

Standard Operating Procedures

ARC/ORC File: 400-03 **Forest Health** (Management of MSMA Treatment Trees and Sites - Standard Operating Procedures)

Computer File Path: G:/BCTS/Publish/SOP/MSMA

Title; Forest Health; MSMA TREATED TREES and SITES – STANDARD OPERATING PROCEDURES

Policy Reference **N/A**

Legislative Reference **N/A**

Purpose of Standard Operating Procedure

This Standard Operating Procedure (SOP) provides management of known trees that have been treated with monosodium methane arsenate (MSMA) within the BCTS Babine Business Area.



Procedures

Within the Babine Business Area, MSMA was applied as one of the forest health management tools in dealing with the spread of the mountain pine beetle infestation. The application of MSMA was restricted to the Morice TSA between the early 1990's and 2003. This SOP focuses on forest management activities [defined as: block and road layout, road construction, harvesting and silviculture activities] where known trees that have been treated with MSMA within the Morice TSA BCTS operating areas. The objective of this SOP is to minimize the risk that known MSMA trees are cut, removed, harvested, milled or burned.

Identification and Tracking MSMA sites:

Planning:

1. The Planning Forester [PF] will ensure that all known MSMA treatment sites within BCTS operating areas, in the Morice TSA, are maintained in a GIS database as an ArcInfo layer that can be displayed in GENUS.
2. The GIS Technician, under guidance by the Planning Forester, will ensure that new sites that were previously unknown are added to the local [Nadina] database and reported to the MoFR Forest Health Technician for updating the Provincial MSMA database.
3. During the planning 'resource-check' stage of the proposed activity [i.e. TSL, FSR, Road Permits, Forest Licence to Cuts, FDP or FSP], the Planning Forester will ensure that the most current MSMA GIS database is being used to complete the resource-check. The Planning Forester will utilize the MSMA GIS database to identify areas of overlap within 100 m of known treatment MSMA sites and the proposed activity.

4. The Planning Forester will send out a map of the known MSMA sites that are located within or adjacent to the proposed Engineering and Harvesting related tenures and contracts.
5. For Silviculture contracts the contract coordinator reviews the MSMA layer for field activities overlapping with existing MSMA sites.

Encountering MSMA trees during forest management activities

1. Forest management activities are conducted through contracts and by BCTS staff.
 - Contractors: The contract will include MSMA site information and this SOP
 - BCTS Staff will utilize the known MSMA site layer to identify sites within or adjacent to areas proposed for forest management activities.
2. As a contract condition *the* contractor is expected to train his/her workers regarding the attributes of MSMA treated trees as per the SOP, so that the workers can identify MSMA trees in the field. Spatial records of treated sites are only available from 2001 to 2003. While out in the field, there may be unrecorded MSMA treated trees encountered during field activities, therefore, workers are expected to be looking for MSMA trees at all stages of field work.
3. If known mapped MSMA sites are identified within the proposed activity then the contractor or BCTS Forest or Engineering Technician will field confirm site[s] as per the SOP. If the treated trees are not properly identified, then step #4 below will be followed.
4. If previously unidentified MSMA sites are found within or adjacent to a proposed activity, then the contractor or BCTS staff must follow EFP 01 and EFP 03 EMS procedures which requires workers to stop work in the identified area and also follow step 5 [below] of this SOP.
5. All MSMA sites must be identified and GSP'd as per the SOP.
6. The Site Plan or the existing silviculture prescription will be amended to incorporate the location of any new MSMA treated trees [as reserve or Wildlife trees] that are within or adjacent to the block and include a statement that all identified MSMA trees are 'not to be cut, removed, milled, burned or harvested'.
7. Where MSMA sites have been identified during forest management activities, BCTS staff will field confirm that the trees are identified as per the SOP prior to operational activity and document this confirmation on the TSL and opening file.
8. Where MSMA sites have been identified as per #7 above and those sites pose a safety concern and/or operational impediment to completing an forest management activity, an action plan will be prepared by BCTS staff in consultation with the Licensee and approved by management, prior to implementation, that meets the objectives of this SOP.

Known MSMA sites:

Contract Package Preparation:

1. The Forest or Engineering Technician will review all field related information [Resource Check, SP, MSMA map] to ensure that any known MSMA trees are identified within or adjacent to the forest management activity
2. Documents for TSL's, Cutting Permits, Road Permits (RP), or Forestry Licence to Cuts (i.e. *a contract doesn't approve the cutting*) awarded by BCTS within the Morice TSA will include a clause that MSMA trees are reserved from cutting (Clause 2.10).
3. As MSMA trees are not to be cut, a safe work zone around the site will be established prior to carrying out further field activities. The known MSMA trees/sites are to be identified on a map in the prework checklist.

4. Known MSMA sites within or adjacent to a block or road scheduled for treatment, will be identified in the tender packages for contracts TSL's.
5. Prior to the prework meeting, the Conformance Technician [TSL's] or Contract coordinator [contracts] will confirm MSMA sites were field verified.

Prework meeting:

1. Discuss this SOP and requirements with Licences, Permittees and Contractors (LPC).
2. A project risk rating will be completed for all TSL's and contracts. If the proposed activity includes a MSMA site, the risk rating is automatically labelled as **high** and a field visit as part of the prework meeting is required.
3. LPC's are expected to document on Prework report forms (EMS CHK 001 and 002) the location of any MSMA trees and strategies to ensure they are not at risk of being cut. The prework will review the MSMA SOP procedures if MSMA trees are accidentally cut and/or if previously unknown MSMA trees are discovered,

MSMA sites accidentally cut:

1. If MSMA trees are cut, then EFP 01 and EFP03 of the EMS procedures must be followed. These procedures state that the contractor will stop work in the area and advise the project supervisor and the BCTS representative of the situation. An incident report form (EMS CHK-007) must be completed by the LPC and submitted to the BCTS representative. The Forest or Engineering Technician will report any such incidents to their supervisor who will advise management immediately upon notification. Subsequent operations in the area may only commence upon verbal or written approval by the BCTS representative.
2. BCTS staff or CSO must follow EOP – 06 in response to any incident reported and complete an incident report in GENUS - ITS.

Monitoring

1. During the Final inspection for TSL's or during contract final inspections, the conformance technician or contract coordinator will inspect the MSMA trees/site[s] to ensure that this SOP has been complied with. If the site has been impacted, it will be recorded as an incident in GENUS ITS with the BCTS representative to follow the instructions in #2 above.

Attributes of MSMA trees (to ensure identification in the field)

- Frill around circumference of tree, placed as low as possible on the stump.
- Dated and initialled tags stapled onto the treated tree.
- Treated trees are spray painted
- An example of what a MSMA treated tree looks like is below:



Marking requirements for MSMA trees discovered during block layout:

Individual MSMA tree(s) will be flagged with pink with; black “no harvest zone” writing and yellow with black ‘do not cut’ writing, identifying the tree as reserved from harvest. In addition, each tree will be clearly painted in red with the letters **MSMA** identifying it as a MSMA treated tree.

Groups of trees can be GPS located as a polygon which will be flagged with pink with; black “no harvest zone” writing and yellow with black ‘do not cut’ writing, identifying the outer boundary as reserved from harvest. Each tree forming the outer boundary will be flagged and enough trees painted in red, with the letters **MSMA** to clearly identify the outer boundary as a MSMA treated site. The number of trees within the polygon will be counted and any treatment information discovered on site, will be recorded and reported to the Planning Forester.

GPS/Digital tracking

Individual MSMA trees are tracked/stored in our ‘layout point’ layer - this layer is stored in Victoria with our Genus layers but is not tracked in Genus Production. The layer is stored in Victoria so that we can access the layers through Genus Geo and it can be added into any template. We can add MSMA polygons to the ‘layout-poly layer’ - stored in the same place, for the same reason.

The polygons will be feature type AOC (Area of Concern) in the 'layout-poly' layer. If tracking these with a hand held - then there will not need to be any specific GPS standards - just collect points or polygons lines in BCAlbers and export as shape files with comments and GIS will load them into the 'layout point' or 'layout poly' layers.

Database Management


Contractor or BCTS staff to submit to Planning Forester, GIS Technician and the MoFR Forest Health Technician the GPS locations of individual or group sites for inclusion into MSMA GIS database. This information will include the #of treated trees, size [ha] and any additional supporting information if known.

Distribution

- Posted on LAN under G:/BCTS/publish/SOP/*msma.doc*.
- Posted on the Provincial Database [LRDW]
- Signed revision in Business Officers Office – SOP Binder

Approved by:

Date Approved: *Revised SOP signed March 6, 2008* *DJS*


Debbie Janning-Stewart, TSM

April 28/08