

February 1, 2023

P.E.I.

Public Forests



Woodlot Management Plan

Property Number: 1875

Location: Roseville

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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 #1875 is located along Highway #14 in the community of Roseville, PEI. The south boundary borders the Watson Rd. (Appendix A). The total area of this property is 36.8 hectares (92 acres) and the midpoint of the property is Latitude N 46.828818 decimal degrees, Longitude W - 64.234221 decimal degrees.

Past Information

Local records and previous aerial photography show that the property was used for agricultural purposes early in the 20th century. There were also wet areas in the south of the property. Overtime, the property reverted to forested land either naturally or through a planting program. To better illustrate this 1935 and 1968 photography can be seen in Appendix B and C respectively and the aerial photograph in Appendix A shows the most current view of the property.

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 is one mapped unnamed tributary located on the north portion of this property. This tributary appears to be a headwater tributary that flows in a north westerly direction. The watercourse flows into Little Miminigash Pond which lies adjacent to the Northumberland Straight. A 15-metre buffer zone is to be maintained around this watercourse. This observation can be viewed in Appendix A. An unmapped drainage/watercourse is also located on the southern portion of the property which can be observed in Appendix B (1968 photography). A 15m buffer has been recommended along the drainage/watercourse.

Property Access

There is a small woods road that provides access to this property from the Highway 14. Approximately 750 m of road has been constructed on this public land property. The road then turns unto adjacent private land to the east. The road is quite wet particularly from approximately 500 m onward. Any use of the road on the adjacent private land requires landowner permission.

Heavy equipment used for wood extraction should occur under frozen soil conditions to mitigated rutting and damage of the road. Ongoing road maintenance will be required to keep the road in a useable condition. This will include keeping the right-of-way clear of any brush or trees, repairing rutting on the road, repairing any wet areas that restrict access, possible ditching, and any other maintenance required to keep this road usable. The existing road on the property can be seen on Appendix A.

An unmapped drainage/watercourse and adjacent wet area to the south of the property prevents access from the Watson Road for wood extraction.

Property Boundaries

This property is bounded on the north by Highway 14 with a portion of the north boundary being bounded by private land. The south boundary borders the Watson Road and the east and west boundaries border private land.

Fire Protection

This property is located within the jurisdiction of the Miminigash 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 Forestry Division and our local community fire brigades. In the Western District, there are two four-wheel drive forestry fire trucks housed at each of 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 may be a suitable site to setup a portable fire pump system when there are water flows.

Planting and Silviculture

There are thirteen plantations on the property. Extraction trails from commercial thinning operations were planted in 2015 as shown in Appendix H. 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 Forest Management Standards manual (Eco-Manual). A list of all silviculture treatments completed on the property from 1990 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. Table 1 provides a summary of the prescribed treatments on this property. 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. Any additional information may be obtained by contacting a Provincial Forest representative at the District Forestry Office in Wellington.

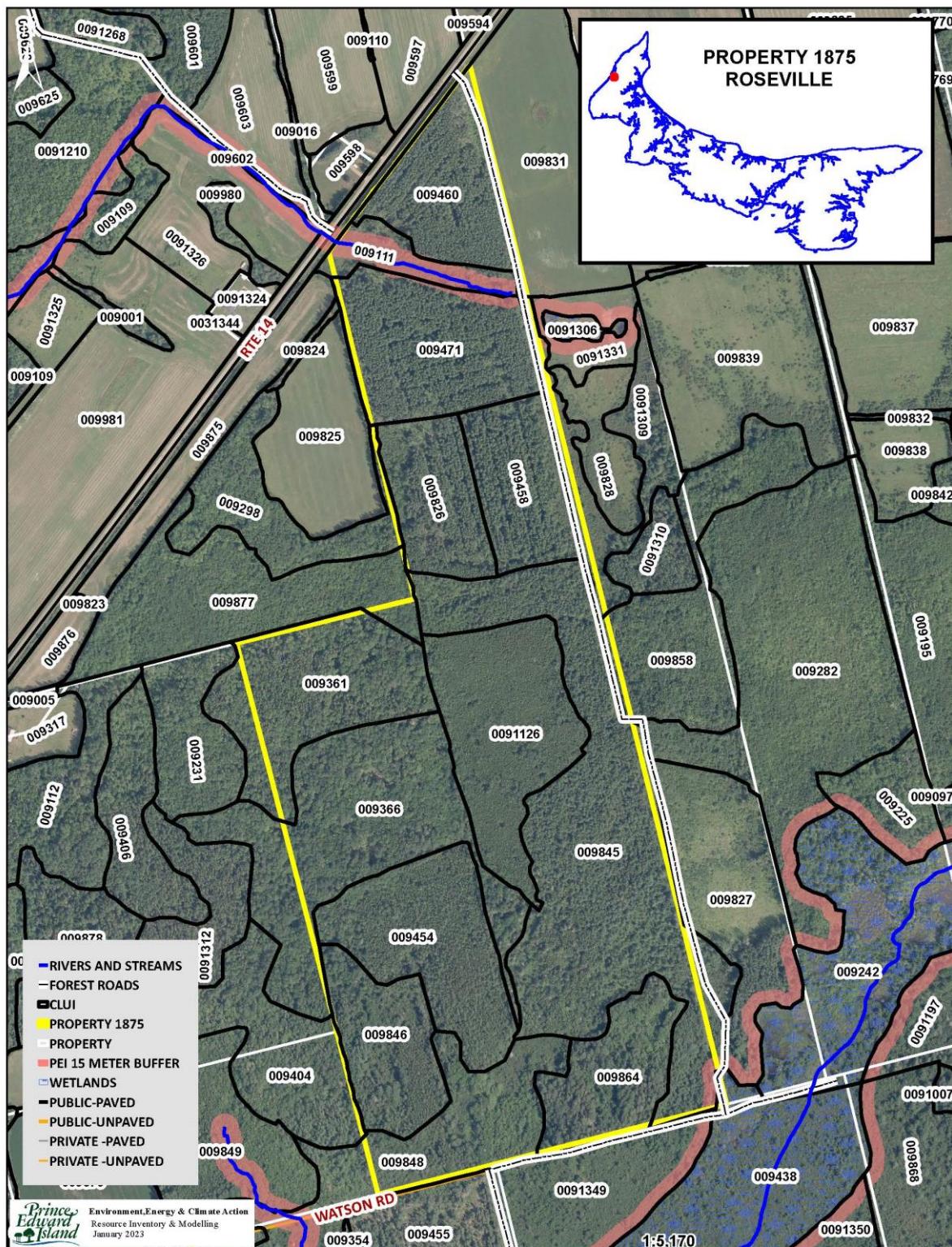
Table 1. Proposed Treatment Summary

Stand Number and Plantation Number	Treatment Type	Treatment Year	Amount Proposed (ha)	2018 Eco-Manual Reference	Comments	Goals
Road	Road Maintenance	2023	All	Pg. 11, 12	Brush cutting, grading, ditching, fill	Improve road access
PN 3911641 (ST 9460) PN 3891523 (ST 9471) PN 3891521 (9458) PN 3891522 (ST 9826)	Block Harvest	2023	8.5	Pg. 30	These LA stands have blown down (hurricane Fiona and Dorian). Salvage trees before they degrade. Great biomass site. Retain any pockets that are BF dominant that are standing and windfirm.	Salvage blowdown and damaged trees
PN 3911641 (ST 9460) PN 3891523 (ST 9471) PN 3891521 (9458) PN 3891522 (ST 9826)	Site Preparation & Reforestation	2024	8.5	Pg. 14, 16	Prepare microsites for planting. Planting species options: WS, WA, BS.	Prepare microsites and establish trees seedlings

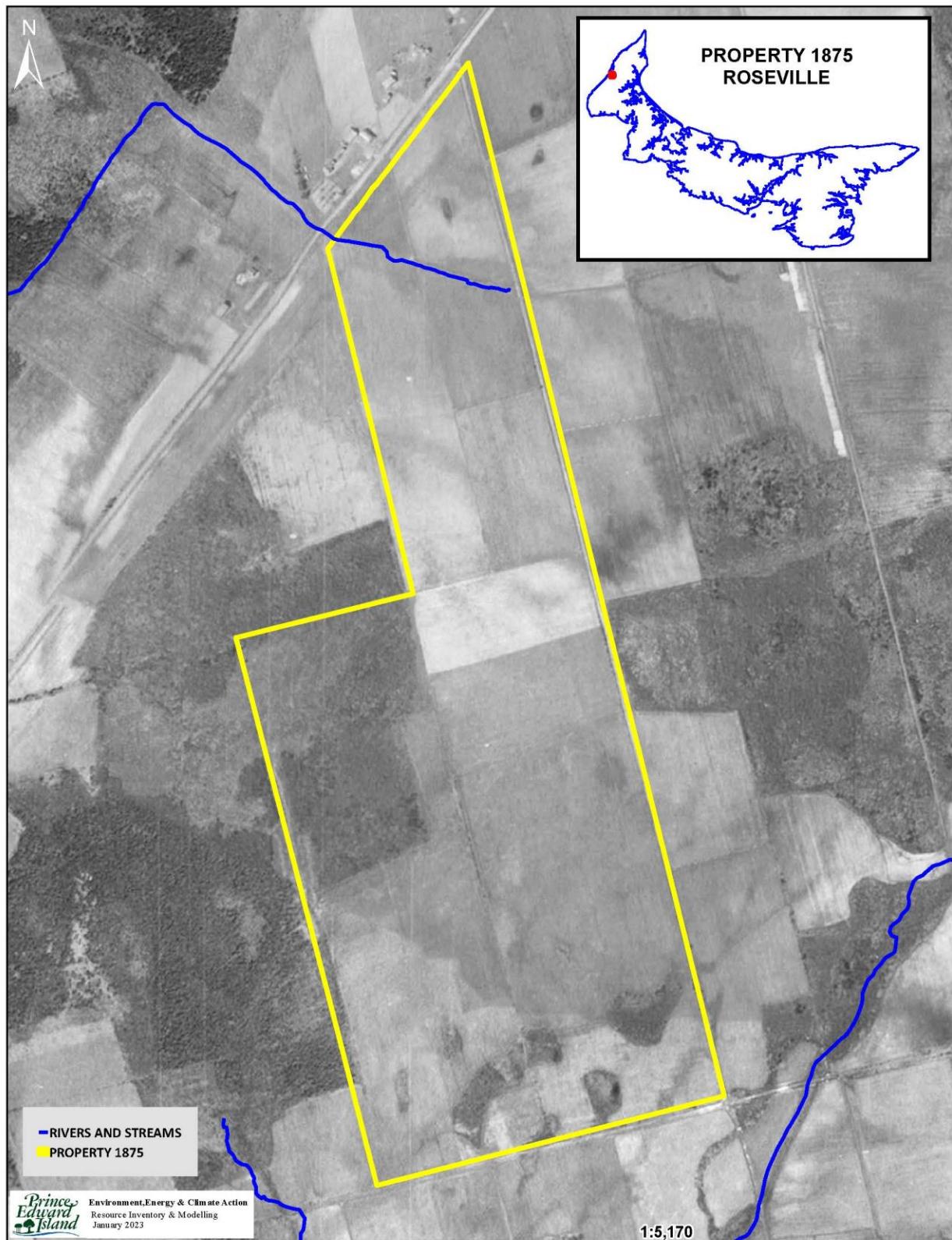
Stand Number and Plantation Number	Treatment Type	Treatment Year	Amount Proposed (ha)	2018 Eco-Manual Reference	Comments	Goals
PN 3911641 (ST 9460) PN 3891523 (ST 9471) PN 3891521 (9458) PN 3891522 (ST 9826)	Manual Maintenance	2028	8.5	Pg. 17	Remove competing vegetation. Two treatments are expected.	Improve growth of crop trees
PN 3841550 Stand 9454 PN 3965171 (ST 9846) PN 3010041 (ST 91126)	Block Harvest	2026	7.0	Pg. 30	Harvest GB, WB and PO. Also remove approx. 0.3 ha RP as not economical to harvest in the future. Retain RM. Leave 15m buffer along unmapped drainage/watercourse in south of stand.	Salvage low quality pioneer species
PN 3841550 Stand 9454 PN 3965171 (ST 9846) PN 3010041 (ST 91126)	Site Preparation & Reforestation	2027	7.0	Pg. 14	Remove harvest debris and ground vegetation that could impede seedling establishment. Planting species options: WS, WA, BS.	Create planting microsites and reforest the site
PN 3841550 Stand 9454 PN 3965171 (ST 9846) PN 3010041 (ST 91126)	Manual Maintenance	2030	7.0	Pg. 17	Remove competing vegetation. Two treatments are expected.	Improve diameter growth of residuals
ST 9864	Block Harvest	2024	2.0	Pg. 30	Harvest SW and PO. Retain RM and WA. Leave a 15 m buffer along unmapped drainage/watercourse.	Salvage overmature softwood
ST 9864	Site Preparation & Reforestation	2025	2.0	Pg. 16	Create microsites for planting and reforest with WS, WP and WA.	Reforest the site
ST 9864	Manual Maintenance	2028	2.0	Pg. 17	Remove competing vegetation. Two treatments are expected.	Improve diameter growth of residuals
ST 9361	Manual Maintenance	2025	1.8	Pg. 17	Remove competing vegetation. Two treatments expected.	Improve diameter growth of residuals
ST 9845	Commercial Thinning	2030	7.7	Pg. 25	Favor healthy SW (BS, BF, LA). Retain a 15% mix of HW for biodiversity.	Provide growing space for crop trees

Appendices

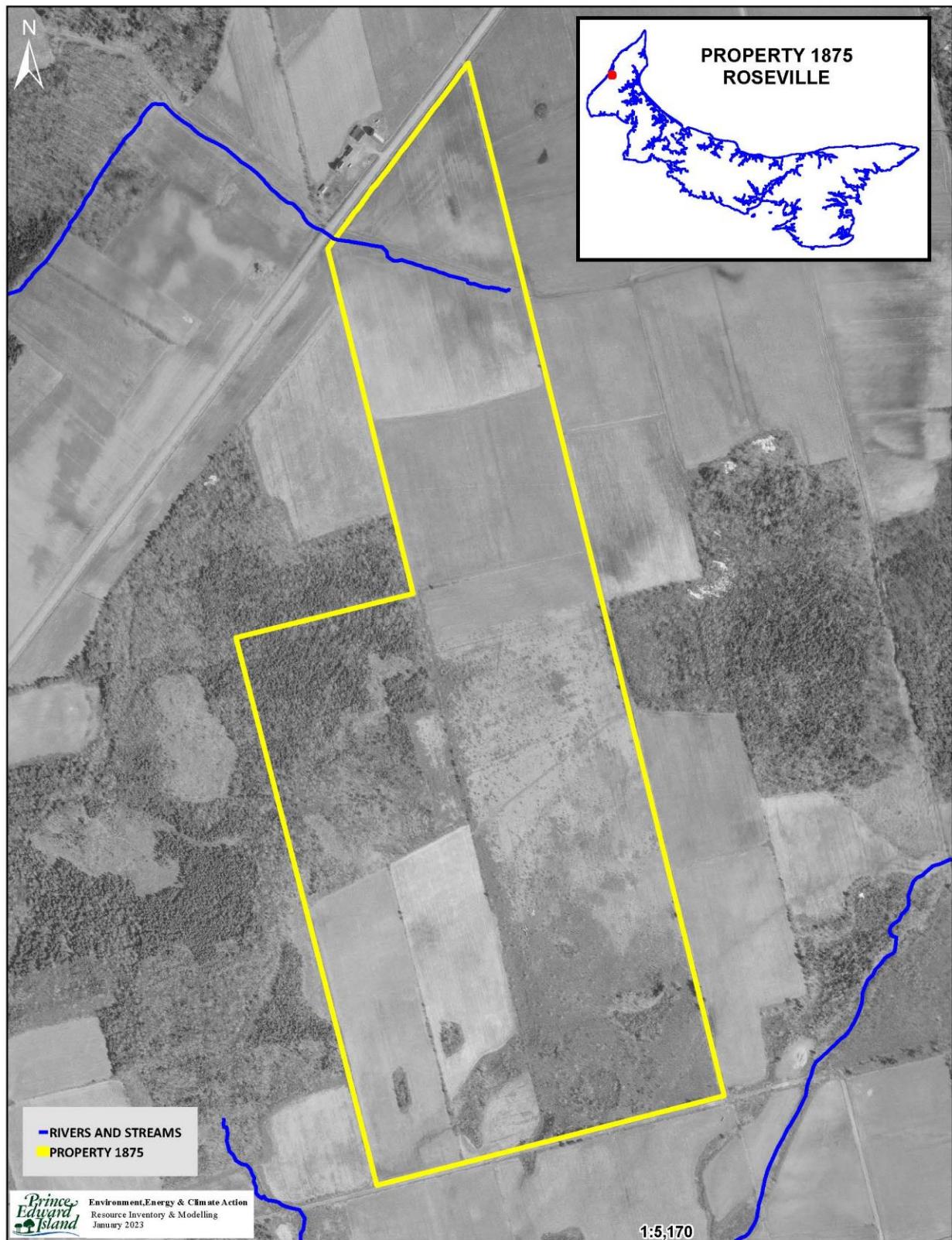
Appendix A: Map of Property with Locator Map



Appendix B. 1935 Aerial Photography



Appendix C. 1968 Aerial Photography



Appendix D. 2010 Corporate Land Use Inventory

FIELDID	COV1	PER1	COV2	PER2	COV3	PER3	COV4	PER4	COV5	PER5	HT (m)	HA
009460	LA	10.0		0.0		0.0		0.0		0.0	10.0	2.03
009471	LA	10.0		0.0		0.0		0.0		0.0	11.0	3.02
009458	BF	6.0	AL	4.0		0.0		0.0		0.0	9.0	1.91
009826	LA	8.0	AL	2.0		0.0		0.0		0.0	9.0	1.77
009361	WS	4.0	BF	2.0	WB	2.0	RM	1.0	PO	1.0	15.0	2.67
009845	WS	6.0	AL	4.0		0.0		0.0		0.0	4.0	7.60
009454	RP	8.0	PO	1.0	RM	1.0		0.0		0.0	10.0	3.09
009111	AL	10.0		0.0		0.0		0.0		0.0	4.0	0.80
009858	WB	3.0	RM	3.0	PO	2.0	LA	1.0	AL	1.0	10.0	0.09
009298	RM	5.0	PO	2.0	WB	2.0	BF	1.0		0.0	10.0	0.04
009366	RM	5.0	PO	2.0	WB	1.0	YB	1.0	WS	1.0	17.0	3.70
009404	PO	3.0	BF	2.0	RM	2.0	RS	2.0	WB	1.0	18.0	0.03
009846	AL	5.0	RM	2.0	WS	1.0	PO	1.0	WB	1.0	4.0	1.97
009864	LA	3.0	RM	3.0	PO	2.0	WB	2.0		0.0	17.0	1.89
009848	AL	8.0	WS	1.0	RM	1.0		0.0		0.0	4.0	2.12
0091126	AL	3.0	LA	2.0	RM	2.0	PO	2.0	WB	1.0	5.0	3.41
0091309	AL	10.0		0.0		0.0		0.0		0.0	3.0	0.31
009877	CC	10.0		0.0		0.0		0.0		0.0	0.0	0.17
009438	AL	7.0	PO	1.0	RM	1.0	WB	1.0		0.0	4.0	0.03

Appendix E. Forest Inventory Codes

EXPLANATION OF FOREST CODES; **SPECIES**

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

<u>PERCENT</u>		<u>CROWN CLOSURE</u>		<u>ORIGIN AND HISTORY</u>			
0	1 - 9%	A	91 % - 100%	BR	Burn	DI	Disease-Insect
1	10 - 19%	B	81 % - 90 %	WF	Wind Fall	OF	Old Field
2	20 - 29 %	C	71 % - 80 %	PC	Partial Cut	PN	Plantation
3	30 - 39 %	D	61 % - 70 %	CC	Clear Cut	HR	Hedgerow
4	40 - 49 %	E	51 % - 60 %	TH	Thinning	EP	Excavation Pit
5	50 - 59 %	F	41 % - 50 %				
6	60 - 69 %	G	31 % - 40 %				
7	70 - 79 %	H	21 % - 30 %				
8	80 - 89 %	I	11 % - 20 %				
9	90 - 100 %	J	0 % - 10 %				

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 overlay 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.

NON-FOREST LAND TYPES

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

FOREST GROUND CONDITION

SW	Wet – Swampy
ST	Steep
SY	Sandy

Appendix F. Stand Tally Sheets from on the Ground Assessment

STAND TALLY SHEET												
CRUISER	S. Rankin		STAND #	9460, 9471, 9458, 9826		PLANTATION #	3911641, 3891523, 3891521					
PROPERTY #	1875		AREA	8.5	ha	Date	20 /	1 /	2023			
						D	M		Y			
SAMPLE TREE INFORMATION												
TREE #	SPP.	AGE	D.B.H.	HEIGHT		TREE #	SPP.	AGE	D.B.H.	HEIGHT		
1	LA	33	28	15		4						
2						5						
3						6						
STAND INFORMATION												
Stand Basal Area	SW	M ² /Ha	SWSL	M ² /Ha	HW	M ² /Ha	HWSL	M ² /Ha				
Species and (%)	LA9	%	BFWP1%	%	%							
Even-aged	X	Uneven-aged					Biomass					
Slope level	%	Aspect										
Stand Origin:	Old Field	X	Partial Cut	Burn		Unploughed						
	Windfall		Non Forest			Ploughed						
	Clear Cut		Unknown									
Stand Maturity Class:	Regeneration		Immature	X	Mature		Over-mature					
Stand Stocking:	Understocked		Fully Stocked	X	Overstocked		Patchy					
Density:	SW 2000	HW 200										
Advanced Regeneration:	Understocked		Fully Stocked		Overstocked		Patchy					
Regeneration:	1. Spp.		Height		2. Spp.		Height					
	3. Spp.		Height		4. Spp.		Height					
GROUND OBSERVATIONS												
Ground Vegetation Species Present:												
Ground Hemlock	Y / N	N										
Invasive Species Present	Y / N	N	If yes then what species:									
Site Indicators	Y / N	N	If yes then what species:									
ENVIRONMENTAL OBSERVATIONS												
Water Course	Y	Bog	N	Pond	N	Stream	Y	Seeps	N	Beaver Present	N	Y / N
Drainage:	Poor	X	Moderate	X	Good		Excellent			Erosion Control Required	N	Y / N
Snag Trees:	Adequate	X	Inadequate									
Coarse Woody Material:	Adequate	X	Inadequate									
Dens	N	Nests (Raptors, songbirds, etc.)	N									
Wildlife Observed	None observed											
Comments	Retain a 15m buffer along the watercourse.											
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:	Hurricane winds have blown down these plantations. Harvest wood before it degrades. It is good for firewood and biomass. Pockets of WP and BF (PN 3891521) that are windfirm can be retained as cover patches. Retain any RM. Plant WS, WP, BS and WA. Maintain as required.											

STAND TALLY SHEET

CRUISER	J. LeClair	STAND #	9454, 9846	PLANTATION #	3841550, 3965171
PROPERTY #	1875 Roseville	AREA	4.6 ha	Date	27 / 1 / 2023
				D	M Y

SAMPLE TREE INFORMATION

TREE #	SPP.	AGE	D.B.H.	HEIGHT	TREE #	SPP.	AGE	D.B.H.	HEIGHT
1	RP	39	25	16	4				
2	GB	39	16	15	5				
3					6				

STAND INFORMATION

Stand Basal Area	SW	M^2/Ha	SWSL	M^2/Ha	HW	M^2/Ha	HWSL	M^2/Ha
Species and (%)	GB5 %	PO1 %	RM1 %	RP3 %	LA			
Even-aged	X	Uneven-aged					Biomass	X
Slope level	%	Aspect						
Stand Origin:	Old Field	X	Partial Cut		Burn		Unploughed	
							Ploughed	
	Windfall		Non Forest					
	Clear Cut		Unknown					
Stand Maturity Class:	Regeneration		Immature	X	Mature		Over-mature	
Stand Stocking:	Understocked		Fully Stocked		Overstocked	X	Patchy	
Density:	SW 500	HW 4,000						
Advanced Regeneration:			Fully Stocked		Overstocked		Patchy	
Regeneration:	1. Spp. RM		Height 0.5 m		2. Spp. WS		Height 2-4 m	
	3. Spp.		Height		4. Spp.		Height	

GROUND OBSERVATIONS

Ground Vegetation Species Present:	dewberry, strawberry, blueberry, goldenrod, ferns, false lily, wild raisin
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	N	Pond	N	Stream	N	Seeps	N	Beaver Present	N	Y / N
Drainage:	Poor	X	Moderate	X	Good		Excellent			Erosion Control Required	N	Y / N
Snag Trees:	Adequate		Inadequate	X								
Coarse Woody Material:	Adequate		Inadequate	X								
Dens	N	Nests (Raptors, songbirds, etc.)	N									
Wildlife Observed	None observed.											
Comments	There is an unmapped drainage/watercourse in south of PN 3965171. Retain a 15m buffer.											

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			
Pin. Maint.	Y	Y / N	Stems/Ha					
Comments:	These are unsuccessful plantations that has regenerated to GB with the exception of approx. 0.3 ha in PN 3841550. The RP is performing well; however, harvest with rest of stand as not economical to comeback for such a small volume of wood. Harvest GB & PO. Retain and RM. Prepare microsites and plant WS, BS. Retain a 15m buffer on unmapped drainage/watercourse.							

STAND TALLY SHEET

CRUISER	S. Rankin	STAND #	91126			PLANTATION #		3010041		
PROPERTY #	1875	AREA	3.0	ha	Date	27 /	1 /	2023		
							D	M	Y	

SAMPLE TREE INFORMATION

TREE #	SPP.	AGE	D.B.H.	HEIGHT			TREE #	SPP.	AGE	D.B.H.	HEIGHT
1	GB	22	8	7			4				
2	PO	22	9	9			5				
3							6				

STAND INFORMATION

Stand Basal Area	SW	M ² /Ha	SWSL	M ² /Ha	HW	M ² /Ha	HWSL	M ² /Ha
Species and (%)	GB4 %	PO 2 %	LA 1 %	RM 1 %	BF, PC, WB 2%			
Even-aged	X	Uneven-aged				Biomass		
Slope level	% Aspect							
Stand Origin:	Old Field	X	Partial Cut	Burn	Unploughed			
	Windfall		Non Forest		Ploughed			
	Clear Cut	X	Unknown					
Stand Maturity Class:	Regeneration		Immature	X	Mature	Over-mature		
Stand Stocking:	Understocked		Fully Stocked	X	Overstocked	Patchy		
Density:	SW	800	HW	11,200				
Advanced Regeneration:	Understocked		Fully Stocked	X	Overstocked	Patchy		
Regeneration:	1. Spp.	PC	Height	1.5 m	2. Spp.	BF	Height	0.5-2 m
	3. Spp.		Height		4. Spp.		Height	

GROUND OBSERVATIONS

Ground Vegetation Species Present:	Wild raisin, raspberry				
Ground Hemlock	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Invasive Species Present	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If yes then what species:	
Site Indicators	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	If yes then what species:	

ENVIRONMENTAL OBSERVATIONS

ENVIRONMENTAL OBSERVATIONS												
Water Course	N	Bog	Y	Pond	N	Stream	N	Seeps	N	Beaver Present	N	Y / N
Drainage:	Poor	X	Moderate	X	Good		Excellent			Erosion Control Required	N	Y / N
Snag Trees:	Adequate		Inadequate		X							
Coarse Woody Material:	Adequate		Inadequate		X							
Dens	N	Nests (Raptors, songbirds, etc.)			N							
Wildlife Observed	None observed.											
Comments	Leave a 15m buffer along the wetland to the south.											

STAND PRESCRIPTION

STAND PRESERVATION							
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:	This is an unsuccessful LA plantation that has regenerated to GB & PO. Harvest in 3-10 yrs for firewood once the diameter increases. Plant BS. Mix in WP and WA. Maintain as required.						

STAND TALLY SHEET

CRUISER	J. Le Clair	STAND #	9864	PLANTATION #				
PROPERTY #	1875 Roseville	AREA	2.0	ha	Date	27 /	1 /	2023
					D	M	Y	

SAMPLE TREE INFORMATION

TREE #	SPP.	AGE	D.B.H.	HEIGHT	TREE #	SPP.	AGE	D.B.H.	HEIGHT
1	WS	39	34	20	4				
2	PO		25	21	5				
3					6				

STAND INFORMATION

Stand Basal Area	SW	M^2/Ha	SWSL	M^2/Ha	HW	M^2/Ha	HWSL	M^2/Ha
Species and (%)	PO3 %	WSS %	RM1 %	WA1 %				
Even-aged	<input checked="" type="checkbox"/>	Un even-aged					Biomass	
Slope level	%	Aspect						
Stand Origin:	Old Field	<input checked="" type="checkbox"/>	Partial Cut		Burn		Unploughed	
	Windfall		Non Forest				Ploughed	
	Clear Cut		Unknown					
Stand Maturity Class:	Regeneration		Immature		Mature	<input checked="" type="checkbox"/>	Over-mature	<input checked="" type="checkbox"/>
Stand Stocking:	Understocked		Fully Stocked	<input checked="" type="checkbox"/>	Overstocked		Patchy	
Density:	SW 1200	HW 600						
Advanced Regeneration:	Understocked	<input checked="" type="checkbox"/>	Fully Stocked		Overstocked		Patchy	
Regeneration:	1. Spp. PO		Height 1.3 m		2. Spp. WA		Height 1 m	
	3. Spp.		Height		4. Spp.		Height	

GROUND OBSERVATIONS

Ground Vegetation Species Present:	star flower, sarsaparilla, false lily, ferns, hazel nut, strawberry, wild raisin
Ground Hemlock	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>
Invasive Species Present	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>
Site Indicators	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N <input checked="" type="checkbox"/>

ENVIRONMENTAL OBSERVATIONS

Water Course	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> Bog	<input checked="" type="checkbox"/> N	<input type="checkbox"/> Pond	<input checked="" type="checkbox"/> N	<input type="checkbox"/> Stream	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> Seeps	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> Beaver Present	<input checked="" type="checkbox"/> N	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N
Drainage:	Poor		Moderate	<input checked="" type="checkbox"/> X	Good		Excellent			Erosion Control Required	<input checked="" type="checkbox"/> N	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N
Snag Trees:	Adequate	<input checked="" type="checkbox"/> X	Inadequate									
Coarse Woody Material:	Adequate	<input checked="" type="checkbox"/> X	Inadequate									
Dens	<input checked="" type="checkbox"/> N	Nests (Raptors, songbirds, etc.)	<input checked="" type="checkbox"/> N									
Wildlife Observed	Snowshoe hare scat observed.											
Comments	Drainage along N/NW of stand. Leave 15 m buffer.											

STAND PRESCRIPTION

No Treatment			Regeneration Cut		Crop Tree Release		Block Cut	<input checked="" type="checkbox"/> X
Shelterwood Cut			Selection Cut		Patch Cut		Strip Cut	
Commercial Thinning			Afforestation		Site Preparation	<input checked="" type="checkbox"/> X		
Pre-commercial Thinning			Reforestation	<input checked="" type="checkbox"/> X	Riparian Zone Mgmt			
Pin. Maint.	<input checked="" type="checkbox"/> X	<input type="checkbox"/> Y / <input checked="" type="checkbox"/> N	Stems/Ha					
Comments:	Harvest this stand. Leave a 15m buffer along the unmapped drainage in N/NW of stand. Prepare microsites and plant WS and WA. Conduct a plantation maintenance when required. Poplar in the stand is overmature and starting to blow down. Some WA can be found in small pockets within the stand. Retain RM and WA for biodiversity in cover patches or as single trees.							

STAND TALLY SHEET

CRUISER	S. Rankin	STAND #	9361	PLANTATION #	PN 3210020
PROPERTY #	1875 Roseville	AREA	1.8 ha	Date	15 / 7 / 2022

SAMPLE TREE INFORMATION

TREE #	SPP.	AGE	D.B.H.	HEIGHT	TREE #	SPP.	AGE	D.B.H.	HEIGHT
1	WS	2	1	0.3	4				
2					5				
3					6				

STAND INFORMATION

Stand Basal Area	SW	M ² /Ha	SWSL	M ² /Ha	HW	M ² /Ha	HWSL	M ² /Ha
Species and (%)	WS9	%	HW1	%	%			
Even-aged	X	Uneven-aged					Biomass	
Slope	level	%	Aspect					
Stand Origin:	Old Field		Partial Cut		Burn		Unploughed	
	Windfall		Non Forest				Ploughed	
	Clear Cut	X	Unknown					
Stand Maturity Class:	Regeneration	X	Immature		Mature		Over-mature	
Stand Stocking:	Understocked		Fully Stocked	X	Overstocked		Patchy	
Density:	SW	1900	HW	200				
Advanced Regeneration:	Understocked	X	Fully Stocked		Overstocked		Patchy	
Regeneration:	1. Spp. PO		Height 0.2m		2. Spp. GB		Height 0.2m	
	3. Spp. RM		Height 0.2m		4. Spp.		Height	

GROUND OBSERVATIONS

Ground Vegetation Species Present:								
Ground Hemlock	Y / N	N						
Invasive Species Present		Y / N	N	If yes then what species:				

Site Indicators	Y / N	N	If yes then what species:					
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ENVIRONMENTAL OBSERVATIONS

Water Course	N	Bog	N	Pond	N	Stream	N	Seeps	N	Beaver Present	N	Y / N
Drainage:	Poor	X	Moderate	X	Good		Excellent			Erosion Control Required	N	Y / N
Snag Trees:	Adequate	X	Inadequate									
Coarse Woody Material:	Adequate	X	Inadequate									
Dens	N	Nests (Raptors, songbirds, etc.)	N									

Wildlife Observed	None observed	
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Comments								
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STAND PRESCRIPTION

No Treatment			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.	X	Y / N	Stems/Ha				
Comments:	This is a 2020 plantation. Monitor for plantation maintenance and complete the work when required. Two treatments are expected.						

STAND TALLY SHEET

CRUISER	S. Rankin	STAND #	9845	PLANTATION #	3961171
PROPERTY #	1875	AREA	3.0 ha	Date	27 / 1 / 2023
				D	M Y

SAMPLE TREE INFORMATION

TREE #	SPP.	AGE	D.B.H.	HEIGHT	TREE #	SPP.	AGE	D.B.H.	HEIGHT
1	WS	27	16	9	4				
2	LA	27	17	10	5				
3					6				

STAND INFORMATION

Stand Basal Area	SW	M ² /Ha	SWSL	M ² /Ha	HW	M ² /Ha	HWSL	M ² /Ha
Species and (%)	WSBS3 %	LA2 %	BF2 %	RMGB2 %	PO, AL 1%			
Even-aged	X	Un even-aged					Biomass	
Slope level	%	Aspect						
Stand Origin:	Old Field	X	Partial Cut	Burn	Unploughed			
	Windfall		Non Forest		Ploughed			
	Clear Cut	X	Unknown					
Stand Maturity Class:	Regeneration		Immature	X	Mature		Over-mature	
Stand Stocking:	Understocked		Fully Stocked	X	Overstocked		Patchy	
Density:	SW 2200	HW 1,800						
Advanced Regeneration:	Understocked	X	Fully Stocked		Overstocked		Patchy	
Regeneration:	1. Spp.		Height		2. Spp.		Height	
	3. Spp.		Height		4. Spp.		Height	

GROUND OBSERVATIONS

Ground Vegetation Species Present:	dewberry, strawberry, blueberry, goldenrod, false lily, sensitive fern, winterberry, red-osier dogwood	
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:	alders, sensitive fern (wet site) in pockets	

ENVIRONMENTAL OBSERVATIONS

Water Course	N	Bog	N	Pond	N	Stream	N	Seeps	N	Beaver Present	N	Y / N
Drainage:	Poor	X	Moderate		Good		Excellent			Erosion Control Required	N	Y / N
Snag Trees:	Adequate		Inadequate	X								
Coarse Woody Material:	Adequate		Inadequate	X								
Dens	N	Nests (Raptors, songbirds, etc.)	N									
Wildlife Observed	None observed.											
Comments												

STAND PRESCRIPTION

No Treatment			Regeneration Cut		Crop Tree Release		Block Cut
Shelterwood Cut			Selection Cut		Patch Cut		Strip Cut
Commercial Thinning	X		Afforestation		Site Preparation		
Pre-commercial Thinning			Reforestation		Riparian Zone Mgmt		
Pln. Maint.	Y / N	Stems/Ha					
Comments:	Commercially thin the site in 5-10 yrs time. Favor spruce, BF and LA. Leave a mix of hardwood for biodiversity.						

STAND TALLY SHEET

CRUISER	S. Rankin	STAND #	9366, 9361	PLANTATION #	
PROPERTY #	1875	AREA	2.8 ha	Date	27 / 1 / 2023
				D M Y	

SAMPLE TREE INFORMATION

TREE #	SPP.	AGE	D.B.H.	HEIGHT	TREE #	SPP.	AGE	D.B.H.	HEIGHT
1	RM	80+	32	19	4				
2	BF		21	16	5				
3					6				

STAND INFORMATION

Stand Basal Area	SW	M ² /Ha	SWSL	M ² /Ha	HW	M ² /Ha	HWSL	M ² /Ha
Species and (%)	RM7 %	PO2 %	BF1 %	%	WB, WS			
Even-aged	X	Uneven-aged					Biomass	
Slope	1 %	Aspect	N-N/E					
Stand Origin:	Old Field	X	Partial Cut		Burn		Unploughed	
	Windfall		Non Forest				Ploughed	
	Clear Cut	X	Unknown					
Stand Maturity Class:	Regeneration		Immature		Mature	X	Over-mature	PO
Stand Stocking:	Understocked		Fully Stocked	X	Overstocked		Patchy	
Density:	SW	500	HW	2,000				
Advanced Regeneration:	Understocked	X	Fully Stocked		Overstocked		Patchy	
Regeneration:	1. Spp. BF		Height 0.5-2 m		2. Spp. RM		Height 1 m	
	3. Spp.		Height		4. Spp.		Height	

GROUND OBSERVATIONS

Ground Vegetation Species Present:	bunch berry, sarsaparilla, ferns, raspberry, star flower, false lily, blueberry yellow clintonia, beaked hazelnut
Ground Hemlock	Y / N N
Invasive Species Present	Y / N N
Site Indicators	Y / N N

ENVIRONMENTAL OBSERVATIONS

Water Course	N	Bog	N	Pond	N	Stream	N	Seeps	N	Beaver Present	N	Y / N
Drainage:	Poor		Moderate	X	Good		Excellent			Erosion Control Required	N	Y / N
Snag Trees:	Adequate	X	Inadequate									
Coarse Woody Material:	Adequate	X	Inadequate									
Dens	N	Nests (Raptors, songbirds, etc.)	N									
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:	This is a HW stand. No treatment is recommended.					

STAND TALLY SHEET

CRUISER	S. Rankin	STAND #	9848	PLANTATION #	
PROPERTY #	1875 Roseville	AREA	7.0 ha	Date	27 / 1 / 2023

SAMPLE TREE INFORMATION

TREE #	SPP.	AGE	D.B.H.	HEIGHT	TREE #	SPP.	AGE	D.B.H.	HEIGHT
1	RM	30?	15	12	4				
2					5				
3					6				

STAND INFORMATION

Stand Basal Area	SW	M ² /Ha	SWSL	M ² /Ha	HW	M ² /Ha	HWSL	M ² /Ha
Species and (%)	AL6 %	RM2 %	GB1 %	PO %				
Even-aged	X	Uneven-aged					Biomass	
Slope	depress	% Aspect						
Stand Origin:	Old Field	X	Partial Cut		Burn		Unploughed	
	Windfall		Non Forest				Ploughed	
	Clear Cut	X	Unknown					
Stand Maturity Class:	Regeneration		Immature	X	Mature		Over-mature	
Stand Stocking:	Understocked	X	Fully Stocked		Overstocked		Patchy	
Density:	SW	HW	1,000					
Advanced Regeneration:	Understocked	X	Fully Stocked		Overstocked		Patchy	
Regeneration:	1. Spp.	RM	Height	0.5-1.0	2. Spp.	Height		
	3. Spp.		Height		4. Spp.	Height		

GROUND OBSERVATIONS

Ground Vegetation Species Present:	alder, dewberry, ribes sp., wild raisin		
Ground Hemlock	Y / N	N	
Invasive Species Present	Y / N	N	If yes then what species:
Site Indicators	Y / N	N	If yes then what species:

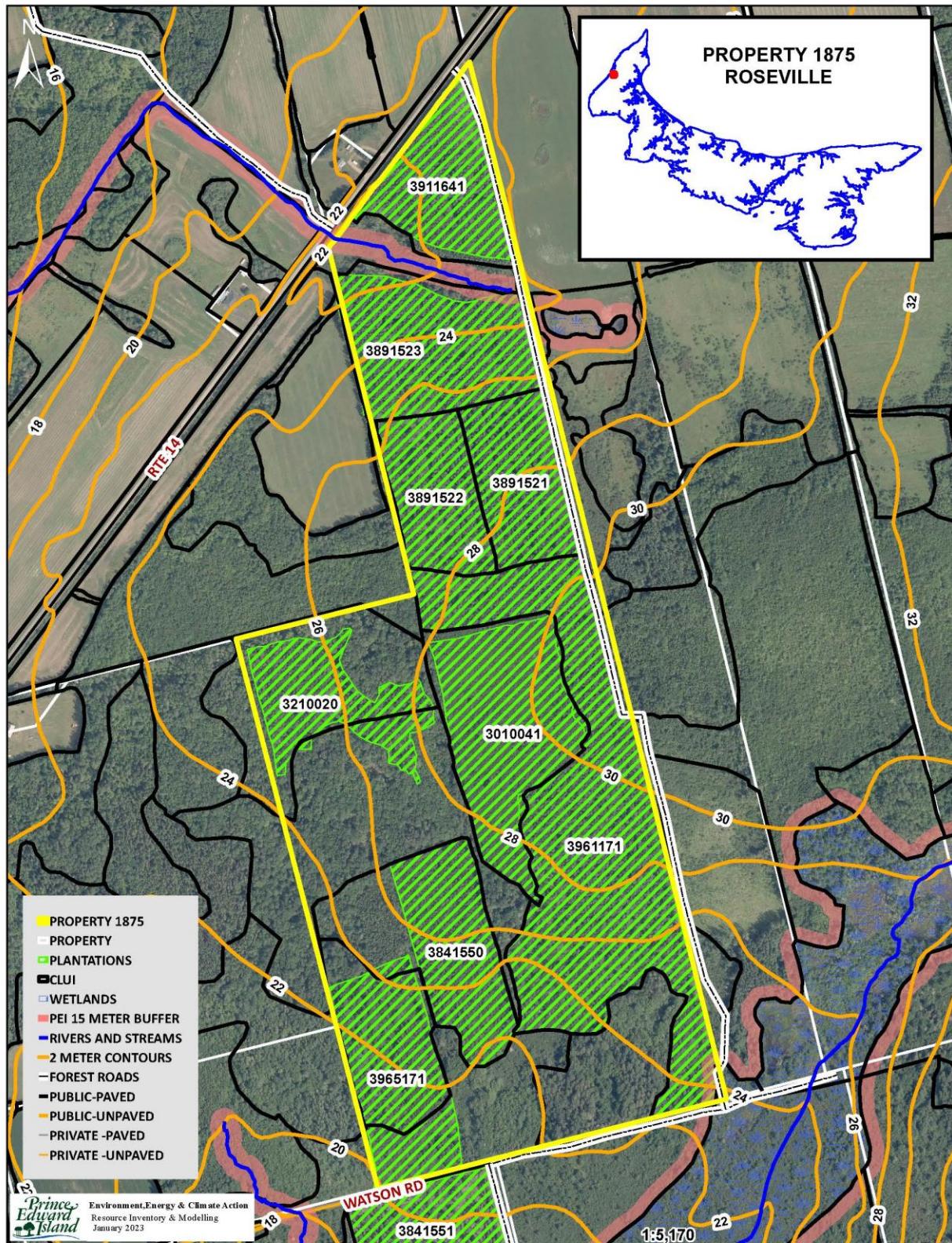
ENVIRONMENTAL OBSERVATIONS

Water Course	Y	Bog	N	Pond	N	Stream	Y	Seeps	Y	Beaver Present	N	Y / N
Drainage:	Poor	X	Moderate		Good		Excellent			Erosion Control Required	N	Y / N
Snag Trees:	Adequate		Inadequate	X								
Coarse Woody Material:	Adequate		Inadequate	X								
Dens	N	Nests (Raptors, songbirds, etc.)	N									
Wildlife Observed	heard songbirds											
Comments	An unmapped drainage/watercourse runs through this stand. Treat as a stream.											

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 unmapped watercourse/drainage runs through this stand. The stand is quite wet with lots of alder and scattered HW. No treatment recommended. It would be difficult to haul wood through this stand to the Watson Rd.						

Appendix G. Plantation Map with Contour Lines



Appendix H. Work Completed

Activity Number	Treatment Code	Amount Completed	Treatment Date	Treatment Description
9471	110	1.5	9/15/2014	Commercial Softwood< 5000 /Ha
9458	110	0.8	9/15/2014	Commercial Softwood< 5000 /Ha
9826	110	0.8	9/15/2014	Commercial Softwood< 5000 /Ha
0	2	90	7/3/2001	Fill
3911641	23B	1.92	11/7/1990	Rhome Disc Double Pass - Per Ha
3965171	23C	7	12/20/1995	Rhome Disc Triple Pass - Per Ha
3010041	29	3.14	11/1/2000	Raking Crawler Tractor-Root Rake: per Ha
3891521	30B	440	7/13/1992	Manual Site Preparation per Site (Hawk)
3891521	30B	1008	7/13/1992	Manual Site Preparation per Site (Hawk)
3891522	30B	1425	7/13/1992	Manual Site Preparation per Site (Hawk)
3891523	30B	1596	7/13/1992	Manual Site Preparation per Site (Hawk)
3150031	30B	1365	6/20/2015	Manual Site Preparation per Site (Hawk)
3150032	30B	788	6/20/2015	Manual Site Preparation per Site (Hawk)
3150033	30B	248	6/20/2015	Manual Site Preparation per Site (Hawk)
3120020	30B	3366	6/15/2021	Manual Site Preparation per Site (Hawk)
3965171	55W	13315	6/27/1996	WHITE SPRUCE - WESTERN
3210020	55W	3350	6/15/2021	WHITE SPRUCE - WESTERN
3891521	56W	2.2	7/13/1992	WHITE PINE - WESTERN
3891521	56W	1008	7/13/1992	WHITE PINE - WESTERN
3210020	56W	16	6/15/2021	WHITE PINE - WESTERN
3150031	56WI	1365	6/20/2015	INTERPLANT WHITE PINE - WESTERN
3911641	59W	2750	6/5/1991	EASTERN LARCH - WESTERN
3911641	59W	3000	2/19/1992	EASTERN LARCH - WESTERN
3891523	59W	1596	7/13/1992	EASTERN LARCH - WESTERN
3891522	59W	1.3	7/13/1992	EASTERN LARCH - WESTERN
3891522	59W	1425	7/13/1992	EASTERN LARCH - WESTERN
3891521	59W	440	7/13/1992	EASTERN LARCH - WESTERN
2891523	59W	2.95	7/13/1992	EASTERN LARCH - WESTERN
3010041	59W	7020	8/15/2001	EASTERN LARCH - WESTERN
3150033	68WI	248	6/20/2015	INTERPLANT CEDAR - WESTERN
3150032	68WI	788	6/20/2015	INTERPLANT CEDAR - WESTERN
3965171	82B	6.2	10/2/1997	Herbicide:Broadcast : 1st Treatment
3010041	92	3.14	1/19/2001	Clearcut Block
3200519	92	1.8	2/10/2021	Clearcut Block