



Ministry
of Forests,
Lands and
Natural
Resource
Operations



VEGETATION MANAGEMENT STANDARDS (Manual Methods)

Effective July, 2012

These standards apply, in addition to the General Standards for Ministry Funded Programs (FS 1001), or FS1000 for internal Ministry contracts, to all manual Vegetation Management activities carried out under Ministry Funded Programs.

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ARTICLE 1: DEFINITIONS AND INTRODUCTION

1.1 In this document, the following words shall have the following meanings:

“Approved Vegetation Management Quality Inspection System” means the Ministry of Forests, Lands and Natural Resource Operations’ current Vegetation Management Quality Inspection System in effect immediately prior to the commencement of Work **or** another similar system approved in writing by the Ministry Representative prior to the commencement of Work.

“Current Brushing” means Vegetation Management on an area where there is a legal obligation to establish a free growing stand or Forests for Tomorrow is funding reforestation and the establishment of a free growing stand.

“Conifer Release” means Vegetation Management on an area that is satisfactorily restocked but not free growing due to broadleaf trees or shrubs overtopping the Crop Trees where

- (a) harvesting commenced prior to October 1, 1987, or
- (b) the area had achieved free growing but is no longer free growing.

“Crop Tree” means a tree of a Specified species that meets any additional Specified criteria (such as minimum height, form and vigor), and is expected to grow to a merchantable size without further treatment or after Vegetation Management.

“Crop Tree Damage” means damage to a Crop Tree that was caused by Vegetation Management, and results in

- (a) a cut, exposing the cambium or wood, on more than one-third of the circumference of the main stem;
- (b) a cut or scrape to the main stem that exposes more than five cm of cambium or wood; or
- (c) breakage or cutting of greater than thirty percent of the live branches.

“Ministry Representative:” means

- (a) a person appointed as a Ministry Representative pursuant to a Recipient Agreement,

- (b) a person who is authorized through an implementation contract to act on behalf of the Ministry Representative for purposes of these Vegetation Management Standards, or
- (c) a Ministry of Forests, Lands and Natural Resource Operations employee who is appointed to act as the Ministry Representative for purposes of these Vegetation Management Standards.

“No-treatment Zone” means an area within which no Vegetation Management must take place.

“Slash Removal Zone” means an area within which slash created by Vegetation Management is removed.

“Vegetation Management” means the cutting, girdling or other Specified treatment of vegetation in the vicinity of a Crop Tree for the purpose of improving the survival and growth of the Crop Tree.

Selection of Areas for Conifer Release

- 1.2 Conifer Release must only be conducted on areas that are satisfactorily restocked with sufficient healthy, well spaced Crop Trees per hectare that possess adequate vigor to respond with improved growth after Vegetation Management.
- 1.3 Avoid conducting Conifer Release in areas where the majority of well spaced coniferous trees have been overtopped by broadleaf trees and woody shrubs for prolonged periods of time resulting in the conifers having inadequate vigor to make improved growth after Vegetation Management.
- 1.4 Overtopped conifers with inadequate vigor to make improved growth after Vegetation Management may have several of the following characteristics:
 - (a) significantly reduced stem caliper compared to similar aged trees growing on the same site without overtopping broadleaf trees or woody shrubs,
 - (b) poor crown development (a significantly reduced complement of needles, obvious shade needle development or spindly short lateral branch development resulting from the tree concentrating on height growth in search of light),
 - (c) a pattern of reduced annual leader growth compared to similar aged trees growing on the same site without overtopping broadleaf trees or woody shrubs (may not occur on spindly trees trying to find light),
 - (d) leader whipping or forking from contact with overtopping broadleaf trees or woody shrubs,
 - (e) spindly stem caliper that puts the coniferous tree at increased risk of snow press or snow breakage.
 - (f) height that is < 70% of the overtopping broadleaf trees or woody shrubs,
- 1.5 The condition of well spaced conifers in potential conifer release areas could range from trees that are clearly free growing without competing vegetation, to trees that are encroached by broadleaf trees or woody shrubs that would benefit from vegetation management and trees that have been badly suppressed for prolonged periods of time by competing vegetation and are not expected to respond positively to vegetation management. When selecting older areas for conifer release care must be taken to avoid treating areas where the majority of the well spaced conifers are already free growing or weakened beyond the point they will benefit from vegetation management. Conifer release treatment should be carried out where the majority of Crop Trees will benefit from vegetation management.

ARTICLE 2: VEGETATION MANAGEMENT STANDARDS

General Requirements

- 2.1 Despite any requirement that is Specified on a per hectare basis, all Vegetation Management requirements must be met throughout the entire Work Area.

Work Plans

- 2.2 Where any of the following is not specified in a Treatment Plan it must be Specified by Treatment Unit in a Work Plan:
 - (a) the Crop Tree species in their order of preference;
 - (b) the additional criteria of Crop Trees, if any; (minimum height, health, form & vigor)
 - (c) the target species of vegetation to be treated;(be sure to include all species to be treated)
 - (d) the method of treatment

- (e) target number of Crop Trees to be brushed per hectare
- (f) the minimum Specified treatment radius around the stem of a Crop Tree where the target species of vegetation must be treated or a requirement to treat virtually all broadleaf trees of a Specified species;
- (g) the height, if any, below which Specified target species are not required to be treated;
- (h) the species of mandatory broadleaf leave trees (if any) that must not be cut (except possibly for safety);
- (i) the order of preference for any optional broadleaf leave tree species based on potential commercial value;
- (j) the minimum distance (stem to stem) that any optional broadleaf leave trees must be from Crop Trees (shouldn't be closer than the brushing treatment circle radius around Crop Trees);
- (k) the locations, if any, and widths of Slash Removal Zones and No-treatment Zones;
- (l) the maximum height of slash resulting from a manual cutting treatment;
- (m) any other treatment specifications that are necessary, and
- (n) if Vegetation Management is to be carried out in a riparian management area, any measures necessary to protect the applicable stream, wetland or lake and riparian environment.

Treatment

- 2.3 Subject to section 2.5, every stem of a Specified target species that is designated for treatment or within the Specified treatment radius around a Crop Tree must be treated in accordance with the Ministry Standards, the Approved Vegetation Management Quality Inspection System and the specifications of treatment plans and work plans.
- 2.4 If a broadleaf tree or other vegetation that is not required to be treated is cut or girdled, it must be treated in accordance with the specifications outlined in sections 2.8 to 2.10 below.
- 2.5 When conifer release is carried out, care must be taken to avoid indiscriminately cutting or girdling all commercially valuable broadleaf trees in areas where there are no vigorous coniferous Crop Trees within (3) meters (stem to stem) of one or more much larger broadleaf trees. Where one or more broadleaf trees occupy a space where there are no vigorous coniferous Crop Trees within (3) meters, the best commercially valuable broadleaf tree should be retained as an optional leave tree to produce potential merchantable volume, provide biodiversity or become a future wildlife tree. The best commercially valuable broadleaf tree will be the largest, most vigorous, healthy tree with good stem form for potential harvesting and forest products manufacturing.
- 2.6 Crop Trees must be left uncut and free of Crop Tree Damage.
- 2.7 Except to provide worker safety, Wildlife Trees and any mandatory leave trees must not be cut or damaged.

Cutting Specifications

- 2.8 If a Specified Treatment Type is cutting:
 - (a) the cut portion of the stem must not be attached to the stump;
 - (b) the stump angle of a cut stem must not exceed 30 degrees from horizontal;
 - (c) the stump height must not exceed 30 centimetres from the point of germination; and
 - (d) no live limbs must remain on the stump.
- 2.9 A tree that is required to be cut must be girdled if it cannot be cut without damaging a Crop Tree.

Girdling Specifications

- 2.10 Unless otherwise Specified, if trees are girdled, the girdle must
 - (a) be located below the lowest live limb, and

(b) consist of a single, continuous girdle band around the entire tree trunk that is a minimum of 2.0 cm in vertical width and that completely removes the bark and cambium over its entire width.

- 2.11 Despite any other requirement herein, unless otherwise Specified, a tree must not be girdled if it is within one tree length of a road or trail that provides vehicle access or is frequented by hikers.

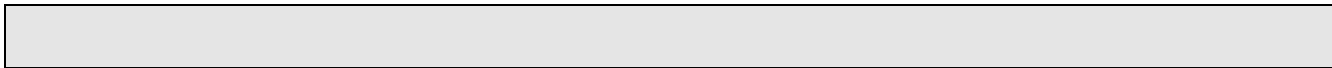
Treatment of Slash

2.12 Unless otherwise Specified, slash resulting from the current Vegetation Management must be removed and redistributed within the treated Work Area if it occupies any of the following Slash Removal Zones:

- (a) a Slash Removal Zone identified in a treatment plan or work plan;
- (b) a road, road-bank, stream, ditch, or fireguard;
- (c) a well used cattle or game trail; or
- (d) adjacent standing timber.

2.13 Slash must not be left leaning against a Crop Tree.

2.14 The height of slash created by a manual cutting treatment must not exceed the maximum slash height specified in a treatment plan or work plan.



ARTICLE 3: INSPECTION, NOTIFICATION & PAYMENT

Vegetation Management Quality Inspection

3.1 All Work must be inspected by a person (the “Inspector”) who is:

- (a) the Registered Professional Forester (RPF), or operates under the direction of the RPF, who will sign and professionally seal reports for the Work;
- (b) experienced and competent in conducting inspections of Vegetation Management operations;
- (c) familiar with the Treatment Plans and Work Plans for the Work Areas; and
- (d) not engaged in the direct conduct of the Vegetation Management operations.

3.2 An Inspector must inspect the Work in accordance with an Approved Vegetation Management Quality Inspection System in a timely manner to ensure all Work is performed to the Ministry Standards.

Determination of Satisfactory Treatment

3.3 An area may be declared satisfactorily treated when:

- (a) at least 85% total performance quality is achieved under the Ministry’s Vegetation Management Quality Inspection System or at least 85% performance quality is achieved in accordance with criteria documented in an alternate Vegetation Management Quality Inspection System that is approved in writing by the Ministry Representative;
- (b) the average Crop Tree damage does not exceed 3% on the area; and
- (c) there are no contiguous areas greater than one tenth (1/10) hectare (or larger minimum area that may be specified by the Ministry Representative), that do not meet the performance quality and crop tree damage requirements.

Requirement to Notify the Ministry Representative

3.4 Further to the notification requirements contained in the General Standards for Ministry Funded Programs (FS 1001), a Recipient must immediately notify the Ministry Representative whenever an inspection reveals:

- (a) on any contiguous area greater than one-tenth (1/10) hectare (or larger minimum area that may be specified by the Ministry Representative)
 - i) total performance quality to be less than the minimum acceptable standard of eighty-five percent (85%), and the nature and extent of the errors are such that total performance quality cannot be raised to at least 85%;
 - ii) Crop Tree damage exceeds 3%; or
- (b) a Wildlife Tree that did not pose a threat to worker safety has been cut.

Payment for Work

- 3.5 Payment for Vegetation Management shall be in accordance with the Approved Vegetation Management Quality Inspection System.