

NICOLA-SIMILKAMEEN INNOVATIVE  
FORESTRY SOCIETY

MOUNTAIN PINE BEETLE STRATEGY  
2008 ANNUAL REPORT

January 28, 2009

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as of January 1, 2009

## **1. Introduction**

The intent of this report is to provide a general update of the Mountain Pine Beetle infestation in the Merritt TSA and the harvesting activities of the IFPA licensees. This report satisfies conditions 4 and 5 of the IFPA extension conditions and covers the period from January 1, 2008 to December 31, 2008. This report reviews the accomplishments and plans of the licensees and highlights some comparisons with the previous reporting period. Included is a general description and summary of the beetle situation, a review of previous requirements, 2008 completed harvesting summary, and 2009 planned harvesting.

## **2. General Summary of Merritt TSA beetle levels**

The Merritt TSA continued to experience an expansion in red and green attack pine in 2008 but with an associated reduction in area due to harvesting, the amount of area impacted was less than anticipated. As indicated in appendix 2 the heavily infested and volume at risk went from 13,921,314 m<sup>3</sup> in 2007 to 12,193,343 m<sup>3</sup> in 2008. This is a reduction of approximately 12%.

Of note as well is the amount of red attack within these stands. Approximately 3,850,916m<sup>3</sup> of the heavily infested volume (56%) is greater than 30% red. This is a significant increase as a percentage of the heavy infest (44% in 2007); however, the amount of area greater than 30% red held fairly constant over the last year. This appears to be reasonably consistent with the MFR observations noted in Section 3.

By the end of 2009, the estimated “unaddressed” volume is expected to decrease from last years estimate of 11.4 million m<sup>3</sup> to 9.5 million m<sup>3</sup> when the IFPA licensee harvesting is taken into account. Further significant reductions in this unaddressed volume is expected over the next few years through the issuance of NFRLs to First Nations and through other tendering processes.

In 2007 there were several cases of older plantations with high level of both red and green attack. No specific observations were noted in 2008. It is anticipated that the beetle will not do as well in these immature stands and the majority of beetle attack is originating from adjacent mature stands. Once the beetle populations decline within a landscape unit the infestations in these plantations should subside.

Table 1 summarizes from appendix 2 the amount of heavily infested volume and volume >30% red attack by landscape unit.

<b>Landscape unit</b>	<b>Heavily infested m3</b>	<b>&gt;30% red m3</b>
Coldwater	350000	250000
Hayes	573823	187646
Lower Nicola	850000	775000
McNulty	8328	0
Otter	600000	500000
Similkameen	481574	156655
Smith-Willis	417441	74866
Spius	800000	300000
Summers	471873	221749
Swakum	800000	800000
Tulameen	905711	290000
Upper Nicola	595606	295000
<b>Total</b>	<b>6,854,356</b>	<b>3,850,916</b>

### 3. Beetle Overview Flight

The NSIFS Mountain Pine Beetle Strategy requires that a beetle overview flight be conducted either from the air or from viewpoints on road systems. These assessments were completed throughout the summer and early fall where warranted by the licensee. In many landscape units detailed flights are no longer required as all the lodgepole pine stands have a red attack component.

The original strategy required overview flights to be done by September 1 in order for the resulting information to be used in operational planning. As licensees have a large surplus of heavily infested stands the overview flight data is not as critical for determining development priorities.

Summary overview information provided by the MFR indicated that the rate of expansion decreased significantly in 2008. During the time frame from 2006 to 2007 the amount of red attacked area increased by 60% reaching 225000 ha in 2007 from 141000 ha in 2006. The amount of area considered red attack in 2008 increased by a modest 12% to 253000 ha from the 2007 area. A large factor in mitigating the expansion of the impacted area can be attributed to the aggressive harvesting of the beetle infested areas by the tenure holders within the TSA.

### 4. Ground Surveys

Informal ground surveys were conducted during cutting permit development. In most areas of the TSA there continued to be a significant increases in beetle infested timber although the expansion was not as pronounced as in 2007.

It is difficult to estimate a green to red ratio with the current trend towards mass flights and mass attacks. There are many accounts of stands with high levels of green attack and minimal red attack. In these cases it is assumed that the beetles did not generate from within the stand but are a result of a mass migration from adjacent areas.

## **5. Development Planning**

The volume submitted for approval was not reported as all IFPA licensees have moved to Forest Stewardship Plans and individual blocks are no longer submitted. Licensees all have a sufficient amount of heavily infested volume approved to prevent the necessity of harvesting greenwood.

## **6. Roads Ahead Strategy**

The relatively good access levels within the Merritt TSA and the nature of where the most significant beetle infestations are resulted in minimal need to pursue a roads ahead strategy. The majority of road construction in 2008 was in block roads as the most blocks are large and adjacent to existing mainlines.

## **7. Development Harvest Priorities**

All licensees have a surplus of high priority beetle stands within their operating area and it was not necessary to rank and prioritize stands throughout the TSA. It is estimated that the large majority of harvesting is planned in attack level 5 (>15%) which is the highest priority level.

Spruce bark beetle was also identified within the TSA and particularly in the Smith-Willis and the Similkameen landscape units. Harvesting may be directed to these areas to address the beetle and at the same time balance market demands. Proposed harvesting in the spruce beetle infested timber types is estimated to be less than 2% of the 2009 harvest plan.

## 8. 2008 Harvesting Completed (Jan 1 – Dec 31)

By the end of 2008 the NSIFS licensees harvested a total volume of 2 090 918 m<sup>3</sup> which is 99% of the planned harvest volumes for this period and 119 % of the available AAC. The 2008 harvest was approximately 7% higher than the 2007 harvest. Considering the poor market conditions experienced in the past year, this level of harvest (and recovery of damaged timber) is exceptional.

The total volume harvested was distributed across the following priority categories:

		2006	2007	2008
MPB	Heavily Infested	93.4%	93%	90%
	Volume at Risk	2.5%	3%	8%
	Blocks >70%	N/A	77%	84%
	HI + Vol@Risk	95.9%	96%	98%
Other	Other Salvage (blowdown)	2.3%	3%	1%
	Other (green wood)	1.8%	1%	0%

The 2008 harvesting was very similar to 2007 in terms of priority category and continues to consist primarily of heavily infested MPB stands and volume at risk to MPB.

In 2008 licensees again reported the volume harvested that was in blocks >70% PI volume. Licensees harvested 84% of the volume from >70% PI stands. The remaining volume was in Lodgepole Pine leading stands with most being 60 to 70 percent pine.

Other harvesting in greenwood was again necessary to either meet mill needs or to manage cutting permit expiry issues.

## 9. 2009 Planned Harvesting

For 2009, NSIFS licensees plan on harvesting a total volume of 2,118,759 m<sup>3</sup> which is 121 % of the total AAC for that period. This demonstrates the licensees' continued effort in increasing harvesting capacity, utilizing uplift volume, reducing beetle numbers and keeping unsalvageable losses to a minimum.

It is anticipated that greater than 90% of harvest will be in heavily infested stands and greater than 95% in heavily infested and volume at risk.

## **10. Conclusion and General Direction for 2009**

Licensees will continue to allocate greater than 95% of harvesting resources against beetle affected stands. Planned harvest levels for 2009 are slightly higher than the volume harvested in 2008 and will fully utilize the available cut for this period of time.

Licensees will continue to manage towards “Merritt TSA MPB Uplift Operational Subcommittee Guidelines” in their development and operations in 2009. This will result in increased environmental protection and consistent management strategies among licensees.

## Appendix 1

### NSIFS Mountain Pine Beetle Strategy IFPA Licensee 2008 Actual Harvest Volumes

	Core AAC	Jan 1, 2004 IFPA uplift	July 13, 2005 IFPA uplift	Total AAC	Planned cut 2008	Actual Cut 2008	2008 of Plan	%
Aspen	132,744	92,596	57,404	282,744	282,000	340,515		121
Aspen/Stuwix		0	190,000	190,000	275,000	239,754		87
Weyerhaeuser	413,556	0	70,575	484,131	609,000	651,707		107
Stuwix	950	179,405	85,000	265,355	327,221	293,460		90
Tolko	338,255	39,684	86,667	464,606	560,975	555,746		99
Ardew	35,100	19,015	10,354	64,469	65,000	9,736		15
<b>Total</b>	<b>920,605</b>	<b>330,700</b>	<b>500,000</b>	<b>1,751,305</b>	<b>2,119,196</b>	<b>2,090,918</b>		<b>99</b>

<b>Total m3 harvested in 2008:</b>	<b>2,090,918</b>	
<b>Breakdown of harvested timber</b>		
	<b>Volume (m3)</b>	<b>% of total</b>
> 70% PI stands	1,764,863	84%
<b>Category</b>		
	<b>Volume (m3)</b>	<b>% of Total</b>
Heavily Infested	1,883,936	90%
Volume at Risk	176,076	8%
Other Salvage	4,626	0%
Other	26,280	1%

## Appendix 2

### NSIFS Mountain Pine Beetle Strategy Summary of Beetle Priority Volumes and Harvest Plans as of January 1, 2009

Licencee	Landscape Unit	Priority Beetle Volume (m3)			2009 Harvest Plans (m3)	Unaddressed Volumes (m3)
		> 30% red	Heavily Infested Volume	Volume at Risk		
Weyerhaeuser	Hayes	17,646	58,823	1,101,050	69,650	1,090,223
	Similkameen	0	12,000	590,984	97,500	505,484
	Smith-Willis	49,866	332,441	1,360,550	138,700	1,554,291
	Summers	86,749	216,873	561,450	355,600	422,723
Aspen	Lower Nicola	400,000	400,000		200,000	200,000
	Spilus	200,000	400,000		100,000	300,000
	Hayes	20,000	140,000		97,000	43,000
	Swakum	800,000	800,000		100,000	700,000
	Summers	60,000	120,000		60,000	60,000
Ardew	Upper Nicola	70,000	70,000		35,000	35,000
BCTS	Upper Nicola	75,000	135,000	100,000	158,688	76,312
	Coldwater					
	Lower Nicola	75,000	150,000	100,000	38,145	211,855
	Summers	25,000	85,000	75,000	66,350	93,650
	Spilus					
	Otter					
	Tulameen	40,000	100,000	60,000	48,017	111,983
	Similkameen	150,000	450,000	200,000	104,633	545,367
Hayes	150,000	350,000	350,000	118,299	581,701	
Smith Willis	25,000	85,000	50,000	58,296	76,704	
Tolko	Upper Nicola	150,000	150,000			150,000
	Lower Nicola	300,000	300,000		100,000	200,000
	Spilus	100,000	400,000		100,000	300,000
	Coldwater	250,000	350,000		50,000	300,000
	Otter	500,000	600,000		250,000	350,000
	Summers	50,000	50,000			50,000
	Tulameen	250,000	800,000		50,000	750,000
Stuwix	Lower Nicola					0
	Hayes		25,000	75,000		100,000
	McNulty		8,328	145,775	104,103	50,000
	Otter					0
	Similkameen	6,655	19,574	90,922	35,000	75,496
	Swakum					0
	Summers			10,000		10,000
	Tulameen		5,711	146,204	51,915	100,000
Upper Nicola		240,606	322,052	124,291	438,367	
<b>Totals</b>		<b>3,850,916</b>	<b>6,854,356</b>	<b>5,338,987</b>	<b>2,711,187</b>	<b>9,482,156</b>

Note:

Heavily infested volume - >200 GA/ 20 ha.

Volume at Risk - 1 - 200 GA/ 20 ha., <2 km from a heavily infested area