

**Date: 20 July 2023**

**P.E.I.  
Public Forests**



**Woodlot Management Plan**

**Property Number: 65664**

**Location: Wellington Centre**

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## Goals and Management Objectives

***Forest Management on Prince Edward Island (P.E.I.) means different things to different people. Public Forest Lands are managed for a variety of reasons including timber and non- timber values, wildlife enhancement, soil and water preservation, demonstration techniques, training and recreation and aesthetics.***

The primary goal for management of P.E.I. Public Forest Land is to enhance the overall forest quality. To accomplish this, it may be necessary to remove some of the lower quality trees on the property and nurture those of higher quality. This will in turn improve genetic quality, species distribution and diversity through careful tree selection and natural regeneration. Allowing acceptable growing stock the chance to thrive and provide a seed source for the surrounding areas will ensure that quality natural regeneration has an opportunity to establish. Enhancement or enrichment planting may be necessary in areas where there is inadequate or unsuitable natural regeneration. Trees native to P.E.I. that are suitable to the site conditions will be chosen for any required reforestation on the property. Prescribing treatments in some stands while leaving others untreated will provide for a range of forest types. Converting stands from a single species to multiple species is desirable. This can be accomplished by retaining some of the natural regeneration in areas that have been previously planted and by planned tree selection in stand improvement treatments. Planted and natural stands on the property will be assessed for health and growth of desired species on an on-going basis. This information will be used to determine when and where future treatments will be carried out. Through time, a favourable healthy mixture of short-lived and long-lived species will provide for an abundance of quality forest products, biodiversity, wildlife, and recreational opportunities as well as a range of ecological goods and services (such as clean air and water).

## **Property Overview**

### **Location**

Property 65664 is located south of the Western Road, Route #2, in the community of Wellington Centre, P.E.I., (Appendix A). The total area of this property is 33.4 hectares (82.5 acres) and the midpoint of the property is Latitude N 46.44691 decimal degrees, Longitude W -63.95635 decimal degrees.

### **Past Information**

Local records and previous aerial photography show that the northern half of this property was used for agricultural purposes early in the 20<sup>th</sup> century. To better illustrate this 1935 and 1968 photography can be seen in Appendix B and Appendix C.

### **Property Information**

The information in Appendix D has been taken from the 2010 Corporate Land Use Inventory. An explanation of forestry code meanings can be seen in Appendix E. Any stands that have proposed silvicultural treatment prescriptions are to have on-ground stand assessments completed prior to any work being started. This on-ground assessment information is included in this plan as updated stand tally sheets (Appendix F) and supplements the extrapolated data where applicable. A topographic map of the property shows the general terrain profile, the ranges in elevation and the plantations currently on the property (Appendix G).

### **Wetland and Watercourses**

There are no streams or watercourses on this property.

**Property Access**

There are no woodlot roads on the property. An approach off the highway and road into the plantations will need to be built to access this site for harvest. A class 1 road will be required.

**Property Boundaries**

This property is bounded on the south and east and west by private land. The northern boundary fronts on the Western Road, Route #2. The eastern boundary may be further west than it appears on provincial mapping, as a pin was found west of the SE corner of the property.

**Fire Protection**

This property is located within the jurisdiction of the Wellington Fire Department. The amount of personnel and equipment used to fight any forest fires will depend greatly upon the size and severity of the fire. Protection of our woodland from forest fire is the responsibility of the Forests, Fish and Wildlife Division and our local community fire brigades. In the Western District, there are four-wheel drive forestry fire trucks housed at the Wellington and West Point Fire Departments. These heavy-duty trucks are available to assist the local fire department responsible for this area. Additional forestry fire trucks, off road tracked vehicles, portable pumps and specialized forest fire suppression equipment are available if needed. A stream that flows through the middle of the property would be a suitable site to setup a portable fire pump system.

## **Planting and Silviculture**

There are three plantations on the property. It is recommended that any trees planted on the property be assessed at regular intervals. These assessments will determine if the planted trees require manual maintenance or fill planting as specified in the ECOSYSTEM-BASED FOREST MANAGEMENT STANDARDS MANUAL (“Eco Manual”). A list of all silviculture treatments completed on the property from 1991 to present is shown in Appendix H.

## **Proposed Treatments**

The 2006 Forest Policy “Moving to Restore a Balance in Island Forests” lays out the framework for Public Land Forest management. The Eco-Manual provides details for prescribed treatments. All work completed on this property must comply with that manual. Although all stands were assessed, only specific stands were prescribed treatments to accomplish goal(s) within the next 10 years. Table 1 provides a summary of these proposed treatments. Proposed treatments may be updated in 5 years, when the 10-year period expires, or due to unforeseen events. This table will be updated as required when additional treatments are prescribed. For a better understanding of the treatments prescribed, a more detailed explanation is available in the ECOSYSTEM-BASED FOREST MANAGEMENT STANDARDS MANUAL (“Eco Manual”)

[www.princeedwardisland.ca/sites/default/files/publications/2018\\_eco\\_manual\\_technical\\_version\\_-\\_final.pdf](http://www.princeedwardisland.ca/sites/default/files/publications/2018_eco_manual_technical_version_-_final.pdf) . Any additional information may be obtained by contacting a Provincial Forest

representative at the District Forestry Office in Wellington.

**Table 1. Proposed Treatment Summary.**

Stand Number and Plantation	Treatment Type	Treatment Year	Amount Proposed	2018 Eco-Manual Reference	Comments	Goals
491376, 491198, 491254, 0491363 PN # 4821561, 4861531, 4801631	Modified Strip Harvest	2023	4.96	Pg. 28	Mature JL and LA stands with significant blowdown, with significant natural regeneration of hardwoods such as RM, in the understory. One pass to remove overstorey, leaving some trees as retention. Method chosen mainly to preserve regeneration underneath.	Salvage wood while protecting existing natural regeneration.
49188	Patch Harvest	2023	2.15	Pg. 29	Salvage WS/BF pockets of blowdown, while leaving most of the stand for biodiversity and seed source.	Salvage wood.
491376, 491198, 491254, 0491363 PN # 4821561, 4861531, 4801631	Manual Site Preparation & Reforestation	2024	4.96	Pg. 14 & Pg. 16	Create microsites for planting and plant strips with tree species suitable for the site. Could plant WS, WA, CE or RO.	Regenerate a biodiverse forest stand.
49188	Manual Site Preparation & Reforestation	2024	2.15	Pg. 14 & Pg. 16	Create microsites for planting and plant with tree species suitable for the site. Could plant WS, BS, WP, CE or WA.	Regenerate a biodiverse forest stand.
491376, 491198, 491254, 0491363 PN # 4821561, 4861531, 4801631	Manual Maintenance	2027	4.96	Pg. 17	Eliminate undesirable competing vegetation.	Improve growth of crop trees.
49188	Manual Maintenance	2027	2.15	Pg. 17	Eliminate undesirable competing vegetation.	Improve growth of crop trees.
049116, 049175	Modified Strip and Block Harvest	2030	3.78	Pg. 28 & Pg. 30	Block harvest mature BF patches and Strip Harvest BS dominant parts of the stand to encourage natural regeneration.	Salvage wood and encourage natural regeneration.
049116, 049175	Manual Site Preparation & Reforestation	2030	3.78	Pg. 14 & Pg. 16	Create microsites for planting and plant strips with tree species suitable for the site. Could plant BS, WS, WP, YB, WA or RO.	Regenerate a biodiverse forest stand.
49845	Block Harvest	2030	6.34	Pg. 30	Mature conifer dominant stand that should be block harvested when starting to show signs of significant stand decline.	Salvage wood.
49845	Manual Site Preparation & Reforestation	2030	6.34	Pg. 14 & Pg. 16	Create microsites for planting and plant strips with tree species suitable for the site. Could plant BS, WS, WP, WA or RO.	Regenerate a biodiverse forest stand.
049116, 049175	Manual Maintenance	2033	3.78	Pg. 17	Eliminate undesirable competing vegetation.	Improve growth of crop trees.
49845	Manual Maintenance	2033	6.34	Pg. 17	Eliminate undesirable competing vegetation.	Improve growth of crop trees.

## **Appendices**



[illegible]



## Appendix B. 1935 Aerial Photography



## Appendix C. 1968 Aerial Photography



## Appendix D. 2010 Corporate Land Use Inventory

FIELDID	COVER1	PER1	COVER2	PER2	COVER3	PER3	COVER4	PER4	COVER5	PER5	HEIGHT	CROWN	HECTARES	WOODSTOCK
049115	RM	4	WB	4	PO	1	BF	1		0	12	95	1.09	IHMX
049116	RS	5	WS	2	LA	1	BF	1	WB	1	11	80	2.82	RS
049175	RM	3	RS	2	BF	2	WB	2	PO	1	18	80	0.96	IHSW
049176	PO	4	RM	2	BF	2	WB	2		0	14	85	0.86	IHMX
049178	WB	4	PO	2	RM	2	BF	2		0	13	85	0.53	IHMX
049179	WB	4	RS	2	RM	2	LA	1	BF	1	15	85	0.00	IHSW
049188	RM	3	WB	3	WS	2	BF	1	YB	1	18	70	2.15	IHMX
049260	WB	3	BF	3	RS	2	RM	1	AL	1	4	50	0.28	SWIH
049290	CC	10		0		0		0		0	0	0	0.06	CC
049300	WB	5	PO	2	RM	2	BF	1		0	14	85	3.21	IHMX
049835	RM	4	WB	3	PO	1	RS	1	BF	1	17	80	2.34	IHMX
049840	RM	5	PO	2	WS	1	BF	1	WB	1	18	75	1.23	IHMX
049842	WB	3	RS	2	WS	2	RM	2	PO	1	17	85	0.60	IHSW
049845	WS	3	BF	3	RM	2	PO	1	WB	1	16	85	6.34	SWIH
049846	PO	5	RM	2	BF	2	WB	1		0	20	85	0.73	IHMX
049847	RM	5	YB	2	EM	1	BF	1	WB	1	18	85	2.02	THMX
0481202	AL	8	LA	1	RM	1		0		0	4	85	1.66	ALPR
0491156	AL	4	RM	3	WB	2	BS	1		0	10	65	1.98	IHMX
0491198	JL	10		0		0		0		0	15	75	1.95	SWPR
0491254	LA	9	JL	1		0		0		0	12	80	2.11	LAPR
0491363	BS	7	WB	2	RM	1		0		0	10	80	1.24	BSPR
0491376	JL	8	LA	2		0		0		0	15	80	0.90	SWPR
0491472	WB	4	AL	2	BF	2	RM	1	PO	1	4	85	0.12	IHMX



## Appendix E. Forest Inventory Codes

### **EXPLANATION OF FOREST CODES; SPECIES**

<b>WS</b>	White Spruce	<b>JL</b>	Japanese Larch	<b>WB</b>	White Birch
<b>BF</b>	Balsam Fir	<b>EL</b>	European Larch	<b>PO</b>	Poplar
<b>HE</b>	Hemlock	<b>NS</b>	Norway Spruce	<b>RM</b>	Red Maple
<b>WP</b>	White Pine	<b>PC</b>	Pin Cherry	<b>RO</b>	Red Oak
<b>RP</b>	Red Pine	<b>MA</b>	Apple	<b>WA</b>	White Ash
<b>JP</b>	Jack Pine	<b>SP</b>	Scots Pine	<b>EM</b>	Elm
<b>CE</b>	Cedar	<b>AP</b>	Austrian Pine	<b>GB</b>	Gray Birch
<b>LA</b>	Larch	<b>YB</b>	Yellow Birch	<b>AL</b>	Alders
<b>BS</b>	Black Spruce	<b>SM</b>	Sugar Maple	<b>LI</b>	Linden
<b>RS</b>	Red Spruce	<b>BE</b>	Beech		

### **PERCENT**

<b>0</b>	1 - 9%
<b>1</b>	10 - 19%
<b>2</b>	20 - 29%
<b>3</b>	30 - 39%
<b>4</b>	40 - 49%
<b>5</b>	50 - 59%
<b>6</b>	60 - 69%
<b>7</b>	70 - 79%
<b>8</b>	80 - 89%
<b>9</b>	90 - 100%

### **CROWN CLOSURE**

<b>A</b>	91 % - 100%
<b>B</b>	81 % - 90 %
<b>C</b>	71 % - 80 %
<b>D</b>	61 % - 70 %
<b>E</b>	51 % - 60 %
<b>F</b>	41 % - 50 %
<b>G</b>	31 % - 40 %
<b>H</b>	21 % - 30 %
<b>I</b>	11 % - 20 %
<b>J</b>	0 % - 10 %

### **ORIGIN AND HISTORY**

<b>BR</b>	Burn	<b>DI</b>	Disease-Insect
<b>WF</b>	Wind Fall	<b>OF</b>	Old Field
<b>PC</b>	Partial Cut	<b>PN</b>	Plantation
<b>CC</b>	Clear Cut	<b>HR</b>	Hedgerow
<b>TH</b>	Thinning	<b>EP</b>	Excavation Pit

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### **SAMPLE DESCRIPTIONS**

#### **FOREST STAND DESCRIPTIONS**

75401 – Stand No.

SM5RM4 – Sugar Maple 50%, Red Maple 40%

WS1 12A – White Spruce 10%, Height, Crown Closure

OF – Origin History Old Field

Stand Numbering relates to the position of the stand within a 100 X 100 grid cell overlaid with the minimum values in the southwest corner and the maximum values in the northeast corner.

A stand labeled 75 40 1 would be positioned within easting grid 75 and northing grid 40 and would be the first stand within that grid cell.

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### **NON-FOREST LAND TYPES**

<b>BO</b>	Bog	<b>AL</b>	Alders
<b>CL</b>	Clear Land	<b>FL</b>	Flowerage
<b>SO</b>	Swamps – Open	<b>AG</b>	Agricultural Land
<b>EP</b>	Excavation Pit	<b>SD</b>	Sand Dune
<b>PL</b>	Power Line	<b>UR</b>	Urban
<b>C</b>	Cemetery	<b>WW</b>	Water

### **FOREST GROUND CONDITION**

<b>SW</b>	Wet – Swampy
<b>ST</b>	Steep
<b>SY</b>	Sandy

## Appendix F. Stand Tally Sheets from on the Ground Assessment

STAND TALLY SHEET													
CRUISER		J. LeClair		STAND #		491376, 491198, 491254, 0491363		PLANTATION #		4821561, 4861531, 0491363			
PROPERTY #		65664 Wellington Centre		AREA		6.2 ha		Date		8 / 6 / 2023			
										D M Y			
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%		
1	JL	37	40	23	30	4							
2	WS	37	24	20	45	5							
3						6							
STAND INFORMATION													
Stand Basal Area		SW		M <sup>2</sup> /Ha		SWSL		M <sup>2</sup> /Ha		HW		M <sup>2</sup> /Ha	
Species and (%)		JL50 %		LA40 %		WS10 %							
Even-aged		X		Uneven-aged								Biomass	
Slope		0 %		Aspect		L							
Stand Origin:		Old Field X		Partial Cut		Burn		Unploughed					
		Windfall		Non Forest				Ploughed X					
		Clear Cut		Unknown									
Stand Maturity Class:		Regeneration		Immature		Mature X		Over-mature					
Stand Stocking:		Understocked		Fully Stocked X		Overstocked		Patchy					
Density:		SW 2,500		HW									
Advanced Regeneration:		Understocked		Fully Stocked X		Overstocked		Patchy					
Regeneration:		1. Spp. RM		Height 1-5 m		2. Spp. SM		Height 1-4 m					
		3. Spp. BF		Height 1-3m		4. Spp. PC		Height 1-5 m					
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		mountain ash, sensitive and interrupted ferns, starflower, raspberry											
Ground Hemlock		Y / N		X									
Invasive Species Present		X		Y / N				If yes then what species:		Common buckthorn			
Site Indicators		X		Y / N				If yes then what species:		sensitive fern - wet site			
ENVIRONMENTAL OBSERVATIONS													
Water Course		N		Bog		Pond		Stream		Seeps		Beaver Present	
Drainage:		Poor		Moderate X		Good		Excellent				Erosion Control Required	
Snag Trees:		Adequate X		Inadequate									
Coarse Woody Material:		Adequate X		Inadequate									
Dens				Nests (Raptors, songbirds, etc.)									
Wildlife Observed		None observed.											
Comments													
STAND PRESCRIPTION													
No Treatment				Regeneration Cut				Crop Tree Release				Block Cut	
Shelterwood Cut				Selection Cut				Patch Cut				Strip Cut X	
Commercial Thinning				Afforestation				Site Preparation		X			
Pre-commercial Thinning				Reforestation		X		Riparian Zone Mgmt					
Pln. Maint.		X Y / N		Stems/Ha									
Comments:		<u>Blowdown LA and JL stand with significant red maple regeneration underneath. Recommend a modified strip harvest to remove the overstorey and salvage the blowdown while protecting and releasing existing regeneration. Could plant strips harvested during extraction with WS, WA, CE, or RO to increase diversity.</u>											

STAND TALLY SHEET													
CRUISER		J. LeClair		STAND #		49188		PLANTATION #					
PROPERTY #		65664 Wellington Centre		AREA		2.15 ha		Date		12 /	7 /	2023	
										D	M	Y	
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%		
1	RM	80+	36	16	50	4							
2	WS	60	28	17	35	5							
3	WB	60	22	16	25	6							
STAND INFORMATION													
Stand Basal Area		SW		M <sup>2</sup> /Ha	SWSL		M <sup>2</sup> /Ha	HW		M <sup>2</sup> /Ha	HWSL		M <sup>2</sup> /Ha
Species and (%)		RM50 %	WS20 %	BF10 %	WB10 %	CE, PC 10%							
Even-aged		X	Uneven-aged		Biomass								
Slope		0 %	Aspect		L								
Stand Origin:		Old Field	Partial Cut		X	Burn		Unploughed		X			
		Windfall	Non Forest					Ploughed					
		Clear Cut	Unknown										
Stand Maturity Class:		Regeneration		Immature		Mature		X	Over-mature				
Stand Stocking:		Understocked		X	Fully Stocked		Overstocked		Patchy				
Density:		SW	800	HW	800								
Advanced Regeneration:		Understocked		Fully Stocked		X	Overstocked		Patchy				
Regeneration:		1. Spp. BF		Height		0.3-5 m		2. Spp. RM		Height		4 m	
		3. Spp. PO		Height		2 m		4. Spp.		Height			
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		yellow clintonia, bunchberry, beaked hazelnut											
Ground Hemlock		Y / N	X										
Invasive Species Present		Y / N	X	If yes then what species:									
Site Indicators		Y / N	X	If yes then what species:									
ENVIRONMENTAL OBSERVATIONS													
Water Course		N	Bog	Pond	Stream	Seeps	Beaver Present		Y / N				
Drainage:		Poor	X	Moderate	X	Good	Excellent	Erosion Control Required		Y / N			
Snag Trees:		Adequate	X	Inadequate									
Coarse Woody Material:		Adequate	X	Inadequate									
Dens		Nests (Raptors, songbirds, etc.)											
Wildlife Observed		None observed.											
Comments		Lots of snags in stand for wildlife. North side of stand had wet soils.											
STAND PRESCRIPTION													
No Treatment		Regeneration Cut		Crop Tree Release		Block Cut							
Shelterwood Cut		Selection Cut		Patch Cut		X	Strip Cut						
Commercial Thinning		Afforestation		Site Preparation		X							
Pre-commercial Thinning		Reforestation		X	Riparian Zone Mgmt								
Pln. Maint.		X	Y / N	Stems/Ha									
Comments:		<u>CE found in the northern section of the stand where soils were wetter. BF regeneration was quite dense. South section had pockets of WS and BF blowdown, which could be salvaged using a patch harvest. Retain hardwoods and CE for retention. Could plant WS, BS, WP, CE or WA.</u>											

STAND TALLY SHEET													
CRUISER		J. LeClair		STAND #		049116, 049175		PLANTATION #					
PROPERTY #		65664 Wellington Centre		AREA		3.78 ha		Date		12 / 7 / 2023			
								D		M		Y	
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%		
1	BS	60	27	16	45	4							
2	WP	60	35	18	50	5							
3	WS	80+	42	18	50	6							
STAND INFORMATION													
Stand Basal Area		SW		M <sup>2</sup> /Ha	SWSL		M <sup>2</sup> /Ha	HW		M <sup>2</sup> /Ha	HWSL		M <sup>2</sup> /Ha
Species and (%)		BS50	%	BF20	%	WS10	%	WP, RM 10					
Even-aged		X	Uneven-aged		Biomass								
Slope		0	%	Aspect		L							
Stand Origin:		Old Field		Partial Cut		Burn		Unploughed					
		Windfall		Non Forest				Ploughed					
		Clear Cut		X		Unknown							
Stand Maturity Class:		Regeneration		Immature		X		Mature		X		Over-mature	
Stand Stocking:		Understocked		Fully Stocked		X		Overstocked				Patchy	
Density:		SW	1,800	HW	50								
Advanced Regeneration:		Understocked		X		Fully Stocked		Overstocked				Patchy	
Regeneration:		1. Spp. BF		Height		2 m		2. Spp. BS		Height		0.1 m	
		3. Spp.		Height				4. Spp.		Height			
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		bunchberry, feathermoss, shreber's moss, pink lady slipper											
Ground Hemlock		Y / N	X										
Invasive Species Present		Y / N	X	If yes then what species:									
Site Indicators		Y / N	X	If yes then what species:									
ENVIRONMENTAL OBSERVATIONS													
Water Course		N	Bog	Pond	Stream	Seeps	Beaver Present		Y / N				
Drainage:		Poor	Moderate	X	Good	Excellent	Erosion Control Required		Y / N				
Snag Trees:		Adequate	X	Inadequate									
Coarse Woody Material:		Adequate	X	Inadequate									
Dens		Nests (Raptors, songbirds, etc.)											
Wildlife Observed		None observed.											
Comments													
STAND PRESCRIPTION													
No Treatment		Regeneration Cut		Crop Tree Release		Block Cut		X					
Shelterwood Cut		Selection Cut		Patch Cut		Strip Cut		X					
Commercial Thinning		Afforestation		Site Preparation		X							
Pre-commercial Thinning		Reforestation		X		Riparian Zone Mgmt							
Pln. Maint.		X	Y / N	Stems/Ha									
Comments:		This stand was clear cut in the past, as can be seen in the 1968 photography. In BS dominant parts of the stand could do a modified strip harvest to attempt to get some natural regeneration into the stand, in combination with block harvest for BF patches. Could plant WS, RS, BS, WP, RO, YB or WA to supplement natural regeneration.											



STAND TALLY SHEET													
CRUISER		J. LeClair		STAND #		49845		PLANTATION #					
PROPERTY #		65664 Wellington Centre		AREA		6.34 ha		Date		12 / 7 / 2023			
										D M Y			
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%		
1	WS	60	25	16	40	4							
2	BF	60	25	16	40	5							
3	LA	80+	41	18	35	6							
STAND INFORMATION													
Stand Basal Area		SW	M <sup>2</sup> /Ha		SWSL	M <sup>2</sup> /Ha		HW	M <sup>2</sup> /Ha		HWSL	M <sup>2</sup> /Ha	
Species and (%)		WS20	%	BF20	%	LA20	%	RM20	%	PO, WB, Mtn Ash, CE 20%			
Even-aged		X	Uneven-aged								Biomass		
Slope		0	%	Aspect		L							
Stand Origin:		Old Field		Partial Cut		X		Burn		Unploughed			
		Windfall		Non Forest						Ploughed			
		Clear Cut		Unknown									
Stand Maturity Class:		Regeneration		Immature		X		Mature		X		Over-mature X	
Stand Stocking:		Understocked		Fully Stocked		X		Overstocked		Pachy			
Density:		SW	1,600	HW	600								
Advanced Regeneration:		Understocked		Fully Stocked		Overstocked		Pachy					
Regeneration:		1. Spp. BF		Height		1 m		2. Spp. RM		Height		1 m	
		3. Spp.		Height				4. Spp.		Height			
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		starflower, haircap moss, yellow clintonia											
Ground Hemlock		X	Y / N										
Invasive Species Present		Y / N		X		If yes then what species:							
Site Indicators		Y / N		X		If yes then what species:							
ENVIRONMENTAL OBSERVATIONS													
Water Course		N	Bog		Pond		Stream		Seeps		Beaver Present		Y / N
Drainage:		Poor	Moderate		X		Good		Excellent		Erosion Control Required		Y / N
Snag Trees:		Adequate		X		Inadequate							
Coarse Woody Material:		Adequate		X		Inadequate							
Dens		Nests (Raptors, songbirds, etc.)											
Wildlife Observed		None observed.											
Comments													
STAND PRESCRIPTION													
No Treatment		Regeneration Cut		Crop Tree Release		Block Cut		X					
Shelterwood Cut		Selection Cut		Patch Cut		Strip Cut							
Commercial Thinning		Afforestation		Site Preparation		X							
Pre-commercial Thinning		Reforestation		X		Riparian Zone Mgmt							
Pln. Maint.		X	Y / N		Stems/Ha								
Comments:		Some partial cutting has been done in the past, as an access route can be seen looping through the stand in the 1968 photography. BF along the S edge is immature. The S edge is also where CE could be found, as soils to the the south of this stand are wetter. Could do block harvest in mature softwood sections of this stand (openings of less than 2.0 ha in size), to salvage timber. Could plant WS, BS, WP, RO and WA.											

STAND TALLY SHEET													
CRUISER		J. LeClair		STAND #		491156		PLANTATION #		4801631			
PROPERTY #		65664 Wellington Centre		AREA		1.98 ha		Date		12 / 7 / 2023			
										D M Y			
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%		
1	RM	43	18	15	40	4							
2	BS	43	32	15	35	5							
3						6							
STAND INFORMATION													
Stand Basal Area		SW		M <sup>2</sup> /Ha	SWSL		M <sup>2</sup> /Ha	HW		M <sup>2</sup> /Ha	HWSL		M <sup>2</sup> /Ha
Species and (%)		RM50 %	BS30 %	WB10 %	BF10 %								
Even-aged		X	Uneven-aged										
Slope		0 %	Aspect		L								
Stand Origin:		Old Field	X	Partial Cut		Burn		Unploughed					
		Windfall		Non Forest				Ploughed		X			
		Clear Cut		Unknown									
Stand Maturity Class:		Regeneration			Immature		X	Mature		Over-mature			
Stand Stocking:		Understocked			Fully Stocked		X	Overstocked		Patchy			
Density:		SW	600	HW	1,000								
Advanced Regeneration:		Understocked		X	Fully Stocked			Overstocked		Patchy			
Regeneration:		1. Spp. BF		Height		1 m		2. Spp. WA		Height		1 m	
		3. Spp.		Height				4. Spp.		Height			
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		wild lily of the valley, bunchberry, yellow clintonia											
Ground Hemlock		Y / N	X										
Invasive Species Present		Y / N	X	If yes then what species:									
Site Indicators		Y / N	X	If yes then what species:									
ENVIRONMENTAL OBSERVATIONS													
Water Course		N	Bog		Pond		Stream		Seeps		Beaver Present	Y / N	
Drainage:		Poor	X	Moderate	X	Good		Excellent		Erosion Control Required		Y / N	
Snag Trees:		Adequate		Inadequate	X								
Coarse Woody Material:		Adequate		Inadequate	X								
Dens			Nests (Raptors, songbirds, etc.)										
Wildlife Observed		None observed.											
Comments													
STAND PRESCRIPTION													
No Treatment			X	Regeneration Cut			Crop Tree Release			Block Cut			
Shelterwood Cut				Selection Cut			Patch Cut			Strip Cut			
Commercial Thinning				Afforestation			Site Preparation						
Pre-commercial Thinning				Reforestation			Riparian Zone Mgmt						
Pln. Maint.		Y / N		Stems/Ha									
Comments:													
		Some blowdown in the stand but less than 10%. Plantation appears to have failed and is now RM											
		dominant. No treatment recommended at this time.											

STAND TALLY SHEET													
CRUISER		J. LeClair		STAND # 049835, 049115, 049300				PLANTATION #					
PROPERTY #		65664 Wellington Centre				AREA		6.64 ha		Date		12 / 7 / 2023	
										D		M Y	
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE		HEIGHT	LCR%		
1	RM	40+	15	14	40	4							
2	PO	80+	40	18	30	5							
3						6							
STAND INFORMATION													
Stand Basal Area		SW		M <sup>2</sup> /Ha	SWSL		M <sup>2</sup> /Ha	HW		M <sup>2</sup> /Ha	HWSL		M <sup>2</sup> /Ha
Species and (%)		RM30	%	PO30	%	WB10	%	GB10	%	BF, AL 10%			
Even-aged				Uneven-aged		X				Biomass			
Slope		0	%	Aspect		L							
Stand Origin:		Old Field		Partial Cut		Burn		Unploughed					
		Windfall		Non Forest				Ploughed					
		Clear Cut		X		Unknown							
Stand Maturity Class:		Regeneration		X		Immature		X		Mature		X	
Stand Stocking:		Understocked				Fully Stocked		X		Overstocked			
Density:		SW	400	HW	1,000								
Advanced Regeneration:		Understocked				Fully Stocked				Overstocked		X	
Regeneration:		1. Spp. PO		Height		2-5 m		2. Spp. AI		Height		2 m	
		3. Spp.		Height				4. Spp.		Height			
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		dewberry, sensitive fern, beaked hazelnut, interrupted fern, striped maple											
Ground Hemlock		Y / N	X										
Invasive Species Present		Y / N	X	If yes then what species:									
Site Indicators		X	Y / N	If yes then what species: sensitive fern - wet site									
ENVIRONMENTAL OBSERVATIONS													
Water Course		N	Bog	Pond	Stream	Seeps	Beaver Present	Y / N					
Drainage:		Poor	X	Moderate	Good	Excellent	Erosion Control Required	Y / N					
Snag Trees:		Adequate	X	Inadequate									
Coarse Woody Material:		Adequate	X	Inadequate									
Dens		Nests (Raptors, songbirds, etc.)											
Wildlife Observed		None observed.											
Comments													
STAND PRESCRIPTION													
No Treatment		X	Regeneration Cut	Crop Tree Release	Block Cut								
Shelterwood Cut			Selection Cut	Patch Cut	Strip Cut								
Commercial Thinning			Afforestation	Site Preparation									
Pre-commercial Thinning			Reforestation	Riparian Zone Mgmt									
Pln. Maint.		Y / N	Stems/Ha										
Comments:		<u>Overmature PO with some snags and blowdown. The site was poorly drained with sensitive soils.</u> <u>Leave for biodiversity values and wildlife habitat.</u>											

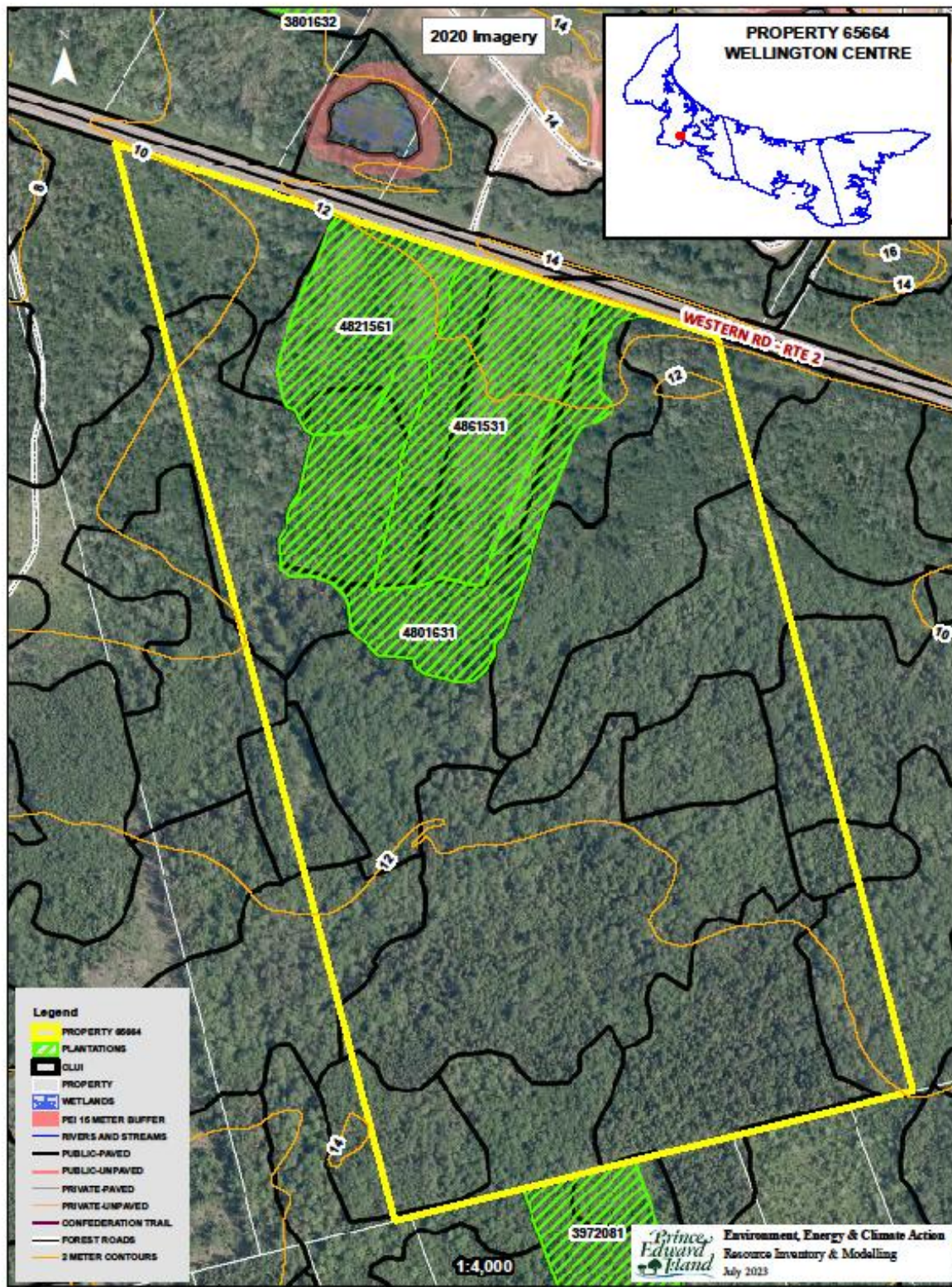
STAND TALLY SHEET													
CRUISER		J. LeClair		STAND #		49846, 049178, 049176, 0491472, 049840		PLANTATION #					
PROPERTY #		65664 Wellington Centre		AREA		3.45 ha		Date		12 / 7 / 2023			
										D M Y			
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%		
1	PO	40+	29	16	40	4							
2	RM	40+	16	12	40	5							
3						6							
STAND INFORMATION													
Stand Basal Area		SW		M <sup>2</sup> /Ha		SWSL		M <sup>2</sup> /Ha		HW		M <sup>2</sup> /Ha	
Species and (%)		PO20 %		AI20 %		RM20 %		WB20 %		BF, CE 20 %			
Even-aged		X		Uneven-aged						Biomass			
Slope		0 %		Aspect		L							
Stand Origin:		Old Field		Partial Cut		X		Burn		Unploughed		X	
		Windfall		Non Forest						Ploughed			
		Clear Cut		Unknown									
Stand Maturity Class:		Regeneration				Immature		X		Mature		X	
Stand Stocking:		Understocked				Fully Stocked		X		Overstocked			
Density:		SW 200		HW 1,600									
Advanced Regeneration:		Understocked				Fully Stocked				Overstocked			
Regeneration:		1. Spp. RM		Height		1-5 m				2. Spp. PO		Height 2 m	
		3. Spp.		Height						4. Spp.		Height	
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		sensitive fern, marsh marigold, dewberry, winterberry											
Ground Hemlock		Y / N		X									
Invasive Species Present		Y / N		X		If yes then what species:							
Site Indicators		X		Y / N		If yes then what species: marsh marigold, sensitive fern - wet site							
ENVIRONMENTAL OBSERVATIONS													
Water Course		N		Bog		Pond		Stream		Seeps		Beaver Present	
Drainage:		Poor		X		Moderate		Good		Excellent		Erosion Control Required	
Snag Trees:		Adequate		X		Inadequate							
Coarse Woody Material:		Adequate		X		Inadequate							
Dens				Nests (Raptors, songbirds, etc.)									
Wildlife Observed		Downy woodpecker seen.											
Comments		Possible wooded wetland, buffer 15 m.											
STAND PRESCRIPTION													
No Treatment				X		Regeneration Cut				Crop Tree Release		Block Cut	
Shelterwood Cut						Selection Cut				Patch Cut		Strip Cut	
Commercial Thinning						Afforestation				Site Preparation			
Pre-commercial Thinning						Reforestation				Riparian Zone Mgmt			
Pln. Maint.		Y / N		Stems/Ha									
Comments:		Some PO blowdown in the stand. Soils are very wet along the W edge of the property in these stands. Some CE was seen in stands 049176 and 049840. Leave stand as is for biodiversity and wildlife values and to protect sensitive soils.											

STAND TALLY SHEET														
CRUISER		J. LeClair		STAND #		49847		PLANTATION #						
PROPERTY #		65664 Wellington Centre		AREA		2.02 ha		Date		12 /	7 /	2023		
										D	M	Y		
SAMPLE TREE INFORMATION														
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%			
1	RM	80+	38	18	50	4								
2	WB	60+	21	14	50	5								
3						6								
STAND INFORMATION														
Stand Basal Area		SW		M <sup>2</sup> /Ha	SWSL		M <sup>2</sup> /Ha	HW		M <sup>2</sup> /Ha	HWSL		M <sup>2</sup> /Ha	
Species and (%)		RM70 %	WB10 %	BF10 %		%	WS, Mtn. Ash 10%							
Even-aged		X	Uneven-aged										Biomass	
Slope		0 %	Aspect		L									
Stand Origin:		Old Field	Partial Cut		X	Burn		Unploughed		X				
		Windfall	Non Forest					Ploughed						
		Clear Cut	Unknown											
Stand Maturity Class:		Regeneration		Immature		Mature		X	Over-mature		X			
Stand Stocking:		Understocked		Fully Stocked		X	Overstocked		Patchy					
Density:		SW	100	HW	900									
Advanced Regeneration:		Understocked		Fully Stocked		X	Overstocked		Patchy		X			
Regeneration:		1. Spp.	BF	Height		1-3 m	2. Spp.		RM	Height		0.1		
		3. Spp.		Height			4. Spp.			Height				
GROUND OBSERVATIONS														
Ground Vegetation Species Present:		beaked hazelnut, wild lily of the valley, dewberry, sarsaparilla, starflower												
		pink lady slipper, sensitive fern												
Ground Hemlock		Y / N	X											
Invasive Species Present		Y / N	X	If yes then what species:										
Site Indicators		X	Y / N	If yes then what species: sensitive fern - wet site										
ENVIRONMENTAL OBSERVATIONS														
Water Course		N	Bog	Pond	Stream	Seeps	Beaver Present		Y / N					
Drainage:		Poor	X	Moderate	Good	Excellent	Erosion Control Required		Y / N					
Snag Trees:		Adequate	X	Inadequate										
Coarse Woody Material:		Adequate	X	Inadequate										
Dens			Nests (Raptors, songbirds, etc.)											
Wildlife Observed		None observed.												
Comments														
STAND PRESCRIPTION														
No Treatment		X	Regeneration Cut		Crop Tree Release		Block Cut							
Shelterwood Cut			Selection Cut		Patch Cut		Strip Cut							
Commercial Thinning			Afforestation		Site Preparation									
Pre-commercial Thinning			Reforestation		Riparian Zone Mgmt									
Pln. Maint.		Y / N	Stems/Ha											
Comments:		An older RM stand with sensitive soils that should be left as is for wildlife and biodiversity values and to protect sensitive soils.												

STAND TALLY SHEET													
CRUISER		J. LeClair		STAND #		481202		PLANTATION #					
PROPERTY #		65664 Wellington Centre		AREA		1.66 ha		Date		12 /	7 /	2023	
										D	M	Y	
SAMPLE TREE INFORMATION													
Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%	Tree#	SPP.	AGE	D.B.H.	HEIGHT	LCR%		
1	RM	40+	20	15	60	4							
2	WB	30+	13	10	50	5							
3	CE	40+	21	11	70	6							
STAND INFORMATION													
Stand Basal Area		SW		M <sup>2</sup> /Ha	SWSL		M <sup>2</sup> /Ha	HW		M <sup>2</sup> /Ha	HWSL		M <sup>2</sup> /Ha
Species and (%)		RM40	%	WB20	%	AI	%	30	%	PC, WS, CE 10%			
Even-aged		Uneven-aged		X						Biomass			
Slope		0	%	Aspect		L							
Stand Origin:		Old Field		Partial Cut		Burn		Unploughed		X			
		Windfall		Non Forest				Ploughed					
		Clear Cut		X		Unknown							
Stand Maturity Class:		Regeneration		X		Immature		X		Mature		Over-mature	
Stand Stocking:		Understocked		X		Fully Stocked				Overstocked		Patchy	
Density:		SW	50	HW	1,000								
Advanced Regeneration:		Understocked				Fully Stocked		X		Overstocked		Patchy	
Regeneration:		1. Spp. PO		Height		3 m		2. Spp. PC		Height		3 m	
		3. Spp. RM		Height		1 m		4. Spp.		Height			
GROUND OBSERVATIONS													
Ground Vegetation Species Present:		wild rose, sensitive fern, dewberry, raspberry											
Ground Hemlock		Y / N	X										
Invasive Species Present		Y / N	X	If yes then what species:									
Site Indicators		X	Y / N	If yes then what species: sensitive fern - wet site									
ENVIRONMENTAL OBSERVATIONS													
Water Course		N	Bog	Pond	Stream	Seeps	Beaver Present	Y / N					
Drainage:		Poor	X	Moderate	Good	Excellent	Erosion Control Required	Y / N					
Snag Trees:		Adequate	X	Inadequate									
Coarse Woody Material:		Adequate	X	Inadequate									
Dens		Nests (Raptors, songbirds, etc.)											
Wildlife Observed		None observed.											
Comments													
STAND PRESCRIPTION													
No Treatment		X	Regeneration Cut	Crop Tree Release	Block Cut								
Shelterwood Cut			Selection Cut	Patch Cut	Strip Cut								
Commercial Thinning			Afforestation	Site Preparation									
Pre-commercial Thinning			Reforestation	Riparian Zone Mgmt									
Pln. Maint.		Y / N	Stems/Ha										
Comments:		Immature hardwoods dominant in the stand, with some PO blowdown present. Stand is wetter along the western edge. Some older RM and CE in the S/SE side of the stand. Leave stand as is for wildlife and biodiversity values, but may need to use a portion of it to access the woodlot off the highway.											



## Appendix G. Plantation Map with Contour Lines



#### Appendix H. Work Completed

Activity Number	Treatment Code	Amount Completed (ha)	Treatment Date	Treatment Description
3831581	88B	0.55	1990-11-26	Class 2 : Manual : 5001-10000/Ha <6 Metres