

# Interim Modifications to Biodiversity Update #7b August 2015

**Expires October 31, 2016**

## Background

In December 2007 the Biodiversity Committee reviewed two aspects of the guidance in Biodiversity Update #7b, in consultation with the MOFR Regional entomologist. These included the patch size requirements for sanitation harvest treatments within OGMA's and potential for additional harvest of beetle infested trees on OGMA edges and adjacent to existing roads. The review resulted in two recommended changes. The Biodiversity Committee also identified the need for better monitoring of the implementation and effectiveness of beetle suppression programs.

The Biodiversity Committee and the MOFR Regional entomologist also reconfirmed the importance of the current guidance in the update including:

- 1) the need to meet BMU level suppression targets before there is real value in entering OGMA's
- 2) the value of using traps trees as the major tool to deal with Fir and Spruce beetle infestations
- 3) the importance of careful stand level practises included in sections B and C of the Update.

In August 2015 the guidance in Biodiversity Update #7b was reviewed by the Forest Health Committee and the Regional entomologist to clarify wording to aid licensees in dealing with the growing Douglas-fir bark beetle population. A modification regarding the distance defining a contiguous infestation and a wording change to emphasize the importance of a commitment to address 80-100% of the known infestations before entering OGMA's is recommended. A submission deadline for licensees and an expiration date for the Interim Modification are also recommended to ensure the monitoring requirements stated in this document are completed.

## Interim Modifications Recommended

1. Modify the infestation size requirements for use of sanitation harvest treatments for Douglas-fir beetle in OGMA's using a sliding scale based on beetle population status. Population status will be determined for each district in late summer by the Regional Entomologist based on R-value data.

Douglas-fir beetle population status	Recommended Infestation size recommended before sanitation harvest is allowed in OGMA
Increasing ( $R > 1.3$ )	25
Static or decreasing ( $R \leq 1.3$ )	50

Note that patches smaller than this should be treated as indicated in Update 7b. Usually this means carefully applied traptree treatments.

2. Allow harvest of currently infested trees within 100 m of the OGMA boundary or within 100 meters of currently maintained roads within the OGMA. Non-target harvest or damage of trees greater than 27.5 cm must be less than 10% of the total volume of current attack harvested from each contiguous infestation. For the purposes of this guidance, "currently maintained roads" refer

to roads that, without surface modification or removal of any trees could accommodate a logging truck.

3. Modify the definition of a contiguous infestation to include all currently infested trees separated by no more than 100m from any other currently infested tree or trees. This distance follows the Bark Beetle Management Guidebook survey standards for a star probe.

4. All harvest allowed by these modifications should continue to follow the guidance from all other sections of update 7b.

### **Wording Change**

“Where firm written commitments to the District Manager are in place to:

1. Address 80-100% of the “ known” beetle infestations on crown provincial forest land within the BMU and
2. Address all known infestations on crown provincial forest lands within 500m of the infested OGMA

the recommended treatments within an OGMA to suppress bark beetle infestations can take place.”

This wording clarifies that the commitment to deal with infestations across a whole BMU is in place before planning treatments in OGMA.

### **Monitoring Requirements**

Better monitoring information on the implementation and effectiveness of beetle suppression programs is required for science-based management that balances beetle suppression with maintenance of ecological values in OGMA. Without this information, it is very difficult to make sound decisions on treatment alternatives. The Biodiversity Committee identified the following three questions and associated indicators that require ongoing monitoring:

#### **1) What proportions of the beetle infestations are adequately addressed in BMUs managed for suppression?**

- The number and proportion of known infestations that receive adequate suppression treatment within each suppression BMU. Adequate suppression treatments include:
  - 1) sanitation harvest with post-harvest trap trees,
  - 2) trap trees placed within 500 m of infestation, or
  - 3) anti-aggregation pheromone treatment for smaller infestations.
- Maps, by BMU, of known infestations including the treatment applied for each infestation.
- The relative treatment rate for OGMA and non-OGMA areas within each BMU.
- The volume removal by treatment type for OGMA and non-OGMA portions of each BMU.

#### **2) How effective are various treatment approaches at the stand level and BMU level in reducing beetle populations to endemic levels?**

- Year to year trends in number of infestation sites and total infested trees by BMU in relation to BMU level suppression approach and proportion of infestations treated.

- Comparison of the extent to which repeated treatment re-entries were required for dealing with comparable infestation sites treated with different treatment regimes.
- Beetle control effectiveness of a replicated and controlled sample of various stand level treatments.

### **3) Are harvesting and trap tree treatments in OGMA's meeting the stand level guidance included in update 7b?**

- The number and basal area non-target trees removed or damaged from a random sample of OGMA infestation sites in relation to the number and basal area of currently infested trees removed.
- Extent to which sanitation harvest uses existing skid trails.
- Extent to which stumps and logging debris meet recommended practises.
- Proportion of OGMA infested harvest sites which included post-harvest trap tree and/or anti-aggregation pheromone treatments.
- Extent to which harvest information reporting recommendations from update 7b are met for all OGMA harvesting operations.

This monitoring information must be clearly documented and circulated to industry and government partners in time to be evaluated before the next years treatments are implemented. **The following information from licensees is required by June 30, 2016 to report on the monitoring requirements:**

- **Treatment type and location, and**
- **Volume removed for each treatment.**

Additional longer-term work, to begin as soon as possible, should include:

- Intensive study of beetle management program effectiveness in the Knife Creek block of the UBC research forest in relation to other areas receiving more standard forest health suppression approach.
- The possible role of pre-emptive treatments such as thinning-from-below play in reducing risk and severity of beetle epidemics
- The degree to which climate change is affecting the possibility of controlling Douglas-fir and spruce bark beetle populations.

### **Review Process**

This interim process will be reviewed in late summer/fall including as assessment of the monitoring information. The purpose is to determine the effectiveness and ecological impact of the beetle suppression program in relation to OGMA's. Recommendations to RMT for continuance of this sanitation harvesting program in OGMA's will be based on the results of the review. The review will include the following:

- 1) adequate annual monitoring and reporting is completed,
- 2) beetle infestations are being treated to levels assumed for suppression BMUs,
- 3) stand level guidance is being fully met in the vast majority of cases (>75%),
- 4) monitoring demonstrates that beetle management on the stand and BMU level is providing effective beetle suppression.

Endorsed By:



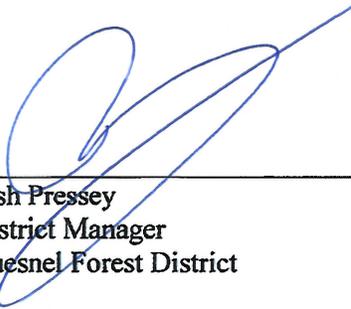
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