



Purpose and Scope

The purpose of this document is to:

1. Provide the rationale and background to the corporate decision to deploy a limited waiver to the company procedure Critical Nesting Period (FR-G010) for the spring/summer period when and where Mountain Pine Beetle is locally active.
1. Outline procedures and responsibilities for carrying out the actions under this waiver with regards to applicable land base locations, timing, activities as well as communications and documentation.

This document only applies to private land properties containing pine stand mixtures and concentrations of Mountain Pine Beetle (MPB) infected pine. The waiver outlined in this document applies specifically to MPB stands where DMI's voluntary moratorium on felling and skidding during the critical nesting period of birds is in direct conflict with the timing of strategic MPB infestation control.

Background and Rationale

1. Affected EMS Procedure

FR-G010 Critical Nesting Period was developed (2005) as a voluntary corporate strategy to significantly reduce DMI harvest-activity impacts (felling, skidding) during the critical spring nesting period for the boreal mixed-wood region while maintaining an avenue for summer fibre-supply flows. DMI's objective is to substantially reduce conflicts with the primary period of annual nesting activity and peak seasonal nesting populations between the 3rd week of April and mid-July, by ceasing felling/skidding operations on regional crown and private lands during that period. The goal is an attempt to comply with federal Migratory Birds legislation and various other legislation forms addressing protected bird species.

DMI has occasionally encountered *extenuating circumstances* that require the evaluation and necessary deployment of time-specific or activity-specific waivers for established corporate procedure.

2. Background and Spring/Summer Mountain Pine Beetle Controls Strategy

Since 2006-07 the province of Alberta began actively deploying various local strategies to suppress and respond to large scale Mountain Pine Beetle incursions from the province of BC. Locally, these incursions have arrived from the south (2007 Silver Valley area south of the Peace River) and west through the Clearhills/Clear Prairie area (north of the Peace River) and are affecting pine in most areas of DMI's timber supply area. A number of 'infected' private land properties containing various mixtures of pine and other species are surfacing as landholders cooperate with Municipal Districts/Counties and/or the Province in attempting to address MPB infestations by **Level II harvest control treatments** (entire stand harvests).

This presents the strategic opportunity to harvest and process those concentrations of infected pine before the beetle-emergence or flight phase occurs and during beetle emergence period, as a contribution to the Alberta Government's efforts in suppressing expansion of the infestation. *Harvesting and timely processing of MPB-infested pine is a highly effective control mechanism to limit the increase and spread of MPB populations.*¹ June 15 has proven to be a target optimal date in Alberta for completing beetle-control harvest including hauling, processing, and wood residue disposal.² This typically marks a buffer point for the 'start' to beetle-flight periods, through which infection of new areas begins to occur with multiple waves of beetle-emergence flights during the following summer months. The beetle flight period typically ends before October 1st.

¹ SRD Forest Management Branch Directives history: 2006-05 + 2010-01 (Mtn Pine Beetle Log Management).

² SRD Forest Management Branch Directive 2006-05 repeatedly cites June 15th and October 1st as the key range of dates where risk of infestation transfer is at its peak (beetle emergence window). **It is therefore considered a 'restricted time window' prohibiting certain activities except by SRD designated Emergency Harvest Response for defined areas.** By example, 'log haul' of infested pine logs from any source type with bark attached is generally prohibited between those dates.





Consultation with local Forest Health expertise (SRD) confirmed that **regional beetle flights** were documented to have occurred initially in late June /early July, detected late July and suspected yet migrating as late as September, whenever suitable northern boreal seasonal temperatures arrive.³

Wood residue piles (hog fuel), were sampled and assessed during 2007 chipping trials (Silver Valley) for presence of surviving beetles or larvae.⁴ No live larvae nor beetles were observed within any bagged samples of hog generated from chipping of infested trees.

3. Trade-off Risk Assessment

Impacts to Migratory Bird nesting during this period clearly remain a risk, particularly for mixed-wood stand harvest-operations. Pure conifer stands exhibit slightly less species-diversity nesting. Risk of public complaint, or forest certification audit sampling of harvest-sites (dates, nesting window) are additional risks. Nevertheless, in the interests of extenuating circumstances and due diligence around the province's efforts to control beetle infestation advances, the company will consider deploying temporary, site-specific waivers of DMI's voluntary harvest restriction as a trade-off contribution to provincial insect control efforts.

Procedure

1. Land Base Locations

The waiver of FR-G010 will only apply if the stand meets the following criteria:

- a) Must be a private or crown land property in a specific location of MPB infestation.
- b) Must contain pine stand-mixtures (C, CD or DC mixed-wood), and
- c) Must have concentrations of infected pine, as determined by internal or external assessment of stands for active larvae presence.

Sites of predominant deciduous species or mixed-wood spruce-aspen sites will remain under the current procedure *Critical Nesting Period* (FR-G010), since they represent no benefit to beetle-control.

2. Timing

*De-barking and timely residue disposal (hogging by wood waste grinder, burning) is the fundamental control-mechanism.*⁵ Late June to mid July is the typical beetle emergence timing, however, the exact timing is dependant on suitable atmospheric temperatures. The period following that to October 1st is a less effective period for pre-empting infestation spread. MPB-control strategies officially prefer that harvesting and bark removal occur by June 15th prior to widespread beetle-emergence and flight phase. **Local SRD consultation suggests however that year-to-year some flights are likely to occur yet into September.**

³ DMI conducted a consultation with local SRD Forest Health expertise (Maximchuk: Jackman, June 5, 2007, Maximchuk: Witiw, June 15, 2007). Intent was to confirm approximate local beetle flight timing, characteristics and unique DMI chipping operation circumstances regarding debarking (chip bark content re: SRD 'attached bark' transport guidelines), for the purposes of deploying a DMI harvest/chipping strategy (pre flight and active emergence period) in contribution to infestation control.

⁴ 2007, June, DMI -Mountain Pine Beetle Harvest Pilot -Silvervalley Area (south Peace) Operations. "An Assessment of Risk and Mechanical Efficacy in Debarking and Beetle Survival/Transfer to Wood Residue (Hogfuel)"

⁵ SRD staff communication (Maximchuk: Jackman, June 5, 2007) clarified that bark 'residue disposal' timing directive (June 15 deadline), is not applicable to private lands and not as great a concern for chain flailed debarked & chipped wood. It also confirmed that DMI's chip-product bark content is under the SRD limit (2%), for transporting infected bark attached forest product. Additional communication (Maximchuk: Witiw, June 15, 2007), affirmed SRD caution and interest in sample confirming mortality effectiveness of portable chipper chain flail debarking process of infested pine.





3. Permissible Activities

DMI will waive its standing policy in order to permit felling/skidding during the critical avian nesting window (FR-G010) for the specific locations, stand types and timing identified above.

- The harvesting effort will be approached from a property ‘liquidation’ intensity to prevent missed infested trees, and to address possible newly infested trees.
- Deciduous trees interspersed with the target pine trees will also be harvested, since pine-stem harvest-activity in close proximity to any low-visibility nesting birds will negate any merit in otherwise attempting to avoid sensory disturbance stressors by delaying deciduous-stem harvest.
- Efforts should be made to avoid felling near any discoveries of active raptor nests (hawks, eagles, owls, falcons).
- Chipper processing of logs and grinder processing of wood-debris (hog) will occur on-site to meet DMI business needs and to prevent risk of beetle-infestation transfer to other areas.
- Bark content must remain under 2% to permit product transport between June 15 and October 1.

4. Communication and Documentation

- Such temporary waivers will be communicated for clear instruction to operations and planning staff (and contractors) to prevent confusion concerning the normal Critical Nesting Period procedure (FR-G010).
- A copy of this document will be placed on each appropriate private land contract file.
- Re-assessment of this initiative will occur for any future years where MPB infestations or control initiatives are locally active.

REVISION HISTORY

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