

Introduction

The Forest Operating Plan summarizes activities during the last operating period (2018-2023) and sets forth a schedule of planned activities for the next operating period (2024-2028). The five-year operating period provides an opportunity to adjust the allowable harvest area based on new information accumulated during the past operating period.

REPORT OF PAST FOREST OPERATIONS AND ACTIVITIES

Forest Certification

The SNC Forest maintained Forest Stewardship Council (FSC) certification during the operating period under Group Certificate RA-FM/COC-000232. Member-forests are randomly subject to audit following internal monitoring requirements as per the new Group Standard (FSC-STD-30-005V2-0 FM Groups Standard). During the operating period, SNC was selected for field audits in 2021. Additionally, SNC submitted all documents required for independent annual audits, as required, under group certification when not selected for field audit during the operating period. Table 1 summarizes the findings of the compliance audits. There were no major nonconformities. Non-conformities and observations apply to all group members where applicable.

TABLE 1
Summary of FSC Audits During the Operating Period

Year	Minor Non-Conformities	Observations
2018	No reporting of gaps in protected areas in the appropriate ecological units(s). Lack of a credible external review of their HCVF	None
	assessments.	
2019	None	None
2020	None-compliance with minimum annual sample size requirements for internal monitoring of forest management units (FMUs) less than 1000 hectares.	Lack of compliance with health and safety regulations, Workplace Safety and Insurance Act (WSIB) Regulation 1101 (logging company with no first-aid certified worker on site).
	Lack of Species at Risk information in one management plan.	Compliance with Standard Operating Procedures related to rutting.
	Lack of forest management plan contact.	Outdated text in the Policy and Procedure Manual.
2021	Lack of public availability or knowledge of High Conservation Values Reports.	
	Update of the group-level Forest Stewardship Standard.	
	Inclusion of definitions for active and inactive forest management units.	
		Discrepancies between members regarding reporting of species at risk.
2022	Lack of explicit wording in Memorandums of Understanding regarding certification body.	
2023	None	None

Forest Accruals and Depletions

Table 2 summarizes accruals and depletion of the forest area during the 2018-2023 operating period. Through an active land securement program, the SNC Forest area increased by 342.8 hectares valued at over \$2.6 million.

There were no depletions of the forest area during the 2018-2023 operational period.

TABLE 2
South Nation Forest
Summary of Forest Area Accruals and Depletions

Year	Compartment	Municipality	Purpose	Туре	Area (ha)	Value
2019	164	Edwardsburgh/Cardinal	Forest	Split Receipt	36.0	\$ 387,000
2019	165	City of Ottawa	Wetland	Donation	14.2	\$ 95,000
2020	166	North Stormont	Forest	Split Receipt	65.0	\$182,000
2020	167	Nation	Hazard	Fee Simple	1.1	\$ 56,000
	168	Nation	Infrastructure	Fee Simple	0.7	\$125,000
2021	169	Augusta	Park	Donation	3.4	\$ 8,500
2021	170	Alfred-Plantagenet	Forest	Fee Simple	40.4	\$ 275,000
	172	South Dundas	Forest	Fee Simple	30.5	\$ 105,000
	166	North Stormont	Forest	Split Receipt	13.4	\$ 142,000
	171	South Dundas	Forest	Fee Simple	10.4	\$ 102,800
2022	173	North Grenville	Wetland	Fee Simple	40.2	\$ 239,993
2022	174	North Dundas	Parkland	Donation	2.1	
	175	North Grenville	Wetland	Fee Simple	37.4	\$ 250,312
	176	Ottawa	Parkland	Donation	0.3	
	177	South Dundas	Forest	Donation	7.9	\$ 365,000
	178	North Dundas	Infrastructure	Donation	0.1	
2023	179	North Stormont	Forest	Split Receipt	40.8	\$ 700,000
	180	North Dundas	Forest	Fee Simple	70.0	\$ 395,000
	181	Clarence Rockland	Wetland	Fee Simple	75.0	\$ 259,500
Total Acc	cruals	488.9	\$ 2,623,105			
Total Depl	etions		0.0	\$ 0		

FOREST OPERATIONS

Timber Harvest

Table 3 summarizes harvest activities during the 2018-2023 operating period. The total five-year harvest was 15,109.0 m³ valued at \$186,076.47.

The average annual harvest volume, not including salvage operations, during this period was 3,021.8 m3/year and the average annual value of forest products harvested was \$37,215.29 per year.

TABLE 3 SNC Forest Summary of Five-Year Harvest 2018-2023

Year	Comp. No.	Contract Award Date	Species	Estimated Volume (m³)	Actual Volume (m³)	Harvest Area	Value	
			Pr	1,560.0	2,080.7	13.4	\$34,539.45	
2017-18	1	2016	Pw	270.0	219.5	6.9	\$3,183.19	
2017-10	'	2010	Sw	740.0	1,584.9	19.2	\$18,648.89	
			Po	400.0	480.9	Incidental	\$3,669.27	
2018	156	2016	Sw	330	298.8	5.6	\$4,895.16	
			Pr	412.0	131.1	5.4	\$1,835.14	
2019	25	2019	Pj	222.0	750.0	20.0	\$9,750.00	
2019	25	2019	Sw	972.0			·	
			Hdwd	-	25.2	Incidental	\$90.34	
			Pr	1,209.8	609.8		\$10,122.61	
2020	2/3	2020	Pw	185.5	135.5	32.2	\$1,964.63	
2020	2/3	2020	Sw	1,170.0	1,935.2	32.2	\$28,060.64	
			Po	112.9	224.6		\$404.35	
			Pr	600.8	598.6	31.4	\$8,673.37	
2020	5/7	2020	Pw	521.0	524.3	31.4	\$5,242.97	
2020	5//	2020	Sw	366.4	828.7	7.9	\$8,287.29	
			Po	-	142.7	Incidental	\$285.29	
	16/17	2021	Pw	47.31	-	1.0	-	
2021			Sw	561.07	1092.5	9.0	\$13,110.04	
			Fuelwood	-	497.3	Incidental	\$994.69	
	29		Pr	175.6	236.2	10.5	3070.92	
2021		2021	Sw	392.5	417.4		4591.45	
			Fuelwood	-	63.8	Incidental	223.17	
	13/23/30	2023 2024	Pr	453.1				
2022			Sw	1172.2	Pending	33.6	Pending	
			Fuelwood	-				
			Pr	417.1	297.5		\$4313.21	
	75		Pw	262.1	180.4		\$1442.81	
2023		2021	Sw	48.1	34.6		\$518.56	
			Fuelwood	-	36.07	Incidental	\$180.36	
			Biomass	-	33.59	Incidental	\$167.95	
			Pr	-	328.8		\$3,222.20	
2023	105	2023	Pw	-	58.6	3.0	\$500.40	
2023	(salvage)	2020	Sw	-	37.8	3.0	\$288.40	
			Biomass	-	650.4		\$7,648.20	
2023	69 (salvage)	1 /11/3	Pr	-	66.6		\$653.00	
			Pw	-	79.7	2.0	\$681.00	
			Sw	-	49.9	2.0	\$381.00	
			Biomass	-	377.3		\$4436.52	
Total					15,109.0		\$186,076.47	
Average					3,021.8		\$37,215.29	

Non-Timber Forest Products

Maple Syrup

SNC currently has one maple sap collection operation, which is located on the SNC Forest property 160, Oschmann Forest Conservation Area. In 2019, SNC proceeded with the installation of the necessary infrastructure to exploit a sugar bush for the purpose of maple syrup production. SNC has coordinated the new Hydro One connection to the site, installed a pumphouse with holding tanks, and coordinated the installation of the pipelines system to collect the sap.

SNC has been selling hard maple sap from the Oschmann Conservation Area since 2019. This provides an additional source of revenue for the SNC Forest, while contributing to a growing demand for maple products across Ontario and provide local producers with an opportunity to increase production. A mutual agreement with the purchaser has been established to provide payment for all collected maple sap from the Oschmann CA at the amount set by the Cornell University Maple Program Price Index.

Potential maple tapping stands are evaluated for their species composition, tree health, crown volume and position, stocking, potential taps, and physical characteristics of the site. The evaluation would help determine the feasibility of a maple tapping lease. SNC Forest currently has tapping potential on at least two other properties. Maple syrup producers already demonstrated interest into developing these properties.

Table 4 provides of summary of maple sap production during the operating period.

TABLE 4
Summary of Maple Sap Production
2018 - 2023

Year	Number of	Volume of Sap (Imperial	Sugar Conte (%)			Value	
	Taps	Gallons)	Min.	Max.	Avg.		
2019	508	7,330	3.0	4.0	3.3	\$4,497.55	
2020	508	8,600	2.2	4.0	2.9	\$2,500.00	
2021	508	2,450	2.9	3.3	3.1	\$1,451.91	
2022	508	5,500	2.6	3.8	3.0	\$3,304.12	
2023	508	7,075	2.2	3.0	2.5	\$4,325.14	
						\$16,078.72	

FOREST REGENERATION

Seed Collection

Climate change impacts all facets of our forests – including seed production. Seed is the critical element of afforestation and reforestation in the jurisdiction. South Nation will look to incorporate

climate change projections into its seed collection targets to ensure resilient forests planted through our programs and will take a holistic, ecosystem management approach to seed collecting.

Using a mixture of local and non-local seed sources to increase genetic diversity is encouraged as it may improve forest resilience. South Nations seed collecting efforts will follow the best available science and expertise by referring the provincial tree seed transfer policy, and knowledge and expertise from Forest Gene Conservation Association (FGCA) and Forests Ontario.

The authority currently has 5 certified seed collectors who will use database tools and property knowledge to identify stands of desirable species and suitable species populations for seed collection. Opportunities may arise for staff to collect seed or to permit local nurseries and partners to collect seed on authority land.

Tree Planting

Approximately half the current forest area was established under artificial means. Natural regeneration, where it can occur, is the preferred option. After harvest treatments, however, there are situations where desirable regeneration stocking is insufficient or where suitable seed sources to meet biodiversity and cultural objectives are not available. In these cases, to meet the long-term objectives for the site, additional silvicultural treatments may be required. Tree planting may be undertaken to ensure the SNC forest is successfully regenerated to desirable species after harvesting, or salvage operations following extreme storm events.

SNC secures funding through various tree planting subsidy programs, these include the 50 Million Tree Program, the 2 Billion Tree Program and the Ontario Power Generation Regional Biodiversity Program. Properties planted through the 50 Million Tree Program (50MTP) will be assessed at the end of the 2nd and 5th growing seasons for survival and refilled should the survival fall below 60%, as per the program allowances.

For the 2021 planting, following a second thinning undertaken in 2020, SNC secured funding to under plant portions of SNC 7 in South Dundas. The purpose of the planting was to enhance the natural ability of the forest ecosystem, to sequester carbon and increase biodiversity. Refer to Table 6 for a summary of tree planting of SNC property from 2018 to 2022.

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Invasive Species Control and Monitoring

Invasive species are widely considered to be the second greatest threat to biodiversity after habitat loss. Invasive species such as Buckthorn, dog strangling vine, phragmites and garlic mustard compete with desirable regeneration for space, light and nutrient requirements resulting in suppressed growth or mortality of desirable native regeneration. To ensure the health and growth of native regeneration, invasive species must be controlled.

Once invasive species have become established, economic costs associated with managing invasive species varies greatly depending on the species, population size and extent and the mechanism used to manage the species. Invasive species will be identified in all management areas planned in this operating period. Priority for management and control should be given to areas planned for harvest operations to reduce spread of the species throughout the authority's forest properties.

During the previous operating plan, SNC continued a partnership with the Ontario Federation of Anglers and Hunters (OFAH) which included monitoring and control of several invasive species. Invasive species monitoring and control activities. SNC continues to monitor and control incidental populations of Dog-Strangling Vine and extensive populations of Common Buckthorn. Garlic mustard is a known local invasive plant but has not been discovered on SNC property.

FIVE-YEAR OPERATING PLAN 2024-2028

To ensure long-term sustainability, an annual harvest level that could be continued indefinitely without exceeding the productive capacity of the forest is determined. One method is to use forest area by forest unit (single or groups of species with similar biological characteristics) to determine an Allowable Harvest Area (AHA). The AHA is calculated as follows:

Cutting cycle is the term used to describe the length of time between treatments. The length of time between treatments varies by species and silvicultural treatment. The proportion of eligible harvest or harvest eligibility is an estimate of the area that is likely to support a commercial harvest. Access, drainage, and current forest condition may all affect the harvest eligibility.

Annual Harvest Area

The harvest area was calculated for the current operating period based on changes to the forest area (acquisitions/depletions), recent inventories and changes to forest management objectives. The AHA by forest unit for the 2024-2028 operating period is presented in Table 5.

TABLE 5
South Nation Forest
Annual Harvest Area (AHA) By Forest Unit

Forest Unit	Silvicultural Treatment	Productive Area (Ha.)	Eligibility (%)	Cutting Cycle (years)	AHA (Ha.)	Five-Year Harvest Area (Ha.)
Red Pine	Selection Uniform Shelterwood	228.4	40	15	6.1	30.5
White Pine	Selection	168.5	40	15	4.5	22.5
White Spruce	Selection/Clear-cut	745.0	25	20	9.3	46.5
White Cedar	Selection	202.6	40	20	4.1	20.5
Other Conifer	Selection	83.8	20	20	0.8	4.0
Intolerant Hdwd	Thinning Clear-cut	847.6	15	60	2.1	10.5
Lowland Hdwd	Single Tree-Selection Group Selection Uniform Shelterwood	1366.7	20	20	13.7	68.5
Tolerant Hdwd.	Single-Tree Selection Group Selection	228.37	25	20	2.9	14.5

Selection of Harvest Areas

Table 6 provides a summary of areas that were selected for harvest during the 2024-2028 operating period. Priority was given to areas that have not received treatment or carried forward from the previous operating period. Individual harvest area maps are provided in Appendix A.

TABLE 6
Summary of Selected Harvest Area

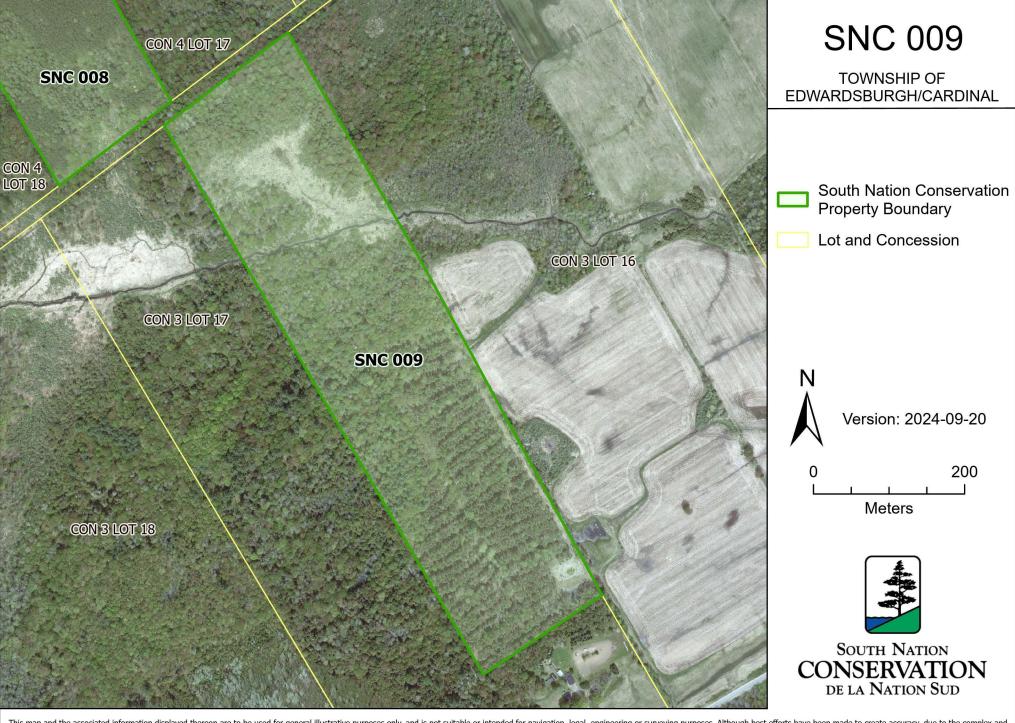
Compartment	Treatment	Working Group (Hectares)							Total Area
Compartment		Pr	Pw	Sw	ОС	IH	LH	TH	(Ha.)
9	Selection Thinning			7.7					7.7
41	Selection Thinning	19.4		11.4					30.8
52	Selection Thinning						31.4		31.4
55	Selection Thinning							20.6	20.6
56	Selection Thinning				18.9				18.9
61	Selection Thinning						17.9		17.9
64	Selection Thinning	13.3					2.3		15.6
94	Selection Thinning		23.5						23.5
102	Clearcut					3.8			3.8
147	Selection Thinning			23.8					23.8
Total		32.7	23.5	42.9	18.9	3.8	51.6	20.6	194.0
Target		30.5	22.5	46.5	24.5	10.5	68.5	14.5	217.5

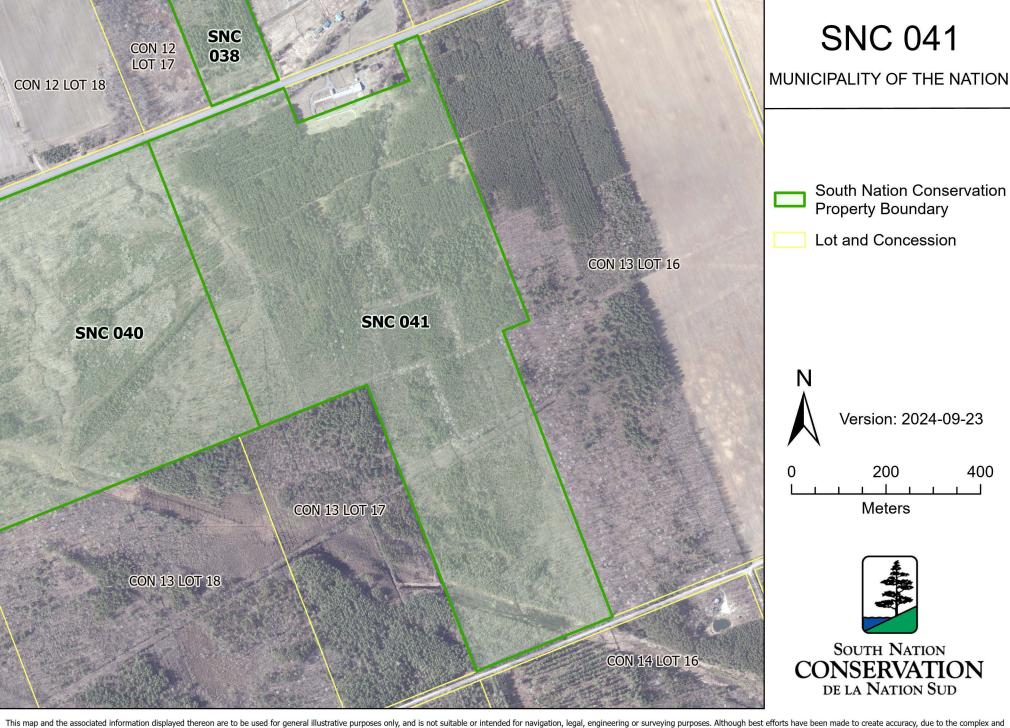
Appendix A

South Nation Forest

Forest Operating Plan
2024-2028

Maps of Selected Harvest Areas





Inis map and the associated information displayed thereon are to be used for general illustrative purposes only, and is not suitable or intended for navigation, legal, engineering or surveying purposes. Although best efforts have been made to create accuracy, due to the complex and extensive nature of the data, all representations and/or information provided herein are approximate and users should consult the primary data and information sources to confirm the accuracy of the map. The Municipality and the South the Intended For navigation, legal, engineering or surveying purposes. Although best efforts have been made to create accuracy, due to the complex and extensive purposes. Although best efforts have been made to create accuracy, due to the complex and extensive purposes. Although best efforts have been made to create accuracy, due to the complex and extensive purposes. Although best efforts have been made to create accuracy, due to the complex and extensive purposes. Although best efforts have been made to create accuracy, due to the complex and extensive purposes. Although best efforts have been made to create accuracy, due to the complex and extensive purposes. Although best efforts have been made to create accuracy, due to the complex and extensive purposes. Although best efforts have been made to create accuracy of the map. The Municipality and the south of the complex and extensive purposes. Although best efforts have been made to create accuracy of the map. The Municipality and the south of the complex and extensive purposes. Although best efforts have been made to create accuracy of the map. The Municipality and the south of the complex and extensive purposes. Although best efforts have been made to create accuracy of the map. The Municipality and the south of the complex and extensive purposes. Although the complex and extensive purposes and agents, do not guite a complex and extensive purposes. Although the complex and extensive purposes

