Tasmanian white gum (*Eucalyptus viminalis*) wet forest

NOMINATED AS A NATIONAL THREATENED ECOLOGICAL COMMUNITY

CONSULTATION GUIDE FOR LANDOWNERS

The Tasmanian white gum wet forest typically has a tree canopy dominated by *Eucalyptus viminalis* and wet forest understorey of broad-leaved trees, shrubs and ferns. It is found in high rainfall, lowland areas of northern, eastern and southern Tasmania, primarily in the major river valleys of the central north.

The Tasmanian white gum wet forest was nominated as a potential threatened ecological community in 2016 and is currently undergoing an assessment by the independent Threatened Species Scientific Committee to determine if it meets the criteria for listing under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

White gum wet forest at Caveside.

Consultation details

Comments are sought on the draft Conservation Advice and the Committee's assessment of the Tasmanian white gum wet forest as critically endangered.

Comments close **7 February 2020**

About the assessment

Under the EPBC Act an ecological community is eligible for listing as threatened if it is facing a risk of extinction in the wild, as determined in accordance with prescribed criteria. The simplest form of extinction is when an ecological community has been totally destroyed and all occurrences have been lost or removed. It is more common, however, for ecological communities to become extinct by transformation rather than complete loss – becoming different communities with different characteristic species.

The criteria used to determine the level of risk for an ecological community are set out in the EPBC Regulations. There are six criteria, each representing a different type of extinction risk. An ecological community is considered threatened if it meets the thresholds under any of the six criteria, it does not need to be threatened under all of them. The overall threat category is determined by the highest threat category met - vulnerable, endangered or critically endangered.

The decision to list an ecological community as nationally threatened is made by the federal environment Minister. It follows a rigorous and transparent assessment by the Threatened Species Scientific Committee. Their assessment process for potential threatened ecological communities culminates in a Listing Advice which is provided to the Minister. Once an ecological community is listed, the Committee's advice is then published as an approved Conservation Advice.

About the Tasmanian white gum wet forest

The Tasmanian white gum wet forest occurs primarily across northern Tasmania, concentrated in the central north and occurring sporadically elsewhere in the state. Tasmanian white gum wet forest typically occurs on moderately fertile to fertile well-drained soils where fire disturbance is infrequent and rainfall is high, such as the flats and lower slopes of the major river valleys. It is usually found in areas where average annual rainfall exceeds 1000mm, though may also occur in drier areas with reliable water supplies, such as river gullies. It is often present on basalt or alluvium. It has also been recorded on dolerite, mudstone, sediments and limestone.

Indicative distribution of the Tasmanian white gum wet forest

Note: data points are enlarged to be visible, but this gives an artificial impression of more remaining forest than actually exists

Tasmanian white gum wet forest is a type of wet eucalypt forest, comprised of wet sclerophyll or mixed forest, with an open forest canopy dominated by tall eucalypts over a dense secondary layer of small trees and broad-leaf shrubs. The canopy generally consists of an even-aged stand of tall and well-formed trees that can exceed 60m in height on fertile sites. The shrub understorey is often dense, preventing continuous regeneration of shade-intolerant species such as eucalypts. The ground layer is typically a deep layer of plant litter over moist mineral soil, providing rich fauna habitat, particularly for invertebrates.

The canopy is dominated by white gum (*Eucalyptus viminalis).* Other tree species often present include stringybark (*E. obliqua),* gum-topped stringybark *(E. delegatensis),* blackwood *(Acacia melanoxylon)* and silver wattle (*A. dealbata),* with giant ash (*E. regnans)* in the north-east. In poorly drained sites black gum (*E. ovata*) may be present.

Most sites have a typical wet sclerophyll understorey containing tall shrubs and small trees such as common dogwood (*Pomaderris apetala)*, musk daisybush (*Olearia argophylla),* blanket leaf (*Bedfordia salicina*) and native currant (*Coprosma quadrifida)*. Ferns are common, particularly soft treefern (*Dicksonia antarctica)*. In poorly drained sites paperbarks (*Melaleuca spp.* particularly *M. squarrosa*) or tea trees (*Leptospermum spp.* particularly *L. lanigerum*) may be common.

Alternatively, the understorey can be dominated by temperate rainforest trees, such as myrtle beech (*Nothofagus cunninghamii*), sassafras (*Atherosperma moschatum*), leatherwood (*Eucryphia lucida*) or celerytop pine (*Phyllocladus aspleniifolius*).

A range of Tasmanian white gum wet forest understories

How is the Tasmanian white gum wet forest identified?

Tasmanian white gum wet forest is defined as areas of vegetation that have:

- a tree canopy with a crown cover of 5% or more and dominated by *Eucalyptus viminalis*, and
- a wet forest understorey, which is typically dominated by either:
    - ferns or broad-leaved (soft-leaved) trees or shrubs; or
    - tall tea-trees (*Leptospermum spp*) or paperbarks (*Melaleuca spp*); or
    - rainforest species;
    - and is NOT dominated by grasses, sedges, heaths or narrow-leaved shrubs.

Patches of the Tasmanian white gum wet forest are only protected where they are larger than 0.5 ha in relatively good condition. These would typically be patches with close to the Tasmanian vegetation condition benchmark level of large trees, canopy cover, understorey diversity, organic litter and logs, and with low amounts of weeds. Many remnant patches on farms will usually be too small or too degraded to form part of the protected ecological community, but these could be eligible for restoration work through Government programs.

Forests that do not meet the criteria to be protected by national environment law may still be protected under state regulations.

The Tasmanian Government also has laws on vegetation clearance and protecting State-listed vegetation communities that may apply to certain activities. These operate through the *Forest Practices Code* and requires a Forest Practices Plan be developed and certified before any clearing can proceed. In many cases, similar information used for a Forest Practices Plan may be used for referral under national environment law.

Why is the Tasmanian white gum wet forest considered threatened?

The draft Conservation Advice recommends the Tasmanian white gum wet forest may be eligible for listing as **Critically Endangered**.

More than 90% of these forests have been cleared across Tasmania, with only around 6500 ha remaining. The remaining patches face ongoing losses from continued small-scale clearing and degradation.

> *Reductions in geographic distribution are one of the key symptoms of extinction risk for ecological communities. A significant reduction in geographic distribution almost certainly comes with a significant loss of diversity in the community. As the area an ecological community occupies declines, so do carrying capacities for component species, niche diversity and opportunities for species to access resources or avoid competitors, predators and pathogens. If the areas lost have fragmented or isolated the remaining occurrences, these may not retain sufficient species or genetic diversity for the ecological community to survive over the long term. These changes will increase risks for individual species and reduce an ecological community's ability to sustain its characteristic biota, even if the distribution is not continuing to decline.*

The ecological integrity of the remaining patches is also severely compromised. Remaining patches are mostly small remnants, and many are fragmented or isolated, infested by weeds and under threat from altered fire regimes and climate change. The loss of canopy trees to heat stress or 'ginger tree syndrome' is a particularly significant threat. All these stresses reduce the ecological function of the remaining patches.

> *Reductions in ecological function are one of the key symptoms of extinction risk for ecological communities. Ecological function refers to the ability of communities to support their full diversity of species and to sustain their functional roles, such as nutrient cycling, provision of food or shelter, predation, decomposition, pollination etc. Environmental degradation may diminish the ability of an ecological community to sustain its characteristic native biota by changing the variety and quality of environmental niche space available to individual species. These changes will increase risks for individual species and reduce an ecological community's ability to sustain its characteristic biota, even if the degradation is not continuing.*

Healthy Tasmanian white gum wet forest on the right; Tasmanian white gum wet forest with a degraded understorey on the left.

Why is it important to protect this forest?

Tasmania contains many unique plants and animals, some of which are found nowhere else in the world, like the Tasmanian devil or the Huon pine. Tasmania is prized for its beautiful natural landscapes. Much of the State was – and remains – covered by various kinds of forests and woodlands. They are a signature natural asset important to local communities, landholders and to Indigenous cultures.

Threatened ecological communities are part of Australia's rich and diverse natural heritage. Their occurrence in the landscape enriches the environment in which we live, and provide many important biodiversity, social and economic functions. There are therefore many reasons why it's important to keep what's left of the Tasmanian white gum wet forest, and to recover or expand remnants, including:

- The remaining forests provide habitat for many plants and animals.
- Keeping intact forest vegetation helps to minimise serious erosion problems. It helps prevent the loss of valuable topsoil from farmlands.
- Forest birds and bats can help to control pest animals and insects that attack nearby crops or plantations.
- Native insects living in forests also play an important role in the pollination of native and crop plants, and control of pests.

Raptor nest in white gum

How will the Tasmanian white gum wet forest be protected?

Together with threatened species, threatened ecological communities are protected under the EPBC Act as a matter of national environmental significance. The aim of listing is to prevent further decline and promote and help recovery through landholder and community efforts. Once listed under the EPBC Act, protection for threatened ecological communities comes down to three main things:

- Better management of bushland in and around threatened ecological communities
- Funding and programs for activities that improve or protect the threatened ecological communities
- Regulation of new activities that may significantly impact the threatened ecological communities

How will national protection affect developers, farmers and land managers?

How you may be affected if the ecological community is listed depends on:

- whether you have a large patch of good quality Tasmanian white gum wet forest on your land; and
- what you intend to do with any such patches.

Listing is intended to further support land managers who want to continue managing patches of forests that still remain in good quality, for future benefits.

Supportive practices have helped to retain many forest remnants. For instance, some remnants are intentionally set aside because they occur along watercourses or gullies, or serve as shelter for stock and windbreaks for croplands and pastures.

If there are no new actions, then the listing won't affect you. Land managers who want to retain good quality forest, or intend to restore any forests on their properties may apply for funding to help with their conservation.

Landholders who have the threatened ecological community on their property may be able to access opportunities to manage threats that impact both the forest and agricultural productivity (e.g. invasive plants and pest animals) and restore remnants through current or future Australian Government natural resource management programs, such as National Landcare. Talk with your local NRM agency or Landcare group for more advice on any opportunities.

National protection only applies to new actions likely to cause significant damage to patches of these forests that remain in good condition.

Business as usual for many routine activities

The listing of a threatened ecological community under the EPBC Act will not prevent land managers from continuing to use land in the same way they were previously, providing they do not significantly change or intensify their activities.

It is important to note that the EPBC Act only regulates activities that have, or may have, a significant impact on a matter of national environmental significance, including threatened ecological communities. Whether or not an action is likely to have a significant impact depends on the sensitivity, value and quality of the environment which it impacts, and on the intensity, duration, magnitude and geographic extent of the impacts.

The normal activities of individual landholders, residents and councils will typically not be affected by a listing. Routine property maintenance, land management and other established activities, such as most farming activities or ongoing road maintenance, are unlikely to have a significant impact so do not require consideration under the EPBC Act.

For instance, the following actions are unlikely to require approval under the EPBC Act:

- continuation of existing grazing, cropping or horticultural activities
- maintenance of existing roads, fences, access tracks or firebreaks
- maintenance of existing farm gardens or orchards,
- maintenance of existing farm dams or water storages
- maintenance of existing pumps and clearing drainage lines
- replacement and maintenance of sheds, buildings, yards and fences
- control of weeds and management of pest animals on individual properties or roadsides
- emergency grading, slashing or clearing during a bushfire emergency

In all these activities, landholders are encouraged to avoid any impacts to patches of ecological communities, and to help restore remnants. For example, landholders should try to avoid native vegetation clearance in or adjacent to a patch of an ecological community, and protect the patch from nearby activities, such as spray drift from fertiliser, pesticide or herbicide sprayed in adjacent land.

Note that human settlements and infrastructure where an ecological community formerly occurred do not form part of the natural environment and are therefore not considered to be a part of an ecological community. This also applies to sites that have been replaced by crops, gardens or exotic pastures, or where the ecological community occurs in a highly-degraded or unnatural state.

Referral of actions with significant impacts

The main consideration would be to refer for approval any new activity that could significantly impact upon larger, good quality patches of the forest. Activities likely to require referral include, but are not restricted to, clearing native vegetation, development on or close to a patch of the forest, fragmentation through construction of roads and tracks through a patch of the forest, changing drainage and local water patterns or broad-scale applications of herbicides or fertilisers to the forest.

Referrals usually apply to major projects, for instance new mines or mine expansions, major new road works, new housing and industrial developments, or proposals to convert large areas of intact forest for plantations or cropping.

Given there is so little of this forest remaining, it is not expected that many activities would significantly impact it and trigger national environmental protections. Those that do are likely to be infrastructure projects, such as roads, pipelines, powerlines or telecommunication projects.

Some agriculture development activities may need approval, but only if you have relatively good condition Tasmanian white gum wet forest on your property and want to substantially change the way you use your land—for example, develop or clear large areas - that will have a significant impact on the forest.

In some cases, approval may require using alternative ways to carry out the proposed activity to reduce impacts on the ecological community. Before you make any changes to the way you use your land that could result in irreversible or long-term significant loss of the protected ecological community, it is best that you first check to see whether approval is needed.

If you think you might have a significant impact:

- Check you have the right type of forest present and if it's in good enough condition to be referred.
- Plan to avoid or minimise impacts to forest patches, especially the best quality patches.
- Talk with the Australian Government Department of Environment and Energy.

Where can I get more information?

The draft Conservation Advice and other information about how to make a submission, including questions to guide your responses, are on the website of the Department of Environment and Energy:
http://www.environment.gov.au/biodiversity/threatened/nominations/comment/tas-white-gum-wet-forest

Advice about Australian Government environmental funding programmes (e.g. National Landcare or the Environmental Restoration Fund) can be found online at:
http://www.environment.gov.au/about-us/grants-funding

Australian Government natural resource management initiatives are located at:
www.nrm.gov.au

Information about the EPBC Act referral and assessment process is available on:
http://www.environment.gov.au/protection/environment-assessments/assessment-and-approval-process

Further information for farmers on the national environment law and agricultural development is available at:
http://www.environment.gov.au/land/farmers

If you need further information, contact the Department's Community Information Unit by:

- phone on 1800 803 772 (freecall); or
- email ciu@environment.gov.au

Tasmanian white gum wet forest at Lilydale