, remove or harm any plant, tree or natural object in the Dufferin County Forest, including for the purposes of foraging.

**10. Dogs**

Dogs must be under control or on-leash at all times within the Dufferin County Forest.

<b>Recreational Use of the County Forest</b>	<b>POLICY NUMBER</b>	4-6-1
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**11. Safety**

The use of audio devices that impair your awareness of other users is not permitted in the Dufferin County Forest.

Helmets are required for anyone mountain biking, horseback riding, or snowmobiling in the Dufferin County Forest.

**12. Campfires**

Campfires are not permitted in the Dufferin County Forest.

**13. Respect for Property**

Discarding of garbage, including yard or garden waste, in the Dufferin County Forest is not permitted. **[Amended by By-Law 2020-31, March 12, 2020]**

Willful damage to any structures in the Dufferin County Forest is not permitted.

**14. Drones**

Use of drones in the Dufferin County Forest is not permitted without prior authorization from the County Forest Manager or his/her designate.

**15. Mansfield Outdoor Centre**

The County of Dufferin has a long-standing exclusive land use agreement with the Mansfield Outdoor Centre for lease of designated trails in the south part of the Main Tract for cross-country skiing between December 1 of a given year and March 31 of the following year. The agreement will be renewed annually at the County's discretion.

**16. Organized Recreational Events**

Non-profit groups wishing to hold an event/tour for more than 30 people in the Dufferin County Forest will be required to obtain a County Forest Event Permit. For-profit/commercial groups of any size wishing to hold an event/tour in the Dufferin County Forest will be required to obtain a County Forest Event Permit (Appendix B). **[Amended by By-Law 2019-20, April 11, 2019]**

Groups are advised to inquire as to date availability for events as soon as possible (at least three months in advance of event date) to avoid disappointment. In order to minimize conflicts, only one event per tract per day will be granted an event permit.

Groups participating in forest stewardship activities such as trail building, trail maintenance, and garbage removal are not required to have an event permit for such activities.

Access to the open area at the Main Tract for overnight stays/event staging will be limited to groups holding organized recreational events having a valid County Forest Event Permit. **[Amended by By-Law 2019-20, April 11, 2019]**

There will be no camping permitted in the Dufferin County Forest other than as part of an event for which there is a valid County Forest Event Permit. **[Amended by By-Law 2019-20, April 11, 2019]**

**17. Separation of Trail Uses**

The County Forest Manager or his/her designate will work with stakeholders to establish separate designated trails in the Main Tract for user groups. Trail maps will be distributed to users through a variety of means and signs will indicate designated trails in the Main Tract.

Recreational Use of the County Forest	POLICY NUMBER	4-6-1
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[Amended by By-Law 2019-20, April 11, 2019]

**18. Fees**

Fees for recreational use of the Dufferin County Forest will be established in the County's fees by-law and will be available on the County website and by request.

**19. Forest Management**

Forest management activities will be conducted so as to minimize impacts on designated recreational trails.

**20. Dufferin County Forest Advisory Team**

The County will establish a team made up of five residents of Dufferin County and one member of the Infrastructure and Environmental Services Committee. [Amended by By-Law 2019-20, April 11, 2019] The team will meet at least once annually to discuss the management of the Dufferin County Forest. The purpose of the team will be to ensure that the interests of stakeholders in the Dufferin County Forest are represented and effectively communicated to the County of Dufferin. Representation will be solicited from the general public to coincide with the new term of County Council, or as required to replace or add members. The Terms of Reference for the Dufferin County Forest Advisory Team are in Appendix C.

**21. Code of Conduct for Dufferin County Forest Users**

These guidelines have been adapted from various sources.

**a. General Rules**

***Expect and respect other trail users.***

- Remember that on shared use trails there are a variety of other users enjoying the trail with you.
- Keep to the right to allow other users to pass on your left. When stopping for a break, move to the side to allow others room to pass
- Stay on the trail; don't create new trails.
- Respect neighboring landowners by staying off private property.
- Avoid excessive noise.
- Leave the trail as you found it; whatever you pack in, pack out.
- Maintain control of your pets. Carry a leash for your dog and be prepared to use it. "Stoop and flick" when waste is on the trail.
- Some trails may close seasonally or during forest management activities. Obey trail closure signs.
- Check the trail conditions. If you are leaving tracks over ½" (1.25 cm) deep don't use the trail.
- Do not scare horses by approaching silently or rapidly. When approaching from the front, stop and let them pass unless the rider indicates otherwise. If approaching from behind, alert the horse and rider from about 30 feet (nine metres) away with a friendly "hello". Ask the rider the best way to pass.
- During hunting seasons wear bright coloured clothing to increase visibility.
- Obey all signs.

<b>Recreational Use of the County Forest</b>	<b>POLICY NUMBER</b>	4-6-1
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- Yield on trails according to the following:



**b. Walkers, Hikers, Runners, Snowshoers**

- Remember that on shared use trails there are a variety of other users enjoying the trail with you.
- Do not scare horses by approaching silently or rapidly. When approaching from the front, stop and let them pass unless the rider indicates otherwise. If approaching from behind, alert the horse and rider from about 30 feet (nine metres) away with a friendly “hello”. Ask the rider the best way to pass.
- Keep control of your pets, particularly when sharing the trail with mountain bikers, children, horses or snowmobiles.
- Don’t walk on groomed cross-country ski trails.

**c. Equestrians (adapted from: Headwaters Horse Country)**

- Remember that on shared use trails there are a variety of other users enjoying the trail with you.
- Wear a helmet
- Before heading out on the trail, get informed about where horses are permitted and not permitted. Obey trail closure and seasonal use signs. Ride only on trails that are marked as being open to horses and stay on those trails. Don’t make new trails or use unsigned trails. In winter, stay off groomed cross-country ski trails.
- Horses can cause a lot of damage to the trail. Do your best to leave the trail as you found it. Avoid going on wet trails even if there are no closed signs posted. If your horse leaves tracks deeper than ½” (1.25 cm) stay off the trail.
- Kick manure off the trail (hikers and bikers will appreciate it). Take out what you take in and nothing else (leave the wildflowers and wild life behind). Manure and trailer contents must be removed from parking lots and disposed of offsite. Do not dispose of on gravel roads.
- Before taking your horse on the trail, train him to handle situations that may occur there. Horses that kick, bite or are very spooky are not safe on a shared trail. Always ride with a more experienced horse and rider especially if you or your horse are new to trail riding.
- Enjoy your ride at a leisurely pace especially when your view of the trail ahead is restricted. To avoid damaging the trail or causing injury to other trail users, keep to a walk or a gentle trot. Never gallop on the trail.
- Keep to the right when meeting oncoming trail users. If you are passing someone in front of you, make sure they know you are behind them. Pass in single file on the left after getting their permission to pass. If they are traveling with dogs or children, ensure they have them under control before passing. If others are passing you, tell them the safest way to get by. If you stop for a rest, move to the right side of the trail so that others have room to pass.

<b>Recreational Use of the County Forest</b>	<b>POLICY NUMBER</b>	4-6-1
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- Whoever is travelling uphill is given the right of way so that they don't lose momentum. This applies for bikers, hikers and horse riders.
- When you hear or see other trail users, speak up to let them know you are there. Call out a friendly greeting so they aren't caught by surprise as they come around a corner. You can decrease negative encounters by educating non-horse people in a friendly and respectful manner about how to safely approach and pass horses.
- Always be prepared for the worst case scenario. Carry identification on yourself and on your horse in case you become separated. Let someone know where you are going and when you expect to return. Carry a basic first aid kit as well as a cellphone, water and some food.
- It is highly recommended that you have off-farm liability insurance coverage that will protect you in case you lose control of your horse and damages ensue

**d. Cyclists (adapted from: International Mountain Bicycling Association Canada)**

- Remember that on shared use trails there are a variety of other users enjoying the trail with you.
- Do your utmost to let your fellow trail users know you're coming — a friendly greeting or bell ring are good methods. Try to anticipate other trail users as you ride around corners. Bicyclists should yield to other non-motorized trail users, unless the trail is clearly signed for bike-only travel. Bicyclists traveling downhill should yield to ones headed uphill, unless the trail is clearly signed for one-way or downhill-only traffic. In general, strive to make each pass a safe and courteous one.
- Respect trail and road closures — ask the County Forest Manager or his/her designate for clarification if you are uncertain about the status of a trail. Do not trespass on private land. Obtain permits or other authorization as required.
- Be sensitive to the dirt beneath you. Wet and muddy trails are more vulnerable to damage than dry ones. When the trail is soft, consider riding in a different area. This also means staying on existing trails and not creating new ones to bypass soft areas. Don't cut switchbacks. Be sure to pack out at least as much as you pack in.
- Inattention for even a moment could put yourself and others at risk. Obey all bicycle speed regulations and recommendations, and ride within your limits.
- Do not scare horses by approaching silently or rapidly. When approaching from the front, stop and let them pass unless the rider indicates otherwise. If approaching from behind, alert the horse and rider from about 30 feet (nine metres) away with a friendly "hello". Ask the rider the best way to pass.
- Know your equipment, your ability and the area in which you are riding and prepare accordingly. Strive to be self-sufficient: keep your equipment in good repair and carry necessary supplies for changes in weather or other conditions. Always wear a helmet and appropriate safety gear.
- Don't ride on groomed cross-country ski trails.

**e. Cross-Country Skiers**

- Remember that on shared use trails there are a variety of other users enjoying the trail with you.
- Use common sense and personal awareness, particularly in intense cold or when sharing the trail with snowmobiles.
- Keep to the right to allow other users to pass to your left. Be alert for other trail users and ski in control, particularly when your vision of the terrain ahead is restricted. Always assume that there could be someone up ahead, and be prepared to stop.
- Do not ski late in the day. Plan to be off the trail by dusk.
- Carry sufficient wax, food, drink, and clothing for unexpected eventualities.

<b>Recreational Use of the County Forest</b>	<b>POLICY NUMBER</b>	4-6-1
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- Keep track of your progress and where you are. For remote areas, leave your itinerary and expected return time with someone. Obey all posted signs and warnings. Keep off closed trails.
- Do not stop where you obstruct the trail or are not visible from above or at a bend.
- Before merging onto a trail, look both ways (particularly uphill), and yield to others. When going downhill or passing others, ski in control to avoid the persons below and beside you.
- Do not scare horses by approaching silently or rapidly. When approaching from the front, stop and let them pass unless the rider indicates otherwise. If approaching from behind, alert the horse and rider from about 30 feet (nine metres) away with a friendly "hello". Ask the rider the best way to pass.

**f. Snowmobilers**

- Remember that on shared use trails there are a variety of other users enjoying the trail with you.
- Wear a helmet
- Be safety conscious. Be aware. Ride with care.
- Stay on the designated Ontario Federation of Snowmobile Clubs (OFSC) trails.
- Enjoy wildlife viewing opportunities, but avoid stressing any species.
- Avoid sudden stops and starts and quick directional changes with acceleration.
- Slow down when your vision of the trail ahead is restricted, at night, or over unfamiliar terrain.
- Always assume there could be other trail users ahead, and be prepared for a controlled stop.
- Keep your speed and engine rpm low and steady when approaching and passing other trail users, homes, etc.
- Slow down, communicate, and be courteous when approaching or passing other trail users.
- Your snowmobile may scare a horse. When approaching from the front, stop, turn off your machine, and let them pass unless the rider indicates otherwise. Approach slowly from behind, allow the rider to signal when it is alright to pass. If the horse reacts, stop and wait for the rider to regain control.
- Park and dismount from your snowmobile and walk to sensitive, scenic, historic and cultural areas.
- Remove your helmet when talking to other trail users.
- Don't ride on groomed cross-country ski trails.
- When parking along a trail, park snowmobiles in single file over to the right as far as possible to avoid obstructing the trail. Ensure you are visible and turn off your machine.
- Obey all laws, regulations and by-laws regulating the operation of your snowmobile.

**g. Hunting, Fishing, Trapping**

- Remember that on shared use trails there are a variety of other users enjoying the trail with you.
- Obey all laws, regulations and by-laws regulating hunting, fishing, and trapping.
- Be well-practiced and know your firearm's capabilities and limitations.
- When shooting, do so accurately and safely.
- Insist that other hunters obey all laws and report lawbreakers.
- Avoid offensive behaviour and situations, such as displaying your harvest on your vehicle or behaving coarsely during or after the hunt.
- Make full use of the animals you take.
- Respect neighboring landowners by staying off private property.

# Our Forest, Our Future: Dufferin County Forest Operating Plan 2021-2026

Recreational Use of the County Forest - Policy 4-6-1

**Appendix A: Main Permitted and Restricted Activities by Land Use Class**  
 [Amended by By-law 2018-25, June 14, 2018]

Tract & Compartments	Land Use Class	Area (ha)	Hiking/Running/Nature Appreciation	Skating/Snowshoeing	Fat (Winter) Mtn Biking	Mtn Biking
Amaranth (42a), Laurel Wetland Complex	natural	12	y	y	n	n
Amaranth (43b, 43c), Farmington Swamp	natural	10	y	y	y	y
Amaranth (43a)	managed	2	y	y	y	y
Gara-Gore (44a)	managed	15	y	y	y	y
Hockley (49), Orangeville Wetland Complex	natural	20	y	y	y	y
Leening (50)	natural	8	y	y	n	n
Levitt (51)	natural	4	y	y	n	n
Little (48)	natural	47	y	y	n	n
Main (7-10, 12-19, 21a, 22, 23a, 23b, 24b, 24c, 25b, 25c)	managed	318	y	y	y	y
Main (11, 20a, 21b, 23c, 24a, 25a, 26-30, 31a, 31d), Oak Ridges South Slope Forest	natural	266	y	y	y	y
Main (31b, 31c)	natural	24	y	y	y	y
Melancthon (32a, 32b, 32c, 33a, 33b, 33d)	managed	12	y	y	y	y
Melancthon (33a, 33c, 33d, 34a, 35a), Melancthon 1	natural	48	y	y	y	y
Mono (39-40, 46)	managed	68	y	y	y	y
Randwick (1-4c, 5-6)	managed	115	y	y	y	y
Randwick (4d), Walker's Creek Wetland	natural	2	y	y	y	y
River Road (45)	managed	3	y	n	n	n
Riverview (36, 37b, 37c, 37d, 37e, 38a, 38b)	managed	27	y	y	y	y
Riverview (37a, 38c, 38d), Melancthon 2	natural	13	y	y	y	y
Simmons (47)	managed	42	y	y	y	y
Thomson	managed	12	y	y	n	n

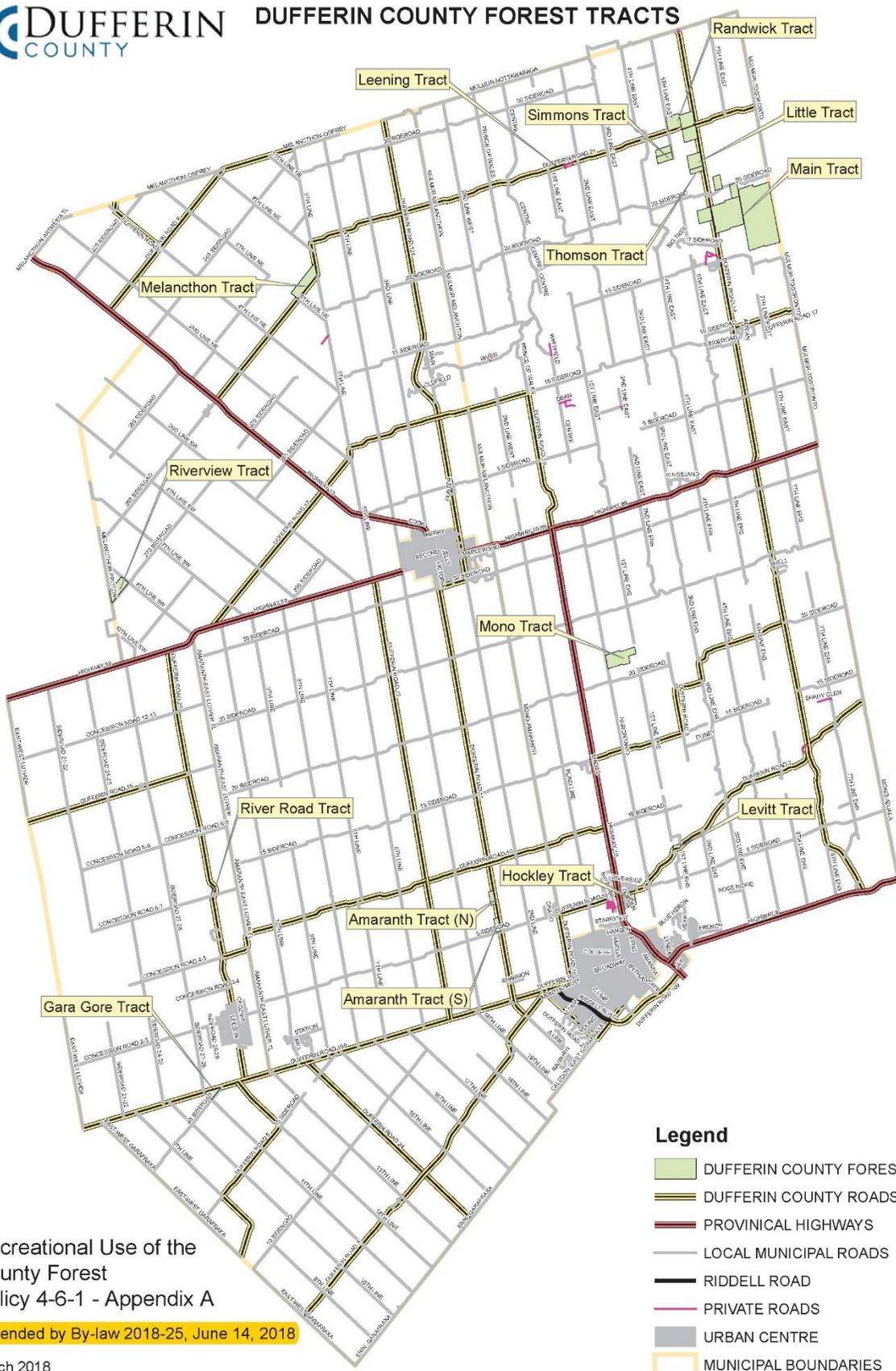
Tract & Compartments	Land Use Class	Area (ha)	Horseback Riding	Hunting	OFSC Trails	Other Motorized Vehicles
Amaranth (42a), Laurel Wetland Complex	natural	12	n	n	n	n
Amaranth (43b, 43c), Farmington Swamp	natural	10	y	y (except June 1-Sept 30)	n	n
Amaranth (43a)	managed	2	y	y (except June 1-Sept 30)	n	n
Gara-Gore (44a)	managed	15	y	y (except June 1-Sept 30)	n	n
Hockley (49), Orangeville Wetland Complex	natural	20	n	n	n	n
Leening (50)	natural	8	n	n	n	n
Levitt (51)	natural	4	n	n	n	n
Little (48)	natural	47	n	n	n	n
Main (7-10, 12-19, 21a, 22, 23a, 23b, 24b, 24c, 25b, 25c)	managed	318	y	y (except June 1-Sept 30)	y	n
Main (11, 20a, 21b, 23c, 24a, 25a, 26-30, 31a, 31d), Oak Ridges South Slope Forest	natural	266	y	y (except June 1-Sept 30)	n	n
Main (31b, 31c)	natural	24	y	y (except June 1-Sept 30)	n	n
Melancthon (32a, 32b, 32c, 33a, 33b, 33d)	managed	12	y	y (except June 1-Sept 30)	n	n
Melancthon (33a, 33c, 33d, 34a, 35a), Melancthon 1	natural	48	y	y (except June 1-Sept 30)	n	n
Mono (39-40, 46)	managed	68	y	n	y	n
Randwick (1-4c, 5-6)	managed	115	y	y (except June 1-Sept 30)	y	n
Randwick (4d), Walker's Creek Wetland	natural	2	y	y (except June 1-Sept 30)	n	n
River Road (45)	managed	3	n	n	n	n

Recreational Use of the County Forest - Policy 4-6-1

Tract & Compartments	Land Use Class	Area (ha)	Horseback Riding	Hunting	OFSC Trails	Other Motorized Vehicles
Riverview (36, 37b, 37c, 37d, 37e, 38a, 38b)	managed	27	y	y (except June 1-Sept 30)	y	n
Riverview (37a, 38c, 38d), Melancthon 2	natural	13	y	y (except June 1-Sept 30)	n	n
Simmons (47)	managed	42	y	y (except June 1-Sept 30)	n	n
Thomson	managed	12	n	n	n	n



DUFFERIN COUNTY FOREST TRACTS



Recreational Use of the County Forest Policy 4-6-1 - Appendix A

Amended by By-law 2018-25, June 14, 2018

March 2018

Appendix B



County of Dufferin, Corporate Services  
55 Zina Street, Orangeville ON L9W 1E5

## **COUNTY FOREST EVENT PERMIT APPLICATION**

Applications must be submitted **at least 90 days prior to the event.**

Submit to: County of Dufferin  
Corporate Services – Clerk’s Office  
55 Zina Street  
Orangeville ON L9W1E5  
Phone 519-941-2816  
Fax 519-941-4565  
info@dufferincounty.ca

Once submitted, you will receive confirmation of receipt. Applications will be reviewed by the Clerk’s Office and the County Forest Manager. You will be contacted regarding your permit status within 30 days.

Once issued, the County Forest Event Permit must be available for viewing at all times during the event.

**Please note that acceptance of your application is in no way approval or confirmation of your request.**

The following documentation is required before the permit will be issued:

1. Completed and signed application
2. The signed Terms and Conditions page
3. The signed Hold and Save Harmless and Indemnity Agreement
4. Proof of Insurance in the minimum amount of \$5 million dollars liability showing the Corporation of the County of Dufferin as an additional insured and including a provision for cross liability for insurance against all damages or claims for damages or liability
5. An event description
6. An event route map

NOTE: Your event description must be approved by the County prior to being used to promote the event.

Fee Schedule (as per By-Law 2015-41):

Application Fee: \$50 plus 13% HST

Per Person Event Fee: \$2/Person Attending the Event plus 13% HST

Application fee is due upon permit approval. Permits will be issued following payment of fee. Per Person Event fee is due following the event.

The personal information collected on this form is collected under the authority of By-Law 2017-39 and will be used to issue the County Forest Event Permit. Questions about this collection should be addressed to the Clerk at 519-941-2816 x2503.



County of Dufferin, Corporate Services  
55 Zina Street, Orangeville ON L9W 1E5

## COUNTY FOREST EVENT PERMIT APPLICATION

### Applicant Information

Applicant Name:

Organization/Group:

Mailing Address:

Email Address:

Phone Number:

### Event Information

Name of Event:

Date: From: To:

Number of Participants:

Type of Event:  For Profit  Non Profit

Intended Use:  Camping  Cross Country Skiing  Hiking

(Check all that apply)  Horseback Riding  Mountain Biking  Snowshoeing

Other:

Forest Tract Requested:

Brief Description of Event:

Description of Route Markings:

Print Name:

Signature: Date:

<u>For Office Use Only</u>	
Received By:	Date Received:
Reviewed By County Forest Manager:	Date Reviewed:
Event Description Approved	Special Permission Letter from Forest Manager
# of Participants Confirmed	Application Fee Received
Proof of Insurance Received	Indemnity Agreement Received
Event Route Map Received	Terms & Conditions Signed
	Permit Issued – Permit #:

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County of Dufferin, Corporate Services  
55 Zina Street, Orangeville ON L9W 1E5

## **COUNTY FOREST EVENT PERMIT APPLICATION**

### **Terms and Conditions**

- The user is responsible for complying with regulations set out in By-law 2017-39 and the Dufferin County Forest Recreational Use Policy (Policy No. 4-6-1).
- The user's event description must be approved by the County prior to being used to promote the event.
- The user is responsible for all costs relating to maintaining the property for use made of it during the event. The County has no obligation to maintain or repair the trails and/or bridges on the property for the benefit of the user. The user is responsible for ensuring that the event route is passable prior to, and following, the event.
- The user is prohibited from cutting any trees, branches or brush without prior written approval from the County Forest Manager or designate.
- The user agrees that any cutting or other damages, that in the opinion of the County Forest Manager or designate, has been caused by the users shall be rectified at the user's expense upon written notice by the County.
- The route of the event must follow the route set out in the permit application.
- No new trails may be created for the event without prior written approval from the County Forest Manager or designate.
- The user is responsible for posting signage on all trails and/or bridges or other signage as requested by the County. Any signs for the event may be posted no sooner than two weeks prior to the event date and must be removed no later than two weeks after the event. If the user is holding multiple events in a calendar year that use the same route(s), event signage may remain in place until two weeks after the final event of the calendar year.
- All trails and/or bridges on the property must remain open to the public for other permitted uses and the public shall be allowed to use them without being charged a fee by the user.
- Upon completion of the event, the user will restore the property to a state, which in the opinion of the County Forest Manager or designate, is as good as or better than the original condition prior to the event.
- The County reserves the right to cancel an event permit in case of predicted severe weather.
- In order to reduce the chances of introduction of invasive species, no firewood is to be brought in to the camping area from outside the Main Tract. [Amended by By-Law 2020-31, March 12, 2020]

The personal information collected on this form is collected under the authority of By-Law 2017-39 and will be used to issue the County Forest Event Permit. Questions about this collection should be addressed to the Clerk at 519-941-2816 x2503.



County of Dufferin, Corporate Services  
55 Zina Street, Orangeville ON L9W 1E5

- For events that include participants staying overnight/camping, at least one portable toilet must be provided for the use of participants. [Amended by By-Law 2020-31, March 12, 2020]
- The user agrees to comply with all applicable municipal, provincial, federal and other laws, statutes, ordinances and requirements.
- The County may refuse to issue or revoke the permit if the user does not provide the necessary supporting documentation or fails to comply with By-law 2017-39 and the Dufferin County Forest Recreational Use Policy.
- The County of Dufferin reserves the right to add any conditions as required. If conditions are not being adhered to, the County of Dufferin may stop, suspend or cancel the event.

As the organizer and person responsible for the event, I have read, understand and agree to abide by the rules and the conditions set forth by these above terms and conditions.

Print Name:

Signature:

Date:

The personal information collected on this form is collected under the authority of By-Law 2017-39 and will be used to issue the County Forest Event Permit. Questions about this collection should be addressed to the Clerk at 519-941-2816 x2503.



County of Dufferin, Corporate Services  
55 Zina Street, Orangeville ON L9W 1E5

**COUNTY FOREST EVENT PERMIT APPLICATION**  
**Save and Hold Harmless and Indemnity Agreement**

The User, \_\_\_\_\_, agrees to indemnify, save harmless, and waive all rights against the County of Dufferin from and against all suits and claims for loss, damage, accident, death, or injury of any nature or kind whatsoever arising out of or connected with the use and maintenance of the property or any preparation or construction of or on the property by the user, its members, employees, agents, or any other person using the property.

Print Name:

Signature:

Date:

The personal information collected on this form is collected under the authority of By-Law 2017-39 and will be used to issue the County Forest Event Permit. Questions about this collection should be addressed to the Clerk at 519-941-2816 x2503.

## Recreational Use of the County Forest – Policy 4-6-1

### Appendix C: Terms of Reference – Dufferin County Forest Advisory Team

#### Purpose:

The purpose of the Dufferin County Forest Advisory Team (DCFAT) is to:

- provide community input and advice to County staff regarding the Dufferin County Forest Management Plan and Dufferin County Forest Recreational Use Policy and;
- assist County staff in communicating plan and policy revisions.

#### Dufferin County Forest Goal:

*To protect the quality and integrity of ecosystems in the Dufferin County Forest, including air, water, land and biota; and, where quality and integrity have been diminished, to encourage restoration or remediation to healthy conditions; while providing a variety of social and economic benefits to the public.*

#### Assumptions:

- recreational pursuits in the forest are a privilege, not a right;
- the Dufferin County Forest is not parkland, preserve or for single-use, however, some areas may not be suitable for all activities and;
- the Dufferin County Forest is owned and managed by the Corporation of the County of Dufferin, and is not Crown land.

#### Criteria for Analysis of Recreational Activities/Events:

- activity must have minimal environmental impact;
- activity must not have significant impact upon other forest users;
- activity must be compatible with forest management activities;
- activity must not pose significant liability concerns to the County and;
- activity should not require significant County staff intervention for administration or policing.

#### Membership:

Representation will be solicited from the general public to coincide with the new term of County Council, or as required to replace or add members. Five members will be selected according to the following criteria:

- commitment to advancing the purpose of the Dufferin County Forest Advisory Team;
- interest and respect for a broad range of issues regarding the management of the Dufferin County Forest;
- respect for the procedures agreed to by the members;
- willingness to serve as a volunteer on the Advisory Team;
- aged 18 or over; and
- resident of Dufferin County.

In addition, one member of the Infrastructure and Environmental Services Committee will be appointed to the Dufferin County Forest Advisory Team. **[Amended by By-Law 2019-20, April 11, 2019]**

#### Structure:

The Advisory Team will meet at least once annually to discuss items relevant to its purpose. The County Forest Manager or his/her designate will attend all meetings and assist as required. The Advisory Team may choose to obtain feedback from recreational users and the broader public when deemed necessary.

**Schedule B**

The Forest Use Permit (Hunting) will take the form of a card with the following information:



Forest Use Permit (Hunting)  
Dufferin County Forest

The permittee named on the reverse must be in possession of this use permit at all times while using the Dufferin County Forest and must present the use permit on request to authorized personnel. This use permit is not transferable.

This permit entitles

\_\_\_\_\_

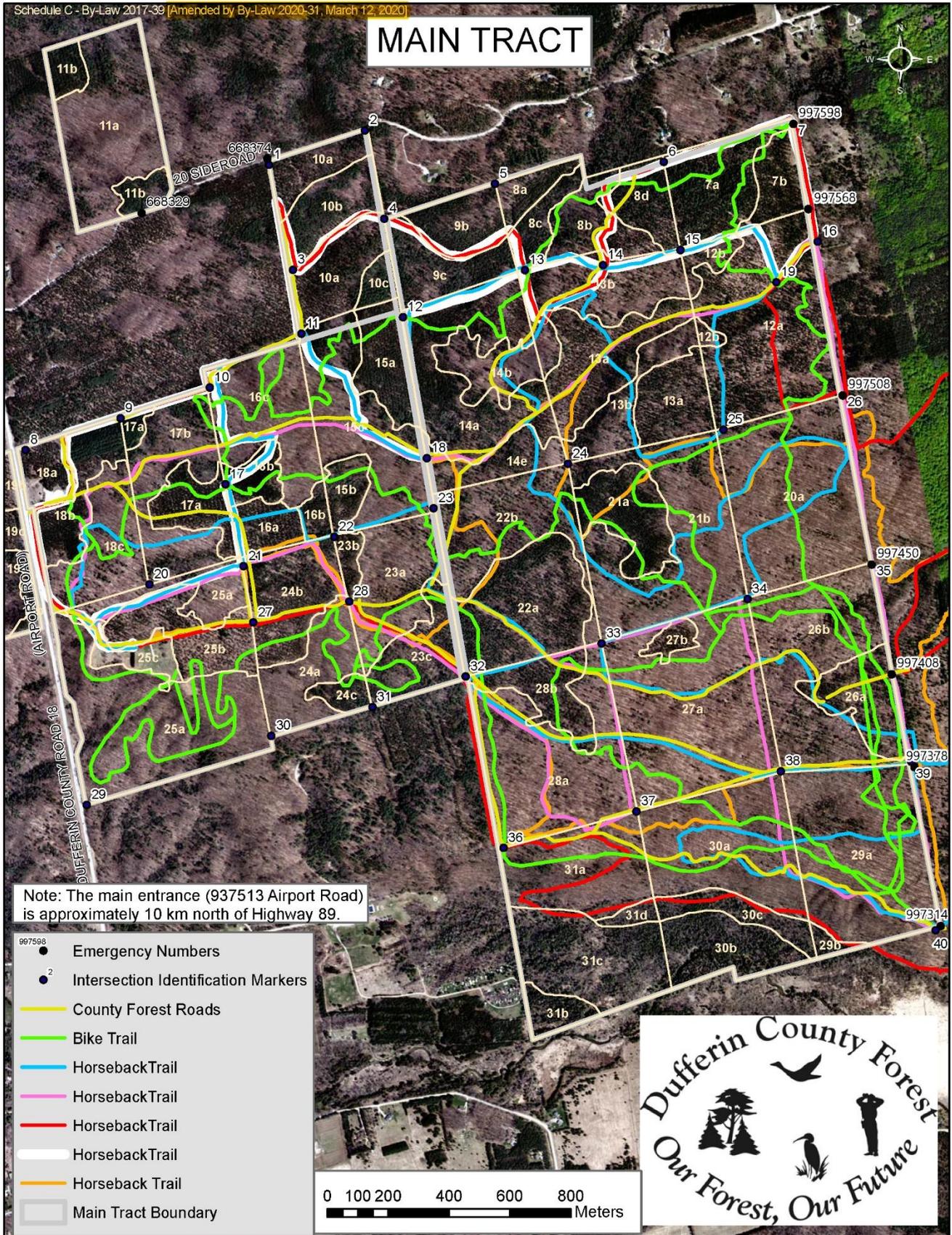
to hunt in the Dufferin County Forest provided that he/she is in compliance with the *Fish and Wildlife Conservation Act* and its associated regulations, and County of Dufferin By-law 2017-38. This forest use permit is valid from the date of issue or October 1, whichever is later, until the following May 31.

\_\_\_\_\_

Date of Issue

Authorized  
Signature

Number: DCF-W



**APPENDIX F: Related Municipal Policies and By-Laws**

Recreational Use of the County Forest By-Law 2017-39 (as amended)  
Dufferin County Official Plan  
Dufferin Local Municipal Official Plans and Zoning By-Laws  
Fees By-Law (including County Forest) 2012-08  
Recreational Use of the County Forest Policy (4-6-1)  
Reserve Funds By-Law (including County Forest) 2002-45

**APPENDIX G: Related Provincial Policies and Legislation**

*Endangered Species Act*  
*Fish and Wildlife Conservation Act*  
*Forestry Act*  
The Niagara Escarpment Plan  
*Niagara Escarpment Planning and Development Act*  
*Planning Act*  
*Professional Foresters Act*  
A Silvicultural Guide to Managing Southern Ontario Forests

**APPENDIX H: References**

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- Niagara Escarpment Commission. (2014). *The Niagara Escarpment Plan – Office Consolidation, June 12, 2014*.
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- Williams, Peter and Schwan, Terry. (2011). *Managing Ash in Farm Woodlots; Some Suggested Prescriptions*.