

Blade-up Access on State Forest and Timber Reserves



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*Cover photograph: Dense karri understorey in Big Brook block
(Taken by Geoff Stoneman)*

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1 Background and context

1.1 Purpose

The Forest Management Plan 2004-2013 introduces a range of new requirements for the management of informal reserves in native forests. The intent of these requirements is to reduce the amount and severity of disturbance within these reserves by taking a more proactive approach to their identification and management than under previous arrangements.

The Forest Management Plan 2004 – 2013 states in Appendix 3 (page 89) that;

Forest with impeded access

In some forest areas, particularly in the southern forests, the heavy nature of the understorey makes it impracticable to undertake during the planning stage a complete survey for the presence of land meeting the criteria for inclusion in the corporate database as informal reserves. It is important therefore that at all stages of the preparation of a proposed disturbance operation, operational staff remain alert for potential variation to occur. For example, in the case of road construction, field verification of road alignments prior to roads being cleared and constructed may be an opportune time for further inspection to occur. In forests with a heavy understorey, verification of proposed new road alignments is achieved through blade up scrub rolling of understorey. This allows for an increased area to be accessible for inspection before more significant disturbance, such as road building activity, takes place.

The purpose of this document is to outline the acceptable procedures to be used to facilitate this work.

1.2 Scope

This document applies to State forest, timber reserves managed by the Department of Conservation and Land Management (CALM) and freehold land held in the name of the Department's Executive Director that contains indigenous vegetation.

This document applies to all activities, unless the activity is covered by an authority that overrides the *Conservation and Land Management Act 1984* or the *Forest Management Plan 2004-2013*.

1.3 Custodianship and management of this document

The custodian of this document is the Manager of the Policy and Practices Branch of the Sustainable Forest Management Division of CALM. The document will be reviewed in 2007.

This guideline is a controlled document that will be part of the Environmental Management System (EMS) for the Sustainable Forest Management output that covers all of the operational aspects of managing State forest and timber reserves for timber harvesting. Staff should refer to the EMS, when approved, for aspects of management that are not covered in this guideline. The division of responsibility between the Department of Conservation and Land Management and the Forest Products Commission for various aspects of this guideline will be contained within the EMS.

2 Definition of key terms

- Blade-up access** The flattening or laying over of understorey vegetation over a narrow corridor, without the intention of removing the root system or baring the soil for the purpose of providing access or improving visibility for planning purposes.
- Scrub rolling** The process of laying over, or flattening of understorey vegetation and suppressed trees over a substantial area, without the intention of removing the root system or baring the soil, to provide either:
- Line of sight for operational planning;
 - Improved accessibility for operational staff for planning forest operations;
 - Improved access for forest workers and fallers in areas of impeded access or heavy understorey; or
 - Increased manageability of edge fuels during prescribed burning or fire suppression operations.
- Scrub-rolling is generally achieved using harvesting or earthmoving equipment with its blade raised above the soil surface.
- Slashing** The process of cutting down understorey vegetation and suppressed trees by manual or mechanical means to reduce its height.

3 Criteria for blade-up access

The following criteria should be used to guide the use of blade-up access on State forest, timber reserves and freehold land held in the name of the Department's Executive Director.

3.1 Blade-up access into forest with impeded access

The use of machines in areas identified for harvesting as shown on the coupe base plan is permitted according to the conditions identified on the approved pre-operations checklist or other approval provided by CALM. Where the activity is associated with the identification of potential informal reserves such as extensions to old-growth patches, then the disturbance should be limited to the minimum that is reasonably required to facilitate the assessment. In the circumstances where road selection or construction exploration has resulted in the location of an unforeseen informal reserve such as the position of an unmapped watercourse, the proponent staff member should record field circumstances in the Coupe Diary, and report the location of the unmapped watercourse on the Informal Reserve Amendment Request Form.

Planning for longitudinal demarcation parallel to an informal reserve should allow sufficient buffering to ensure that the resulting management boundary is no closer than the minimum width specified, and that the cumulative distance is at least as wide as the specified overall width.

3.2 Blade-up access into informal reserves

The FMP clause does not provide unconditional approval for machine intrusions into informal reserves, rather it recognises that in undertaking field survey work to determine the extent of potential informal reserves (such as unmapped old-growth patches), some work inside areas that will ultimately be recognised as an informal reserve is likely. The FMP also accepts that some disturbance may be necessary in defining the boundaries, and extent, of informal reserves.

Machine intrusions into informal reserves that are shown on the coupe base plan are not permitted without explicit approval from CALM. Where operations are likely to extend into the forest with impeded access, and access to informal reserves is deemed necessary then the reasons, scope and likely location of work in the informal reserves must be identified and approved by the CALM District Manager **before** work commences.

Where there is a request to undertake exploration work to determine the position of a watercourse etc as part of planning for timber harvesting operations, the Regional Coordinator for SFM may approve the entry, in accordance with the approved *Phytophthora cinnamomi* Management Plan for the area. The FPC staff member should record field circumstances and decisions relevant to the use of blade-up access in the Coupe Diary.

Machine intrusions into known informal reserves should be restricted to those very limited circumstances where the use of manual exploration or scrub removal methods have been attempted and found to be unsuitable or unsafe. In any event, the level of disturbance should be limited to the minimum scrub modification possible with the equipment used. It should be sufficient to allow pedestrian access or line of sight.

The order of preference for approved intrusions should be:

- Manual slashing with hand tools;

- Scrub removal with engine driven brush-cutters;
- Scrub rolling with excavator; and
- Scrub rolling with wheeled or tracked bulldozer, loader or skidder. The smallest suitable machine is preferred.

In all instances the use of machines must be consistent with the requirements of the current *Phytophthora cinnamomi* Management Plan for the area, the requirements of the *Interim Manual of Procedures for the Management of Soils Associated With Timber Harvesting in Native Forests* and / or the *Soils and Water Conservation Guidelines*.

4 Standards

The following interpretations should be used as the basis for determining whether the use of blade-up access should be approved.

Table 1: Circumstances under which intrusions into an informal reserve may be permissible.

Purpose of intrusion	Standards
All	Blade-up access should not be approved unless a current <i>Phytophthora cinnamomi</i> Management Plan is available for the area.
Determining river or stream bank location for reserve width	The use of machines to determine the width of reserves or the location of the river or stream bank for assessing width should only be approved where other techniques such as manual slashing, are impractical.
Definition of DEZ or other informal reserve boundaries	Intrusions should be limited to those areas that have been added after the preparation of the coupe base plan, following field assessment of the area originally shown as available for harvest.
Assessment of potential additional old growth areas	Where areas of old-growth are shown on the coupe base plan then a systematic grid at approximately 100 m intervals is required. Blade-up access should be limited to those areas that require assessment in the area originally shown as available for harvest.
Selecting a road alignment	Stream crossings associated with harvesting access are permissible (see Forest Management Plan 2004-2013). Blade-up access to prove road alignments is permissible. Blade-up access as part of alignment exploration may be approved where the use of other techniques such as manual slashing, have been considered and determined to be unsuitable. Blade-up access along informal reserve boundaries should be undertaken with sufficient set back to stay outside the reserve in the first instance.

5 Levels of disturbance

5.1 Recommended actions

Table 2: Recommended levels of allowable disturbance in relation to environmental aspects.

Aspect	Recommendations
Machine type and dimensions	The smallest suitable machine is preferred.
Understorey	Disturbance should be limited to scrub modification to allow pedestrian access or line of sight.
	Disturbance should be limited to the narrowest possible corridor.
	Understorey vegetation and trash should be flattened, and not pushed or heaped.
Overstorey	Saplings and suppressed whips may be removed during machine access and egress from the informal reserve.
	Trees should not be pushed over during the operation.
	The blade-up access should not damage the roots or bole of trees within the informal reserve.
Logs and ground habitat	Logs may be cut to allow a corridor to be created.
	Long logs should not be pushed around to provide access.
	Logs with natural hollows with a pipe > 10 cm diameter and length > 3 m should not be disturbed.
Soils	The blade-up access operation should not create continuous areas of bare soil > 20m ² .
	Approved work in informal reserves should be limited to periods of low risk as determined by the Trafficability Index.
Disease	Blade-up access should only be approved in periods of low risk as determined by the Trafficability Index.

5.2 Breaches of standards

Blade-up access will be considered to be a breach of the environmental standards where:

- The operation is not in accordance with the current *Phytophthora cinnamomi* Management Plan for the area;
- Field inspections determine that there has been an intrusion into an informal reserve as shown on the coupe base plan and the operation has not been approved in advance, or the decision to enter has not been recorded and advised to the District Manager;
- Trees have been pushed over or damaged as part of the blade-up access;
- Understorey vegetation and trash from within an informal reserve has been pushed or heaped;
- Continuous areas of soil have been bared as part of a blade-up access or scrub rolling operation in an informal reserve;
- The width and extent of the scrub rolled alignment is much more than the minimum achievable with the equipment used to allow pedestrian access or line of sight;

- Long logs have been moved, not cut, in informal reserves creating disturbance off the intended alignment;
- Logs with natural hollows with a pipe > 10 cm diameter and length > 3 m have been disturbed; or
- The width of an informal reserves is less than the minimum width required on one side and / or narrower than the cumulative distance as specified overall.

6 Recording

Wherever possible the intention to enter informal reserves should be identified in the relevant prescription or approval process, prior to the commencement of an operation.

In some circumstances, a decision will need to be made in the field to undertake exploration work to determine the position of for example a known watercourse. In these instances an appropriate CALM officer may approve the entry, subject to compliance with the conditions of the *Phytophthora cinnamomi* Management Plan for the area. The FPC staff member should record field circumstances and decisions relevant to the use of blade-up access, and advise the CALM District Manager as soon as practicable.

In the case of unanticipated disturbance of an unforeseen informal reserve such as an unmapped watercourse, the FPC staff member should record field circumstances in the Coupe Diary, and report the required information on the Informal Reserve Amendment Request Form.

7 Useful reading

Department of Conservation and Land Management (2004). *Forest Management Plan 2004-2013*. Department of Conservation and Land Management, Perth.