



BCTS
BC Timber Sales
Kamloops

BCTS Kamloops
Standard Operating Procedure (SOP) for
Management of MSMA Treated Areas

Purpose

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

Procedures

Within the Kamloops 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 occurred between the late 1980's and 2004. 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 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 GIS Analyst [GIS] will ensure that all known MSMA treatment sites within BCTS operating areas are maintained in a GIS database as an ArcInfo layer that can be displayed in GENUS. The layer file is:

F:\tka_root\layer_files\forest_health\MSMA Treatment Areas.lyr

2. The GIS Analyst, under guidance from operational staff, will ensure that new sites that were previously unknown are added to the local database and reported to the MFR 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 above MSMA GIS layer to identify areas of overlap within 100m of known treatment MSMA sites and the proposed activity.

4. The Planning Forester will create a map of the known MSMA sites that are located within or adjacent to the proposed Engineering and Harvesting related tenures and contracts, and will also create a Task in Genus.

5. For Silviculture contracts the silviculture map templates will show the location of all known MSMA treated trees.

Encountering MSMA trees during forest management activities

1. The project map will include MSMA site information and this SOP.

2. The licensee/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.
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.
4. If previously unidentified MSMA sites are found within, or adjacent to, a proposed activity, then the licensee/contractor or BCTS staff must stop work in the identified area and also GPS their location.
6. The Site Plan 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'. The GPS locations of individual or group sites will be given to the GIS technician for inclusion into MSMA GIS database. This information will include the #of treated trees, size [ha] and any additional supporting information if known.

Known MSMA sites:

Contract Package Preparation:

1. The Forest or Engineering Technician will review Tasks in Genus 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 awarded by BCTS within the Kamloops BA will include a clause that MSMA trees are reserved from cutting (Clause 12.04).
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 the project map.
4. Known MSMA sites within or adjacent to a block or road scheduled for treatment, will be identified in the safety and highlights package for TSL's.

Pework 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, and includes machinery, 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 the strategies to ensure the MSMA trees 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 intentionally cut:

1. Where MSMA trees have been identified and those sites pose a safety concern and/or operational impediment to completing a forest management activity, a written action plan will be prepared by BCTS staff in consultation with the Licensee and approved by management, prior to implementation
2. When MSMA trees have been cut, they must be appropriately marked or rendered useless so they will not be sent to a mill, or processed onsite.

MSMA sites accidentally cut:

1. If MSMA trees are accidentally cut, then the contractor will stop work in the area and advise the project supervisor, and the BCTS representative of the situation. An incident report form must be completed. Subsequent operations in the area may only commence upon verbal or written approval by the BCTS representative.

Monitoring

During the Final inspection, the project administrator will inspect the MSMA trees/site[s] to ensure that this SOP has been complied with. If the plan dealing with the MSMA trees was not followed, it will be investigated as an incident.

Personal protection

1. While working around MSMA treated trees and sites, workers are required to wear, long sleeved shirts, long pants, socks, shoes, and gloves
2. If MSMA trees are being cut, workers are required to wear safety glasses or goggles.

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 orange 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 orange 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 GIS analyst.

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.