**Code of Practice for Timber Production 2014 (as amended 2022)**

**Schedule 1: Management Standards and Procedures for timber harvesting operations in Victoria’s State forests**

Cover photo

Manna Gum (*Eucalyptus viminalis*) stand in wet eucalypt forest, Dandenong Ranges, Victoria

|  |
| --- |
| Acknowledgment  We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.  We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond. |

© The State of Victoria Department of Environment, Land, Water and Planning 2022

This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Environment, Land, Water and Planning (DELWP) logo. To view a copy of this licence, visit creativecommons.org/licenses/by/4.0/

**ISBN** 978-1-76105-993-3 **(pdf/online/MS word)**

**Disclaimer**

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

**Accessibility**

If you would like to receive this publication in an alternative format, please telephone the DELWP Customer Service Centre on 136 186, or email customer.service@delwp.vic.gov.au or via the National Relay Service on 133 677, www.relayservice.com.au. This document is also available on the internet at [www.delwp.vic.gov.au](http://www.delwp.vic.gov.au)

# **Contents**

[**Contents** 3](#_Toc94612034)

[**1.** **Introduction** 6](#_Toc94612035)

[1.1 Scope 6](#_Toc94612036)

[1.2 Role 6](#_Toc94612037)

[1.3 Application 6](#_Toc94612038)

[1.4 Procedure for seeking exemptions or temporary variations 6](#_Toc94612039)

[**2.** **Planning and Record Keeping** 7](#_Toc94612040)

[2.1 FMZ and Planning Information 7](#_Toc94612041)

[2.2 Communication and engagement 7](#_Toc94612042)

[2.3 Traditional owner rights and interests 8](#_Toc94612043)

[2.4 Forest Coupe Plans 8](#_Toc94612044)

[2.5 Coupe Size and configuration 10](#_Toc94612045)

[**3.** **Water Quality, River Health and Soil Protection** 11](#_Toc94612046)

[3.1 Waterway classification 11](#_Toc94612047)

[3.2 Soil Erosion and Water Quality Risk Assessment 11](#_Toc94612048)

[3.3 Waterway Protection 12](#_Toc94612049)

[3.4 Slope 13](#_Toc94612050)

[3.5 Water supply protection areas 13](#_Toc94612051)

[**4.** **Biodiversity** 14](#_Toc94612052)

[4.1 Habitat Retention 14](#_Toc94612053)

[4.2 Fauna and Flora 17](#_Toc94612054)

[4.3 Vegetation communities 18](#_Toc94612055)

[4.4 Pests, weeds and diseases 22](#_Toc94612056)

[**5.** **Important values** 23](#_Toc94612057)

[5.1 Heritage, historic places and Aboriginal cultural heritage 23](#_Toc94612058)

[5.2 Landscape Sensitivity Areas 23](#_Toc94612059)

[5.3 Apiary 26](#_Toc94612060)

[5.4 Recreation 26](#_Toc94612061)

[5.5 Research 27](#_Toc94612062)

[5.6 Fuel Hazard ratings in Fire Management Zones 27](#_Toc94612063)

[**6.** **Roading** 31](#_Toc94612064)

[6.1 Road planning 31](#_Toc94612065)

[6.2 Road construction 32](#_Toc94612066)

[6.3 Road Maintenance 34](#_Toc94612067)

[6.4 Road Rehabilitation 34](#_Toc94612068)

[**7.** **Timber Harvesting** 35](#_Toc94612069)

[7.1 Coupe Management 35](#_Toc94612070)

[7.2 Coupe Infrastructure 36](#_Toc94612071)

[7.3 Operational restrictions 38](#_Toc94612072)

[**8.** **Fire Salvage Harvesting** 39](#_Toc94612073)

[**9.** **Forest Regeneration and Management** 42](#_Toc94612074)

[9.1 Regeneration 42](#_Toc94612075)

[9.2 Thinning 44](#_Toc94612076)

[**Appendix 1: Tables and Figures** 45](#_Toc94612077)

**Glossary**

All **bold** terms included in Schedule 1 are defined within the **Code** Glossary.

**Acronyms**

ANU The Australian National University

ASL above sea level

B **buffer**

CAR comprehensive, adequate and representative reserve system

cm centimetres

DBHOB **diameter** at breast height (1.3m) over bark

DC designated catchment identified in a **forest** management plan

EVC **ecological vegetation class**

F **filter** or **filter strips**

FMA **forest** **management area**

FMZ forest management zone

GMZ **general management zone**

GRU geographic representation unit

ha hectares

HEMS high elevation **mixed species** **forest**

km kilometres

LFP Long Footed Potoroo

m metres

mm millimetres

RFA **regional forest agreement**

SAP special area plan

SMZ **special management zone**

SPZ **special protection zone**

SWSCA **special water supply catchment area**

# **Introduction**

## Scope

### As part of the **Code**, The **Management Standards and Procedures** apply to all commercial **timber harvesting operations** conducted in Victoria’s **State forests**.

## Role

### This Schedule provides standards and procedures to instruct managing authorities, harvesting entities and **operators** in interpreting the requirements set out in the main body of the **Code**.

### These **Management Standards and Procedures** are in addition to the mandatory actions set out in the main body of the **Code**.

## Application

### Requests for exemptions or temporary variations to these **Management Standards and Procedures** will demonstrate to the satisfaction of the **Minister** or **delegate** that they are consistent with the Operational Goals and Mandatory Actions of the **Code**.

## Procedure for seeking exemptions or temporary variations

### If a provision in these **Management Standards and Procedures** provides for an exemption or temporary variation, the **managing authority** may submit an application form and any other required or supporting information to the **Minister**.

### The **Minister** or **delegate** will consider the request, seeking additional information where required, and respond by providing a signed approval to the submitter.

### Where the request is not **approved**, the response will include a justification of the decision.

### The **Minister** or **delegate** will maintain a register of the outcomes for all exemption or temporary variation requests.

# **Planning and Record Keeping**

## FMZ and Planning Information

### When planning **timber harvesting operations**, for information regarding the **FMZS** and locations of **Special Management Zones** (**SMZ**) or **Special Protection Zones** (**SPZ**), the **managing authority** will refer to the **FMZ**100 geospatial layer published on the Victorian Spatial Data Library.

### Where an **SPZ,** a **protection area** or an **exclusion area** located within an **SMZ** is based on a modelled value or incorrectly mapped geographic feature and is determined not to exist in the field or is incorrectly located, the **managing authority** may notify the **Secretary** (or **delegate**) prior to commencement of the **timber harvesting operation** requesting an amendment to the boundary of the **SPZ,** **protection area** or **exclusion area**.

## Communication and engagement

### The **managing authority** must make maps and schedules of **coupes** that have been selected for **timber harvesting operations** and associated access roading available for public scrutiny prior to commencement of the operations. This information must provide:

##### clear maps showing the location of **coupes** and major access roading (including extensions or upgrading of the permanent road network); and

##### approximate timing and duration of **timber harvesting operation** schedules.

### Consult the following parties during the establishment or amendment of plans, allowing adequate time to ensure interests are considered and operational arrangements are resolved prior to commencement of operations:

##### relevant bee keepers or bee keeping associations;

##### relevant **Department** regions regarding roading, burning and other relevant land management activities;

##### relevant water authorities when applying chemicals in a **special water supply catchment area**; and

##### relevant water supply authorities when **coupes** are proposed to occur within **special water supply catchment areas** in the Benalla-Mansfield **FMA** and North East **FMAs**; and

##### Melbourne Water regarding any **timber harvesting operations** which have potential to impact on the Water Resource Values within the Bunyip River, Tarago River, Thomson River and Yarra Tributaries **State forests**.

## Traditional owner rights and interests

### During planning for **timber harvesting operations**, have regard to obligations under the following:

#### the *Native Title Act 1993*, including any **Indigenous Land Use Agreement** made under that Act;

#### the *Traditional Owner Settlement Act 2010*, including any **Recognition and Settlement Agreements, Land Use Activity Agreements** and **Natural Resource Agreements**;

#### **Aboriginal cultural rights** under the *Charter of Human Rights and Responsibilities Act 2006*.

## Forest Coupe Plans

### **Forest Coupe Plans** prepared for **timber harvesting operations** must:

#### state the **net coupe area** that is planned to be harvested or tended;

#### state the start date and season during which operations are scheduled to occur;

#### identify the silvicultural systems or **tending** methods to be employed;

#### identify requirements for the location[[1]](#footnote-2)\*, design, construction, maintenance and use of **roads**, and closure of **temporary roads**;

#### identify requirements for the design, siting\*, construction, use, and **rehabilitation** of log **landings** and dumps and, where necessary, siting and rehabilitation measures for major **snig tracks**;

#### describe **regeneration** procedures to be applied;

#### identify and describe management actions for all relevant **coupe** values specified within the **Code** and the **FMZS**;

#### describe measures employed to protect **biodiversity** such as:

#### **habitat tree** retention;

#### provision for the continuity and replacement of old **hollow** **bearing trees** within the harvestable area; and

#### retention of long-lived **understorey** species in appropriate numbers and configurations to allow for the **regeneration** of the vegetation types that existed within the **coupe** before the **timber harvesting operation** commenced.

#### describe soil erosion hazard classes present within the **coupe** and measures employed to protect and rehabilitate soils and to maintain water quality and **river health**.

### **Forest Coupe Plans** must include a map which clearly and accurately identifies:

#### the **net coupe area** that is planned to be harvested;

#### areas within and adjacent to a **coupe** that are to be excluded from **timber harvesting operations** and associated activities, or to which special prescriptions apply (including **biodiversity** protection or habitat enhancement, water quality and aquatic habitat protection, landscape protection, **historic places** and **Aboriginal cultural heritage**); and

#### **waterway**, historic tramway and water race crossing locations.

### **Forest** **Coupe** **Plans** prepared for **road construction** or **significant road improvement operations** also identify:

##### the class of **road** to be constructed / improved;

##### maximum clearing width;

##### sections of the **road** subject to narrowed or increased easements;

##### methods and location of proposed crossings and drainage structures; and

##### the **FMZs** impacted upon and any requirements relevant to approvals associated with roading operations within **SMZ** or **management areas** as well as **SPZ** or **protection areas**.

## Coupe Size and configuration

### **Clearfall, seed tree or shelterwood 1 coupes**

### The maximum size of **clearfall**, **seed tree** or shelterwood **1 coupes** is 40 ha **net harvested area**.

### The maximum aggregated size of **coupes** that contain **clearfall**, **seed tree** or **shelterwood 1** is 120 ha **net harvested area** within a 5 year period.

### **Shelterwood 2 coupes**

### **Shelterwood 2** **coupes** may exceed 40 ha **net harvested area** if adequately stocked with eucalypts that are 5 or more years old.

### **Thinning coupes**

### The maximum size of a **thinning** **coupe** is 120 ha **net harvested area**.

### **Single tree selection coupes**

### Single tree selection **coupes** may be of any size.

### **Uneven-aged coupes**

### The maximum size of an **uneven-aged coupe** is 120 ha **net harvested area**.

### No gaps or patches created by **seed tree harvesting** operations are to be more than 20 ha in area.

### The cumulative area of gaps between 1 and 20 ha must comprise no more than 33 % of the **net harvested area**.

### More than 66 % of the **net harvested area** must comprise areas stocked by **basal area** retention with the balance stocked with **regeneration**.

### **Salvage coupes**

### Salvage **coupes** may exceed standard area limits in accordance with the fire salvage harvesting area limits of Clause 8.1.3.1.

### **All coupe types**

#### 20 m is the minimum width of vegetation to be retained between **coupe** aggregates that have both been harvested within the last 5 years.

#### Adjacent partially stocked or unstocked areas may be incorporated into the **coupe** for **regeneration** provided that the **coupe** is within the **coupe** size limit.

# **Water Quality, River Health and Soil Protection**

## Waterway classification

#### Use the following categories when determining **buffer** (B) and **filter** (F) widths for **waterways** within and immediately adjacent to each **coupe**. Aids to the identification of each class of **waterway** are provided in the **Code** Glossary.

##### **Permanent streams**, **pools** and **wetlands**.

##### **Temporary streams**.

##### **Drainage lines**.

## Soil Erosion and Water Quality Risk Assessment

### **Statewide**

#### Conduct field assessments to determine the soil erosion hazard and soil **permeability** classifications for an area proposed for any soil disturbing **timber harvesting operations** as follows.

#### Collect soil profile samples that reflect the variety of soils represented within the **coupe**.

**Note:** Significant changes in **forest** structure and composition often indicate a variation in soil type.

#### Score each soil factor using **Table 1 Soil susceptibility to breakdown** and **Table 2 Soil permeability** for each horizon within the soil profile to the anticipated depth of disturbance.

#### Calculate the soil susceptibility to breakdown rating for horizons A and B (and C if likely to be disturbed in operations) using **Table 1 Soil susceptibility to breakdown**.

#### Calculate the soil permeability rating for horizons A and B (and C if likely to be disturbed in operations) using **Table 2 Soil permeability**.

#### Calculate the soil erosion site factor rating for the site using **Table 3 Soil erosion site factor**. Use **Figure 1 Rainfall erosivity** contours in non-SI units for Victoria to determine the erosivity index.

#### Calculate the **soil erodibility** classification for horizons A and B (and C if likely to be disturbed in operations) using **Table 4 Soil erodibility classification**.

#### Calculate the soil erosion hazard classification for horizons A and B (and C if likely to be disturbed in operations) using **Table 5 Soil erosion hazard classification**.

#### Calculate the soil **permeability** classification for horizons A and B (and C if likely to be disturbed in operations) using **Table 6 Soil permeability classification**.

#### Calculate the overall soil category for horizons A and B (and C if likely to be disturbed in operations) using **Table 7 Overall soil category**.

#### Use the overall soil category for the horizon with the highest category to determine water quality risk as shown in **Table 8 Water quality risk**.

## Waterway Protection

### **Statewide**

#### Apply the appropriate protection to class of **waterway** as outlined in **Table 9 Minimum widths in metres for buffers (B) and filter (F) strips applicable to various waterway categories, in relation to water quality risk and slope**.

**Notes:**

* Slope is the average slope of the **coupe** area in the vicinity of the water body.
* **Buffers** and **filter strips** must be applied to each **waterway** class regardless of the origins of the channelling.
* The width of **buffer** areas and **filter strips** must be measured in the horizontal plane, from the edge of the saturated zone (at time of harvesting) or channel (whichever is greater), on each side of the **waterway**.

### **Bendigo FMA**

#### **Drainage lines** are considered to be present if banks and/or eroded sections greater than 30 cm deep and greater than 10 m long exist. Distinctive **riparian vegetation** such as River Red Gum (*Eucalyptus camaldulensis*) will generally be absent. Where sections meeting these criteria occur within 50 m, the interconnecting depression is treated as part of the **drainage line**.

#### Machinery movement within 10 m of depressions occurring above **drainage lines** will be directed along the contour.

### **Mid Murray FMA**

#### Exclude **timber harvesting operations** within 60 m from the high bank of the Murray River.

#### Exclude **timber harvesting operations** within 40 m from the high bank of the Gunbower Creek and the Ovens River.

#### Apply a 20 m **buffer** to main rivers, anabranches, lakes, billabongs and lagoons that maintain permanent open water at minimum river flows.

#### When water is present, a 10 m **buffer** applies to **temporary effluent** and/or **confluent streams**.

#### When water is absent, a 10 m **filter** applies to **temporary effluent** and/or **confluent streams**.

#### **Temporary effluent** and/or **confluent streams** have sharply defined channels, relatively deep flowing water and overland flow in the immediate vicinity during flood.

#### If distinctive **riparian vegetation** is present and wider than 3.3.3.1, **buffers** and **filters** are measured from the edge of the distinctive **riparian vegetation**.

## Slope

### **Slope restrictions**

#### 3.4.1.1 Exclude **timber harvesting operations** from slopes over 30 degrees.

#### 3.4.1.2 Exclude **timber harvesting operations** from slopes over 25 degrees in the East Gippsland **FMA** in areas with granite-based soils.

#### 3.4.1.3 Up to 10% of the planned **net coupe area** can contain areas greater than the slope limits referred to in 3.4.1.1, 3.4.1.2, 3.5.1.1 and **Table 11 Water supply protection areas**, where the risk of mass soil movement has been managed accordingly.

## Water supply protection areas

#### Apply the slope limits, seasonal closures, **buffer** and **filter strip** widths and other relevant management actions specified in **Table 11 Water supply protection areas** for **timber harvesting operations** and associated roading and **regeneration** in **water supply protection areas**.

#### Refer to **Table 11 Water supply protection areas** for actions that apply to **water supply protection area** **SMZ**s in the Benalla-Mansfield **FMA**, the East Gippsland **FMA** and Midlands **FMA**.

#### Where any proposed **timber harvesting operations** are not in accordance with clauses 3.5.1.1 or 3.5.1.2, obtain exemption approval from the **Minister** or **delegate** in accordance with Section 1.4.

#### **Special water supply catchment areas** and **water supply protection areas** not listed in **Table 11 Water supply protection areas** do not require protection in addition to existing **Code** requirements.

#### In addition to **Table 11 Water supply protection areas**, in the Bunyip, Thomson and Tarago **special water supply catchment areas** and the Yarra Tributaries **State forests** the area harvested must not exceed the following limits measured as a 10-year rolling average:

##### Thomson - **Ash** **forests** 150 ha/year, **mixed species** **forests** 15ha/year;

##### Tarago - **Ash** **forests** 55 ha/year, **mixed species** **forests** 23ha/year;

##### Yarra Tributaries – **Ash** **forests** 52 ha/year, **mixed species** **forests** 15 ha/year; and

##### Bunyip – **Ash** **forests** 15 ha/year, **mixed species** **forests** 15 ha/year.

#### In addition to **Table 11 Water supply protection areas**,harvesting in the Learmonths Creek special water supply catchment must not be undertaken if it would cause:

##### harvesting of **Ash forest** in the catchment to exceed an average harvest of 7 ha per annum, which average is to be calculated progressively in each financial year (including as at 30 June in each financial year) using the area of **Ash forest** harvested in that financial year and the areas harvested in each of the preceding nine financial years; or

##### harvesting of **mixed species forest** in the catchment to exceed an average of 3 ha per annum, which average is to be calculated progressively in each financial year (including as at 30 June in each financial year) using the area of **mixed species forest** harvested in that financial year and the areas harvested in each of the preceding nine financial years.

#### In addition to **Table 11 Water supply protection areas**, in the Benalla-Mansfield **FMA**, the total area of **coupes** harvested using **even-aged** harvesting and **regeneration** systems, such as **clearfall** or **seed tree harvesting** operations, must not exceed 5% of the area of public land in designated catchments in any 3-year period.

#### In addition to **Table 11 Water supply protection areas**, in the Rocky and Betka River catchments in the East Gippsland **FMA**, no new **road** crossings may be built on major streams.

# **Biodiversity**

## Habitat Retention

### **Statewide**

#### Retain **habitat trees** in accordance with the relevant **FMA** summary provided in **Table 12 Habitat tree prescriptions**.

#### Trees retained in **buffers** or **exclusion areas** that have been extended beyond minimum required widths or radius can contribute to **habitat tree** retention requirements.

#### Retain all living **large trees** and protect them from the direct effects of **timber harvesting operations** and **regeneration** burning. This includes not deliberately felling, falling into or damaging **large trees** during harvesting and **extraction**, and ensuring slash is not accumulated within 3m of the base of **large trees** immediately prior to **regeneration** burns.

#### Where possible, incorporate **large trees** in retained patches of **habitat** **trees** or expanded **buffers** or **exclusion areas**.

#### Include all **large trees** in a Large Tree Register.

### **Benalla/Mansfield FMA and North East FMA**

#### When selecting **habitat trees**, prioritise live **hollow** **bearing trees** where they are present and trees of younger age classes that are likely to develop **hollows** in the longer term.

#### Where possible retain **dead** trees for **habitat trees**.

#### Retain **habitat trees** adjacent to areas of high value habitat and areas most easily protected from damage during harvesting and **regeneration** operations.

#### **Habitat trees** may be retained in groups/patches dispersed across the **coupe**.

#### **Seed trees** may be counted as **habitat trees**.

### **Bendigo FMA and Box-Ironbark forests in the Midlands FMA.**

#### Permanently retain:

##### all trees (both standing **dead** or living) greater than 20 cm DBHOB with visible **hollows** where safe and practicable to do so. These trees may count towards retention requirements in clause (b) and (c);

##### at least 10 living trees per hectare between 30 cm and 39.9 cm DBHOB;

##### where they exist:

###### 2 living trees per hectare between 40 cm and 49.9 cm DBHOB inclusive; and

###### 2 living trees per hectare between 50 and 59.9 cm DBHOB inclusive.

###### **unmerchantable** trees with healthy **crowns** should be preferentially retained;

##### all trees greater than 60 cm DBHOB in high quality sawlog harvesting operations;

##### all trees greater than 40 cm DBHOB in low quality sawlog and firewood harvesting operations;

##### within **management areas** or **SMZ**, all trees greater than 40 cm DBHOB in high and low quality sawlog and firewood harvesting operations;

##### all standing **dead** trees greater than 40 cm DBHOB;

##### all living Yellow Box, Fryers Range Scentbark and Bealiba Ironbark trees. These trees may count towards retention requirements.

#### A whole of **coupe** approach should be adopted (numbers averaged over **coupe** area) to ensure that the best **habitat trees** are retained, including where these occur in groups.

#### Firewood harvesting within a **management area** or **SMZ** must be managed to ensure coarse woody debris levels are not reduced below pre-harvest levels.

#### All log sections larger than 40cm **diameter** with **hollows** larger than 10cm **diameter** must be retained.

#### The period between the next and subsequent sawlog harvesting operations will be at least 25 years to allow recruitment across all habitat classes. **Habitat trees** intended for permanent retention will not be permanently tagged or labelled. It is expected that these trees will be evident from their form.

### **Central Highlands FMAs**

#### When selecting **habitat trees**, prioritise **hollow** **bearing trees** where they are present and trees most likely to develop **hollow**s in the short term.

#### Scatter **habitat trees** across the **timber** harvesting **coupe** in **mixed species** **forest**.

#### Where possible, retain potential **hollow** bearing **ash** eucalypts in clumps to increase their protection from exposure, windthrow and fire.

#### No gap between retained vegetation is to be greater than 150m.

#### Retain **habitat trees** where they can be most easily protected from damage during **timber harvesting operations** and **site preparation** treatment.

### **East Gippsland FMA and Gippsland FMAs**

#### When selecting **habitat trees**, prioritise old living trees with a range of **hollow** sizes. Where these are absent or not present in sufficient numbers, prioritise trees that are old enough to develop **hollows** during the next 50 years.

#### Stags and younger, smaller trees may be counted as **habitat trees** if trees of the type described in 4.1.5.1 are absent or not present in sufficient numbers.

#### Where possible, retain **habitat trees** in small clusters which include younger **regrowth** and **understorey**.

#### Distribute **habitat tree** clusters across the **coupe** with consideration of the proximity of other retained vegetation.

### **Horsham FMA**

#### Retain trees that have signs that they are being actively utilised or occupied by **wildlife** as a priority over potential **habitat trees** and **dead** trees.

#### **Habitat trees**;

##### are large actively growing trees with a spreading form; and/or

##### have **hollows** present and forming.

#### Trees growing in ephemeral **wetlands** and within 20 m of the edge of the **wetland** may only be harvested using single tree selection. A 20 m **buffer** from the water line or saturated zone, wherever it occurs at the time of harvesting, also applies.

#### In areas of Red-tailed Black-Cockatoo potential habitat that is not protected by a **protection area**, **SPZ**, **management area** or **SMZ**, do not remove any **hollow bearing trees**, tees of the species Brown Stringybark or trees of the species Desert Stringybark with DBHOB > 45cm.

### **Midlands FMA, except the Box Ironbark forests**

#### In the non **Box Ironbark** **forests**, the **habitat tree** numbers in **Table 12 Habitat tree prescriptions** are the maximum required.

#### Prioritise retention of **hollow** **bearing trees** or gum species as **habitat trees**.

### **Mid Murray FMA**

* + - 1. **Habitat tree** requirements in **Table 12 Habitat tree prescriptions** are the minimum requirement.
      2. When selecting **habitat trees**, prioritise **hollow bearing trees** where they are present and trees most likely to develop **hollows** in the short term.

#### In addition to **habitat tree** requirements in **Table 12 Habitat tree prescriptions**, retain all trees known to be used for nesting by significant **fauna** (e.g. Superb Parrot and Regent Parrot).

#### Retain all naturally fallen wood and any **dead** standing trees with **hollows**.

### **Otway FMA**

#### **Habitat tree** numbers in **Table 12 Habitat tree prescriptions** are a minimum requirement.

#### Retain existing and potential **habitat trees** in regularly configured clusters or on the edges of **coupes**.

#### Design **coupe** boundaries and **habitat tree** clusters so there is no more than 200m between areas of retained habitat.

#### Where located on or adjacent to a **coupe** boundary, habitat patches are not included in the net harvest area of adjoining **coupes**.

### **Portland FMA**

#### **Habitat trees**:

##### are living;

##### have a DBHOB greater than 30cm;

##### are fully **mature**;

##### have existing **hollows** (in a minimum of 50% of trees retained for habitat); and

##### cater for identified key species needs.

#### Prioritise retention of **habitat trees**:

##### greater than 80cm **diameter**;

##### in clusters rather than scattered throughout the **coupe**;

##### located more than 20m of any **road**, track or **coupe** boundary likely to be used as a fire break; and

##### located in places that extend or link **filter strips**, streams or other retained areas.

#### Retain all **dead** trees if they contain **hollows** and are greater than 50cm DBHOB. **Dead** trees are not counted in the minimum **habitat tree** requirements.

#### In areas of Red-tailed Black-Cockatoo potential habitat that is not protected by **SPZ** or **SMZ**, do not remove any **hollow bearing trees**, tees of the species Brown Stringybark or trees of the species Desert Stringybark with DBHOB > 45cm.

## Fauna and Flora

### **Detection-based management**

### Detection based management obligations apply in any area that may be affected by current or planned **timber harvesting operations**, and in any area in which an obligation may affect the conduct of such **timber harvesting operations** (for example, if a **protection area** would include an area within which **timber harvesting operations** are proposed).

### If evidence of the presence of a value listed in **Table 13 Rare or threatened fauna and invertebrate prescriptions** or **Table 14 Rare or threatened flora prescriptions** is identified, the **managing authority** must:

#### notify the **Secretary**, providing details (including spatial information) of evidence and the value location; and

#### unless the **Secretary** otherwise approves, take appropriate steps to **verify** evidence of the presence of the value.

#### **Note:** The **Secretary** may otherwise approve if the **Secretary** intends to take steps to **verify** the existence of the value.

### If evidence of the presence of a value listed in **Table 13 Rare or threatened fauna and invertebrate prescriptions** or **Table 14 Rare or threatened flora prescriptions** is **verified**, apply and undertake any associated management action specified in the Table.

### If a management action or other mandatory action includes a requirement to apply a **protection area** or a **management area**, the **managing authority** must (in addition to any other action):

#### Provide information to the **Secretary** about the extent and boundary of the area proposed to be delineated as a **protection area** or **management area**;

#### Follow any input or direction of the **Secretary** about the extent and boundary of the area (which must not be inconsistent with the **Code**);

#### Delineate the boundary of the **protection area** or the **management area** in any applicable **Forest Coupe Plan** (consistently with the applicable requirement and any input or direction from the **Secretary**), including by updating the **Forest Coupe Plan** as the case requires; and

#### Keep sufficient records of the boundaries of any part of an area for which there is not an applicable **Forest Coupe Plan** to ensure that the area is identifiable for the purpose of compliance with the **Code** and to enable that area to be delineated on any **Forest Coupe Plan** that subsequently includes that area.

### In any **management area** that is required to be applied by these **Management Standards and Procedures**, the **managing authority** must (in addition to any other action):

#### consult with the **Secretary** about proposed measures to ensure the persistence of a value across the **management area**; and

#### ensure sufficient practical measures are undertaken to ensure the persistence of a value across the **management area**.

### The **managing authority** must comply with the requirements of clause 4.2.1.2, 4.2.1.3, 4.2.1.4 and 4.2.1.5, either:

#### prior to the commencement of **timber harvesting operations**; or

#### if a requirement only arises after **timber harvesting operations** have commenced, as soon as possible after the requirement arises.

## Vegetation communities

### **4.3.1 Box Ironbark**

#### In the **Gippsland FMAs** exclude **selective harvesting** from **Box Ironbark** **forests** typically containing **Forest** Red Gum (*Eucalyptus tereticornis*), Yellow Box (*Eucalyptus melliodora*), Coast Grey Box (*Eucalyptus bosistoana*) and Red Ironbark (*Eucalyptus tricarpa*). Silvicultural practices that promote **regeneration** of these species is permitted.

#### In the East Gippsland **FMA** exclude **selective harvesting** from **Box Ironbark** **forests** typically containing Red Ironbark (*Eucalyptus tricarpa*), Gippsland Grey Box (*Eucalyptus bosistoana*), Red Box (*Eucalyptus polyanthemos*), Blue Box (*Eucalyptus baueriana*) and Yellow Stringybark (*Eucalyptus muelleriana*). The use of **seed tree** **harvesting** systems is permitted to restore the original species mix when combined with:

#### cutting stumps of desired species to a maximum height of 30 cm, to encourage coppice growth;

#### supplementary planting and sowing where necessary;

#### removing unproductive trees of the less-preferred species to remove **overwood** competition; and

#### **thinning** of advanced regrowth.

### **Heathland**

#### Avoid **road construction** across areas of **heathland** or within 40m of **heathlands** unless no reasonable alternative exists.

#### In the **Gippsland FMAs**, exclude Wet **Heathland**, Clay **Heathland** and Riparian Scrub Mosaic **EVC**s from harvesting. Protect these **heathland** **EVC**s with a 40m **buffer**.

#### In the **East Gippsland FMA** and **Otway FMA** where evidence of **heathland** is found in the field and it isn’t already classified as **SPZ**, apply a **protection area** prior to commencement of the **timber harvesting operation** consistent with management actions listed in **Table 15 Detection based rules for Heathland, Snow Gum, Swamp Gum and Heath vegetation communities**.

#### In the **Central Highlands** and **North East** **FMAs**, where evidence of **heathland** is found in the field and it isn’t already classified as **SPZ**, apply a **protection area** over the identified **heathlands**, however there is no **buffer** required.

### **Montane Riparian Thicket (MRT)**

#### In the Tambo **FMA** protect small **stands** of **MRT** between 0.01ha and 0.5ha and less than 10m wide with a 10m **filter strip** and **stands** of **MRT** wider than 10m with a 20m wide **filter strip**. Protect **stands** of **MRT** greater than 0.5ha with a 20m **buffer** from the edge of the Mountain Tea-tree **canopy**.

#### In all other **FMAs** apply the **heathland** prescriptions listed above in 4.3.2.

#### **MRT** **stands** must contain at least 40 % **canopy** cover of Mountain Tea-tree (*Leptospermum grandifolium*) and at least two key **understorey** species from the **MRT** definition in the **Glossary**. Small gaps in the Mountain Tea-tree **canopy** may occur at intervals up to 10m in length. Where **MRT** **stands** are separated by **canopy** gaps greater than 10m, they are to be treated as individual **stands**.

### **Old growth forest**

#### Within the **Central Highland’s FMAs**, apply a 100m **buffer** around all **stands** of modelled **Ash** **old growth** **forest** that are depicted in the **Department**’s corporate spatial datasetMOG2009.shp, and confirmedduring field assessment by the **managing authority** or the **Department** to be **Ash** type **forest**.

### **White Cypress Pine, Buloke, Grey Box, Yellow Box and Grey Box vegetation communities**

#### In the Mid Murray **FMA**, exclude **timber harvesting operations** within any White Cypress Pine (*Callitris glaucophylla*), Buloke, Grey Box (*Eucalyptus macrocarpa*), Yellow Box (*Eucalyptus melliodora*) and Grey Box vegetation communities.

### **Snow Gum and Swamp Gum**

#### For vegetation communities dominated by Snow Gum (*Eucalyptus pauciflora*) on Mt Cole and Swamp Gum (*Eucalyptus ovata*) near Enfield in the Midlands **FMA** that aren’t already classified as **SPZ**, apply a **protection area** prior to commencement of the **timber harvesting operation** consistent with management actions listed in **Table 15 Detection based rules for Heathland, Snow Gum, Swamp Gum and Heath vegetation communities**.

### **Rainforest canopy species**

#### **Rainforest** **canopy** species are defined as shade tolerant tree and vine species which are able to regenerate below an undisturbed **canopy**, or in small **canopy** gaps resulting from locally recurring minor disturbances, such as isolated windthrow or lightning strike, which are part of the **rainforest** ecosystem. Such species are not dependent on fire for their **regeneration**.

#### In East Gippsland, Warm Temperate **Rainforest** **canopy** species are: Lilly Pilly (*Acmena smithii)*, Kanuka (*Tristaniopsis laurina*), Sweet Pittosporum (*Pittosporum undulatum*), Blackwood(*Acacia melanoxylon*), Blue Olive-berry (*Elaeocarpus reticulates*), Muttonwood(*Myrsine howittiana*), Jungle Grape(*Cissus hypoglauca*), Boobialla(*Myoporum insulare*) and Yellow-wood(*Acronychia Ablongifolia*).

#### In East Gippsland, Cool Temperate **Rainforest** **canopy** species are: Southern Sassafras(*Atherosperma moschatum*), Black Olive-berry(*Elaeocarpus holopetalus*), Blackwood(*Acacia melanoxylon*), Gippsland Waratah(*Telopea oreades*), Privet Mock-olive(*Notelaea ligustrina*), Banyalla(*Pittosporum bicolor*), Goonmirk Rocks Errinundra Plum Pine(*Podocarpus sp. aff. Lawrencei*) and Errinundra Pepper(*Tasmannia xerophila subsp. robusta*).

#### In the **Central Highlands FMAs** and Central Gippsland **FMA**, Cool Temperate **Rainforest** **canopy** species are: Myrtle Beech(*Nothofagus cunninghamii*), Southern Sassafras(*Atherosperma moschatum*), Blackwood(*Acacia melanoxylon*), Banyalla(*Pittosporum bicolor*), Mountain Pepper(*Tasmannia lanceolata*) and Mountain Tea-tree(*Leptospermum grandifolium*).

#### In the Central Gippsland **FMA**, Warm Temperate **Rainforest** **canopy** species are: Sweet Pittosporum(*Pittosporum undulatum*), Muttonwood(*Myrsine howittiana*) and Blackwood(*Acacia melanoxylon*).

#### In the Otway’s, Cool Temperate **Rainforest** **canopy** species are: Myrtle Beech(*Nothofagus cunninghamii*) and Blackwood(*Acacia melanoxylon*).

#### In all areas, **forest** **stands** that are dominated by single (contain over 50%), non-diverse **stands** of the following species and which contain few other **rainforest** characteristics, are not considered **rainforest**: Blackwood(*Acacia melanoxylon*), Mountain Teatree(*Leptospermum grandifolium*), Sweet Pittosporum(*Pittosporum undulatum*), Errinundra Pepper(*Tasmannia xerophila subsp. robusta*) or Mountain Pepper (*Tasmannia lanceolata*).

#### Eucalypts are not classified as broad-leaved **rainforest** species and therefore Eucalypts do not contribute to the projected foliage cover when identifying **stands** of **rainforest**.

### **Rainforest field recognition and delineation**

#### **Rainforest** **stands** are identified in the field as **forest** of at least 0.1 hectares where the projected foliage cover of the broadleaved tree **canopy** is greater than 70 % and is contributed by 1 or more of the **canopy** tree species listed above in sections 4.3.7.2 to 4.3.7.6 and where section 4.3.7.7 is not met.

#### Projected foliage cover is the proportion of ground covered by the vertical projection of foliage and branches from **rainforest** **canopy** trees. Any potential contribution of **understorey** species such as tree ferns is not counted toward assessment of projected foliage cover.

#### Linear **stands** are defined as **stands** of **rainforest** which are elongated and which are between 20m and 40m wide. Linear **stands** of **rainforest** usually occur along **drainage lines** or small streams. Linear **stands** may be “overshadowed” by eucalypts from the adjoining eucalypt **forest**.

#### The minimum area for recognition of a **rainforest** **stand** is 0.1 ha and the minimum narrowest width is 20m. (i.e. 20m by 50m).

#### Special care is required when assessing the boundary between identified **rainforest** **stands** and adjacent wet sclerophyll **forest** **stands** where disturbance such as fire has temporarily removed the **rainforest** **canopy** or has created temporary **canopy** gaps within the **stand** of **rainforest**. In cases where the **canopy** disturbance is less than ten years old and further guidance as to the boundary between identified **rainforest** and adjacent wet sclerophyll **forest** **stands** is required, the ‘differential species approach’ is to be used (Differential species keys for the delineation of **rainforest** boundaries can provide reference photos)

#### Where the **rainforest** **canopy** is absent and there is little or no evidence of the **regeneration** of a **rainforest** **canopy** after 10 years following disturbance the ‘differential species approach’ should not be used to identify **rainforest** and the **stand** should no longer be considered to be **rainforest**.

#### Where the ‘differential species approach’ is utilised, the **rainforest** boundary is the point where the number of **rainforest** species equals 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 the **rainforest** **canopy** tree cover reduces gradually from 70% projected foliage cover. (gradual transition is a transition from 70% **rainforest** species projected foliage cover to 70%non-**rainforest** species projected foliage cover over a distance greater than approximately 10 meters)

### **Rainforest protection measures**

#### Protect all **rainforest** **stands** from **timber harvesting operations** as follows:

##### Exclude non linear **stands** that are 0.1ha or more in size but less than 0.4ha from **timber harvesting operations**. These **stands** do not require a **buffer**.

##### Exclude linear **stands** that are at least 0.1ha but are less than 0.2ha from **timber harvesting operations**. These **stands** do not require a **buffer**.

##### Exclude linear **stands** that are at least 0.2ha but are less than 0.4ha from **timber harvesting operations**. Protect these **stands** with a 20m **buffer**.

##### Exclude all **rainforest** **stands** (including linear **stands**) equal to or exceeding 0.4ha from **timber harvesting operations**. Protect these **stands** with a 40m **buffer** except for **rainforest** **stands** in the **Central Highlands FMAs** and the **Gippsland FMAs** where 4.3.9.2 below must be complied with.

##### Distribute slash away from retained **rainforest** **stands** or **buffers**.

#### In areas categorised as being of National, State or Regional significance in the **Sites of Significance for Rainforest** spatial layer where evidence of **rainforest** greater in size than 0.4ha is found in the field and it isn’t already classified as **SPZ**, apply a **protection area** prior to commencement of the **timber harvesting operation** consistent with management actions listed in **Table 16 Buffer widths for Rainforest Sites of Significance by category and priority**.

## Pests, weeds and diseases

### **Diseases**

#### Minimise the risk of introduction or movement of Cinnamon Fungus (*Phytophthora cinnamomi*) and Root Rot (*Armillaria*) from a **forest disease control area** into other areas, by:

##### washing machinery before moving from a **forest disease control area** into other areas;

##### restricting activities where the movement of soil or gravel is likely to cross from a **forest disease control area** into other areas;

##### minimising the relocation or movement of gravel or soil during **road** and track construction or maintenance works, or logging operations within a **forest disease control area**;

##### restricting or controlling drainage water **run-off** from **roads** and tracks to minimise **run-off** from a **forest disease control area** into other areas;

##### testing gravel from **forest disease control areas** and using only uncontaminated gravel in other areas; and

##### f) cleaning and disinfecting vehicles, machinery, tools and equipment used within a **forest disease control area**.

#### Minimise the spread of Myrtle Wilt (*Chalara australis*) when operating in a **forest disease control area** by:

##### protecting individual Myrtle Beech (*Nothofagus cunninghamii*) trees;

##### sterilising equipment with anti-fungal agent or warm water and soap prior to moving into a new area;

##### pruning Myrtle Beech (*Nothofagus cunninghamii*) that are subject to ongoing damage by vehicles; and

##### immediately treating wounds on Myrtle Beech (*Nothofagus cunninghamii*) (including those left by pruning) with a commercial, waterproof wound sealant.

### **Weeds**

#### Conduct a pre-harvest assessment to determine the type and extent of weeds on the **coupe** and on associated **coupe access roads**.

#### Conduct a post-harvest assessment to determine the type and extent of weeds on the **coupe** and associated **coupe access roads** in the first spring after completion of **site preparation** and establishment and during the **stocking** survey.

#### Where the assessments identify the **timber harvesting operation** has introduced or exacerbated weeds in a **coupe**, prepare a weed management plan and implement a weed control program.

#### Record any areas to be treated on a map in the **Forest Coupe Plan** and mark in the field as necessary prior to treatment.

# **Important values**

## Heritage, historic places and Aboriginal cultural heritage

#### During planning for **timber harvesting operations**, have regard to obligations under relevant heritage legislation including the:

#### *Heritage Act 2017*,

#### *Aboriginal Heritage Act 2006*.

#### Ensure relevant databases are consulted prior to the commencement of **timber harvesting operations** including the:

#### Victorian Heritage Register,

#### Victorian Heritage Inventory,

#### Aboriginal Cultural Heritage Register and Information System (ACHRIS) public map,

#### **Forest Management Zoning Scheme**.

#### Where a **historic place** or **Aboriginal cultural heritage** is present and represented within the **Forest Management Zoning Scheme**, comply with zoning and management actions. Where a **historic place** or **Aboriginal cultural heritage** is present and not represented within the **Forest Management Zoning Scheme**, relevant heritage laws may still apply.

#### Where there is evidence of the presence of a **historic place** or **Aboriginal cultural heritage** that is not or may not be registered under relevant heritage legislation, ensure the evidence of the **historic place** or **Aboriginal cultural heritage** is reported to the **Secretary** and to any person or body responsible for the relevant legislation, and the **historic place** or **Aboriginal cultural heritage** is protected from **timber harvesting operations** (subject to obtaining any relevant permission under the applicable heritage legislation).

## Landscape Sensitivity Areas

### **Central Highlands FM As**

#### Retain all **mature** trees within 20m of the Monda Track.

#### Apply a 50m **buffer** either side of La La Falls walking track.

#### Apply a 50 m **buffer** either side of Island Creek walking track and a 100m **buffer** around the Ada Tree.

#### Apply an 80m **buffer** upslope and 20m **buffer** downslope of aqueducts in the Historic and Cultural Features Reserves in Rubicon State Forest.

#### *Foreground Seen Area Management (0 – 500 m)*

#### In the foreground, within 500m seen from the ‘Places’ listed as ‘Landscape Features’, ‘Scenic Drives’ and ‘Designated Lookouts’ in **Table 17 Landscape management prescriptions**, manage **timber harvesting operations** to ensure landscape alterations are temporary, subtle and not evident to the casual observer.

#### In the foreground, within 500m seen from the ‘Places’ listed as ‘Scenic Drives’ and ‘Designated Lookouts' in **Table 17 Landscape management prescriptions**, use a minimum 20m vegetation **buffer** to screen **timber harvesting operation**s (except **selective harvesting** operations) and new **road** alignments from view.

#### *Middleground seen area management (500m – 6.5km)*

#### In the middleground, between 500m and 6.5km, seen from the ‘Places’ listed as ‘Landscape Features’ in **Table 17 Landscape management prescriptions**:

##### manage **timber harvesting operations** to ensure landscape alterations are only subtly apparent within 5 years of the operation; and

##### shape, position and time **timber harvesting operations** and new **roads** to minimise their visual impact.

### **East Gippsland FMA**

#### Within the ‘Places’ listed as ‘Landscape Features’ described in **Table 17 Landscape management prescriptions**, limit the area of **coupes** which are highly visible from Gelantipy Road to 20ha and leave at least 3 years between harvesting of adjacent **coupes**.

#### *Foreground seen area management (0 – 500 m)*

#### In the foreground, within 500m seen from the ‘Places’ listed as ‘Landscape Features’, ‘Scenic Drives’ and ‘Designated Lookouts’ listed in **Table 17 Landscape management** prescriptions, manage **timber harvesting operations** to ensure landscape alterations are temporary, subtle and not evident to the casual observer.

#### In the foreground, within 500m seen from the ‘Places’ listed as ‘Scenic Drives’ and ‘Designated Lookouts' in Table **17 Landscape management prescriptions**, use a minimum 20m vegetation **buffer** to screen **timber harvesting operations** (except **selective harvesting** operations) and new **road** alignments from view.

#### *Middleground seen area management (500m – 6.5km)*

#### In the middle ground, between 500m and 6.5km, seen from the ‘Places’ listed as ‘Scenic Drives’ and ‘Designated Lookouts’ in **Table 17 Landscape management prescriptions**:

##### manage **timber harvesting operation**s to ensure landscape alterations are only subtly apparent within 2 years of the operation; and

##### shape, position and time **timber harvesting operation**s and new **roads** to minimise their visual impact.

#### *Background ridgeline management*

#### Design **timber harvesting operation**s so that **clearfall** and skyline ‘notches’ are not apparent from the ‘Places’ listed as ‘Scenic Drives’ and ‘Designated Lookouts’ listed in **Table 17 Landscape management prescriptions**.

### **Gippsland FMAs**

#### Plan and implement **timber harvesting operation**s in areas zoned as **SMZ** for landscape values in a manner that ensures the scenic value is maintained.

#### In the middle ground seen from the ‘Places’ listed as ‘Landscape Features’ listed in **Table 17 Landscape management prescriptions**, design **timber harvesting operations** and new **roads** to minimise their visual impact.

### **Midlands FMA**

#### *Foreground seen area management (0 – 500m)*

#### In the foreground, within 500m seen from the ‘Places’ listed as ‘Scenic Drives’ and ‘Designated Lookouts’ listed in **Table 17 Landscape management prescriptions** manage **timber harvesting operations** to ensure landscape alterations are temporary, subtle and not evident to the casual observer.

#### In the foreground, within 500m seen from the ‘Places’ listed as ‘Scenic Drives’ and ‘Designated Lookouts’ in **Table 17 Landscape management prescriptions**, use a minimum 20m vegetation **buffer** to screen **timber harvesting operations** (except **selective harvesting** operations) and new **road** alignments from view.

#### *Middleground seen area management (500m – 6.5km)*

#### In the middle ground, between 500m and 6.5km, seen from the ‘Places’ listed as ‘Scenic Drives’ and ‘Designated Lookouts’ in **Table 17 Landscape management prescriptions**:

##### manage **timber harvesting operations** to ensure landscape alterations are only subtly apparent within 2 years of the operation; and

##### shape, position and time **timber harvesting operations** and new **roads** to minimise their visual impact.

### **Mid Murray FMA**

#### Within the landscape management **SMZ**s, manage **timber harvesting operations** as follows:

1. retain large old trees close to the **roads** (subject to public safety);
2. during peak periods of visitor use, conduct only those **timber harvesting operations** and silvicultural works (like **thinning**) which maintain visual amenity; and
3. ensure harvesting debris is removed from the corridor.

#### Site log **landings** and sleeper cutting ducks at least 60m from **roads** subject to landscape management **SPZ**s.

### **North East FMAs**

#### For Indicative National Estate natural landscapes, the following management directions apply:

#### At Mt. Cudgewa/Rogers Creek, design **coupes** to minimise impact on view from Henlow (Tallangatta Valley);

1. At Lower Howqua North/Red Hill, design **coupes** to minimise impact on view from Mt. Buller;
2. At Mt. View (Snake-Edwards Divide), design **coupes** to minimise impact on view from Mt. Skene Road.

#### For the Indicative National Estate values at Eskdale Spur and Mt Emu, design **coupe** to minimise impact on view from Kiewa Valley Highway.

#### For the Indicative National Estate value (natural, aesthetic) along Omeo Highway and at Mt. Wills Historic Area:

1. Plan **timber harvesting operations** between Bogong Saddle and Glen Wills on the Omeo Highway to ensure no more than 10% of the length of roadside should be less than 3 years old; and
2. Harvesting adjacent to or immediately opposite a recently harvested **coupe** may only proceed when the **regeneration** of the initial harvested area is at least 3 years old.

#### Plan and implement **timber harvesting operations** and new **road construction** in existing landscape **SMZ** in a manner that ensures the scenic value is maintained.

#### In the middle ground seen from the ‘Places’ listed as ‘Landscape Features’ in **Table 17 Landscape management prescriptions**, design **timber harvesting operations** and new **roads** to minimise their visual impact.

## Apiary

### **Bendigo FMA**

#### When planning harvesting in patches of summer-flowering Red Ironbark **stands**, ensure that potential short-term flowering reductions resulting from harvesting are not concentrated in time or location.

### **Gippsland Forest Apiary Plan Area**

#### Within a 1km radius of Apiary Zone 1 sites (sites of high importance to the apiary industry), manage **timber harvesting operations** to:

##### maximise the proportion of older age **stands**;

##### retain at least 66% of **State forest** at more than 40 years of age;

##### retain at least 66% of Yellow Stringybark (*Eucalyptus muelleriana*) and Red Box (*Eucalyptus polyanthemos*) **stands** in **State forest** in the **mature** and/or over-**mature** age class; and

##### retain all individual Blue Box (*Eucalyptus baueriana*) trees.

## Recreation

#### For developed recreation facilities not included in the **SMZ** or **SPZ** components of the **FMZS**, exclude **timber harvesting operations** within 40m. Recreation facilities are considered to be developed if they include fixed structures, campsites, and/or signage that is maintained by the **land manager** or an authorised operator.

#### For the recreation sites listed in **Table 18 Recreation sites**, document and **manage timber harvesting operations** to maintain the value of the place.

#### Within the Australian Alps Walking Track (AAWT) **SPZ**:

##### (a) construct and maintain **roads** that cross the AAWT in a manner that considers the needs of walkers using the track; and

##### (b) consider the use of alternative **extraction** routes during harvesting operations to protect the AAWT.

## Research

### In the **Gippsland FMAs**, Midlands **FMA** and **North East FMAs** refer to **Table 19 Research sites** for prescriptions applicable to research locations and projects.

### In Mid Murray **FMA**, exclude **timber harvesting operations** that are incompatible with the objectives for **sanctioned** research projects, until such time as the areas are no longer required.

### In the **Central Highlands FMA**, exclude **timber harvesting operations** within 50m of registered ANU Monitoring sites at which long-term ecological monitoring is being conducted.

## Fuel Hazard ratings in Fire Management Zones

#### The scheduling of **timber harvesting operations** and **planned burning** should occur to ensure that areas are **clearfall** or **seed tree** harvested less than 12 months prior to planned burning.

#### Failure to comply with clauses 5.6.1.3 through to 5.6.1.6 may result in the **Department** undertaking planned burning in the **coupe**. Where this occurs, the **managing authority** or **harvesting entity** is responsible for ensuring **regeneration** standards are met post planned burning.

#### The time frame for ensuring that the overall **fuel hazard ratings** are met commences from **coupe** completion (i.e. not temporary closure). A maximum of 2 years from **coupe** commencement is allowed if temporary clearances are applied to a **coupe**.

#### The following requirements apply to **APZ Land**:

#### The overall **fuel hazard rating** for a harvested **coupe** must be less than or equal to moderate:

#### during harvesting if harvesting is conducted during the fire season; and

#### within 12 months of harvesting.

#### **Clearfall** and **seed tree** harvesting is not permitted in more than 1 ha of the **gross coupe area**.

#### Harvesting using **thinning** or **selective harvesting** must not be undertaken if it would cause the rolling five year average APZ harvest percentage within a **fuel hazard management unit** to exceed 5 per cent.

#### For the purposes of paragraph (c), the rolling five year average APZ harvest percentage is to be determined in the 2022/23 financial year and each subsequent financial year, for each **fuel hazard management unit**, using the following method:

#### Calculate the annual APZ harvest percentage in a **fuel hazard management unit** for the financial year using the following formula:

Where –

**A** is the annual APZ harvest percentage;

**H** is the total combined area, measured in hectares, of **APZ Land** in the **fuel hazard management unit** that was zoned either **GMZ** or **SMZ** as of 30 June of the preceding financial year, which has been harvested using **thinning** or **selective harvesting** in the financial year;

**Z** is the total combined area, measured in hectares, of **APZ Land** in the **fuel hazard management unit** that was zoned either **GMZ** or **SMZ**, as at 30 June of the preceding financial year.

#### Add the annual APZ harvest percentage for the financial year to the final annual APZ harvest percentage of each of the immediately preceding four financial years, and divide that total by 5.

**Note**: the annual APZ harvest percentage formula applies continuously throughout a financial year (including to be calculated at the conclusion of the financial year, taking into account harvesting up to and including 30 June of that year, which will be the final annual APZ harvest percentage for that year).

#### For the purposes of paragraph (d)(ii), the final annual APZ harvest percentage for the 2018/19, 2019/20, 2020/21 and 2021/22 financial years must be calculated:

#### as soon as practicable after 1 July 2022 (and in any event no later than 1 September 2022);

#### using the method specified in paragraph (d) (as modified by paragraphs (iii) and (iv) below);

#### on the assumption that **fuel hazard management units** were in place and that had the same boundaries as each **fuel hazard management unit** has as at 1 July 2022.

#### on the assumption that, within a **fuel hazard management unit**, the boundaries of the **Asset Protection Zones**, **GMZ** and **SMZ** were the same as those that exist as at 1 July 2022.

#### The following requirements apply to **BMZ Land**:

#### The **overall fuel hazard** rating for a **clearfall** or **seed tree harvested coupe** must be returned to a rating of less than or equal to high within 12 months of harvesting.

#### Harvesting using **clearfell** or **seed tree harvesting** must not be undertaken if it would cause the rolling five year average BMZ clearfell harvest percentage within a **fuel hazard management unit** to exceed 1 per cent.

#### For the purposes of paragraph (c), the rolling five year average BMZ clearfell harvest percentage is to be determined in the 2022/23 financial year and each subsequent financial year, for each **fuel hazard management unit**, using the following method:

#### Calculate the annual BMZ clearfell harvest percentage in a **fuel hazard management unit** for the financial year using the following formula:

Where –

**BC** is the annual BMZ clearfell harvest percentage;

**H** is the total combined area, measured in hectares, of **BMZ Land** in the **fuel hazard management unit** that was zoned either **GMZ** or **SMZ** as of30 June of the preceding financial year, which has been harvested using clearfellor seed tree harvesting in the financial year;

**Z** is the total combined area, measured in hectares, of **BMZ Land** in the **fuel hazard management unit** that was zoned either **GMZ** or **SMZ**, as at 30 June of the preceding financial year.

#### Add the annual BMZ clearfell harvest percentage for the financial year to the final annual BMZ clearfell harvest percentage of each of the immediately preceding four financial years, and divide that total by 5.

**Note**: the annual BMZ clearfell harvest percentage formula applies continuously throughout a financial year (including to be calculated at the conclusion of the financial year, taking into account harvesting up to and including 30 June of that year, which will be the final annual BLMZ clearfell harvest percentage for that year).

#### For the purposes of paragraph (c)(ii), the final annual BMZ clearfell harvest percentage for the 2018/19, 2019/20, 2020/21 and 2021/22 financial years must be calculated:

#### as soon as practicable after 1 July 2022 (and in any event no later than 1 September 2022).

#### using the method specified in paragraph (c) (as modified by paragraphs (iii) and (iv) below);

#### on the assumption that **fuel hazard management units** were in place and had the same boundaries as each **fuel hazard management unit** has as at 1 July 2022.

#### on the assumption that, within a **fuel hazard management unit**, the boundaries of the Bushfire Moderation Zones, **GMZ** and **SMZ** were the same as those that exist as at 1 July 2022.

#### Harvesting using **thinning** or **selective harvesting** must not be undertaken if it would cause the rolling five year average BMZ thinning harvest percentage within a **fuel hazard management unit** to exceed 4 per cent.

#### For the purposes of paragraph (e), the rolling five year average BMZ thinning harvest percentage is to be determined in the 2022/23 financial year and each subsequent financial year, for each **fuel hazard management unit**, using the following method:

#### Calculate the annual BMZ thinning harvest percentage in a **fuel hazard management unit** for the financial year using the following formula:

Where –

**BT** is the annual BMZ thinning harvest percentage;

**H** is the total combined area, measured in hectares, of **BMZ Land** in the **fuel hazard management unit** that was zoned either **GMZ** or **SMZ** as of30 June of the preceding financial year, which has been harvested using **thinning** or **selective harvesting** in the financial year;

**Z** is the total combined area, measured in hectares, of **BMZ Land** in the **fuel hazard management unit** that was zoned either **GMZ** or **SMZ**, as at 30 June of the preceding financial year.

#### Add the annual BMZ thinning harvest percentage for the financial year to the final annual BMZ thinning harvest percentage of each of the immediately preceding four financial years, and divide that total by 5.

**Note**: the annual BMZ thinning harvest percentage formula applies continuously throughout a financial year (including to be calculated at the conclusion of the financial year, taking into account harvesting up to and including 30 June of that year, which will be the final annual BMZ thinning harvest percentage for that year).

#### For the purposes of paragraph (f)(ii), the final annual BMZ thinning harvest percentage for the 2018/19, 2019/20, 2020/21 and 2021/22 financial years must be calculated:

#### as soon as practicable after 1 July 2022 (and in any event no later than 1 September 2022).

#### using the method specified in paragraph (f) (as modified by paragraphs (iii) and (iv) below);

#### on the assumption that **fuel hazard management units** were in place and had the same boundaries as each **fuel hazard management unit** has as at 1 July 2022.

#### on the assumption that, within a **fuel hazard management unit**, the boundaries of the Bushfire Moderation Zones, **GMZ** and **SMZ** were the same as those that exist as at 1 July 2022.

#### **Thinned** or **selectively harvested** **coupes** may be burnt by the **Department** as part of future planned burns. These burns will be conducted at least 18 months post harvest.

#### If any part of a **coupe** is within 1.5km of private property, and any part of that **coupe** is also within a Landscape Management Zone as described in the *Code of Practice for Bushfire Management on Public Land 2012*, the overall **fuel hazard rating** for that **coupe** if harvested (unless harvested using **selective harvesting** or **thinning**) must be less than or equal to high within 12 months of harvesting.

# **Roading**

## Road planning

#### Plan new **roads** and **significant road improvement operations** to minimise construction through **management areas**, **SMZ**, **protection areas**, **SPZ**, wet, unstable areas, and slopes greater than 30 degrees.

#### Application may be made to the **Minister** or **delegate** to obtain approvals for **road construction** (including **coupe access** and **in-coupe** **roads**) or **significant road improvement operations** proposed to be roading activities conducted in **protection areas** or **SPZ** in accordance with Section 1.4.

#### Seek engineering advice for **road** alignments traversing cross slopes of 30 degrees or greater or 25 degrees and greater in areas of high soil erodability.

#### Identify the intended class of a new **road** or **road** upgrade in accordance with the appropriate service function description in **Table 20 Road classification system**

#### Design new **roads** and **road** upgrades to conform to the geometric design standards in **Table 21 Guidelines to the main geometric design standards – unsealed roads** for the intended **road** class.

### **Clearing Widths**

#### Minimum clearing widths for **roads** are specified in **Table 22 Minimum clearing widths (m) required for typical road construction**

#### When planning clearing widths for **road** intersections on **permanent roads** include the minimum formation width plus any additional width required for the construction of batters.

#### Where a slashed verge is necessary, plan clearing widths for **permanent roads** sufficiently wide to enable efficient control of unwanted **regrowth**.

#### Limit clearing widths to those specified in **Table 22 Minimum clearing widths (m) required for typical road construction** plus any additional width required to construct batters.

## Road construction

#### Undertake **road** **construction** when rainfall and soil conditions minimise the risk of erosion and impact on water quality, and when soil moisture is adequate to achieve compaction and stabilisation of the sub-grade.

#### Clear **road** alignments prior to **road** formation.

#### For construction of **permanent roads**, remove all stumps, logs and other debris from within the formed width of the **road** site.

#### Where **road construction** requires the removal of topsoil in large quantities maintain the topsoil in a stockpile where practicable, clear of logging debris for use in batter stabilisation, **snig track** **rehabilitation** or other **coupe infrastructure** rehabilitation.

#### Create table drains by extending the **road** when it is formed, and not by subsequent excavation.

#### Limit earthworks to the least possible to achieve the **road** design specification.

#### At the completion of **permanent road** **construction** operations, notify the **Department** of the location of the **road** (so that the **road** may be included on the **Department** Road Register).

### **Fill Batter Construction**

#### Minimise fill batters from covering the base of live **retained trees**.

#### Only use clean and weed free mulch in batter rehabilitation works.

#### Stabilise fill batters using mechanical consolidation where practical, to manage any soil movement away from the fill area.

### **Surfacing**

#### Consolidate sub-grades before placing pavement material.

#### Consolidate and level the base course material prior to placing the wearing course material.

#### On **permanent roads** use surfacing materials appropriate to passenger vehicles and **timber harvesting operations**.

### **Road Drainage**

#### The maximum distance between drainage structures for **road** grade and soil erosion hazard is specified in **Table 23 Maximum distance between drainage structures**.

#### Construct cross-drains at an angle sufficient to discharge any water from the surface of the **road**.

#### On soils of high erosion hazard, use temporary sediment traps to prevent erosion during **road** **construction**.

#### Appropriate discharge areas for drainage include:

##### a strip of undisturbed vegetation at least 20 m wide;

##### a rock spill; or

##### some other structure that dissipates the velocity of drainage flows.

#### Place drainage structures at least 20 m from permanent or **temporary streams**, to allow discharge onto undisturbed vegetation and to maximise the flow distance between the drainage outlet and the **waterway**.

#### Where it is not practical to comply with clause 6.2.4.5, and a drainage structure must be located within 20 m of a permanent or **temporary stream**:

##### use **crown** or cross fall techniques to drain **roads** into undisturbed vegetation; or

##### pass drainage through an appropriate sediment control structure such as a sediment pond or silt trap before entering a permanent or **temporary stream**.

#### Construct table drains to:

##### allow water to flow, without ponding;

##### include **run-offs** of sufficient length to allow the table drain and **run-offs** to be cleaned;

##### be supported by rock or otherwise stabilised in soils of a high erosion hazard; and

##### have silt traps constructed at the end if discharging directly into a stream or **wetland** **buffer**.

### **Culverts**

#### Culverts used in **permanent roads** are a minimum of 375 mm in **diameter**.

#### Culverts used in **temporary roads** are a minimum of 300mm in **diameter**.

#### All culverts are designed to withstand a 1 in 10 year rainfall event.

#### Construct culverts in catchment areas exceeding 100ha in accordance with engineering advice.

#### On **drainage lines**, stream and river crossings or soils of High Erosion Hazard place sandbags, **timber**, concrete, or rock at the head of the culvert and at the point of discharge to hold the culvert in place and protect it from erosion.

#### Include a **road** sump for all culverts on Class 5C and higher **roads**.

#### If constructed of concrete, have a minimum cover of 600 mm as measured from the **road** surface to the top of the pipe and a maximum cover as specified in the Installation of Steel-Reinforced Concrete Drainage Pipelines, Concrete Pipe Association of Australasia.

#### If constructed of a material other than concrete, have a minimum cover over the pipe as recommended in the manufacturer’s specifications.

#### On **permanent streams**, include a fish ladder if the **diameter** of the culvert is greater than 750 mm.

#### Protect any fill face upstream or downstream of a culvert in a way that prevents erosion.

#### Ensure culverts do not project above the bed of a **waterway** in a way which may prevent the passage of aquatic **fauna**.

#### Where culvert construction diverts water from its natural course, return water to its natural course over a flume, rock spill, or other hard surface.

### **Bridges**

#### Design bridges in accordance with the **Department’s** *Bridge and Major Culvert Policy*.

#### Design bridges to prevent constriction of any clearly defined channel.

#### Source earth borrow from outside **waterway** **buffers**.

#### Ensure that excavations, sills, abutments, stringers, and girders are made or placed above the high watermark of the stream, **wetland** or **drainage line**.

#### Protect bridges from erosion by use of natural groundcover, a retaining wall, a bulkhead, or a rock surface.

#### Only construct temporary crossings to carry machinery during bridge construction if the bed of the stream, **wetland** or **drainage line** is capable of bearing the weight of that machinery without being damaged.

#### Temporary crossings to carry machinery during bridge construction:

##### include a corduroy crossing of logs;

##### are adequately drained, along with any access tracks, when construction is complete; and

##### are removed and rehabilitated on completion of works.

### **Fords**

#### The base and entry points of fords are constructed of rock, concrete, heavy **timber** or other erosion-resistant material.

#### Fords are only as wide as the crossing place will allow.

#### Ensure fords do not project above the bed of a **waterway** in a way which may prevent the passage of aquatic **fauna**.

## Road Maintenance

### Breach at regular intervals any soil windrow erected on the outside of a **road**.

### Maintain drainage structures to minimise the risk that accumulation of debris and **run-off** could results in damage to drainage structures.

## Road Rehabilitation

### Close **temporary roads** (including removal of all bridges, crossings and culverts on streams or **drainage lines**) as soon as possible after harvesting and/or **regeneration** is complete in all **coupes** that use the **road**.

### Drain the approach to any bridge, culvert or log fill crossing that has been removed to restrict soil movement into a stream or **waterway**.

### Use an effective barrier to close to all vehicles **temporary roads** that will not be used to access a **coupe** for a period of 12 months or more.

# **Timber Harvesting**

## Coupe Management

### **Coupe Boundary**

#### The **coupe** boundary must be able to be identified in the field and must reflect the mapped **coupe** boundary on the **sanctioned** **Forest Coupe Plan**.

#### Where a **coupe** boundary shown in a **Forest** **Coupe** **Plan** is mapped to a geographic feature and the actual location of that geographic feature does not match the mapped location, the **coupe** boundary may be moved a maximum of 50m from the mapped boundary to align with the actual location of the intended boundary feature. If the distance exceeds 50m then the **Forest** **Coupe** **Plan** Map must be amended to reflect the actual **coupe** boundary.

#### Where the **coupe** boundary abuts non-**State forest** land tenures, the **managing authority** must consult with the adjoining **land managers** / **land owners** and agree on the location of the mapped **coupe** boundary in the field.

### **Areas where timber harvesting operations are to be excluded**

#### **Timber harvesting operations** must be excluded from:

##### **SPZ** or **protection areas**;

##### **exclusion areas** within **SMZ**;

##### **exclusion areas**; and

##### within 10m of vertical or near vertical sided gullies with a depth of half a metre or more that are actively eroding (or within 20m where slope exceeds 20 degrees) in the Bendigo **FMA**.

#### Where an **exclusion area** or **protection area** is based on an incorrectly mapped geographic feature or value, the **exclusion area** or **protection area** should be centred on the actual location of the feature or value in the field not the previously mapped location.

#### **Exclusion areas, protection areas** and **SPZs** must be protected from damage during rough heaping or windrowing operations.

#### Application may be made to the **Minister** or **delegate** in accordance with Section 1.4 to conduct the following **timber harvesting operations** in **Special Protection Zones** and **protection areas**:

#### **regeneration** or **rehabilitation** works in areas of harvested **native forest**; or

#### use of existing **coupe infrastructure** (and necessary incidental works) in areas of harvested **native forest**.

### **Operations in buffers**

#### Trees can be harvested within **buffer** areas if **sanctioned** for safety purposes.

#### Machinery is to be excluded from **buffers** except where involved in the **sanctioned** construction of a **coupe** **access road**, **in-coupe road**, or stream crossing; or when using an established stream crossing or **existing road** for the purpose of **road maintenance** works, **snigging,** or **haulage**.

#### Except where constructing a **sanctioned** stream crossing, minimise circumstances where fill and harvesting debris may enter **buffers**.

### **Operations in filters**

#### Machinery is to be excluded from **filter strips** except where involved in the **sanctioned** construction of a **coupe** **access road**, **in-coupe road**, stream crossing or when using an established stream crossing or **existing road** for the purpose of **road maintenance** works, **snigging** or **haulage**.

#### Except where constructing a **sanctioned** stream crossing, minimise circumstances where fill and harvesting debris may enter **filter strips**.

#### **Filter strips** must be protected from damage during rough heaping or windrowing operations.

## Coupe Infrastructure

### **Snig Track and Landing Construction**

#### Crossing standards and procedures for **roads** also apply to **snig track** crossings.

#### Avoid placing bark on uncorded **snig tracks** (this does not apply to **thinning outrows**).

#### Where **cording** is to be used, it should not be placed on **snig tracks** if machinery caused soil damage already exists.

#### Stockpile any existing topsoil during **landing** construction for later use in **rehabilitation**, this is not required if the operation uses suitable soil protection techniques (such as **cording** and **matting**).

### **Snig Track and Landing Rehabilitation**

#### Following completion of the **timber harvesting operation** rehabilitate all **snig tracks** to prevent:

##### unacceptable movement of soil down or from the track surface; and

##### soil movement into streams.

#### Rehabilitate **landings** following completion of **timber harvesting operations**, and before the **coupe** is vacated, unless they are required for:

##### future **Shelterwood 2** operations;

##### harvesting of adjacent **coupes** within 3 years; or

##### any other purpose authorised by the **Secretary** for which **native vegetation** is not compatible.

#### Identify any **landings** that do not require **rehabilitation** in the **Forest Coupe Plan**.

#### Lift and aerate corded and matted **snig tracks** to facilitate **regeneration** burning.

#### Remove **cording** and as much **matting**, bark and slash as possible from **landings** before rehabilitation works occur.

#### Rip / cultivate any **snig track**, **landing** or other area where machinery has compacted the soil. Ripping of **snig tracks** should be extended for at least 30 m from the **landing**.

#### Where removed and stockpiled, replace topsoil to a consistent depth across the **landing**.

### **Boundary Trails**

#### Locate boundary trails within the gross **coupe** boundary and outside **buffers**, **filters** and **exclusion areas** except for **sanctioned** crossings identified in the **Forest** **Coupe** **Plan**.

#### Minimise debris deposited outside the **coupe** boundary when constructing boundary trails.

#### Maintain adequate drainage of boundary trails at all times until rehabilitation is complete.

#### Rehabilitate boundary trails as soon as practical after any **regeneration** **burns** and before commencement of any relevant closure periods.

### **Slash and bark management**

#### Where **regeneration** burning is planned:

##### place bark piles at least 10m inside the **coupe** boundary;

##### place windrows at least 3m from excluded areas; and

##### ensure slash is not permitted to accumulate within 3m of the base of any retained **habitat tree, large tree** or **Shelterwood 1** tree.

#### Limit slash and bark piles to a maximum of 4 m2 (ground area) and 10 m3 (total volume).

### **Campsites and facilities**

#### Obtain approval from the **Minister** or **delegate** in accordance with Section 1.4 for any camp site or shower units associated with **timber harvesting operations** that are not located on a **sanctioned** **coupe**.

#### Situate camp sites and shower units in a location which requires no additional tree clearance.

#### In the Thomson, Tarago and Yarra Tributaries **special water supply catchment areas** serviced sanitary facilities must accompany any operation that is conducted on the land for any extended period.

## Operational restrictions

### **Suspension of timber harvesting operations**

#### Unless **cording** and **matting** has been established at a **coupe**, suspend **snigging**, **forwarding** and log loading when:

##### soil within the **coupe** is saturated;

##### water is flowing on or over any **snig track**; or

##### there is a reasonable risk that effective track drainage cannot be maintained.

### **Suspension of Haulage**

#### **Haulage** must be suspended when:

##### snow is lying on any **road** used to access or exit the **coupe**;

##### water is flowing down any unsealed **road** or track; or

##### truck movement will deposit mud on a gravelled or sealed **road**.

### **Seasonal Closures**

#### No harvesting or **stand** **tending** operations which involve the use of heavy machinery or which otherwise cause significant soil disturbance may take place in designated catchments in the Midlands **FMA** from 31 July to 31 October.

#### No **timber harvesting operations** may take place in the Woohlpooer and Cherrypool **State Forests** during the months of June, July, August and September.

#### Refer to Section 3.5 for season closures that apply to catchment areas within **SMZ**.

# **Fire Salvage Harvesting**

### **Salvage General**

#### Fire salvage prescriptions are in addition to all other prescriptions outlined in these **Management Standards and Procedures** and apply to all salvage operations within fire-affected **forest** until the beginning of the third winter following the wildfire, except where otherwise indicated.

#### **Timber harvesting operations** conducted within fire-affected **forest** after the third winter following the wildfire revert back to the non fire salvage prescriptions within these **Management Standards and Procedures**.

### **Salvage schedule priority**

#### Undertake fire **salvage harvesting operations** in **State forest** areas designated as fire severity classes 1, 2 or 3 before salvage harvesting in fire severity classes 4 or 5. **Table 24 Fire severity classification** describes the Fire Severity Classification system.

### **Coupe size and aggregation**

#### 120 ha is the maximum **coupe** size for fire salvage operations in Alpine or Mountain **Ash** dominated **forest**. No size restrictions apply to aggregates of Alpine or Mountain **Ash** fire salvage **coupes**.

### **Habitat retention**

#### Plan the **coupe** so there is no more than 200 m between areas of retained habitat. Retained habitat includes **habitat tree** **exclusion areas**, filters and **buffers**, **green patch exclusion areas** and any **forest** adjacent to the **coupe**.

#### Exclude machinery from a minimum of 15 % of the **gross coupe area** to facilitate the recovery of **understorey** species. All **exclusion areas, protection areas, SPZs** and stream filters that are additional to standard stream protection prescriptions within the **coupe** may count towards the 15 % of gross **coupe** area from which machinery is excluded. 20 m is the minimum width for machinery **exclusion areas** set aside exclusively for **understorey** recovery. Where present, locate in areas with evidence of tree ferns. Tree felling is permitted in these areas. **Cording** and **matting** may remain on **landings** after **salvage harvesting operations** (replaces Clause 7.2.2.5).

### **Water quality**

#### Except in **restricted access** and **special water supply catchment areas** locate **landings**, where possible:

##### at least 40 m for slopes of 15º or less, or 60 m for slopes of greater than 15º, from any **permanent stream**, or wetland; and

##### at least 20 m for slopes of 15º or less, or 30 m for slopes of greater than 15º, from any **temporary stream** and any **drainage line**.

#### In restricted access and **special water supply catchment areas** locate **landings**, where possible:

##### at least 60 m for slopes of 15º or less, or 80 m for slopes of greater than 15º, from any **permanent stream**, or **wetland**; or

##### at least 40 m from any **temporary stream** **drainage line**.

#### Locate boundary tracks at least 40 m from any **permanent stream** or **wetland**.

#### Apply the **buffer** and **filter** prescriptions for sites with high or very high water quality risk as specified in **Table 9 Minimum widths in metres for buffers (B) and filter (F) strips applicable to various waterway categories, in relation to water quality risk and slope**.

#### Install drainage structures for all **coupe** and **haulage** infrastructure at an appropriate frequency to mitigate increased risks to water quality due to potential sediment loads associated with water flow in the fire affected terrain.

#### In **restricted access** and **special water supply catchment areas** establish a drainage structure between 20 m to 40 m upslope of where a **road** or vehicle route crosses any **waterway**.

### **Weeds and disease**

#### Clean soil from all harvesting machinery (excluding trucks and passenger vehicles) before floating to or from a salvage **coupe**. Replaces Clause 4.4.1.1 where pre-harvest disease and weed infestations cannot be assessed due to fire effects.

### **Field determined values**

#### Locate the boundaries of **protection areas** or **management areas** based on modelled or mapped values according to the process outlined in **Figure 2 Field process for determining protection areas and management areas based on modelled or mapped values**.

#### To determine the boundaries of a Leadbeater’s Possum habitat Zone 1A assume all **hollow** **bearing trees**, even if **dead**, to be ‘alive’.

### **Ash Forest Green Patch Exclusion areas**

#### Green patches are areas of **forest** within a fire affected area that are assessed through field checking to have fire severity class of 4 or 5 (See Section 8.1.2 and **Table 24 Fire severity classification**). Areas of fire severity class 4 or 5 must be at least 40 m wide to be a green patch.

#### Where less than 15 % of **Ash** dominated **forest** within a **compartment** is classified as fire severity class 4 or 5 all green patches greater than 0.5 ha are to be permanently protected during salvage operations to facilitate recruitment of future **hollow** **bearing trees**.

#### Where more than 15 % and less than 40 % of **Ash** dominated **forest** within a **compartment** is classified as fire severity class 4 or 5 protect all green patches greater than 5ha during salvage operations. Following salvage harvesting, further **timber harvesting operations** within these **compartments** are to be excluded until the **forest** regenerating from the fire reaches **reproductive maturity** typically by 15 years of age.

#### Green patches may be harvested where, within a **compartment**, more than 40 % **Ash** dominated **forest** is classified as fire severity class 4 or 5. Limit the total area of fire severity class 4 or 5 **Ash** harvested within a salvage **coupe** to 40 ha.

### **Ash habitat tree exclusion areas**

#### Retain an average of at least 5 **habitat trees** per hectare of **net coupe area** in **exclusion areas** of greater than 0.1 ha. Replaces **Table 12 Habitat tree prescriptions**. Prescriptions protecting trees of pre-1900 origin continue to apply for **Central Highlands FMAs**.

#### Situate **habitat tree** **exclusion areas** to maximise retention of high priority **habitat trees**. **Habitat trees** have the following order of priority:

##### large live **hollow** **bearing trees**;

##### large live trees without **hollows**;

##### large **dead** trees;

##### small live trees; then

##### small **dead** trees.

##### **Note:** In the context of **salvage harvesting operations**, trees greater than 50 cm DBHOB are considered to be large. Replaces **habitat tree** selection criteria in Section 4.1, except where the Bendigo **FMA** standard applies or where all trees of a particular type (e.g. **hollow** **bearing** / **dead**) are protected.

#### Situate **habitat tree** **exclusion areas** to maximise retained **forest** connectivity within the **coupe**.

#### Arrange the shape and location of **habitat tree** **exclusion areas** to reduce ongoing operational and weather related damage to **habitat trees**.

### **Barred Galaxias buffers and filters**

#### Apply the minimum stream **buffer** and **filter strip** widths in **Table 25 Salvage harvesting Barred Galaxia minimum buffer and filter strip widths** upstream of Barred Galaxias populations (all soils), replacing **Table 10 Minimum widths for buffer (B) and filter strips (F) applicable to waterway classes for specified aquatic and riparian habitat-dependant species**.

#### Retain harvesting slash in **filter strips**, and aligned parallel to the stream, to slow the flow of water and reduce the potential for sediment to enter the stream or **wetland**.

# **Forest Regeneration and Management**

## Regeneration

### **Stocking surveys**

#### For **even-aged** **stands**, conduct **stocking** surveys 15-30 months after sowing/seed fall or planting.

#### Successfully stocked **even-aged** regenerating **forests** must have:

##### at least 1 acceptable seedling in 65 % of 2.27 m radius (16 m2) plots placed on a 20 m by 80 m systematic grid or at least 1 acceptable seedling in at least 55 % of 2.27 m radius (16 m2) plots placed on a 20 m by 40 m systematic grid; and

##### no discrete area greater than 1 ha with less than 400 stems per hectare.

#### For **uneven-aged** **stands** conduct **stocking** surveys 15-36 months after completion of harvesting.

#### Successfully stocked **uneven-aged** regenerating **forest**s must have in at least 70 % of plots placed on a 20 m by 80 m systematic grid or 60 % of plots placed on a 20 m by 40 m systematic grid:

##### a total **basal area** of at least 30% of the **basal area** that the site is capable of supporting, or

##### at least 1 acceptable sapling (or coppice) in a 3.57 m radius (40 m2) plot or at least 1 acceptable sapling (or coppice) in a 3.57 m radius (40 m2) plot, or

##### at least 1 acceptable seedling in a 2.27 m radius (16 m2) plot or at least 1 acceptable seedling in a 2.27 m radius (16 m2) plot; and

##### no discrete area greater than 2 ha with less than 400 stems per hectare (caused by recent harvesting).

* + - 1. An acceptable seedling is defined as a species indigenous to the area in either a seedling, lignotuber, or coppice form. Seedlings, lignotubers and coppice must be over 40 cm in height for **Ash** species and over 25 cm in height for non **Ash** species. For coppice, the stem must be likely to remain attached to the stump and the base of the stem must be within 20 cm of ground level.
      2. An acceptable sapling (can be in the coppice form) is defined as a species indigenous to the area that is an acceptable size (3−15 m), is not suppressed and has a vigorous, healthy **crown**.
      3. For both **even-aged** and **uneven-aged** **silviculture**, acceptable species composition for **regeneration** includes at least 10 acceptable seedling of each eucalypt species present on the site before harvesting.
      4. Where **stocking**, health or early growth is inadequate, remedial work must be conducted as soon as practicable and within 5 years of the previous **regeneration** attempt to obtain adequate **regeneration**. Further assessment must be undertaken following remedial treatment to ensure that it has been successfully regenerated.

### **Stocking Survey Exemptions**

#### **Coupes** created purely for the purpose of **road construction** or **maintenance** do not require **stocking** surveys.

### **Seed**

#### Prioritise seed collection from within areas available for **timber harvesting operations**.

#### Ensure large **hollow** **bearing trees** and **habitat trees** retained during previous **timber harvesting operations** are not felled for seed collection.

#### Collect seed from **stands** that show no evidence of hybridisation and have experienced a widespread and preferably heavy flowering in which trees with good crops are close together.

#### Collect seed only from **stands** of natural origin or artificially regenerated **stands** of satisfactory genetic status in which the full, original gene pool of the population is represented. **Stands** regenerated from **seed trees** are regarded as of natural origin for seed collection purposes.

#### Prioritise using seed collected from the **coupe**; i.e., regenerate with seed fall from **retained trees** and/or logging slash, or sow the **coupe** with seed collected from that **coupe**. Otherwise, prioritise using seed that meets the following criteria:

##### the collection site is within 25 km of the **coupe** to be sown;

##### the mid-elevation of the collection site is within 350 m above to 150 m below the mid-elevation of the **coupe** to be sown;

##### for slopes >10 ° the collection and sowing sites have similar aspect (separate between ‘drier' aspects (W, NW, N, NE) and ‘moister’ aspects (SW, S, SE, E); and

##### the collection and sowing sites are of similar soil type and parent material.

#### Where seed quantities within areas available for **timber harvesting operations** are inadequate to meet **regeneration** requirements, application may be made to the **Minister** or **delegate** to collect seed from standing trees within areas excluded from **timber harvesting operations** in accordance with Section 1.4 and Clauses 9.1.3.7 to 9.1.3.10.

#### Applications to collect seed from areas excluded from **timber harvesting operations** will demonstrate that:

##### seed quantities from areas available for **timber harvesting operations** are inadequate to meet **regeneration** requirements;

##### trees will not be felled;

##### seed collection is on behalf of the Crown or the **Secretary**, or for **State forest** **regeneration** requirements;

##### there will be no machinery entry into **rainforest** and stream **buffers**;

##### **protection area** / **SPZ** values will be maintained; and

##### the operation will be assessed and monitored against any approval conditions.

#### Any **approved** seed collection operation in Leadbeater’s Possum **SPZ** or associated **protection areas** will:

##### maintain **canopy** connectivity, particularly along **roads**;

##### protect **understorey** wattle from damage; and

##### exclude **hollow** **bearing** and pre-1900 aged trees from collection activities.

#### Applications to harvest seed from standing trees in areas excluded from harvesting will include:

##### the species to be collected;

##### an estimate of the extracted weight of seed to be collected; and

##### the **FMA** the seed will be collected from.

#### Submit applications at least 1 month prior to commencing seed collection.

## Thinning

#### Unless otherwise stated, standards and procedures that apply to **timber harvesting operations** also apply to **thinning** operations.

#### In **Ash** **forests** retain at least 50 % of the live pre **thinning** **basal area** and a minimum total retained average **basal area** as outlined in **Table 26 Basal Area (BA) and stocking specifications for commercial ash thinning**.

#### In **mixed species** **forests** retain at least 50% of the live pre **thinning** **basal area** and a minimum total retained average **basal area** of:

#### 17 m2/ha for **stands** aged 18 – 24 years;

#### 21 m2/ha for **stands** aged 25 – 34 years; and

#### 25 m2/ha for **stands** aged 35+ years.

#### In **Box Ironbark** **forest**s retain at least 40 % of the live pre **thinning** **basal area** and a minimum total retained average **basal area** of 8 m2/ha (**regrowth** and **overwood**/retained habitat included).

#### In River Red Gum (*Eucalyptus camaldulensis*) **forest**s retain at least 40 % of the live pre **thinning** **basal area** and a minimum total retained average **basal area** of 15 m2/ha in riverine and 10 m2/ha in dryland **stands** (regrowth and **overwood**/retained **habitat trees**).

# **Appendix 1: Tables and Figures**

#### **Table 1 Soil susceptibility to breakdown**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | |  | Horizon | | |
| Soil factor | **Scoring** | | | | **A** | **B** | **C** |
| Soil texture  Score | | SC, C, SiC  **1** | SiCL, CL, SCL  **4** | SL, L, SiL, LS, S, Si  **7** |  |  |  |  |
| Soil aggregate stability  Score | | Unaffected  **1** | Slaking, slight dispersibility  **7** | Very  dispersible  **15** |  |  |  |
| Soil structure  Score | | Highly pedal  **1** | Peds evident  **3** | Apedal  **5** |  |  |  |
| Soil colour  Score | | Black, Reddish Black, Dark Brown  **1** | Light Brown,  Light Red  **2** | Pale Yellow, Grey, White  **3** |  |  |  |
| Soil organic matter | | High  **1** | Moderate  **4** | Low  **7** |  |  |  |
| Stoniness  Score | | >50%  **1** | 10-50%  **2** | <10%  **3** |  |  |  |
| Overall score | | <17 | 17-27 | >27 |  |  |  |
| Rating | | **Low** | **Moderate** | **High** |  |  |  |

#### **Table 2 Soil permeability**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | |  | Horizon | | |
| Soil factor | **Scoring** | | | | **A** | **B** | **C** |
| Soil texture  Score | | SL, L, LS, S  **1** | SiL, Si, SiCL, CL, SCL  **4** | SC, C, SiC  **7** |  |  |  |  |
| Organic matter  Score | | High  **1** | Moderate  **2** | Low  **3** |  |  |  |
| Impeding layer depth (cm)  Score | | >50  1 | 50-25  **3** | <25  **5** |  |  |  |
| Soil Mottling  Score | | Not present  **1** | Slight  **2** | Well Developed, (Pale)  **3** |  |  |  |
| Stoniness  Score | | >50%  **1** | 10-50%  **2** | 10%  **3** |  |  |  |
| Stand ht (m)  Score | | >40  **1** | 28-40  **2** | <28  **3** |  |  |  |
| Overall score | | <11 | 11-18 | >18 |  |  |  |
| Rating | | **Very high** | **High** | **Low** |  |  |  |  |

#### **Table 3 Soil erosion site factor**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | |  |  |
| Site factor | **Scoring** | | | **Rating** |
| Erosivity index  Rating | <590  **1** | 591-1469  **3** | >1470  **5** |  |
| Slope (degrees)  Rating | 0-8  2 | 9-21  4 | >21  **7** |  |
| Slope length / uniformity  Rating | Short uniform  **1** | Long broken  **2** | Long uniform  **3** |  |
| Revegetation capacity  Rating | Good  **1** | Moderate  **2** | Poor  **3** |  |
| Overall score | <10 | 10-14 | >14 |  |
| Rating | **Low** | **Moderate** | **High** |  |

**Notes:**

* Assess soil when moderately moist.
* Stoniness refers to stones greater than 20 mm in size.
* **Stand** height refers to a **mature** **forest** **stand** height.

#### **Figure 1 Rainfall erosivity**

Rainfall erosivity contours in non-SI units for Victoria (Garvin et al. 1979). SI units (MJ. Mm/ha.h.year) given in parentheses.

#### **Table 4 Soil erodibility classification**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Table 1 rating** | | |  |  | | | |
| **Table 2 rating** | **Low** | **Moderate** | **High** | **Horizon** | **A** | **B** | **C** |
| **Very High** | VERY LOW | LOW | MEDIUM | **Table 1** |  |  |  |
| **High** | LOW | MEDIUM | HIGH | **Table2** |  |  |  |
| **Low** | MEDIUM | HIGH | VERY HIGH | **Classification** |  |  |  |

#### **Table 5 Soil erosion hazard classification**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Table 4 classification | | | | |  | | | |
| Table 3 rating | **Very low** | **Low** | **Medium** | **High** | **Very high** | **Horizon** | **A** | **B** | **C** |
| Low | LOW | LOW | LOW | MEDIUM | HIGH | **Table 4** |  |  |  |
| Moderate | LOW | LOW | MEDIUM | HIGH | VERY HIGH | **Table 3** |  |  |  |
| High | LOW | MEDIUM | HIGH | VERY HIGH | VERY HIGH | **Classification** |  |  |  |

#### **Table 6 Soil permeability classification**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Soils with HIGH permeability** | **Soils with LOW permeability** |  | **Horizon** | **A** | **B** | **C** |
| **Table 2 score** | 0 - 18 | 19+ | **Table 2** |  |  |  |
|  | | | **Classification** |  |  |  |

#### **Table 7 Overall soil category**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Soil Permeability Classification**  **(Table 6)** | **Soil Erosion Classification (Table 5)** | | | |
| **Low** | **Medium** | **High** | **Very High** |
| **Low** | M | M | H | VH |
| **High** | L | L | M | M |

#### **Table 8 Water quality risk**

|  |  |
| --- | --- |
| **Overall Soil Category** | **Water Quality Risk** |
| **L** | Low water quality risk |
| **M** | Moderate water quality risk |
| **H** | High water quality risk |
| **VH** | Very High water quality risk |

#### **Table 9 Minimum widths in metres for buffers (B) and filter (F) strips applicable to various waterway categories, in relation to water quality risk and slope**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sites with low or moderate water quality risk** | **Sites with high or very high water quality risk** | |
| **Waterway Class** | **Slope 0 - 30 o** | **Slope 0 - 20 o** | **Slope 21 - 30 o** |
| **1. Pools, permanent streams and wetlands** | 20 m B | 30 m B | 40 m B |
| **2. Temporary streams** | 10 m F | 10 m B + 10 m F | 20 m B |
| **3. Drainage lines** | 10 m F | 10 m F | 15 m F |

#### **Table 10 Minimum widths for buffer (B) and filter strips (F) applicable to waterway classes for specified aquatic and riparian habitat-dependant species**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sites with low or moderate water quality risk** | **Sites with high or very high water quality risk** | |
| **Waterway Class** | ***Slope 0-30o*** | ***Slope 0-20o*** | ***Slope 21o -30o*** |
| **1. Pools, permanent streams and wetlands** | 30 m B | 40 m B | 50 m B |
| **2. Temporary streams** | 20 m B + 10 m F | 20 m B + 20 m F | 30 m B + 20 m F |
| **3. Drainage lines** | 10 m F | 10 m F | 15 m F |

#### **Table 11 Water supply protection areas**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Catchment** | **Status** | **Slope**  **Limit** | **Seasonal Closure** | **Stream Buffers** | | | **Filter Strips** | **Additional Management Actions or**  **Comments** | |
| **Benalla – Mansfield FMA** | | | | | | | | | |
| Lake Eildon | SWSCA | 30o | 1 June - 31 Oct | 20 m | | | 10 m |  | |
| Upper Goulburn | SWSCA | 30o | 1 June - 31 Oct | 20 m | | | 10 m |  | |
| Lake Nillahcootie | SWSCA | 30o | 1 June - 31 Oct | 20 m | | | 10 m |  | |
| Ryans Creek | SWSCA; DC  Category 1:  Category 2:  Category 3: | -  < 12 o  30 o | -  1 May - 31 Oct  1 May - 31 Oct | -  20 m  20 m | | | -  10 m  10 m | Max 40 ha max **coupe** size  Category 1: No harvesting  Category 2: No **clearfall**  Category 3: NA | |
| **Central FMA** | | | | | | | | | |
| Sunday Creek (Broadford-Kilmore) | SWSCA | 30o |  | 20 m | | | 10 m |  | |
| Kilmore | SWSCA | 30o |  | 20,40, 60 m | | | 10 m | **Buffers** in accordance with former *Notice of Determination of Land Use, Plan No. 1633.* | |
| Upper Goulburn | SWSCA | 30o |  | 20 m | | | 10 m |  | |
| **Dandenong FMA2** | | | | | | | | | |
| Bunyip River | SWSCA | 25 o | 1 May – 30 Nov | 20 m | | | 10 m | 60 m **buffer** upstream of weir. | |
| Britannia Creek | SWSCA | 30o | 1 July – 30 Sept | 20 m | | | 10 m |  | |
| Tomahawk Creek (Gembrook) | SWSCA | 30o | 1 July – 30 Sept | 20 m | | | 10 m |  | |
| McCrae’s Creek | SWSCA | 30o | 1 July – 30 Sept | 20 m | | | 10 m | 60 m **buffer** upstream of weir. | |
| Micks Creek | SWSCA |  |  |  | | |  | Harvesting excluded. | |
| Healesville | SWSCA |  |  |  | | |  | Harvesting excluded. | |
| Armstrong Creek East | Restricted |  |  |  | | |  | Harvesting excluded. | |
| Learmonth Creek |  | 25o | 1 May – 30 Nov | 40 m1 | | | 10 m | Max 7 ha **Ash** and 3ha **mixed species**. | |
| McMahons Creek | Restricted | 25o | 1 May – 30 Nov | 40 m1 | | | 10 m | A maximum of 30 % of each of these catchments is to be harvested over a 10 year period. There is to be harvesting in only 1 of the 4 restricted access catchments in any 1 year. | |
| Starvation Creek | Restricted | 25o | 1 May – 30 Nov | 40 m1 | | | 10 m |
| Cement Creek | Restricted | 25o | 1 May – 30 Nov | 40 m1 | | | 10 m |
| Armstrong Creek West | Restricted | 25o | 1 May – 30 Nov | 40 m1 | | | 10 m |
| **East Gippsland FMA** | | | | | | | | | |
| Orbost  (Rocky River) | SWSCA |  |  | 100m  40m  30m  100m | | |  | 40 ha maximum annual area harvested.  **Buffer** applies to main river  **Buffer** applies to major tributaries  **Buffer** applies to other watercourses  **Buffer** applies to off-take weir. | |
| Betka River | SWSCA |  |  | 150m  20m | | |  | 120 ha (1% of catchment) max annual area harvested  On main river  On major tributaries and streams | |
| **Gippsland FMAs2** | | | | | | | | | |
| Thomson River | SWSCA | 30o | 1 May – 30 Nov | | 40 m1 | | 10 m | Subject to additional regulations under the *Forests Act* *1958* which includes limitations on access, camping, hunting with hounds and horse riding.  Average 150 ha **Ash** and 15ha **mixed species** on rolling average, or total of 165 ha on rolling average. | |
| Tyers River | SWSCA | 30o | 1 June – 31 Oct | | 20 m | | 10 m | Applies above 650 m ASL.  Harvesting restrictions on land above 1220 m.  **Buffer** within 200 m of Moondarra Reservoir foreshore.  **Buffer** of 40 m on Jacobs Creek up to the Walhalla Road. | |
| Tanjil River | SWSCA | 30o | 1 June – 31 Oct | | 20 m | | 10 m | Closure applies north of Icy Creek – Mt Baw Baw Road. | |
| Tarago River | SWSCA | 30o | 1 May – 31 Oct | | 20 m | | 10 m | Average 55 ha **Ash** and 23 ha **mixed species** on rolling average. | |
| Bunyip River | SWSCA | 25o | 1 June – 30 Nov | | 20 m | | 10 m |  | |
| Deep Creek and Loch River (Noojee) | SWSCA | 30o | 1 July – 30 Sept | | 20 m | | 10 m |  | |
| Drouin | SWSCA | 30o | 1 July – 30 Sept | | 20 m | | 10 m |  | |
| Glenmaggie | SWSCA |  | 1 June – 31 Oct | | |  |  |  | | --- | --- | --- | | 40 m |  | **Buffer** applies to Macalister below Caledonia | | 40 m |  | **Buffer** applies to Wellington below Carey | | 40 m |  | **Buffer** applies to Barkley below Mt Skene Creek | | 40 m |  | **Buffer** applies to Glenmaggie Creek below east and west branches | | | | | |
| Mirboo North | SWSCA |  |  | | **Buffer** of 100 m around the off-take weir  **Buffer** from the banks of streams, watercourses and spring areas. 40 m **buffer** on the Little Morwell River and 20 m for other water courses. | | | | |
| Tarra River | SWSCA |  | 1 June – 31 Oct | |  | | | | |
| **North East FMA** | | | | | | | | | |
| Lake Hume (Victorian section) | SWSCA |  | 1 July – 30 Sept |  | | |  |  | |
| Mount Tabor Creek | DC |  | 1 July – 30 Sept |  | | |  | 40 ha maximum annual area harvested. | |
| Black Dog Creek | DC |  | 1 July – 30 Sept |  | | |  | 30 ha maximum **coupe** size. | |
| Bakers Gully (Bright) | SWSCA; DC |  | 1 July – 30 Sept |  | | |  | 20 ha maximum **coupe** size. | |
| West Kiewa River | DC |  | 1 July – 30 Sept |  | | |  | 40 ha maximum **coupe** size. | |
| Musk Gully Creek | DC |  | 1 July – 30 Sept |  | | |  | 35 ha maximum **coupe** size. | |
| Diddah Diddah Creek (Springhurst) | SWSCA; DC |  | 1 July – 30 Sept |  | | |  | 20 ha maximum **coupe** size. | |
| **Midlands FMA** | | | | | | | | | |
| Blackwood | DC |  | 1 June – 31 Oct |  | | |  | 35 ha maximum **coupe** size. | |
| Bullarto | DC |  | 1 June – 31 Oct |  | | |  | 20 ha maximum **coupe** size. | |
| Colbrook | DC |  | 1 June – 31 Oct |  | | |  | 5 ha maximum **coupe** size. | |
| Collier Gap | DC |  | 1 June – 31 Oct |  | | |  | 2 ha maximum **coupe** size. | |
| Djerriwarrh | SWSC & SAP; DC |  | 1 June – 30 Sep |  | | |  | 15 ha maximum **coupe** size. | |
| Korweingu-boora | DC |  | 1 June – 31 Oct |  | | |  | 15 ha maximum **coupe** size. | |
| Hickmans Creek (Elmhurst) | DC |  | 1 June – 31 Oct |  | | |  | 40 ha maximum **coupe** size. | |
| Lal Lal Lake Environs | SWSC & SAP; DC |  | 1 June – 31 Oct |  | | |  | 5 ha maximum **coupe** size. | |
| Long Gully | DC |  | 1 June – 31 Oct |  | | |  | 15 ha maximum **coupe** size. | |
| Lake Merrimu | SWSC & SAP; DC |  | 1 June – 30 Sep |  | | |  | 40 ha maximum **coupe** size.  **Buffers** apply to all **waterways** | |
| Moorabool | DC |  | 1 June – 30 Sep |  | | |  | 10 ha maximum **coupe** size. | |
| Mount Cole | DC |  | 1 June – 31 Oct |  | | |  | 20 ha maximum **coupe** size. | |
| Musical Gully | SWSC; DC |  | 1 June – 30 Sep |  | | |  | 2 ha maximum **coupe** size. | |
| Pykes Creek | SWSC; DC |  | 1 June – 30 Sep |  | | |  | 40 ha maximum **coupe** size. | |
| Rosslynne | SWSC & SAP; DC |  | 1 June – 30 Sep |  | | |  | 40 ha maximum **coupe** size. | |
| Shepherds Creek | DC |  | 1 June – 31 Oct |  | | |  | 40 ha maximum **coupe** size. | |
| Sugarloaf | DC |  | 1 June – 30 Sep |  | | |  | 20 ha maximum **coupe** size. | |
| Troy | SWSC; DC |  | 1 June – 30 Sep |  | | |  | 2 ha maximum **coupe** size. | |
| White Swan | DC |  | 1 June – 31 Oct |  | | |  | 20 ha maximum **coupe** size. | |
| Wombat | DC |  | 1 June – 31 Oct |  | | |  | 20 ha maximum **coupe** size. | |
| **Otway FMA**3 | | | | | | | | | |
| Lorne – St Georges River |  | 25o | 1 May – 30 Nov | |  | |  | Max harvest 2.5 % per year and 15 % per decade of total forested area of each catchment. | |
| Barham River | SWSCA | 25o | 1 May – 30 Nov | |  | |  |
| Upper Barwon | SWSCA | 25o | 1 June – 31 Oct | |  | |  | Max harvest 5 % per year and 25 % per decade of total forested area of each catchment. | |
| Gellibrand River | SWSCA | 25o | 1 June – 31 Oct | |  | |  |
| Painkalac Creek (Aireys Inlet) | SWSCA | 25o | 1 June – 30 Sept | |  | |  |
| Pennyroyal Creek | SWSCA | 25o | 1 June – 30 Sept | |  | |  |
| Matthews Creek | SWSCA | 25o | 1 June – 30 Sept | |  | |  |
| Gosling Creek | SWSCA | 25o | 1 June – 30 Sept | |  | |  |
| **Tambo FMA** | | | | | | | | | |
| Lake Hume (Victorian section) | SWSCA |  | 30 June – 1 Oct | |  |  | | | In accordance with former Plan No. S-1275B. |
| Mitchell River | SWSCA |  | 30 June – 1 Oct | |  |  | | | Seasonal closure applies above 900 m. |
| Nicholson River | SWSCA | 30o |  | | 200 m **buffer** around the Nicholson Reservoir and Water supply off-take on the Nicholson River.  40 m **buffer** around Nicholson and Barmouth Rivers.  20 m **buffer** from banks of **permanent stream**s & **drainage lines** | | | | |

**Notes:**

* Restricted – restricted access catchments managed by agreement between Melbourne Water and the **Department**.
* 1 Major streams only.
* 2 In addition to the above prescriptions for the **Gippsland FMAs** and the Dandenong **FMA**, refer to clauses 3.5.1.5 and 3.5.1.6 of these **Management Standards and Procedures**.
* 3 Within the Otway **FMA**, 20o and 15o slope limits will be applied in **special water supply catchment areas** in areas of Land Degradation Hazard Class 4 and 5 respectively.

#### **Table 12 Habitat tree prescriptions**

|  |  |  |  |
| --- | --- | --- | --- |
| **Locality** | **Forest Type** | **Habitat Tree Retention Rates** | **Comment** |
| **Central Highlands FMAs** | **Ash**/HEMS | All live **ash** eucalypts originating before 1900.  At least 40 trees per 10 ha for the length of the **rotation** in **ash** **forests** originating since 1900 | Retain at least 1 potential **hollow** **bearing tree** where gaps between retained trees are greater than 150 meters,  Retained trees should be a mixture of **hollow** **bearing trees** where present and other trees most likely to develop **hollows** in the short term. |
|  | **Mixed Species** | 40+ trees per 10 ha |  |
| **East Gippsland FMA** | All | 4 – 5 trees per ha | Count **seed trees** towards **habitat tree** numbers. |
| **Gippsland FMAs** | All | 4 – 5 tree per ha | Count **seed trees** towards **habitat tree** numbers |
| **Horsham FMA** | All | 10 trees per 10 ha  5 potential **habitat trees** per 10 ha  5 **dead** trees with **hollows** per 10 ha | Any additional trees above the 10 trees per 10 ha should be retained in place of potential habitat and **dead** trees. |
| **Midlands FMA** | All except  **Box Ironbark** | 3 trees per ha | Refer to Bendigo for **Box ironbark** prescriptions. |
| **Mid Murray FMA** | All | 20 trees per 10 ha (≥50 cm but ≤100 cm DBHOB)  Retain all trees (>100 cm DBHOB) |  |
| **North East FMAs** | **Ash**/HEMS | 4 – 5 trees per ha |  |
|  | **Mixed species** | 4 – 5 trees per ha | Count **seed trees** towards **habitat tree** numbers. |
| **Otway FMA** | All | 5 trees per ha (**net coupe area**) / 10 trees per ha (**gross coupe area**) |  |
| **Portland FMA** | All | Retain **habitat trees** to a **basal area** of 2 – 4m²/ha | Group selection. |

**Table 12 Notes:**

* In all cases except the Otway **FMA**, **habitat tree** retention rates apply relative to the **net harvested area** retained within the **net coupe area**.
* The **net coupe area** is the **gross coupe area**, less areas required to be excluded from timber harvesting in accordance with the **Code**.
* Areas excluded from timber harvesting, including **buffers,** should be identified prior to the commencement of **timber harvesting operations**, roading and **regeneration**.
* Areas excluded from timber harvesting or retained areas may not be readily identifiable prior to **timber harvesting operations** but must be documented after **timber harvesting operations** have been completed (e.g. small rocky areas, small areas of steep slope or inaccessible areas), these areas may be counted as retained habitat within the **net coupe area**.
* The minimum number of trees required to be retained as habitat relative to the area harvested (**net harvested area**) is a product of the specified rate and the **net harvested area**. E.g., 20 ha **net harvested area** × 4 - 5 trees per ha = 80 - 100 trees to be retained has habitat.
* This total number of trees retained as habitat can be dispersed across the **coupe** or retained in clumps, prioritising the types and arrangement of trees as relevant to section 4.1 of the MSP.

#### **Table 13 Rare or threatened fauna and invertebrate prescriptions**

| Species Name | Value | Applicable FMAs | Management Actions |
| --- | --- | --- | --- |
| **Alpine She-oak Skink** *Cyclodomorphus praealtus* | Individual (site occupied by at least 1 observed individual) | North East FMAs | Develop management actions to protect Alpine She-oak Skink habitat at sites occupied by at least 1 observed individual. Document and provide to the **Secretary** a proposed plan for the value **management area**. |
| **Alpine Tree Frog** *Litoria verreauxii alpina* | Individual (site occupied by at least 1 observed individual) | Gippsland FMAs | Apply a **protection area** of approximately 50 ha over each site occupied by at least 1 observed individual. |
| Population | North East FMAs | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. Document and provide to the **Secretary** a proposed plan for the value **management area**. |
| **Alpine Water Skink** *Eulamprus kosiuskoi* | Population | Gippsland FMAs North East FMAs | Apply a **management area** over populations.  (**management area** conditions - Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**). |
| **Apostlebird** *Struthidea cinerea* | Population | North East FMAs | Apply a **management area** over sites of resident populations.  (**management area** conditions - Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**). |
| **Australasian Darter** *Anhinga novaehollandiae* | Roosting and breeding site | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m region around current roosting and breeding sites of colonially-nesting waterbirds during the breeding season |
| **Australian Grayling** *Prototroctes maraena* | Population | Portland-Horsham FMA East Gippsland FMA | Apply a **protection area** extending 100 m from each bank for 1 km upstream and 1 km downstream of populations.  Avoid constructing new **roads** in the **protection area**.  **Note:** The **Secretary** intends to review this strategy when 50 significant fish sites have been located. |
| **Australian Hobby** *Falco longipennis* | Nest tree | Otways FMA | Apply a **protection area** of 100 m radius around nest trees. |
| **Australian White Ibis** *Threskiornis molucca* | Roosting and breeding site | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m region around current roosting and breeding sites of colonially-nesting waterbirds during the breeding season |
| **Bandy Bandy** *Vermicella annulata* | Individual (site occupied by at least 1 observed individual) | North East FMAs | Apply a **protection area** of approximately 50 ha over each site, where practicable incorporating the detection site.  **Note:** The **Secretary** intends to review the strategy when 20 **SPZ** are established. |
| Individual (site occupied by at least 1 observed individual) | Mid-Murray FMA | Apply a **management area** of approximately 50 ha over sites, where practicable incorporating the detection site.  Conduct a site inspection and detailed planning in consultation with DELWP to ensure the species is adequately protected during **timber harvesting operations**. |
| **Barking Owl** *Ninox connivens* | Roosting and nesting tree | Statewide | Apply a **protection area** of 3 ha and apply a **management area** of 250-300 m radius (or equivalent linear area) around each nesting and roosting site utilised recently and frequently and located outside a Barking Owl **Management area**.  (A **management area** is not required where existing zoning or public land tenure provides equivalent or greater protection of the roosting or nesting site).  Document and provide to the **Secretary** a proposed plan for the value **management area** prior to harvesting commencement. The plan will protect **hollow bearing trees** for owls and prey species along with younger trees that may provide **hollows** in future. These areas will be managed to maintain habitat capable of supporting adequate populations of birds and arboreal prey mammals to support breeding owls. Exclude **timber harvesting operations** in the **management area** or **SMZ**s around nest trees during the breeding season (1 July - 31 December). |
| **Barred Galaxias** *Galaxias fuscus* | **SMZ** for Barred Galaxias or waterways containing new population | Central Highlands FMAS Gippsland FMAs North East FMAs | Apply minimum stream **buffer** and **filter** **strip** widths (specified in Table 10) 1km upstream of new Barred Galaxias populations or in **management areas** / **SMZ** for Barred Galaxias.  Minimise stream crossings over **waterways** in catchments containing Barred Galaxias. |
| **Black Falcon** *Falco subniger* | Nesting tree | Portland-Horsham FMA | Apply a **management area** of 250 m radius over each nesting site. Within 250 m of nesting site, avoid **timber** harvesting, **road construction** and burning during breeding season.  Apply a **protection area** with a 100 m radius around nest trees |
| **Blue Mountains Tree Frog** *Litoria citropa* | Population of more than 50 individuals | East Gippsland FMA | Apply a **protection area** extending 100 m from each bank for 500 m upstream and 500 m downstream for sites of more than 50 individuals.  **Note:** The **Secretary** intends to review this strategy when 20 sites are established. |
| **Brush-tailed Phascogale** *Phascogale tapoatafa* | Individual (site occupied by at least 1 observed individual) in areas where species is not understood to occur | Statewide | Within **FMAs** where the species is not understood to occur, notify the **Secretary** and determine whether the value occurs in a Brush-tailed Phascogale **Management area** (BPMA) or whether a new BPMA may be required. If a new BPMA is required, apply a **management area** that protects and maintains the Brush‐ tailed Phascogale population and their habitat, retaining **large trees** and naturally fallen **timber**.  **Note:** The **Secretary** intends to review and change sites only if new sites are of a higher quality or are better able to be protected than existing sites. |
| **Bush Stone-curlew** *Burhinus grallarius* | Nesting site | Portland-Horsham FMA | Apply a **management area** of 250 m radius over each nesting site.   Within the **management area**, avoid any burning during breeding season. At all other times retain any logs and other fallen **timber** in the area. |
| **Carpet Python** *Morelia spilota metcalfei* | Population | Mid Murray FMA | Protect populations from disturbance where practicable during the hibernating (1 April to 30 September) and breeding (1 November to 28 February) periods respectively. |
| Population | North East FMAs | Apply a **management area** of 250 m radius over populations.   Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Common Bent-wing Bat** *Miniopterus schreibersii oceanensis* | Colony | Central Highlands FMAs  North East FMAs | Apply a 100 m **buffer** around colonies. |
| Roosting and over-wintering site | Midlands FMA | Apply a **management area** of 100 m radius over roosting and over‐wintering sites.  Within 100 m of roosting and over-wintering sites, exclude **timber harvesting operations**, **road construction** and other activities likely to disturb over‐wintering bats between 1 May to 31 October. |
| Breeding and roosting cave, tree, mine or over-wintering site | Gippsland FMAs East Gippsland FMA | Apply a **protection area** of 100 m radius over breeding and roosting caves, trees and mines and over‐wintering sites. |
| **Common Brush-tailed Possum** *Trichosurus vulpecula* | Relative abundance (More than 10 per Spotlight Kilometre) | East Gippsland FMA | Apply a **protection area** of approximately 100 ha of suitable habitat where records report a relative abundance of more than 10 individuals per spotlight kilometre (equivalent to more than 2 individuals per hectare or more than 15 individuals per hour of spotlighting), or where substantial populations are located in isolated or unusual habitat.  **Note:** Assumed rate of spotlighting per kilometre is 100 mins per 1km and visible range either side of transect for this species is 25m, equating to assumed minimum survey area of 5 hectares. |
| **Common Dunnart** *Sminthopsis murina murina* | Population | Central Highlands FMAs Midlands FMA Portland-Horsham FMA | Apply a **protection area** of approximately 20 ha of suitable habitat over sites.  **Note:** The **Secretary** intends to review this strategy when 50 sites have been established in **State forest**. |
| **Cox's Gudgeon** *Gobiomorphus coxii* | Population | East Gippsland FMA | Apply a **protection area** extending 100 m from each bank for 1 km upstream and 1 km downstream of populations.  Avoid constructing new **roads** in the **protection area**.  **Note:** The **Secretary** intends to review this strategy when 50 significant fish sites have been located. |
| **Diamond Python** *Morelia spilota spilota* | Population | East Gippsland FMA | Apply a **protection area** of 100 ha of suitable habitat for each locality of this species.  **Note:** The **Secretary** intends to review this strategy when 50 sites have been located. |
| **Dwarf Galaxias** *Galaxiella pusilla* | Population | Portland-Horsham FMA | Minimise stream crossings over **permanent** and **temporary streams** and **drainage lines** in catchments containing populations of Dwarf Galaxias. |
| **Eastern Broad-nosed Bat** *Scotorepens orion* | Population  Or  Relative abundance per Spotlight Kilometre | East Gippsland FMA | Apply a **protection area** of approximately 100 ha of older **forest** over sites where more than 10 individuals have been captured in one trapping session.  **Note:** The **Secretary** intends to review this strategy when 20 sites are established. |
| **Eastern Great Egret** *Ardea modesta* | Current roosting and breeding site | Portland-Horsham FMA | Exclude activities likely to disturb breeding activity within 250 m region around current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| **Eastern Horseshoe Bat** *Rhinolophus megaphyllus megaphyllus* | Colony | Central Highlands FMAs | Apply a 100 m **buffer** around colonies. |
| Breeding or roosting cave, mine, tree, or over-wintering site | Gippsland FMAs East Gippsland FMA | Apply a **protection area** of 100 m radius over breeding and roosting caves, trees and mines and over‐wintering sites. |
| **Eastern Pygmy-possum** *Cercartetus nanus* | Relative abundance (More than 5 per pitfall trap) | East Gippsland FMA | Where records report more than 5 individuals per standard pitfall line over 5 days, or where substantial populations are in isolated or unusual habitat, apply a **protection area** of approximately 100 ha of suitable habitat. |
| **Eltham Copper Butterfly** *Paralucia pyrodiscus lucida* | Population  Host plant *Bursaria spinosa* | Portland-Horsham FMA | Apply a **management area** over populations.   Protect the host plant Bursaria spinosa (Sweet Bursaria) within 250 m of any records of this species. |
| **Four-toed Skink** *Hemiergis peronii* | Population | Midlands FMA | Apply a **management area** over populations.    Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Freshwater Herring** *Potamalosa richmondia* | Population | East Gippsland FMA | Apply a **protection area** extending 100 m from each bank for 1 km upstream and 1 km downstream of populations.  Avoid constructing new **roads** in the **protection area**.  **Note:** The **Secretary** intends to review this strategy when 50 significant fish sites have been located. |
| **Giant Burrowing Frog** *Heleioporus australiacus* | Population | Gippsland FMAs East Gippsland FMA | Where records of Giant Burrowing Frog are located on first-order streams or sites away from streams, apply a **protection area** of 50 ha (preferably the entire sub catchment unit).  Where records of Giant Burrowing Frog are located on second or higher order streams, apply a **protection area** of 100 m width each side of the stream for 1km upstream and downstream of the detection site.  **Note:** For the purposes of this prescription, a first order stream is the headwaters of a catchment and is the smallest stream mapped on the 1:100 000 Natmap series. Second order streams are the next level of stream further down the catchment. For first order streams the size of each catchment will vary, however target size is approximately 50 ha.  For off stream records where evidence of this value is found in the field, apply a **protection area** of 50ha over the record or equivalent area of suitable habitat nearby.  Avoid new roading in the **protection area**.  **Note:** The **Secretary** intends to review this strategy when 50 sites are located in Victoria. |
| **Giant Gippsland Earthworm** *Megascolides australis* | Population | Gippsland FMAs | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Glenelg Freshwater Mussel** *Hyridella glenelgensis* | Population | Portland-Horsham FMA | Apply a **protection area** extending 100 m from each bank for 1 km upstream and 1 km downstream of populations.   Disturbance that could impact on water quality must be avoided within the **protection area**. |
| **Glossy Black-Cockatoo** *Calyptorhynchus lathami lathami* | Nesting site | Gippsland FMAs East Gippsland FMA | Apply a **management area** of 250 m radius over each nesting site.  Within 250 m of nest tree, exclude **timber harvesting operations**, **road construction** and burning during the breeding season (December to May). Search the surrounding forest for other active nest sites (the species is known to nest in clusters). Apply a **protection area** with a 100 m radius around nest trees.  Where Black She‐oak **stands** are identified during **timber harvesting operations** (including post harvesting burning) new roading activities will be conducted in a manner that avoids damage to the **stand**.  The definition of a Black She‐oak **stand** is a group or groups of trees with a **basal area** equal to or greater than 10 m2 in an area of 0.25 hectares. |
| **Golden Sun Moth** *Synemon plana* | Population | Portland-Horsham FMA | Apply a **management area** over populations.   Detailed planning is required to ensure population is protected from **timber** harvesting. |
| **Great Cormorant** *Phalacrocorax carbo* | Population | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m region around current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| **Greater Glider** *Petauroides volans* | Relative abundance (More than 10 per Spotlight Kilometre) | East Gippsland FMA | Apply a **protection area** of approximately 100 ha of suitable habitat where records report a relative abundance of more than 10 individuals per spotlight kilometre (equivalent to more than 2 individuals per hectare or more than 15 individuals per hour of spotlighting), or where substantial populations are located in isolated or unusual habitat.  **Note:** Assumed rate of spotlighting per kilometre is 100mins per 1km and visible range either side of transect for this species is 25m, equating to assumed minimum survey area of 5 hectares. |
| **Grey Goshawk** *Accipiter novaehollandiae* | Nest tree used within the last 5 years | Central Highlands FMAs North East FMAs | Apply a 100 m **buffer** around nest trees used within the last 5 years. Exclude **timber harvesting operations** within 250 m of nest trees during breeding season. |
| Nest tree | Otways FMA | **Buffer** nest trees by 100 m and avoid burning at all times. |
| Nesting sites | Midlands FMA Gippsland FMAs Portland-Horsham FMA Bendigo FMA East Gippsland FMA | Apply a **management area** of 250 m radius over nesting sites. Within 250m of nesting site, avoid **timber** harvesting, **road construction** and burning activities during breeding season. Breeding season is 1 July to 30 November. Apply a **protection area** of 100m radius around nest trees.   **Note:** The **Secretary** intends to review this strategy when 10 sites have been established in **State forest**. |
| **Grey-crowned Babbler** *Pomatostomus temporalis* | Active colony | Mid-Murray FMA | Apply a **buffer** of 200 m radius around active colonies utilising River Red Gum (*Eucalyptus camaldulensis*) forest on the western edge of Guttram **State forest** and the southern edge of Benwell **State Forest**.  **Note:** The **Secretary** intends to review this prescription when **stand** type and structural habitat requirements are understood.  Establish a **buffer** of 100 m radius around active colonies elsewhere. |
| **Grey-headed Flying-fox** *Pteropus poliocephalus* | Roost site that has a pattern of regular seasonal use  Active colony | Gippsland FMAs | Apply a **protection area** of 100 m radius for a roost site that has a pattern of regular seasonal use.  Schedule **timber harvesting operations** and burning to minimise disturbance to active colonies if found in **State forest**. |
| Active colony | Portland-Horsham FMA | Schedule **timber harvesting operations** to minimise disturbance to active colonies if found in **State forest**. |
| **Hooded Scaly-foot** *Pygopus schraderi* | Population | Mid-Murray FMA | Apply a **management area** of approximately 50 ha over populations, where practicable incorporating the detection site.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Plumed Egret** *Ardea intermedia plumifera* | Current roosting and breeding site | Portland-Horsham FMA | Exclude activities likely to disturb breeding activity within a 250 m radius of current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| Current roosting and breeding site | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within a 250 m radius of current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season |
| **King Quail** *Synoicus chinensis* | Wet heath | Portland-Horsham FMA | Protect wet heaths within 20ha radius of records of this species. Harvesting should be minimised close to wet heaths and drainage patterns must not be altered. |
| **Koala** *Phascolarctos cinereus* | Resident population or substantial population located in isolated or unusual habitat | East Gippsland FMA | Apply a **protection area** of approximately 100 ha of suitable habitat over resident populations or substantial populations located in isolated or unusual habitat. |
| **Lace Monitor** *Varanus varius* | Population | Portland-Horsham FMA | Apply a **management area** over populations.   Detailed planning is required to ensure population is protected from **timber** harvesting. |
| **Large Brown Tree Frog**  ***Litoria littlejohni*** | Detection (adult, sub-adult, tadpole or egg cluster) | East Gippsland FMA | Apply a **protection area** of 28 ha that includes the detection site. |
| **Leadbeater's Possum habitat/colony** *Gymnobelideus leadbeateri* | Leadbeater's Possum **colony**  OR  Zone 1A habitat  OR  Zone 1B habitat | Central Highlands FMAs | **Colony**  Apply a **protection area** of 200 m radius centred on each Leadbeater's Possum colony.  **OR**  **Zone 1A Habitat** Apply a **protection area** over areas of Zone 1A habitat where there are more than 10 **hollow bearing trees** per 3 ha in patches greater than 3 ha. (Ensure Zone 1A habitat is not salvage logged).  **Zone 1B Habitat** Apply a **protection area** over Zone 1B habitat where there are more than 12 **hollow bearing trees** per 3 ha in patches greater than 10 ha and wattle density exceeds 5 m2/ha. This prescription applies until either of the two Zone 1B attributes:  1. the presence of **dead** **mature** or **senescent** living trees; or  2. wattle **understorey** no longer exists. |
| **Little Black Cormorant** *Phalacrocorax sulcirostris* | Current roosting and breeding site | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m radius of current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| **Little Egret** *Egretta garzetta* | Current roosting and breeding site | Portland-Horsham FMA  Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m radius of current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| **Little Falcon** *Falco longipennis* | Nesting site | East Gippsland FMA | Apply a **management area** of 250 m radius over each nesting site.   Within 250 m of nesting site, avoid **timber** harvesting, **road construction** and burning during breeding season. Apply a **protection area** of 100 m radius around nest trees. |
| **Little Pied Cormorant** *Microcarbo melanoleucos* | Current roosting and breeding site | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m radius of current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| **Long-footed Potoroo** *Potorous longipes* | Detection site | North East FMAs East Gippsland FMA | Apply a **management area** of approximately 150 ha for each Long-footed Potoroo detection site that is outside the Core Protected Area (i.e. within **SPZ** and conservation reserves).   **Notes:** As far as possible, **management area** boundaries will follow recognisable landscape features such as ridges, spurs and watercourses. Within each **management area**, at least one third (50 ha) will be protected from **timber** harvesting and new roading. This will be known as Long-footed Potoroo Retained Habitat. The LFP Retained Habitat will include the best LFP habitat in the **SMZ**, which will generally be in gullies and on lower, sheltered slopes. The LFP Retained Habitat may include areas otherwise unavailable for **timber** harvesting due to restrictions under the **Code**. The **management area** will also have a general restriction of one third of the total area that can be harvested in any three year period. If more than one **coupe** is to be harvested in a **management area** in the same year, the **coupes** must be separated by at least the equivalent of another **coupe** width. The **management area**, with the LFP Retained Habitat clearly delineated, will be shown as part of the **Forest Management Zoning Scheme**. If the 150 ha area includes any part of an existing conservation reserve or **SPZ**, these areas will retain their existing reservation or zoning status but will be considered for inclusion as part of the area of retained habitat. In such cases, the final area applyed as a **management area** or **SMZ** may be correspondingly smaller. |
| **Long-nosed Potoroo** *Potorous tridactylus trisulcatus* | Gully line and patches of dense vegetation | Portland-Horsham FMA | Protect gully lines and patches of dense vegetation in areas where this species is known to occur and that are currently not protected through **SPZ** or **SMZ**. |
| **Mallacoota Burrowing Crayfish** *Engaeus mallacoota* | Known site | East Gippsland FMA | Apply a 100 m **buffer** from each bank for 1 km upstream and 1 km downstream of known Mallacoota Burrowing Crayfish sites. Avoid **road construction** and stream crossings within these stream **buffers**. |
| **Malleefowl** *Leipoa ocellata* | Active nesting mound | Portland-Horsham FMA | Apply a **protection area** of 3 ha and a **management area** of 250-300 m radius over each active nesting mound. |
| **Masked Owl** *Tyto novaehollandiae* | Nesting and roosting site utilised recently and frequently  or  Old hollow-bearing tree | Central Highlands FMAs Midlands FMA | Apply a **management area** of 250 m radius over each nesting and roosting site utilised recently and frequently and located outside a Masked Owl Management Area, unless already protected.  Within 250 m of the nesting or roosting site, protect habitat elements such as old **hollow bearing trees** that may be used by Masked Owls and their prey. Exclude **timber harvesting operations**, **road construction** and other activities likely to disturb breeding activity during the breeding season. **Buffer** nest trees by 100 m. |
| Nesting and roosting site utilised recently and frequently  or  Habitat element | Gippsland FMAs North East FMAs Portland-Horsham FMA East Gippsland FMA | Apply a **protection area** of 3 ha and a **management area** of 250-300 m radius (or equivalent linear area) over each nesting and roosting site utilised recently and frequently and located outside a Masked Owl Management area, unless already protected.  (In these cases, habitat for foraging is already provided in areas excluded from **timber** harvesting by general prescription including **wildlife corridors**, steep areas and unmerchantable areas and areas protected for other management purposes).  Within 250-300 m of nesting or roosting site, protect habitat elements such as old **hollow bearing trees** that may be used by Masked Owls and their prey. Exclude **timber harvesting operations**, **road construction** and burning during the breeding season. |
| Nesting and roosting site utilised recently and frequently  or  Habitat element | Otways FMA | Apply a **protection area** of 3 ha over each nesting and roosting site utilised recently and frequently and located outside a Masked Owl Management Area, unless already protected.  (In these cases, habitat for foraging is already provided in areas excluded from **timber** **harvesting operations** by general prescription including **wildlife corridors**, steep areas and unmerchantable areas and areas protected for other management purposes).  Within 250-300 m of nesting or roosting site, protect habitat elements such as old **hollow bearing trees** that may be used by Masked Owls and their prey. |
| **Mount Stirling stonefly** *Thaumatoperla flaveola* | Permanent stream | Gippsland FMAs | In known Mount Stirling stonefly habitat apply:  -50 m **buffers** to **permanent streams** on the boundary of the logging **coupe**. -30 m **buffers** to **permanent streams** within the boundary of a logging **coupe**. Where the **permanent stream** commences within the **coupe**, apply the **buffer** for a distance of 30 m above the head of the **permanent stream**. -15 m **filter** **strips** to **drainage lines**. Where the **drainage line** commences within the **coupe**, apply the **filter** **strip** for a distance of 15 m above the head of the **drainage line**. |
| **Mountain Dragon** *Rankinia diemensis* | Population | Midlands FMA | Apply a **management area** over populations.   Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mountain Galaxias** *Galaxias olidus* | Permanent or temporary stream, or drainage line within a catchment containing Mountain Galaxias | Gippsland FMAs | Minimise stream crossings over permanent and **temporary streams** and **drainage lines** in catchments containing populations of Mountain Galaxias. |
| Population | North East FMAs | Apply minimum stream **buffer** and **filter** **strip** widths specified in Table 10 for 1 km upstream of Mountain Galaxias populations or **SMZ** for Mountain Galaxias.  Minimise stream crossings over **waterways** in catchments containing Mountain Galaxias. |
| Population | East Gippsland FMA | Apply a **protection area** extending 100 m from each bank for 1 km upstream and 1 km downstream of populations.  Avoid constructing new **roads** in the **protection area**.  **Note:** The **Secretary** intends to review this strategy when 50 significant fish sites have been located. |
| **Mountain Pygmy-possum** *Burramys parvus* | Population | North East FMAs | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Nankeen Night Heron** *Nycticorax caledonicus* | Current roosting and breeding site | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m radius of current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| **Narracan Burrowing Crayfish** *Engaeus phyllocercus* | Narracan Burrowing Crayfish site | Gippsland FMAs | Avoid **road construction** and stream crossings within stream **buffers** for 1 km upstream of Narracan Burrowing Crayfish sites. Design **snig tracks** to minimise alteration to drainage patterns in **coupes** adjacent Narracan Burrowing Crayfish sites on floodplain or seep zones. Avoid burning during late spring and early summer. Conduct burns when the moisture differential between Narracan Burrowing Crayfish habitat and the **coupe** is adequate to prevent the habitat from burning. |
| **Native fish** | Major, permanent or temporary streams of the Aire River, Carlisle River and Gellibrand River | Otways FMA | For **timber** harvesting **coupes** adjacent Aire River, Carlisle River and Gellibrand River apply:  ‐ 100 m **buffers** to sections considered major streams; ‐ 50 m **buffers** to sections considered permanent streams; and ‐ 10 m **buffers** to sections considered **temporary streams** or greater if required to mitigate water quality risk. |
| **New Holland Mouse** *Pseudomys novaehollandiae* | Preferred habitat | Gippsland FMAs | Apply a **protection area** of 100 ha of preferred habitat including the detection site wherever possible. |
| **Orbost Spiny Crayfish** *Euastacus diversus* | Detection site | East Gippsland FMA | Apply a **protection area** extending 100m from each bank for 1 km upstream and 1 km downstream of detection sites.  Avoid constructing new **roads** and stream crossings within the **protection area**. Manage nearby **regeneration** burns to ensure the **protection area** is not burnt.  **Note:** The **Secretary** intends to review this strategy when 20 sites are established. |
| **Otway Stonefly** *Eusthenia nothofagi* | critical habitat | Otways FMA | In **timber** harvesting **coupes** within critical habitat of Otway Stonefly apply:  ‐ 100 m **buffers** to sections of the Aire River, Carlisle River, Gellibrand River considered major streams; ‐ 50 m **buffers** to permanent streams; and ‐ 10 m **buffers** to **temporary streams** or greater if required to mitigate water quality risk |
| **Pale Sun Moth** *Synemon selene* | Population | Portland-Horsham FMA | Apply a **management area** over populations.   Detailed planning is required to ensure population is protected from **timber** harvesting. |
| **Peregrine Falcon** *Falco peregrinus* | Nesting site | East Gippsland FMA | Apply a **management area** of 250 m radius over each nesting site.  Within 250 m of the nesting site, avoid **timber** harvesting, **road construction** and burning during breeding season. Apply a **protection area** of 100m radius around nesting site. |
| Nest tree | Otways FMA | **Buffer** nest trees by 100 m, and avoid burning at all times. |
| **Powerful Owl** *Ninox strenua* | Nesting and roosting site | Central Highlands FMAs Midlands FMA Gippsland FMAs North East FMAs Portland-Horsham FMA Bendigo FMA East Gippsland FMA Mid-Murray FMA | Apply a **protection area** of 3 ha and a **management area** of 250-300 m radius (or equivalent linear area) around each nesting and roosting site, unless already protected.  Outside of Powerful Owl Management Areas, habitat for foraging is provided in areas excluded from **timber** harvesting by general prescription including **wildlife corridors**, steep areas and unmerchantable areas and areas protected for other management purposes. Avoid burning operations within 250 m of known nest sites during the breeding season (1 May to 30 November).  Within 250-300 m of nesting or roosting site, exclude **timber** **harvesting operations**, **road construction** and burning during the breeding season.  **Note:** The **Secretary** intends to review zoning associated with individual nesting and roosting sites within the **Central Highlands FMAs** every 5 years. This review should prioritise the retention of zones for nesting and roosting sites utilised frequently within the previous 5 years. |
| Nesting and roosting site | Otways FMA | Apply a **protection area** of 3 ha over each nesting and roosting site, unless already protected. |
| **Regent Honeyeater** *Anthochaera phrygia* | Detections outside of known sites | Midlands FMA | If Regent Honeyeaters are present in an area not listed as a regularly used site, exclude the area from **timber harvesting operations** until its significance for Regent Honeyeaters can be assessed by the Recovery Team and appropriate prescriptions devised. |
| Regularly used sites (Regent Honeyeater) | Bendigo FMA  Mid Murray FMA  North East FMAs  Portland-Horsham FMA | Apply a **protection area** extending 100 m from **regularly used sites (Regent Honeyeater)**. Surround the **protection area** with a **management area** of 150 m. |
| **Rich reptile and amphibian sites** | Site that is particularly rich in reptiles or amphibians | East Gippsland FMA | Apply a **protection area** of at least 10 ha at sites as being particularly rich in reptiles or amphibians |
| **Royal Spoonbill** *Platalea regia* | Current roosting and breeding site | Mid-Murray FMA | Exclude activities likely to disturb breeding activity within 250 m radius of current roosting and breeding sites of colonially‐nesting waterbirds during the breeding season. |
| **Samphire Skink** *Morethia adelaidensis* | Population | Midlands FMA  Portland Horsham FMA | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during t**imber harvesting operations**.  Detailed planning is required to ensure population is protected from **timber** harvesting. |
| **Significant fish site** | Site supporting 3 or more threatened fish species, or site supporting 6 or more native freshwater fish species | East Gippsland FMA | Apply a **protection area** extending 100 m from each bank for 1 km upstream and 1 km downstream of sites supporting 3 or more threatened fish species, or sites supporting 6 or more native freshwater fish species.  Avoid constructing new **roads** in the **protection area**.  **Note:** The **Secretary** intends to review this strategy when 50 significant fish sites have been located. |
| **Small Brown Azure Butterfly** *Ogyris otanes* | Host plant Berry broombush (*Choretrum glomeratum*) | Portland-Horsham FMA | Protect the host plant Berry broombush (*Choretrum glomeratum*) within 250m of any records of this species. |
| **Smoky Mouse** *Pseudomys fumeus* | Record | Central Highlands FMAs Gippsland FMAs North East FMAs Portland-Horsham FMA | Apply a **management area** of approximately 100 ha over records incorporating the detection site wherever possible.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations** or **road construction** commencement, incorporating any relevant information from studies of the species.  **Note:** The **Secretary** intends to review this strategy when 10 Smoky Mouse **SMZ** are established or in light of further research regarding the conservation status of the species and its response to disturbance. |
| **Sooty Owl** *Tyto tenebricosa* | Nesting and roosting site utilised recently and frequently and located outside a Sooty Owl **Management area**, unless already protected | Central Highlands FMAs | Apply a **management area** of 250 m radius over each nesting and roosting site utilised recently and frequently and located outside a Sooty Owl **Management area**, unless already protected. In these cases, habitat for foraging is already provided in areas excluded from **timber** harvesting by general prescription including **wildlife corridors**, steep areas and unmerchantable areas and areas protected for other management purposes.  Within 250 m of nesting or roosting site, exclude **timber harvesting operations**, **road construction** and other activities likely to disturb breeding activity during the breeding season. **Buffer** nest trees by 100 m. |
| Nesting and roosting site utilised recently and frequently and located outside a Sooty Owl **Management area**, unless already protected | Gippsland FMAs North East FMAs East Gippsland FMA | Apply a **protection area** of 3 ha and a **management area** of 250-300 m radius (or equivalent linear area) over each nesting and roosting site utilised recently and frequently and located outside a Sooty Owl **Management area**, unless already protected. In these cases, habitat for foraging is already provided in areas excluded from **timber** harvesting by general prescription including **wildlife corridors**, steep areas and unmerchantable areas and areas protected for other management purposes.  Within 250-300 m of nesting or roosting site, exclude **timber harvesting operations**, **road construction** and burning during the breeding season. |
| **South Gippsland Spiny Crayfish** *Euastacus neodiversus* | Site | Gippsland FMAs | Develop management actions to protect South Gippsland Crayfish habitat at sites in **State forest**. |
| **Southern Barred Frog** *Mixophyes balbus* | Record | East Gippsland FMA | Where records of Southern Barred Frog are located on first‐order streams or sites away from streams, protect approximately 50 ha (preferably the entire sub catchment unit) with a **protection area**. Where records of Southern Barred Frog are located on second or higher order streams, apply a **protection area** of 100 m width each side of the stream for 1 km upstream and downstream of the detection site.  Avoid constructing new **roads** in the **protection area**.  **Note:** The **Secretary** intends to review this strategy when an **Action Statement** is prepared. |
| **Southern Bent-wing Bat** *Miniopteris schreibersii* | Breeding and roosting cave, mine, or other over-wintering site | North East FMAs | Apply a **protection area** of 100 m radius over breeding and roosting caves and mines, and over-wintering sites. |
| **Southern Brown Bandicoot** *Isoodon obesulus obesulus* | Gully line and patches of dense vegetation | Portland-Horsham FMA | Protect gully lines and patches of dense vegetation in areas where this species is known to occur and that are currently not protected through **SPZ** or **SMZ**. |
| **South-eastern Long-eared Bat**  *Nyctophilus corbeni* | Colony | Portland-Horsham FMA | Apply a 100 m **buffer** around colonies. |
| **Southern Myotis** *Myotis macropus* | Breeding and roosting site | Central Highlands FMAs | Apply and maintain a 100 m **buffer** around colonies. |
| Breeding and roosting site | North East FMAs | Apply a **protection area** of 300 m radius over breeding and roosting sites.  **Note:** The **Secretary** intends to review this strategy when 20 sites are established or when significant information has been obtained from further research. |
| Breeding and roosting site | Gippsland FMAs | Apply a **protection area** of 100 m radius over breeding and roosting caves, trees and mines and over‐wintering sites.  **Note:** The **Secretary** intends to review this strategy when 20 sites are established or when significant information has been obtained from further research. |
| Breeding and roosting site | Mid-Murray FMA | Apply a **management area** of 200 m radius over breeding and roosting populations.   Within 200 m of breeding or roosting site, exclude all potentially disturbing activities during breeding season. Breeding season is 1 October to 31 March. Apply a 100m **Buffer** around breeding and roosting trees. |
|  | East Gippsland | Apply a **protection area** of 100 m radius over breeding and roosting caves, trees and mines and over‐wintering sites |
| **Spot-tailed Quoll** *Dasyurus maculatus maculatus* | Records  or  Preferred habitat feature  or  Detection site outside the **SPZ** within the **SMZ**, unless there are compelling reasons for excluding them | Central Highlands FMAs | Apply a **protection area** of 500 ha and a **management area** of 1000 ha for all Quoll records in **State forest** throughout Victoria, up to a target of 50 sites.  **Note:** The location of the **protection area** and **management area** will be based on protecting preferred habitat features for Quolls. Protect den and latrine sites by a **protection area** of at least a 200 m radius. The **protection area** may include other detection sites, based on habitat quality and the proximity of existing protected habitat. Include detection sites outside the **protection area** within the **management area**, unless there are compelling reasons for excluding them (e.g. a record in a clearly unsuitable location for habitat protection, proximity of existing protected habitat etc.). Prioritise site protection for Quolls according to habitat quality, current reservation status of the site, linkage to other reserves and the presence of complementary values. Records within 2 km of each other are generally regarded as the same animal unless proved otherwise. Exclude the use of threatening poisons within 1 km of a record less than 5 years old.  **Note:** The **Secretary** intends to periodically review the selection of Quoll records afforded **SPZ** and **SMZ** protection, to ensure that once targets are reached and as new records accrue or other information becomes available, the network of protected habitat in the **FMA** is optimal for Quoll conservation. Substitution of protected Quoll sites must consider the extent and quality of habitat and the currency, reliability and type of record. |
|  | Records  or  Preferred habitat feature  or  Den and latrine site | Gippsland FMAs North East FMAs | Apply a **protection area** of approximately 500 ha for each record. Include areas of undisturbed **mature** forest, riparian areas and rocky outcrops in the **protection area** where possible. In addition, apply a **management area** of approximately 1000 ha, contiguous to the **protection area** or **SPZ**. Protect den and latrine sites by at least a 200 m radius **protection area** where they are not otherwise protected.  **Note:** The objectives of the **management area** will be to maintain habitat for both arboreal and non-arboreal Spot-tailed Quoll prey, while providing continuing opportunities for **timber** harvesting. Harvesting within the **management area** or **SMZ** may comprise **selective harvesting** operations over the entire area, or carefully sited and scheduled **seed tree** or **clearfall** harvesting, ensuring, in either case that important prey habitat components such as **hollow bearing trees** are retained. Where **clearfall** or **seed tree** **harvesting** systems are proposed, harvesting operations may through time extend over the entire **management area** or **SMZ**. However, harvesting must be scheduled to ensure at least 500 ha of suitable prey habitat is available at any point in time (in addition to the **protection area** or **SPZ**). The adoption of harvesting strategies for **management areas** and **SMZ**s should have regard to the assessed significance of the zone as Spot-tailed Quoll habitat, existing patterns of public land use and forest zoning, the silvicultural characteristics of **forest types** in the zone, the proportion of the zone which is unproductive for sawlog harvesting and the **timber** resource values of the productive areas.  **Note:** The **Secretary** intends to review the selection of Quoll records afforded **SPZ** and **SMZ** protection when 10 zones have been established in **State forest** or when significant information has been obtained from further research. the purpose of the review is to ensure that once targets are reached and as new records accrue or other information becomes available, the network of protected habitat in the **FMA** is optimal for Quoll conservation. Substitution of protected Quoll sites must consider the extent and quality of habitat and the currency, reliability and type of record. |
|  | Records  Preferred habitat feature  Den and latrine site | Portland-Horsham FMA | Apply a **protection area** of 500 ha and a **management area** of 1000 ha for all Quoll records in **State forest**, up to a target of 10 sites. The location of the **protection area** and **management area** will based on protecting preferred habitat features for Quolls. Protect den and latrine sites by a **protection area** of at least a 200 m radius.  **Note:** The **protection area** may include other detection sites, based on habitat quality and the proximity of existing protected habitat. Include detection sites outside the **protection area** within the **management area**, unless there are compelling reasons for excluding them (e.g. a record in a clearly unsuitable location for habitat protection, proximity of existing protected habitat etc.). Prioritise site protection for Quolls according to habitat quality, current reservation status of the site, linkage to other reserves and the presence of complementary values. Records within 2 km of each other are generally regarded as the same animal unless proved otherwise. Exclude the use of poisons such as 1080 within 2 km of Quoll records. |
|  | Preferred habitat feature  or  Detection site | East Gippsland FMA | Apply a **protection area** of 500 ha and a **management area** of 1000 ha for all Quoll records in **State forest** up to a target number of sites (to be determined). The location of the **protection area** and **management area** will be based on protecting preferred habitat features for Quolls. The **protection area** will include known den and latrine sites (protected by at least a 200 m radius), and may include other detection sites, based on habitat quality and the proximity of existing protected habitat.  **Note:** Detection sites not included in the **protection area** will generally be included within the **management area**, unless there are compelling reasons for excluding them (e.g. a record in a clearly unsuitable location for habitat protection, proximity of existing protected habitat etc.). Site protection for Quolls will be prioritised according to habitat quality, current reservation status of the site, linkage to other reserves and the presence of complementary values. Records within 2 km of each other will be generally regarded as the same animal unless proved otherwise.  **Note:** The **Secretary** intends to periodically review the selection of Quoll records afforded **SPZ** and **SMZ** protection, to ensure that once targets are reached and as new records accrue or other information becomes available, the network of protected habitat in the **FMA** is optimal for Quoll conservation. Substitution of protected Quoll sites must consider the extent and quality of habitat and the currency, reliability and type of record. The **Secretary** may develop guidelines for the substitution of protected Quoll sites. |
|  | Preferred habitat feature  or  Detection site | Midlands FMA | Apply a **protection area** of 500 ha and a **management area** of 1000 ha for all Quoll records in **State forest** throughout Victoria, up to a target of 10 sites.  **Note:** The location of the **protection area** and **management area** will based on protecting preferred habitat features for Quolls. Protect den and latrine sites with a **protection area** of at least a 200 m radius. The **protection area** may include other detection sites, based on habitat quality and the proximity of existing protected habitat. Include detection sites outside the **protection area** within the **management area**, unless there are compelling reasons for excluding them (e.g. a record in a clearly unsuitable location for habitat protection, proximity of existing protected habitat etc.). Prioritise site protection for Quolls according to habitat quality, current reservation status of the site, linkage to other reserves and the presence of complementary values. Records within 2 km of each other are generally regarded as the same animal unless proved otherwise. Exclude the use of poisons such as 1080 within 2 km of Quoll records.  **Note:** The **Secretary** intends to periodically review the selection of Quoll records afforded **SPZ** and **SMZ** protection, to ensure that once targets are reached and as new records accrue or other information becomes available, the network of protected habitat in the **FMA** is optimal for Quoll conservation. Substitution of protected Quoll sites must consider the extent and quality of habitat and the currency, reliability and type of record. |
|  | Preferred habitat feature  or  Detection site | Otways FMA | Apply a **protection area** of approximately 500 ha for each record. The location of the **protection area** will be based on protecting preferred habitat features for Quolls. The **protection area** will include known den and latrine sites (protected by at least a 200 m radius), and may include other detection sites, based on habitat quality and the proximity of existing protected habitat.  **Note:** Site protection for Quolls will be prioritised according to habitat quality, current reservation status of the site, linkage to other reserves and the presence of complementary values. Records within 2 km of each other will be generally regarded as the same animal unless proved otherwise.  **Note:** The **Secretary** intends to periodically review the selection of Quoll records afforded **SPZ** and **SMZ** protection, to ensure that once targets are reached and as new records accrue or other information becomes available, the network of protected habitat in the **FMA** is optimal for Quoll conservation. Substitution of protected Quoll sites must consider the extent and quality of habitat and the currency, reliability and type of record. |
| **Spotted Galaxis** *Galaxius truttaceaus* | Population | Midlands FMA | Apply a **management area** for populations. |
| **Spotted Tree Frog** *Litoria spenceri* | Locations where frogs have been recorded and where suitable habitat has been mapped | Central Highlands FMAs | Until the species critical habitat is known, apply a **protection area** of 300 m radius over locations where frogs have been recorded and where suitable habitat has been mapped (collectively referred to as 'stream habitat'). Also exclude new **road construction** and other potentially threatening activities (such as prescribed fire) from this area.  For at least 1km upstream from and potential Spotted Tree Frog locations:  ‐ apply **buffer** and **filter** widths set out in Appendix 1 Table 10 to **timber harvesting operations**; and  ‐ do not construct new **roads** or stream crossings.  In the catchment upstream of a Spotted Tree Frog management zone:  ‐ ensure any new **road** (and the fill slope toe of any new **road**) is located at least 50 m from any stream, unless site specific sediment management operations are put in place to prevent sediments entering perennial and ephemeral streams in the management zone  ‐ minimise construction of new **roads** and stream crossings, and ensure any constructed comply with the following prescriptions extracted from *O’Shaughnessy and Associates (1997)*:  · Ensure that creek culverts and bridges are built to be effective with 1:50 year flows.  · Construct rock armoured overflow sections to allow overtopping without **road** washouts.  · Install culverts of a minimum dimension of 375 mm along **roads**.  · Install diversion culverts of a minimum dimension of 500 mm either side of stream crossings and construct crossings to ensure that **road** drainage at the crossing does not directly enter the stream.  · Ensure that all culvert outlets have structures in place to spread and disperse culvert discharge using materials such as rocks, devises constructed from durable **timber** and logs.  · Use excavators to prepare stream crossings for culvert placement. Ensure that material is pulled back on either side and not across the crossing.  · Ensure that fill placement is accurate following culvert installation.  · Use techniques to ensure silt runoff from surface flows, embankments and fills into **drainage lines** and or creeks is minimised.  · When removing stream crossings associated with **temporary roads**: (a) extensively drain the **road** formation using substantial banks: and (b) remove the **road** bench where it connects to the **permanent road** network.  ‐ schedule **timber harvesting operations**, roading and burning to minimise the area disturbed at any one time |
|  | Locations where frogs have been recorded and where suitable habitat has been mapped | Gippsland FMAs North East FMAs | Until the species critical habitat is known, apply a **protection area** of 300 m radius over all frog sites and mapped habitat areas. Apply a **management area** of a further 700m either side of the **protection area** and 1 km upstream or to the ridge top (if the stream is less than 1 km long) along all streams that flow into the frog habitat. Exclude **timber harvesting operations**, new **road construction** and other potentially threatening activities (such as prescribed fire) from the **protection area**.  Within the **management area** or **SMZ**:  - do not construct new stream crossings - ensure any new **road** (and the fill slope toe of any new **road**) is located at least 50 m from any stream, unless site specific sediment management operations are put in place to prevent sediments entering perennial and ephemeral streams in the management zone - apply **buffer** and **filter** widths set out in Table 10. - give particular attention to suspension of logging and **snig track** drainage during wet weather - excavate 50 cm deep pits below the original track surface and immediately upslope of bars constructed to drain **snig tracks** and other tracks - ensure **landings** are constructed, or are drained to dispose of discharge at least 50 m from the upslope edge of **buffers** and **filters**. |
| **Square-tailed Kite** *Lophoictinia isura* | Nest tree used within the last 5 years | Central Highlands FMAs North East FMAs Portland-Horsham FMA | Apply a 100 m **buffer** around nest trees used within the last 5 years. Exclude **timber harvesting operations** within 250 m of nest trees during breeding season. |
| Nesting site | Midlands FMA Gippsland FMAs Bendigo FMA East Gippsland FMA | Apply a **management area** of 250 m radius over nesting sites.  Within 250 m of nesting sites, avoid **timber** harvesting, **road construction** and burning during breeding season. Apply a **protection area** of 100m radius around nesting sites.  **Note:** Within the Midlands **FMA**, the **Secretary** intends to review this strategy when 10 sites have been established in **State forest**. |
| **Squirrel Glider** *Petaurus norfolcensis* | Population  Key habitat element such as nesting hollows, large trees and suitable understorey species | North East FMAs Portland-Horsham FMA  Midlands FMA | Apply a **management area** of approximately 500 ha of suitable habitat over populations.   Within the **management area** or **SMZ**, implement prescriptions that address maintenance of key habitat elements such as nesting **hollows**, **large trees** and suitable **understorey** species (in particular Silver Wattle Acacia dealbata). Exclude **timber harvesting operations** from a core area of approximately 100 ha.  **Note:** The **Secretary** intends to review this strategy when 10 sites have been established in **State forest**. |
| Population | Bendigo FMA | Apply a **management area** over populations.  Within the **management area** or **SMZ**, implement prescriptions that address maintenance of key habitat elements such as nesting **hollows**, **large trees** and suitable **understorey** species. |
| **Strzelecki Burrowing Crayfish** *Engaeus rostrogaleatus* | Sites | Gippsland FMAs | Develop management actions to protect Strzelecki Burrowing Crayfish habitat at sites in **State forest**. |
| **Superb Parrot** *Polytelis swainsonii* | Nest tree | Mid-Murray FMA | Apply a **management area** of 250 m radius over nest trees.  Within 250m of the nest tree, exclude all potentially disturbing activities during breeding season. Breeding season is 1 September to 31 December. Apply a **protection area** of 100m radius around nest trees.  **Note:** The **Secretary** intends to review this strategy statewide every 10 years from 2003, or if the total area of **buffer** zones in Victorian **State forests** exceeds 200 ha, whichever occurs first. |
| **Swamp Skink** *Lissolepis coventryi* | Records | Portland-Horsham FMA | Minimise disturbance to damp areas and gully lines. Maintain dense vegetation within 250 m of records of this species. |
| **Swift Parrot** *Lathamus discolor* | Vicinity of Swift Parrot flocks | Midlands FMA Portland-Horsham FMA | Avoid disturbance of Swift Parrot flocks by postponing **timber harvesting operations** that may affect them in their vicinity. |
| Resident population | North East FMAs | Apply a **management area** for resident populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations** or prescribed burning activities. |
| **Trout Cod** *Maccullochella macquariensis* | Viable Trout Cod population | North East FMAs  Mid-Murray FMA | Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately managed and protected when **timber harvesting operations** are planned in rivers and catchments upstream of viable Trout Cod populations. |
| **Turquoise Parrot** *Neophema Pulchella* | Stump identified as nest site | North East FMAs | Protect stumps identified as nest sites from **timber harvesting operations**. |
| **Variegated Pygmy Perch** *Nannoperca variegata* | Population | Portland-Horsham FMA | Apply a **protection area** extending 40 m from each bank for 40 m upstream and 40 m downstream of populations.  Disturbance that could impact on water quality must be avoided within a **protection area**. |
| **Warragul Burrowing Crayfish** *Engaeus sternalis* | Population | Gippsland FMAs | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Wedge‐tailed Eagle**  *Aquila audax* | Nesting site | Midlands FMA | Apply a **management area** of 250 m radius over nesting sites.  Within the **management area** or **SMZ**, avoid **timber** harvesting, **road construction** and burning activities during breeding season. Breeding season is 1 July to 30 November. Within 100m of nest trees, exclude **timber harvesting operations**, **road construction** and burning at all times.  **Note:** The **Secretary** intends to review this strategy when 10 sites have been established in **State forest**. |
| **White-bellied Sea-eagle** *Haliaeetus leucogaster* | Nesting site | Gippsland FMAs | Apply a **management area** of 500 m radius over nesting sites.   Within 500m of nesting sites, avoid **timber** harvesting, **road construction** and burning during breeding season. Apply a **protection area** of 100m radius around nesting sites. |
| Resident population | North East FMAs | Apply a **management area** over resident populations.   Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Nesting site | Portland-Horsham FMA East Gippsland FMA | Apply a **management area** of 250 m radius over each nesting site.   Within 250m of nesting site, avoid **timber** harvesting, **road construction** and burning during breeding season. Apply a **protection area** of 100m radius around nesting sites. |
| Nesting population | Mid-Murray FMA | Apply a **management area** of 250 m radius over nesting populations.   Within 20m of nesting population, avoid **timber** harvesting, **road construction** and burning during breeding season. Breeding season is 1 May to 31 December. Apply a **protection area** of 100 m radius around nesting sites. |
| **White-footed Dunnart** *Sminthopsis leucopus* | Site | Portland-Horsham FMA | Apply a **protection area** of approximately 20 ha of suitable habitat over sites. |
| **Woodland Blind Snake** *Anilios proximus* | Site | North East FMAs | Apply a **protection area** of approximately 50 ha over each site, where practicable incorporating the detection site.  **Note:** The **Secretary** intends to review the strategy when 20 **SPZ** are established. |
| Population | Mid-Murray FMA | Apply a **management area** of approximately 50 ha over populations, where practicable incorporating the detection site.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | Midlands FMA | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Yellow-bellied Glider** *Petaurus australis* | Den tree and associated flight paths, and feed trees | Portland-Horsham FMA | Retain all Yellow‐Bellied Glider den trees and associated flight paths, and feed trees. (Yellow‐Bellied Glider feed trees are recognised by “V – notch” incisions into the sapwood and are found in a range of species including *Eucalyptus viminalis, E. ovata, E. baxteri, E. obliqua and E. willisii.*) |
| Relative abundance (More than 5 per Spotlight Kilometre) | East Gippsland FMA Otways FMA | Apply a **protection area** of approximately 100 ha of suitable habitat where records report a relative abundance of more than 5 individuals per spotlight kilometer (equivalent to more than 0.2 individuals per hectare or more than 7 individuals per hour of spotlighting), or where substantial populations are located in isolated or unusual habitat.  **Note:** Assumed rate of spotlighting per kilometer is 10mins per 100m and visible range either side of transect is 150m, equating to assumed minimum survey area of 30 hectares. |
| **Yellow-bellied Sheathtail Bat** *Saccolaimus flaviventris* | Roost site with patterns of regular seasonal use  Sites of active colonies | Gippsland FMAs | Apply a **protection area** of 100 m radius over roost sites with patterns of regular seasonal use. Establish a further **management area** of 100 m radius around the **protection area** for sites of active colonies.  Schedule **timber** harvesting, roading and fuel reduction burning operations within the **management area** to minimise disturbance to colonies. |
| Older forest over sites where more than 10 individuals are captured in one trapping session | East Gippsland FMA | Apply a **protection area** of approximately 100 ha of older forest over sites where more than 10 individuals are captured in one trapping session.  **Note:** The **Secretary** intends to review this strategy when 20 sites are established. |

#### **Table 14 Rare or threatened flora prescriptions**

| **Species Name** | **Value** | **Applicable FMAs** | **Management Actions** |
| --- | --- | --- | --- |
| **Alpine Bush-pea**  *Pultenaea fasciculata* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Buttons** *Leptorhynchos squamatus subsp. Alpinus* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Colobanth** *Colobanthus affinis* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Crane's-bill** *Geranium brevicaule* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Fen-sedge** *Carex hypandra* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Alpine Finger-fern** *Notogrammitis crassior* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Groundsel** *Senecio pectitus var. major* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Marianth** *Rhytidosporum inconspicuum* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Pennywort** *Schizeilema fragoseum* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Phebalium** *Phebalium squamulosum subsp. alpinum* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Rush** *Juncus brevibracteus* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Stackhousia** *Stackhousia pulviris* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Alpine Wattle** *Acacia alpina* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Anglesea Grevillea** *Grevillea infecunda* | Population | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected.  Implement hygiene precautions to control the potential introduction and / or spread of *Phytophthora cinnamomic.* |
| **Aniseed Boronia** *Boronia galbraithiae* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| **Antelope Greenhood** *Pterostylis laxa* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Archer's Sedge** *Carex archeri* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Ausfeld's Wattle** *Acacia ausfeldii* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Austral Crane's-bill** *Geranium solanderi var. solanderi s.s.* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Austral Moonwort** *Botrychium australe* | Population | North East FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Austral Toad-flax** *Thesium australe* | Population | Gippsland FMAs North East FMAs | Apply a **protection area** over each population. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Austral Trefoil** *Lotus australis var. australis* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Australian Anchor Plant** *Discaria pubescens* | Population | North East FMA East Gippsland FMA | Apply a **management area** of 200m over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | Gippsland | Apply a **protection area** over each population. |
| **Bantam Bush-pea** *Pultenaea parrisiae* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Basalt Peppercress** *Lepidium hyssopifolium s.s.* | Population | Midlands FMA | Apply a **protection area** over each population.  Conduct pre-harvest surveys for the species in the vicinity of Bolworrah and Trentham. |
| **Bassian Pomaderris** *Pomaderris oraria subsp. oraria* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Baw Baw Sally** *Eucalyptus pauciflora subsp. acerina* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Bead Glasswort** *Tecticornia flabelliformis* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Beechworth Silver Stringybark** *Eucalyptus cinerea subsp. Victoriensis* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Ben Major Grevillea** *Grevillea floripendula* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Bent-leaf Wattle** *Acacia flexifolia* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Betka Bottlebrush** *Callistemon kenmorrisonii* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Binung** *Christella dentata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Birch Pomaderris** *Pomaderris betuli subsp. Betulina* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Black Oliveberry** *Elaeocarpus holopetalus* | Population | Portland-Horsham FMA | Manage populations in consultation with the **Department** unless already protected. |
| **Black Stem** *Adiantum formosum* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Blackfellow's Hemp** *Androcalva rossii* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Blotched Hyacinth-orchid** *Dipodium variegatum* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Blue-leaf Tussock-grass** *Poa sieberiana var. cyanophylla* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Blue-tongue Greenhood** *Pterostylis oreophila* | Population | Gippsland FMAs North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Blunt Sandalwood** *Santalum obtusifolium* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Blunt-leaf Pomaderris** *Pomaderris helianthemifolia* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Bog Saw-sedge** *Gahnia subaequiglumis* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Bogong Daisy-bush** *Olearia frostii* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Bonnet Orchid** *Cryptostylis erecta* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Branching Raspwort** *Gonocarpus micranthus subsp. ramosissimus* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Bristly Greenhood** *Pterostylis setifera* | Population | Bendigo FMA | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Bristly Helmet-orchid** *Corybas hispidus* | Population | Gippsland FMAs North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Brittle Bladder-fern** *Cystopteris tasmanica* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Broad-leaf Hop-bush** *Dodonaea rhombifolia* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Broad-lip Diuris** *Diuris X palachila* | Population | Bendigo FMA | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Broad-lip Leek-orchid** *Prasophyllum patens s.l.* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Brooker's Gum** *Eucalyptus brookeriana* | Occurence | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. Where possible, reseed or replant all logging **coupes** that contained E. brookeriana with seed collected from the **coupe** to ensure re-establishment of this species on the site in a similar proportion to that found prior to harvesting as shown on the **coupe** plan. |
| **Broom Bitter-pea** *Daviesia genistifolia s.s.* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Buff Hazelwood** *Symplocos thwaitesii* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Buffalo Sallee** *Eucalyptus mitchelliana* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Buloke Mistletoe** *Amyema linophylla subsp. orientale* | Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Buloke** *Allocasuarina luehmannii* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Button Rush** *Lipocarpha microcephala* | Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations that are not already protected.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Buxton Gum** *Eucalyptus crenulata* | Population | Central Highlands FMAs | Protect populations from disturbance where possible. |
| **Cabbage Fan-palm** *Livistona australis* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Candy Spider-orchid** *Caladenia versicolor* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Cane Spear-grass** *Austrostipa breviglumis* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Castlemaine Spider-orchid** *Caladenia clavescens* | Population | Bendigo FMA | Apply a **management area** over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Catkin Wattle** *Acacia dallachiana* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Chinese Lespedeza** *Lespedeza juncea subsp. sericea* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Cliff Cudweed** *Euchiton umbricola* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Clover Glycine** *Glycine latrobeana* | Population | Midlands FMA | Apply a **protection area** over each population based on field inspection. Review this strategy when 10 sites and 1000 individuals are protected in **State forest**.  **Note:** The **Secretary** intedns to review this strategy when 10 sites and 1000 individuals are protected in **State forest** |
| Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | Portland-Horsham FMA Bendigo FMA | Apply a **management area** over populations based on field inspection.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Coast Bitter-bush** *Adriana quadripartita (pubescent form)* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Coast Dandelion** *Taraxacum cygnorum* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Coast Grey-box** *Eucalyptus bosistoana* | Coast Grey Box stand | Gippsland FMAs | Exclude **timber harvesting operations** from Coast Grey Box **stands**, except for when it is undertaken to facilitate propagation or **regeneration** of this species. |
| **Coast Ixodia** *Ixodia achillaeoides subsp. arenicola* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Coastal Greenhood** *Pterostylis alveata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Cobberas Grevillea** *Grevillea brevifolia* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Cobra Greenhood** *Pterostylis grandiflora* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Colourful Spider-orchid** *Caladenia colorata* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Colquhoun Grevillea** *Grevillea celata* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Comb Wheat-grass** *Australopyrum retrofractum* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Common Joyweed** *Alternanthera nodiflora* | Population | Mid-Murray FMA | Avoid disturbance to populations. |
| **Common Spider-orchid** *Caladenia patersonii s.l.* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Common Spleenwort** *Asplenium trichomanes* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Concave Pomaderris** *Pomaderris subplicata* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Convex Pomaderris** *Pomaderris subcapitata* | Population | Gippsland FMAs  North East FMAs | Apply a **management area** of 200 m radius over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Creeping Grevillea** *Grevillea repens* | Population | Central Highlands FMAs | Consult with a botanist to determine if management actions are required to protect occurrences in the vicinity of prescribed burning activities. |
| Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Crested Hair-grass** *Koeleria macrantha* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Crested Water-milfoil** *Myriophyllum lophatum* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Crimson Grevillea** *Grevillea polybractea* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Crimson Spider Orchid** *Caladenia concolor* | Population | Central Highlands FMAs | Protect populations from disturbance where possible. Consult with a botanist to determine if management actions are required to protect occurrences in the vicinity of prescribed burning activities. |
|  | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Cryptic Heath** *Epacris celata* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Cupped Bush-pea** *Pultenaea vrolandii* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Curly Sedge** *Carex tasmanica* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Currawang** *Acacia doratoxylon* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Dark Wire-grass** *Aristida calycina var. calycina* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Deane's wattle** *Acacia deanei subsp. deanei* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Delicate Bush-pea** *Pultenaea tenella* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Delicate Cranesbill** *Geranium sp. 6* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Delicate Love-grass** *Eragrostis tenellula* | Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Delicate New Holland Daisy** *Vittadinia tenuissima* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Dense Leek-orchid** *Prasophyllum spicatum* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Dense Mint-bush** *Prostanthera decussata* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Dergholm Guinea-flower** *Hibbertia humifusa subsp. debilis* | Population | Portland-Horsham FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Devious Bent-grass** *Deyeuxia decipiens* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Dookie Daisy** *Brachyscome gracilis subsp. gracilis* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Downy Star-Bush** *Asterolasia phebalioides* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Dusky Bush-pea** *Pultenaea polifolia* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Dwarf Buttercup** *Ranunculus millanii* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Dwarf Milkwort** *Polygala japonica* | Population | Gippsland FMAs North East FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Dwarf Swainson-pea** *Swainsona phacoides* | Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Eastern Bitter-bush** *Adriana tomentosa var. tomentosa (glabrous and pubescent form)* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Eastern Pomaderris** *Pomaderris discolor* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Eichler's Buttercup** *Ranunculus eichlerianus* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Elegant Spider-orchid** *Caladenia formosa* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Elusive Cress** *Irenepharsus magicus* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Emerald-lip Greenhood** *Pterostylis smaragdyna* | Population | Bendigo FMA | Apply a **management area** over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Enfield Grevillea** *Grevillea bedgoodiana* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Erect Midge-orchid** *Corunastylis arrecta* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Errinundra Pepper** *Tasmannia xerophila subsp. robusta* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Fairy Bluebell** *Wahlenbergia densifolia* | Population | Gippsland FMAs | Apply a **protection area** over populations. |
| **Fairy Lanterns** *Thismia rodwayi* | Site | Central Highlands FMAs | Apply a 20 m **buffer** around sites. On advice from the **Department**, **buffers** may not be required if locally abundant in nearby parks and reserves or **SPZ**. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Fairy Orchid** *Caladenia alata* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Ferny Small-flower Buttercup** *Ranunculus pumilio var. politus* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Filmy Maidenhair** *Adiantum diaphanum* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| **Fine Bent-grass** *Deyeuxia boormanii* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Fir Clubmoss** *Huperzia australiana* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Fisch's Greenhood** *Pterostylis fischii* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Flat-leaf Bush-pea** *Pultenaea platyphylla* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Floating Bur-reed** *Sparganium subglobosum* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Floodplain Rustyhood** *Pterostylis cheraphila* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Fog Club-sedge** *Isolepis montivaga* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Forde Poa** *Poa fordeana* | Population | Mid-Murray FMA | Avoid disturbance to populations. |
| **Forest Weft-moss** *Thuidium laeviusculum s.s.* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Forrester's Bottlebrush** *Callistemon forresterae* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Fragrant Leek-orchid** *Prasophyllum suaveolens* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Fragrant Saltbush** *Rhagodia parabolica* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Fringed Rice-flower** *Pimelea ligustrina subsp. ciliata* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Genoa River Correa** *Correa lawrencea var. genoensis* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Gippsland Hemp Bush** *Gynatrix macrophylla* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Gippsland Lakes Peppermint** *Eucalyptus arenicola* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Glandular Early Nancy** *Wurmbea biglandulosa subsp. biglandulosa* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Globe-hood Sun-orchid** *Thelymitra X chasmogama* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Golden Cowslips** *Diuris behrii* | Population | Bendigo FMA | Apply a **management area** over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Golden Grevillea** *Grevillea chrysophaea* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Golden Moths** *Diuris lanceolata s.l.* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| **Golden Pomaderris** *Pomaderris aurea* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Goldfield Boronia** *Boronia anemonifolia subsp. Aurifodina* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Gorae Leek-orchid** *Prasophyllum diversiflorum* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Graceful Sun-orchid** *Thelymitra simulata* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Grampians Bitter-pea** *Daviesia laevis* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Grampians Pincushion-lily** *Borya mirabilis* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Grampians Rice-flower** *Pimelea pagophila* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Grampians Zieria** *Zieria oreocena* | Population | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Granite Greenhood** *Pterostylis tunstallii* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Green Leek-orchid** *Prasophyllum lindleyanum* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Green Wattle** *Acacia irrorata subsp. irrorata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Greenish-flower Vanilla-lily** *Arthropodium sp. 2 (greenish flowers)* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Green-striped Greenhood** *Pterostylis chlorogramma* | Population | Gippsland FMAs Portland-Horsham FMA | Apply a **protection area** over each population. |
| **Green-Top Sedge** *Carex chlorantha* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Grey Beard-heath** *Leucopogon attenuatus* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Grey Rice-flower** *Pimelea treyvaudii* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Grey Scentbark** *Eucalyptus ignorabilis s.s.* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius around each population. |
| **Gully Grevillea** *Grevillea barklyana* | Mature individual | Central Highlands FMAs | Protect **mature** individuals from disturbance where possible. |
| **Gunn's Alpine Buttercup** *Ranunculus gunnianus* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Hairy Eyebright** *Euphrasia lasianthera* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Hairy Hop-bush** *Dodonaea boroniifolia* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Hairy-pod Wattle** *Acacia glandulicarpa* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Hard-head Bush-pea** *Pultenaea capitellata* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Heath Platysace** *Platysace ericoides* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Highland Bush-pea** *Pultenaea williamsonii* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Honey Hood-orchid** *Caladenia hildae* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Jerry-jerry** *Ammannia multiflora* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Jumping-jack Wattle** *Acacia enterocarpa* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Kerrawang** *Commersonia dasyphylla* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **King Greenhood** *Pterostylis baptistii* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Kydra Dampiera** *Dampiera fusca* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Lady's Mantle** *Alchemilla xanthochlora* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Lanky Buttons** *Leptorhynchos elongatus* | Population | Gippsland FMAs North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Large Rustyhood** *Pterostylis maxima* | Population | Bendigo FMA | Apply a **management area** over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Large Tick-trefoil** *Desmodium brachypodum* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Large Velvet Wallaby-grass** *Rytidosperma pilosum var. paleaceum* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Large-leaf Ray-flower** *Cyphanthera anthocercidea* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Leafless Pink-bells** *Tetratheca subaphylla* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Leafless Tongue-orchid** *Cryptostylis hunteriana* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Leafy Greenhood** *Pterostylis cucullata* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| Population | North East FMAs Portland-Horsham FMA East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the population is adequately protected during **timber harvesting operations**. |
| **Leafy Templetonia** *Templetonia stenophylla* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Leafy Wallaby-grass** *Rytidosperma bipartitum s.s.* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Lilac Berry** *Trochocarpa clarkei* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Lilac Bitter-cress** *Cardamine lilacina s.s.* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Limestone Blue Wattle** *Acacia caerulescens* | Population | Gippsland FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Limestone Pomaderris** *Pomaderris oraria subsp. calcicola* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Limestone Spider-orchid** *Caladenia calcicola* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Little Kooka Wattle** *Acacia nanopravissima ms.* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Long Rope-rush** *Calorophus elongatus* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Long-flower Beard-heath** *Leucopogon juniperinus* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | North East FMAs | Protect populations from disturbance where possible. |
| **Long-tail Greenhood** *Pterostylis woollsii* | Population | Bendigo FMA | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Long-tongue Summer Greenhood** *Pterostylis aestiva* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Low Bush-pea** *Pultenaea subspicata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Lowan Phebalium** *Phebalium lowanense* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Lowly Greenhood** *Pterostylis despectans* | Population | Bendigo FMA | Apply a **management area** over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. Within the **management area**, **timber** harvesting activities are limited to **thinning** operations conducted in accordance with plans developed for the specific purpose of aiding the survival of Lowly Greenhood. |
| **Maiden's Wattle** *Acacia maidenii* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mallee Ash** *Eucalyptus kybeanensis* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Maroon Leek-orchid** *Prasophyllum frenchii* | Population | Portland-Horsham FMA Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Marsh Daisy** *Brachyscome radicans* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Marsh Greenhood** *Pterostylis uliginosa* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Marsh Leek-orchid** *Prasophyllum niphopedium* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Marsh Sun-orchid** *Thelymitra longiloba* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mat Cudweed** *Euchiton traversii* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Matted Flax-lily** *Dianella amoena* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Matted Parrot-pea** *Dillwynia prostrata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **McIvor Spider-orchid** *Caladenia audasii* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Mellblom's Spider-orchid** *Caladenia hastata* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Metallic Sun Orchid** *Thelymitra epipactoides* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| Occurrence | Portland-Horsham FMA Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Monkey Mint-bush** *Prostanthera walteri* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mossy Knawel** *Scleranthus singuliflorus* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mount Cole Grevillea** *Grevillea montis-cole* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Mountain Aciphyll** *Aciphylla simplicifolia* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Mountain Dandelion** *Taraxacum aristum* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mountain Kangaroo Apple** *Solanum linearifolium* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mountain Leafless Bossiaea** *Bossiaea bracteosa* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mountain Leek-orchid** *Prasophyllum aff. montanum B* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Mountain Mat-rush** *Lomandra oreophila* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mountain Swainson-pea** *Swainsona recta* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Mountain Wheat-grass** *Australopyrum velutinum* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mueller Daisy** *Brachyscome muelleroides* | Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mueller's Bent** *Agrostis muelleriana* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Mugga** *Eucalyptus sideroxylon subsp. sideroxylon* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Naked Sun-orchid** *Thelymitra circumsepta* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Narrow Goodenia** *Goodenia macbarronii* | Population | North East FMAs | Apply a **protection area** over each population. |
| **Narrow-leaf Star-hair** *Astrotricha linearis* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Native Quince** *Alectryon subcinereus* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Native wintercress** *Barbarea grayi* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Netted Daisy-bush** *Olearia speciosa* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Omeo Gum** *Eucalyptus neglecta* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Orange-blossom Orchid** *Sarcochilus falcatus* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Orange-tip Finger-orchid** *Caladenia aurantiaca* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Ornate Pink-fingers** *Caladenia ornata* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Outcrop Guinea-flower** *Hibbertia hermanniifolia subsp. recondita* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Oval-leaf Grevillea** *Grevillea miqueliana subsp. Miquelia* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Oval-leaf Pseudanthus** *Pseudanthus ovalifolius* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. |
| **Ovens Everlasting** *Ozothamnus stirlingii* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Pale Flax-lily** *Dianella longifolia var. longifolia s.l.* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Pink Mountain-correa** *Correa lawrenceana var. cordifolia* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Pinkwood** *Beyeria lanceolata* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Pinnate Goodenia** *Goodenia macmillanii* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Plains Joyweed** *Alternanthera sp. 1 (Plains)* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Pomonal Leek-orchid** *Prasophyllum subbisectum* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Poverty Wattle** *Acacia dawsonii* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Prawn Greenhood** *Pterostylis pedoglossa* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Prickly Tree-fern** *Cyathea leichhardtiana* | Population | Gippsland FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Privet Pomaderris** *Pomaderris ligustrina subsp. ligustrina* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Prostrate Cone-bush** *Isopogon prostratus* | Population | Gippsland FMAs | Apply a **protection area** over each population based on field inspection. |
| **Purple Blown-grass** *Lachnagrostis punicea subsp. punicea* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Purple Diuris** *Diuris punctata var. punctata* | Population | Midlands FMA Gippsland FMAs | Apply a **protection area** over each population based on field inspection.  **Note:** Within the Midlands **FMA**, the **Secretary** intends to review this strategy when 10 sites and 1000 individuals are protected. |
| Population | North East FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Purple Eyebright** *Euphrasia collina subsp. muelleri* | Population | Gippsland FMAs North East FMAs Portland-Horsham FMA | Apply a **protection area** of 200 m radius over each population. |
| Population | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Ridged Water-milfoil** *Myriophyllum porcatum* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Rigid Spider-orchid** *Caladenia tensa* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **River Leafless Bossiaea** *Bossiaea riparia* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **River Swamp Wallaby-grass** *Amphibromus fluitans* | Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Rock daisy** *Brachyscome petrophila* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Rock Grevillea** *Grevillea willisii* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Rock Orchid** *Thelychiton speciosus* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Rock Tussock-grass** *Poa petrophila* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Rough Eyebright** *Euphrasia scabra* | Population | Gippsland FMAs North East FMAs | Apply a **protection area** over each population. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Rough-grain Love-grass** *Eragrostis trachycarpa* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Royal Grevillea** *Grevillea victoriae s.s.* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Rusty Velvet-bush** *Lasiopetalum ferrugineum var. ferrugineum* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Sand Rush** *Juncus psammophilus* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
|  | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Sandfly Zieria** *Zieria smithii subsp. smithii* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Sandpaper Fig** *Ficus coronata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Scaly Greenhood** *Pterostylis hamata* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Scented Bush-pea** *Pultenaea graveolens* | Population | Midlands FMA | Avoid disturbance to populations within the **management area,** **SMZ** and **GMZ**. |
| **Scented Daisy-bush** *Olearia tenuifolia* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Selma Saddle Grevillea** *Grevillea miqueliana subsp. cincta* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Shingle Fireweed** *Senecio diaschides* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Shining Anchor Plant** *Discaria nitida* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| **Shiny Leionema** *Leionema lamprophyllum* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Short Spider-orchid** *Caladenia brachyscapa* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Short Water-starwort** *Callitriche brachycarpa* | Population | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Short-awned Wheat-grass** *Anthosachne kingiana subsp. multiflora* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | Mid-Murray FMA | Avoid disturbance to populations. |
| **Short-bristle Wallaby-grass** *Rytidosperma setaceum var. brevisetum* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Showy Willow-herb** *Epilobium pallidiflorum* | Occurrences | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Sickle-leaf Rush** *Juncus falcatus subsp. falcatus* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Sikh's Whiskers** *Pterostylis boormanii* | Population | Bendigo FMA | Apply a **management area** over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Silky Glycine** *Glycine canescens* | Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| **Silver Stringybark** *Eucalyptus alligatrix subsp. alligatrix* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Silver Tea-tree** *Leptospermum multicaule* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Skeleton Vine** *Clematis leptophylla* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Slender Bitter-cress** *Cardamine tenuifolia* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Slender Club-sedge** *Isolepis congrua* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Slender Darling-pea** *Swainsona murrayana* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Slender Gingidia** *Gingidia harveyana* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Slender Leek-orchid** *Prasophyllum parviflorum* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Slender Love-grass** *Eragrostis exigua* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Slender Mud-grass** *Pseudoraphis paradoxa* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Slender Parrot-pea** *Almaleea capitata* | Population | Gippsland FMAs North East FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Slender Pomaderris** *Pomaderris phylicifolia* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Slender Ruddyhood** *Pterostylis aciculiformis* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Slender Saw-sedge** *Gahnia microstachya* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Slender Sword-sedge** *Lepidosperma gunnii* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Slender Tick-trefoil** *Desmodium varians* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | North East FMAs | Protect populations from disturbance where possible. |
| Population | Bendigo FMA | Minimise disturbance from **road** management activities. |
| Population | Mid-Murray FMA | Avoid disturbance to populations. |
| **Slender Tree-fern** *Cyathea cunninghamii* | Population | Gippsland FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| Population | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Slender Violet-bush** *Hybanthus monopetalus* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Small Chocolate-lily** *Arthropodium sp. 3 (aff. strictum)* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Small Milkwort** *Comesperma polygaloides* | Site | Bendigo FMA | Prevent use of machinery or vehicles on sites when soils are wet or such use will damage the underground parts of the plants. |
| **Small Scurf-pea** *Cullen parvum* | Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Small-leaf Bush-pea** *Pultenaea foliolosa* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Smooth Wallaby-grass** *Rytidosperma laeve* | Population | Mid-Murray FMA | Avoid disturbance to populations. |
| **Snow Aciphyll** *Aciphylla glacialis* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Snow Beard-heath** *Acrothamnus montanus* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Snow Coprosma** *Coprosma nivalis* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Snow Fescue** *Hookerochloa eriopoda* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Snow Pennywort** *Diplaspis nivis* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Snow Wallaby-grass** *Rytidosperma nivicola* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Snowdrop Wood-sorrel** *Oxalis magellanica* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Snowy River Wattle** *Acacia boormanii* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Soft Ledge Grass** *Poa hothamensis var. Parviflora* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Southern Pipewort** *Eriocaulon australasicum* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Spicy Everlasting** *Ozothamnus argophyllus* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Spinning Gum** *Eucalyptus perriniana* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Spiral Sun-orchid** *Thelymitra matthewsii* | Population | Gippsland FMAs Portland-Horsham FMA East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Sprawling Cassia** *Senna aciphylla* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Spreading Clubmoss** *Lycopodium scariosum* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Spreading Eutaxia** *Eutaxia microphylla var. diffusa* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Spreading Knawel** *Scleranthus fasciculatus* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Squat Picris** *Picris squarrosa* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Stalked Adder's-tongue** *Ophioglossum reticulatum* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Stalked Brooklime** *Gratiola pedunculata* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Stalked Guinea-flower** *Hibbertia pedunculata s.l.* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Star Cucumber** *Sicyos australis* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Sticky Wattle** *Acacia howittii* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Stiff Groundsel** *Senecio behrianus* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Stony Bush-pea** *Pultenaea lapidosa* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Strawberry Buttercup** *Ranunculus collinus* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Striped Pink-fingers** *Caladenia carnea var. subulata* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Striped Pomaderris** *Pomaderris pilifera subsp. pilifera* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Strzelecki Gum** *Eucalyptus strzeleckii* | Population | Gippsland FMAs | Apply a **protection area** over each population. |
| **Sturdy Leek-orchid** *Prasophyllum aff. validum B* | Population | Bendigo FMA | Apply a **management area** over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Subalpine Baeckea** *Baeckea latifolia* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Summer Fringe-sedge** *Fimbristylis aestivalis* | Population | Mid-Murray FMA | Avoid disturbance to populations. |
| **Summer Leek-orchid** *Prasophyllum uvidulum* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Swamp Bush-pea** *Pultenaea weindorferi* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Swamp Everlasting** *Xerochrysum palustre* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Swamp Fern** *Thelypteris confluens* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Swamp Fireweed** *Senecio psilocarpus* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Swamp Greenhood** *Pterostylis tenuissima* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Tailed Eyebright** *Euphrasia caudata* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tall Acrotriche** *Acrotriche leucocarpa* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Tall Astelia** *Astelia australiana* | Tall Astelia colony | Central Highlands FMAs | Apply a 100 m **buffer** around each Tall Astelia colony. Discovery of a previously unknown colony during harvesting operations will not necessarily cause harvesting to cease, but every reasonable effort will be made to protect it. Where Tall Astelia occurs within Cool Temperate Rainforest or Riparian Thicket **EVCs**, apply a 100 m **buffer** around the **EVC**. **Buffer** widths may be smaller in cases where **existing roads** or ridgelines occur within the 100 m. Upstream of Tall Astelia colonies, apply a minimum vegetated **buffer** of 40 m between the valley floor, or 'wetted zone' and adjacent logging **coupes**. Where there is no discernible valley floor extend the **buffer** zone 40 m from the creek itself. Apply a 40 m **buffer** around isolated plants growing on **road** batters. No **roads** or **snig tracks** may be constructed through Tall Astelia colonies. Avoid constructing **roads** or **snig tracks** through Tall Astelia **buffers**. Any **roads** or **snig tracks** that do cross Tall Astelia **buffers** must be located as far upstream from the Tall Astelia colony as possible, and sedimentation of the Tall Astelia colony must be prevented. Where Tall Astelia occurs on seepage zones immediately below a **coupe**, **snig tracks** must be designed to minimise alteration to the sites normal drainage patterns. |
|  | Tall Astelia colony | Otways FMA | Apply a 100 m **buffer** around each Tall Astelia colony. Discovery of a previously unknown colony during harvesting operations will not necessarily cause harvesting to cease, but every reasonable effort will be made to protect it. |
| **Tall Vanilla-lily** *Arthropodium sp. 1 (robust glaucous)* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Tangled Pseudanthus** *Pseudanthus orbicularis* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Tasmanian Bladderwort** *Utricularia monanthos* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tasmanian Wax-flower** *Philotheca virgata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tawny Spider-orchid** *Caladenia fulva* | Population | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Thick Bent-grass** *Deyeuxia crassiuscula* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Thick Eyebright** *Euprasia crassiuscula* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Thick-lip Spider-orchid** *Caladenia tessellata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tick Indigo** *Indigofera adesmiifolia* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tight Bedstraw** *Galium curvihirtum* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tingaringy Gum** *Eucalyptus glaucescens* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tiny Arrowgrass** *Triglochin minutissima* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tiny Bent** *Agrostis australiensis* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tiny Daisy** *Brachyscome ptychocarpa* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tiny Midge-orchid** *Corunastylis nuda* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tiny Spyridium** *Spyridium cinereum* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Toothed leionema** *Leionema bilobum subsp. serrulatum* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Trailing Hop-bush** *Dodonaea procumbens* | Population | Portland-Horsham FMA Bendigo FMA | Apply a **management area** over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tree Geebung** *Persoonia arborea* | Individual tree | Central Highlands FMAs | Protect individual trees with a DBHOB of at least 10 cm from disturbance where reasonably practicable. |
| **Tufted Club-sedge** *Isolepis wakefieldiana* | Occurrence | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Tullach Ard Grevillea** *Grevillea polychroma* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Turnip Copperburr** *Sclerolaena napiformis* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Tussock Sedge** *Carex iynx* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Tussock Sedge** *Carex iynx* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **Tussock Woodrush** *Luzula alpestris* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Two-colour Panic** *Panicum simile* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Umbrella Grass** *Digitaria divaricatissima var. divaricatissima* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Upright Panic** *Entolasia stricta* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Upright Pomaderris** *Pomaderris virgata* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Veined Beard-heath** *Leucopogon neurophyllus* | Population | Midlands FMA | Apply a **protection area** over each population. |
| **Velvet Apple-berry** *Billardiera scandens s.s.* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Velvety Geebung** *Persoonia subvelutinana* | Population | Gippsland FMAs North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Victorian Flat-pea** *Platylobium alternifolium* | Population | Midlands FMA | Avoid disturbance to populations within the **management area**, **SMZ** and **GMZ**. |
| **Wallaby-bush** *Beyeria lasiocarpa* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Warby Range Swamp-gum** *Eucalyptus cadens* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the population is adequately protected during **timber harvesting operations**. |
| **Wedge Diuris** *Diuris dendrobioides* | Population | North East FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Wedge Guinea-flower** *Hibbertia diffusa* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Wedge Oschatzia** *Oschatzia cuneifolia* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Western Water-starwort** *Callitriche cyclocarpa* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Wetland Blown-grass** *Lachnagrostis palustris* | Population | North East FMAs | Protect populations from disturbance where possible. |
| **White Billy-buttons** *Craspedia alba* | Population | North East FMAs | Protect populations from disturbance where possible. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Whiteroot** *Lobelia purpurascens* | Occurrence | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Wild Sorghum** *Sorghum leiocladum* | Population | Gippsland FMAs East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Wimmera Spider-orchid** *Caladenia lowanensis* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Winged Everlasting** *Ammobium alatum* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Winged Peppercress** *Lepidium monoplocoides* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| Population | Mid-Murray FMA | Apply a **management area** of 100 m radius over populations that are not already protected. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Winged Water-starwort** *Callitriche umbonata* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Wiry Wallaby-grass** *Plinthanthesis paradoxa* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Wombargo Wattle** *Acacia tabula* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Woodland Leek-orchid** *Prasophyllum aff. validum B* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Woolly Buttons** *Leiocarpa panaetioides* | Population | Mid-Murray FMA | Avoid disturbance to populations. |
| Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Woolly-bear Wattle** *Acacia lucasii* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Woolly-head Pomaderris** *Pomaderris eriocephala* | Population | Gippsland FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Woolly Wattle**  *Acacia lanigera var. lanigera* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations.  Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Wrinkled Buttons** *Leiocarpa gatesii* | Occurrence | Otways FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Wrinkled Cassinia** *Cassinia rugata* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |
| **Wrinkle-nut Lignum** *Muehlenbeckia rhyticarya* | Population | Gippsland FMAs | Apply a **protection area** of 200 m radius over each population. |
| **Yarra Gum** *Eucalyptus yarraensis* | Individual tree | Midlands FMA | Retain all individual Yarra Gum trees. |
| **Yellow Elderberry** *Sambucus australasica* | Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Yellow Flat-sedge** *Cyperus flavidus* | Population | North East FMAs | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Yellow Hyacinth-orchid** *Dipodium hamiltonianum* | Population | North East FMAs | Apply a **protection area** over each population. |
| Population | East Gippsland FMA | Apply a **management area** of 200 m radius over populations. Conduct a site inspection and detailed planning in consultation with the **Department** to ensure the species is adequately protected during **timber harvesting operations**. |
| **Yellow-lip Spider-orchid** *Caladenia xanthochila* | Occurrence | Portland-Horsham FMA | Manage occurrences in consultation with the **Department** unless already protected. |

#### **Table 15 Detection based rules for Heathland, Snow Gum, Swamp Gum and Heath vegetation communities**

|  |  |  |  |
| --- | --- | --- | --- |
| **FMA** | **Common name** | **Scientific name** | **Management actions** |
| East Gippsland | Heathland (all heathland EVCs and other treeless vegetation) |  | Apply a **protection area** over full extent of **heathland** and other treeless vegetation communities. |
| Midlands | Snow Gum | *Eucalyptus pauciflora* | Apply a **protection area** over full extent of vegetation communities dominated by Snow Gum on Mt Cole. |
| Midlands | Swamp Gum | *Eucalyptus ovata* | Apply a **protection area** over full extent of vegetation communities dominated by Swamp Gum near Enfield. |
| Otway | Heathy Woodland, Wet Heath and Coastal Complex |  | Apply a **protection area** over all examples of these vegetation communities. |

#### **Table 16 Buffer widths for Rainforest Sites of Significance by category and priority**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Site of Significance category** | **Priority** | | | |
| **1** | **2** | **3** | **4** |
| **National** | Extend to nearest watershed boundary | 100 m | 60 m | 60 m |
| **State** | 60 m | 60 m | 40 m | 40 m |
| **Regional** | 40 m | 40 m | 40 m | 40 m |

#### **Table 17 Landscape management prescriptions**

| **Applicable FMAs** | **Type** | **Place** |
| --- | --- | --- |
| Central Highlands FMAs | Designated Lookout | Environs of the Mount Toorongo lookout: Prominent views of Mt. Toorongo. |
| Central Highlands FMAs | Designated Lookout | Morris Lookout: Lookout |
| Central Highlands FMAs | Designated Lookout | Natural environs of the Mounts Despair and Disappointment lookouts: Mt Disappointment summit. |
| Central Highlands FMAs | Designated Lookout | Prominent views from Neerim: Tarago River SMZ and North Hells Gate lookout. |
| Central Highlands FMAs | Designated Lookout | Seven Acre Rock: Prominent views of Blue Range. |
| Central Highlands FMAs | Designated Lookout | Spion Kopje Lookout: 50 m either side of the walking track and lookout. |
| Central Highlands FMAs | Landscape Feature | Alpine Walking Track: 50 m either side of Alpine Walking Track. |
| Central Highlands FMAs | Landscape Feature | Caringal Scout Camp: |
| Central Highlands FMAs | Landscape Feature | Dom Dom Saddle: SMZ representing prominent views of this place. |
| Central Highlands FMAs | Landscape Feature | Enoch’s Point township |
| Central Highlands FMAs | Landscape Feature | Forested escarpments (Black Range and Blue Range) as viewed from the Maroondah and Goulburn Valley Highways: SMZ representing prominent views of Black Range and Blue Range. |
| Central Highlands FMAs | Landscape Feature | Labertouche Caves: |
| Central Highlands FMAs | Landscape Feature | Landscape values of the land bordering the Corranderrk and O’Shannassy aqueducts: Prominent views of Mt. Toole-be-wong . |
| Central Highlands FMAs | Landscape Feature | Little Yarra Valley: Prominent views of Britannia Range. |
| Central Highlands FMAs | Landscape Feature | Matlock Mining Area township |
| Central Highlands FMAs | Landscape Feature | Mt St Leonard: SMZ representing prominent views of this place. |
| Central Highlands FMAs | Landscape Feature | Murchison Fall and Strath Falls and their environs: |
| Central Highlands FMAs | Landscape Feature | Natural environs of Mount Beenak: Prominent views from Little Yarra Road. |
| Central Highlands FMAs | Landscape Feature | Opposite Rawson Caravan park: 50 m wide area opposite Rawson Caravan park. |
| Central Highlands FMAs | Landscape Feature | South Hells Gate: Prominent views from Neerim. |
| Central Highlands FMAs | Landscape Feature | Sylvia Creek falls and its environs |
| Central Highlands FMAs | Landscape Feature | Views from Mt Donna Buang and from the Warburton Highway: 100 m along the Warburton Highway. Including prominent views from Mt Donna Buang and in particular of Mt Little Joe and Mt Tugwell. |
| Central Highlands FMAs | Landscape Feature | Warburton–Woods Point Road / Reefton Spur Road and Upper Yarra Reservoir Rd: 50 m either side of Warburton–Woods Point Road / Reefton Spur Road and Upper Yarra Reservoir Rd. Include prominent views of Cement Creek, Armstrong Creek. |
| Central Highlands FMAs | Scenic Drive | Acheron Way: 50 m either side of Acheron Way. |
| Central Highlands FMAs | Scenic Drive | Baw Baw Road: 50 m either side of Baw Baw Road. |
| Central Highlands FMAs | Scenic Drive | Eildon Road: 50 m either side of Eildon Road. |
| Central Highlands FMAs | Scenic Drive | Forested escarpments of the Mounts Tallarook and Disappointment forest as viewed from the Hume Highway: Prominent views of Mt Disappointment. |
| Central Highlands FMAs | Scenic Drive | Landscape of Pauls Range: 50 m either side of Chum Creek Road. |
| Central Highlands FMAs | Scenic Drive | Maroondah Highway: 100 m either side of Maroondah highway, prominent views. |
| Central Highlands FMAs | Scenic Drive | Marysville - Buxton Road: 50 m either side of Marysville - Buxton Road, and prominent views of Mt. Strickland, Triangle Block and Mt. Margaret. |
| Central Highlands FMAs | Scenic Drive | Melba Highway: 100 m either side of Melba Highway. |
| Central Highlands FMAs | Scenic Drive | Moe - Walhalla Road: 50 m either side of Moe - Walhalla Road. |
| Central Highlands FMAs | Scenic Drive | Murrindindi Road from Murrindindi to Murrindindi Cascades: 50 m either side of Murrindindi Road from Murrindindi to Murrindindi Cascades. |
| Central Highlands FMAs | Scenic Drive | Myers Creek Road: 50 m either side of Myers Creek Road. |
| Central Highlands FMAs | Scenic Drive | Myers Creek Scenic Reserve: 50 m either side of Myers Creek Road. |
| Central Highlands FMAs | Scenic Drive | Natural environs of Lady Talbot Drive, Marysville: 50 m either side of Lady Talbot Drive. |
| Central Highlands FMAs | Scenic Drive | Powelltown - Noojee Road: 50 m either side of Powelltown - Noojee Road. |
| Central Highlands FMAs | Scenic Drive | Powelltown - Noojee Road: 50 m either side of Powlltown - Noojee Road. |
| Central Highlands FMAs | Scenic Drive | Steavenson Falls Road: 50 m either side of Steavenson Falls Road. |
| Central Highlands FMAs | Scenic Drive | Thomson Valley - Mt St Gwinear Rd: 50 m either side of Thomson Valley - Mt St Gwinear Rd. |
| Central Highlands FMAs | Scenic Drive | Thomson Valley Road from Erica to the Thomson Reservoir : 50 m either side of Thomson Valley Road from Erica to the Thomson Reservoir. Include prominent views of Mt. Erica and Erica surrounds. |
| Central Highlands FMAs | Scenic Drive | Whittlesea - Yea Road: 50 m either side of Whittlesea - Yea Road. |
| East Gippsland | Designated Lookout | Delegate Hill |
| East Gippsland | Designated Lookout | Genoa Peak |
| East Gippsland | Designated Lookout | Gunmark lookout |
| East Gippsland | Designated Lookout | Maramingo Hill |
| East Gippsland | Designated Lookout | Mount Bemm |
| East Gippsland | Designated Lookout | Mount Bowen |
| East Gippsland | Designated Lookout | Mount Buck |
| East Gippsland | Designated Lookout | Mount Denmarsh |
| East Gippsland | Designated Lookout | Mount Ellery |
| East Gippsland | Designated Lookout | Mount Kaye |
| East Gippsland | Designated Lookout | Mount McLeod |
| East Gippsland | Designated Lookout | Mount Nowa Nowa |
| East Gippsland | Designated Lookout | Mount Raymond |
| East Gippsland | Designated Lookout | Mount Seldom Seen |
| East Gippsland | Designated Lookout | Mount Stewart |
| East Gippsland | Designated Lookout | Mount Tingaringy |
| East Gippsland | Designated Lookout | Mount Tower |
| East Gippsland | Landscape Feature | Buchan: Black Satin Creek, Site # 810/07 |
| East Gippsland | Landscape Feature | Buchan: Wattle Gully, Site # 812/09 |
| East Gippsland | Landscape Feature | Buchan: W-Tree Creek headwaters, Site # 813/06 |
| East Gippsland | Scenic Drive | Betka Forest Drive: Mallacoota and Croajingalong access; native forest management. |
| East Gippsland | Scenic Drive | Big River Road (part): Mount Ellery access. |
| East Gippsland | Scenic Drive | Bonang - Bendoc Road and Playgrounds Track: Day trips around Bendoc, Gold Mining, park access. |
| East Gippsland | Scenic Drive | Bonang Road (Orbost - NSW border): Mt Buck/Cooney Ridge; Mt Watt; Mt Rich; views from Goongerah to Postmans Spur and BA ridge (Mt Ellery in background); Mt Little Bill; Brown Mountain; views from Bonang area to Mt Koolabra and Cottonwood Range; enclosed forest canopy and high quality roadside scenery along Pinch Swamp Ck. |
| East Gippsland | Scenic Drive | Buchan Road (Bruthen - Buchan): Views west from Red Knob area; Pretty Sally; vegetation between roadside and SEC easement provides variety and reduces impact of easement; Fluke Knob; Spencer Knob; Lookout Rocks; Tara Range. |
| East Gippsland | Scenic Drive | Buchan—Jindabyne Road: National Estate (Road built in Great Depression). Mt Dawson; views from W-Tree to Dawson range (including Half Moon Gully, Mt Elephant, Lookout Top, Gum Top and Wagtail Ridge) and Mt Murrindal; Mt Statham; Mt Seldom Seen . |
| East Gippsland | Scenic Drive | Cabbage Tree - Cape Conran Road, Marlo - Cabbage Tree Road and Palms Track: National Estate(Baldwin - Spencer journey); access to Cabbage Palms Flora Reserve. |
| East Gippsland | Scenic Drive | Cann Valley Highway: Extensive views west across flats to forested range including Mt Noorinbee, High Peak, Cann Mountain, Morgan Hill and Bennet Knob, Mt Petterson. |
| East Gippsland | Scenic Drive | Clarkeville Road: Errinundra National Park access. |
| East Gippsland | Scenic Drive | Coast Range Road (part): Part of tall forest experience in Errinundra National Park; nocturnal birds and arboreal mammals. |
| East Gippsland | Scenic Drive | Colquhoun Forest Drive: Koalas; historic features associated with the Orbost - Bairnsdale railway. |
| East Gippsland | Scenic Drive | Combienbar and Errinundra Rds: National Estate (Baldwin-Spencer journey); Errinundra National Park access; (through to Gap Rd) hills around Club Terrace; Pyramid Hill; Shining Gums and Cool Temperate Rainforest around Kanuka Creek; Tommy Roundhead Hill. |
| East Gippsland | Scenic Drive | Deddick River Road (part) 36-mile Road: Snowy River National Park access. |
| East Gippsland | Scenic Drive | Dellicknora / Cameron Roads: Tingaringy National Park access. |
| East Gippsland | Scenic Drive | Gap Road: National Estate (Baldwin-Spencer journey); high-quality foreground scenery. |
| East Gippsland | Scenic Drive | Greens Road: Access to Errinundra National Park and St Patricks Falls; native forest management. |
| East Gippsland | Scenic Drive | Gunmark Road: Major access to Errinundra National Park; extensive views across Delegate River headwaters; **buffers** required where road forms border between the Park and State forest. |
| East Gippsland | Scenic Drive | Harris Creek/ 2-mile Road: Mount Nowa Nowa access. |
| East Gippsland | Scenic Drive | Hensleigh Creek Road (part): Errinundra National Park access; nocturnal birds and arboreal mammals. |
| East Gippsland | Scenic Drive | Jones Creek Road: Coopracambra National Park access. |
| East Gippsland | Scenic Drive | Lake Tyers House Road: National Estate (Old Coach Road); Lake Tyers State Park access. |
| East Gippsland | Scenic Drive | Mallacoota and Betka Roads: Access to Mallacoota, beaches and Croajingolong National Park. |
| East Gippsland | Scenic Drive | Murrungowar Forest Drive (Princes Hwy - Murrungowar Rd - Glen Arte Rd - Bendoc Ridge Rd - Princes Hwy): Jungle Hill; Glen Arte Flora Reserve; regrowth thinning; side trips to Cabbage Tree Falls and St Patricks Falls; historic features around Murrungowar and Glen Arte. |
| East Gippsland | Scenic Drive | Nowa Nowa—Buchan Road: “The Gorge”; Mount Nowa Nowa; scenic alternative route to Buchan. |
| East Gippsland | Scenic Drive | Nunnett and Timbarra Roads: Alpine National Park access. |
| East Gippsland | Scenic Drive | Orbost-Buchan Road: National Estate (aesthetic quality). |
| East Gippsland | Scenic Drive | Princes Highway (Lakes Entrance—Orbost): Enclosed forest canopy between Nowa Nowa and Lakes Entrance; stream crossings at Hospital Ck, Hartland River and Simpson’s Ck. |
| East Gippsland | Scenic Drive | Princes Highway (Orbost- NSW border): Stream crossings at Brodribb River (rainforest) and Jungle Ck; forested hills seen from Cabbage Tree Ck; thinning operations between Cabbage Tree and Bemm River; enclosed forest canopy between Bemm River and Lind National Park; Mt Bemm; Donalds Knob; hills to south of Tonghi Creek; views north up the Cann Valley; views north-west from Mt Drummer. |
| East Gippsland | Scenic Drive | Seldom Seen Tower Road : Access to Mount Seldom Seen. |
| East Gippsland | Scenic Drive | Sydenham Inlet Road: Wide clearing maintained as strategic fire-break; view from township and inlet north to hills above township. |
| East Gippsland | Scenic Drive | Tamboon and Point Hicks Roads: Croajingolong National Park access; middle ground views near Furnell Landing. |
| East Gippsland | Scenic Drive | Tulloch Ard Road: Snowy River National Park access. |
| East Gippsland | Scenic Drive | Wallagaraugh Road: Croajingolong National Park access. |
| East Gippsland | Scenic Drive | Wallagaraugh Road: Croajingolong National Park access. |
| East Gippsland | Scenic Drive | Wangarabell Road: Access to Maramingo Hill; Genoa river access. |
| East Gippsland | Scenic Drive | West Wingan Road: Croajingolong National Park access. |
| East Gippsland | Scenic Drive | Yalmy/Rising Sun/Pinnak Roads: Major access road to Snowy River National Park; forest vistas into catchments of Cavender Ck, Serpentine Ck, Yalmy River and Stony Ck. |
| Gippsland FMAs | Designated Lookout | Bindi Lookout |
| Gippsland FMAs | Designated Lookout | Elphick Lookout: Lookout |
| Gippsland FMAs | Designated Lookout | Pendergast Lookout: Lookout |
| Gippsland FMAs | Designated Lookout | Stutterin’ Fred’s Lookout: Lookout |
| Gippsland FMAs | Landscape Feature | Blue Pool: Either side of the Freestone Creek. |
| Gippsland FMAs | Landscape Feature | Buenba Flat |
| Gippsland FMAs | Landscape Feature | Great Alpine Road: Prominent views. |
| Gippsland FMAs | Landscape Feature | Haunted Stream Valley/Stirling Ghost Town: 300 m either side of the river |
| Gippsland FMAs | Landscape Feature | Haunted Stream Valley: 300 m either side of the river. |
| Gippsland FMAs | Landscape Feature | Nicholson River: 100 m downstream of Marthavale, including up to track on west side of river and 50 m west side of Nicholson track. |
| Gippsland FMAs | Landscape Feature | The Brothers |
| Gippsland FMAs | Scenic Drive | Boola Road: 20 m either side of the road. |
| Gippsland FMAs | Scenic Drive | Bruthen – Buchan Road: 50 m either side of the road. |
| Gippsland FMAs | Scenic Drive | Dargo High Plains Road: 100 m either side of the road. |
| Gippsland FMAs | Scenic Drive | Deptford Road: 50 m either side of the road. |
| Gippsland FMAs | Scenic Drive | Fairy Dell: 50 m either side of the associated forest drive. |
| Gippsland FMAs | Scenic Drive | Great Alpine Road (part): Prominent views. |
| Gippsland FMAs | Scenic Drive | Heyfield – Licola Road |
| Gippsland FMAs | Scenic Drive | Hyland Highway: 50 m either side of the road. |
| Gippsland FMAs | Scenic Drive | South Gippsland Highway: Prominent views . |
| Gippsland FMAs | Scenic Drive | Strzelecki Highway: 50 m either side of the road. |
| Mid Murray | Landscape Feature | River Track: 20 m adjacent to the whole length of the road. |
| Mid Murray | Scenic Drive | Iron Punt Track: 20 m adjacent to the whole length of the road. |
| Mid Murray | Scenic Drive | Lock Road: 20 m adjacent to the whole length of the road. |
| Mid Murray | Scenic Drive | Nursery Track: 20 m adjacent to the whole length of the road. |
| Mid Murray | Scenic Drive | Rifle Butts Track to Five Sleepers Track to Thompson Track: 20 m adjacent to the whole length of the road. |
| Mid Murray | Scenic Drive | Stanton Break: 20 m adjacent to the whole length of the road. |
| Midlands | Designated Lookout | Ben Nevis Picnic Area |
| Midlands | Designated Lookout | Black Hill Lookout |
| Midlands | Designated Lookout | Daylesford Botanical Gardens Lookout |
| Midlands | Designated Lookout | Jackson Lookout (Hepburn) |
| Midlands | Designated Lookout | Lookout Hill Picnic Area |
| Midlands | Designated Lookout | Mount Buangor Picnic Area |
| Midlands | Designated Lookout | Sovereign Hill Lookout |
| Midlands | Scenic Drive | Ararat - St Arnaud Road (Crowlands - Landsborough) |
| Midlands | Scenic Drive | Bacchus Marsh - Gisborne Road |
| Midlands | Scenic Drive | Ballan - Daylesford Road |
| Midlands | Scenic Drive | Ballan Daylesford Road |
| Midlands | Scenic Drive | Ballarat - Buninyong Road (Sovereign Hill - Buninyong) |
| Midlands | Scenic Drive | Beaufort - Lexton Road |
| Midlands | Scenic Drive | Bungaree Creswick Road |
| Midlands | Scenic Drive | Clunes Creswick Road |
| Midlands | Scenic Drive | Creswick Dean Road |
| Midlands | Scenic Drive | Daylesford - Ballarat Road |
| Midlands | Scenic Drive | Daylesford - Malmsbury Road |
| Midlands | Scenic Drive | Daylesford - Trentham Road |
| Midlands | Scenic Drive | Gisborne - Melton Road (Pyrites forest) |
| Midlands | Scenic Drive | Glenelg Highway (Linton - Smythesdale) |
| Midlands | Scenic Drive | Greendale - Myrniong Road |
| Midlands | Scenic Drive | Greendale - Trentham Road |
| Midlands | Scenic Drive | Kyneton - Trentham Road |
| Midlands | Scenic Drive | Lal Lal Falls Road |
| Midlands | Scenic Drive | Lerderderg River (Heritage River Section) |
| Midlands | Scenic Drive | Midland Highway (Ballarat - Springmount) |
| Midlands | Scenic Drive | Midland Highway (Kennedys Gully - Spingmount) |
| Midlands | Scenic Drive | Midlands Highway (Clarendon - Meredith) |
| Midlands | Scenic Drive | Mount Cole Main Road |
| Midlands | Scenic Drive | Myrniong Trentham Road |
| Midlands | Scenic Drive | Navigators Road |
| Midlands | Scenic Drive | Pyrenees Highway (Avoca - St Arnaud - Ararat Road) |
| Midlands | Scenic Drive | Sebastopol - Smythesdale Road (Smythesdale - Ross Creek) |
| Midlands | Scenic Drive | Springs Road |
| Midlands | Scenic Drive | Sunraysia Highway (Avoca - Tanwood) |
| Midlands | Scenic Drive | Western Freeway (Bacchus Marsh - Bungaree) |
| Midlands | Scenic Drive | Western Highway (Mt. Langi Ghiran - Beaufort) |
| Midlands | Scenic Drive | White Swan Road |
| North East FMAs | Designated Lookout | Mt Murramurrangbong and Mt Big Ben |
| North East FMAs | Landscape Feature | 15 Mile Creek: Visual corridor and natural water feature. 50 m either side of creek. |
| North East FMAs | Landscape Feature | Beechworth Forest Drive: Scenic corridor for tourist roads. 50 m each side of road. |
| North East FMAs | Landscape Feature | Big Hill/The Springs Saddle/Bald Hill/Bogong Jack Saddle: Mountain views from Mt Beauty township and Mt Fainter North. Scenic corridor for tourist roads. |
| North East FMAs | Landscape Feature | Bindaree Falls: 100 m radius over the falls. |
| North East FMAs | Landscape Feature | Buckland Valley: Dingo Ck to Buckland River East Branch, 50 m each side of stream. |
| North East FMAs | Landscape Feature | Carters Road Picnic Area: High scenic values in recreation area. 50 m radius over the picnic area. |
| North East FMAs | Landscape Feature | Clear Creek (Tributary of Buckland River): 50 m each side of stream. |
| North East FMAs | Landscape Feature | Conic Range (partly State forest) |
| North East FMAs | Landscape Feature | Craig Hut: 200 m radius over the hut. |
| North East FMAs | Landscape Feature | Dandongadale River: Visual corridor and natural water feature. 50 m each side of river. |
| North East FMAs | Landscape Feature | Granite Peak: RNE Natural site. Mountain Views from Omeo Hwy. State forest above 1100 m elevation. |
| North East FMAs | Landscape Feature | Harkers Creek (Mitta Mitta): 50 m each side of stream |
| North East FMAs | Landscape Feature | Harrietville Valley (vicinity of Harrietville) and Ovens River, West Branch: 20 m each side of the Great Alpine Road. |
| North East FMAs | Landscape Feature | Holland Creek (part): Visual corridor and natural water feature. 50 m either side of creek. |
| North East FMAs | Landscape Feature | Lightning Ridge (Strathbogie Ranges): Mountain views from Lake Nillahcootie and Midland Highway. |
| North East FMAs | Landscape Feature | Mitta Mitta Valley (downstream of Mitta Mitta): NTA(V) classified, Visual corridor and natural water feature. 50 m each side of road. |
| North East FMAs | Landscape Feature | Moonee Range (Strathbogie Ranges): Mountain view from Midland Highway |
| North East FMAs | Landscape Feature | Mt Pinnibar |
| North East FMAs | Landscape Feature | Myrtle (Barwidgee) Creek Valley (vicinity of Myrtleford): 50 m on State forest side of Stanley to Barwidgee Road. |
| North East FMAs | Landscape Feature | Pheasant Creek (Tributary of Buckland River): Visual corridor and natural water feature. 50 m each side of road. |
| North East FMAs | Landscape Feature | Plain Creek Tramway (Sawmill Settlement): Historic site of local significance. 20 m **buffer** around the historic trestle bridge. |
| North East FMAs | Landscape Feature | Sandy Creek Waterfall (Strathbogie Ranges): 100 m radius over the falls. |
| North East FMAs | Landscape Feature | Snowy Creek Waterfall: 100 m radius over the falls. |
| North East FMAs | Landscape Feature | The Pinnacles & Mt Jack including Barwidgee Creek: Headwaters of Barwidgee Creek. |
| North East FMAs | Landscape Feature | Trappers Creek (near Mountain Creek): Visual corridor and natural water feature. 50 m each side of road. |
| North East FMAs | Landscape Feature | Upper Delatite valley (vicinity of Mirimbah): 200 m each side of river. |
| North East FMAs | Landscape Feature | Upper Nariel valley above Crawford Crossing: Visual corridor and natural water feature. 50 m each side of stream (where in State forest). |
| North East FMAs | Landscape Feature | West Kiewa valley: Viewed from Mt Feathertop, indicative aesthetic National Estate. |
| North East FMAs | Landscape Feature | Wongungarra & Humffray Rivers & Teatree Range except ridge: Indicative Natural Landscape (National Estate). Located in National Park, and Mt Sarah Scenic Reserve. |
| North East FMAs | Landscape Feature | Yackandandah Creek (from Nine Mile Creek to State forest boundary): Visual corridor and natural water feature. 50 m either side of creek. |
| North East FMAs | Landscape Feature | Yarrabulla Creek: Visual corridor and natural water feature. 50 m each side of stream. Partly within Remote & Natural Area. |
| North East FMAs | Landscape Feature | Yarrabulla Creek: Visual corridor and natural water feature. 50 m each side of stream. Partly within Remote & Natural Area. |
| North East FMAs | Scenic Drive | Nariel-Benambra Road: Scenic corridor for tourist road. 50 m each side of road. |

#### **Table 18 Recreation sites**

| **FMA** | **Locality** | **Place** | **Extent of SMZ** |
| --- | --- | --- | --- |
| Gippsland FMAs | Heyfield | 12 Mile Creek | 50 m radius over the site. |
| Gippsland FMAs | Heyfield | Gows Hotel | 50 m radius over the site. |
| Gippsland FMAs | Heyfield | Kinleys Yards | 50 m radius over the site. |
| Gippsland FMAs | Heyfield | Noon Road | 50 m radius over the site. |
| Gippsland FMAs | Swifts Creek | Washington Winch | 200 m radius over the site. |
| North East FMAs | Beechworth | Beechworth Forest Drive (Includes Clarkes Corner, Murmungee Lookout and Bates Dam en route) | Forest drive and environs. |
| North East FMAs | Myrtleford | Dandongadale River | 50 m radius over the site. |

#### **Table 19 Research sites**

| **FMA** | **Locality** | **Research project** | **Management Actions** |
| --- | --- | --- | --- |
| Gippsland FMAs | Harraps Highway | Regrowth of Phytophthora cinnamomi dieback | Limit activities to those that are compatible with the experiment objectives. |
| Gippsland FMAs | Old Rosedale Road | Planting on dieback affected sites | Limit activities to those that are compatible with the experiment objectives. |
| Gippsland FMAs |  | Boola Silvertop thinning trials | Limit activities to those that are compatible with the experiment objectives. |
| Gippsland FMAs |  | Mullungdung Phytophthora cinnamomi progeny trial EUC475 | Limit activities to those that are compatible with the experiment objectives. |
| Gippsland FMAs | Bentley's Plain Road | E. delegatensis provenance trial | Limit activities to those that are compatible with the experiment objectives. |
| Gippsland FMAs | Engineers Road, Barmouth Spur Track, Clarks Track, Angora Range Road | Gippsland mixed species growth study | Limit activities to those that are compatible with the experiment objectives. |
| Midlands | Wombat and Mt Cole SF | Armillaria research | Exclude **timber harvesting operations** and other management activities which will affect research objectives until 2020. |
| Midlands | Wombat SF | Fire effects study area | Exclude **timber harvesting operations** and other management activities until such time as the areas are no longer required. |
| Midlands | Wombat SF | Regrowth thinning and fertiliser trials | Restrict **timber harvesting operations** and other management operations to those that are compatible with the objectives of the research until 2020. |
| Midlands |  | Forest growth plots | Exclude **timber harvesting operations** and other management activities until such time as the areas are no longer required. |
| Midlands |  | Continuous Forest Inventory plots | Protect unharvested plots and a 50m **buffer** until 2020. Review the need for further protection at this time. |
| North East FMAs | Clear Hills | 1957 Alpine Ash thinning trials | Limit activities to those that are compatible with the experiment objectives. |
| North East FMAs | Flagstaff | KTRI Paterson's Curse Crown Boring Weevil research site | Limit activities to those that are compatible with the experiment objectives. |
| North East FMAs | Highett Ridge Eildon Mount Elliot | KTRI St John's Wort Mite research sites | Limit activities to those that are compatible with the experiment objectives. |
| North East FMAs | Lords Creek Mt Wills Creek / Snowy Creek Lightning Creek Track Bullhead Callaghan Creek Long Spur | KTRI Blackberry Rust Fungus research sites | Limit activities to those that are compatible with the experiment objectives. |
| North East FMAs | Mt Pinnibar | 1928 Alpine Ash thinning trial | Limit activities to those that are compatible with the experiment objectives. |
| North East FMAs | Myrtleford | Cropper Creek hydrologic research project | Limit activities to those that are compatible with the experiment objectives. |
| North East FMAs | Old Tolmie Road, Toombullup | CFTT Tree Breeding Research provenance trials for E. delegatensis (EUC 411 1979), E. globulus (EUC413 1981) and E. nitens (EUC 426 1990) | Limit activities to those that are compatible with the experiment objectives. |
| North East FMAs | Riley Creek | Long-footed Potoroo research trapping grid | Manage in accordance with Long-footed Potoroo prescriptions. |

#### **Table 20 Road classification system**

|  |  |  |  |
| --- | --- | --- | --- |
| **Road Class**1 | **Type** | **Service Function Description** | **Road Type Description** |
| 5A | Primary Road  >100 ADT2 | * Provides primarily for the main traffic movements into and through a region. This includes access to high use visitor sites and **forest** areas * Caters generally for higher travel speed, all vehicle types including large vehicles (i.e. buses and trucks). | * All weather road predominantly 2-lane and mainly sealed. * A high quality3 of service road * Design speed standard of 80 – 50 km/h according to terrain * Minimum carriageway width is 7 m |
| 5B | Secondary Road  100 – 30 ADT | * Provides access to moderate use visitor sites and **forest** areas * Serves the purpose of collecting and distributing traffic from local areas, moderate use visitor sites and **forest** areas to or from primary or minor **roads** * Caters for moderate travel speed a full range of vehicles including large vehicles | * All weather 2 lane road formed and gravelled or single lane sealed road with gravel shoulders * A good quality of service road * Design speed standards of at 70 – 30 km/h according to terrain |
| 5C | Minor Road  50 – 20 ADT | * Provides a link to low and moderate use visitor sites and **forest** areas, and forms a feeder link to a logging **coupe** **access** track/**road** or fire track * Purpose is to link areas, which are traffic generators to secondary or primary **roads** * Caters for lower travel speed and full range of vehicles | * Generally all-weather single lane 2-way unsealed formed road usually lightly gravelled * A fair quality of service road * Design speed standards of 60 – 20 km/h according to terrai |
| 5D | Access Track/Road  <20 ADT | * Provides access to low use visitor sites and **forest** areas * Can be short term, temporary or feeder **roads** to access individual **timber** harvesting **coupes** * Provides for fire protection and management access (sometimes exclusively for management vehicles only) * Caters for low travel speed and a range of vehicles in dry weather * May be seasonally closed | * Substantially a single lane 2-way generally dry-weather, formed (natural materials) track/road * A low quality of service track/road * Design speeds of 40 - <20 km/h according to terrain * May be restricted to 4 wheel-drive vehicles |
| 5E | Rough Track  <10 ADT | * Provides primarily for 4 wheel-drive vehicles * Mainly used for fire protection purposes, management access and limited recreational activities * Caters for very low travel speed * May be seasonally closed * May be restricted to management vehicles only | * Predominantly a single lane 2-way earth tracks (unformed) at or near the natural surface level * A very low quality of service track * Predominantly not conforming to any geometric design standards |

**Notes:** 1 The prefix 5 is related to the Austroads National Functional Road Classification categories.

2 Average Daily Traffic (ADT) represents the average daily traffic over the peak season.

3 Quality of service is defined in terms of the level of convenience, (geometric standards), comfort (ride qualities) and safety (travel consistency) provided.

#### **Table 21 Guidelines to the main geometric design standards – unsealed roads**

| **Main Geometric Characteristic** | **5B Secondary** | | | **5C Minor** | | | **5D Access** | | | **5E Tracks** | | | **Comments** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Flat** | **Rolling** | **M’tain** | **Flat** | **Rolling** | **M’tain** | **Flat** | **Rolling** | **M’tain** | **Flat** | **Rolling** | **M’tain** |  |
| **Speed value km/hr** | 70 | 50 | 30 | 60 | 40 | 20 | 40 | 30 | <20 | N/A | N/A | N/A | Based on 85th percentile speed |
| **Cross section elements** | | | | | | | | | | | | | |
| Number of traffic lanes | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5B – two lane unsealed |
| **Minimum cross fall/camber %** | | | | | | | | | | | | | |
| Sealed road | 3 | 3 | 3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |  |
| Unsealed road | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | Min of 4% to drain rain fall off tracks |
| **Max superelevation % (2)** | | | | | | | | | | | | | |
| Sealed road | 6-8 | 6-10 | 12 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Actual value based on curve radius adopted |
| Unsealed road | 6 | 8 | 10 | 6 | 8 | 10 | 6 | 8 | 10 | N/A | N/A | N/A |  |
| Min traffic lane width m (3) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | Unsealed values |
| Min shoulder widths m | 0.5 | 0.5 | 0.5 | 1.5 | 1 | 0.5 | 1 | 0.5 | 0.5 | 0 | 0 | 0 | Unsealed values |
| Min carriageway width (lanes + shoulders) m | 7 | 7 | 7 | 6 | 5 | 4 | 5 | 4 | 4 | 3 | 3 | 3 | Unsealed values |
| Min formation width (including verges | 9 | 9 | 9 | 8 | 7 | 6 | 7 | 6 | 6 | 3 | 3 | 3 | Unsealed values |
| **Horizontal Geometry** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Min radius curve m (5)** | | | | | | | | | | | | | |
| Sealed road | 110 | 45 | 15 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |  |
| Unsealed road | 250 | 100 | 35 | 170 | 60 | 15 | 70 | 35 | 15 | N/A | N/A | N/A |  |
| **Min stopping sight distance m (6)** | | | | | | | | | | | | | |
| Sealed road | 90 | 50 | 25 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | At tight curves check for lateral obstructions to provide the stopping sight distance required. |
| Unsealed road | 120 | 70 | 30 | 90 | 50 | 30 | 50 | 30 | 20 | N/A | N/A | N/A |  |
| **Min meeting sight distance m (7)** | | | | | | | | | | | | | |
| Sealed road | 170 | 100 | 45 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | For high volume roads may need to check for overtaking provisions |
| Unsealed road | 230 | 130 | 60 | 180 | 100 | 60 | 100 | 60 | 40 | N/A | N/A | N/A |  |
| **Vertical Geometry** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Max vertical  grade % (8) | 6 | 8 | 12 | 6 | 8 | 12 | 6 | 8 | 15 | N/A | N/A | N/A | For tracks avoid steep grades to reduce soil erosion |
| Min crest vertical  curve K values (9) | 28 | 9 | 5 | 9 | 4 | 2 | 4 | 2 | 1 | N/A | N/A | N/A | Unsealed values |
| Min sag vertical  curve K values (10) | 8 | 4 | 3 | 6 | 3 | 2 | 3 | 2 | 1 | N/A | N/A | N/A | Unsealed values |

* 1. A simple classification of ‘flat’, ‘rolling’ and ‘mountainous’ terrain descriptions has been adopted as a basis for specifying appropriate geometric standards. The definition of each can be described in general terms as follows:
* Flat terrain – Roads generally follow the ground contours. Typical gradients being up to 1:20 or 5 % (<3 degrees).
* Rolling terrain – Roads can have substantial cuts and fills. Typical gradients being up to 1:20 to 1:8 or 5 – 12.5 % (3-7 degrees)
* Mountainous terrain – Roads in rugged hilly or mountainous ground with substantial restrictions to both horizontal and vertical alignments. Typical gradients being > 1:8 or > 12.5 % (7 degrees).
  1. The maximum superelevation value will need to take into account the use of the road by high loaded heavy vehicles, speed and curve radii.
  2. In cases where there is a high percentage of heavy vehicles (>20%) minimum lane widths can be increased by 0.5 m.
  3. Allows for 1m verge/table drain width. This must be reviewed based on actual locations where for drainage reasons greater widths may be required.
  4. This is based on Austroads (1989)and Giummarra G. (2001). Lower values of surface coefficients on unsealed roads result in radii being greater. Values rounded up. For minimum radius curves widening on the inside of a curve may be necessary to accommodate longer vehicles.
  5. Based on reaction time of 2 seconds and surface coefficients relating to sealed and unsealed surfaces and values round up. Values based on flat grades and allowances will need to be made for up and down grades.
  6. This is a requirement for single lane two-way roads. Values rounded up.
  7. In some cases higher grades of up to 20% can be allowed for short sections (about 150 m). Keep grades on unsealed roads lower due to ravelling and scouring of surface.
  8. Calculation of these values if to be based on information contained in Austroads (1989) for sealed roads and Giummarra G. (2000) for unsealed roads. The length of the vertical curve (L) is based on the product of K multiplied by the algebraic difference in grades percentage A. (i.e. L+K×A).
  9. Sag values are based on comfort control criteria.

#### **Table 22 Minimum clearing widths (m) required for typical road construction**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Side Slope** | | | | **Road Class** | | |
| **Degrees** | **%** | **5B** | **5C** | | **5D** | **5E** |
| 0-7.5 | 0-13 | 13 | 7 | | 6 | 4 |
| 7.5-15 | 13-27 | 17 | 11 | | 10 | 7 |
| 15-22.5 | 27-41 | 23 | 17 | | 16 | 10 |
| 22.5-30 | 41-58 | 30 | 24 | | 23 | 14 |

**Notes:**

* Refer to **Table 20 Road classification system** above for road class definitions.
* The recommended clearing width is a horizontal distance.
* **Table 22 Minimum clearing widths (m) required for typical road construction** above assumes that debris disposal is complete before construction commences.
* Extra clearing width may be required if debris disposal is concurrent with **road construction**.
* Clearing widths do not include slashed verges except within engineering or **road** safety priority areas where extra cleared widths are shown to be required.
* The recommended clearing width for **temporary road** is 6m.
* Additional widening is often required at curves.

#### **Table 23 Maximum distance between drainage structures**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Soil**  **Erosion**  **Hazard** | **Road Grade** | | | | | | | |
| 1:50  1º  2% | 1:25  2º  4% | 1:15  3.5º  6% | 1:12  4.5º  8% | 1:10  6º  10% | 1:8  7º  12% | 1:7  8º  15% | 1:5  11º  20% | |
| Low | 250 | 170 | 130 | 115 | 100 | 90 | 60 | 30 | |
| Moderate | 200 | 150 | 120 | 105 | 90 | 80 | 50 | NP1 | |
| High | 160 | 130 | 110 | 95 | 80 | 65 | NP1 | NP1 | |

**Notes:**

* Drainage structures include culverts, roll-overs, and inverts or cross drains.
* 1 Road Grade Not Permitted.

#### **Table 24 Fire severity classification**

|  |  |  |
| --- | --- | --- |
| **Severity class** | **Severity type** | **Description** |
| 1 | **crown** burn | *90 – 100 % of eucalypt and non-eucalypt crowns are burnt.* |
| an intense burn with widespread **crown** removal. |
| 2 | **crown** scorch | *60 – 100 % of eucalypt and non-eucalypt crowns are scorched some crowns are burnt.* |
| an intense **understorey** fire with complete **crown** scorch of most eucalypt and non-eucalypts. |
| 3 | moderate **crown** scorch | *30 – 65 % of eucalypt and non-eucalypt crowns are scorched.* |
| a variable intensity of fire ranging from a warm ground burn with no **crown** scorch to an intense **understorey** fire with complete **crown** scorch of most eucalypt and non-eucalypts. |
| 4 | light **crown** scorch | *1 – 35 % of eucalypt and non-eucalypt crowns are scorched.* |
| a light ground burn with isolated patches of intense **understorey** fire and some **crown** scorch. |
| 5 | no **crown** scorch | < 1 % of eucalypt and non-eucalypt **crowns** are scorched, **understorey** may be burnt or unburnt. |

#### **Figure 2 Field process for determining protection areas and management areas based on modelled or mapped values**

Can modelled or mapped value be identified in the field?

**Yes**

**No**

Situate the **exclusion area** or **management area** (boundary according with the actual value as determined in the field. **Note** that a change to the FMZS may be required.

Based on field inspection, is the value correctly modelled or mapped?

**No**

Situate the **protection area** or **management area** boundary according to FMZ S (i.e. based on the modelled or mapped value).

**Yes**

#### **Table 25 Salvage harvesting Barred Galaxia minimum buffer and filter strip widths**

|  |  |  |
| --- | --- | --- |
| **Stream Class** | **Slope 0-20°** | **Slope 21-30°** |
| **Permanent** | 40 m B + 10 m F | 50 m B + 10 m F |
| **Temporary** | 20 m B + 20 m F | 30 m B+ 20 m F |
| **Drainage Lines** | 10 m F | 15 m F |
| **Wetlands** | 40 m B | 1. m B |

**Note:** Slope is the average slope of the **coupe** and potential **buffer** area situated within 100 m of the **waterway** or to the top of the drainage basin (whichever is closest).

#### **Table 26 Basal Area (BA) and stocking specifications for commercial ash thinning**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | **Stand age (yrs.)** | **Minimum retained BA (m2/ha)** | **Stocking range (stems/ha)** | **Average square spacing (m)** | | 14-20 | 17 | 300-400 | 5.3 | | 21-30 | 20 | 230-320 | 6.0 | | 31-35 | 23 | 170-250 | 6.9 | | 36-40 | 28 | 120-190 | 8.0 | | 41+ | 32 | 80-140 | 9.5 | |

1. \* The location of **temporary roads** and **coupe infrastructure** may be specified in the field and added subsequently to the commencement of operations. [↑](#footnote-ref-2)