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Point Pleasant Park Forest Work Plan

June 20, 2019

Agenda

Review of Plan Recommendations

Forest Thinning Program

Area for 2019

Project Specifications

Questions?



POINT PLEASANT PARK COMPREHENSIVE PLAN

October 2008



Park, Halifax, N. S.

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www.pointpleasantpark.ca

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Point Pleasant Park
Forest Work Plan

Final Report

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CBCL LIMITED
Consulting Engineers



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Comprehensive Plan

- Point Pleasant Park's management plan (Chapter 4) describes the most important actions required to restore the forest, conserve cultural resources and cultivate the experiences that visitors value. It is presented in three themes: forest, shoreline and cultural heritage.



Comprehensive Plan

- Forest Framework:
- *This plan reflects the shared values of the community and aims to maximize the Park's benefits for future generations, while restoring a more resilient and sustainable forest. The Point Pleasant forest of the future must be far more enduring, resilient and robust than the red spruce dominated forest of the past.*
- Targets:
 - *All forest ecosystems in the park conform to applicable Acadian forest types in NS*
 - *Zero non-native species with expanding populations*
 - *For all non native trees (except Norway Maple), remove smaller trees while maintaining mature individuals. For Norway maple implement a gradual program of removal of ALL sizes.*

The Forestry work plan

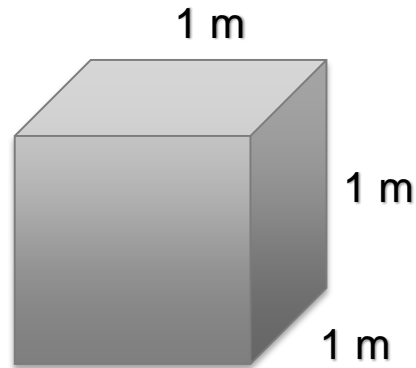
- *The Forest Work Plan outlines the existing condition of the Park's forest stands and provides recommendations as to the various interventions needed to meet the intent of the Comprehensive Plan.*
- *The 5 main interventions identified are:*
 - *fill planting,*
 - *competition control,*
 - *tree removal from fortifications,*
 - *mitigation of crusher dust,*
 - *invasive vegetation management.*
- *The park forest must be managed for resilience to future disturbance agents.*

Tree Response to Thinning

- Competition has a direct effect on tree vigour, crown development, stem form and root development. Trees grown under extreme levels of competition have smaller crowns, straighter stems and smaller root systems.
- Open grown trees are shorter, sturdier, have larger crowns and root systems and have tapered stems making it less likely to fail under windy conditions
- Reducing competition leads to increased forest ecosystem health, a more resilient forest to disturbance and creates a safer public space.

Size comparison

- Why 80,000 trees?
- One cubic meter (m^3)



- Tree volume of a large tree can range from 3m^3 to 5m^3
- Tree volume of a sapling is approximately 0.001 m^3
- 1 large mature tree can have the volume of 3000-5000 saplings.
- Removing the volume of approximately 20 - 25 mature trees.



Area
Area: 0.65 Hectares
Perimeter: 459.3
Meters

1

Area
Area: 1.05 Hectares
Perimeter: 782.1
Meters

2

Area
Area: 3.3 Hectares
Perimeter: 1200.84
Meters

5

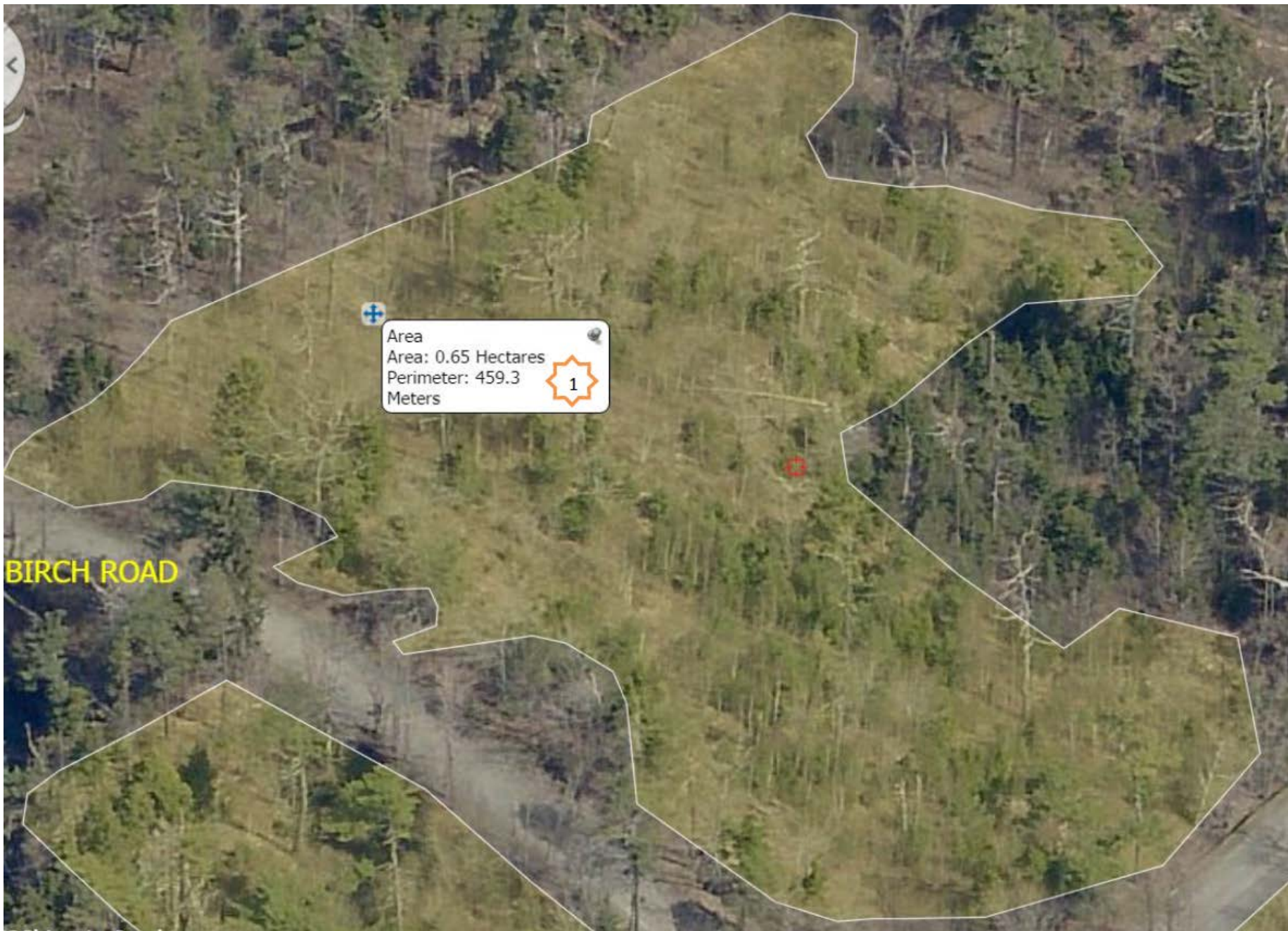
Area
Area: 1.95 Hectares
Perimeter: 1087.45
Meters

4

Area
Area: 3.68 Hectares
Perimeter: 1445.46
Meters

3





BIRCH ROAD

+

Area
Area: 0.65 Hectares
Perimeter: 459.3
Meters

1

Methods/ Specifications

- Clearing saws and chainsaws.
- Only cutting trees smaller than 5" in diameter.
- Spacing of trees will be between 2.0 - 2.5 meters, leaving 1600 – 2500 stems per hectare.
- Brush will not be left within 10 meters of a park roadway.
- Brush will be dispersed close to the ground to retain moisture and reduce fire hazard.
- With stump sprouts, the 2-3 sprouts with best form and dominance will be left.



List of trees to be removed

- Norway Maple (*Acer platanoides*)
- Sycamore Maple (*Acer pseudoplatanus*)
- Silver Maple (*Acer saccharinum*)
- Norway Spruce (*Picea abies*)
- Sitka Spruce (*Picea sitchensis*)
- Scots/ Scotch pine (*Pinus sylvestris*)
- Austrian Pine (*Pinus nigra*)
- Douglas Fir (*Pseudotsuga menziesii*)
- English Oak (*Quercus robur*)
- Horse Chestnut (*Aesculus hippocastanum*)
- Locust (*Robinia* spp.)

Acadian Forest Species to be left using the following hierarchy

- White Pine (*Pinus strobus*)
- Red Oak (*Quercus rubra*)
- Eastern Hemlock (*Tsuga canadensis*)
- Sugar Maple (*Acer saccharum*)
- Yellow Birch (*Betula alleghaniensis*)
- Aspen (*Populus spp.*)

*** All other Acadian species shall have equal priority and shall be spaced, accommodating for diversity of species within a given area

Before and After (Leaf off)



Before and After



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Before



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Before



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After



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After



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Wind is difficult to predict



But we can mitigate some effects



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Questions?