

WESTERN FORESTS & WOODLANDS AT RISK

Western Victoria's last remnants threatened by logging



AN ASSESSMENT OF THE ECOLOGICAL
IMPLICATIONS OF A NEW TIMBER UTILISATION
PLAN FOR WESTERN VICTORIA, JUNE 2017



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Western Forests & Woodlands at Risk

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Summary

Key points:

- Proposed commercial logging by VicForests of 61 state forests and woodlands in some of Victoria's most cleared landscapes in the west of the state will be ecologically damaging.
- Across western Victorian forests 70% of the area targeted for logging contains native vegetation types that are either endangered (19%) vulnerable (11%) or depleted (40%). In the Horsham Forest Management Area 54% of the vegetation is endangered.
- Threatened species have been found either within or near 33% of planned logging coupes. In some forest management areas, including the Portland Forest Management Area, that figure leaps to 67%. These forests and woodlands should be protected from logging.
- The VicForests draft Timber Utilisation Plan (TUP), published on February 2017, is inconsistent with state government policy and the Code of Practice for Timber Harvesting.
- The Andrews Government should ensure no logging of merchantable timber commences in western Victoria while the currently seriously flawed VicForests Timber Utilisation Plan 2017 is withdrawn and reviewed with a comprehensive ecological assessment, management detail and satisfactory community consultation, before any logging proceeds, if it proceeds at all.
- The plan currently proposes potentially 'unlawful' logging in some Forest Parks, a type of conservation reserve.
- Some areas in the Central West such as a Wombat, Wellsford, Mt Cole state forests and Pyrenees ranges are listed for logging are also subject to a recently announced Investigation by Victorian Environmental Assessment Council (VEAC), and should be removed from logging schedules while this investigation is completed.

The Timber Utilisation Plan, published on February 2017 by the Victorian Government's logging agency VicForests, lacks important details, contains a raft of inconsistencies with statewide biodiversity policy and is in all likelihood in breach of the Code of Practice for Timber Harvesting and other state government policy.

The Andrews Government should ensure no logging of merchantable timber commences in western Victoria. At the very least the Timber Utilisation Plan should be withdrawn, significantly reviewed, reassessed and re-advertised with relevant details to address threatened species concerns,

how the conservation significance of vegetation types will be managed and relevant forest code prescriptions and tenure inconsistencies.

Logging operations planned across almost 50,000ha of some of the most fragmented and depleted landscapes in Australia will be ecologically damaging and of limited commercial or economic value. They should not proceed.

The proposed 2017 Timber Utilisation Plan also highlights a significant strategic issue and raises questions about the ongoing role of the commercially-focused, state-

Horsham FMA

Area: 13,250 ha

No. Coupes: 115

- Coupes with rare, threatened or depleted vegetation types (EVC): 81%-100%
- Coupes with threatened species within or adjacent: 49%
- Places: Twenty six state forest areas and two other reserve types including Cherrypool State Forest, Connewirricoo State Forest, Glenisla State Forest, Woolhpoor State Forest, Kalingur State Forest.

Mid Murray FMA

Area: 1885 ha

No. Coupes: 22

- Coupes with rare, threatened or depleted vegetation types (EVC): 100%
- Coupes with threatened species within or adjacent: 59%
- Places: Four state forests including Benwell State Forest and Gunbower State Forest.

Bendigo FMA

Area: 8616 ha

No. Coupes: 120

- Coupes with rare, threatened or depleted vegetation types (EVC): 93%-100%
- Coupes with threatened species within or adjacent: 27%
- Places: Fourteen state forests including Wellsford State Forest, Bealiba - Barp State Forest, Redcastle-Greytown State Forest, St Arnaud & Pyrenees State Forest.

Midlands FMA

Area: 5533 ha

No. Coupes: 134

- Coupes with rare, threatened or depleted vegetation types (EVC): 86% -76%
- Coupes with threatened species within or adjacent: 22%
- Places: Nine state forests and three other reserve types including the Wombat State Forest, Mt Cole State Forest, Mt Lonarch/Berungomer State Forest, Beerimpmo State Forest.

Portland FMA

Area: 2616 ha

No. Coupes: 27

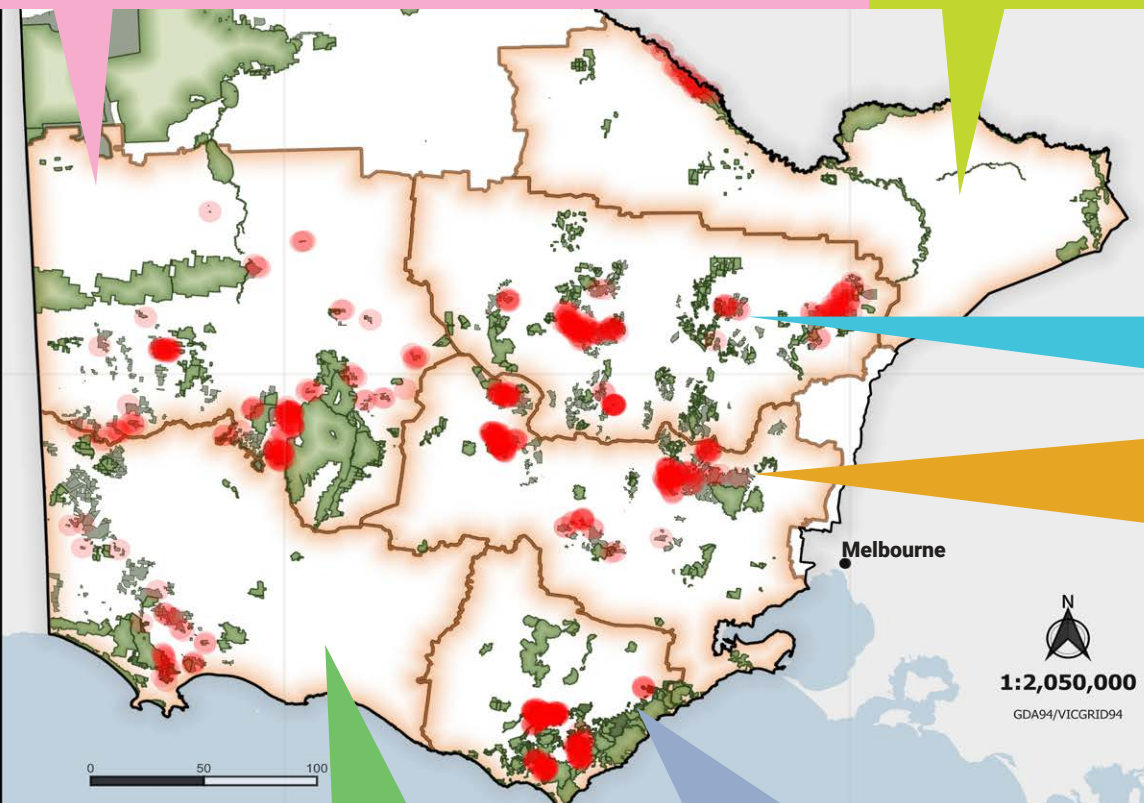
- Coupes with rare, threatened or depleted vegetation types (EVC): 52%-48%
- Coupes with threatened species within or adjacent: 67%
- Places: Eight state forests and two other reserve types including Cobboboonee Forest Park, Annya State Forest, Homerton State Forest.

Otway FMA

Area: 9179 ha

No. Coupes: 115

- Coupes with rare, threatened or depleted vegetation types (EVC): 84%-33%
- Coupes with threatened species within or adjacent: 23%
- Places: Otway Forest Park.



Indicative location of Timber Utilisation Plan Coupes in Western Victoria. Note not to scale.

owned enterprise VicForests. This highlights the fundamental flaws in the current legal and administrative arrangements, particularly the role of the obsolete regional forest agreement.

While much of western Victoria's commercial forestry was phased out following the decision to create the Great Otway National Park in the 2002, the box-ironbark parks in the same year and then nationally significant red gum national parks in 2012 and the Coobbobbonee national and forest parks. Up until

2014, there have remained a number of small commercial forestry and firewood licences managed by the state environment or agriculture department. The vast proportion of commercial native forest logging occurs in eastern Victoria.

In 2014, on the eve of the Victorian state election, VicForests was controversially given control of logging operations in the west of the state. Little has happened in the past two years, until a new Timber Utilisation Plan was announced. Logging operations under these plans



Looking east towards Mount Langi Ghiran and Mount Cole.

Photo: Ed Dunens | Flickr

would target 41,248ha of western Victorian forests and woodlands. Another 7,729ha of hazardous tree and salvage logging would increase the forest damaged to 48,977ha. These forest losses would take place in some of the most cleared and fragmented bioregions and landscapes in Victoria, if not Australia.

The vast bulk of planned western Victorian logging coupes are in fragmented landscapes. Fragmented landscapes support the majority of the state's biodiversity. About 40 per cent of Victoria's native land vertebrate species (mammals, birds, amphibians and reptiles) are restricted to these fragmented landscapes. A further 45 per cent rely on fragmented landscapes across a major part of their distribution in Victoria.

It is profoundly disturbing that while these forests have seen millions of dollars spent on threatened species recovery and revegetation, and that volunteers have given up thousands of hours to regenerate some of the most cleared landscapes in western Victoria,

the same forests are being opened up to logging.

Studies carried out by the Victorian National Parks Association have identified a number of state forests in the Midlands Forest Management Area that are high in conservation significance and worthy of better protection under the National Parks Act, yet are targeted for logging under the proposed Timber Utilisation Plan.

The Timber Utilisation Plan also includes areas subject to the Victorian Environmental Assessment Council's Central West Investigation, which is identifying and evaluating the condition, natural and biodiversity values and cultural, social and economic values of public land in the vicinity of the Wombat, Wellsford, Mount Cole and Pyrenees Range forests. VicForests' own documentation also states these areas will not be logged. Very clearly all areas subject to this Central West Investigation should be removed from the proposed Timber Utilisation Plan.



The Victorian National Parks Association has carried out a spatial analysis of the proposed Timber Utilisation Plan across all western forest management areas. The analysis included:

- Conservation significance of ecological vegetation classes (using the state government NV 2005 _ EVCBCS data set).
- Records of Threatened, near Threatened or poorly known species from the Victorian Biodiversity Atlas (VBA_FUNA25).
- Case studies of potential implications for two specific threatened species – red-tailed black cockatoos and the brush-tailed phascogale.
- Analysis of tenure inconsistencies.

Detailed mapping of the tenure, conservation significance of ecological vegetation classes and records of threatened species have been undertaken for each of the 61 state forest areas and 11 other reserve types in each of the six Forest Management

Areas. Logging categories (silviculture) are also identified. These are outlined in detail in Appendix II of this report, and have been released as a community resource.

Conservation significance of vegetation in the Timber Utilisation Plan

The spatial analysis reviewed the occurrence of rare, threatened or depleted Ecological Vegetation Classes within coupes. It also analysed the total percentage of areas within coupes that contain rare, threatened or depleted Ecological Vegetation Classes. The analysis covers the entire western Victorian region covered by the Timber Utilisation Plan but excluded hazardous tree removal and salvage logging:

- **19% (7953 ha)** of Ecological Vegetation Classes are considered Endangered.

- **11% (4662 ha)** of Ecological Vegetation Classes are considered Vulnerable.
- **40% (16427 ha)** of Ecological Vegetation Classes are considered Depleted.

The Timber Utilisation Plan fails to address a number of Forestry Code of Practice prescriptions. Based on our analysis of these prescriptions for endangered, vulnerable or depleted vegetation:

- In the Bendigo Forest Management Area almost 490ha of proposed coupes are made up of endangered vegetation types and should be removed.
- In the Horsham Forest Management Area almost 7179ha (54%) are considered endangered vegetation types and should be removed from the Timber Utilisation Plan
- A further 2479ha (19%) of Ecological Vegetation Classes found in coupes earmarked in the Timber Utilisation Plan's Horsham Forest Management Area are considered vulnerable. The JANIS criteria, which sets targets for the conservation of ecosystems, specifies that 60 per cent of the existing distribution of each forest type if vulnerable "... should be protected" has not been addressed and it is unclear if this prescription has been met.
- It is clear that the formal reserve system in the Horsham region does not meet the JANIS criteria.
- [See page 22 for more detail](#)
- On a preliminary analysis it appears that there is simply not enough forested public land in either the Dundas Tablelands bioregion or the Wimmera bioregion, which make up most of the Horsham Forest Management Area, to meet the JANIS target – 15 per cent of the pre-1750

distribution of each forest type.

This requirement is a Forest Code of Practice planning and management prescription. Even under these existing flawed prescriptions it appears that logging in the entire Horsham Forest Management Area region and significant parts of the Portland Forest Management Area needs to be reconsidered.

- VicForests has provided no information in the Timber Utilisation Plan on the levels of protection in the informal reserve system e.g. Special Protections Zones, etc.

Threatened species in the Timber Utilisation Plan

An analysis of records of Threatened, near Threatened or poorly known species from the Victorian Biodiversity Atlas (VBA_FUNA25) was overlayed on the proposed Timber Utilisation Plan across all coupes. At a regional level across western Victorian forests a third of planned coupes (33%, 175 coupes) had records of threatened species within or nearby (within 100 metres). Twenty-two per cent (118 coupes) had records of threatened species within the coupes.

The high proportion of logging coupes that have recorded threatened species is indicative of the scarcity of woodlands and forests in these highly-cleared landscapes.

In three Forest Management Areas – Horsham, Mid Murray and Portland – either more than or about 50% of coupes have rare, threatened, near threatened or poorly known species within or adjacent to them. These are listed below and in the table Summary of Conservation Values by Forest

Management Area.

- **Bendigo FMA:** 27% of coupes have threatened species within or adjacent.
- **Horsham FMA:** 49% of coupes have threatened species within or adjacent.
- **Mid Murray FMA:** 59% of coupes have threatened species within or adjacent.
- **Midlands FMA:** 22% of coupes have threatened species within or adjacent.
- **Otway FMA:** 23% of coupes have threatened species within or adjacent.
- **Portland FMA:** 67% of coupes have threatened species within or adjacent.

While understanding that the broader conservation advisory lists in Victoria have limited legal force on forestry, the high number of threatened species recorded within or adjacent to logging coupes illustrates the high conservation significance of the areas being targeted.

There are 64 threatened fauna and 121 threatened flora species listed in the forest management and planning forest codes that apply to the western Timber Utilisation Plan. The planning standards also require specific action in the Midlands Forest Management Area, Mid Murray Forest Management Area and the Otway Forest Management Area. None of these rules or prescriptions have been addressed in the proposed Timber Utilisation Plan and appear to have been largely ignored. In addition, there are 34 threatened species (20 faunal and 14 floral) listed in the Forestry codes that have been recorded occurring in or adjacent to coupes in the Timber Utilisation Plan, yet no detail has been

provided on how the utilisation plan addresses these species and relevant code prescriptions.

A number of coupes in the Portland and Horsham forest management areas also include records of broilgas, which are listed in Victoria under the Flora and Fauna Guarantee Act. There are no forestry prescriptions for this species. Their occurrences are likely indicative of wetlands.

Red-tailed black cockatoos have been recorded in 11 coupes in the Horsham and Portland forest management areas, in some cases multiple records. There are thought to be just 1400 of these birds left in the wild and they are subject to an extensive recovery effort. This bird species is listed in a regionally specific part of the Forestry codes and yet the Timber Utilisation Plan provides no information about how proposed logging impacts will be avoided or mitigated for the red-tailed black cockatoo. A small number of additional records are provided for the brush-tailed phascogale in the Wombat Forest, but questions remain if prescriptions for this species have been satisfied.

Tenure inconsistencies

Just over 200ha of various coupes cover a number of national parks, conservation and other types of reserve tenures. This is likely due to sloppy mapping, and should be rectified and removed from the Timber Utilisation Plan's spatial layers. Most of two major forest parks – the Otway and Coobobonee forest parks – are also proposed to be logged using various silvicultural techniques which, in our view, are inconsistent with the purposes of the reserves and possibly unlawful.

Background & Context

1.1 Policy context: Logging in the west

On the eve of the 2014 Victorian state election, and just days prior to the caretaker period, the Napthine Government amended the state's wood allocation order and changed arrangements with VicForests to give the forest agency control of timber harvesting in western Victoria's forests. The move was considered highly controversial.

While much of western Victoria's commercial forestry operations were phased out or transitioned after the decision to create box-ironbark parks in 2002, the Great Otway National Park in 2005 and red gum national parks in 2012. There remained a number of small commercial licences and commercial firewood licences managed by the environment department. The vast proportion of commercial native forest logging occurs in the east of Victoria, including the Central Highlands and East Gippsland.

The change to VicForests' management coincided with the commissioning of a Review of Commercial Forestry Management in Western Victoria Timber Resources, Harvest Levels, Silviculture, and Systems and Processes by the Department of Primary Industries in 2013¹. The review, commissioned by the Napthine Government, aimed to increase resource security and opportunities for industry growth in a region that contained small areas of state forest rich in wildlife and habitat within a substantially cleared

landscape. The review was deeply flawed and failed to consider any ecological implications, including impacts on threatened species and on a number of existing biodiversity protection programs and endeavours.

Since then conservation groups received verbal assurances from the Andrews Government in 2015 that large-scale logging in the west would not resume, but based on the publicly available information, the scale and extent of logging plans have not changed significantly.

The western Regional Forest Agreement (RFA) is still in place and essentially 'turns off' national environmental laws. The western Victoria RFA was largely established to protect forestry in the Otway Ranges. Large-scale commercial forestry was phased out when the Bracks Government created the Great Otway National Park in 2005. As part of regional forest agreements, five-yearly independent reviews are meant to take place. In 2010 the Independent Review on Progress with Implementation of the Victorian Regional Forest Agreements Final Report recommended: 'There are a number of key issues that I have recommended the Parties consider for them continued implementation of the RFAs. The most critical of these is consideration of cancelling the West Victoria RFA...' ². The Victorian Government recently signed a scoping agreement with the federal government to review all Victorian RFAs for the five-year period 2009–2014. The review is expected to include the western RFA and will be completed in 2018.



On 20 March 2017, VEAC was requested to conduct a Central West Investigation. The investigation covers public land in the vicinity of the Wombat, Wellsford, Mount Cole and Pyrenees Range forests.

The purpose of the investigation is to:

- a) identify and evaluate the condition, natural and biodiversity values and cultural, social and economic values and the current uses of public land in the specified area; and
- b) make recommendations for the balanced use and appropriate management arrangements to conserve and enhance the natural and cultural values.

The Council is required to consult with relevant Traditional Owner Group entities and other relevant Traditional Owner groups. A draft proposals paper and a final report are to be prepared, with the final report due by March 2019. <http://www.veac.vic.gov.au/investigation/central-west-investigation>.

In late 2016 Victoria's environment minister requested the Victorian Environmental Assessment Council (VEAC) carry out an investigation into the value of the forests in the central west of Victoria including the Wombat, Wellsford, Mount Cole and Pyrenees forests (which are mostly in the central uplands bioregion). The investigation into public land use formally commenced in early 2017 (see box below). This followed a recommendation (R12) from the 2011 VEAC Remnant Native Vegetation Final Report, which also recommended

similar assessments for the Wimmera (south), Dundas Tablelands and Glenelg Plain that should include state forest areas identified for logging in the Portland and Wimmera forest management areas.

The tender documents also note that 'the sawlog quantity being offered in the Midlands Forest Management Areas will not be supplied from Mt Cole or Wombat State forests. This timber will be available from other areas of State forest in Midlands Forest Management Area including Pyrenees

Total area targeted for coupes in the west of the state equals 41,248 ha* plus 7,729 ha of hazardous trees and salvage logging, for a TOTAL of 48,977 ha.

*This figure excludes coupes listed for Central Gippsland, East Gippsland and Tambo FMAs.

and Mt Lonarch State forest and other areas south of Ballarat³. Yet the Timber Utilisation Plan (TUP) still lists more than 40 coupes in the Wombat and more than 30 at Mt Cole, including about a dozen clearfell coupes at Mt Cole/Beerimpo state forests. The area also includes coupes in the Wellsford and Pyreness state forests, all of which are subject to a current investigation by the Victorian Environmental Assessment Council.

In October 2016 VicForests took the unusual step of advertising in local newspapers, including the Portland Observer, a request for a tender and expression of interest process for the logging of box-ironbark and mixed species forests for sawlog, firewood and posts. The expression of interest documentation produced by VicForests states 'VicForests is not seeking a price for this timber in this process, however it is interested to understand what interest there may be to purchase and harvest some of this timber. If genuine interest is identified there may be a further competitive process initiated or a negotiated allocation'.

The objectives identified by VicForests for this process in the western forests fail to mention ecological or biodiversity considerations. The objectives were largely about 'industry growth' in a region where the industry has already been largely phased out. The objectives are:

- increase resource security and opportunities for industry growth by

allocating successful tenders longer term licences, up to five years

- provide opportunities for small and medium businesses
- provide timber benefits to communities in a cost effective manner
- maintain the productive capacity of forest managed for timber production
- generate a financial outcome that is acceptable to VicForests
- to improve the safety, efficiency and effectiveness of forest operations⁴.

To make a clear distinction between areas approved by the Department of Environment, Land, Water and Planning (DELWP) and those approved by VicForests, the Wood Utilisation Plan (WUP) is to be replaced by a TUP that lists VicForests' planned harvesting and regeneration activities for a period of up to five years, but will be updated annually.

VicForests is proposing the following as part of the TUP:

- transfer of a number of coupes from current WUPs to the TUP
- inclusion of a number of coupes from current WUPs to the TUP where boundary modifications have also been completed
- the sustainable addition of new coupes to meet supply commitments⁵.

VicForests has sought community



The Wombat State Forest is a popular destination for campers.

Photo courtesy Wombat Forestcare

Forest Management Area	Number of coupes transferred from existing WUP	Number of new coupes	Number of Hazardous Tree Removal & Salvage Logging Coupes	No. of Standard Coupes	Total Number of Coupes	Hazardous Tree removal & Salvage logging HA	Standard operations HA	TOTAL Ha
Bendigo	91	29	0	120	120		8616	8616
Horsham	114	1	1	115	116	3484	13250	16734
Midlands	91	50	14	134	148	4244	5438	9682
Mid-Murray	16	2		21	21		1726	1726
Otway	107	7		115	115		9127	9127
Portland	27			27	27		2616	2616
TOTAL	446	89	15	532	547	7729	40773	48501

Table 1.0 Number, type and Ha of coupes in Western Timber Utilisation Plan Area.

(Source: VF TUP 2017, may contain a number of overlapping areas)

feedback on specific operational aspects of proposed new harvesting locations or boundary changes, including the:

- timing of harvesting operations
- use of particular haulage routes
- proximity of proposed harvesting to private property or public use areas or
- identification and protection of other forest values within specific harvesting sites.

The table above is based on a series of tables from the TUP and from VicForests' website. It describes how the TUP roles over existing coupes (446), and from the previous Wood Utilisation Plan (WUP) adds

an additional 89 new coupes. The plan also includes 15 hazardous tree removal and salvage operation areas. There are also 13 coupes that are not listed, but which are from the previous WUP with boundary amendments.

This report largely deals with the last point of community feedback '... other forest values within specific harvesting areas...', although there are issues relating to proximity to national parks and proposed coupes in the Otway and Cobboboonee forest parks.



Recent example of 'low-intensity' single tree selection Silviculture in the Strathbogie Ranges.

Source: <https://strathbogiesustainableforests.wordpress.com/2017/02/14/no-plan-so-no-complications/>

1.1.1 Logging approaches and methods

A range of silvicultural methods are proposed to be used by VicForests ranging from clearfall, thinning from above and below, low-intensity single tree selection, ground collection of firewood and hazardous tree removal. The specific logging methods are not clear in much of the information provided, but the categories proposed for each coupe are listed in the detailed analysis of each state forest in Appendix II of this report.

While 'thinning' or low-intensity single tree selection are described as harmless, the photos below illustrate the destructive nature of even these methods. These photos were taken after the logging of a coupe in February 2017 in the Strathbogie Forest reportedly using the 'single



tree selection', low-intensity method. According to local conservationists, much of the coupe was used for firewood.

• See <https://strathbogiesustainableforests.wordpress.com/2017/02/14/no-plan-so-no-complications/>

VicForests silviculture categories for Western Forests	Common forest structure	Silvicultural intent	Silvicultural systems may be selected from (or utilise a combination of) the following:
Category 1	Even-aged	Stand replacement	CFE – Clearfall extraction, STR – Seed tree, RRH – Regrowth retention harvesting, CFS – Clearfall salvage, SH1 – Shelterwood one.
Category 2	Multi-aged	Stand maintenance/ manipulation	THA – Thinning from above, THB – Thinning from below, STS – Standard single tree selection, GSE – Group/ gap selection or creation, UNE – Uneven-aged, SH2 – Shelterwood two.
Category 3	Specialty timbers	Removal of individual stems	STS – Low intensity single tree selection.
Category 10	No structure - forest cover has been removed from the site.	Reforestation. Re-establishment of forest cover.	REF – Reforestation.
Category 20	Low-intensity salvage operations	Low-intensity salvage operations. Salvage of small areas/ individual trees (e.g. wind-thrown stems)	SAL – Low intensity salvage, FWF – Firewood -fallen, FPR – Fallen product recovery.
Category 30	Removal of potentially hazardous trees	Removal of potentially hazardous trees. In consultation with DELWP staff/ operations.	HTR – Hazardous tree removal, FWF – Firewood -fallen, FPR – Fallen product recovery.

Source: VicForests 2017

1.2. Ecological context: Logging fragments and remnants

With the exception of parts of the Otways and Wombat forest, the vast bulk of coupes identified for logging in the west are in fragmented landscapes. Fragmented landscapes support the majority of Victoria's biodiversity. About 40 per cent of Victoria's native land vertebrate species (mammals, birds, amphibians and reptiles) are virtually restricted to fragmented landscapes. A further 45 per cent rely on fragmented landscapes across a major part of their distribution in Victoria.⁶

Fragmented landscape are defined as less than 20,000ha of continuous native vegetation in landscapes where there has been widespread removal and on-going use of native vegetation for economic development. In these landscapes, the 'underlying stock' of native vegetation and hence biodiversity is generally considered to be declining or at risk of decline. Degradation and recovery from degradation are dominating factors in

vegetation health.

In the most restricted and fragmented – and therefore most threatened – landscapes of Victoria, a relatively high proportion of remnant native vegetation is in a large number of small patches on public land⁷. Areas identified in the TUP are in some of the most cleared areas or bioregions in the state (see graph below).

The Victorian Environmental Assessment Council investigation into remnant native vegetation identified a need for a program to maintain and improve the condition of remnant native vegetation generally, giving priority to the restricted landscapes of the Victorian Volcanic Plain, Wimmera, Murray Mallee, Victorian Riverina, Gippsland Plain, Dundas Tablelands, Murray Fans, Central Victorian Uplands, Goldfields and Northern Inland Slopes bioregions.⁸

VEAC noted that there is considerable merit in a program to find, document and maintain or enhance the condition of patches of vegetation with more than half a hectare of aggregate site condition score greater than 50 in restricted (relictual) and fragmented landscapes of the Victorian Volcanic



Places like the Wombat and Wellsford forests are well known and much loved by local communities.

Photo: Tibor Hegedis, Wombat Forestcare

Plain, Wimmera, Murray Mallee, Victorian Riverina, Dundas Tablelands, Murray Fans, Goldfields, Northern Inland Slopes and Lowan Mallee bioregions.

The VEAC Remnant Native Vegetation Investigation Final Report concludes that:

“Preventing habitat loss and improving the condition of native vegetation is, by many orders of magnitude, more cost-effective than revegetation and has significantly better conservation outcomes.”⁹

Given the relationship between

vegetation decline and loss of biodiversity it follows that conservation in fragmented landscapes can be enhanced by vegetation restoration. Ecological restoration can be carried out by:

- protecting and improving the quality of existing habitat – particularly core habitat or refugia;
- increasing the amount of habitat and connectivity between fragments;
- the restoration of buffer or transitional zones in critical sensitive places such as riparian areas;
- the restoration of wildlife corridors and stepping stone habitat to ensure adequate migration flows within the wider landscape matrix; and
- prevention of further habitat loss.¹⁰

The Victorian Government’s recently

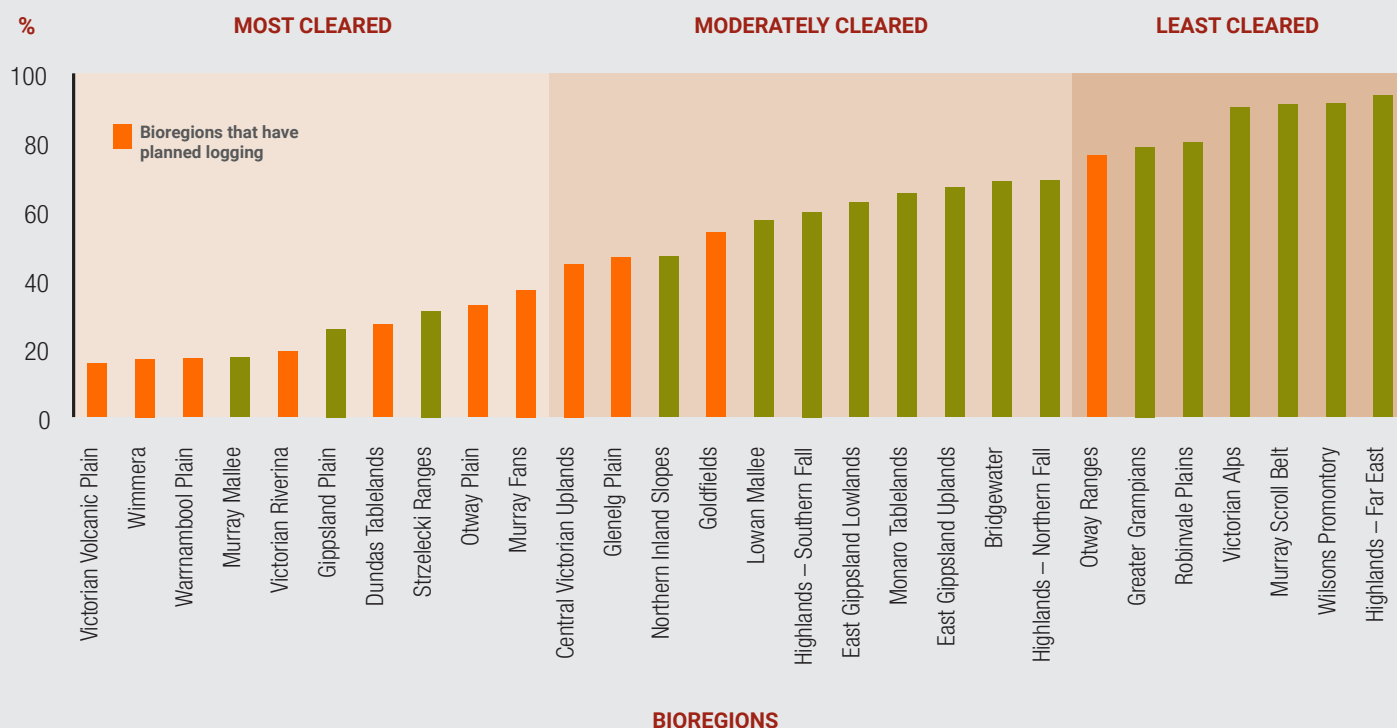


Figure 1.0 Proportion of native vegetation in cleared bioregions, proposed for logging in the western WUP.

released Protecting Victoria’s Environment – Biodiversity 2036 highlights the importance of better management across the landscape to ensure that species and ecosystems are conserved and to give biodiversity the best chance to adapt to the effects of climate changes and human population growth. Actions listed in the strategy include: ‘Continuing to protect the best of our remaining biodiversity by directly managing key threats such as further loss of habitat, weeds and pest animals and inappropriate regimes (including fire, water and resource utilisation)... Increasing habitat quality and extent, creating additional habitat areas and connections’.¹¹

In a recent assessment of conservation values of state forest in the east of the state the Victorian Environmental Assessment Council found that eleven of twelve action statements for forest-dependent threatened species listed

under the Flora and Fauna Guarantee Act mention timber harvesting as a threat.¹²

In 2010 the Victorian National Parks Association produced Better Protection for Special Places¹³, a detailed assessment of small state forests in Central Victoria.

• See <https://vnpa.org.au/publications/better-protection-for-special-places/>

The report assessed the conservation values of these areas and the threats they face, and made recommendations about better protection for 20 areas of mostly state forest. These state forest areas are in the Bendigo and Midlands Forest Management Areas and include a significant number of coupes in the proposed WUP.

State forest, with logging coupes in the proposed WUP identified for better protection includes (see table for summary of results):

- Mt Cole State Forest



Yellow-footed Antechinus.

- Pyrenees State Forest
- Dunolly-Waanyarra State Forest
- Kingower State Forest
- Bealiba State Forest
- Harvest Home State Forest
- Wellsford State Forest
- Wombat State Forest

“It is a profoundly flawed approach to, on one hand, provide millions of dollars for revegetation and thousands of volunteer

hours in our most cleared landscapes in the west of the state, while on the other hand opening up the last remaining native forest remnants on public land to logging.”

This point is further illustrated in the analysis of proposed WUP coupes and the occurrence of threatened ecological vegetation types, and threatened species in the west.

Location & land status	Approx Area	Diversity (no of EVCs*)	Threatened Fauna	Species: Flora	Conservation Significance	Threats	Recommendations: Management needs	Land tenure	Coupes in TUP
	Ha	H, M, L	H, M, L	H, M, L	H, M, L	H, M, L		Proposed category of tenure	
St Arnaud to Beau-fort									
Mt Cole State Forest	8,926	H	M	H	H	H	✓	State Park	YES
Pyrenees Ranges State Forest – Main section	14,680	H	M	L	H	H	✓	State Park, include Percydale Historic Area and Landsborough and Landsborough Hill Nature Conservation Reserves	YES
Maryborough to Wedderburn									
Dunolly-Waanyarra State Forest	7,547	M	M	L	M	M	✓	State Park	YES
Kingower State Forest	4,690	H	H	H	M	M	✓	State Park	YES
Bealiba State Forest	7,954	H	H	L	M	M	✓	State Park	YES
Tunstalls Nature Conservation Reserve	1,637	L	L	L	M	L	✓	–	NO
Mt Hooghly State Forest	2,121	M	H	L	M	M	✓	State Park	NO
Moliagul State Forest	1,396	M	L	L	M	M	✓	State Park	NO
Harvest Home State Forest	2,242	M	L	L	M	M	✓	State Park	YES
Timor State Forest	1,379	L	M	L	M	M	✓	State Park	NO
Mid-Loddon									
Muckleford State Forest	3,152	M	H	M	M	M	✓	Add to Maldon Historic Reserve	NO
Mid-Loddon small riparian reserves	81	L	L	L	H	L	✓	–	NO
Bendigo Castle-maine Region									
Wellsford State Forest	7,122	M	H	M	M	H	✓	State Park	YES
Upper Loddon State Forest – West section	1,806	L	L	L	M	M	✓	Add to Castle-maine Diggings National Heritage Park	NO
Fryers Range State Forest	3,321	L	L	L	M	M	✓	Add to Castle-maine Diggings National Heritage Park	NO
Crosbie Nature Conservation Reserve	2,056	M	H	L	M	L	✓	–	NO
Wombat Region									
Wombat State Forest - Main	31,448	H	H	H	M	H	✓	State Park	YES
Wombat State Forest – Bullarto North	5,747	M	M	L	H	H	✓	State Park	YES
Wombat State Forest – West	5,085	H	M	L	H	H	✓	State Park	YES
Wombat State Forest – Northwest	2,820	M	L	L	M	M	✓	Nature Conservation Reserve	YES

Table 1.4 Summary of values of State forest in central Victoria, with proposed TUP coupes.

KEY: High (H), Medium (M), Low (L)

* Ecological Vegetation Class

Western Victoria Timber Utilisation Plan Analysis

The Victorian National Parks Association undertook a spatial analysis of the proposed TUP, across all forest management areas. The analysis included:

- Conservation significance of ecological vegetation classes (using the state government NV 2005_ EVCBCS data set).
- Records of Threatened, near Threatened or poorly known species from the Victorian Biodiversity Atlas (VBA_FAUNA25).
- Analysis of tenure inconsistencies.

Detailed mapping of tenure, conservation significance of ecological vegetation classes and records of threatened species have been undertaken for each of the 61 state forest areas and 11 other reserve types in each FMA, categories of logging (silviculture) are also identified. These are outlined in detail in Appendix II of this report.

2.1 Conservation significance of vegetation in logging areas in the Timber Utilisation Plan

Across the entire western region 70 per cent of vegetation being targeted

for logging is considered Endangered, Vulnerable or Depleted; this clearly illustrates the highly cleared or fragmented nature of many of the areas being targeted for logging and the high conservation significance of forests and woodlands proposed to be logged.

The analysis was undertaken on both occurrence of rare, threatened or depleted Ecological Vegetation Classes (EVCs) with coupes and the total percentage of area (hectares) within coupes with rare, threatened or depleted EVCs (see Table 2.1). Across the entire west TUP, excluding hazardous tree removal and salvage logging:

- 19% (7,953ha) of vegetation types (EVCs) are considered Endangered
- 11% (4,662ha) of vegetation types (EVCs) are considered Vulnerable
- 40% (16,427ha) of vegetation types (EVCs) are considered Depleted.

Table 2.0 below outlines the criteria or definition of conservation significance for vegetation classes.

Under the Code Forest Practice 2014, the conservation significance of vegetation types appears only to be considered in one or two of the western Forest Management Areas, which is unfortunate when most are highly cleared.

Under the Code Forest Practice 2014

Status	Status Code	Criteria
Presumed Extinct	X	Probably no longer present in the bioregion (the accuracy of this resumption is limited by the use of remotely - sensed 1:100 000 scale woody vegetation cover mapping to determine depletion - grassland, open woodland and wetland types are particularly affected).
Endangered	E	Contracted to less than 10% of former range; OR Less than 10% pre-European extent remains; OR Combination of depletion, degradation, current threats and rarity is comparable overall to the above: • 10 to 30% pre-European extent remains and severely degraded over a majority of this area; or naturally restricted EVC reduced to 30% or less of former range and moderately degraded over a majority of this area; or rare EVC cleared and/or moderately degraded over a majority of former area.
Vulnerable	V	10 to 30% pre-European extent remains; OR Combination of depletion, degradation, current threats and rarity is comparable overall to the above: • greater than 30% and up to 50% pre-European extent remains and moderately degraded over a majority of this area; or • greater than 50% pre-European extent remains and severely degraded over a majority of this area; or naturally restricted EVC where greater than 30% pre-European extent remains and moderately degraded over a majority of this area; or rare EVC cleared and/or moderately degraded over a minority of former area.
Depleted	D	Greater than 30% and up to 50% pre-European extent remains; OR Combination of depletion, degradation and current threats is comparable overall to the above and: • greater than 50% pre-European extent remains and moderately degraded over a majority of this area.
Rare	R	Rare EVC (as defined by geographic occurrence) but neither depleted, degraded nor currently threatened to an extent that would qualify as Endangered, Vulnerable or Depleted.
Least Concern	LC	Greater than 50% pre-European extent remains and subject to little to no degradation over a majority of this area.

Table 2.0 Criteria for Bioregional Conservation Status of Ecological Vegetation Classes (EVC).

Forest Management Area	Total HA	Endangered (hectares)		Vulnerable (hectares)		Depleted (hectares)		Rare (hectares)		Least Concern (hectares)		Not applicable (hectares)		None (hectares)	
Bendigo	8616	69	1%	421	5%	7528	87%	0	0%	591	7%	0	0%	6	0%
Horsham	13250	7179	54%	2479	19%	1027	8%	0	0%	2127	16%	54	0%	385	3%
Midlands	5533	21	0%	103	2%	4054	73%	0	0%	1338	24%	0	0%	16	0%
Mid-Murray	1885	3	0%	153	8%	1727	92%	0	0%	0	0%	0	0%	2	0%
Otway	9179	611	7%	642	7%	1738	19%	7	0%	5995	65%	0	0%	186	2%
Portland	2616	71	3%	824	31%	353	13%	0	0%	1357	52%	0	0%	11	0%
Total	41078	7953	19%	4622	11%	16427	40%	7	0%	11408	28%	54	0%	606	1%
		Endangered		Vulnerable		Depleted		Rare		Least Concern		Not applicable		None	

Table 2.1 Conservation Status of vegetation types in coupes in TUP per Forest Management Area.

Excludes salvage logging & hazardous tree removal

- planning standards for timber harvesting operations in Victoria's State forests, 2014, Appendix 5 to the management standards and procedures for timber harvesting operations in Victoria's state forests 2014, the conservation significance of vegetation appears only to apply to Bendigo Forest Management Areas. The prescription: 4.6.2 Bendigo FMA 4.6.2.1 Protect EVCs categorised as Endangered and Rare by ECC (2001) within the SPZ where practicable.

Based on our analysis if this prescription is applied in Bendigo almost 500ha (490ha) of proposed coupes should be removed.

While in much more cleared areas such as the Horsham FMA, the conservation significance of vegetation is not directly considered (although it can be considered against the prescription relating to JANIS criteria). If the same prescription was applied in the Horsham FMA, almost 10,000ha (9658ha), or 72 per cent of the area

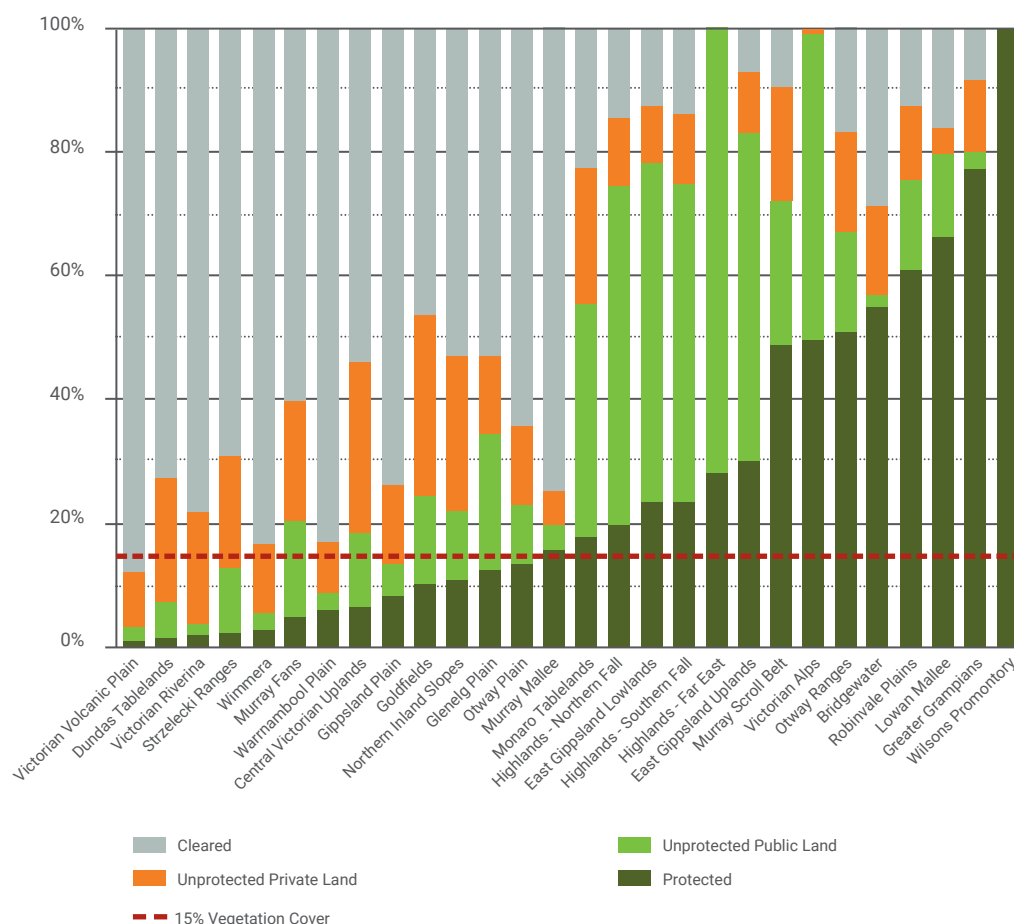


Figure 3.15 The proportion of remnant, cleared and protected vegetation in each Victorian subregion.15

would need to be removed from the TUP. If the same prescription was applied across the entire west over 12,000ha it would need to be removed from the TUP.

It is ecologically inconsistent that these rules only apply to one bioregion, when others are just as or even more depleted. This prescription

should be reviewed.

In the Horsham FMA the Code of Forest Practice, Prescription – 4.6.7.1 Maintain a CAR reserve system within the FMAs consistent with the JANIS criteria, should apply. If this is the case there should be a clear re-assessment and reconsideration of any of the coupes proposed in the

JANIS Criteria

The 'JANIS' criteria set out targets for the conservation of ecosystems:

- 15% of the pre-1750 distribution of each forest type
- 60% of the existing distribution of each forest type if vulnerable
- 60% of the existing old-growth forest
- 90%, or more, of high quality wilderness forests, and
- all remaining occurrences of rare and endangered forest ecosystems including rare old-growth.

<http://www.agriculture.gov.au/forestry/policies/rfa/about/protecting-environment>

Wimmera FMA against these criteria.

If the JANIS criteria (see box) that “all remaining occurrences of rare and endangered forest ecosystems....” were applied in the Horsham FMA almost 7179ha (54 per cent) of proposed areas of TUP should be removed. See table 2.2 Conservation Status of vegetation types in coupes in TUP per Forest Management Area.

A further 2479ha (19%) of EVCs found in coupes in TUP in the Horsham FMA are considered vulnerable. The JANIS criteria ‘60 per cent of the existing distribution of each forest type if vulnerable’, has not been addressed and it is unclear if this prescription has been met.

An analysis of woodlands and forests alone in the Dundas Tablelands and Wimmera bioregions shows that none of the woody vegetation types in these bioregions meet JANIS criteria in term of levels of protection in formal reserve system (15 per cent of the pre-1750 distribution of each forest type):

- Dundas Tablelands: 2.9% of forest / woodland EVCs (around 1.5% of all habitat types) are protected in the formal reserve system based on 2005 distribution and 0.9% pre-1750 distribution across the bioregion.
- Wimmera: 8.7% of forest / woodland EVCs are protected in the formal reserve system based on 2005 distribution and 2.1% on pre-1750 distribution across the bioregion.

This is acknowledged in the recently-released Victorian government biodiversity strategy Protecting Victoria’s Environment – Biodiversity 2036, which states: ‘In some bioregions such as Victorian Volcanic Plains (VVP), Wimmera, Dundas Tablelands ... this can only be achieved

by land purchase or additional formal protection of habitat on private land’¹⁶

It is clear that areas protected in the formal reserve system (such as national parks or conservation reserves) do not meet the JANIS criteria, which was mostly established for heavily-forested landscapes and is at best a minimum baseline. On a preliminary analysis it appears that there is simply not enough forested public land in either the Dundas Tablelands bioregion or the Wimmera Bioregion to meet the JANIS target of 15 per cent of the pre-1750 distribution of each forest type.

Logging in state forest in the Wimmera, Dundas Tablelands, and Victorian Volcanic Plain bioregions, that overlap with the Horsham FMA and parts of the Portland FMA, are not consistent with either the Forest Code of Practice for Timber Harvesting or the State Biodiversity Strategy.

“It seems inconsistent and questionable that these areas of state forest are being targeted for any form of timber harvesting, when they are widely recognised as some of the least represented, depleted and fragmented in the state, and we cannot complete even a basic reserve system, on public land.”

2.2 Threatened species in logging areas identified in the Timber Utilisation Plan

There are 64 fauna and 121 flora listed in Management & Planning Standards occurring across the west of Victoria. These species are listed in Appendix I of this report (see table A1 Fauna and A2 Flora). An analysis of records of threatened, near threatened or poorly known species from the Victorian Biodiversity Atlas (VBA_FAUNA25)¹⁷, was overlayed on the proposed TUP across all coupes in the TUP.

There are 34 threatened species (20 fauna and 14 flora) listed in the code with records showing them specifically occurring in or adjacent to coupes in the TUP, yet no detail has been provided on how the TUP address these species (See Table 2.3 & 2.4).

At a regional level across the entire west, a third (33 per cent, 175 coupes) had records of threatened species from Victorian government advisory lists within or nearby (within 100 metres), 22% or 118 coupes had records of threatened species within the coupes.

The high proportion of coupes containing threatened species is indicative woodland and forest scarcity in these highly cleared landscapes.

In three FMAs – Horsham, Mid Murray and Portland, more than or around 50% of coupes have rare, threatened, near threatened or poorly know species within or adjacent. These are listed below and in the table Summary of Conservation Values by Forest Management Area.

- Bendigo FMA – 27% coupes have

threatened species within or adjacent.

- Horsham FMA – 49% coupes have threatened species within or adjacent.
- Mid Murray FMA – 59% coupes have threatened species within or adjacent.
- Midlands FMA – 22% coupes have threatened species within or adjacent.
- Otway FMA – 23% coupes have threatened species within or adjacent.
- Portland FMA – 67% coupes have threatened species within or adjacent.

There is no justification or analysis provided in the TUP of how the proposed logging schedule has addressed threatened species and or other prescriptions and is inadequate. The TUP should be withdrawn and re-advertised with relevant detail to address threatened species.

Note: The analysis in this report selected records of species from DELWP Advisory Lists of Threatened Vertebrate Fauna and Threatened Flora in Victoria (often just called Advisory Lists or VROTs) found in the Victorian Biodiversity Atlas.

The atlas is a government run, web-based information system designed to manage information about wildlife in Victoria. The system includes species attribute information, including origin and conservation status, along with more than six million records of species distribution and abundance from systematic surveys and general observations. <http://www.depi.vic.gov.au/environment-and-wildlife/biodiversity/victorian-biodiversity-atlas>

Forest Management Area	Timber Utilisation Plan (TUP from [TUP_Feb2017_S02])		Ecological Vegetation Classes (EVC from [NV2005_EVCBCS])				Ecological Vegetation Classes (EVC from [NV2005_EVCBCS])			
	Total Area of TUP Coupes	No of TUP Coupes	No of TUP with Rare, Threatened, Depleted EVC	% of TUP with Rare, Threatened, Depleted EVC	Hectares of TUP with Rare, Threatened, Depleted EVC	% of TUP with Rare, Threatened, Depleted EVC	No of Coupes with Threatened Species Within/Adjacent	% of Coupes with Threatened Species Within/Adjacent	No of Coupes with Rare, Threatened, Protected Species Within/Adjacent	% of Coupes with Rare, Threatened, Poorly Known Species Within/Adjacent
Bendigo	8616	120	120	100%	8018	93%	26	22%	32	27%
Horsham	13250	115	115	100%	10684	81%	41	36%	56	49%
Midlands	5533	134	115	86%	4178	76%	13	10%	29	22%
Mid Murray	1885	22	22	100%	1883	100%	12	55%	13	59%
Otway	9179	115	97	84%	2998	33%	11	10%	27	23%
Portland	2616	27	14	52%	1248	48%	15	56%	18	67%
Total	41078	533	483	91%	29010	71%	118	22%	175	33%

Table 2.2 Summary of Conservation Values by Forest Management Area.

	Common name	Scientific name	FFG listing*	DEWLP advisory lists	EPBC lists**
1	Grey Goshawk	<i>Accipiter novaehollandiae novaehollandiae</i>	Listed	Vulnerable	Stand replacement
2	Regent Honeyeater	<i>Anthochaera phrygia</i>	Listed	Critically endangered	Critically Endangered
3	Wedge-tailed Eagle	<i>Aquila audax</i>			
4	Intermediate Egret	<i>Ardea intermedia</i>	Listed	Endangered	
5	Eastern Great Egret	<i>Ardea modesta</i>	Listed	Vulnerable	
6	Red-tailed Black-Cockatoo	<i>Calyptorhynchus banksii graptogyne</i>	Listed	Endangered	Endangered
7	Little Egret	<i>Egretta garzetta nigripes</i>	Listed	Endangered	
8	Black Falcon	<i>Falco subniger</i>		Vulnerable	
9	Spotted Galaxias	<i>Galaxias truttaceus</i>			
10	Southern Brown Bandicoot	<i>Isodon obesulus obesulus</i>	Listed	Near threatened	Endangered
11	Swift Parrot	<i>Lathamus discolor</i>	Listed	Endangered	Endangered
12	Swamp Skink	<i>Lissolepis coventryi</i>	Listed	Vulnerable	
13	Square-tailed Kite	<i>Lophoictinia isura</i>	Listed	Vulnerable	
14	Powerful Owl	<i>Ninox strenua</i>	Listed	Vulnerable	
15	Nankeen Night Heron	<i>Nycticorax caledonicus hillii</i>		Near threatened	
16	Yellow-bellied Glider	<i>Petaurus australis</i>			
17	Brush-tailed Phascogale	<i>Phascogale tapoatafa</i>	Listed	Vulnerable	
18	Royal Spoonbill	<i>Platalea regia</i>		Near threatened	
19	Long-nosed Potoroo	<i>Potorous tridactylus tridactylus</i>	Listed	Near threatened	Vulnerable
20	Mountain Brushtail Possum	<i>Trichosurus cunninghami</i>			

Table 2.3. Forest Code of Practice listed fauna species which occur within or adjacent to Coupes in Western TUP.

	Common name	Scientific name	FFG listing*	DEWLP advisory lists	EPBC lists**
1	Buloke	<i>Allocasuarina luehmannii</i>	Listed	Endangered	
2	Plains Joyweed	<i>Alternanthera sp. 1 (Plains)</i>		Poorly known	
3	Elegant Spider-orchid	<i>Caladenia formosa</i>	Listed	Vulnerable	Vulnerable
4	Rigid Spider-orchid	<i>Caladenia tensa</i>		Vulnerable	Endangered
5	Small Milkwort	<i>Comesperma polygaloides</i>	Listed	Vulnerable	
6	Slender Tree-fern	<i>Cyathea cunninghamii</i>	Listed	Vulnerable	
7	Grampians Bitter-pea	<i>Daviesia laevis</i>	Listed	Vulnerable	Vulnerable
8	Trailing Hop-bush	<i>Dodonaea procumbens</i>		Vulnerable	Vulnerable
9	Southern Pipewort	<i>Eriocaulon australasicum</i>	Listed	Endangered	Endangered
10	Brooker's Gum	<i>Eucalyptus brookeriana</i>		Rare	
11	Yarra Gum	<i>Eucalyptus yarraensis</i>	Rejected	Rare	
12	Clover Glycine	<i>Glycine latrobeana</i>	Listed	Vulnerable	Vulnerable
13	Enfield Grevillea	<i>Grevillea bedgoodiana</i>	Listed	Vulnerable	Vulnerable
14	Slender Darling-pea	<i>Swainsona murrayana</i>	Listed	Endangered	Vulnerable

Table 2.4. Forest Code of Practice listed flora species which occur within or adjacent to Coupe in Western TUP.

* Listed under the Flora & Fauna Guarantee Act

** Environment Protection & Biodiversity Conservation Act 1999 (National laws)

2.2.1 Threatened species lists and Code of Timber Production

The Victorian Biodiversity Atlas, used in this analysis, is based on Advisory Lists maintained by Victoria's Department of Environment and Primary Industries and based on technical information and advice obtained from a range of experts. The information in these lists may be of use in a range of planning processes, such as the preparation

of national park management plans, local government planning schemes, regional catchment strategies and in setting priorities for actions to conserve biodiversity.

See more at <http://delwp.vic.gov.au/environment-and-wildlife/conserving-threatened-species-and-communities/threatened-species-protection-initiative/threatened-species-advisory-lists#sthash.UN1QrD3u.dpuf>

These advisory lists are not the same as the Threatened List established under the Victorian Flora and Fauna Guarantee Act 1988

Threatened Species Planning Standards for Some Western FMAs

Planning Standards for timber harvesting operations in Victoria's State forests 2014
Appendix 5 to the Management Standards and Procedures for timber harvesting operations in Victoria's State forests 2014

4.5.3 Midlands FMA

4.5.3.1 Include all verified populations of species regarded as 'endangered' at a State or national level in the SPZ, except where otherwise specified in this document. The SPZ needs to be of sufficient size to include all of the local population, and should include a buffer large enough to protect the population from external impacts.

4.5.3.2 Include verified populations of species regarded as 'vulnerable' at a State or national level in the SPZ or SMZ after consideration of their level of representation in the existing conservation reserve system, except where otherwise specified in this document.

4.5.4 Mid Murray FMA

4.5.4.1 Include all verified populations of species regarded as 'endangered' or 'vulnerable' at a State or national level in the SPZ or SMZ after consideration of their regional status, level of representation in the existing conservation reserve system and the nature of potential threats, except where otherwise specified in this document. Wherever practicable include populations in larger parts of the SPZ or SMZ in combination with other values. The SPZ or SMZ needs to be of sufficient size to include all of the local population, and where required, should include a buffer large enough to protect the population from external impacts and identified threats.

4.5.5 Otway FMA

4.5.5.1 Include verified populations of species regarded as rare or threatened at a State or national level in the SPZ as appropriate.

<http://www.delwp.vic.gov.au/parks-forests-and-crown-land/timber-harvesting>

(FFG Act) or species listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act)¹⁸

There are often no direct legal requirements or consequences that flow from inclusion of a species in advisory lists, although they are afforded some protection through Victoria's Native Vegetation Management Framework. Also, some of the species in these advisory lists are also listed as threatened under the FFG Act or under the EPBA Act, or both.

The Code of Practice for Timber Production 2014 requires VicForests to consider some threatened species in both planning and management.¹⁹ Most species listed under state and commonwealth threatened species black letter laws, such as the Flora & Fauna Guarantee Act and the national Environment Protection & Biodiversity Conservation Act 1999 (EPBC Act), are listed in Management & Planning Standards²⁰ under the Code of Practice for Timber Production (Appendix 3, Tables 13) which requires VicForests to apply the management actions for rare and threatened flora and fauna usually at a coupe level.

At a strategic level, the difference in lists and numbers of species on advisory lists that are required to be considered by VicForests highlights the inadequacy and inconsistency in Victoria's threatened species legislation.

In addition to general statewide provisions in the management and planning tables, different forest management areas may have specific rules or prescriptions. The planning standards require specific additional regional action in the Midlands FMA,

Mid Murray FMA, and Otway FMA (see box). None of these rules or prescriptions appear to have been addressed in the TUP and seem to have been largely ignored with no explanation or justification provided, if they have been met or not.

The previous Wood Utilisation Plan for Western Victoria 2014/2015 – 2016/2017, produced by the department provided at least some detail about constraints and code requirements including threatened species, though it was also inadequate <http://www.vicforests.com.au/static/uploads/files/wup-2014-15-final-wfheybqxyomx.pdf>

2.3 Other threatened species

A number of coupes in the Portland and Horsham FMAs also include records for broilgas, which are listed in Victoria under the FFG Act. There are no forestry prescriptions for this species. Their occurrences are also likely to be indicative of wetlands.

There are 11 coupes in the Horsham and Portland FMAs that include records of red-tailed black cockatoos, in some cases multiple records. There are thought to be just 1400 of these birds left in the wild and they are subject to an extensive recovery effort. This species is listed in a regional specific part of the code, there is no information provided in the TUP of how proposed logging impacts will be avoided or mitigated on this species (see case study on the next page for more detail).



South-eastern red-tailed black cockatoo.

Photo: Bob McPherson

2.3.1 CASE STUDY

1: Red-tailed black cockatoos

Many prescriptions in the forest code of practice are limited. For example, there is a regionally-specific rule in the Portland and Horsham FMAs for the nationally endangered south-eastern red-tailed black cockatoo that focuses not on the occurrence of the species but only on stopping the clearing of large, hollow-bearing brown stringy bark or desert stringy bark trees. Conservationists and ecologists involved in substantial recovery plans for the red-tailed black cockatoo are concerned at the potential of increased harvesting even within the scope of existing coupes to undermine recovery efforts.

There are at least eight state forests in the Horsham FMA that include records either within or adjacent to (mostly within coupes) for or of red-tailed

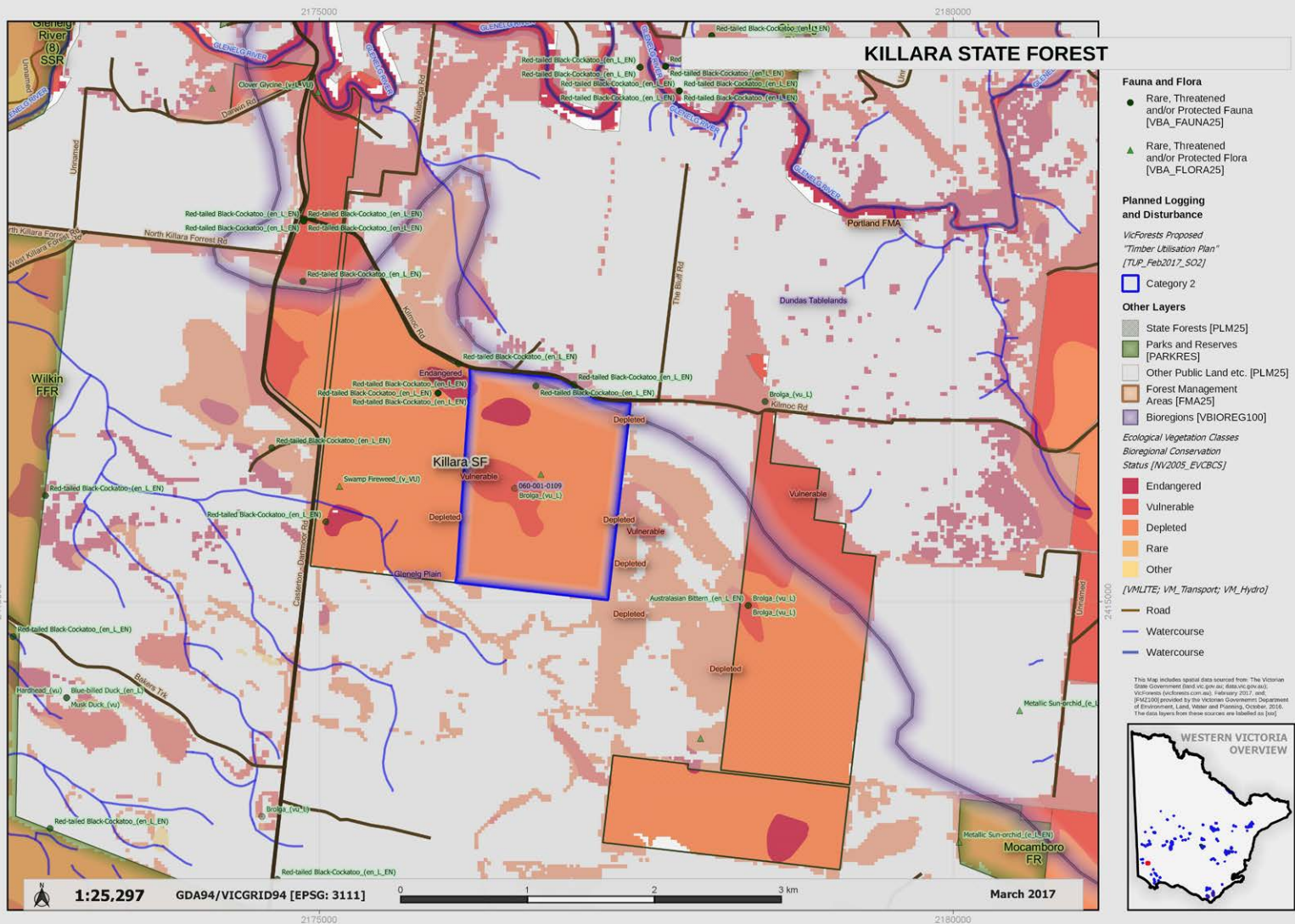
black cockatoos. These include:

- Balmoral SF
- Connewirricoo SF
- Durong SF
- Kadnook State Forest
- Kalingur State Forest
- Meereek State Forest
- Morea State Forest
- Yallakar State Forest

In the Portland FMA three state forests have records of red-tailed black cockatoos, these include:

- Killara State Forest – Coupe 060-001-0109
- Nangeela State Forest – Coupe 058-620-0104
- Snake Bank State forest – Coupe 060-001-0110

The red-tailed black cockatoo is listed as endangered under the national Environment Protection and



Biodiversity Conservation Act 1999 (EPBC) and on the Victorian Advisory List of Threatened Fauna 2013. It is also listed under the Victorian Flora and Fauna Guarantee Act 1988 (FFG Act). The species is one of 20 priority bird species under the Australian Government's Threatened Species Strategy.

The cockatoo is a nomadic species that is spread across 18,000km² of south-eastern South Australia and south-western Victoria. It is threatened by extensive loss and degradation of feeding and nesting habitat. A single population of about 1400 individuals persists. Over recent years the percentage of female/young birds has slowly declined. In 2016 there was an unprecedented drop in the percentage of female/young birds that further indicates an increase in the risk of extinction.

The red-tailed black cockatoo has a specialist diet, dependant entirely

on the seed of brown stringybark (*Eucalyptus baxteri*), desert stringybark (*Eucalyptus arenacea*) and buloke (*Allocasuarina leuhmannii*). In Victoria many of the stringybark trees vital to the bird's diet is found on public land, while buloke trees are mostly found on private land used for agriculture. The cockatoos will feed in dense stands of trees and on isolated paddock trees that have the capacity to produce seed crops. Feeding habitat quality of stringybarks varies considerably from year to year, with highly productive years interspersed with years of low seed production.

Since the 1840s about 54 per cent of stringybark and 97 per cent of buloke woodlands within the red-tail's historic feeding range have been cleared for agriculture and forestry, with limited subsequent natural recruitment of the bird's foraging habitats. Furthermore, stringybarks need to be at least 10 years old, and bulokes at least 100 years old, before

ABOVE: Example of state forest with red-tailed black cockatoo records with a TUP coupe.

The darker the red/orange color highlights the higher conservation significance of vegetation. Blue lines show the proposed logging coupe. Black dots and triangles with labels show the threatened species.

See Appendix II for details of other forests.

they can produce seed crops suitable for feeding. And although bulokes produce fruit sooner, the birds are more typically observed feeding in trees estimated to be greater than 200 years old.

The bird requires large hollows in old trees for nesting and while it has a preference for dead trees it is also known to use live trees. Nest trees are strongly associated with stringybark, as the birds need to be able to access a good food source during nesting. Nests are more likely to be found within a 5km radius of stringybark. The large hollows required as nest sites take centuries to form with trees 200+ years old required. Given the birds prefer dead trees and that an estimated 4–7 per cent of these trees are in paddocks and being lost through collapse each year there is a suggestion that a serious shortfall in suitable hollow-bearing trees is imminent.

The Andrews Government and the current environment minister have previously expressed support for the recovery plan for south-eastern red-tailed black cockatoos.

2.3.2 CASE STUDY

2 – Additional Data – Brush-tailed Phascogale

The Victorian National Parks Association's citizen science program NatureWatch has been undertaking field research in the Wombat Forest for the past six years using motion-sensing cameras. There are three records for brush-tailed phascogales near to coupes. This is consistent with Victorian Biodiversity Atlas records of the species being recorded in the Wombat Forest. The brush-tailed phascogale is listed as threatened in Victoria under the *Flora and Fauna Guarantee Act*.

The brush-tailed phascogale was recorded at WCR18 on 4/05/2013 – near coupe 2009–516–0121 in the Wombat Forest and WCR13 on 5/04/2014 – near coupe 193–552–010 in the Wombat Forest. A further record was WCR16 on 8/06/2014, which is further east of coupe 2009–516–0121.

The forest codes have a statewide prescription for brush-tailed phascogale that states:

“Where evidence of this value is found in the field follow clause 2.1.1.3 of this document using table 4 in Appendix 5 the Planning Standards for information.”

Clause 2.1.1.2 states: “Where evidence of a value that requires protection via the establishment or amendment of an SPZ or SMZ is found in the field application must be made to the Secretary or delegate prior to commencement of the timber harvesting operation to create or amend an SPZ or SMZ in accordance with Appendix 5 the Planning



Brush-tailed phascogale.

Photo: Chris Tzaros

Standards. SMZ applications must be accompanied by an SMZ plan and must be complied with during timber harvesting operations.”

While both the coupes identified (193-552-010 and 2009-516-0121)

are included in Special Management Zones, there is no information to show that the prescription to maintain 100 breeding females and or retention of large trees etc is being implemented. No detail is provided in the TUP, other than the inclusion in the SMZ.

	Common name	Scientific name		
Midlands	Brush-tailed Phascogale	<i>Phascogale tapoatafa</i>	Maintain 30% of Red Stringybark/Box and Stringybark/Peppermint Open Forest in the State forest SPZ and conservation reserves. Maintain sufficient areas of SMZ to sustain a Midlands FMA target population of 100 breeding females.	Implement prescriptions for BPMAs within SMZs in State forest that protect and maintain Brush-tailed Phascogale populations and their habitat, such as retention of large trees and prohibition of removal of naturally fallen timber.

Table 2.5.

Source: DELWP <http://www.delwp.vic.gov.au/parks-forests-and-crown-land/timber-harvesting>

Tenure Inconsistencies

Just over 200ha of various coupes cover a number of national parks, conservation and other types of reserve tenures. This is likely due to sloppy mapping, and this should be rectified and removed from the TUP spatial layers. It does highlight the lack of attention to detail in the TUP and the number of coupes hard up against conservation reserve boundaries. Most of two major forest parks are also proposed to be logged using various silvicultural techniques that in our view are inconsistent with the purposes of the reserves and possibly unlawful.

Like many other aspects of the TUP, there is little detail or attempt to address or discuss these issues. This reinforces the need to withdraw the current plan, address the many issues raised, before commencement of either contract negotiations or the commencement of logging operations.

National parks: There are small areas of land – 8.0 ha protected under the National Parks Act 1975, which are included in logging coupes, including 6ha of the Grampians National Park, small areas of Enfield State Park and Gunbower National Park.

Other conservation reserves: Approximately 29ha of land designated as some form of nature conservation reserve under the Crown Land Reserves Act, including natural features reserves, Murray River Park and a small area Waanyarra Nature Conservation reserve, are included in coupe maps. The most significant of these is Glenelg River Water Frontage, a type of natural features reserve of which just over 23ha is included in the

coupe plans.

Other reserves: A small area of the Albion Sawmill Historic and Cultural Reserve and 167ha of the Rocklands Reservoir – a significant area – is also included in coupe plans.

Forest Parks: 9067ha of the Otway Forest Park and 738ha of the Cobboboonee Forest Park have coupes listed. All of the coupes in Cobboboonee Forest Park are listed as category 2 coupes, with the intent of the silviculture method noted as Stand Maintenance/ manipulation using a variety of methods. In the Otway Forest Park 2468ha is listed as category 2 coupes and 6590ha (73%) is listed as category 3, which is speciality timber or removal of individual stems.

The 2005 legislation establishing the Otway Forest Park amended the Crown Land (Reserves) Act, establishing the purposes under section 42 (e) incl (iii) restricted use of forest parks to ‘supplying a limited range of natural resource products’. It also amended the Forests Act s 18A (3) to prohibit the issuing of licences under s 52 (1) etc for the purposes of sawlog or pulpwood production. The same definitions were applied to creating the Coobboboonee Forest Park.

In response to this issue being raised by the Victorian National Parks Association, VicForests replied on 27 April 2017 stating that: “In relation to the harvest of specialty timbers in Forest Parks, VicForests has maintained the same approach as the former Department of Environment and Primary Industries (now DELWP) prior to operations being transferred

Name of forest area	Total area of Forest in TUP (ha)	Relevant Act (ACT)	RELEVANT ACTS & TENURE [PLM25]			AREA (HA) OF COUPES (PER TENURE & CATEGORY)			
			Tenure (01) [MMTGEN]	Tenure (02) [MMGT_ONG]	Tenure (03) [MMGT_ONGR]	1	2	3	Total (p/cat)
Otway Forest Park	9067	Crown Land (reserved)	State Forest	Forest Park	Forest Park		2467.9	6590.3	9058.22
			State Forest	Forest Park	Forest Park		5.94	2.24	8.18
		Crown Land (unreserved)	State Forest	Forest Park	Forest Park			0.11	0.11
Cobboboonee Forest Park	738	Crown Land (reserved)	State Forest	Forest Park	Forest Park		675.95		675.95
			State Forest	Forest Park	Forest Park		61.94		61.94
		Crown Land (unreserved)	State Forest	Forest Park	Forest Park		0.54		0.54

Table 2.6. TUP coupes in Forest Parks.

to VicForests. The harvesting of speciality timber is specifically provided for in the Great Otway National Park and Otway Forest Park Management Plan.”

• See http://parkweb.vic.gov.au/__data/assets/pdf_file/0019/313282/great-otway-np-mp.pdf

The Great Otway National Parks and Otway Forest Park Management Plan 2009 (page 9), states in relation to the Otway Forest Park that the Act “specifically prohibits the granting of licences for sawlog or pulpwood production in the forest park, but allows licences to be granted for the ongoing harvest of firewood and minor forest produce”. Tables on pages 14–16 of the plan show that 70% of the forest park is zoned multi-use, which allows for “low intensity harvesting of selected trees for firewood...”. The other 30% is special protection zone, which still allows firewood collection but activities that may impact on natural and cultural features previously identified in the special protection zones are not permitted.

It is clear in the management plan and associated legislation that any timber harvesting would only be for firewood. However, it is not clear if this covers just domestic firewood collection or

if it includes commercial firewood operations. The VicForests Timber Utilisation Plan lists all Otway Forest Park coupes as category 3 silviculture – the harvesting of speciality timbers through low intensity single tree selection. It does not flag the coupes as category 4, 20 or 30, which are for firewood only coupes (see Table on page 15 for a description of VicForests silviculture categories).

The Cobboboonee Forest Park, which is managed by DELWP, has nine proposed logging coupes, and is subject to a strategic parks management plan, the Ngootyoong Gunditj Ngootyoong Mara South West Management Plan 2015.

• See http://parkweb.vic.gov.au/about-us/publications-list/mng?result_676752_result_page=N

This plan only briefly mentions timber harvesting in the context of domestic firewood only, not commercial coupes. It states on page 97 that “Permit firewood collection for personal use in the forest park within designated domestic firewood collection areas, and only during firewood collection seasons”.

The logging of forest parks for speciality timbers is likely to be inconsistent with the sawlog ban



Spotted pardalotte.

Photo: Patrick Kavanagh | Flickr | CC BY 2.0

in the Forest Act and in our view inconsistent and probably unlawful.

The logging of forest parks for commercial firewood, or poles etc. would in the view of the Victorian National Parks Association also be inconsistent with ‘supplying a limited range of natural resource products’, but legal argument could depend on the amount, price, and end use of these products. The original intent of establishing these forest parks was to allow for a diverse range of recreational uses which may be restricted in national parks such as horse riding, hunting and commercial uses such as bee keeping, not as a loophole for future commercial logging.

Conclusion

The Timber Utilisation Plan 2017 is an attempt at escalation of logging in the fragmented and depleted forests and woodlands in the western half of Victoria. It raises a range of strategic, regulatory and compliance issues and if it proceeds it will be a backward step for conservation. A serious re-think is needed by the Victorian Government.

- Proposed commercial logging by VicForests of 61 state forests and woodlands in some of Victoria's most cleared landscapes in the west of the state will be ecologically damaging.
- Across western Victorian forests 70% of the area targeted for logging contains native vegetation types that are either endangered (19%) vulnerable (11%) or depleted (40%). In the Horsham Forest Management Area 54% of the vegetation is endangered.
- Threatened species have been found either within or near 33% of planned logging coupes. In some forest management areas, including the Portland Forest Management Area, that figure leaps to 67%. These forests and woodlands should be protected from logging.
- The VicForests draft Timber Utilisation Plan (TUP), published on February 2017, is inconsistent with state government policy and the Code of Practice for Timber Harvesting.
- The Andrews Government should ensure no logging of merchantable timber commences in western Victoria while the currently seriously flawed VicForests Timber Utilisation Plan 2017 is withdrawn and reviewed with a comprehensive ecological assessment, management detail and satisfactory community consultation, before any logging proceeds, if it proceeds at all.
- The plan currently proposes potentially 'unlawful' logging in some Forest Parks, a type of conservation reserve.
- Some areas in the Central West such as a Wombat, Wellsford, Mt Cole state forests and Pyrenees ranges are listed for logging are also subject to a recently announced Investigation by Victorian Environmental Assessment Council (VEAC), and should be removed from logging schedules while this investigation is completed.

References & Endnotes

- 1 http://www.depi.vic.gov.au/__data/assets/pdf_file/0004/199705/Review-of-Commercial-Forestry-Management-in-Western-Victoriasmallpdf.com.pdf
- 2 Independent Review on Progress with Implementation of the Victorian Regional Forest Agreements (RFAs) Final Report, May 2010 www.daff.gov.au/__data/assets/pdf_file/0019/1803511/rfa-vic.pdf
- 3 VicForests, Request for Tender (RFT) and Expression of Interest CF2016.1 Western Victoria Sawlog and Commercial Firewood. Oct 2016, page 18
- 4 VicForests, Request for Tender (RFT) and Expression of Interest CF2016.1 Western Victoria Sawlog and Commercial Firewood. Oct 2016, page 3
- 5 VicForests, Proposed Timber Utilisation Plan, Feb 2017
- 6 Remnant Native Vegetation Investigation FINAL REPORT, March 2011 page 3 http://www.veac.vic.gov.au/documents/RNV_FinalReport%20PDF%20low%20res.pdf
- 7 Remnant Native Vegetation Investigation Discussion Paper FOR PUBLIC COMMENT, June 2010. Page 139 <http://www.veac.vic.gov.au/documents/Discussion%20Paper%20-%20Full%20Report%20RNV.pdf>
- 8 Remnant Native Vegetation Investigation Discussion Paper FOR PUBLIC COMMENT, June 2010. <http://www.veac.vic.gov.au/documents/Discussion%20Paper%20-%20Full%20Report%20RNV.pdf>
- 9 Remnant Native Vegetation Investigation Discussion Paper FOR PUBLIC COMMENT, June 2010. Page 3 <http://www.veac.vic.gov.au/documents/Discussion%20Paper%20-%20Full%20Report%20RNV.pdf>
- 10 Remnant Native Vegetation Investigation Discussion Paper FOR PUBLIC COMMENT, June 2010. Page 139 <http://www.veac.vic.gov.au/documents/Discussion%20Paper%20-%20Full%20Report%20RNV.pdf>
- 11 <https://www.environment.vic.gov.au/biodiversity/biodiversity-plan> Page 16
- 12 <http://www.veac.vic.gov.au/investigation/assessment-of-conservation-values-of-state-forests> page 36
- 13 VNPA Better Protection for Special Places, Full report, May 2010
- 15 VNPA Nature Conservation review 2014 <http://www.vnpa.org.au/page/nature-conservation/habitat-and-wildlife/nature-conservation-review>
- 16 <https://www.environment.vic.gov.au/biodiversity/biodiversity-plan> Page 46
- 17 The analysis in this report selected records of species from DELWP Advisory Lists of Threatened Vertebrate Fauna and Threatened Flora in Victoria (Often just called Advisory Lists or VROTs) found in the Victorian Biodiversity Atlas. The VBA is a government run web-based information system designed to manage information about wildlife in Victoria. The system includes species attribute information, including origin and conservation status, along with more than six million records of species distribution and abundance from systematic surveys and general observations. <http://www.depi.vic.gov.au/environment-and-wildlife/biodiversity/victorian-biodiversity-atlas>
- 18 <http://delwp.vic.gov.au/environment-and-wildlife/conserving-threatened-species-and-communities/threatened-species-protection-initiative/threatened-species-advisory-lists#sthash.UN1QrD3u.dpuf>
- 19 The Sustainable (Forests) Timber Act 2004 (SFT Act) regulates the allocation of public-owned timber to Vic Forests and creates obligations to comply with certain management prescriptions in relation to threatened and/or protected flora and fauna. These specific management prescriptions are contained in the Code of Practice for Timber Production 2014 (the Code) and its 2 incorporated documents – the Management Standards and Procedures for timber harvesting operations Victoria’s State forests 2014 (Management Procedures) and the Planning Standards and Procedures for Timber harvesting operations in State Forests 2014 (Planning Standards) The Code was made under s31 of the Conservation, Forests and Land Act 1987, and the Management Procedures and Planning Standards are documents incorporated into the Code under s31(2) of that Act.

Section 46 of the SFT Act requires Vic Forests to comply with the Code Clause 2.2.2 (p34), 2.3.1 (p36) and 2.5.1 (p42) of the Code set out key provisions relating to biodiversity management, including mandatory compliance with the precautionary principle and a requirement to identify and address risks to biodiversity values prior to commencing timber

harvesting operations. Cl 2.3.1.1 and 2.2.2.1 of the Code require Vic Forests to comply with the Management Standards (item 3). Cl 4.2.1.1 of the Management Standards requires Vic Forests to apply the management actions for rare and threatened fauna outlined in Appendix 3 Tables 13.

- 20 Management Standards and Procedures for timber harvesting operations Victoria's State forests 2014 and the Planning Standards and Procedures for Timber harvesting operations in State Forests 2014
- 21 "No removal of any large hollow-bearing trees or preferred Stringybark species (Brown and Desert Stringybark) with DBHOB > 45cm in areas of potential habitat currently not protected by SPZ or SMZ." Page 90 Management Standards and Procedures for timber harvesting operations Victoria's State forests 2014

