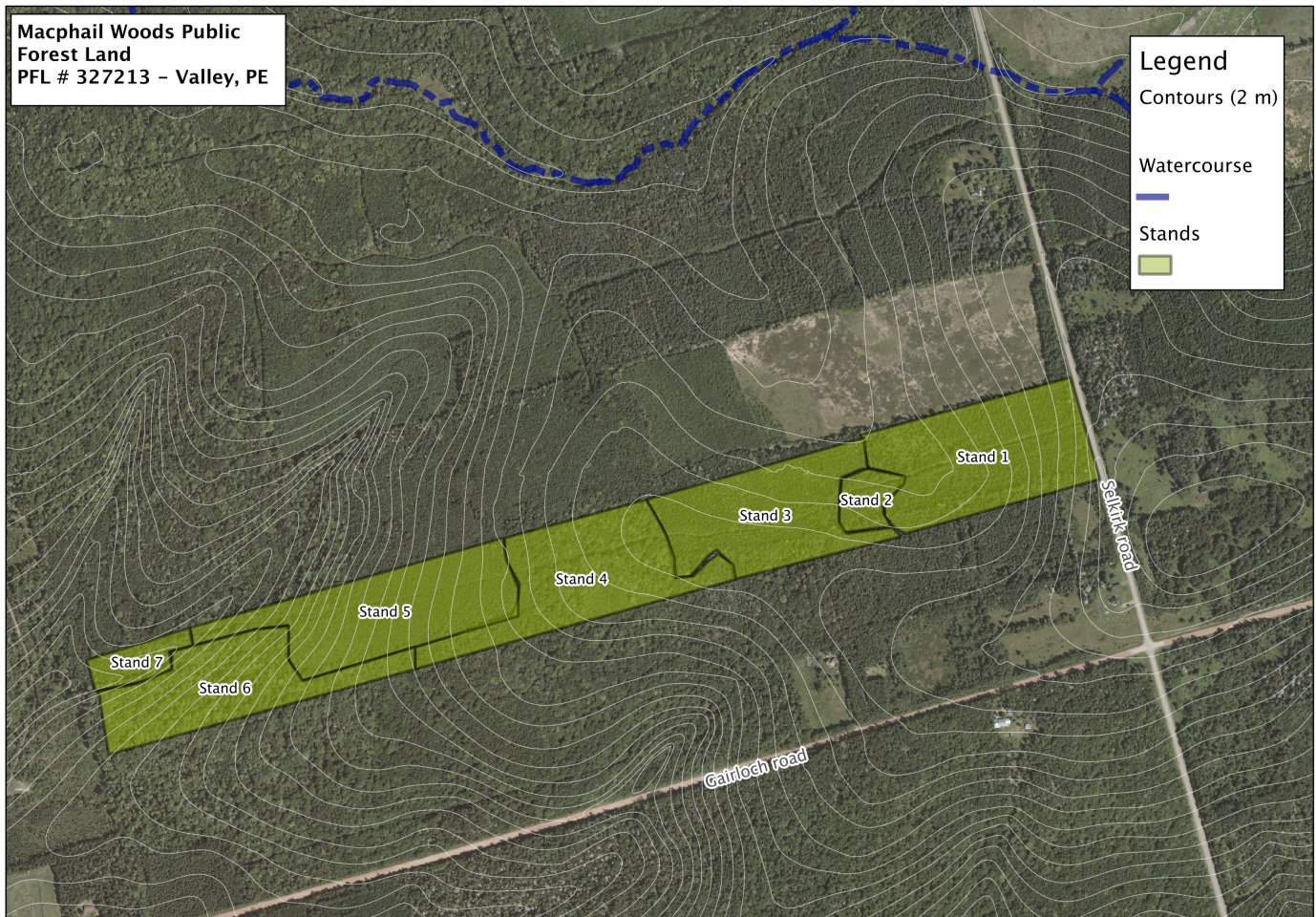


## PROPERTY DESCRIPTION

Located along the Selkirk Road, one of the main roads in Kings PEI, this property had some farming activity in the section closest to the road. This was later turned into a balsam fir and white pine plantation. All stands on the property were either partially cut or clearcut, and the majority of the property is made up of early successional stands with little diversity. The property can certainly produce high-quality trees especially, as evidenced by the western section of the property where the large trees are located. The land is well-drained and gradually sloping for the most part towards the west. The property has an overgrown forest road running almost the entire length in an east-west direction, which will provide good accessibility once it is cleaned up.



## STAND DELINEATION:



## STAND TREATMENTS

### STAND 1

Located along the Selkirk Road, this stand was farmed in the early 1900's and later abandoned. Around 1990 the stand was clearcut on the south side of the forest road and in 1991 clearcut on the north side of the forest road. In 1992 a site preparation using Anchor chain and skidder was followed with a mixed planting of 8,152 Balsam fir and 1,575 White pine. The following year in 1993, a chemical maintenance was performed in the stand. In 1994, a manual site preparation was done followed with a planting of 3,104.

The east side of the stand closest to the main road is mostly dominated by planted Balsam fir and the south-western part of the stand is dominated by planted White pine. The north-western segment of the stand has many large open areas, unlike the rest of the stand that is fully stocked. All along the south edge of the property boundary the stand has a buffer zone hedge that separates this property from the next.

**Stand #1 (4.3 ha):**

**Drainage:** High

**Watercourse:** no

**Ploughed:** yes

**Origin:** Clearcut - Plantation

**Dominant and codominant trees:**

#1: balsam fir	40% of stand	age: 20	Diameter: 39cm	Ht: 7.7m
#2: white pine	30% of stand	age: 18-20	Diameter: 25cm	Ht: 3.8m
#3: gray birch	10% of stand	age: 18	Diameter: 30cm	Ht: 8.8 m
#4: trembling aspen	10% of stand	age: 18	Diameter: 35cm	Ht: 10.2 m

**Tree source:** stump sprout: % 10 seed: % 70 plantation: % 20

**Maturity class:** immature

**Canopy description:** short open

**Stocking:** fully stocked

**Tree quality:** Medium

**Regeneration <5m:** medium #1: balsam fir Ht: 1 m #2: white spruce Ht: 0.3 m

**Tree species:** red maple, white birch, white spruce, apple,

**Other plants:** mountain ash, pine cherry, red-berried elder, downy alder, speckled alder, sheep laurel, wild raisin, bayberry, blackberry, dwarf red raspberry, raspberry, blueberry, wild strawberry, golden rod spp., tall white aster, fireweed, common speedwell, mouse-eared hawkweed, bracken fern, sedge spp.,

**Ground cover:** 10% moss 15% shrub 10% flower 10% tree % leaf/needle litter

**Coarse woody debris:** none

**Size of CWD:** small

**# Snag trees:** none

**Quality of snags:** low

**Wildlife:** snowshoe hare, ruff grouse, 3 American robin nests, black-capped chickadee, purple finch

**Treatment:** In the north-eastern section of the stand where natural openings are present, plant lots of red oak acorns and plants and some white ash, striped maple, sugar maple, American mountain ash, eastern hemlock, highbush cranberry, yellow birch and red spruce. In the rest of the stand, first release and prune any trees of interest. There is some American beech along the forest road that would greatly benefit if released. Do some patch cuts to remove some the Balsam fir and White pine and plant the same species that would be planted in the north-eastern section of the stand.

## STAND 2

This stand is covered with mature balsam fir. Some of the balsam fir is dead or dying but for the most part the trees are healthy. The area has been pruned and released. The land is flat and the ground covered almost entirely with moss with very little tree regeneration.

### Stand #2 (0.6 ha):

**Drainage:**

**Watercourse:** no

**Ploughed:** yes

**Origin:** clearcut

### Dominant and codominant trees:

#1: balsam fir                      90% of stand    age: 25+    Diameter: 50cm    Ht: 12.9m

**Tree source:** seed - 100 %

**Maturity class:** mature

**Canopy description:** closed with some patches

**Stocking:** full

**Tree quality:** medium

**Regeneration <5m:** very low #1: balsam fir Ht: 0.3 m

**Tree species:** gray birch, white birch, red maple

**Other plants:** at least 3 moss spp.

**Total % ground cover:**    95 % moss       % shrub       % flower       % tree

**Coarse woody debris amount:** low                      **Size of CWD:** medium

**Number of snags:** low                                      **Quality of snags:** low

### Wildlife:

**Treatment:** Enlarge some of the natural openings already present where appropriate and plant species such as eastern hemlock, yellow birch and sugar maple. Prune and release all trees that are not balsam fir.

### STAND 3

This stand is covered with mature and over mature balsam fir. The ground is unploughed with many pit and mounds throughout the stand. The sides of the forest road in this stand are almost all grown up in white birch and gray birch. There is a hedge row which stretches along the south property border of the stand, about 0.5ha in size.

#### Stand #3 (3.8 ha):

**Drainage:** high

**Watercourse:** no

**Ploughed:** no

**Origin:** clearcut

#### **Dominant and codominant trees:**

#1: balsam fir	85% of stand	age: 25+	Diameter: 48cm	Ht: 12.4m
#2: white birch	5% of stand	age: 20	Diameter: 47cm	Ht: 10.0m
#3: grey birch	5% of stand	age: 20	Diameter: 32cm	Ht: 10.3m
#4: red maple	5% of stand	age: 20	Diameter: 30cm	Ht: 10.4m

**Tree source:** seed: 100 %

**Maturity class:** mature

**Canopy description:** closed

**Stocking:** full

**Tree quality:** poor

**Regeneration <5m:** very low #1: balsam fir Ht: 1 m

**Tree species:** gray birch, red maple, white spruce, striped maple, trembling aspen,

**Other plants:** wild lily of the valley, starflower, sheep laurel, Indian pipe, wood fern, old man's beard,

**Total % ground cover:** 50 % moss    % shrub    % flower    % tree

**Ground cover:** % moss, % wildflowers,

**Coarse woody debris amount:** low

**Size of CWD:** low

**Number of snags:** medium

**Quality of snags:** low

**Wildlife:** snowshoe hare scat

**Treatment:** Make several patch cuts and plant with eastern hemlock, yellow birch and sugar maple. There may be some harvestable balsam fir. Prune and replace all hardwoods in the stand to promote diversity and increase value in the stand.

## STAND 4

Located in the middle section of the property, the stand is between two large clearcuts. It was never clearcut itself but was partially cut. The stand has two stages of maturity - one mostly containing large trees that were not cut down, and the other contains re-growth (mostly suckers) after the partial cut. Both stages are dominated with American beech.

### Stand #4 (3.9 ha):

**Drainage:** High

**Watercourse:** no

**Ploughed:** no

**Origin:** partial cut

#### **Dominant and codominant trees:**

#1: American beech	50% of stand	age: 40+	Diameter: 90cm	Ht: 14.1m
#2: White birch	20% of stand	age: 40+	Diameter: 71cm	Ht: 23.0m
#3: Red maple	15% of stand	age: 40+	Diameter: 91cm	Ht: 14.4m
#4: Yellow birch	15% of stand	age: 40+	Diameter: 66cm	Ht: 13.4m

**Tree source:** seed - 50%; planted - %; stump sprouts and suckers - 50%

**Maturity class:** some mature and some immature

**Canopy description:** tall open

**Stocking:** full

**Tree quality:** medium

**Regeneration:** #1: balsam fir Ht: 5m

**Tree species:** sugar maple, striped maple

**Other plants:** Indian pipe, lung lichen, sedge spp.

**Ground cover:** % moss % shrub % flower % tree

**Coarse woody debris amount:** low **Size of CWD:** medium

**Number of snags:** low **Quality of snags:** medium

**Wildlife:** hairy woodpecker

**Treatment:** Release any tree of value such as yellow birch, red maple, sugar maple, striped maple, white birch, and un-cankered American beech and prune to increase stand value.

Cut small amounts of mature American beech, but only remove the worst looking trees to promote health and vigor in the stand. As for the young American beech root sprouts, cut any that are diseased or competing with other species. In open area or in patch cuts, plant red spruce, eastern hemlock, red oak, witch hazel, hobblebush and wild raisin

## STAND 5

This stand was clearcut sometime during the mid-to-late 1980's. The stand is at an immature stage but well-stocked with American beech, red maple, white birch and some grey birch. The edges of the forest road mostly grew up in grey birch. On the northern boundary there is a small, steep valley with slightly larger trees. No harvesting will be done in this area.

### Stand #5 (4.7 ha):

**Drainage:** high

**Watercourse:** no

**Ploughed:** no

**Origin:** clearcut

#### **Dominant and codominant trees:**

#1: American beech	40% of stand	age: 25	Diameter: 33cm	Ht: 11.3m
#2: red maple	25% of stand	age: 25	Diameter: 38cm	Ht: 12.4m
#3: white birch	20% of stand	age: 25	Diameter: 41cm	Ht: 12.0m
#4: grey birch	15% of stand	age: 25	Diameter: 35cm	Ht: 12.1m

**Tree source:** stump sprout – 10%, seed – 90 %

**Maturity class:** immature

**Canopy description:** closed

**Stocking:** full

**Tree quality:** medium

**Regeneration:** #1: balsam fir Ht: 0.6m

**Tree species:** large tooth aspen, balsam fir

**Other plants:** ground hemlock, pin cherry, striped maple, sedge spp., Indian pipe

**Ground cover:** leaf litter - 90%

**Coarse woody debris amount:** low

**Size of CWD:** small

**Number of snags:** low

**Quality of snags:** low

**Wildlife:**

**Treatment:** Prune and release all trees of value such as white birch, red maple and some of the nicer American beech over the next 15 years.

## STAND 6

The stand has many large, mature trees with a good mix of species. Several nice eastern hemlock are growing in the eastern section of the stand and a few more in the far southwest corner of the stand. The west section of the stand has more red maples and less American beech. The stand has a fair amount of large snags and some had old signs of pileated woodpecker feeding.

### Stand #6 (3.6 ha):

**Drainage:** high

**Watercourse:** no

**Ploughed:** no

**Origin:** partial cut

#### **Dominant and codominant trees:**

#1: red maple	40% of stand	age: 60+	Diameter: 119cm	Ht: 18.9m
#2: American beech	30% of stand	age: 60+	Diameter: 116cm	Ht: 17.8m
#3: sugar maple	20% of stand	age: 60+	Diameter: 106cm	Ht: 18.7m
#4: yellow birch	10% of stand	age: 60+	Diameter: 115cm	Ht: 19.5m

**Tree source:** seed - 90%; stump sprouts and suckers - 10%

**Maturity class:** mature

**Canopy description:** tall closed

**Stocking:** full

**Tree quality:** medium

**Regeneration:** #1: Ht: m #2: Ht: m #3: Ht: m

**Tree species:** white birch, striped maple

**Other plants:** ground hemlock, wood fern, lung lichen, old man's beard, Indian pipe, wild raisin

**Ground cover:** 5 % moss 70% leaf litter

**Coarse woody debris amount:** low

**Size of CWD:** large

**Number of snags:** medium

**Quality of snags:** high

**Wildlife:** old signs of pileated woodpecker

### **Treatment:**

Some of the larger cankered American beech could be harvested for fuel or wood products.

In the western section of the stand, harvest some of red maple for wood products.

The removal of some of the trees, this will create patch cuts that can be planted with red spruce, eastern hemlock, witch hazel and hobblebush. Plant the same plant species in natural openings.



## STAND 7

Located in the northwest end of the property, this stand has low quality and low value trees. Some big trees were left untouched during the clearcutting process.

### Stand #7 (0.8 ha):

**Drainage:** high      **Watercourse:** no

**Ploughed:** no

**Origin:** clearcut

#### **Dominant and codominant trees:**

#1: Red Maple	40 % of stand	age: 25	Diameter: 41cm	Ht: 13.4m
#2: Balsam Fir	20% of stand	age: 25	Diameter: 39cm	Ht: 10.3m
#3: White Birch	15% of stand	age: 25	Diameter: 36cm	Ht: 11.9m
#4: Grey Birch	15% of stand	age: 25	Diameter: 37cm	Ht: 12.2m
#5: Yellow Birch	10% of stand	age: 25	Diameter: 45cm	Ht: 11.5m

**Tree source:** seed - 50%; stump sprouts and suckers - 50%

**Maturity class:** immature

**Canopy description:** patchy

**Stocking:** patchy

**Tree quality:** low

**Regeneration:** #1: balsam fir Ht: 1m #2: Ht: m #3: Ht: m

**Tree species present:** white spruce,

**Other plants present:**

**Ground cover:**

**Coarse woody debris amount:** low

**Size of CWD:** small

**Number of snags:** low

**Quality of snags:** low

**Wildlife:**

### **Treatment:**

Prune and release any good quality white birch, yellow birch and red maple.

Some areas in the western part of the stand have openings that can be planted with hemlock, white pine, sugar maple, yellow birch, witch hazel, beaked hazelnut and hobblebush. Remove the balsam fir that is growing and replace it with white pine, eastern hemlock, yellow maple sugar maple, red oak, white ash, witch hazel, beaked hazelnut and highbush cranberry.

- Priorities:**
1. Keep the roadway clear from overgrowing trees to maintain a reasonable access throughout the property.
  2. All stands in the property need more shrub species to increase diversity and improve the health of the forest. The shrubs will also provide a much wider variety of food sources than what presently exists.
  3. Selectively harvest some of the worst-quality trees for fuelwood in Stands #4 and #6. This is a good way to create patch cuts that will be used for plantings. Hardwood lumber and wood for local craftspeople will also come out of these cuts.
  4. Prune and release young potential crop trees in Stands #1, #4, #5, #6 and #7.
  5. Regularly remove some of the balsam fir in Stand #1, #2, #3 and #7, creating places to plant a variety of native trees and shrubs.

**Additional comments:** Direct seeding of red oak should be tested where possible as an inexpensive but effective way to propagate this high-value species, especially in Stand #1. Once these plantings are done, look to add more wildflowers and ferns that will help make the property more diverse and more attractive to wildlife and human visitors alike.