

**SENECA ENTERPRISES LTD.**

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SPRUCE BARK BEETLE REPORT

FH17DPG218

POLYGON: **2016-PHI-0102** HECTARES: **16.1**

WALKTHROUGH DISTANCE: **1700**

ESTIMATED INFESTED PIXELS FROM
WALKTHROUGH (Code 1-4) **6 35.3%**

SUMMARY OF CURRENT INFESTATION

Walkthrough found 8 code 1-3 attacked trees within polygon. Most of these were concentrated more to the north and east of the polygon along cutblock edges. 6 infested pixels so attack is fairly light with average 1.5 hit trees per line of 100m. There is good access from the north within a few hundred meters of the polygon. There are minimal scattered code 5 attack throughout polygon as well. South of polygon no signs of attack and very sparse spruce.

LIGHT SCATTERED ATTACK, MORE MODERATE CONCENTRATED IN NORTH

ACCESS

Polygon is close to mainline, from road walk 275m at 196 degrees

POLYGON FEATURES (Topography, Terrain, Timber Types, Age)

Polygon relatively flat with a 10-20% slope, 70% Spruce 30% Balsam. Some wet ground

SIZE, BOUNDARY and PATTERN OF INFESTATION

Moderate attack as hybrid probe had 6 C1 attack, 1 Code 2, 1 code 3 attacked trees along with 8 Code 5 attacks. This was over 6 pixels, representing a third of the polygon. Probe line represented 1 code 1 attacked tree, with sanitation priority rating Light due to number of uninfested spruce within probe. With that, attack is following creek draw and towards old cutblock where blowdown present.

INCIDENCE AND SEVERITY OF ATTACK

One probe line shows a light priority rating, 6 infested pixels averaging 1.5 trees per, so probe line could be on the moderate side/ Moderate attack density and low mean larval density.

RISK OF BEETLE SPREAD

Polygon is bounded by cutblock to the east and there is risk of spread along creek drainage. Less spruce component to the south along cutblock edge. With light rating, low to moderate rate of spread, patchy large DBH Spruce.

ACCESS, OPERABILITY and INTEGRATED RESOURCE MANAGEMENT ISSUES

Good access with truck access within a few hundred meters to the north of polygon. Relatively flat, wet with some creek draws. Also on edge of old cutblock with blowdown.

RECOMMENDATIONS**OPTION 2****MONITOR/ NO ACTION**

Most of the trees appear to be in the first year of a two year cycle, and could wait and reevaluate in fall of 2017. Also, smaller DBH and denser stand, surrounded by cutblocks to the east and north. Could follow drainage but with light

OPTION 1**TRAP TREES**

Sanitation and Salvage Rating is light from 1 probe line, However north section more concentrated attack and may benefit from trap tree trail there as good access off of northern access road.

Summary						
2016-PHI-0102		16.1	METERS WALKED	1700	% TRAVERSED	10.6%
PIXELS COVERED BY WALKTHROUGH	17	INFESTED PIXELS	6	ESTIMATED % OF BLOCK INFESTED (From Walk through)		35.3%

TABLE 5- Spruce Beetle Infestation Summary Sheet					
OF NOTE- Results taken from a 100m Probe Line established at 1 per 50 hectares to represent					

DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES
			2015		2014		2013		
			1	2	3	4	5	6	
17.5-25.0	3.3	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0
25.1-30.0	5.3	47.7	0.0	0.0	0.0	0.0	0.0	0.0	10.6
30.1-35.0	7.1	21.3	0.0	0.0	0.0	0.0	0.0	0.0	28.4
35.1-40.0	9.4	28.2	9.4	0.0	0.0	0.0	0.0	0.0	18.8
40.1-45.0	11.6	23.2	0.0	0.0	0.0	0.0	0.0	0.0	11.6
45.1-50.0	13.8	0	0.0	0.0	0.0	0.0	0.0	0.0	13.8
50.1-55.0	16.2	0	0.0	0.0	0.0	0.0	0.0	0.0	0
55.1-60.0	18.7	0	0.0	0.0	0.0	0.0	0.0	0.0	0
60.1 +	25.3	0	0.0	0.0	0.0	0.0	0.0	0.0	0
TOTALS	136.4	127	9.4	0	0.0	0.0	0.0	0	83.2

TABLE 4- Spruce Beetle Attack Density and Larval Density Rating			
MEAN NO. OF ENTRANCE HOLES PER 225 cm2 PHLOEM SAMPLE	< 1 LOW Attack Density	MEAN NO. OF LIVING LARVAE PER 225 cm2 PHLOEM SAMPLE	< 4.9 LOW Mean Larval Density
	1.0- 1.9 MOD Attack Density		5.0 - 14.9 MOD Mean Larval Density
	2.0 - 3.9 HIGH Attack Density		15-24.9 HIGH Mean Larval Density
2.00	< 3.9 SEVERE Attack Density	2.00	>24.9 EXTREME Mean Larval Density

TABLE 2- Spruce Beetle Management Options after Walkthrough					
% 2015 ATTACK	6.9%	6.9	SANITATION AND SALVAGE HARVEST PRIORITY RATING		
% 2014 ATTACK	0.0%	##	LIGHT	0-599	428.1
% 2013 ATTACK	0.0%	##	MODERATE	600-999	
% HOST IN STAND	62.1%	##	HEAVY	1000+	
			RECOMMEND CRUISING/ LOGGING		

SUMMARY OF ALL CARDS FS1111				NUMBER OF CARDS	1
ACCESS -	Polygon is close to mainline, from road walk 275m at 196 degrees				
POLYGON FEATURES -	Polygon relatively flat with a 10-20% slope, 70% Spruce 30% Balsam. Some wet ground				

DIAMETER CLASS	SURFACE AREA FACTOR	NUMBER OF HEALTHY HOSTS	BARK BEETLE CODE BY YEAR OF ATTACK						OTHER TREE SPECIES	
			2015		2014		2013			
			1	2	3	4	5	6	BL	AT
17.5-25.0	3.3	2	0	0	0	0	0	0	0	0
25.1-30.0	5.3	9	0	0	0	0	0	0	2	0
30.1-35.0	7.1	3	0	0	0	0	0	0	4	0
35.1-40.0	9.4	3	1	0	0	0	0	0	2	0
40.1-45.0	11.6	2	0	0	0	0	0	0	1	0
45.1-50.0	13.8	0	0	0	0	0	0	0	1	0
50.1-55.0	16.2	0	0	0	0	0	0	0	0	0
55.1-60.0	18.7	0	0	0	0	0	0	0	0	0
60.1 +	25.3	0	0	0	0	0	0	0	0	0
TOTALS		19	1	0	0	0	0	0	10	0
BARK SAMPLES 15 cm x 15 cm	NO. ENTRANCE HOLES	NO. PARENT ADULTS	NO. LARVAE	NO. PUPAE ADULTS	NO. CALLOW	FRESH (GREEN) BLOWDOWN				
						Attacked Y r	Y r	Unattacked		
2	4	0	4	0	1	0	0	0		

SIZE, BOUNDARY AND PATTERN OF THE INFESTATION
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2016-PHI-0102

16.1 Hectares

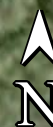
Legend

-  Crew Tracks
-  Older Attack (Codes 5-6)
-  New Attack (Codes 1-4)

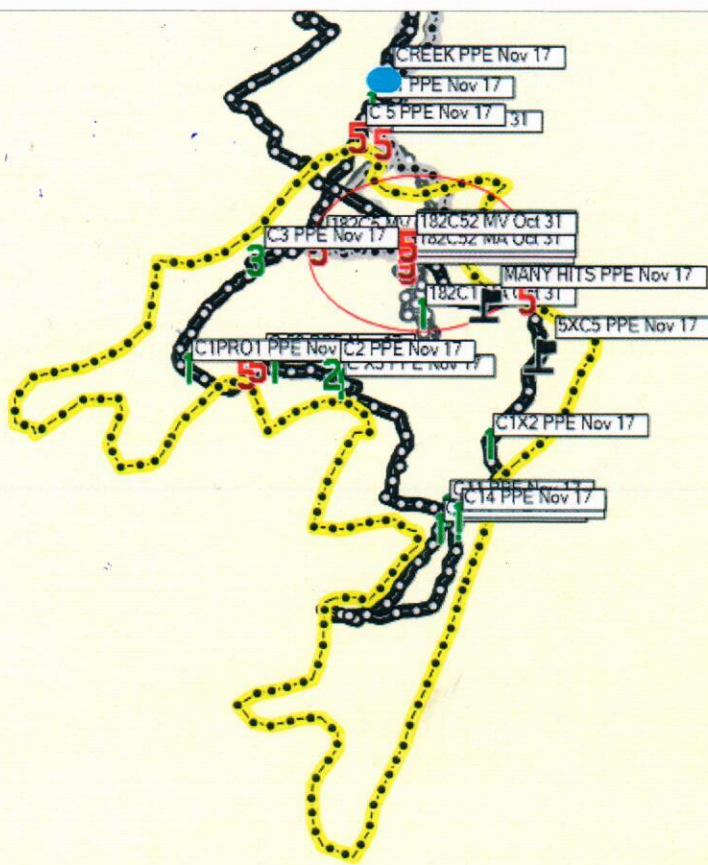


Google earth

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400 m



PHI-102

PPE

NOV 17

200 m

overzoom

Attack - Pixels = 6

C1 = 6 C2 = 1

C3 = 1

C5 = 8

Access - From truck, walk 275m @ 196°

Features - 45 dbh Sx

- 70% Sx, 30% BI

- 10-20% slope

- some wet ground.

TIMBER TYPE

STRIP NO.: _____ DIRECTION: _____
 START STRIP: _____
 JOB NO.: _____ DATE: NOV 17 2006
 CREW: PATRICK PENNETT
 REMARKS: _____

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