

Tasmanian Planning Scheme

Explaining the Priority Vegetation Area Overlay – the Regional Ecosystem Model

Section LP1.7.5 of the State Planning Provisions requires that each Local Provisions Schedule must contain an overlay map of Priority Vegetation Areas (PVA).

Section LP1.7.5 (c) stipulates that the PVA must:

- include Threatened Native Vegetation Communities as identified in TASVEG Version 3;
- be derived from threatened flora data identified in the Tasmanian Natural Values Atlas; and
- be derived from threatened fauna data the Tasmanian Natural Values Atlas for the identification of significant habitat for threatened fauna species .

'Significant Habitat' is the habitat within the known and core range of a threatened fauna species where it is known to be of high priority for the maintenance of breeding populations or its conversion to 'non-priority' (presumably non-native) vegetation would result in a long term negative impact on breeding populations.

When compiled, the mapped known and core range of the State's threatened fauna covers virtually the full extent of Tasmania's land mass.

There is no State data set that identifies the vegetation within that extent that would meet the definition of Significant Habitat (noting that some significant habitat exists in non-native vegetation).

Section LP1.7.5 (d) provides that the PVA can be modified, based on analysis at a local or regional level for:

- anomalies or inaccuracies in the data described above; or
- more recent or detailed local assessment of the data and mapping described above; or
- identification of native vegetation of local importance, including habitat for native fauna of local importance.

The Regional Ecosystem Model (REM) is a comprehensive, high resolution spatial analysis that identifies:

- native vegetation and threatened species and their relative conservation status and management priority;
- the characteristics of the landscape that may affect its ability to sustain these elements.

The REM forms the basis of the PVA to be incorporated into Local Provisions Schedules. Individual planning authorities may also supplement the REM with more detailed, on-ground information. This will be described by the relevant planning authority.

A subset of attributes and indicators from the REM has been used to produce the PVA overlay and includes a more detailed local assessment of the data that is consistent with the provisions for modification of the PVA:

- Threatened native vegetation communities is based on TasVeg 3.0, but has been corrected for inherent logical consistency issues and includes credible field-based mapping where it was available.
- Threatened flora and fauna species locations and habitat are modelled using two methods:
 - Rules applied to Natural Values Atlas (NVA) records that are customised for each species to reflect their patterns of local distribution (e.g. riparian species), based on a limited number of habitat variables; and
 - More detailed habitat models for about 100 threatened fauna species that reflect agreed habitat definitions used by the Forest Practices Authority but utilise a much wider range of data, including landforms and vegetation structural maturity, to more accurately identify habitat and potential habitat.
- Native vegetation of local importance includes:
 - a subset of threatened fauna species habitat models,
 - native vegetation with limited bioregional reservation and extent and native vegetation remnants on heavily cleared types of land where local factors affect ecological sustainability of the landscape.

Undertaking this analysis inevitably results in the identification of native vegetation (including fauna habitat) of local importance, recognising that habitat is not confined to local administrative boundaries and is more relevant to localised and landscape-scale habitat attributes, bioregional level representation and ecosystem function. Each local area contributes to the survival of threatened vegetation communities, threatened flora and threatened fauna within a State wide mosaic that enables the distribution of species to be maintained and provides for mobility of fauna through connected habitat.

The Priority Vegetation Area overlay map resulting from the REM is made up of the data outlined in Table 1. The attributes in the overlay are elaborated further below.

Table1 – Attributes of the Priority Vegetation Area

Definition in SPP	Attribute	What are they?
Forms an integral part of a threatened native vegetation community as prescribed under Schedule 3A of the <i>Nature Conservation</i>	Threatened native vegetation communities	Vegetation communities listed as threatened under the <i>Nature Conservation Act (Tas)</i> or <i>EPBC Act (Comm)</i>
A threatened flora species	Threatened flora species	Flora species listed under the <i>Threatened Species Protection Act (Tas)</i> or <i>EPBC Act</i> .
Forms a significant habitat for a threatened fauna species	Threatened fauna species habitat	Fauna species listed under the <i>Threatened Species Protection Act (Tas)</i> or <i>EPBC Act</i> .
	Landscape dependent threatened fauna species habitat	Fauna species listed under the <i>Threatened Species Protection Act (Tas)</i> or <i>EPBC Act</i> and classified as landscape dependent fauna
	Relative reservation	Native vegetation community <30% reserved in bioregion
	Relative rarity	Native vegetation community <2,000 ha extent in bioregion
	Remnant vegetation	Native vegetation patches <200ha contiguous extent and On land components >70% cleared of native vegetation

Threatened Native Vegetation Communities

Threatened Native Vegetation Communities (TNVC) are vegetation communities with legislative recognition of being threatened.

The attribute comprises vegetation communities listed as threatened under the Tasmanian Nature Conservation Act 2002 or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. Listing under these acts is based on historical vegetation loss since European settlement, natural limited extent or vulnerability to particular factors.

Why is it included?

- Heavily cleared – generally greater than 70% of pre-1750 extent has been cleared;
- Rarity – generally less than 1,000 hectares remaining

Data Source:

- TasVeg 3.0 (minor exceptions)

Reliability:

- Extremely variable – aerial identification and/or on-ground field verification

Management:

- Check TasVeg for field verification
- Consider local extent, condition & management options

Threatened Flora Species

These are species listed as threatened under the Tasmanian Threatened Species Protection Act (1975) or Commonwealth Environment Protection and Biodiversity Conservation Act (1999).

Listed threatened species have statutory recognition that they are likely to become extinct if the factors causing them to be threatened are not managed. Species may be listed due to historical loss since settlement, natural rarity giving rise to potential risk, or impacts of particular land use and land management practices.

Threatened flora habitat characteristics are mostly localised and are modelled solely on Natural Values Atlas records with a limited number of habitat variables.

Why is it included?

- Statutory recognition that species extinction is likely

Data Source:

- NVA records combined with REM point-based modelling rules
- Generally highly localised

Reliability:

- Reasonably reliable – on-ground field verification

Management:

- Check species observation source
- Potentially require on-ground field verification

Threatened flora can be grouped into types, which assists in understanding preferred management approaches.

Flora			
Type		Management objective	What is assessed?
Singletons and highly restricted species	Species known from one location only or from a particular land system component	Maintenance of species population	Assessment of species population and habitat condition (specialist required)

Localised	Species tend to occur in small localised areas across their range	Persistence of species at site	Assessment of species population and habitat condition (specialist may be required)
Riparian	Species occur predominantly in riparian zones	Maintenance of healthy riparian zones	Assessment of health of riparian vegetation
More extensive	Species occur relatively extensively in a local area	Persistence of species in locality	Assessment of species population and habitat condition (specialist MAY be required)

Threatened Fauna Species and Significant Habitat

These are species listed as threatened fauna under the Tasmanian Threatened Species Protection Act (1975) or Commonwealth Environment Protection and Biodiversity Conservation Act (1999).

Listed threatened species have statutory recognition that they are likely to become extinct if the factors causing them to be threatened are not managed. Species may be listed due to historical loss since settlement, natural rarity giving rise to potential risk, or impacts of particular land use and land management practices.

Threatened fauna habitat characteristics are extremely varied and are modelled as significant based on Natural Values Atlas records with a limited number of habitat variables or more detailed customised models for about 100 fauna species. Some species habitat occurs across the landscape but not all sites may be essential for species survival and not all suitable habitat may be occupied. Species that rely on this type of habitat are classified as landscape-dependent and are regarded as being of local importance, however the relative importance of the site to the survival of the species can only be known in response to field verification, the context and the nature of a proposal.

Why is it included?

- Statutory recognition that species extinction is likely, however not all sites are important or occupied

Data Source:

- NVA records combined with REM point-based modelling rules
- Habitat-based models

Reliability:

- Variable

Management:

- Check species observation source

- Check data on habitat and local context
- Potentially require on-ground field verification

Threatened fauna and their significant habitat can be grouped into types which assist in understanding preferred management approaches.

Fauna and significant habitat			
Type		Management objective	What is assessed?
Localised species ¹	Species tend to occur in small localised areas across their range	Maintenance of species population	Assessment of species population and habitat condition (specialist required)
Aquatic species	Species habitat is in waterways, wetlands and associated riparian vegetation	Maintenance of healthy riparian zones and water quality	Assessment of species population, habitat condition and potential water quality impacts (specialist MAY be required)
Riparian species	Riparian zones an important part of species habitat	Maintenance of healthy riparian zones	Assessment of species population and habitat condition (specialist may be required)
Highly restricted species	Species known from one location only or from particular land system components	Maintenance of species population	Assessment of species habitat extent and population size (specialist required)
Obligate log dwellers	Species survival dependent of coarse woody debris (CWD) on forest floor	Maintenance of logs and large branches on forest floor and mature forest for ongoing supply of CWD	Assessment of abundance and relative size of CWD and mature eucalypts
Hollow dependent fauna	Species depend on hollows in mature trees for critical parts of the life cycle	Maintenance of mature trees	Assessment of relative abundance of mature eucalypts
Ground dwelling species with particular habitat requirements	Species utilise highly localised on ground habitat features for critical parts of the life cycle	Maintenance of the features critical for the life cycle	Assessment of presence of den sites, CWD, rock overhangs and mature trees
Highly specialised species (habitat well understood)	Species with highly specialised habitat requirements that do not correlate with coarser scale environmental variable or is highly restricted locally	Maintenance of species population	Dependent on species (specialist required)

¹ Species in this category will also often fit into other categories. The difference is that the risk of significant loss is higher as there are very few replicate sites.

Other fauna species (habitat not well understood)	Species where the factors contributing to local populations are not well understood or identifiable	Maintenance of healthy population size in general area	Dependent on species (specialist required)
---	---	--	--

Poorly Reserved Vegetation Communities

Reservation status is a measure of the degree to which vegetation communities are included in the Comprehensive, Adequate and Representative (CAR) reserve system.

Higher levels of reservation give greater confidence that the species for which vegetation communities are surrogates are likely to be protected, subject to appropriate geographic and biophysical distribution in the landscape. Reservation provides greater certainty of the maintenance of better condition vegetation and hence maintenance of ecological function at local and landscape scales.

Why is it included?

- Less than 30% of extent in bioregion is in reserves

Data Source:

- TasVeg 3.0 (minor exceptions)

Reliability:

- Highly variable

Management:

- Check TasVeg for field verification
- Consider local extent, condition & management options
- Potentially require on-ground field verification

Vegetation Communities of Limited Bioregional Extent

Relative rarity, or extent, is scaled to reflect increased importance for vegetation types which are more restricted, and less importance for those which are relatively extensive. The threshold of 2,000 ha is used by the Forest Practices Authority.

Why is it included?

- Less than 2000 hectares of the community in the bioregion

Data Source:

- TasVeg 3.0 (minor exceptions)

Reliability:

- Highly variable

Management:

- Check TasVeg for field verification

- Consider local extent, condition & management options
- Potentially require on-ground field verification

Remnant Vegetation

Remnant vegetation is defined as islands of native vegetation, below a specified size (200 ha), that are surrounded by cleared land, and occur on land types (land system components) that have been cleared of more than 70% of their native vegetation. In heavily cleared landscapes, patches of remnant vegetation can contribute significantly to the maintenance of ecosystem function, while their loss and decline is a major factor in ecosystem collapse. Their smaller size makes them vulnerable to ongoing degradation through various combinations of human impacts and natural ecological processes.

Why is it included?

- Less than 200 hectare patch of native vegetation on land components that are over 70% cleared of native vegetation.

Data Source:

- TasVeg 3.0 (minor exceptions)

Reliability:

- Reasonably reliable depending on TasVeg currency

Management:

- Check TasVeg for field verification
- Consider local extent, condition & management options
- Potentially require on-ground field verification