

Spruce Bark Beetle Report 2015 Winter

2014-MIS-002

ADMINISTRATION

Polygon: MIS002 Hectares: Exact Location: 4km on the Mischinsinlika
Walkthrough Distance: 2200m Grid Probe Distance: 0km Date: 2015.01.29 Crew: DH/LP

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

This is an additional polygon, situated in several smaller units around 4km on the Mischinsinlika M/L. These areas were identified from the 2014 sketchmapping. The stands tend to be low lying, wetter ecosystems that have experienced a very slow moving established population. And because of their configuration and location they are influenced by the regular harvesting that occurs in the area and the regular blowdown that goes along with that.

Stand Susceptibility: Moderate Access: 2wd in summer

Other Considerations or Limiting Factors: adjacency to other openings, riparian, high wildlife use

SUMMARY OF CURRENT INFESTATION:

The current attack is scattered throughout the polygons. There is more code five in the area than code three, but both are present. Code one incidence is light and uncommon. The blowdown, which is substantial at times, is supporting some populations of beetles as well.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
328.9	9.4	103.8		86.3	
<i>Bark Sample Data</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
<i>(combined)</i>	6	3	0	0	2

MANAGEMENT: (in decreasing preference)

Option #1:

Due to the small (area) size and the scattered attack, the area is best suited to monitoring on an annual basis. The edges of the newer harvested units should be monitored and all blowdown removed regularly.

Option #2:

Conventional trap trees could be established in the vicinity of these polygons. Though there is not an abundance of large diameter, unattacked spruce in many of the locations. The area requires monitoring after treatment.

Spruce Bark Beetle Report 2015 Winter

2014-TUD-001

ADMINISTRATION

Polygon: TUD001 Hectares: Exact Location: south of Tudyah Lake PP
Walkthrough Distance: 2590m Grid Probe Distance: 0m Date: 2015.01.29 Crew: DH/LP

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

This is an additional polygon. The site is flat, adjacent to the highway 97 to the east, the Pack River to the west, Provincial Park to the north. The polygon is dominated by very large spruce with scattered birch and aspen throughout. The area is used extensively by wildlife. There are small localized swamps in the south end.

Stand Susceptibility: Moderate Access: 2wd to the north and east sides

Other Considerations or Limiting Factors: Adjacent to Provincial Park, major river, major highway and large lake.

SUMMARY OF CURRENT INFESTATION:

Current attack in this polygon is absent, though the number of code five and older attack suggests that the stand is susceptible. The spruce on site appear to be healthy but there is root disease on the spruce reducing their vigour. There is understorey in places reducing the beetles' chances of discovering a likely host.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
271.4	0	0		9.4	
<i>Bark Sample Data</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
<i>(combined)</i>	None collected				

MANAGEMENT: (in decreasing preference)

Option #1:

Monitor on annual basis.

Option #2:

No action

Spruce Bark Beetle Report 2015 Winter

2014-GAF-005

ADMINISTRATION

Polygon: GAF005 Hectares: 50.12 Exact Location: 21km Manson FSR
Walkthrough Distance: 775m Grid Probe Distance: 0m Date: 2015.02.09 Crew: DH

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

The site is situated on the banks of the Manson River, between the mainline and the river itself. The ground is dead flat with a short steep pitch to the water. The stand is made up of dead lodgepole pine and scattered mature spruce. The area immediately south of this location was surveyed, informally, once it was determined the likelihood of attack in the identified stand was low to nil.

Stand Susceptibility: Low to Nil

Access: 2wd drive via M/L

Other Considerations or Limiting Factors: major travel route for industrial and public transportation, major river, riparian area.

SUMMARY OF CURRENT INFESTATION:

There is no infestation in the identified polygon. There is however some light attack in a polygon immediately to the south. This polygon is small and was only informally surveyed due to time constraints.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
0	0	0		0	
<i>Bark Sample Data (combined)</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
	0	0	0	0	0

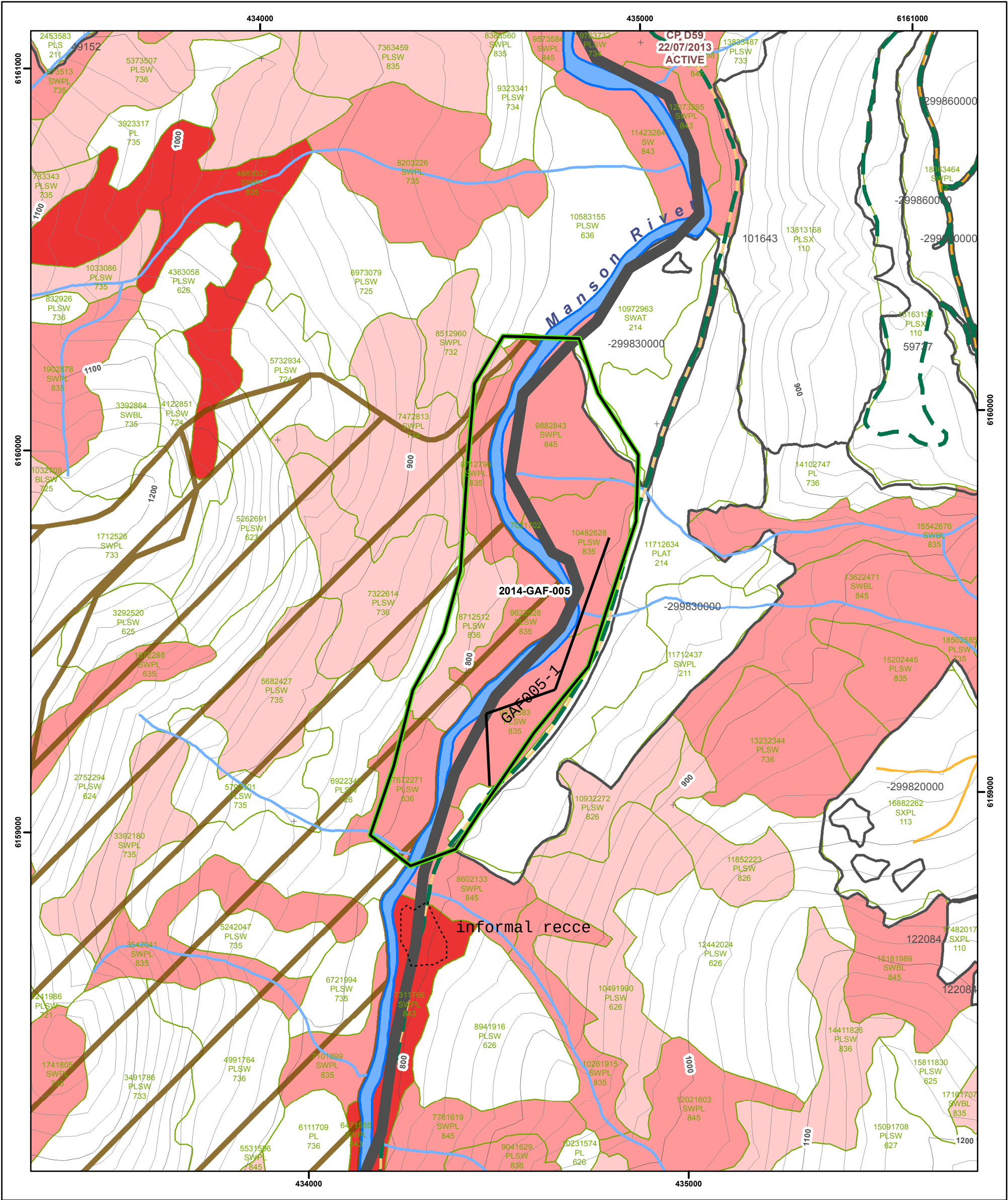
MANAGEMENT: (in decreasing preference)

Option #1:

Leave, but include small area to the south for monitoring in the future.

Option #2:

Consider a conventional trap tree program and blowdown removal program along mainlines and FSR's where they run through currently attacked stands.



Spruce Bark Beetle Field Map

Polygon Name: 2014-GAF-005

Landscape Unit/BMU: Gaffney

Region: Omineca

District: Mackenzie

Mapsheet: 093N09

Hectares: 50.12

Scale: 1:10,000

When plotted on 11x17

Coordinate System: PCS Albers

Datum: North American 1983

Date Drawn: 07/02/2015

Drawn By: msnively

Map Features

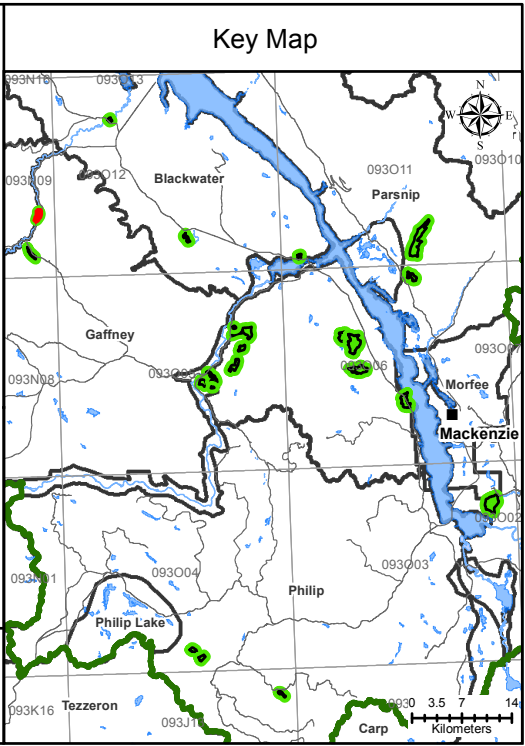
- Susceptible Spruce Bark Beetle Polygon
- 2014 Flight Points
- 2013 SB Hazard Rating (20% increments)
- Hazard Classes
 - Low/Med (21-40)
 - Med (41-60)
 - High (61-80)
 - Very High (81-100)
- VRI Polygon
- Cutting Permit
- RESULTS Opening
- Landscape Unit
- Road Permit Active
- Road Permit Pending
- Km_Marker_Points
- Communities

Protected Lands Designation

- First Nations Reserves
- Mackenzie District
- OGMA Legal Current
- Ungulate Winter Range
- Wildlife Habitat Area
- Ecological Reserve
- Protected Area
- Provincial Park
- Contour - Index
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Disclaimer

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Spruce Bark Beetle Report 2015 Winter

2014-BLA-005

ADMINISTRATION

Polygon: **BLA005**

Hectares: **176.55**

Exact Location: **46km on the Finlay FSR**

Walkthrough Distance: **5710m** Grid Probe Distance: **0m**

Date: **2015.01.24**

Crew: **DH/LP**

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

The polygon is a large rolling stand of healthy mature spruce, scattered large and small balsam fir and dead lodgepole pine. Birch can also be found in clumps throughout the polygon. Blowdown is common and generally low in severity, but there are areas of high to extreme blowdown. There are several creeks draining the area with a small swamp to the south. Approximately one third of this polygon has not been surveyed due to lack of access.

Stand Susceptibility: **High, generally, due to age of spruce and level of blowdown.** Access: **poor**

Other Considerations or Limiting Factors: **relatively undulating terrain, poor existing access**

SUMMARY OF CURRENT INFESTATION:

The current infestation, while it can be found in the fresh blowdown, is more prominent in the standing, healthy spruce. The code three infestation is found in several large pockets usually near the crest of the hill. There are also code one, but not nearly as common as the earlier attack. There is a similar amount of code five to go along with the code three.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
2428.8	35.4	318.1		288.4	
<i>Bark Sample Data (combined)</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
	18	5	11	0	0

MANAGEMENT: (in decreasing preference)

Option #1:

Due to the merchantability of the stand, and the level of current and expected attack, the stand should be pheromone baited in the spring of 2015 prior to beetle flight. The polygon must then be salvaged harvested and processed by the end of summer 2016. The new cutblock edge should be monitored annually for new blowdown and it should be removed as efficiently as possible.

Option#2:

The area should be monitored annually to assess the spread and vigour of the population.

Spruce Bark Beetle Report 2015 Winter

2014-BLA-009

ADMINISTRATION

Polygon: **BLA009** Hectares: **155.66** Exact Location: **39 km on the Finlay FSR**
Walkthrough Distance: **2465m** Grid Probe Distance: **0m** Date: **2015.02.07** Crew: **DH**

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

This is a stand of mature to over mature spruce, birch, aspen and some balsam fir situated on the shores of Williston Lake. The land is well drained with several moderately deep gullies, and gentle to flat terrain. Blowdown in this area is relatively low.

Stand Susceptibility: **moderate to high**

Access: **2wd via the FSR**

Other Considerations or Limiting Factors: **lakeshore, riparian values, wildlife use, visual landscape considerations.**

SUMMARY OF CURRENT INFESTATION:

While current (code three) and old (code five) attack can be found throughout, it appears to be concentrated on the lower lying, flatter ground adjacent to the lake itself. There is evidence of a long lingering population at this location.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
647.1	7.1	32.6		117.3	
<i>Bark Sample Data</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
(combined)	5	6	2	0	0

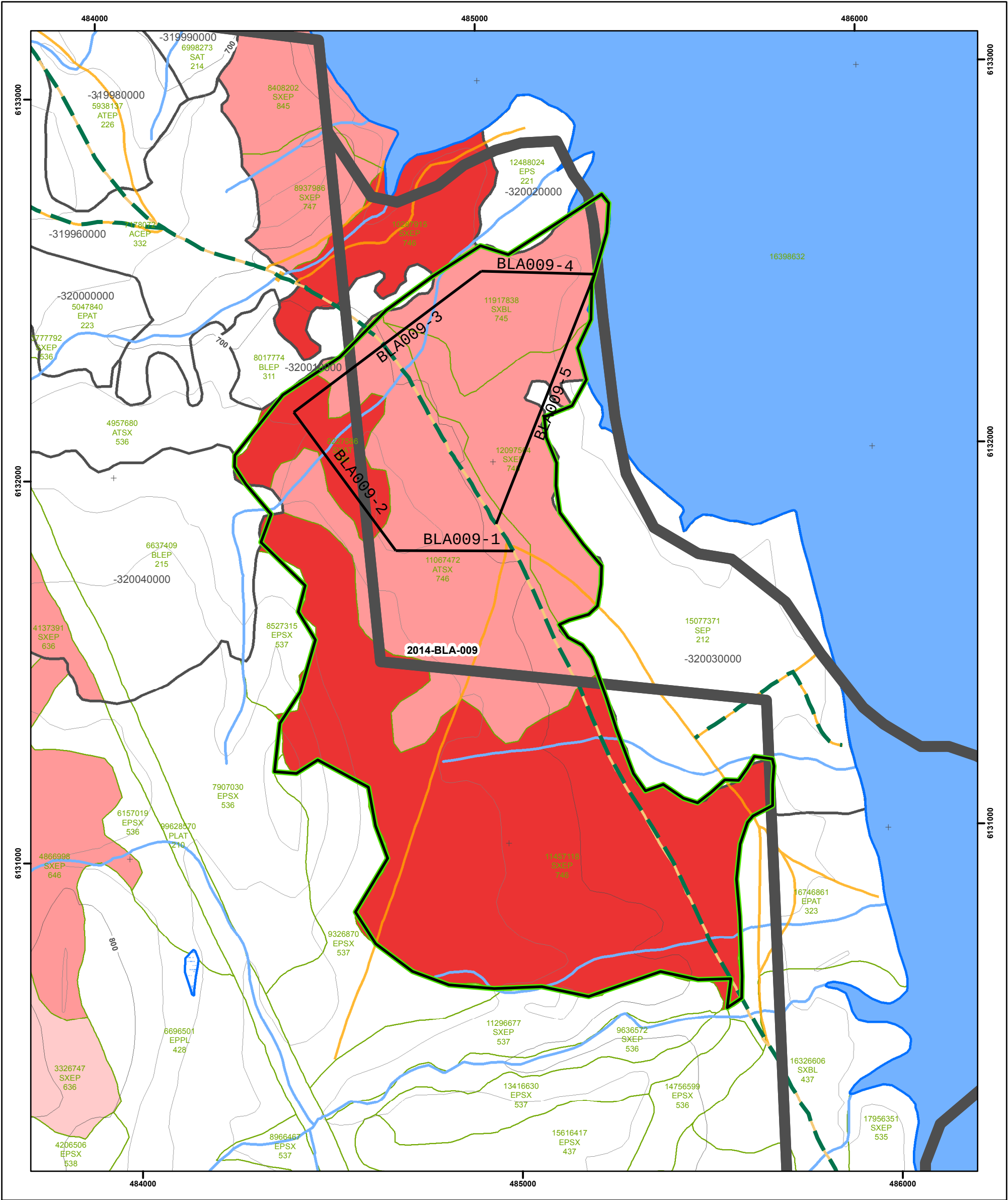
MANAGEMENT: (in decreasing preference)

Option #1:

On the lower portion of this polygon there is a unit that appears to be poised for harvest. There is significant opportunity to bait this unit and the surrounding timber to attract the beetle to this stand prior to harvest. All effort should be made to expand this unit as necessary, remove and process this wood prior to summer end 2016. Follow up monitoring of the stand edge for blowdown and adjacent susceptible timber, including the portion above the road on an annual basis.

Option #2:

Post harvest, stand edge should be monitored for new blowdown and susceptible stems removed as required it is possible that conventional trap trees be established and removed along this new harvested edge as control for future populations. The susceptible timber in the vicinity of this new cutblock including the timber above the FSR should be monitored annually.





Ministry of
Forests, Lands and
Natural Resource Operations

Spruce Bark Beetle Field Map

Polygon Name: 2014-BLA-009

Landscape Unit/BMU: Blackwater

Region: Omineca

District: Mackenzie

Mapsheet: 093O06

Hectares: 155.66

Scale: 1:10,000

When plotted on 11x17

Coordinate System: PCS Albers

Datum: North American 1983

Date Drawn: 07/02/2015

Drawn By: msnively

Map Features

 Susceptible Spruce Bark Beetle Polygon

 2014 Flight Points

2013 SB Hazard Rating (20% increments)

Hazard Classes

 Low/Med (21-40)

 Med (41-60)

 High (61-80)

 Very High (81-100)

 VRI Polygon

 Cutting Permit

 RESULTS Opening

 Landscape Unit

 Road Permit Active

 Road Permit Pending

 Km_Marker_Points

 Communities

 First Nations Reserves

 Mackenzie District

 OGMA Legal Current

 Ungulate Winter Range

 Wildlife Habitat Area

Protected Lands Designation

 Ecological Reserve

 Protected Area

 Provincial Park

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Disclaimer

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Key Map

Spruce Bark Beetle Report 2015 Winter

2014-BLA-012

ADMINISTRATION

Polygon: **BLA012** Hectares: **26.78** Exact Location: **102 km Finlay FSR**
Walkthrough Distance: **1050m** Grid Probe Distance: **0m** Date: **2015.02.09** Crew: **DH**

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

This is a low lying flat stand of large diameter mature spruce, aspen and cottonwood. Blowdown is non-existent in the majority of the stand but there are small localized patches of extensive recent blowdown spruce. There is understorey throughout generally and some larger patches of brush. Wildlife appears to be high.

Stand Susceptibility: **Moderate to High** Access: **2wd on Finlay FSR**

Other Considerations or Limiting Factors: **riparian area, adjacent to major river, wildlife values**

SUMMARY OF CURRENT INFESTATION:

There is light current attack and moderate old attack in the standing timber. The current population is low, but the opportunity to expand is high, especially considering the seemingly continuous recruitment of blowdown at this site. As well, the blowdown is difficult to assess due to the level of snow.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
410	5.3	24		195.3	
<i>Bark Sample Data</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
(combined)	4	8	11	0	3

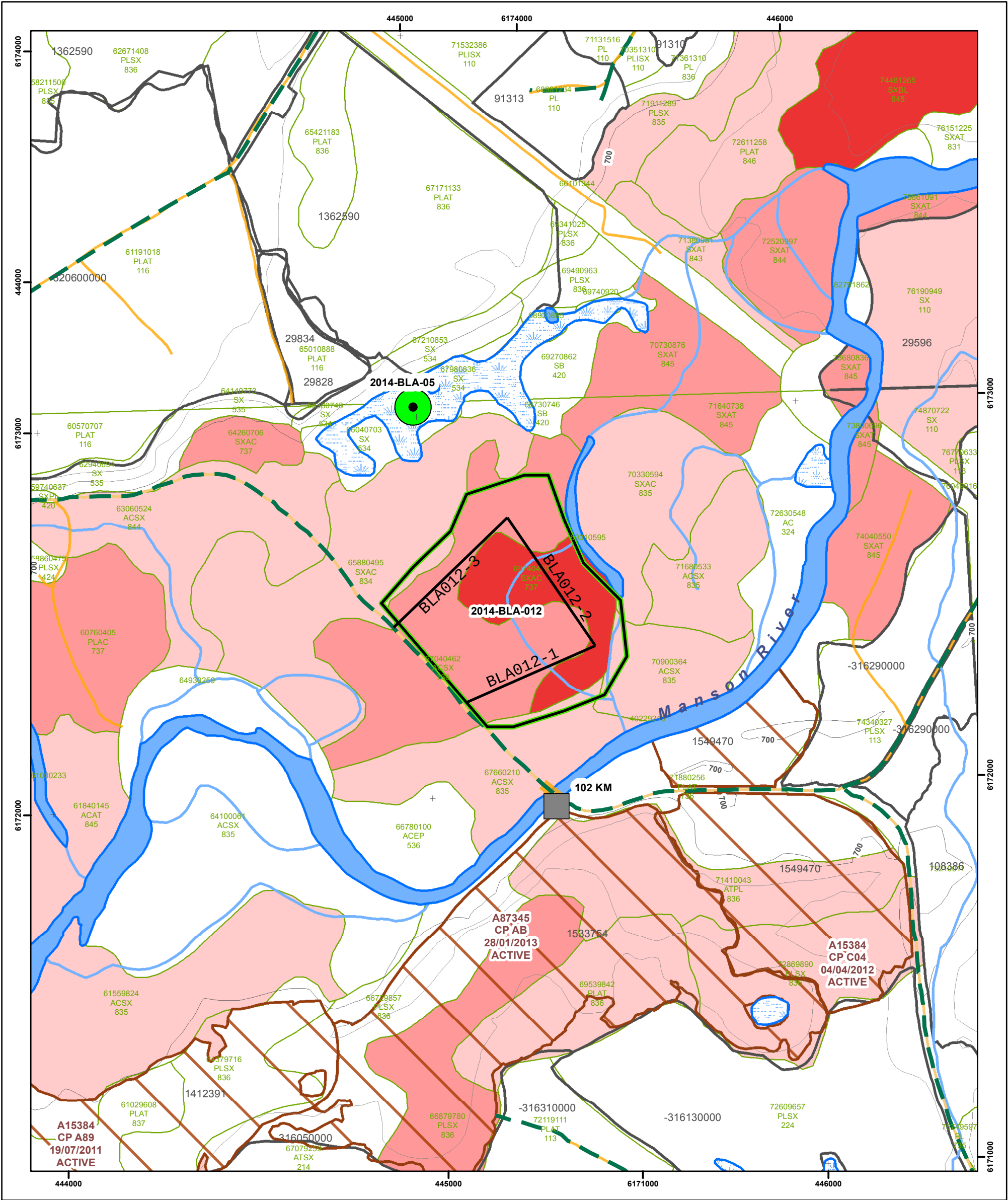
MANAGEMENT: (in decreasing preference)

Option #1:

Due to the current light attack on site, the area should be monitored the fall of 2015 to assess whether the population is expanding. The susceptible timber adjacent to this stand should be included in future surveys.

Option #2:

If possible the area should be explored for harvesting in the coming seasons. It will reduce the potential for spread as well as acting as an attractant for beetles potentially in adjacent stands.



Spruce Bark Beetle Field Map

Polygon Name: 2014-BLA-012

Landscape Unit/BMU: Blackwater

Region: Omineca

District: Mackenzie

Mapsheet: 093012

Hectares: 26.78

Scale: 1:10,000

When plotted on 11x17

Coordinate System: PCS Albers

Datum: North American 1983

Date Drawn: 07/02/2015

Drawn By: msnively

Map Features

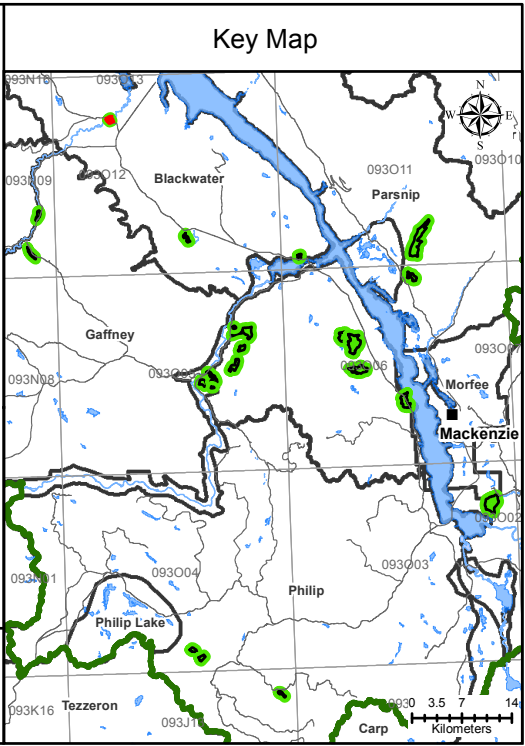
- Susceptible Spruce Bark Beetle Polygon
- 2014 Flight Points
- 2013 SB Hazard Rating (20% increments)
- Hazard Classes
 - Low/Med (21-40)
 - Med (41-60)
 - High (61-80)
 - Very High (81-100)
- VRI Polygon
- Cutting Permit
- RESULTS Opening
- Landscape Unit
- Road Permit Active
- Road Permit Pending
- Km_Marker_Points
- Communities

Protected Lands Designation

- First Nations Reserves
- Mackenzie District
- OGMA Legal Current
- Ungulate Winter Range
- Wildlife Habitat Area
- Ecological Reserve
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Spruce Bark Beetle Report 2015 Winter

2014-BLA-013

ADMINISTRATION

Polygon: **BLA013**

Hectares: **45.45**

Exact Location: **82km Finlay FSR**

Walkthrough Distance: **1625m** Grid Probe Distance: **0m**

Date: 2015.03.06

Crew: **DH/JH**

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

The site is generally flat, adjacent to old and new harvesting. This polygon has been managed as a woodlot for many years before being surrendered to the Province. There are several small creeks and wet openings scattered throughout. The stand is comprised of mature spruce with a minor component of immature balsam fir. There are pockets of dead pine from the mountain pine beetle.

Stand Susceptibility: **Moderate**

Access: **2wd on block road**

Other Considerations or Limiting Factors: **major riparian area, considerable harvesting has taken place in this area over the years.**

SUMMARY OF CURRENT INFESTATION:

Very little new attack was discovered but there is considerable attack from 2013 flight that will re-infest this spring. Attack prior to this is also significant. Blowdown is generally low, but there is current attack in some of the blowdown as well. At least a portion of this polygon was managed as a woodlot for many years, the trees remaining from those harvesting efforts are widely spaced, increasing wind speed through the stand reducing the likelihood of future attack. The stands close to the most recent harvesting are quite susceptible.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
282.5	0	37		56.2	
<i>Bark Sample Data (combined)</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
	5	1	0	1	1

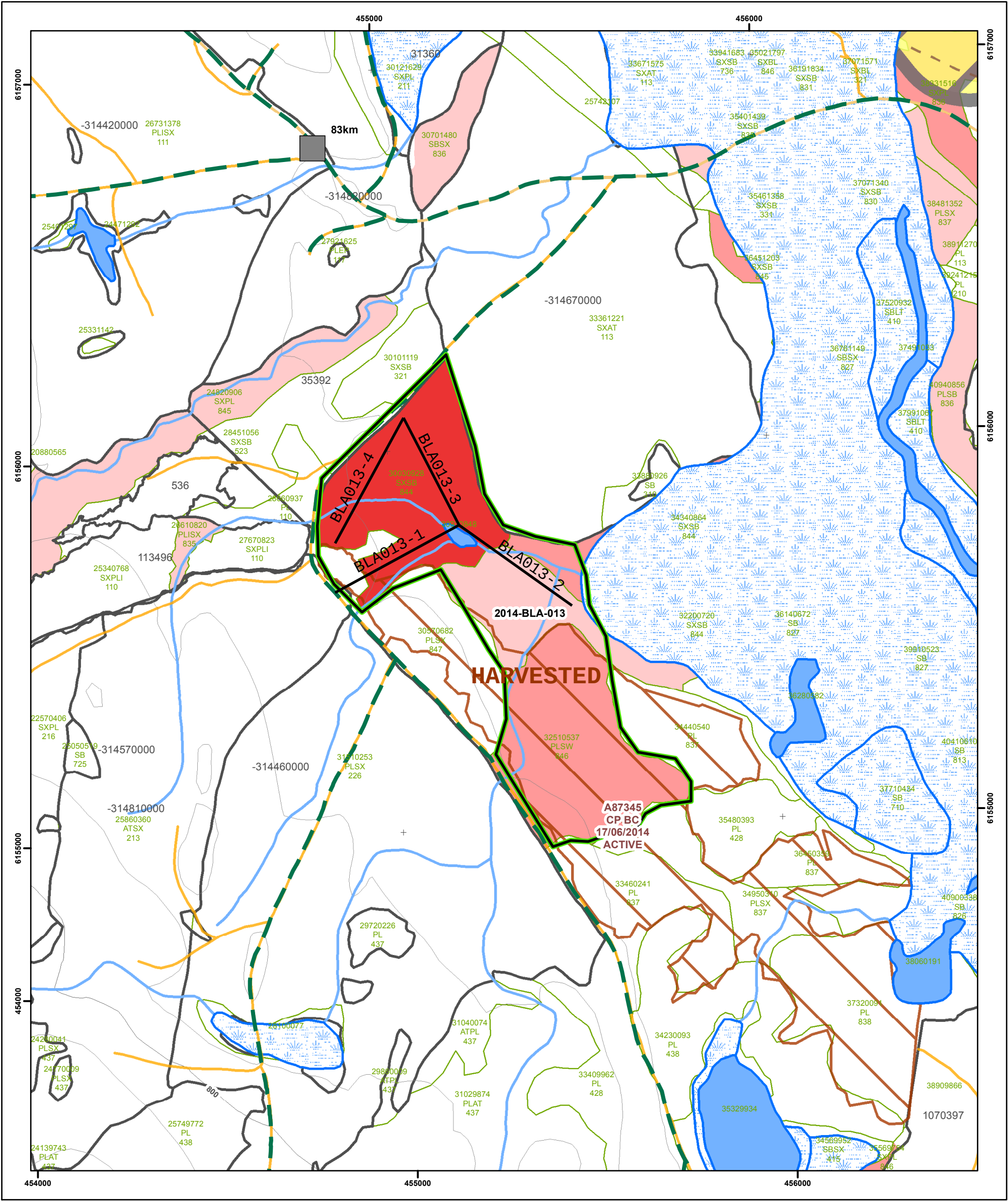
MANAGEMENT: (in decreasing preference)

Option #1:

There is little susceptible timber in the immediate vicinity but this stand should be monitored annually for population development. Currently there does not appear to be a large enough population that could be controlled with conventional trap trees. The main road and newly harvested areas in the vicinity should also be monitored annually for blowdown.

Option #2:

Monitor.



Spruce Bark Beetle Field Map

Polygon Name: 2014-BLA-013

Landscape Unit/BMU: Blackwater

Region: Omineca

District: Mackenzie

Mapsheet: 093012

Hectares: 45.45

Scale: 1:10,000

When plotted on 11x17

Coordinate System: PCS Albers

Datum: North American 1983

Date Drawn: 07/02/2015

Drawn By: msnively

Map Features

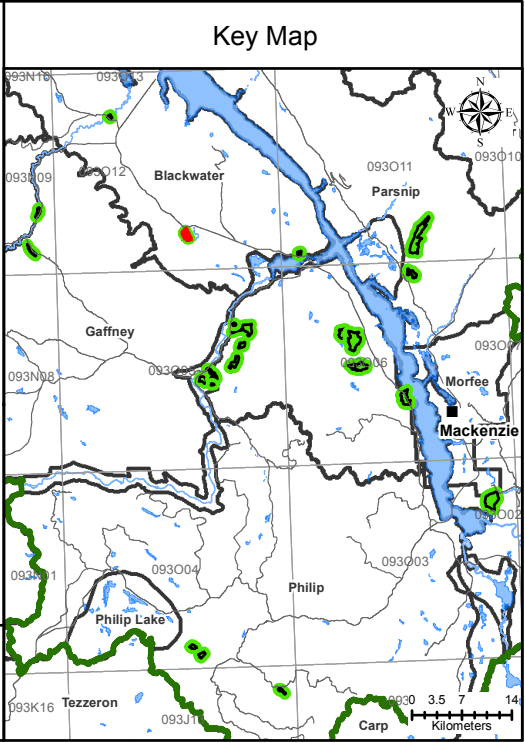
- Susceptible Spruce Bark Beetle Polygon
- 2014 Flight Points
- 2013 SB Hazard Rating (20% increments)
- Hazard Classes
 - Low/Med (21-40)
 - Med (41-60)
 - High (61-80)
 - Very High (81-100)
- VRI Polygon
- Cutting Permit
- RESULTS Opening
- Landscape Unit
- Road Permit Active
- Road Permit Pending
- Km_Marker_Points
- Communities

Protected Lands Designation

- First Nations Reserves
- Mackenzie District
- OGMA Legal Current
- Ungulate Winter Range
- Wildlife Habitat Area
- Ecological Reserve
- Protected Area
- Provincial Park
- Contour - Index
- Contour - Intermediate
- Streams
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Spruce Bark Beetle Report 2015 Winter

2014-BLA-014

ADMINISTRATION

Polygon: **BLA014** Hectares: **22.78** Exact Location: **1km on Blackwater 3000 rd**
Walkthrough Distance: **1560m** Grid Probe Distance: **0m** Date: **2015.03.08** Crew: **DH**

STAND INFORMATION

Site Description: (topography, terrain, timber types, stand age, influences)

This stand is located on a steep side hill above the Finlay FSR at approximately 65km. The polygon was comprised of mature pine with a minor component of spruce, but with the past mountain pine beetle epidemic in the area, nearly all of the pine are dead and have blown over in the last several years. The stand is quite open with immature and mature spruce scattered throughout. A healthy spruce and balsam understorey is beginning to fill in the gaps.

Stand Susceptibility: **Low** Access: **2wd via the adjacent secondary road**

Other Considerations or Limiting Factors: **steep slopes.**

SUMMARY OF CURRENT INFESTATION:

There is currently no live attack in this stand. There are however signs of past attack. No probe data was collected. It is expected that with a wider open stand, wind speeds through the stand should be high dissipating any pheromone plume, making it less susceptible to discovery by attacking beetles.

<i>Volume Healthy</i>	<i>Volume Year One Attack</i>	<i>Volume Year Two Attack</i>		<i>Volume Old Attack</i>	
0	0	0		0	
<i>Bark Sample Data</i>	<i>Entrance Holes</i>	<i>Adults</i>	<i>Larvae</i>	<i>Pupae</i>	<i>Young Adults</i>
<i>(combined)</i>	0	0	0	0	0

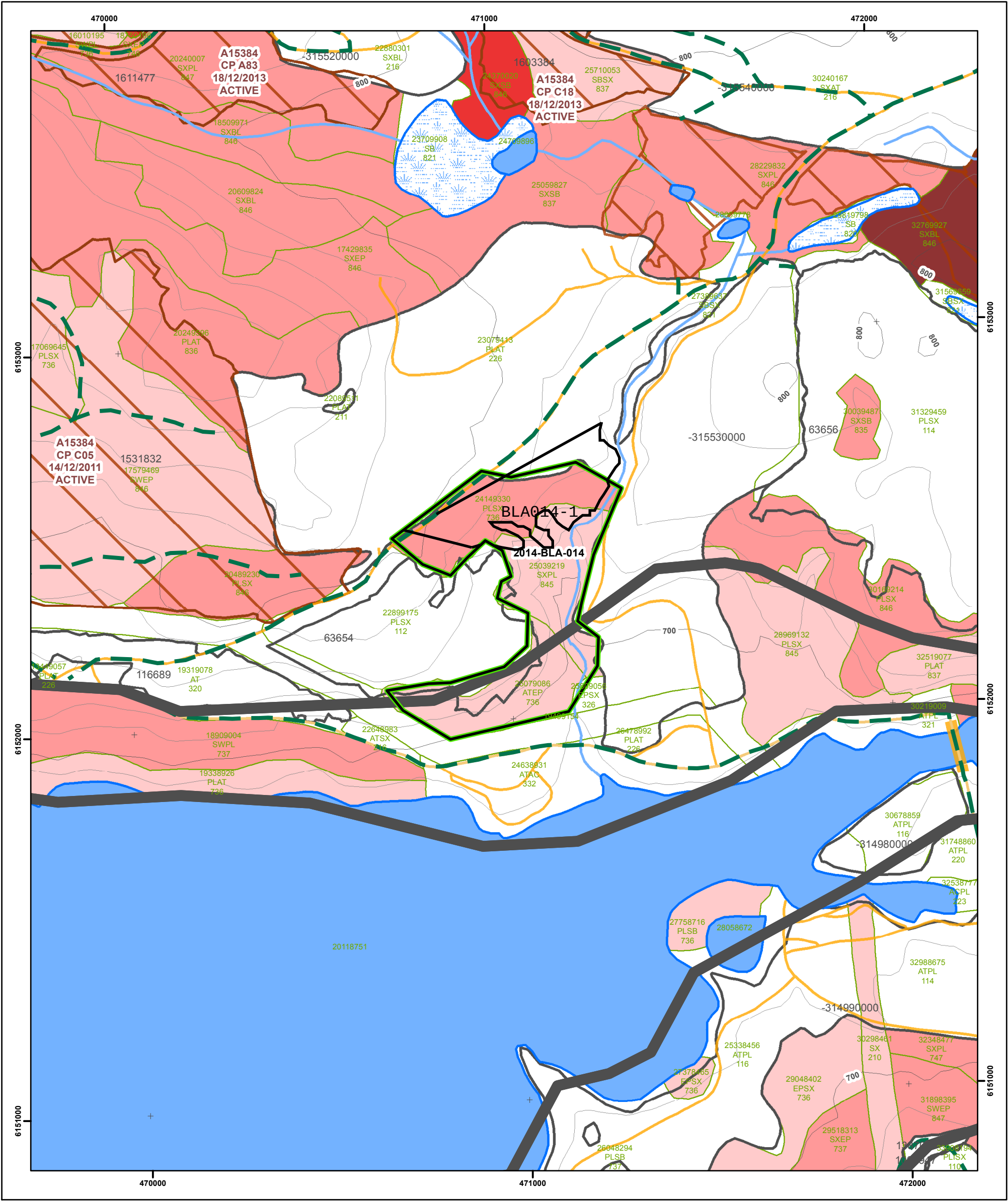
MANAGEMENT: (in decreasing preference)

Option #1:

Monitor

Option #2:

Leave



Spruce Bark Beetle Field Map

Polygon Name: 2014-BLA-014

Landscape Unit/BMU: Blackwater

Region: Omineca

District: Mackenzie

Mapsheet: 093O09

Hectares: 22.78

Scale: 1:10,000

When plotted on 11x17

Coordinate System: PCS Albers

Datum: North American 1983

Date Drawn: 07/02/2015

Drawn By: msnively

Map Features

- Susceptible Spruce Bark Beetle Polygon
- 2014 Flight Points
- 2013 SB Hazard Rating (20% increments)
- Hazard Classes
 - Low/Med (21-40)
 - Med (41-60)
 - High (61-80)
 - Very High (81-100)
- VRI Polygon
- Cutting Permit
- RESULTS Opening
- Landscape Unit
- Road Permit Active
- Road Permit Pending
- Km_Marker_Points
- Communities

Protected Lands Designation

- First Nations Reserves
- Mackenzie District
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