The Vegetation Communities

Wet eucalypt forest and woodland

Eucalyptus viminalis subsp. viminalis
Wet eucalypt forest and woodland

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General Description

Eucalypt forests and woodlands cover much of the Tasmanian landscape, with the greatest diversity of Eucalyptus species occurring in the south-east of the State. Eucalyptus vernicosa is a dwarf shrub that may be prominent in alpine heath, but most Eucalyptus species dominate wet forests, dry forests and mixed forests. Duncan and Brown (1985) broadly divided wet and dry forests into shrubby, grassy, and sedgy forests.

Most of the eucalypt forest communities on the TASVEG map were first defined for mapping in the studies leading to the Tasmanian Regional Forest Agreement. Other communities have since been added to the mapping. Woodlands are included where the canopy is less than 50% solid crown cover. The wet eucalypt woodlands in many cases exist only in areas where many trees have died of old age and there has been no recruitment because of the absence of significant disturbance. Commonly these “woodlands” occur as emergent Eucalyptus species over a rainforest canopy. In several of the higher altitude woodland types, the woodland form may be due to natural disturbance, coupled with the sparseness of seedling establishment. “Woodland” communities are not mapped where they are known to be a result of selective logging.

The wet eucalypt communities are relatively easily distinguished by the dominant Eucalyptus species or the Eucalyptus species in the canopy, sometimes in combination with a description of the type of understorey.

Edition 2 of this manual includes refined distributional information for wet forests. Revision
mapping and the use of PI type data provided by Forestry Tasmania has improved the differentiation in TASVEG 3.0 of wet forest dominated by *Eucalyptus delegatensis*, *E. nitida* and *E. obliqua* on the basis of understorey composition. In line with these improvements the descriptions for the generic mapping units *Eucalyptus delegatensis* wet forest (undifferentiated) (WDU), *Eucalyptus nitida* wet forest (undifferentiated) (WNU) and *Eucalyptus obliqua* wet forest (undifferentiated) (WOU) have been reduced and use of these codes discouraged in favour of more specific TASVEG codes. Refer to the descriptions of WDU, WNU and WOU and the Key to this section for assistance in the selection of appropriate specific mapping units.

**General management issues**

The frequency of fires and intensity is a defining influence in wet eucalypt forests, with different types of fire affecting different parts of the forest (Wells 1991). The infrequent high-intensity fires resulting in a total reduction of the forest to an ash bed, followed by mass seedbed germination, is a regime to which many wet forest types are adapted. More frequent but lower-intensity fires are now a more common regime, which may result in simplification of the understorey, the establishment of weeds, and in extreme cases an understorey of pure bracken (Wells 1991).

Forest harvesting is a major use of wet forest communities, with prescribed practice in lowland wet forests of clearfell, burn and sow (Hickey et al. 2001). The effects of this practice have been extensively studied and documented (for example Duncan 1988, Hickey et al. 2001, Hickey & Savva 1992). In recent years, there has been an increasing move towards clearing after logging and replacement with silvicultural plantations. Wet eucalypt forest communities have been the most extensively cleared forest types in recent years: 56 000 hectares were cleared between 1996 and 2003 (Forest Practices Board Annual Report 2002-2003).

Wet forests are generally resilient to weed invasion; however in areas that have been disturbed or on forest edges, species such as Elisha’s tears (*Leycesteria formosa*), blackberry (*Rubus fruticosus*), gorse (*Ulex europaeus*), English broom (*Cytisus scoparius*) and foxglove (*Digitalis purpurea*) may be invasive (Wells 1991).

**References and further reading**


# Key to Wet eucalypt forest and woodland

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<tr>
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<td>Dominated by <em>Eucalyptus brookeriana</em></td>
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| 1 | Dominated by *Eucalyptus delegatensis* | *
| 2 | Rainforest species prominent as secondary trees or shrubs | *Eucalyptus delegatensis* forest over rainforest (WDR) |
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| 2 | Forest and woodland on King Island | *Eucalyptus globulus* King Island forest (WGK) |
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| 1 | Dominated by *Eucalyptus nitida* | *
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| 1 | Dominated by *Eucalyptus obliqua* | *
| 2 | Rainforest species prominent as secondary trees or shrubs | *Eucalyptus obliqua* forest over rainforest (WOR) |
| 2 | Understorey dominated by broad-leaved (soft-leaved) shrubs | *Eucalyptus obliqua* forest with broad-leaf shrubs (WOB) |

*See next page of key*

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*There is debate surrounding the taxonomy of *Eucalyptus brookeriana* and *E. ovata* on King Island (Barnes et al 2002) and more generally in the north-west of Tasmania. For the purposes of TASVEG classification, where either species is determined to be the dominant eucalypt in wet forest, the vegetation is mapped as *Eucalyptus brookeriana* wet forest (WBR).*
<table>
<thead>
<tr>
<th></th>
<th>Understorey dominated by tall tea-trees or paperbarks</th>
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<tr>
<td>1</td>
<td>Dominated by <em>Eucalyptus regnans</em></td>
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<td><em>Eucalyptus regnans</em> forest (WRE) 32</td>
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<tr>
<td>1</td>
<td>Dominated by <em>Eucalyptus johnstonii</em> or <em>E. subcrenulata</em></td>
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<td><em>Eucalyptus subcrenulata</em> forest and woodland (WSU) 34</td>
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<td>1</td>
<td>Dominated by <em>Eucalyptus viminalis</em></td>
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<td><em>Eucalyptus viminalis</em> wet forest (WVI) 36</td>
</tr>
<tr>
<td>1</td>
<td>Dominated by any other eucalypt species</td>
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<td>see Key to Dry eucalypt forest and woodland</td>
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</table>
**Eucalyptus brookeriana wet forest (WBR)**

**General description**

*Eucalyptus brookeriana* wet forest (WBR) is dominated by *Eucalyptus brookeriana*, which ranges in canopy height from 10–40 (60) m. The understory is often made up of two layers; a tall, dense mid-layer, with a layer of variable density underneath.

**Example locality**

The 17-Mile Plain Nature Reserve.

**Distinguishing features and similar communities**

WBR is dominated by *E. brookeriana*.

*Eucalyptus globulus* King Island forest (WGK) category has been used to map wet forest vegetation dominated by *E. globulus*, with *E. brookeriana* as a sub-dominant, or occasional co-dominant tree. While WGK and WBR on King Island share a common suite of species, here the mid-storey stratum of WBR is generally less mesophytic than WGK.

*There is debate surrounding the taxonomy of *Eucalyptus brookeriana* and *E. ovata* on King Island (Barnes et al 2002) and more generally in the north-west of Tasmania. However, TASVEG has separated the mapping *E. ovata* *E. brookeriana*-dominated vegetation into *Eucalyptus brookeriana* wet forest (WBR) or *Eucalyptus ovata* forest and woodland (DOV) on the basis of canopy density and understory characteristics. Damp woodlands dominated by *Eucalyptus brookeriana* *E. ovata* are mapped within *Eucalyptus ovata* forest and woodland (DOV), rather than within WBR, even though, in some cases, they may represent a fire-disclimax wet forest.*

**RFA mapping unit**

WBR is equivalent to RFA BA on mainland Tasmania, and to the *Eucalyptus brookeriana*-dominated wet forest facies of RFA KG on King Island.

**Distribution**

The community has its stronghold in the King Bioregion.

**Bioregional occurrence**

BEL, KIN, TCH, TNS, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**

This community has a disjunct distribution in Tasmania, with populations in the far north-west and in the eastern highlands. It is usually located on well-drained, rocky soils of dolerite slopes and ridges and on alluvial deposits adjacent to streams. In the north-west, *E. brookeriana* wet forest occurs near blackwood swamps on flats and in wet forests, often in association with *E. obliqua*. In the east and north-east, *E. brookeriana* is found mainly on dolerite in tall wet sclerophyll forest in well-drained gullies and...
gully headwaters, also often in association with *E. obliqua* or *E. delegatensis*.

On King Island, *WBR* mainly occurs on Precambrian (meta) sediments in the south and centre of the island, often associated with drainage lines and slight topographic depressions. It also occurs on comparatively shallow deposits of Recent sands overlying Precambrian sediments in the island’s south-west, and as remnants (commonly shelterbelts, narrow fence-line strips) on private property.

**Vegetation composition and structure**

The community is dominated by *Eucalyptus brookeriana*.

*Eucalyptus obliqua*, *E. delegatensis* and *Acacia melanoxylon* can be subdominant in wet forests in the east; *E. obliqua*, *E. regnans*, *A. melanoxylon* and rainforest trees can be subdominant in the north-west and west or adjacent to blackwood swamp forests. In the Arthur River area in the north-west, *E. brookeriana* may be the only dominant *Eucalyptus* species in *Nothofagus cunninghamii* forests.

In the east, this community grows mainly in gullies, where the trees can attain heights of 60 m. In the north-west where the community grows on the margins of swamp forest, the trees rarely exceed 40 m, except on more fertile sites.

The understorey is variable. Where the community is on the margins of blackwood swamps, the understorey varies from dense to open and can be dominated by rainforest trees and sclerophyllous shrubs. *Dicksonia antarctica* and ground ferns may be prominent and *Gahnia grandis* is often present. Where the community is in the east and north-east, a dense broad-leaved shrub layer, which may include *Pomaderris apetala*, *Bedfordia salicina* and *Olearia argophylla*, often dominates the understorey. The diversity of fern species is low; they occur sporadically with *Gahnia grandis*.

On King Island, *Eucalyptus brookeriana* trees to a height of 25 m occur with *E. globulus* as an occasional subdominant, and *E. viminalis* as an occasional minor species in drier sites. Most of the tall stands of this forest are even-aged, possibly originating from the 1930’s fire that burned across much of the island.

*Melaleuca ericifolia*, *M. squarrosa* and *Leptospermum scoparium* form a dense stratum to 10-15 m in many stands. Wet sclerophyll species such as *Pomaderris apetala*, *Nematolepis squamea*, *Acacia verticillata*, *Hedycarya angustifolia* and *Pimelea drupacea* can occur as occasional tall or mid-height shrubs. *Acacia melanoxylon* and *Banksia marginata* are common small trees or tall shrubs.

Ferns are often present where the understorey is relatively open and in riverine areas, with *Gahnia grandis*, *Carex appressa* and *Pteridium esculentum* common where there are canopy gaps.

**Floristic communities known to occur in this mapping unit**

**Wet eucalypt forest:**

BR00 *E. brookeriana*–*P. asplenifolius*–*H. cupressiforme* mixed forest

BR01 *E. brookeriana*–*N. cunninghamii*–*L. elatius* mixed forest

BR10 *E. brookeriana*–*M. glauca*–*C. australis* wet sclerophyll forest

BR11 *E. brookeriana*–*E. obliqua*–*B. salicina* wet sclerophyll forest

**Additional communities (Forest Botany Manual) Wet eucalypt forest**

WET–BR2 *E. brookeriana*–*M. ericifolia*–*C. appressa*–*Lepidosperma* sp. wet sclerophyll forest
**Eucalyptus dalrympleana forest (WDA)**

**General description**

This mapping unit recognises the significance of *Eucalyptus dalrympleana*, which was previously subsumed into *Eucalyptus delegatensis* wet forest (undifferentiated) (*WDU*). The community is largely tall forest, ranging from pure *E. dalrympleana* to 45% *E. delegatensis*. *(Whitewater Reserve, upper Mersey Valley. Stephen Harris.)*

**Example localities**

Lake Leake Road, near Lake Leake; 14 Mile Road, north of Tarraleah.

**Distinguishing features and similar communities**

Previously subsumed into *Eucalyptus delegatensis* wet forest (undifferentiated) (*WDU*), this community often grades into pure *E. delegatensis* wet forest or *Eucalyptus delegatensis* dry forest and woodland (*DDE*). Where *E. pauciflora* is a subdominant or co-dominant, the forest is mapped as *Eucalyptus dalrympleana–Eucalyptus pauciflora* forest and woodland (*DDP*).

**RFA mapping unit**

*WDA* is included in RFA *D* for shorter facies of the forest or RFA *DT* for tall facies.

**Distribution**

*WDA* has strongholds on the eastern Central Highlands, in the vicinity of the Nive River, the Great Pine Tier largely to the south of Little Pine River, along the Mersey and Fisher Rivers and around Lake Parangana. *WDA* also occurs in the vicinity of Fall River and the River Lea and near Middlesex. It is also present in the Ben Lomond Bioregion.

**Bioregional occurrence**

BEL, TCH, TNS, TSE, TSR.

**Site characteristics, habitat and ecology**

This tall forest community grows predominantly on dolerite on the eastern Central Plateau. Within the World Heritage Area, it occurs on the plateau near Derwent Bridge and along the Forth River, generally over siliceous rocks. It is also present in the Eastern Tiers, where it grows in a mosaic with *Eucalyptus delegatensis* dry forest and woodland (*DDE*) in undulating, rocky dolerite terrain. The altitude range is from below 400 m in the Nive River to nearly 750 m on the Central Plateau.

**Vegetation composition and structure**

*E. dalrympleana* is dominant, but only in small areas does it occur as pure stands. *E. delegatensis* is the usual subdominant, commonly grading from pure
Eucalyptus dalrympleana forest (WDA) to pure Eucalyptus delegatensis forest.

This gradation commonly occurs on rocky slopes, with E. delegatensis with sparse understorey on very rocky high ground. The middle ground and gentle slopes are occupied by E. dalrympleana tall forests, with up to 45% E. delegatensis over tall wet heathland or less commonly, over sparse, prickly subalpine heathland. E. dalrympleana E. delegatensis usually forms tall forests with a dense canopy. Woodland facies occur as pure E. dalrympleana on steep valley sides or E. dalrympleana with some E. pauciflora on very gentle slopes, where it is transitional into DDP. In the Eastern Tiers, E. amygdalina is a common subdominant on dry or rocky sites.

The understorey with a prominent rainforest component appears to be rare. The wet heathy understorey characteristic of WDA varies between two forms. One form comprises shrubs, including tall, sparse, Lomatia tinctoria or L. polymorpha with Planocarpa juniperina, P. montana, Olearia phlogopappa, Notelaea ligustrina and ferns, and occasional taller Hakea lissosperma. In drier parts the understorey may also have Pultenaea juniperina, Oxylobium ellipticum and Richea procrea.

The other form is a denser and taller understorey containing mostly some typically wet forest species including any of Pittosporum bicolor, Prostanthera lasianthos, Bedfordia salicina, Pomaderris apetala and Nematolepis squamea, with a ground layer of Blechnum nudum. There may be scattered Acacia dealbata resulting from disturbance such as fire.

The Eucalyptus species in this community are typically straight-stemmed and over 40 m high, with height usually decreasing in the woodland form. Trees are typically of uniform age in undisturbed forest, while in logged forests, regeneration of E. delegatensis is apparently favoured.

**Floristic communities known to occur in this mapping unit**

Dry sclerophyll forests and woodlands:
Si Shrubby Eucalyptus dalrympleana E. viminalis forest; also occurs in DDP

Wet eucalypt forest:
DAL00 E. dalrympleana E. delegatensis L. tinctoria wet sclerophyll forest; also occurs in DDE & WDB
DAL01 E. dalrympleana P. apetala B. salicina wet sclerophyll forest
DAL10 E. dalrympleana T. lanceolata D. antarctica mixed forest
DEL0000 E. delegatensis B. salicina L. tinctoria wet sclerophyll forest; also occurs in WDB & DDE
Eucalyptus delegatensis forest over Leptospermum (WDL)

General description

Eucalyptus delegatensis forest over Leptospermum (WDL) is a tall wet Eucalyptus delegatensis forest type characteristic of areas with impeded drainage. The understorey is dominated by tall Leptospermum species (predominantly L. lanigerum). This ecological vegetation community is a subset of the mapping unit of Eucalyptus delegatensis wet forest (undifferentiated) (WDU), which includes forests with understoreys dominated by Leptospermum species, broad-leaf and rainforest species. In some instances, this community is an early successional stage toward Eucalyptus delegatensis forest over rainforest (WDR). However, the nature of the sites indicates this succession may be stalled or very slow in some situations.

E. delegatensis dominated vegetation. The community is similar to Eucalyptus obliqua forest over Leptospermum (WOL) and Eucalyptus nitida forest over Leptospermum (WNL), but is easily distinguished from these by the dominant Eucalyptus species.

RFA mapping unit

WDL is included in RFA DT.

Distribution

This forest community is widespread across mid-altitude wetter areas of Tasmania. In the eastern part of the State, this forest community is found in protected microclimates and/or moister sites.

Bioregional occurrence

BEL, TCH, TNS, TSE, TSR, TWE.

Site characteristics, habitat and ecology

This forest community occurs predominantly in association with dolerite, on upland ranges and plateaus, particularly in the southern ranges and the Central Highlands. It also occurs less commonly on basalt, granite and sandstone.

Sites are generally less well–drained than those occupied by other E. delegatensis communities. The altitudinal range of WDL is mainly from 500–900 m, although in areas that receive cold air drainage it will
extend downslope to below 300 m. It is also known to extend above 1 000 m.

**Vegetation composition and structure**

In WDL the dominant *E. delegatensis* trees tend to be tall, generally over 40 m. Moreover, the trees are often multi-aged, with two or three age classes reflecting fire ages and/or disturbance by selective logging.

Other trees occurring across the range of *E. delegatensis* broad-leaf forest include *Acacia dealbata*, *A. melanoxylon* and *E. dalrympleana*. At lower altitudes, *E. obliqua*, *E. viminalis* and *E. globulus* may be subdominants. *E. nitida* is the most common subdominant in the north-west and west. On upland ranges and plateaus in northern and eastern Tasmania and the Central Highlands, *E. amygdalina* is the most common subdominant peppermint. Throughout the south-east *E. cordata* is a very localised subdominant species, while *E. brookeriana* is often subdominant on the east coast.

The understorey is often dense and dominated by *Leptospermum langerum*. At the lower altitudinal range for WDL, facies of this community tend to be localised around stream heads or springs, but at higher altitudes *Leptospermum langerum* occurs over vast areas on better drained substrate and often in association with species of *Hakea*.

Herbs are usually low in abundance and diversity as a result of low light intensity at ground level, high litter levels and, on dolerite substrates, high surface rock cover. The most common species across the range are *Hydrocotyle hirta*, *Geranium potentilloides*, *Viola hederacea* and *Acaena nova-zelandiae*.

The diversity and abundance of ground ferns is high in most wet sclerophyll *E. delegatensis* forests, but the diversity of epiphyte ferns increases in the moister facies of this community.

**Floristic communities known to occur in this mapping unit**

**Wet eucalypt forest:**

- **GUN01**: *E. gunnii*–*E. delegatensis*–*E. rodwayi*–*M. linifolia*
- Also occurs in DCO & DRO

**Additional communities (Forest Botany Manual) Wet eucalypt forest**

- **WET-DEL3**: *E. delegatensis*–*Leptospermum langerum*–*Gahnia grandis* wet sclerophyll forest
- **WET-URN2**: *E. urnigera* wet sclerophyll forest; also occurs in DCO; there is no TASVEG equivalent but it is most often associated with this mapping unit
**Eucalyptus delegatensis forest over rainforest (WDR)**

**General description**
This mapping unit is a subset of the mapping unit of *Eucalyptus delegatensis* wet forest (undifferentiated) (WDU), which includes broad-leaved and mixed-forest understoreys. Where it is possible to differentiate the understorey dominated by rainforest species, WDR is mapped separately.

**Example localities**
Maggs Mountain Forest Reserve; Mount Field National Park.

**Distinguishing features and similar communities**
The dominant *Eucalyptus* species is *E. delegatensis*. A variety of other species are co- or subdominants across the considerable altitudinal range of this forest community. WDR is distinguished by the presence of rainforest species, either as a secondary tree canopy or in an earlier successional stage as a prominent component of the shrub layer.

**RFA mapping unit**
WDR is included in RFA DT.

**Distribution**
This forest community is widespread and common across Tasmania, especially in the western half of the State. In eastern areas it is restricted to the moister microclimates where fire is infrequent.

**Bioregional occurrence**
BEL, TCH, TNS, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**
This forest community grows mainly on well-drained rocky sites over dolerite, but is also found to a lesser extent on basalt, granite, sandstone and occasionally siliceous metasediments. The altitudinal range of *E. delegatensis* forest over a rainforest understorey is generally from 500 to 900 m, although in areas that receive cold-air drainage it will extend downslope.

Where wet sclerophyll *E. delegatensis* forest occurs on the wetter sites and there has been no fire for a long time, the rainforest species replace the broad-leaf species that dominated in the earlier successional stages this community.

**Vegetation composition and structure**
At the lower altitudinal range of this community, emergent *E. delegatensis* are tall, generally over 40 m, with individuals up to 70 m or more in many areas. Towards the mid-range, the other *Eucalyptus* species generally associated with this *E. delegatensis* forest are *E. obliqua* and *E. dalrympleana*. 
At higher altitudes, *E. delegatensis* is generally less than 35 m tall. In subalpine mixed forests, *E. johnstonii*, *E. subcrenulata* and *E. coccifera* may occur on exposed sites.

On more fertile sites, *Nothofagus cunninghamii* and *Atherosperma moschatum* dominate the tallest understorey stratum. This facies often has an open understorey with broad-leaf species such as *Olearia argophylla* common in the shrub layer, often in association with *Dicksonia antarctica*. As the soil declines in fertility and becomes less well-drained, *Phyllocladus aspleniifolius*, *Eucryphia lucida* and *Anodopetalum biglandulosum* become more frequent. Epiphytic ferns are both diverse and abundant. On less fertile substrates, the lower shrub layer tends toward more scleromorphic species, such as *Monotoca glauca*, *Oxylobium ellipticum*, *Acacia mucronata* and *Nematolepis squamea*.

The rainforest species that occur in subalpine forests tend to be dwarfed. Stunted *Nothofagus cunninghamii* and/or *Phyllocladus aspleniifolius* often form a prominent secondary canopy above a broad-leaf shrubby layer of *Telopea truncata* and *Tasmannia lanceolata*. *Trochocarpa* species can be a significant shrub in the low shrub layer, especially in higher altitude areas.

*Leptospermum lanigerum* is often locally abundant in wetter areas.

**Floristic communities known to occur in this mapping unit**

**Wet eucalypt forest**

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<th>Code</th>
<th>Species</th>
<th>Substrate</th>
<th>Additional Notes</th>
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<td>DEL1110</td>
<td><em>E. delegatensis</em>–<em>H. lissosperma</em>–<em>M. glauca</em></td>
<td>subalpine mixed forest</td>
<td></td>
</tr>
<tr>
<td>DEL1111</td>
<td><em>E. delegatensis</em>–<em>E. coccifera</em>–<em>G. hispida</em></td>
<td>subalpine mixed forest</td>
<td></td>
</tr>
<tr>
<td>GUN00</td>
<td><em>E. gunnii</em>–<em>P. aspleniifolius</em>–<em>T. cunninghamii</em></td>
<td>subalpine mixed forest</td>
<td>also occurs in DCO</td>
</tr>
<tr>
<td>SUB01</td>
<td><em>E. subcrenulata</em>–<em>E. delegatensis</em>–<em>C. parvifolia</em></td>
<td>subalpine mixed forest</td>
<td>also occurs in WSU</td>
</tr>
<tr>
<td>SUB1001</td>
<td><em>E. subcrenulata</em>–<em>E. delegatensis</em>–<em>G. billardierei</em></td>
<td>mixed forest</td>
<td>also occurs in WSU</td>
</tr>
</tbody>
</table>

**Additional communities (Forest Botany Manual)**

**Wet eucalypt forest**

<table>
<thead>
<tr>
<th>Code</th>
<th>Species</th>
<th>Substrate</th>
<th>Additional Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WET-DEL2</td>
<td><em>E. delegatensis</em>–<em>P. aspleniifolius</em>–<em>C. juniperina</em></td>
<td>mixed forest</td>
<td></td>
</tr>
</tbody>
</table>

*Eucalyptus delegatensis* forest with broad-leaf shrubs (WDB)
**General description**

_Eucalyptus delegatensis_ forest with broad-leaf shrubs (**WDB**) is tall wet forest (usually over 40 m) with a variable understorey dominated by broad-leaf species, including _Olearia argophylla_, _Bedfordia salicina_ and _Pomaderris apetala_. This mapping unit is a subset of the mapping unit _Eucalyptus delegatensis_ wet forest (undifferentiated) (**WDU**), which includes understoreys dominated by broad-leaf, _Leptospermum_ and rainforest species. In some instances **WDB** is an early successional stage of _E. delegatensis_ forest with an understorey dominated by rainforest species (**WDR**).

**Example locality**

Cradle Mountain–Lake Saint Clair National Park.

**Distinguishing features and similar communities**

This forest community is characterised by an understorey of broad-leaf species which distinguishes it from other communities dominated by _E. delegatensis_, with understoreys dominated by _Leptospermum_ species (**WDL**) or rainforest species (**WDR**). At the lower altitudinal range of _E. delegatensis_, it may intergrade with _E. obliqua_, sometimes with a crossover into _E. obliqua_ forest with broad-leaf shrubs (**WOB**). At the upper end of the altitudinal range, _E. delegatensis_ may intergrade with _E. coccifera_, with a corresponding crossover into _E. coccifera_ forest and woodland (**DCO**), which is generally a drier forest type with few broad-leaf species.

**RFA mapping unit**

**WDB** is included in RFA DT.

**Distribution**

This forest community is widespread and common across the mid-altitude wetter areas of Tasmania, although it is largely absent from the south-west, far north-west or north-east. In the eastern part of the State, this forest community is common in protected microclimates and/or moister site, such as on southerly aspects or along the Eastern Tiers where there is relatively high rainfall.

**Bioregional occurrence**

BEL, TCH, TNM, TNS, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**

_Eucalyptus delegatensis_ dominated vegetation occurs predominantly on dolerite, which forms most of the upland ranges and plateaus in northern and eastern Tasmania, the southern ranges and the Central...
Highlands. It also occurs less frequently on basalt, granite and sandstone. Sites are rocky and well-drained. The altitudinal range of *E. delegatensis* forest with broad-leaf shrubs is mainly from 500–900 m, although in areas that receive cold-air drainage it will extend downslope to below 300 m. It is also known to extend above 1000 m.

**Vegetation composition and structure**

In *E. delegatensis* broad-leaf forest, the dominant *E. delegatensis* trees tend to be tall, generally greater than 40 m. Moreover, the trees are often multi-aged, with two or three age classes reflecting fire ages and/or disturbance by selective logging.

Trees occurring across the range of WDB include *Acacia dealbata*, *A. melanoxylon* and *E. dalrympleana*. At lower altitudes, *E. obliqua*, *E. viminalis* and *E. globulus* may be subdominants. *E. nitida* is the most common subdominant in the north-west and west. On upland ranges and plateaus in northern and eastern Tasmania and the Central Highlands, *E. amygdalina* is the most common subdominant.

The species composition, density and structure of the understorey vary considerably in response to fire history, land-use, altitude and site conditions. *Bedfordia salicina* can form an almost continuous cover with *Clyathodes glauca* and be sub- or co-dominant. The shrub layer becomes taller, denser and more diverse on sites with greater fire intervals, shelter and more moisture. In these situations *Pomaderris apetala* and *Olearia argophylla* dominate the tall shrubs.

Herbs are usually low in both abundance and diversity as a result of low light at ground level, thick litter and, on dolerite substrates, high surface rock cover. The most common species across the range are *Hydrocotyle hirta*, *Geranium potentilloides*, *Viola hederacea* and *Acaena novae-zelandiae*.

The diversity and abundance of ground ferns are high in most wet sclerophyll *E. delegatensis* forests, but the diversity of epiphyte ferns increases in the moister facies of this community.

**Floristic communities known to occur in this mapping unit**

**Wet eucalypt forest**:

- DEL0100 *E. delegatensis–E. viminalis–A. melanoxylon* wet sclerophyll forest; also occurs in WOB
- DEL0000 *E. delegatensis–B. salicina–L. tinctoria* wet sclerophyll forest; also occurs in WDA & DDE
- DEL0001 *E. delegatensis–A. melanoxylon–B. salicina* wet sclerophyll forest
- DEL0010 *E. delegatensis–O. phlogopappa–O. viscosa* wet sclerophyll forest
- DEL0011 *E. delegatensis–T. truncata* subalpine wet sclerophyll forest
- DEL0101 *E. delegatensis–E. obliqua–A. novae-zelandiae* wet sclerophyll forest; also occurs in WOB
- DEL0110 *E. delegatensis–A. moschatum–O. argophylla* wet sclerophyll forest/mixed forest; also occurs in WDR
- DEL0111 *E. delegatensis–Z. arborescens–H. sibthorpioides* wet sclerophyll forest/mixed forest; also occurs in WDR
- DAL00 *E. dalrympleana–E. delegatensis–L. tinctoria* wet sclerophyll forest; also occurs in DDE & WDA

**Additional communities (Forest Botany Manual) Wet eucalypt forest**

- WET-RAD1 *E. radiata* wet sclerophyll forest; there is no TASVEG equivalent but it is most often associated with this mapping unit; also occurs in WOB
**Eucalyptus delegatensis wet forest (undifferentiated) (WDU)**

**General description**

**WDU** (*Eucalyptus delegatensis* wet forest (undifferentiated)) is a generic code that has been used to map three communities: *Eucalyptus delegatensis* forest over rainforest ([WDR](#)), *Eucalyptus delegatensis* forest with broad-leaf shrubs ([WDB](#)), or *Eucalyptus delegatensis* forest over *Leptospermum* ([WDL](#)) where the separation of these communities using remote-mapping methods has not been possible.

It is intended that all forest mapped as **WDU** will be attributed to these more specific units as mapping is revised. Continued use of **WDU** is discouraged and limited to use where field access is not possible and remote allocation to a more specific unit is not advised.

**Example locality**

Not applicable.

**Distinguishing features and similar communities**

Where possible, all areas mapped as **WDU** should be re-coded to one of the following: *Eucalyptus delegatensis* forest over rainforest ([WDR](#)), *Eucalyptus delegatensis* forest with broad-leaf shrubs ([WDB](#)), or *Eucalyptus delegatensis* forest over *Leptospermum* ([WDL](#)).

Distinguishing features and similar communities are detailed for the specific ecological vegetation communities.

**RFA mapping unit**

**WDU** is equivalent to RFA DT.

**Distribution**

As for **WDR**, **WDB** and **WDL**.

**Bioregional occurrence**

The bioregions in which undifferentiated *Eucalyptus delegatensis* wet forest is still mapped are as follows: **TCH**, **TNM**, **TNS**, **TSE**, **TSR**, **TWE**.

**Site characteristics, habitat and ecology**

As for **WDR**, **WDB** and **WDL**.

**Vegetation composition and structure**

As for **WDR**, **WDB** and **WDL**.

**Floristic communities known to occur in this mapping unit**

As for **WDR**, **WDB** and **WDL**.
**Eucalyptus globulus King Island forest (WGK)**

**General description**

_Eucalyptus globulus_ King Island forest (WGK) is used to map wet forest on King Island dominated by _E. globulus_ to 30 m tall with _E. brookeriana_* as a sub-dominant, or occasional co-dominant tree.

Example localities

Near Rafferty Creek area and Gentle Annie Conservation Area on King Island.

**Distinguishing features and similar communities**

WGK is characterised by wet forest dominated (or occasionally co-dominated) by _Eucalyptus globulus_.

In dry situations on King Island, such as ridgelines, in coastal areas or on sandy soils, where _E. globulus_ co-dominates stunted forest and woodland with mallee-form _E. viminalis_, the vegetation is mapped as King Island eucalypt woodland (DKW). DKW also includes an impeded drainage facies co-dominated by _E. globulus_ and _E. brookeriana*_, where it is not mappable as the scrub component of Scrub complex on King Island (SK).

*There is debate surrounding the taxonomy of _Eucalyptus brookeriana_ and _E. ovata_ on King Island (Barnes et al 2002) and more generally in the north-west of Tasmania. Nevertheless, where _E. brookeriana_ or _E. ovata_ is identified as the dominant eucalypt, the vegetation is mapped as _Eucalyptus brookeriana_ wet forest (WBR) or _Eucalyptus ovata_ forest and woodland (DOV) on the basis of canopy density and understory characteristics rather, than as WGK or DKW.

**RFA mapping unit**

WGK is equivalent a facies of RFA KG.

**Distribution**

WGK is found on south-west King Island, extending to the centre of the island. A mid-successional stage of this forest is in Kentford Forest State Reserve, while there are diverse stands on public land in the Mount Stanley area and near Rafferty Creek. Paddocks and small creeklines across the south and central-east of the island contain small clusters of _E. globulus_ trees and a few small remnants occur on private land at the eastern end of Reekara Road, near Grassy and along Yarra Creek.

**Bioregional occurrence**

KIN (endemic to King Island).

**Site characteristics, habitat and ecology**

_E. globulus_ dominated forest is confined to Cambrian volcanics and Precambrian sediments and meta-sediments on the plateau country of the south-west of King Island, extending to the centre of the island where more fertile soils occur.
Vegetation composition and structure

The dominant tree species is *E. globulus*, with *E. brookeriana* a common subdominant or occasional co-dominant. *E. viminalis* is occasional on sandy soils and *Acacia melanoxylon* is sometimes present. The canopy is open-crowned and rarely exceeds 30 m.

The mid-successional stage of this forest has a tall, dense stratum of *Melaleuca ericifolia*, *M. squarrosa* and/or *Leptospermum scoparium*, while older or less frequently burnt forest has a midstorey of mesophytic shrub species, such as *Nematelepis squamea*, *Pomaderris apetala*, *Acacia melanoxylon*, *Hedycarya angustifolia* and *Pittosporum bicolor*.

*Dicksonia antarctica* and *Cyathea australis* are present in wetter forests or riverine habitats and scramblers and vines such as *Billardiera longiflora*, *Parsonsia brownii* and *Clematis aristata* connect the forest floor to the canopies above. The ground layer is generally sparse. Gaps are exploited by sedges (*Gahnia grandis* and *Carex appressa*) and ferns (*Blechnum* species, *Histiopteris incisa*, *Hypolepis rugosula* and *Pteridium esculentum*). Occasional herbs include *Drymophila cyanocarpa*, *Lagenophora stipitata* and *Hydrocotyle hirta*.

Floristic communities known to occur in this mapping unit

Wet eucalypt forest:

GLOB000  *E. globulus*–*N. ligustrina*–*P. axiflora* wet sclerophyll forest; also occurs in WGL.

GLOB0101 *E. globulus*–*A. dealbata*–*C. aculeata*–*A. melanoxylon* wet sclerophyll forest; also occurs in WGL.

Additional communities (Forest Botany Manual) Wet eucalypt forest

WET-GLOB001 *E. globulus*–*Dicksonia antarctica*–*Ctenopteris heterophylla* wsf

WET-GLOB001 *E. globulus*–*Dicksonia antarctica*–*Ctenopteris heterophylla* wsf
**Eucalyptus globulus wet forest (WGL)**

**General description**
Classic *Eucalyptus globulus* wet forest occurs mainly within lower slopes and gullies in moderate rainfall areas on well-drained sites. It is characteristically dominated by an even-aged stand of tall *Eucalyptus globulus* (with *E. regnans* sometimes also present) over a tall broad-leaved shrub layer with a prominent ferny understorey. A distinctive facies with a more sedgy ground layer occupies fire protected gullies in drier rainfall areas.

**Example localities**
Sandspit River Forest Reserve; Wielangta Forest Drive.

**Distinguishing features and similar communities**
This community is characterised by tall straight stands of *E. globulus* emerging high above a wet forest understorey. It intersects with part of the distribution of *E. regnans* forest (*WRE*) from which superficially it can be difficult to distinguish. In a minority of situations there is a diffuse boundary between these two communities, *WGL* is more coastal in its distribution than *WRE*.

**RFA mapping unit**
*WGL* is included in RFA R.

**Distribution**
Found predominantly in the south-east, this community extends up the east coast in sheltered situations. *WGL* occurs locally in the Little Henty River Catchment area behind Trial Harbour on the west coast of Tasmania.

**Bioregional occurrence**
BEL, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**
This community mainly occurs in the south-east where it typically occupies well-drained gullies and lower south facing slopes. Elsewhere it is quite localised usually within fire protected gullies. It is most often associated with dolerite or basalt substrates although also occurs over sandstone. *E. globulus* wet forest is uncommon and there are few significant stands protected within secure reserves. It has been extensively cleared for agriculture. Where it is subsumed within *E. regnans* forest it is at risk of being converted to plantation.

Smaller remnants can be in poor condition due to the ingress of weeds. Where it occurs in deep gullies embedded in a forest matrix it is typically in good condition. Inappropriate fire regimes also threaten the integrity of this community in some situations.

**Vegetation composition and structure**
This community is dominated by *E. globulus*. It can occur in pure stands although in some situations *E. regnans* or *E. obliqua* are co-dominant.
Trees can exceed 50 m on fertile sites. In gullies in lower rainfall areas heights are more typically 30–40 m.

Secondary trees can either be absent or include a prominent component of Acacia melanoxylon or Acacia dealbata.

Understorey composition varies. Pomaderris apetala is often prominent with other species including some and not all of Bedfordia salicina, Acacia verticillata, Beyenia viscosa, Cassinia aculeata, Coprosma quadrifida, Olearia argophylla and Olearia viscosa. Ferns can be prominent and include Dicksonia antarctica supporting a range of epiphytic ferns, Cyathea australis, Polystichum proliferum, Pteridium esculentum and species of Blechnum, Gahnia grandis, Lepidosperma elatius and L. ensiforme are characteristic of some locations.

**Floristic communities known to occur in this mapping unit**

<table>
<thead>
<tr>
<th>Wet eucalypt forest:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WET-GLOB001 E. globulus–Dicksonia antarctica–Ctenopteris heterophylla wet sclerophyll forest</td>
</tr>
<tr>
<td>WET-GLOB0100 E. globulus–Bedfordia salicina–Beyera viscosa wet sclerophyll forest</td>
</tr>
<tr>
<td>WET-GLOB0101 E. globulus–Acacia dealbata–Cassinia aculeata–Acacia melanoxylon wet sclerophyll forest</td>
</tr>
</tbody>
</table>
Eucalyptus nitida forest over Leptospermum (WNL)

General description
This community is a tall wet eucalypt forest dominated by Eucalyptus nitida, with an understorey dominated by one or more species of Melaleuca and/or Leptospermum.

Example locality
Norfolk Range.

Distinguishing features and similar communities
The community is characterised by the overstorey of Eucalyptus nitida over a dense layer of Leptospermum and/or Melaleuca species. It is floristically and structurally similar to Eucalyptus obliqua forest over Leptospermum (WOL). On more infertile, poorly–drained sites the community merges with Eucalyptus nitida dry forest and woodland (DNI). WNL includes woodland forms of E. nitida over tall tea tree.

RFA mapping unit
WNL is primarily a World Heritage Area community, however it would be included in RFA NT.

Distribution
WNL is found in the western half of Tasmania.

Bioregional occurrence
KIN, TCH, TNS, TSR, TWE.

Site characteristics, habitat and ecology
The forest occurs from sea level to the treeline. It is usually found on oligotrophic, peaty soils.

Vegetation composition and structure
The forest has an overstorey of E. nitida up to 30 m (sometimes 40 m), with a dense secondary layer of Leptospermum species and/or Melaleuca species. The understorey may be sparse, but is more commonly dense, with Gahnia grandis, Gleichenia microphylla and Bauera rubioides common, together with rainforest shrubs such as Anopterus glandulosus.

Floristic communities known to occur in this mapping unit
Buttongrass moorland:
B13  Wet copses; also occurs in MBS, SWW, DOV, SMR & NLM

Wet eucalypt forest:
NIT0  E. nitida–A. biglandulosum–L. glaucescens mixed forest; also occurs in WNR
NIT1  E. nitida–P. apetala–D. antarctica mixed forest; also occurs in WNR
Additional communities (Forest Botany Manual) Wet eucalypt forest

WET-NIT2. *E. nitida*–*M. squarrosa*–*M. glauca* wet sclerophyll forest

Riparian communities (Daley & Kirkpatrick 2004)

20. *Eucalyptus nitida* woodland over *Leptospermum lanigerum*–*Baloskion tetrephyllum*–*Gymnoschoenus sphaerocephalus* ferny-sedgy closed-scrub; also occurs in WNR

21. *Eucalyptus nitida* woodland over *Gleichenia dicarpa*–*Philotheca virgata* ferny closed-scrub
**Eucalyptus nitida forest over rainforest (WNR)**

**General description**
This community is a tall wet eucalypt forest with a rainforest understorey. It is widespread on low to moderately fertile soils in north-west and western Tasmania.

**Example locality**
Arthur–Pieman Conservation Area.

**Distinguishing features and similar communities**
The community is distinguished by a dominant overstorey of *Eucalyptus nitida* reaching heights of 30–40 m (sometimes to 60 m) over a thamnic or implicate rainforest understorey. On relatively poorly–drained sites, species of *Melaleuca* and/or *Leptospermum* increase in abundance and the community may intergrade into *Eucalyptus obliqua* forest over *Leptospermum* (WOL). The vegetation is structurally and floristically similar to *Eucalyptus obliqua* forest over rainforest (WOR). WNR includes woodland forms of *E. nitida* over rainforest.

**RFA mapping unit**
WNR is included in RFA NT.

**Distribution**
WNR is widespread in south-west and western Tasmania.

**Bioregional occurrence**
KIN, TCH, TNS, TSR, TWE.

**Site characteristics, habitat and ecology**
This community is found on peaty soils of low to moderate fertility on well–drained slopes from sea level to the tree line. The nature of the rainforest understorey varies, with tall *Nothofagus cunninghamii*, *Atherosperma moschatum* and *Eucryphia lucida* on more fertile sites, with *Phyllocladus aspleniiifolius*, *Anodopetalum biglandulosum* and species of *Trochocarpa* becoming more common on poorer sites. The composition of the understorey is also dependent on the frequency and intensity of fires in the forest, with broad-leaf wet sclerophyll shrubs being more common in more recently burnt areas.

**Vegetation composition and structure**
The vegetation is characteristically a tall forest with *E. nitida* 30–40 m (sometimes to 60 m) over a thamnic to implicate rainforest understorey. On long-unburnt, fertile sites the understorey rainforest trees are tall and straight, with a layer of tree ferns and ground ferns such as *Blechnum wattsii*. The understorey may also contain *Pomaderris apetala* and *Nematolepis squamea*, but these are usually absent from long-unburnt sites.
Floristic communities known to occur in this mapping unit

Wet eucalypt forest:

AM0 E. amygdalina–M. glauca–P. apetala–D. antarctica wet sclerophyll forest/mixed forest; there is no TASVEG equivalent but where it mostly occurs it is intergrading with E. nitida and thus is most readily associated with this mapping unit; also occurs in association with

WOB

NIT0 E. nitida–A. biglandulosum–L. glaucescens mixed forest; also occurs in WNL

NIT1 E. nitida–P. apetala–D. antarctica mixed forest; also occurs in WNL

Riparian communities (Daley & Kirkpatrick 2004)

20 Eucalyptus nitida woodland over Leptospermum lanigerum–Baloskion tetraphyllum–Gymnoschoenus sphaerocephalus ferny-sedge closed-scrub; also occurs in WNL
**Eucalyptus nitida wet forest (undifferentiated) (WNU)**

**General description**

**WNU** (Eucalyptus nitida wet forest (undifferentiated)) is a generic code used to map two communities: Eucalyptus nitida forest over Leptospermum (WNL) and Eucalyptus nitida forest over rainforest (WNR) where the separation of these communities using remote-mapping methods has not been possible.

It is intended that all forest mapped as WNU will be attributed to these more specific units as mapping is revised. Continued use of WNU is discouraged and limited to use where field access is not possible and remote allocation to a more specific unit is not advised.

**Example locality**

Not applicable.

**Distinguishing features and similar communities**

Where possible, all areas mapped as WNU should be re-coded to one of the following: Eucalyptus nitida forest over Leptospermum (WNL) or Eucalyptus nitida forest over rainforest (WNR).

Distinguishing features and similar communities are detailed for the specific ecological vegetation communities.

**RFA mapping unit**

WNU is equivalent to RFA NT.

**Distribution**

As for WNL and WNR.

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**Bioregional occurrence**

The bioregions in which undifferentiated Eucalyptus nitida wet forest is still mapped are as follows: KIN, TCH, TNS, TSR, TWE.

**Site characteristics, habitat and ecology**

As for WNL and WNR.

**Vegetation composition and structure**

As for WNL and WNR.

**Floristic communities known to occur in this mapping unit**

As for WNL and WNR.
**Eucalyptus obliqua forest over Leptospermum (WOL)**

**General description**
This community is a tall forest dominated by *Eucalyptus obliqua* over a secondary tree or tall shrub layer of *Melaleuca squarrosa* or species of *Leptospermum*.

**Example locality**
Tahune Forest Reserve, Warra Long Term Ecological Research Site.

**Distinguishing features and similar communities**
The community is characterised by a tall, fine-leaf understorey of species of *Leptospermum* or *Melaleuca squarrosa* and the dominant overstorey of *E. obliqua*. On less fertile substrates *Eucalyptus nitida* also dominates wet sclerophyll forest with similar fine-leaf understorey species (mapped as **WNL**).

**RFA Mapping Unit**
**WOL** is included in RFA OT.

**Distribution**
This community is widespread in the higher-rainfall areas of southern and north-west Tasmania, and also occurs in higher-rainfall parts of eastern Tasmania. The current distribution of **WOL** is likely to have been under-mapped.

**Bioregional occurrence**
BEL, KIN, TNS, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**
The community is characteristically found on moderately fertile substrates in wet, flat and low lying areas where drainage may be impeded.

**Vegetation composition and structure**
The community has a tall to very tall tree canopy of *E. obliqua* over a dense secondary tree cover of *Leptospermum lanigerum* and/or *Melaleuca squarrosa*. Other tall shrub or tree species include *Nematolepis squamea* and *Acacia verticillata*. The ground layer is sometimes sparse, but more often is a dense tangle of *Bauera rubioides*, *Gahnia grandis*, *Gleichenia microphylla* and Restionaceae species.

**Floristic communities known to occur in this mapping unit**
Wet eucalypt forest:
**OB0111** *E. obliqua–M. squarrosa–M. glauca* wet sclerophyll forest; also occurs in **WOB**

Riparian communities (Daley & Kirkpatrick 2004)
8 *Eucalyptus obliqua–E. regnans* woodland over *Acacia–Pomaderris* ferny–sedy–grassy closed-scrub
**Eucalyptus obliqua forest over rainforest (WOR)**

**General description**

*Eucalyptus obliqua* forest over rainforest (WOR) has a tall to very tall overstorey dominated by *Eucalyptus obliqua* over a mature rainforest understory. The community is widespread in the higher rainfall areas of Tasmania and is the penultimate stage of succession of *E. obliqua* wet eucalypt forest to rainforest.

Near Kanunnah Bridge. Stephen Harris.

**Example locality**

Tahune Forest Reserve, Warra Long Term Ecological Research Site

**Distinguishing features and similar communities**

This mapping unit intergrades with *Eucalyptus obliqua* forest with broad-leaf shrubs (WOB), of which it is a late successional stage in areas of infrequent fires and higher rainfall. On fertile sites, it is structurally and floristically similar to *Eucalyptus regnans* mixed forest (mapped as WRE) and on less fertile or less well-drained sites to *Eucalyptus nitida* forest over rainforest (WNR).

**RFA mapping unit**

WOR is included in RFA OT.

**Distribution**

Common in high-rainfall areas throughout the State, WOR has strongholds in the Tasmanian Southern Ranges Bioregion and in north-west Tasmania. It has a significant distribution in the Ben Lomond Bioregion. The current distribution of WOR is likely to have been under-mapped within these areas.

Near Kanunnah Bridge. Stephen Harris.

**Bioregional occurrence**

BEL, FUR, KIN, TCH, TNS, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**

This community occurs extensively throughout southern Tasmania in regions of relatively high rainfall. The community does not show strong associations with particular soil types, but is found only where past fires have been infrequent (100–400 years) or not intense. Recently burnt areas of this community support broad-leaf understorey species, or on less fertile sites, sclerophyllous understoreys of *Leptospermum* and/or *Melaleuca* species.

**Vegetation composition and structure**

These forests typically support a tall to very tall overstorey of *E. obliqua* over a well-developed secondary layer of rainforest trees. On fertile sites the rainforest is callidendrous, with *Nothofagus cunninghamii* and/or *Atherosperma moschatum* predominating over an understorey of tree ferns, ground ferns and relatively diverse and abundant epiphytic ferns. The rainforest becomes increasingly thamnic as fertility decreases, when secondary dominants may include *Eucryphia lucida* and *Phyllocladus asplenifolius*. On the flood banks of the...
major southern and western rivers, the rainforest canopy may also include Lagarostrobus franklinii and an increased diversity of understorey shrubs.

**Floristic communities known to occur in this mapping unit**

**Wet eucalypt forest:**

OB1000 *E. obliqua–N. cunninghamii–P. proliferum–H. flabellatum* mixed forest

OB1001 *E. obliqua–N. cunninghamii–A. glandulosus–H. flabellatum* mixed forest

OB1100 *E. obliqua–A. moschatum–C. nitida* mixed forest

OB11010 *E. obliqua–O. diversifolia–C. juniperina* mixed forest

OB11011 *E. obliqua–L. franklinii* mixed forest

OB1110 *E. obliqua–A. glandulosus–A. verticillata* mixed forest

OB1111 *E. obliqua–A. mucronata–N. cunninghamii* mixed forest

OB101 *E. obliqua–N. cunninghamii–M. glauca* mixed forest

**Additional communities (Forest Botany Manual)**

Wet eucalypt forest

WET-RAD1 *E. radiata* wet sclerophyll forest; there is no TASVEG equivalent but it is most often associated with this mapping unit; also occurs in WDB.
**Eucalyptus obliqua forest with broad-leaf shrubs (WOB)**

**General description**

This community is a tall to very tall forest with a broad-leaf, wet sclerophyll understorey. It is widely distributed in moderate to high rainfall areas on a variety of substrates.

**Example localities**

Lower slopes of Mount Wellington; Fortescue Bay; Evercreech Forest Reserve.

**Distinguishing features and similar communities**

_Eucalyptus obliqua_ forest with broad-leaf shrubs (WOB) is characterised by emergent trees of _Eucalyptus obliqua_ over a dense broad-leaf wet sclerophyll understorey. It is similar in structure to _Eucalyptus regnans_ forest (WRE) and _Eucalyptus delegatensis_ forest with broad-leaf shrubs (WDB). Where the broad-leaf understorey is replaced by rainforest species, the forest is mapped as _Eucalyptus obliqua_ over rainforest (WOR). Where a dense _Leptospermum_ layer forms the understorey, _Eucalyptus obliqua_ over _Leptospermum_ (WOL) is mapped. _Eucalyptus obliqua_ woodland over a broad-leaf understorey is included in WOB.

**RFA mapping unit**

WOB is included in RFA OT.

**Distribution**

Widespread throughout Tasmania. The current distribution of WOB is likely to have been under-mapped.

**Bioregional occurrence**

All bioregions.

**Site characteristics, habitat and ecology**

The community is characteristic of moist sites of moderate to high fertility throughout Tasmania. It is not confined to particular substrates. Typically this community forms even-aged stands, which have regenerated after significant disturbances such as wildfires, or for younger forests, clear felling.

**Vegetation composition and structure**

The mature community has tall to very tall trees with well-formed trunks about two-thirds of the total height of the tree. In regrowth trees, the crowns are relatively small, but mature trees can form large, spreading crowns. Across its distribution range _E. obliqua_ wet forest often occurs in pure stands. In areas with fertile soils and high rainfalls _E. regnans_ may co-occur with _E. obliqua_.

On relatively dry sites, _E. viminalis_ is a frequent co-dominant that is either replaced or co-occurs with _E. globulus_ in eastern and south-east Tasmania. At altitudes above 300 m, _E. dalrympleana_ replaces _E. viminalis_ as a co- dominant. On alluvial flats in the north-west, _E. brookeniana_ is the most frequent co-dominant; elsewhere (i.e. not on alluvial flats) in the north-west, _E. nitida_ is the most common peppermint co-dominant, and in the central north...
and north-east, the most common co-dominant is *E. amygdalina*. At altitudes above 600 m or in areas of cold-air drainage, *E. delegatensis* may co-occur with, and at higher altitudes replace, *E. obliqua*.

The understorey is typically composed of broad-leaved shrubs, most commonly including *Pomaderris apetala*, *Nematolespis squamea* and *Olearia argophylla*, with a high proportion of ground ferns.

**Floristic communities known to occur in this mapping unit**

**Wet eucalypt forest:**
- DEL0100 *E. delegatensis–E. viminalis–A. melanoxylon* wet sclerophyll forest; also occurs in WDB
- DEL0101 *E. delegatensis–E. obliqua–A. novae-zelandiae* wet sclerophyll forest; also occurs in WDB
- GLOB001 *E. globulus–D. antarctica–C. heterophylla* wet sclerophyll forest; also occurs in WGL
- GLOB0100 *E. globulus–B. salicina–B. viscosa* wet sclerophyll forest; also occurs in WGL
- OB0110 *E. obliqua–A. dealbata–O. argophylla* wet sclerophyll forest
- OB010 *E. obliqua–O. lirata–P. juniperina* wet sclerophyll forest; also occurs in DOB
- OB0111 *E. obliqua–M. squarrosa–M. glauca* wet sclerophyll forest; also occurs in WOL

**Additional communities (Forest Botany Manual) Wet eucalypt forest**
- WET-OB2 *E. obliqua–Monotoca glauca–Dianella tasmanica* wet sclerophyll forest/mixed forest
- WET-OB3 *E. obliqua–P. squameum–B. rubioides* wet sclerophyll forest
- WET-RAD1 *E. radiata* wet sclerophyll forest; there is no TASVEG equivalent but it is most often associated with this mapping unit
- WET-AM0 *E. amygdalina–M. glauca–P. apetala–D. antarctica* wet sclerophyll forest/mixed forest; there is no TASVEG equivalent but it is often associated with this mapping unit; also occurs in WNR

**Riparian communities (Daley & Kirkpatrick 2004)**
- 15 *Eucalyptus obliqua–E. regnans* open-forest over sedgy-fern *Pomaderris apetala–Olearia lirata* shrubland; also occurs in WRE
**Eucalyptus obliqua** wet forest (undifferentiated) (WOU)

**General description**

**WOU** (*Eucalyptus obliqua* wet forest (undifferentiated)) is a generic code used to map three communities: *Eucalyptus obliqua* forest over rainforest (**WOR**), *Eucalyptus obliqua* forest over broad-leaf shrubs (**WOB**) and *Eucalyptus obliqua* forest over *Leptospermum* (**WOL**).

It is intended that all forest mapped as **WOU** will be attributed to these units as mapping is revised. Continued use of **WOU** is discouraged and limited to use where field access is not possible and remote allocation to a more specific unit is not advised.

**Example localities**

Not applicable.

**Distinguishing features and similar communities**

Where possible, all areas mapped as **WOU** should be re-coded to one of the following: *Eucalyptus obliqua* forest over rainforest (**WOR**), *Eucalyptus obliqua* forest over broad-leaf shrubs (**WOB**) or *Eucalyptus obliqua* forest over *Leptospermum* (**WOL**).

Distinguishing features and similar communities are detailed for the specific ecological vegetation communities.

**RFA mapping unit**

**WOU** is equivalent to RFA **OT**.

**Distribution**

As for **WOR**, **WOB** and **WOL**.

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**Bioregional occurrence**

Undifferentiated *Eucalyptus obliqua* wet forest is still mapped in all bioregions.

**Site characteristics, habitat and ecology**

As for **WOR**, **WOB** and **WOL**.

**Vegetation composition and structure**

As for **WOR**, **WOB** and **WOL**.

**Floristic communities known to occur in this mapping unit**

As for **WOR**, **WOB** and **WOL**.
**Eucalyptus regnans forest (WRE)**

**General description**
Tall forest dominated by *Eucalyptus regnans*, with a dense, shrubby or forested understorey.

**Example locality**
Mount Field National Park.

**Distinguishing features and similar communities**
The forest community is characterised by emergent *Eucalyptus regnans* trees over a wet sclerophyll or rainforest understorey. It has some similarities with *Eucalyptus obliqua* wet forest (undifferentiated) (WOU) and *Eucalyptus globulus* wet forest (WGL).

**RFA mapping unit**
WRE is equivalent to RFA R.

**Distribution**
WRE has its strongholds in the central south and north-east.

**Bioregional occurrence**
BEL, FUR, TCH, TNS, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**
This community grows on deep, fertile soils in high-rainfall areas, from sea level to about 600 m.

**Vegetation composition and structure**
The community is dominated by *E. regnans* and is typically in single-aged stands because the trees are sensitive to fire and will not re-sprout after a hot fire. *E. regnans* is a very tall tree generally between 40 and 70 m, with some recorded over 90 m (the tallest species of hardwood in the world). The stem is straight and the bole is generally more than two thirds of the total height. The crown is relatively small and sparse.

*E. regnans* grows predominantly as single *Eucalyptus* species stands. It occasionally intergrades with *E. obliqua*. Non-eucalypt tree species present can include *Acacia dealbata*, *A. melanoxylon*, *Nothofagus cunninghamii*, *Atherosperma moschatum* and *Eucryphia lucida*.

The tall shrub layer is typically dense, and includes *Pomaderris apetala*, *Pittosporum bicolor* and *Olearia argophylla*. Ground ferns are common. With increasing moisture and absence of fire, rainforest elements are intermixed with the broad-leaved...
shrubs. When it occurs as a mixed forest, the understorey is callidendrous rainforest.

**Floristic communities known to occur in this mapping unit**

**Wet eucalypt forest:**

REG1000  *E. regnans–E. obliqua–P. apetala–O. lirata* wet sclerophyll forest

REG1001  *E. regnans–A. dealbata–P. apetala* wet sclerophyll forest

REG101  *E. regnans–A. moschatum–A. dealbata–O. argophylla* wet sclerophyll forest/mixed forest

REG10  *E. regnans–N. cunninghamii–A. moschatum* mixed forest

REG111  *E. regnans–A. moschatum* mixed forest

**Riparian communities (Daley & Kirkpatrick 2004)**

15  *Eucalyptus obliqua–E. regnans* open-forest over sedgy-ferny *Pomaderris apetala–Olearia lirata* shrubland; also occurs in WOB
**Eucalyptus subcrenulata forest and woodland (WSU)**

General description

*Eucalyptus subcrenulata* forest and woodland occurs with different *Eucalyptus* species as sub- or co-dominants across its altitudinal range. At higher altitudes, *E. subcrenulata* can occur as a small tree emergent over stunted rainforest or with *E. coccifera* in exposed subalpine woodlands. In the mid-section of its altitudinal range it is most commonly a co-dominant with *E. delegatensis*. At its lower altitudinal range, *E. subcrenulata* forms a geographic cline with *E. johnstonii*, which is included in this mapping unit.

The species composition, density and structure of the understorey vary considerably in response to fire history, altitude and site conditions. The understorey varies from rainforest species to broad-leaf shrubs to scleromorphic shrubs and sedges.

![Mount Field National Park, below Mount Mawson](image)

**Example locality**

Mount Field National Park.

**Distinguishing features and similar communities**

*Eucalyptus subcrenulata* forest and woodland (WSU) must have *E. subcrenulata* and/or *E. johnstonii* present as either the dominant or co-dominant *Eucalyptus* species. *E. subcrenulata* forest forms a geographic cline in sheltered, fertile sites with *E. johnstonii* in the south-east and is replaced by *E. vernicosa* in exposed, alpine sites on the western and south-west mountains. At the high-altitude end of the cline, *E. vernicosa* never exceeds about 3 m in height and is mapped as Highland treeless vegetation.

WSU includes woodland vegetation dominated by *E. subcrenulata*.

**RFA mapping unit**

WSU is equivalent to RFA SU.

**Distribution**

*E. subcrenulata* forests mainly occur in the highlands of western and central Tasmania. Because the community includes *E. johnstonii* forest, it also extends into south-east Tasmania.

**Bioregional occurrence**

TCH, TNS, TSE, TSR, TWE.

**Site characteristics, habitat and ecology**

*E. subcrenulata* forests can occur on all substrates, but the best stands are on relatively fertile soils derived from sandstone. *E. subcrenulata* is generally found above 700 m, with an upper altitude limit of around 1100 m. It grows on well-drained, exposed rocky ridges, gully slopes and stony plateaus where dolerite scree forms over sandstone bedrock or on the margins of poorly-drained flats. *E. johnstonii* forms the lower-altitude cline, mapped within this unit. It occurs generally between 300 m and 800 m. In pure stands, it tolerates poorer drainage than *E. subcrenulata* forests.
Vegetation composition and structure

This forest community is dominated by *E. subcrenulata* and/or *E. johnstonii*. At the base of steep slopes, *E. subcrenulata* is commonly co-dominant with *E. coccifera* and sometimes *E. pauciflora*. The slopes may be pure *E. subcrenulata* mixed forest, but more often *E. delegatensis* co-dominates. At plateau edges and the sheltered sides of alpine ridges, *E. subcrenulata* occurs with *E. coccifera*. In the eastern extremity of its distribution *E. subcrenulata* occurs with *E. archeri* and *E. gunnii*. To the north, around Black Bluff, it also has *E. nitida* as a subdominant.

Trees can reach up to 60 m on sheltered fertile slopes, while they may be only 10 m tall on the edges of valleys and plateaus. Disturbance is unusual, since *E. subcrenulata* forest normally grows in fire-protected sites except at its upper altitude limits, and old growth stands are common.

The understorey in *E. subcrenulata* stands may be callidendrous or thamnic rainforest, or contain species that are typically both rainforest and wet eucalypt forest species, such as *Nothofagus cunninghamii*, *Eucryphia lucida*, *Atherosperma moschatum* and *Phyllocyclus asplenifolius*, *Richea pandanifolia*, *Telopea truncata*, *Tasmannia lanceolata* and *Leptospermum lanigerum*. *E. subcrenulata* associated with *E. coccifera* forms a canopy over vegetation with a mixture of subalpine and rainforest species. The drier understorey facies typically contains scleromorphic shrubs or dry forest species such as *Oxylobium ellipticum*, *Boronia citriodora*, *Hakea* species and *Leptecophylla juniperina* subsp. *parvifolia*.

Floristic communities known to occur in this mapping unit

Wet eucalypt forest:
- JOH *E. johnstonii* mixed forest
- SUB00 *E. subcrenulata–T. truncata–R. gunnianus* subalpine mixed forest
- SUB01 *E. subcrenulata–E. delegatensis–Leptecophylla juniperina* subsp. *parvifolia* subalpine mixed forest; also occurs in WDR
- SUB1000 *E. subcrenulata–R. pandanifolia–C. glauca* mixed forest
- SUB1001 *E. subcrenulata–E. delegatensis–G. billardierei* mixed forest; also occurs in WDR

Additional communities (Forest Botany Manual) Dry sclerophyll forests and woodlands

Dry sclerophyll forests and woodlands:
- DRY-shSUB Shubby *Eucalyptus subcrenulata* forest

Wet eucalypt forest:
- WET-JOHN2 *E. johnstonii* wet sclerophyll forest
**Eucalyptus viminalis wet forest (WVI)**

**General description**

*Eucalyptus viminalis* wet forest (WVI) is a wet sclerophyll community, typically with an understorey mixture of fine-leaf and broad-leaf species, which occurs mainly on fertile, well-drained sites. The dominant species, *Eucalyptus viminalis*, generally forms an even-aged stand of tall and well-formed trees. In sites that are drier or have a higher fire frequency, the understorey may be lower and sparser.

**Example locality**

Evercreech Forest Reserve near Mathinna.

**Distinguishing features and similar communities**

*Eucalyptus ovata* forest and woodland (DOV), which may be dominated by *E. viminalis*, may be similar to *Eucalyptus viminalis* wet forest (WVI) in some situations. The community can be distinguished by the understorey, which is sedgy or scruffy in DOV, commonly with species of *Leptospermum* and *Melaleuca*. WVI usually has a shrubby understorey with broad- and small-leaved species. The dominant species – *E. viminalis* – distinguishes WVI from other communities that may appear similar. *Eucalyptus regnans* forest (WRE) occupies similar sites and the trees may look similar in some circumstances. At higher altitudes *E. dalrympleana* replaces *E. viminalis* as the dominant *Eucalyptus* species. Forests of this species are mapped as *Eucalyptus dalrympleana* forest (WDA); however, identification of the species may be difficult in the field. WVI does not occur as a woodland community.

**RFA mapping unit**

WVI is equivalent to RFA VW.

**Distribution**

This community is found predominantly in the central north and north-east. Smaller patches occur elsewhere in the state, including a very minor west coast distribution where *Eucalyptus viminalis* subsp. *hentyensis* occurs on the Henty Dunefields, at Henty Road and within the township of Strahan.

**Bioregional occurrence**

All bioregions.

**Site characteristics, habitat and ecology**

This community occurs mainly on fertile, well-drained flats and lower slopes of the major valleys of the central north (for example Leven River and Forth River), and is less extensive in the north-east, east and south-east. It is often present on basalt or alluvium.

**Vegetation composition and structure**

The community is dominated by *E. viminalis*. It can be difficult distinguishing between *E. viminalis* and *E. dalrympleana* in the transition zone between these species (generally 300–600 m altitude). Trees can exceed 60 m on fertile sites. *E. viminalis* wet forest at Evercreech Forest Reserve contains some...
of Tasmania’s tallest trees: they reach nearly 90 m. Old-growth stands are uncommon; most stands are regrowth to 40 m.

_E. obliqua, E. delegatensis, Acacia melanoxylon and A. dealbata_ are sometimes subdominants, with _E. regnans_ an occasional subdominant in the north-east.

Most sites have a typical wet sclerophyll understorey containing shrubs such as _Pomaderris apetala, Olearia argophylla_ and _Coprosma quadrifida_. Ferns, including _Dicksonia antarctica_ on wet sites and tall _Pteridium esculentum_ on drier sites, are common. On drier or less fertile sites, the understorey is more diverse, with dry sclerophyll shrubs including _Pultenaea juniperina_ and _Lomatia tinctoria_. _Rubus fruticosus_ and other weeds are common on disturbed sites. In many cases where WWI occurs as remnants in agricultural regions, the bush is heavily burnt and a disclimax understorey of bracken dominates.

**Floristic communities known to occur in this mapping unit**

_Wet eucalypt forest:_

VIM0011 _E. viminalis–B. salicina–P. juniperina_ wet sclerophyll forest

VIM0100 _E. viminalis–A. dealbata–P. apetala_ wet sclerophyll forest; also occurs in DVF

VIM0101 _E. viminalis–A. dealbata–D. antarctica_ wet sclerophyll forest; also occurs in DVF

VIM111 _E. viminalis–N. cunninghamii–A. moschatum–D. antarctica_ mixed forest

_Riparian communities:_(Daley & Kirkpatrick 2004)

6 _Pomaderris apetala–Micrantheum hexandrum–Beyeria viscosa_ closed riparian scrub; also occurs in SRE & DAD

7 _Pomaderris apetala–Ehrharta stipoides–Coprosma quadrifida_ open riparian scrub; also occurs in SRE

_Riparian communities (Daley & Kirkpatrick 2004)_

9 _Eucalyptus viminalis–E. ovata–E. obliqua–Acacia dealbata–Acacia melanoxylon_ woodland over sedgy-fern scrub; also occurs in DOV

10 _Eucalyptus woodland over Pomaderris apetala–Pteridium esculentum–Poa labillardieri–Lomandra longifolia–Carex appressa_ closed-scrub; also occurs in DVG