



Ministry
of Forests



FIA MECHANICAL SITE PREPARATION STANDARDS

Effective April 1, 2005

These standards apply, in addition to the [General FIA Standards \(FS 1001\)](#), to all mechanical site preparation activities funded under the Forest Investment Account (FIA).

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ARTICLE 1: DEFINITIONS

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

"Approved Site Preparation Quality Inspection System" or **"Approved SPQI System"** means the inspection system contained in this document **or** another similar system approved in writing by the District Manager prior to the commencement of Work;

"No-treatment Zone" means an area within which no site preparation takes place;

"Soil Disturbance" means the soil disturbance caused by a forest practice on an area, including

(a) areas occupied by excavated or bladed trails of a temporary nature,

(b) areas occupied by corduroyed trails,

(c) areas of dispersed disturbance,

(d) compact areas, and

(e) as further defined in the [Soil Disturbance Definition Document \(FS 759E\)](#) which forms part of these standards;

"Treatment Type" means a particular method of mechanical site preparation to be applied to a Work Area, and may include equipment specifications, treatment objectives and treatment specifications.

ARTICLE 2: SITE PREPARATION STANDARDS

General Requirements

2.1 Despite any requirement that is Specified on a per hectare basis, all standards and requirements must be met throughout the entire Work Area, so that prepared sites are as well distributed as possible.

2.2 Unless otherwise specified in a Treatment Plan or a Work Plan, sites must be prepared in accordance with the standards and practices in the [Silviculture Manual](#).

Work Plans

2.3 Where any of the following is not specified in a Treatment Plan, a Work Plan for mechanical site preparation must contain, by Treatment Unit:

- (a) a Work Plan map showing
 - i) the boundaries of Treatment Types,
 - ii) No-treatment Zones,
 - iii) riparian management areas,
 - iv) wildlife retention patches,
 - v) designated stream crossings authorized by a District Manager,
 - vi) machine-free zones for tracked or wheeled machinery,
 - vii) the location of any Resource Feature or Wildlife Tree that must be avoided, and
 - viii) any other areas which must be avoided;
 - (b) treatment specifics for each Treatment Type, including
 - i) the maximum limits for Soil Disturbance (including limits that may be temporarily exceeded),
 - ii) equipment type and standards,
 - iii) treatment objectives, including the target number of prepared spots/ha,
 - iv) treatment specifications, including the minimum size of a prepared spot; and
 - (c) any specifications that are necessary for the avoidance of Damage.
- 2.4 Unless otherwise approved by a District Manager, the maximum limits for Soil Disturbance must not exceed limits permitted under Forest Practices Legislation.

Practices

- 2.5 Tracked or wheeled machinery must not:
- (a) travel within 5 m of a stream bank, except as may otherwise be approved by a District Manager; and
 - (b) enter a machine-free zone specified in a Work Plan, except in emergency circumstances.
- 2.6 Machinery must not be fuelled or serviced in a Riparian Management Area of a stream or wetland or within 30 m of a lakeshore, except in the case of equipment breakdown.

ARTICLE 3: INSPECTION & NOTIFICATION

Quality Inspection – General

- 3.1 Unless otherwise Specified, the methodology given in this Article shall form the basis for the Approved Site Preparation Quality Inspection System.
- 3.2 All Work must be inspected by a person (the “Inspector”) who is:
- (a) the Registered Professional Forester (RPF), or operates er the direction of the RPF, who will sign and professionally seal reports for the Work,
 - (b) experienced and competent in conducting inspections of site preparation operations,
 - (c) familiar with the Treatment Plans and Work Plans for the Work Areas, and
 - (d) not engaged in the direct conduct of the site preparation operations.
- 3.3 An Inspector must inspect the Work in accordance with an Approved SPQI System in a timely manner to ensure all Work is performed to the FIA Standards.
- 3.4 Where a visual inspection indicates Soil Disturbance on any area 1/10th of a hectare or larger is or may be in excess of allowed limits, the Inspector must additionally perform a soil conservation survey in accordance with the [Soil Conservation Surveys Guidebook](#).
- 3.5 The Inspector must:
- (a) install plots in accordance with the [Stocking and Free Growing Survey Procedures Manual](#);

- (b) mark quality inspection plots in the field and record them on a survey map such that the District Manager can locate the plots for a period of up to three months after their establishment or until they may be covered for an extended period by snow, whichever is sooner; and
- (c) record the required information for each plot on a plot card.

Plantability Survey

- 3.6 Where preparing the site for planting is the objective of the Treatment Type, the Inspector must evaluate performance quality by means of a plantability survey and:
- (a) for the purposes of this section, must define a prepared spot as an area which has been mechanically modified by removing slash, vegetation, and exposing mineral soil or a favourable mixture of mineral soil and organic matter in a configuration that will promote seedling survival and growth and as may be further Specified;
 - (b) must install plots of 0.005 ha (50m² - 3.99 m radius) in size;
 - (c) must at each plot, measure,
 - i) the total number of satisfactorily prepared spots, and
 - ii) the potential number of prepared spots which could have been prepared given the site conditions, to a maximum per plot based on the Specified target number of prepared spots per hectare;
 - (d) for each area, must determine performance quality by dividing the total number of satisfactorily prepared spots by the total number of potentially preparable spots, and express this number as a percentage; and
 - (e) may declare an area satisfactorily prepared when the average performance quality of all plots in the area is 85% or higher, and there are no contiguous areas of unsatisfactory Work greater than one tenth (1/10) hectare.

Requirement to Notify the District Manager

- 3.7 Further to the notification requirements contained in the [FIA General Standards \(FS 1001\)](#) a Recipient must immediately notify the District Manager whenever:
- (a) an inspection reveals unsatisfactory performance on any contiguous area greater than one-tenth (1/10) hectare (or other minimum area that may be specified by the District Manager), and the nature and extent of the errors are such that performance quality cannot be raised to at least a satisfactory level;
 - (b) a limit for Soil Disturbance has been exceeded on an area; or
 - (c) except where authorized, tracked or wheeled machinery has traveled within 5 m of a stream bank, entered a machine-free zone, or been fueled or serviced in an area prohibited under these standards.