



Rainforest Identification Instruction

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Rainforest Identification

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Rainforest Identification

1. Purpose

This Rainforest Interpretation Procedure has been produced to ensure field staff are provided with a clear process, taking a precautionary approach, to the identification and protection of rainforest in the field. It utilises the hierarchical approach intended by the Code of Forest Practice for Timber Production (2014) and the Action Statement, while also ensuring relevant components of the Forest Management Plans are considered.

2. Background

Rainforest ecological vegetation communities have a conservation status of 'endangered' across much of Victoria and must be identified and protected in line with VicForests Rainforest Identification Instruction.

3. Scope

This Instruction applies to all types of rainforest (Cool Temperate, Warm Temperate, Dry rainforest) in State forest in all regions of Victoria

4. Procedure

Rainforest Definition

- Rainforest is defined ecologically as closed (>70% projected foliage cover) broad-leaved forest vegetation with a more or less continuous rainforest tree canopy of variable height and with a characteristic diversity of species and life forms.
- Rainforest canopy species are defined as shade tolerant tree species which are able to establish below an undisturbed canopy, or in small canopy gaps resulting from locally recurring minor disturbances, such as isolated wind throw or lightning strike, which are part of the rainforest ecosystem. Such species are not dependent on fire for their regeneration.
- With the exception of Warm Temperate Rainforest west of Cann River, rainforest includes closed transitional and seral communities, where there is a closed Rainforest canopy, with emergent eucalypts, that are of similar botanical composition to mature rainforest where eucalypts are absent.

Field recognition and delineation:

- Rainforest stands are identified in the field when the Rainforest tree canopy species are present and conform to the definition above.
- The boundary of rainforest and adjacent eucalypt forest is often clear in the field.
- In circumstances where further clarification is required, the boundary can be determined by using the 'differential species approach' (with the exception of Warm Temperate Rainforest west of Cann River).
- Where the broadleaved tree canopy of non-rainforest canopy species exceeds 10% projected foliage cover the forest is not considered rainforest.

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Types of Rainforest

Type	Location	Prescriptive Instrument
Cool Temperate Rainforest	All	FFG Action Statement
Warm Temperate Rainforest (Coastal East Gippsland)	East Gippsland, 0-65m elevation on or near Gippsland Lakes	FFG Action Statement
Warm Temperate Rainforest (Cool Temperate Overlap, Howe Range)	East Gippsland (Croajingalong NP)	FFG Action Statement
Warm Temperate Rainforest (East Gippsland Alluvial Terraces)	East Gippsland, <470m, major rivers. Not expected in State forest.	FFG Action Statement
Warm Temperate Rainforest (Far East Gippsland)	East Gippsland, 0-500m, east of Cann River	FFG Action Statement
Warm Temperate Rainforest	East Gippsland. Same as Warm Temperate Rainforest Far East Gippsland, but west of Cann River	East Gippsland Forest Management Plan (Management Procedures)
Dry Rainforest (Limestone)	East Gippsland, rocky gorges. Not present in State forest.	FFG Action Statement

Marking Procedure

1. Identification of rainforest boundary

The following are the steps to identify rainforest boundary in the field:

1. First, identify the type of rainforest that is potentially present.
2. Identify the stand of Rainforest: This is defined as closed broad leaved forest vegetation of greater than 70% foliage cover, where there is a more or less continuous rainforest tree canopy that is made up of rainforest character species (see rainforest character species below for species used in determining rainforest tree canopy for each region and rainforest type). Where >70% foliage cover is identified, the following must also be met:
 - a. Cool Temperate, Warm Temperate (other than West of Cann River) and Dry Rainforest (Action Statement) – Emergent Eucalypts may be present.
 - b. Warm Temperate West of Cann River – More than half of the overall broad-leaved foliage cover (which must be greater than 70%) must be made up of rainforest character species listed below.

Rainforest Character Species

Rainforest character species differ across certain areas and Rainforest types. Below is the list of **canopy species** that are to be considered when determining the proportion of foliage cover for rainforest.

Note: In all areas, forest stands that contain over 50% of single, non diverse stands of the following species and which contain few other rainforest characteristics, are not to be considered rainforest; *Acacia melanoxylon* (Blackwood), *Leptospermum grandifolium* (Mountain Teatree), *Pittosporum undulatum* (Sweet Pittosporum),

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Tasmanianna xerophila subsp. Robusta (Errinundra Pepper) or Tasmanianna lanceolata (Mountain Pepper).

Cool Temperate Rainforest

East Gippsland/Tambo

Blackwood (*Acacia melanoxylon*)
 Sassafras (*Atherosperma moschatum*)
 Black Olive Berry (*Elaeocarpus holopetalus*)
 Privet Mock Olive (*Notelaea*)
 Banyalla (*Pittosporum bicolour*)
 Mountain Plum Pine (*Podocarpus lawrencei*)
 Errinundra Pepper (*Tasmanianna sp. aff. Xerophila*)
 Gippsland Waratah (*Telopea oreades*)

West/Central Gippsland

Banyalla (*Pittosporum bicolour*)
 Sassafras (*Atherosperma moschatum*)
 Myrtle Beech (*Nothofagus cunninghamii*)
 Mountain Pepper (*Tasmanianna lanceolata*)
 Blackwood (*Acacia melanoxylon*)

Central Highlands

Banyalla (*Pittosporum bicolour*)
 Sassafras (*Atherosperma moschatum*)
 Myrtle Beech (*Nothofagus cunninghamii*)
 Black Olive-berry (*Elaeocarpus holopetalus*)
 Blackwood (*Acacia melanoxylon*)
 Mountain Tea-Tree (*Leptospermum grandifolium*)

Warm Temperate Rainforest

East Gippsland – West of Cann River

Blackwood (*Acacia melanoxylon*)
 Lilly Pilly (*Acmena smithii*)
 Blue Olive Berry (*Elaeocarpus reticulatus*)
 Sweet pittosporum (*Pittosporum undulatum*)
 Kanooka (*Tristaniopsis laurina*)
 Jungle Grape (*Cissus hypoglauca*)
 Muttonwood (*Myrsine howittiana*)

Coastal East Gippsland

Yellow-wood (*Acronychia oblongifolia*)
 Lilly Pilly (*Acmena smithii*)
 Blackwood (*Acacia melanoxylon*)
 Sweet Pittosporum (*Pittosporum undulatum*)
 Blue Olive-berry (*Elaeocarpus reticulatus*)
 Boobialla (*Myoporum insulare*)

Howe Range, Cool Temperate Overlap

Eastern Leatherwood (*Eucryphia moorie*)
 Lilly Pilly (*Acmena smithii*)

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Sweet Pittosporum (*Pittosporum undulatum*)
Muttonwood (*Myrsine howittiana*)

East Gippsland Alluvial Terraces
Lilly Pilly (*Acmena smithii*)
Muttonwood (*Rapanea howittiana*)
Blackwood (*Acacia melanoxydon*)
Prickly Currant-bush (*Coprosma quadrifida*)

Far East Gippsland
Lilly Pilly (*Acmena smithii*)
Sweet Pittosporum (*Pittosporum undulatum*)
Muttonwood (*Myrsine howittiana*)

Dry Rainforest (Limestone)

Kurrajong (*Brachychiton populneus*)
Sweet Pittosporum (*Pittosporum undulatum*)
Drooping Sheoak (*Allocasuarina verticillata*)
Muttonwood (*Myrsine howittiana*)
Black Wattle (*Acacia mearnsii*)
Common Boobialla (*Myoporum insulare*)

3. *Identify the rainforest boundary: This is determined to be the point at which there is no longer >70% foliage cover of broad-leaved forest vegetation with continuous rainforest tree canopy.*

The boundary of the rainforest and the adjoining eucalypt forest is often clear in the field. However, in circumstances where further clarification is required, the boundary can be determined using the “differential species approach” (DSE 2009)¹ (with the exception of Warm Temperate Rainforest west of Cann River).

4. *Where further guidance as to the boundary is required, the ‘differential species approach’ is to be used (Differential Species Keys for the Delineation of Rainforest Boundaries July 2011 can provide reference photos). Where this is utilised, the boundary is the point where the number of rainforest species exceeds the number of eucalypt forest species i.e. the line along which the floristic signals are of equal strength. This approach would be used where:*
 - a. *the rainforest canopy tree cover reduces gradually from 70% foliage projection. (gradual transition is a transition from 70% rainforest to 70% eucalypt over a distance greater than approximately 10 meters)*

2. Treatment of tree-ferns and eucalypts in calculation of projected foliage cover

The Rainforest Action Statement states clearly that rainforest contains a continuous rainforest **tree** canopy and it characterises tree-ferns as an understorey species, therefore **tree ferns** are **not** to be included in the calculation of projected foliage cover.

Eucalypts are described as emergent species and are not classified as being broad-leaved rainforest species, so therefore Eucalypts are **not** considered in the 70% projected foliage

¹ Flora and Fauna Guarantee Action Statement 238

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4. *Appropriate buffers for rainforest patches.*

All areas of rainforest (greater than 0.1ha in area) must be protected using the following rule:

Harvest exclusion (no buffer) – non linear stands $0.1 < 0.4$ ha, linear stands $0.1 < 0.2$ ha. These must be excluded from harvesting, but do not require a buffer. In this case:

- trees must not be felled from within the stand unless approval is given to permit selective removal of trees for safety purposes;
- machinery must not enter the rainforest stand, except for the construction and use of approved stream crossings;
- all possible attempts must be made to protect the stands from damage caused by trees felled in adjacent areas. Trees felled for safety purposes or accidentally felled into the rainforest stand may be removed if significant damage or disturbance to vegetation and soils can be avoided.
- Care must be exercised in the planning and operational stages to avoid regeneration burns entering the stand. Slash accumulation must be avoided around retained stands.

20 meter buffer – linear stands $0.2 < 0.4$ ha (**note:** Warm Temperate Forest West of Cann River requires a 40m buffer where linear stands are $0.2 < 0.4$ ha)

40 meter buffer – All stands (aggregated stands treated as entire) greater than 0.4 ha

Roading – no roads to be constructed across rainforest unless no feasible alternative exists

Isolated mature rainforest tree species or patches –

Isolated mature rainforest trees and patches less than 0.1ha that meet the below indicators should be protected from timber harvesting operations as far as practical, unless the individual mature tree or patch poses an OH&S risk or they need to be removed for operational purposes.

The isolated mature rainforest tree or patch is protected when it is:

- Within close proximity (outlier) of an identified rainforest stand and,
- Found near or adjacent to coupe boundaries, wet gullies, depressions or creeks and,
- Has an existing rainforest canopy height equal to, or greater than the height of the mature rainforest tree species on that site

(note: A mature rainforest tree is one that has achieved close to its maximum height).

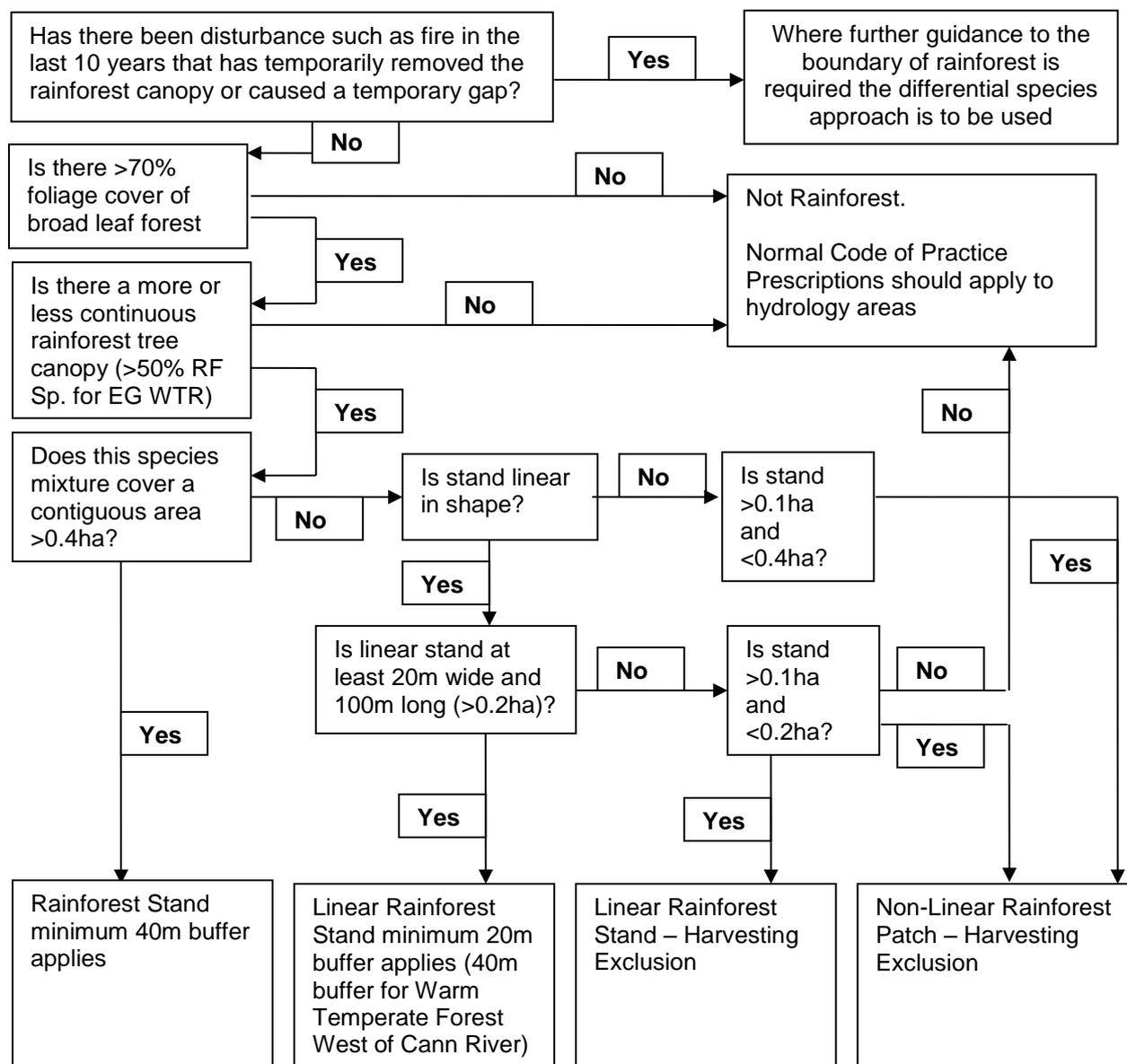
Where mature rainforest tree species cannot be protected during harvesting or from a regeneration burn due to OH&S reasons or operational constraints, the decision making process should be documented and stored in the coupe folder.

Note: 0.2 ha is approximately 50 meters by 40 meters

0.4 ha is approximately 80 meters by 50 meters

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5. Appendix One: Decision Flowchart for Buffers



Coupe Name:			
Coupe Number:			
Survey Findings:			
Required Actions:			
Surveyed By:		Position:	
Signed:		Date:	
<i>Additional Sign Off (where required by Biodiversity Planner or Forest Scientist)</i>			
Surveyed By:		Position:	
Signed:		Date:	