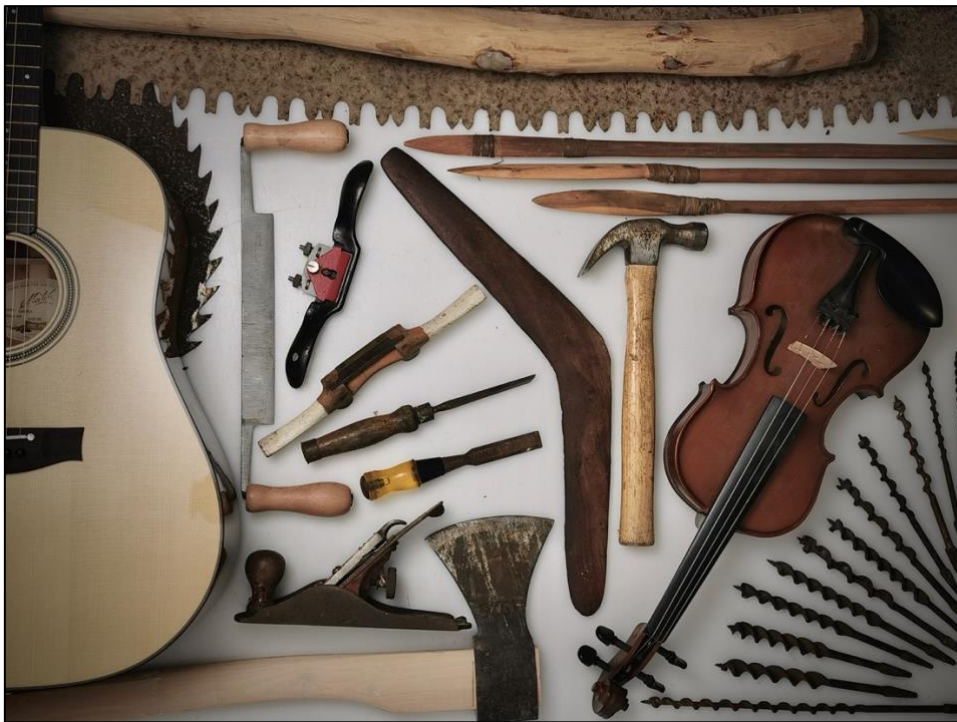


A petition to amend the Victorian Forestry Plan and retain Victoria's connection with sustainable native timbers.



December 2021

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Acronyms and abbreviations

AAMIM	Australian Association for Musical Instrument Makers
ABC	Australian Broadcasting Corporation
AFS	Australian Forestry Standard
CFA	Country Fire Authority
CITES	Convention on International Trade in Endangered Species
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DELWP	Department of Environment Land Water and Planning
ENGO	Environmental Non-government Organization
EPBC	Environment Protection and Biodiversity Conservation
ESFM	Ecologically Sustainable Forest Management
EVC	Ecological Vegetation Class
FFMV	Forest Fire Management Victoria
FMA	Forest Management Area
FSC	Forest Stewardship Council
GG	Greater Glider
IUCN	International Union for the Conservation of Nature
LBP	Leadbeaters’ Possum
OH&S	Occupational Health and Safety
PEFC	Programme for the Endorsement of Forest Certification
RFA	Regional Forest Agreement
SAC	Scientific Advisory Committee
VEAC	Victorian Environment Assessment Council
VFP	Victorian Forestry Plan
WHC	World Heritage Council
WWF	World Wide Fund for Wildlife

Summary

The Victorian Government has announced a 10-year plan to halt all timber harvesting in public native forests by 2030 under the Victorian Forestry Plan (VFP). The government states that *“due to a reduction in available native timber resources as a result of fire and wildlife protection and changing consumer preferences, the industry is transitioning.”* This will include the phase out of low-impact, selective, sustainable and value-adding operations for furniture and musical instruments.

This paper aims to raise awareness around issues with timber harvesting and show the government that Victoria values its connection with timber. The push to cease state-wide timber harvesting has not come from broader public opinion or scientific consensus. Victoria puts the environment first and wants to see better outcomes for threatened species and threatened species habitat. Broad forest management decisions should not be made based on issues in specific areas, such as the Central Highlands, or litigation and campaigns from environmental activist organisations. The scientific consensus regarding the threats of greatest conservation concern to forest dependant species point the finger to land clearing, wildfires, invasive species and feral animals – threats which do not adhere to legislative “protection.” There are many operations that do not have issues of supply or conflict with wildlife protection. The ecological relationship in achieving maximum biodiversity with an intermediate level of disturbance has not been given thought under the VFP. Despite the government's statements, there is strong consumer preference for locally sourced sustainable timbers, including high value, long-life products such as furniture and musical instruments. In addition, Victoria's cultural connection with timber from the bush is being completely overlooked under the VFP.

This petition is asking the Victorian Minister for Energy, Environment and Climate Change, The Hon Lilian D'Ambrosio to:

- Amend the Victorian Forestry Plan to provide for ecologically sustainable production of hardwood timber in state forest, with a focus on high value products; and,
- Attain Forest Stewardship Council (FSC) certification for all VicForests timber harvesting operations across Victoria.



Sign the e-petition



**See and post photos of
sustainable native timber
products
#nativetimbersvictoria**

Victorian Forestry Plan

On the 7th November 2019, Victoria's State Government announced a 10-year plan to phase out native timber harvesting in Victorian public forests by 2030. This includes even the most low-impact, sustainable and value adding operations.

Ecological benefits from the Plan include an end to harvesting in old growth forest and greater protection for two iconic species in Gippsland. However, the plan overlooks the ecological benefits of multi-aged stands in creating greater biodiversity, ecosystem resilience and adequate floristic complexity for not only threatened species but species in general. The protection of habitat for two iconic species in Gippsland and the Central Highlands and future projections for the available resource to meet the current level supply commitments, is putting pressure on harvesting operations in those areas. The rest of the state and other sustainable harvesting operations are not subject to the same issues. The Plan proposes a move toward plantations, which creates just as many issues as it solves. There have been recommendations to support certified, low-impact models of harvesting by the Victorian Environment Assessment Council (VEAC), the World Wide Fund for Nature (WWF) and conservationists (Lindenmayer et. al. 2019) yet the VFP has taken an extreme approach in stopping timber harvesting completely. The Plan also lacks detail and the meagre two pages of tables is an insult to all those that care about this connection with timber. There are better ways to structure a sustainable timber industry without stopping it completely.

For more information on the Victorian Governments Native Timber Plan follow the links below:

Victorian Forestry Plan website:

<https://www.vic.gov.au/victorian-forestry-plan>

Victorian Forestry Plan Pdf:

https://djpr.vic.gov.au/_data/assets/pdf_file/0008/1924811/DJPR-RRV-Forestry-and-Game-Victorian-Forestry-Plan.pdf

Summary Report by the Commissioner for Environmental Sustainability Victoria:

<https://www.ces.vic.gov.au/news/victorian-governments-action-long-term-sustainability-victorias-native-timber-forests>

A bit about the author

Whilst purely attempting to shed light on the unheard issues supporting sustainable timber harvesting, I am a strong advocate for the protection of our environment. I have been a long-term supporter of a number of local environment groups including Environment Victoria, Environmental Justice Australia and Greenpeace, also being part of activities with Greening Australia, Bush Heritage and the Victorian National Parks Association (VNPA). It was growing up in the bush all my life that brought about my interest in it. In 2008 I completed a science degree with honours at Melbourne University majoring in Botany, Ecology and Conservation. The results were published by the CSIRO in the journal of Australian Systematic Botany and focused on the genetic relationship of extra-Australian phyllodinous acacias, including Koa (*Acacia koa*) from Hawaii and Australian Blackwood (*Acacia melanoxylon*) from eastern Australia (Brown et. al. 2012). After a few years working as a guitar tech for Lamberti Brothers during my degree I then worked as an ecological consultant for a local Melbourne company – Practical Ecology. This required an intimate understanding of local, state and federal environmental legislation. Here I developed a familiarity with what the environment was up against: the threatened grassland communities of the Victorian Volcanic Plain were facing the full front of developers and the Melbourne urban sprawl – nothing much has changed.

After having a taste of ecological burns and an insight into the western scientific approach I furthered my interest on the Anangu Pitjantjatjara Yankunytjatjara Lands of Central Australia. Working as a land manager with traditional owners, covering 1.1 million hectares of land, I learnt a bit about what it is to be part of the Australian environment. For Anangu (Pitjantjatjara people), living on the land was a constant interaction – finding food, digging, using bushes, sticks and stones as tools for cleaning, shelter and weapons. Trees and shrubs were used to make cultural objects like shields, boomerangs, spears, spear throwers, hitting sticks, glues, shelters and more. Burns were done strategically to reduce the fuel loads but once were used for many things including hunting, making paths, encouraging new growth and simply keeping the place clean.

Coming back to Melbourne saw me collecting seed of local provenance and locally rare plant species for indigenous nurseries. This work is extremely important for conservation since many species are becoming locally extinct – despite having low conservation status regionally – without much public concern.

All the meanwhile, there was a close link back to sourcing timber with my father Murray for local instrument makers – the similarity to cutting mulga for the Tjilpi's (senior men) in central Australia, a vivid reality.

For the past two years I have been a member of the Otway Agroforestry Network and have recently become a mentor: helping landowners to tailor their plantings for conservation and profit. I am currently still collecting seed and harvesting timber at Otway Tonewoods for luthiers using low-impact single-tree-selection methods in the Otway Ranges. Since 2008 I have been investigating the genetic selection of native timbers suitable for locally indigenous plantations for instruments and other products. However, the connection with native timbers beyond 2030 is currently uncertain and the timeframes of the VFP are unrealistic to achieve any suitable transition for current native timber operators to high value native hardwood plantations.

Let's start with some context

As a basis for understanding, we could say that everything that exists has a certain right to exist, independent of human concept – the right to live. We need not give reasons why something should exist or should not exist. However, since humanity has the ability to strongly affect the environment through its interactions, we need to put forward objectives in order to work out "what-to-do, or not-to-do." Sadly, most of these objectives usually revolve around us and what we want in return from the environment.

When it comes to the environment, first and foremost should be its care and protection. This is not only for the benefit of "the environment" but also for the individual parts of that environment that rely on it, humans included.

If we look after the environment we are looking after ourselves, it's simple – we are part of the environment.

All living beings that do not create their own energy need to source it from somewhere else and in most instances that will mean taking life. I don't mean to burst anyone's bubble, but all animals need to take life in order to survive, ourselves included. Essentially it is the job of humanity to ensure the least harm and suffering in this process. The important part is that we don't exploit the environment to the detriment of ourselves and to the environment itself. This is why sustainability is so important – it can go on indefinitely, without depletion.



Figure 1. Archtop electric guitar from Victorian Blackwood. Courtesy of Octigan Guitars, Victoria.

The lost echo of sustainability

Sustainability is cyclical. If it cannot continue in perpetuity, then it is not sustainable, and it always comes down to scale. If there were too many people on this planet, for example, it might be unsustainable to have a bath! If there weren't that many people, then you could have as many baths as you want. Similarly, the 7 million hectares of public land can support timber harvesting to a certain level and be sustainable – particularly when it fits within natural ecological disturbance cycles. It would be extreme to stop baths completely or even stop people from drinking water. The current format of the VFP is essentially that extreme in its approach towards timber harvesting.

The question of ecological sustainability remains of most importance, compared with just sustainability itself. Traditionally, the sustainability of timber harvesting has been measured in terms of the 'sustainable-yield' but this fails to acknowledge the extension of ecological elements that are of most importance. These include things like threatened species, threatened species habitat, species richness, biodiversity, water quality and water yield. It is important that all these elements are included in sustainable timber harvesting. The Victorian and Australian governments have been incorporating Ecologically Sustainable Forest Management (ESFM) since 1992 (Commonwealth of Australia 1992).

Dwindling supply for large-scale logging?

Timber supply has been reducing over time primarily due to land reclassification for conservation and the impacts of wildfires. The reduction in sustainable harvest levels for some forest types is not a reason to cease timber harvesting in all operations across the state.

The Victorian Government presents a number of graphs depicting the halving in available harvestable area, harvesting volumes, and associated reduction in industry indicators, over the past two decades (CES 2019, Forestry Australia 2021). These are largely focused around the 1939 Ash regrowth in Gippsland and the Central Highlands – and ignore other forest types, including the greater than 50% cover of Mixed eucalypt forests in the East Gippsland FMA that also supply valuable timber products and are likely to provide almost half the sawlog supply for the next 20 years (VicForests 2017). These mixed forests contribute to six times the area suitable to harvest than Ash type forests (2013 Allocation Order, VicForests 2015). On some graphs the government has even been so bold as to draw in a trend-line towards zero (Forestry Australia 2021). Which would never happen unless the industry was forcefully closed.

The available area for timber harvesting has been shown to be reducing. This has been attributed to a number of factors, primarily associated with major land use decisions to reclassify State forest to Parks, conservation reserves and Special Protection Zones (DEPI 2013b), protection of environmental values, changes to the regulations governing timber harvesting operations (VEAC 2017b) and the impacts from large-scale wildfires over the last two decades (Jackson 2019).

Over the last 26 years, conservation areas have increased from 1.6 million ha (LCC1988) to 4 million ha (VicForests 2014). That is an increase of 2.5 times. However, over the same period, the area available for permitted timber harvesting has decreased from 4.4 million ha (LCC 1988) to 1.2 million ha (VicForests 2014), a reduction

In the last 26 years, conservation reserves have increased by 250% and state forests have reduced by 370%.

of 3.7 times – 27% of what there was 26 years ago (not including the reduction in available area due to wildfires). Of the 1.2 million ha available for permitted timber harvesting, 590,000 ha is estimated to be the net area suitable for timber harvesting across Victoria – approximately one third of the 2019–2020 bushfire extent. About 3,000 ha or 0.05% of the public forest estate is subject to various silvicultural harvesting systems each year (VicForests 2019a, DEPI 2013b). The area available for timber harvesting in Eastern Victoria is 6% of the total publicly owned forest in the state (VicForests 2017).

We now have more protection zones for waterways, threatened species and communities than ever before. The additional protection is a good thing but let's not see this as a decline in resource and a reason to halt all timber harvesting. Many harvesting operations do not have issues of supply.

The remaining supply has also been reducing due to most harvesting of Ash forests occurring in the 1939 regrowth and subsequent recruitment events not being mature enough to harvest. VicForests has the difficult task of spreading out the supply from this single event across multiple decades (VEAC 2017b). However, the Fibre and Wood Supply report (Baker et al. 2017) suggests that the impact of fire on the 1939 regrowth stands would be highly unlikely to be lost over the next 20 years given the spatial distribution of the resource and varying risk of bushfire across FMAs in the east of the state. The study suggested that an average of 20% or less is likely to be affected by fire in the next 20 years, stating "Whilst this loss would impact sustainable wood supply levels, it would be unlikely to eliminate the native forest industry." There was no commentary on the maturation of regrowth from the 1960, 70 and 80 fires which, although they provide less resource in extent, will still provide 61% of the supply that the remaining 1939 Ash regrowth provides (VEAC 2017b). These volumes would be enough to supply the timber industry to some extent until the 2000 fires mature. It is worth noting that only 1.6% of Mountain Ash forests were impacted by the 2019–20 fires (DELWP 2020b).

Only 1.6% of Mountain Ash forest was impacted by the 2019–20 fires.

The Fibre and Wood Supply report also suggested that while climate change may not appear as an immediate threat to wood supply levels, developing proactive forest management practices to adapt to future climatic conditions should be considered sooner, rather than later. The report pointed out that a broader analysis of stand-level productivity responses to climate change would be necessary to ascertain the net impact on wood supply levels across State Forests. Whilst highlighting spatial variations in the impacts of climate change and LBP discoveries, the study continues to project the assumption that the entire forest industry will be facing these issues, which is simply not the case. The

Many different forest types have been left out of the timber supply commentary, that is focused entirely on the Ash supply from Gippsland and the Central Highlands.

Central and Central Gippsland FMA's were most susceptible to the reduction in harvestable volumes from bushfires and LBP discoveries, whilst the Dandenong FMA was the least. The West Victorian RFA has been excluded from most of these assessments, as were many other different forest types across other RFA's including High and Low elevation mixed species, Coastal mixed species, Red Gum, Box Ironbark, Mallee and Acacia forests.

The VEAC summarised the findings of the Fibre and Wood Supply report (Baker et. al. 2017) saying that a primary challenge for VicForests is the exhaustion of the 1939 Ash regrowth after 2030 and reductions in harvest volumes due to bushfires and LBP discoveries (VEAC 2017b). Both reports appear to have overlooked the findings of a similar study, that influenced their report findings, which modelled significant increases in regeneration of Mountain Ash to occur in montane wet and damp

forests from the 2020s climate scenarios, and from the 2050s onwards in subalpine woodland – with no significant changes detected in the wet forest ecosystem (Mok et al. 2012).

Large parts of the timber industry will need to address potential future issues of supply. However, this is not reflective of the timber industry as a whole. Parts of the state and certain vegetation types may have projected supply issues in the future and will need to match supply agreements with ecologically sustainable yields, the impacts of wildfires and threatened species protection. Adequate protection for specific forest dwelling threatened species is expected to reduce harvestable volumes into the future. Yet these are still localised issues that do not affect the entire forest industry.

Employment

Reductions in employment are a natural response to efficiencies in technology, reduced resource availability and the associated equalising to sustainable harvest levels.

Diminishing employment growth has also been seen as a reason to consider a transition (EIC 2017). It is important to separate the cause from the effect, and this doesn't appear to be happening. The lower employment has not been given consideration based on the lower resource area or increased efficiency due to technology. Increased employment would not be a realistic pathway when dealing with a resource that is dependent on ecological sustainability. Employment should naturally decrease when the resource remains constant due to increases in technology and efficiency. The uncertain political terrain is also likely contributing to lower uptake of training and employment in the timber industry.

A reduction in employment is not a negative for the timber industry – it's a natural effect of increased conservation reserves, increased technology and efficiency and reaching a sustainable harvest level. Whilst employment is fundamentally important in keeping local communities alive it should not be the sole decision-maker in determining whether an activity should persist or not. If an activity is increasing social, cultural, environmental and economic values then it should be allowed to continue, at a sustainable level, whatever that scale may be.

Private property

No change to regulations on private property suggests a political foundation for the Victorian Forestry Plan.

The government has put forward that native timber harvesting will remain available on private property. If the harvesting of native forest was an issue, then why would they continue to allow harvesting on private property? The supply of timber from public land is well known to be much higher than private property so the issue of supply is not a valid one.

The reasons that are being put forward for ceasing timber harvesting in native forests don't stack up. The VFP is largely a political decision that does not reflect the interactions of timber harvesting with the environment nor the views of many Victorians.

Removing a fundamental connection

Our cultural connection with timber is as old as humanity. It is not based on large-scale logging.

The Victorian government is forgetting that our connection with wood from the bush is not simply based on large-scale logging. It is a connection that pre-dates this millennium, it pre-dates European settlement and is likely as old as humans have been on this continent. It is a connection as close to our species as the food we eat. For this we do not de-value the forest, in fact we value it more. It is fundamental to our connection with the environment.

The Australian bush is intertwined in our culture, we are part of it. Removing our connection with the wood from the bush is like telling an Australian they shouldn't be making boomerangs or didgeridoos. To suggest that the timber industry is solely an operation of large-scale logging is showing a lack of understanding of what timber means for Victoria.



Figure 2. Making items from timber has been part of human culture for hundreds of thousands of years.

The state of the forests in the Otways

The Otways is an example of where timber harvesting creates high value products using ecologically sustainable methods, from a timber resource that has a conservation status of least concern.

In the Otway Ranges, Victoria – the Wet Forest Ecological Vegetation Class (EVC 30) is where we harvest Blackwood, Satinwood and Mountain Ash. These species occur in other vegetation types but grow to their full potential in this type of vegetation. Wet Forest has a conservation status of “Least concern” in all montane bioregions, since there is over 50% that remains relative to pre-European settlement and has been subject to little or no degradation. There is currently 80% of Wet Forest (EVC 30) still remaining in the Otway Ranges and 93% in the Otway Plains (Corangamite CMA 2000). The Otway Ranges is one of the least cleared bioregions in the state (VEAC 2010). In comparison, there is less than 5% of native grassland that remains across the Victorian Volcanic Plains – an area of over 22,000 km², and only 1% is of good quality. There are currently no largely-intact areas on the Victorian Volcanic Plains (VEAC 2010). Old-growth forest remains well-represented in the Great Otway National Park, with inclusion of some of the largest patches across the full range of vegetation types (VEAC 2004).

The vegetation best suited to our harvesting operations are lower value Wet Forest that has been subject to past disturbance. This is what creates the best environment for Blackwood, where it has not had to compete with Mountain Ash post fire. All our coupes have bulldozer tracks from when selective harvesting operations for Mountain Ash, from the 1950's up until the 1980's, were undertaken and the state had insufficient funds to properly regenerate the sites (Bartlet 1983), leaving the Blackwood to dominate the canopy. Many areas of land that were cleared in the late 1800's and early 1900's regenerated into bush as settlers moved on and the state bought back the land for catchments and forestry. This regenerated farmland has provided a large source of Blackwood in the Otways. These areas have been harvested and re-sown with Ash since the 1920's to ensure adequate regeneration of the Mountain Ash forests. As of 2000, 56% of forest in the Arkins Catchment consists of this Blackwood dominated regrowth (Sinclair et. al. 2000). Since 2008 there has been no clear-fell logging on public land in the Otways.

Within the Otways, 162,975 Ha is public land and 102,470 Ha (63%) of this is National Park. Of the total area 5,850 Ha (3%) is dedicated to plantations (VEAC 2004). Most of these plantations are managed by companies owned by a combination of Australian, Canadian and US superannuation and investment funds and are established with entirely exotic softwood species. The diversity of plantation species is being reduced to a single species over time – Radiata Pine.

In our operation, approximately half a hectare of cumulative canopy area is selectively harvested each year producing 60m³ of Blackwood timber. This method of timber harvesting creates light wells to encourage natural regeneration and can promote the establishment of rainforest species. The timber is used to produce the back and side material for more than 6,000 guitars, from local and international luthiers. By machining the timber into thin veneers, one tree produces the back and side material for 100–600 guitars.

An allegory from the Otways

The VFP has overlooked a best-practice example of ecologically sustainable timber harvesting. One that supports local and international luthiers in producing high value products. The timber promotes the use of Australian timbers and stands alongside many world-renowned Australian musicians on stage as they share their stories.

Chris Gibson and Andrew Warren undertook an investigation into the supply chain of instrument timbers worldwide in the book "The Guitar - tracing the grain back to the tree" turning to the Otway ranges in Victoria for an allegory for the future (Gibson and Warren 2019). Although not unique to our operation, small-scale selective harvesting has been used here to supply locally sourced, sustainable instrument timbers for over 35 years. Trees are carefully selected and quarter-sawn into billets on site. These small billets are then carried out by hand or with a motorised wheelbarrow. No heavy machinery is taken into the forest, no large tracks are constructed, there are no issues around sedimentation inputs into streams or waterways and all activities are highly managed by the State, to the point that each stump is numbered with a tag and each tree has its own corresponding number. We are able to trace every piece of timber back to where it came from. In addition, we regularly have visitors into the bush who thoroughly enjoy the experience.

Using this method, we have supplied many local and international luthiers with high quality instrument timbers, including our main customer Maton Guitars - based locally here in Melbourne, 2.5hrs away. Blackwood Maton guitars have been a mainstay for many world-renowned Australian musicians including; Paul Kelly, Archie Roach, Michael Franti, John Butler, Shane Howard, John Williamson and many more.

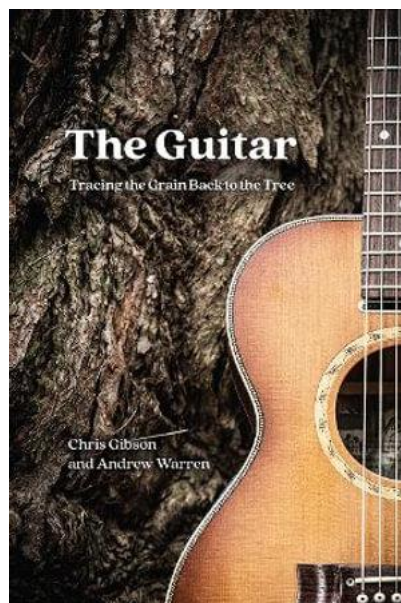


Figure 3. The Guitar - tracing the grain back to the tree, book by Chris Gibson and Andrew Warren exploring the supply of instrument timbers worldwide.

"In the Otways, Murray and James Kidman have developed a best practice model for the future harvest of forest resources, minimizing impacts while supporting a high-value manufacturing industry for which Australia has become a global sustainability leader. They prove that resource practices,

commitments and relationships can be forged with ecological values rather than in spite of them." (Gibson and Warren 2019).

This allegory of future sustainable timber harvesting will be lost if the current VFP is put in place. The Victorian Forestry Plan needs to consider the value of specialty timbers to Victoria both locally and internationally.



Figure 4. Ecologically sustainable single-tree-selection harvesting in the Otway Ranges, Victoria.

Australian native instrument timbers

There is an established demand for many Australian native instrument timbers. The move toward plantations will sever this connection for Victoria, not allowing further research and investigation of suitable species for plantations. Markets will be lost and may never recover.

Prior to 1981 the use of Australian timbers for instruments was minimal. The establishment of the Australian Association for Musical Instrument Makers (AAMIM) promoted this as an objective – "to encourage the use of Australian timber and other materials produced locally." Lists of suitable Australian timbers were shared amongst this network and we soon saw the emergence of a local guitar industry that now relies heavily on the use of Australian Native Timbers for instruments.

Through connections with the AAMIM, Maton guitars uncovered numerous Australian Native timbers for use in instruments in the early 1990's. They have used Queensland Maple, Queensland Walnut, Australian Blackwood, Mountain Ash, Bunya Pine and others as a significant part of their production for over 25 years. They are continually adding to this list with one of the most recent additions in 2003 with Satinwood from the Otways, in Victoria. During the recent Rosewood CITES restrictions this species was adopted by Cole Clarke Guitars in 2017 as an alternative fretboard material. Maton Guitars also investigated alternative Australian fretboard materials during this time. Species selection remains a significant factor in designing guitar components (Gore 2011). Many other understorey species

remain un-trialled and could be valuable sustainable alternatives to the increasingly scarce traditional timbers.

Globally, many guitar woods are now becoming scarce and luthiers face the continual task of finding suitable alternative woods (Bennet 2016). Many Australian timbers are proving suitable (Morrow 2007) and the Australian instrument timber supply is almost the exception to unsustainable harvesting globally (Gibson and Warren 2019).

A transition into plantations for native timbers requires more research into suitable species and time to establish plantations. However, there have been promising examples of this potential amongst local native instrument timbers.

Gary Featherston, an independent forest strategist with over 45 years-experience in Victorian Forestry, is an advocate for native plantation timbers.

“A sustainable production of 600-1000 m³ of blackwood logs (or other local hardwoods) from state forests could supply an ongoing small niche market for blackwood in Victoria that could then be exploited by private growers of blackwood. Without this production, all blackwood markets may be lost to alternative timbers and private growers will have to rebuild markets from scratch. This will take longer, and larger reliable quantities of timber” (Featherston 2007).

If the transition to plantations is implemented now with a 10-year timeframe, we will lose existing connections to high value native timbers that are not yet established in plantations. In addition, some species may not be suitable to grow in plantations.



Figure 5. New Yorker guitar from Otway Blackwood- Courtesy of Carson-Crickmore Guitars

Words from a local luthier

A local Melbourne luthier tells how important it is to have access to local native timbers for lutherie.

Jack Spira, a guitar maker from Melbourne has a long history of using locally native timbers.

"There are many species of potentially useable tonewoods in Australia. The availability of Australian native woods for guitar making is another point worth a mention. It is only recently that a lot of these timbers have become valued. The Australian timber industry as a whole seems to have mostly focused on cutting low grade building timber and wood chip.

High grade furniture timber cutting is left to small boutique mills that supply species local to their areas. Things are starting to improve slowly, but it is still largely the case that only regional timbers are available to Australians. Hence, an Australian instrument maker's experience with native timbers is greatly influenced by where they live.

In my case, I live near Melbourne in the south east corner of the continent. Australian Blackwood and Mountain Ash are two of the most important timber species that grow in this part of the world so I have good experience with these woods. I cannot buy Western Australian Sheoak in Melbourne, I have to source it from Western Australia, 3000km away.

Similarly, I cannot get Rose Mahogany, or Prickly Ash which would be available in small mills in Northern New South Wales. I can get low grade boards of Northern Silky Oak, Queensland Maple and Tasmanian Myrtle in Melbourne timber yards, although I would have to travel to Queensland or Tasmania respectively to get instrument grade wood of these species.

In recent years a small number of businesses have started up to specifically supply instrument grade wood of a good range of Australian species, which is a very good thing! For the most of the past twenty years that have shaped my experience however, these suppliers have not existed and so my exposure to Australian wood has been defined very much by where I have lived, with occasional interstate forays as money and time have allowed."

See full article: <http://www.guitarbench.com/2008/09/21/australian-tonewoods-by-jack-spira/>

The importance of having a commercially available timber for luthiers needs consideration. For many luthiers, the time and knowledge it takes to selectively harvest timber would be a full-time job in itself. Appropriate training, certificates, licences, OH&S, equipment, processing, drying and storage is just not feasible for luthiers to undertake in addition to the meticulous fine art of lutherie.

Australian native plantation timbers

Currently there are many commercial native timbers that are not grown in plantations. Even selection of suitable genetic material for establishing Blackwood plantations has not been thoroughly investigated. Matching superior genetic material of Blackwood (*Acacia melanoxylon*) with good sites, which result in good growth, form and wood properties, has so far proven difficult (Bradbury 2005, Bradbury et. al 2010a, 2010b, 2011a, 2011b, Bradbury 2021). Many Australian native species simply aren’t available or plausible to grow in plantations and more research needs to be done. Plantation resources for wide hardwood boards is basically non-existent, let alone any diversity in timber from different species.

The Victorian Forestry Plan does not cater for the diversity of native timber species or products. It does not provide adequate timeframes to grow high-value timbers.

Support for native instrument timbers

An instrument displays the epitome of creating value from wood. With just a small amount of timber one log is veneered producing around 250 guitar sets. The instrument serves as a carbon store whilst it projects passion for the musician and instils emotion to their audience. All the while the skilled craftsmanship of the luthier is on centre stage. There is much support for the use of sustainable native Victorian timbers.

Many reputable instrument manufacturers and luthiers support the use of Australian native timbers for high value products. The following is a non-exhaustive list of mostly Victorian luthiers and other businesses that support the sustainable low-impact harvesting of local native timbers for use in high-value products such as musical instruments:

Maton Guitars Australia	Carson-Crickmore Guitars	Aaron Rubley
Cole Clarke Guitars	Robert Fabris Furniture	Wise Luthiers
Australian Music Association (AMA)	Australian Premier Veneers	Jet Music International
Peter Daffy Guitars	Melbourne School of Fine Woodworking	Thomas Lloyd Guitars
Noyce Guitars	Wheeler Custom Lutherie	Gilet Guitars
Cargill Custom Guitars	Guitar Woods	MC Guitars, Founder of Australian / NZ Luthiers Forum
Jack Spira Guitars	Octigan Guitars	Fidock Drums
Vesper Tools	Ruben Guitars	



Figure 6. Hollow-body electric guitar from Victorian Blackwood, courtesy of Ruben Guitars, Melbourne.

Cultural heritage

The VFP has overlooked the input from indigenous organisations to exclude our connection with the bush, adopting a single species approach to conservation and the management of ecosystems.

The other day I was given a map that showed a buffer around a heritage site on a coupe that we currently have access to. The forest officer told us that it was an old railway tram, a relic of timber operations from the past. There was an overwhelming sense of irony of the fierce protection of our physical cultural heritage over the lack of importance for our living cultural heritage – any impact to the cultural heritage of the tramway would not be tolerated yet the living cultural activity of harvesting hardwood for instruments would be completely demolished in the next 10 years. I have had many similar experiences with our prioritisation of indigenous cultural heritage – where artefacts are glorified yet indigenous understandings and involvement are dismissed.

Whilst initially overlooking indigenous participation as part of the Victorian Biodiversity Strategy 2037, common values of the government and the Federation of Victorian Traditional Owner Corporations (FVTOC) aligned which:

“take a holistic and landscape view for planning and management, using fire, water and silviculture (gardening) as integral management tools for maintaining a productive and healthy landscape” (DELWP 2017a).

The Federation of Victorian Traditional Owner Corporations highlighted the need for a shift away from the conventional single-species approach to threatened species management, toward the management of ecosystems:

“The practice of our culture and the wellbeing of our people is founded in the vitality of the living connection between plants and animals. Our understanding that the sustainable use of natural resources (rather than a strict conservation approach) will deliver the highest value outcomes for people and Country” (FVTOC 2016).

In the same way that an appreciation of foraging from the environment can lead into being a carer for the environment, so too the interaction between timber harvesting and the bush.

The Victorian Forestry Plan is taking a single species approach. It is getting swept up in narrow conservation – overlooking a fundamental sustainable cultural connection with the bush.

Old growth

The loss of old-growth forest in Victoria is almost entirely due to wildfires. A majority of timber harvesting targets 80-year-old regrowth from the 1939 wildfires. Contemporary timber harvesting does not target old-growth forest.

Firstly, it is important to know what “Old Growth” actually refers to. This is a largely relative assessment of the age of the dominant life-form of a vegetation community. In forests, Old Growth “contains significant amounts of its oldest growth stage, usually senescent trees in the upper stratum (DEPI 2014c).” This is consistent with FSC and VicForests definitions (VicForests 2019b). In Mountain Ash forests these characteristics begin to be present at around 250 years (Lindenmayer et. al. 2015, VicForests 2019b). However, in other vegetation types this age may differ. For example, in grasslands this age of senescent vegetation can be closer to 7 years (Cheal 2010). It is worth pointing out that montane forests can develop Old Growth characteristics, such as hollows, commonly after 120 years (Lindenmayer et. al. 2015). Therefore, the value of early and mid-maturity Ash forests to biodiversity remains significant, i.e. it is not just old growth that provides habitat for hollow dependent species (VEAC 2017c).

Timber harvesting in eastern-Victoria is focused on 80-year-old regrowth from the 1939 wildfires.

Much of the large-scale contemporary timber harvesting is occurring in 1939 Ash regrowth, resulting from the 1939 wildfires. This means that the forests are 82 years old. These forests are still at least 48 years from being suitable habitat for hollow-dependent species. Therefore, any impacts to old growth have likely been incidental to these operations. In an ideal situation there would not be an overlap between timber harvesting and hollow-bearing-trees, and there are many prescriptions to ensure this separation is as efficacious as it can be. The Code of Practice prevents harvesting of any Ash in the Central Highlands that established in or prior to 1900 – or over 120 years old. This means that trees over 120 years old have been excluded from timber harvesting since 2014 in the Central Highlands. All trees over 2.5m DBH are also protected from timber harvesting. VicForests prescriptions in 2019 and the current Victorian Forestry Plan have excluded timber harvesting activities from old growth across Victoria all together.

In 2015 it was estimated that in the preceding 50 years, the impact of timber harvesting on old growth in Wet Forest in the central Highlands was 0.6%, of which 0.25% was the total impact not including salvage harvesting (Burns et. al 2015). In comparison, the 1939 wildfires impacted over 29% of old growth Wet Forest in the Central highlands and burnt 96% of Wet Forest: in just one summer.

Over the last 55 years, timber harvesting has impacted 0.25% of old-growth forest in the Central Highlands.

Wildfires contribute to 98% of the loss of old growth forest in Victoria in the last 25 years. Over the same time, timber harvesting has contributed to 1.3%.

Over the last 25 years, 98% of the impact to old growth across Victoria has been due to wildfires, with timber harvesting contributing to 1.3% – of which a proportion would be from salvage harvesting post fire (Lindenmayer & Taylor 2020).

The Australian State of the Forests Report found that a majority of the reduction in old-growth forests over the history of RFA's occurred in Victoria. This was almost entirely attributed to bushfires between 1999 and 2009 (ABARES 2018).

Harvesting in old growth has a number of disadvantages, for both habitat and resource recovery. This age group provides habitat, including hollows, for many different species, including threatened species such as the Leadbeater's Possum (LBP) and the Greater Glider (Lindenmayer et. al. 2015). From a resource perspective, trees classified as old growth have a lower proportion of quality timber due to rot and are not a target for sawlogs.

In general, the old growth age class is under-represented in the landscape and needs protecting. This is why over 51% of Wet Forest is permanently protected in the Central Highlands RFA (DELWP 2017b), so that the old growth age class can further develop to produce habitat suitable for hollow-dependent species. Guidelines for the protection of old growth trees have been in place since 1996 (DNRE 1996) and hollow-bearing/habitat trees since 1989 (DCFL 1989). Many prescriptions have since been in place for the protection of old growth and habitat trees in contemporary timber harvesting activities (DSE 2006, DSE 2008, DEPI 2014a, DEPI 2014b, DEPI 2014c, VicForests 2019b).

Over 51% of Wet Forest is protected in the Central Highlands RFA, that will develop into old-growth over time.

From a conservation perspective, hollows are a bit like a threatened species: if they disappear, so do the creatures that inhabit them. In fact, they are in some regards more difficult to promote in the sense that it might only take 120 days to create a Leadbeater's Possum, but it takes about 120 years to create a hollow.

Despite the lack of timber harvesting in old growth forests over the last 25–50 years the common perception is that timber harvesting is the biggest threat to old growth. Prescriptions for the protection of old growth and hollows are a fundamental part of contemporary timber harvesting. Addressing the loss of old growth by changing land status will not prevent large scale wildfires and will not increase the protection of old growth forests. By far the greatest threat to old growth, has and will continue to be wildfires.



Figure 7. Protected Old Growth in the Great Otway National Park.

Threatened species

Timber harvesting has not contributed to any mammal extinctions in Australia and poses a low risk to future extinctions. By far the greatest threats are land clearing, urbanisation, exotic weeds, feral animals and changing fire regimes. These greatest threats do not adhere to changes in policy, per se, they require on-ground effort. The dialogue that timber harvesting is threatening our forests ignores the issues of greatest conservation concern. It also ignores the interactions between biodiversity and disturbance – that requires disturbance to achieve the highest biodiversity.

"Looking at the world from other species' points of view is a cure for the disease of human self-importance." – Michael Pollan.

There are many forest-dwelling species in Australia that have reduced in population size since European settlement (ABARES 2018, Davey 2018, DELWP 2021d). This has been due to many different threats with the main drivers being land clearing, urbanisation, exotic weeds, feral animals and changing fire regimes (ABARES 2018, Davey 2018, DELWP 2016, Woinarski et al 2015). The focus on forest-dwelling threatened species in conservation planning and research is another driver in the high numbers of forest-dwelling species that become listed. This may be due to the fact that 92% of public land in Victoria is treed (VEAC 2017a), 81% of Victoria's forested land is Crown land (DELWP 2019c) and public land is where most research is undertaken. Forestry operations have been found to pose a less significant threat to nationally listed forest dwelling flora and fauna species compared with other threat categories (ABARES 2018).

In a study of threats to Australian mammals, forestry operations as a category of threat ranked 9th out of 11 for forest-dwelling fauna and 11th out of 11 for forest-dwelling flora. Forestry operations were specified as a threat category in a relatively low proportion of new listings (Davey 2018).

No Australian mammals have become extinct due to timber harvesting.

To date, no Australian mammals have gone extinct due to timber harvesting, which also poses a low threat to future mammal extinctions (Woinarski et al 2015).

The highest threat to mammalian extinctions was found to be cats, livestock and feral herbivores, foxes, habitat loss and fragmentation, disease and fire regimes – in that order. Although timber harvesting was seen as an influencing threat for 2 species that were critically endangered, it was found to pose a low threat to further decline (0.3 out of 8).

In the VEAC assessment of conservation values in Victorian State Forests, foxes, deer and weeds were applied to the forest-dependent threatened species as the most likely to have the most significant impact in the assessment area, eastern Victoria (VEAC 2017c). The spread of the various invasive species across the landscape was largely unimpeded by differences in environmental or management regimes. The study also found that relatively little 'medium-aged' forest was present in protected areas in the Central Highlands – mostly because of the absence of timber harvesting. This may raise questions for forest management and biodiversity as to the importance of localised disturbances in ensuring the persistence of forest-dwelling threatened species into the future. This study did not appear to address the specific impact of timber harvesting on forest-dwelling threatened species but used planned burns as a surrogate for timber harvesting.

The greatest threat to mammal extinctions is due to cats, livestock and feral herbivores, foxes, habitat loss and fragmentation, disease and fire regimes – in that order.

The acknowledgement and integration of the importance of hollow-bearing/habitat trees has been put into forest practices since 1989 (DCFL 1989) and it is a fundamental component to VicForests current management practices (VicForests 2019b). Since 2014, VicForests has substantially increased the level of retention of hollow bearing trees and trees with other conservation values, specifically aimed at protecting Leadbeater's Possum habitat (VicForests 2019b). In 2008, 30,000 ha of forest was reserved for the Protection of the Leadbeater's Possum. Since 2014, all modelled old growth within the LBP distribution has been prescribed to have a 100m buffer and excluded from timber harvesting activities (DEPI 2014a). Since 2010 VicForests have increased targeted surveys for the LBP, contributing to the discovery of over 300 new colonies. These targeted surveys have also contributed to the increased understandings of many different species. The first interim management guidelines to conserve LBP as part of timber harvesting activities was produced by the Department of Conservation Forests and Lands in 1987 (DCFL 1987) and the first FFG Action Statement was published in 1995.

One of the key issues regarding impacts of timber harvesting on threatened fauna is the retention of hollow-bearing trees. Table 12 in Appendix 3 of the Management Standards (DEPI 2014a) has the detailed prescriptions for the retention of hollow-bearing trees in each FMA. The minimum retention in most FMA's is 4 -5 habitat trees per ha. This includes both hollow bearing trees and trees yet to develop hollows. This is a good attempt at protecting important habitat values, however it is just one habitat component. An isolated habitat tree amongst a clearfell coupe is unlikely to provide much habitat value for hollow-dependant mammals until the surrounding vegetation is tall enough to provide shelter, screening and foraging connectivity. Habitat patches are also less susceptible to the impacts of post-harvest regeneration burns and windthrow. For this reason, the retention of habitat patches should be prescribed, in addition to the retention of habitat trees. Variable retention harvesting systems are designed to achieve just that - the retention of habitat patches within any given coupe (Baker 2011). So, even at the coupe level, we are maximising biodiversity - not just at the landscape scale. VicForests apply Variable or Regrowth Retention Harvesting Systems on a coupe-by-coupe basis, considering reduced regeneration due to shading, landscape connectivity and forest structure, at their discretion. There could be an argument to prescribe variable retention harvesting systems to be part of ecologically sustainable timber harvesting prescriptions for most forest types.

To what extent is contemporary timber harvesting being burdened by legacies from historical harvesting, wildfire, past land clearing, invasive species and other detrimental anthropogenic processes? The relative impact of forestry operations on threatened species, compared to other threatening processes, is grossly overestimated in the public debate.

When it comes to threatened species, an important question is - to what extent is contemporary ecologically sustainable timber harvesting being burdened by legacies of historical harvesting, wildfire, past land clearing, invasive species and other detrimental anthropogenic processes? The relative impact of forestry operations on threatened species, compared to other threatening processes, is grossly overestimated in the public debate. In comparison to annual average bushfire extent, fuel reduction burns and impacts on old growth over the last 25 years, the extent of impact from timber harvesting on our native vegetation is statistically insignificant (Lindenmayer & Taylor 2020, DELWP 2021a, DELWP 2021b, VicForests 2014).

The importance of habitat protection cannot be underestimated and the need for protection of hollow-bearing trees is fundamental to the persistence of many forest-dwelling threatened species (Lindenmayer et. al. 2015). However, the push against timber harvesting in the name of prominent threatened species should be given the contextual attention that it deserves. Localised threatened species concerns should be addressed, but not used to manipulate state-wide management decisions.

The VFP's plan to create greater protection for the Leadbeater's Possum and the Greater Glider is well overdue. However, neither the Leadbeater's Possum nor the Greater Glider occur in the west of the state, the Otway Ranges or parts of other RFA regions.

Neither the Leadbeater's Possum or the Greater Glider occur in the west of the state or parts of other RFA's.

Whilst understandably timber harvesting has the capacity to reduce biodiversity if done in excess, there is simply no evidence that contemporary silviculture methods are having such an effect.

There are many examples of where timber harvesting operations have improved to meet biodiversity and ecological sustainability objectives. The lack of education on potentially threatening processes has forced an unwarranted negative public opinion on timber harvesting in general – painting an unfair and inaccurate picture for existing ecologically sustainable operations.

It's worth noting that the many years of extensive environmental activism and litigation for the protection of forest in the Central Highland and Gippsland areas, were largely reset by the natural disturbance of fire in the 2009 and 2020 fires. The real question for Environmental Non-government Organisations (ENGO's) is: would there be better outcomes for their members if their efforts were spent in protecting our forests from the issues that pose the greatest contemporary threat – bushfires and invasive species? The reality is that if timber harvesting were to cease, what will the reasons be for any subsequent decline in threatened species populations? Blaming timber harvesting for species loss is an irrational misunderstanding of the contemporary and historical impacts of potentially threatening processes.

More education into the proportional effects of contemporary timber harvesting on biodiversity is needed before proposing fantastical conclusions of conservation benefits from its cessation. A landscape scale approach to conservation is needed – one that targets the greatest ecological threats – wildfire and invasive species.

Common Misconception – Our Forests are under threat and need more protection

When it comes to protection it is important that we identify what protection we imply. The protection provided by reserves is focused on the “protection” from human activities, yet the most pertinent threats to our environment are wildfires and invasive species, that do not comply with this sort of protection. No-one could deny that “more protection” is a good thing, but when it comes to montane forests, they are the least impacted vegetation type in our state. This does not negate protection nor justify neglect but just puts into perspective how intact this vegetation type is.

Across the five RFA regions, Wet and Damp Forest have a conservation status of “least concern” (DELWP 2017b). This means that over 50% of the pre-European vegetation remains. The actual figures are much higher in most RFA's with the Central Highlands, North-east and East-Gippsland having 98%, 100% and 100% of the pre-1750 cover of Wet Forest, respectively. Ninety-seven percent of the pre-1750 vegetation cover of Wet Forest remains in the metropolitan Melbourne area (VEAC 2005). Between 1988 and 2013, forest cover has increased or remained the same across all eleven Victorian bioregions (DEPI 2013b). By far the most impacted vegetation types are grasslands and lowland woodlands that have fertile soils suitable for farming. Agriculture has been the biggest cause of land-clearing. The period of greatest deforestation occurred between 1830 and 1880, principally the result of agricultural clearance and settlement development by early European explorers (DEPI 2013b). Timber harvesting does not convert forest to anything but back into forest.

Biodiversity and disturbance

A well-established relationship in ecology is the role that an intermediate level of disturbance plays in increasing biodiversity, species richness and ecosystem resilience. Too much or too little disturbance will reduce biodiversity. Small-scale disturbances are essential for species recruitment, fresh food and habitat. As long as timber harvesting fits within these ecological parameters, it can serve to benefit the environment and increase biodiversity. Without small scale disturbance events Victoria will lose biodiversity.

Similar to the negativity around CO₂, which is in fact the fundamental ingredient to life for all plants, it's unfortunate that disturbance has been given such a negative reputation. It has in fact created the very opportunity of life for many naturally established plants and creates conditions that provide fresh food for animals. It is well understood in ecology that a healthy biodiverse ecosystem is one that is subject to an intermediate level of disturbance.

A good example is the Eucalypt forests of Australia. The presence of Indigenous burning practices has helped to shape the flora and fauna of this country. Altered fire regimes is listed as a potentially threatening process, since many species are affected by too much or too little fire. The reliance on fire is in part because of the different niches that are created when this disturbance occurs and the opportunities that are created for colonisation and germination of otherwise dormant species in the ecosystem. If an ecosystem remains too long without disturbance it will lose the seed store of the species that rely on disturbance and will be unlikely to properly recover when a disturbance event occurs. On the flip side, if disturbance happens too frequently or over large areas then we will lose species that rely on older vegetation types for habitat or need time to establish seed stores – such as slow growing, shade dependent tree species. The key to maximising biodiversity is having a mosaic of age classes across a given vegetation type.

Many animals rely on disturbance to provide a succession of new food opportunities. For example, the Leadbeater's Possum feeds on the nectar of Wattle (*Acacia*) trees, which are relatively short lived compared to the Old growth habitat they need to find shelter – in the form of hollows. A nearby disturbance such as fire or timber harvesting, that doesn't impact its shelter, can help to provide food for many years. Peak densities of Leadbeater's possum occur in 28 year old regrowth forests (Baker et al. 2017), in which nearby undisturbed stags supply abundant tree hollows, and there is a high biomass of wattles (20–50% of stand basal area) (Smith and Lindenmayer 1988; Lindenmayer et al. 1990; Lindenmayer et al. 1991; Lindenmayer et al. 2000). Dense regrowth forming after timber harvesting provides foraging habitat if there are nesting sites within the regrowth or in adjacent areas (Smith et al. 1985; Nelson et al. 2015). The peak densities of LBP occur in vegetation that has been assessed as having the highest risk of canopy scorch, between 7 – 36 years after disturbance (Lindenmayer et al. 2009). If the areas set aside for Leadbeater's Possum habitat do not receive adequate small-scale disturbance, then the suitable habitat for this species will decline. Getting the right balance is important. We cannot simply rely on wildfires or risky patch-burning in these environments to provide the most suitable habitat for the Leadbeater's Possum. However, the habitat element most under-represented in the landscape right now is hollow-bearing trees. Maintaining enough of both is the major challenge for its long-term conservation (VAG 2013).

Peak densities of Leadbeater's Possum are found in 28 year-old regrowth after disturbance, (Baker et al. 2017) that has high fuel load connectivity and the greatest risk of canopy scorch during a wildfire event (Lindenmayer et al. 2009).

The very reason that we can have a conversation about 'exclusion of timber harvesting from forests for apparent conservation values' is a reflection of the limited impact that timber harvesting has had on the environment and the fact that it fits within the natural disturbance regimes of the environment, such as fires, windthrow and flooding. The impacts from many other land uses would not allow this discussion, simply because they would have removed any environmental values worth conserving. In extending the Tasmanian Wilderness World Heritage area in 2013, the International Union for Conservation of Nature (IUCN) and the World Heritage Committee (WHC) both accepted tens of thousands of hectares of industrially logged forest – some on its third regrowth cycle – as having high enough conservation values to warrant world heritage protection. Why would the WHC accept the listing of Tasmanian forests if there had been a significant impact from timber harvesting?

Research into the effects of fire and logging have shown that there are differences in post disturbance recruitment and conditions (Hickey 1994, Lindenmayer 2015, Mueck 1992, Mueck & Peacock 1992, Ough 2001, Ough & Ross 1992). However, depending on the forest type and harvest method, species richness and composition returns to that of old age forests after approximately 20–30 years. A recent study by the VEAC used high severity fire as a surrogate for the disturbance created by timber harvesting (VEAC2017c). In the same way that flooding will create different conditions to fire, there is little benefit to exclude one disturbance type over the other. There is often more benefit to combine disturbance methods, such as autumn and spring burns, to generate the most biodiversity. The important factor is that a mixture of disturbance types will create higher diversity than any single type of disturbance. For this reason, the differences in conditions post-fire or post-harvest should not cause exclusion or preference of one or the other. At the moment, the majority of disturbance in our forests is from fire (6% annually), and a significantly smaller amount from timber harvesting (0.04% annually).

By removing disturbance from our landscape (whatever that may be) we are taking away the very tool that the environment needs to provide food, habitat and stay resilient to the changing times ahead. However, too much will also lower biodiversity, threaten vulnerable species and begin to change our ecosystems. It is delusional to think that by excluding disturbance from the bush we will be protecting it. Unless we are facilitating ecologically targeted small-scale disturbance events, we will not be providing adequate protection around Old Growth or rainforest from bushfires. We will not be creating opportunities for fire-dependent threatened species or early-seral communities.

Common Misconception – Timber harvesting is deforestation

This has been used as a very effective way to devalue timber harvesting – by associating it with deforestation. Deforestation is the permanent removal of forest for another land use; such as agriculture or development.

The correct term for this activity would be Land Clearing, since not all vegetation that is removed is forest. Some of our most threatened ecosystems are the grasslands of the volcanic plains that have been subject to land clearing for agriculture and housing. Currently there is only 5% that remains and only 1% of good quality. The conservation reserve system is comprehensive and adequate for some biodiversity areas such as the Alps, but other areas, such as lowland native grasslands, are poorly represented (DELWP 2017a). Land Clearing of grasslands is still continuing to this day, whereas forestry contributes to no net loss in vegetation, since it is all regenerated as forest and not permitted to be converted to anything else.

Are there issues on private land in other states? Sure, The Wilderness Society forensically analysed data for Queensland that 73% of clearing in that state was to grow more grass to feed cattle to produce beef. They also found that other drivers, such as urban development, mining, roads, forestry, and even cropping, have a minor contribution in Queensland. When environment groups use sweeping figures for Australia, the impacts will usually be from other states. Victoria has very high environmental protection.

In Victoria, the largest amounts of land clearing are occurring because people want to clear land for housing and developments and live close to cities. All regulated land clearing is offset by permanently protecting vegetation of an equal value, with few exceptions.

Fire

The Australian bush is one of the most fire adapted environments in the world. Our biodiversity depends on it as a disturbance mechanism, yet it also poses the greatest threat to biodiversity. Wildfire is almost exclusively the main driver in the loss of old-growth forest in Victoria. This needs to be addressed! Wildfires have always been an issue in Australia, not just now that the climate is warming. Victoria needs to be focusing on reducing the threat from wildfires in addition to the threat from climate change. In conjunction with indigenous burning practices, timber harvesting is a controlled way of creating mosaic disturbances that can protect our forests from the impacts of wildfires and increase ecosystem resilience.

Fire is a part of Australia. The plants and animals of our country have been shaped by fire, they have adapted to it and in many ways rely on this disturbance mechanism. There is a lot of research on the benefits and implications of fire-regimes in the landscape from both scientific (Carter & Cheal 2004, Cheal et. al 2007, Cheal 2010, Kohout et. al. 2009, Kohout 2009, Lindorff 2002, McCarthy et. al. 2003, Prober et. al 2007) and indigenous (Steffensen 2020, George 2013, Langton 1998) understandings. Past and current governments have dedicated a lot of resources to adopt these understandings (CES 2008, Commonwealth of Australia 2002, McCormick 2002, Parliament of Victoria 2010, DSE 2012, DELWP 2020a, b, DELWP 2021a, b, c).

We have to acknowledge that independent of the threat from climate change is the ever-present risk from high fuel loads, increased probability of ignition from human activity and intermittent severe fire danger weather. Given that the largest bushfire (in extent) in Victorian history was in 1851 with other large fires in 1898, the early 1900's, 1926 and 1939, the dissemination of the impacts of climate change from the bushfire threat is important. Climate change is increasing the frequency and severity of large-scale bushfires. In addition, the 70% chance of ignition due to human activity is helping to alter fire regimes (CES 2008). Nine of the 15 fires that were examined during the 2009 Bushfire Royal Commission were initiated by human activity – including the Kilmore East fire (VBRC 2010). However, the threat from bushfires has always been here. A large part of management of our forests is to adopt the fire regimes that our environment depends on, as a basis for protecting it from climate change and large-scale wildfires. It's somewhat easier to blame climate change for bushfires and "logging" for apparently making the problem worse but not consider or acknowledge that we could be doing more to re-instate indigenous burning regimes.

Human sources of ignition account for at least 70% of individual fires on public land in Victoria (CES 2008). Nine of the 15 fires that were examined during the 2009 Bushfire Royal Commission were initiated by human activity – including the Kilmore East fire (VBRC 2010). The 1939 fires were also primarily a result of human ignition (DELWP 2021b).

It is disheartening to see that the Biodiversity Strategy for Victoria – towards 2037 (DELWP 2017a), although highlighting that '*Biodiversity investment should be more strongly focused on prevention and earlier intervention, rather than just crisis response,*' does not include the use of fire as a biodiversity conservation tool to achieve this. This is despite the indigenous and scientific consensus suggesting that it is one of, if not the most, important conservation tools that we have. The 2020 recovery program also has a strong focus on post-fire recovery but puts no effort towards preventative action (DELWP 2020a), which is an established method in indigenous land management.

Timber harvesting impacts 0.7% of the land area that wildfires and fuel reduction impacts every year.

Because large scale wildfires are increasing, more pressure is being put on threatened species and timber harvesting operations are getting blamed. Despite timber harvesting affecting 0.7% of the area affected by bushfires and fuel reduction burning every year (DELWP 2021a, DELWP 2021b, VicForests 2014), the negative attitude towards its impacts on the bush are extremely disproportionate and unjustified.

The two main advantages of the use of fire to prevent the impacts from wildfires are the increase in ecosystem resilience and the reduction in fuel loads. As discussed earlier, ecological burning will encourage regeneration of otherwise dormant species. This allows them to set seed and regenerate when a fire occurs again, creating a more resilient ecosystem. The second is fuel loads. The lower the fuel loads and connectivity, the lower the intensity, risk of spotting and ability to spread fire. As the fire conditions become more extreme, these benefits from fuel reduction burning will reduce (Price & Bradstock 2012). Fuel reduction burns usually do not remove canopy fuels in forests or woodlands. The benefits of lower fuel loads are maximized under lower fire weather conditions, where they may be enough to reduce or even stop the spread of a fire. Lower fuel loads are important along fire flanks, where the wind is not driving the fire in that direction. This enables firefighters to suppress the fire much more easily and safely, with less exposure to radiant heat. Recent fires will also provide refuges – the safest place for plants and animals to reside in and escape the heat of a fire.

Understandably there are hurdles to increasing fire management across the landscape. The biggest of these are: fragmented land tenures; infrastructure; red tape that is strangling efforts and increasing costs to undertake burns; the lack of acceptance and adoption of indigenous burning practices and the developing cultural taboo about the fear of using fire. I definitely don't envy the Government's responsibility to manage fire regimes and threats to life and property from wildfires.

The creation of heterogeneous fuel loads and growth stages in large areas of connected vegetated land needs to be addressed. Timber harvesting is not in contradiction to this but can be used as a tool to help achieve this. Around Anglesea fuel reduction works are currently chipping the understorey to create lower fuel loads – an intermediate between fuel reduction and timber harvesting. This completely new and unique disturbance method may have unintended consequences for biodiversity.

A recent study regarding the effectiveness of our reserve system in protecting ecological values did not even include any mention of fire in its attempt to blame timber harvesting for impacts to forest dependant fauna (Taylor and Lindenmayer 2019). The notion that reserve status is the most effective way to conserve Victorian threatened species does not acknowledge that wildfire, by far the biggest threat to forest-dwelling hollow-dependent species, doesn't stop at conceptual boundaries.

Timber harvesting is a very controlled method of creating a mosaic of age classes within native vegetation – replicating the natural disturbance of fire, without the risk. Unfortunately, wildfire does not follow the same prescriptions as timber harvesting. It is not concerned for how threatened a species is, if it is old growth, how close it is to a waterway or if there is any cultural significance. It is not concerned about our legal protection system – its only discrimination is how well the bush will burn.



Figure 8. Ecological burning

Common Misconception – The impact of the 2020 fires should mean that we stop timber harvesting

The 2019–2020 fires affected large amounts of forest in Gippsland and did not impact the Central Highlands RFA region or other parts of the state (DAWE 2021). It is important to note that many timber harvesting operations were unaffected by these fires. Salvage operations to harvest dead trees are actually creating an abundance in resource for fire affected areas. Most of the area burnt in the 2019–20 bushfires were fire-tolerant mixed-species eucalypt forests. These species typically survive most fires and regenerate by resprouting after the fire event (DAWE 2021). The loss in extent of Mountain Ash forest as a result of the 2019–20 fires was 1.6% (DELWP 2020b). The assumption that – the 2019/20 fires affected timber harvesting across the state – needs appropriate consideration.

VEAC recommendations

The VEAC have repeatedly recommended ecologically sustainable timber harvesting operations to continue in state forests, based on scientific and public advice. Despite this, the VFP dismisses these findings and recommendations.

The Victorian Environment Assessment Council is a changing, independent group of council members with a supporting community reference group. They provide the State Government of Victoria with independent advice on protection and management of the environment and natural resources of public land. Their recommendations intend to represent a balanced outcome and the investigations are rigorous, based on analysis of scientific, social and economic information together with the knowledge and views of the Traditional Owners and the Victorian community.

The re-occurring theme in relation to timber harvesting on public land has been the VEAC's recommendation to provide for **ecologically sustainable production of hardwood timber and other forest products in State Forest**.

In 2004 the VEAC conducted a review of the Otway Ranges and recommended that:

- Recommendation B1, b, (vi) low-intensity harvesting of selected trees for firewood..., posts and poles, woodchop blocks, stakes, hobby wood or specialty applications ..., where such harvesting is demonstrably sustainable (VEAC 2004).

In May 2017 the VEAC undertook a state-wide review of public land in Victoria that incorporated a public consultation process. The VEAC made the recommendation that:

- Recommendation R1, 10: State forest provide for ecologically sustainable production of hardwood timber and other forest products (VEAC 2017a).

In June 2019 The VEAC conducted a review of Public land use in the Central West Investigation and recommended that:

- Recommendation G: State Forest be used to provide for ecologically sustainable production of hardwood timber and other forest products (VEAC 2019a).

The VEAC have consistently recommended that sustainable use of forest products be permitted in state forest, yet the Victorian Government is ignoring this advice and stopping it completely.

The Victorian Government subsequently accepted this recommendation to provide for ecologically sustainable production of hardwood timber and other forest products in State Forest (DELWP 2019a).

Despite the consistent recommendations of the VEAC and the subsequent acceptance of these recommendations by the Victorian Government, the government is now turning its back on ecologically sustainable timber harvesting. The extreme policy decisions that the Victorian Forestry Plan is adopting will not create balanced, effective, long-term solutions that are in line with the science or the views of Victorians.



In a recent campaign by the World Wide Fund for Wildlife (WWF) they advocate for FSC certification of native forestry for Australia (Blanch & Taylor 2019). This campaign has some misleading statements towards forestry and particularly forest management in Victoria but the overall aim of FSC certification appears overdue and highly achievable.

The Victorian government is going beyond this target from one of the largest conservation funds in the world to take the extreme approach of stopping timber harvesting completely.

Public Consultation and Stakeholder Engagement

To date there has been no engagement process for the Victorian Forestry Plan. It appears that the government has developed the Victorian Forestry Plan from the limited consultation from the RFA review process.

If you haven't heard of the fate of our connection with timber from the bush, then it's likely because of the limited stakeholder engagement and public consultation.

Why weren't licensee contact details used in any of the stakeholder engagement processes since DELWP's inception? – the people who would be directly affected by the RFA review process.

The RFA consultation summary reports of the public consultation process provided an understanding of the broad range of views and opinions held by Victorians regarding forest management and specifically the RFAs (DELWP 2020c). It did not suggest that these views and opinions match with scientific findings or optimal management practices for long-lasting, robust outcomes for the future of our forests.

The consultation summary report cautioned the findings suggesting that although there were a range of consultation opportunities this does not mean the results presented are representative of all Victorians. Engagement reflects only the views and responses received from those who chose to contribute, or, I would add, were consulted about the process. Through the consultation period, 135 written submissions, 733 survey responses and comments from over 330 people at face-to-face consultations were received. Has this been the extent of public input into the VFP?

Why has there been no comprehensive consultation process focused on the future of sustainable timber harvesting? Is the Victorian government making policy decisions based on majority figures of limited public opinion from a different consultation process?

Victoria's high biodiversity protection

In Victoria, there is a very thorough framework for biodiversity protection and the extent that timber harvesting impacts our forests is maintained at a small level. Non-compliance of regulations is an extreme minority and impacts are insignificant compared with the impacts of wildfires.

Environmental Legislation in Victoria is extremely high, with RFA's providing some of the highest environmental protection in the world (Commonwealth Government Department of Agriculture 2020). The mechanisms that are in place to reduce and avoid impacts to natural values from timber harvesting activities are very thorough in Victoria (Figure 9, DELWP 2019c).



Figure 9. Victorian Forest Management legislative and regulatory framework (Brockington et. al 2018).

The Code of Practice for Timber Production (DEPI 2014c) and the Management Standards (DEPI 2014a) outline protection measures for hundreds of species across the five RFA's. Within the Management Standards and the Code, there are detailed prescriptions around roading, protection of water quality, slopes, rainforest buffers and threatened species habitat. Measures to reduce threatening processes, impacts to threatened species and communities under the FFG Act and EPBC Acts are incorporated into forestry activities in Victoria. Appendix A. in the Code outlines the legislation, regulation and policies that apply to timber harvesting in Victoria. There are over eight Commonwealth Acts, over 40 State Acts, and over 27 State Regulations. These documents inform and govern lower level management guidelines and plans. If anyone is doubt over the efforts that go towards the protection of natural values as part of timber harvesting activities, then I encourage you to look into the detail of these documents that regulate contemporary timber harvesting in Victoria. There are many proactive ways of making these regulations better, such as research and submissions of action statements that then form part of the management standards for threatened species and communities.

In Victoria, all native flora and fauna are protected. Impacts are highly controlled through local council, DELWP and the Federal Minister for the Environment. A council or DELWP permit is required to lop a branch off a native shrub or to fell a native tree, even on private property (Victorian Planning Provisions 2021, s.52.17). In Victoria, the largest amounts of deforestation (land clearing) are occurring because people want to clear land for housing and live close to cities. This regulated clearing is offset by permanently protecting vegetation of an equal value, with few exceptions.

In Victoria, you need to get a permit to lop (trim) any native vegetation, on both private and public land.

Of Victoria's 7 million hectares of native forest on public land, 60% or 4 million hectares is dedicated to conservation in the form of National Parks and conservation reserves. The remaining 3 million hectares is State Forest that accommodates a wide range of other values, including conservation, forest products, social and economic values, recreation and cultural heritage. 1.2 million ha is the area available for permitted timber harvesting. Within this area, the total area suitable for timber harvesting is approximately 590,000 ha, or 8% of the total area of native forest in Victoria. VicForests is currently harvesting approximately 3000 ha per year, or 0.04% of the public forest area. Therefore, 92% of native forest in Victoria is not subject to any form of timber harvesting activity.

There have been a number of litigation attempts at DELWP and VicForests over matters relating to timber harvesting. The precursor to the Independent Review of Timber Harvesting Regulation in Victoria (Brockington et. al 2018) was the Take Me Home Coupe case. In this case a 60m x 30m (0.23ha) strip of identified rainforest had been harvested. However, the independent audit found that with the exception of this coupe, VicForests personnel were found to be very conservative in their identification and protection of rainforest vegetation (Clifton et. al 2018). To put it in perspective, these examples of non-compliance are an extreme minority of timber harvesting activities across the state. In addition, the 2019-2020 fires burnt 13,000 ha of Warm Temperate Rainforest, within the space of a couple of months. And, all of the Warm Temperate Rainforest within a 6.8km radius of the Take Me Home coupe, was burnt. The question as to whether litigation resources from ENGO's would be better spent targeting wildfires, rather than inadvertent non-compliance of timber harvesting activities, still remains.

The highly controlled protection of our native flora and fauna is an asset to Victoria. Are we prepared to source timber from other parts of the country or world that do not have such high environmental protection?

Shifting the responsibility

By excluding highly controlled harvesting in this state the supply of timber will need to come from elsewhere. This timber will be sourced from other states and countries around the world – including developing countries that have little environmental regulation and/or enforcement.

In Victoria we have very strong environmental policy in regard to protecting our threatened environment, and that's the way it should be. Are we going to move the supply of timber products to elsewhere in the country or overseas, where environmental protection is less regulated and enforced?

Regional Forest Agreements

Regional Forest Agreements (RFA's) are a method of combining state and federal obligations and aspirations for the management of timber harvesting in our forests. The level of protection that they provide is very high by world standards. Criticism of RFA's is primarily focused on the adequacy of the reserve system to accommodate site-specific impacts on federally listed threatened species.

Regional Forest Agreements (RFA) have been the subject of much criticism from ENGO's. However, their function is simply to combine state and federal obligations and objectives: including matters relating to the environment.

The RFA is a streamlined process that avoids the duplication in policy obligations regarding timber harvesting. They aim to safeguard biodiversity, old-growth forests, wilderness and other natural and cultural values. This is achieved through the Comprehensive Adequate and Representative (CAR) reserve system and through ecologically sustainable forest management outside of reserves. This ensures that there are adequate reserves that protect a representative amount of our flora and fauna. For a detailed overview of Victoria's Forest Management System see DELWP 2019c.

There could be a more thorough incorporation of EPBC obligations into the RFA's.

The main difference between the regulation of timber harvesting on public versus private land is the obligation to independently conform to the Environment Protection and Biodiversity Conservation (EPBC) Act on private land. However, due to the RFA arrangements for public land, any harvesting affecting Matters of National Environmental Significance under the EPBC Act are presumed to be accounted for by the allocation of a CAR reserve system. This has received criticism from ENGO's due to the lack of proper consideration of the EPBC Act obligations relating to threatened species at a specific site.

Biodiversity protection is very high under Victorian Legislation and is thoroughly integrated into timber harvesting activities. However, there could be a more thorough incorporation of the EPBC Act obligations into the Management Standards for timber harvesting on public land. Many operations would not be affected by this incorporation. The current VFP has gone beyond the incorporation of EPBC Act obligations to halt timber harvesting on public land altogether.

Combining our knowledge

Our understanding of silviculture and the role that it can play in benefiting the environment is a key element of future sustainable harvesting and conservation. To throw away such a valuable tool will be a regrettable decision for the future of forest management in Victoria.

With the current information that we know around ecological processes, biodiversity, threatened species and silviculture, there are various attributes of timber harvesting that can be used to benefit the environment, many of which are already in practice (Baker 2011, VicForests 2019a, 2019b).

Methods of timber harvesting that benefit forested landscapes and maintain ecological sustainability include;

- Creating the right balance of harvested areas to retained areas, increasing landscape heterogeneity and encouraging maximum diversity across smaller spatial scales. Approximately 30% of a coupe area remains unharvested.
- Silvicultural practices that thin early – and mature – forests to reduce elevated fuel loads, reduce fire proneness and promote early development of mature habitat features such as hollows and large trees. A shortage of hollows in regrowth forests resulting from wildfire or past utilisation may be addressed through ecological thinning to promote growth and branch development (Garnett et. al. 2003).
- Retention and protection of hollow bearing and habitat trees.
- Alternative methods for post-harvest regeneration that minimise the use of post-controlled burns to break down the woody debris and create a receptive seedbed.
- Low-impact single-tree-selection methods that retain all of the existing habitat elements, promote small scale recruitment and target high-value products.
- Regrowth Retention Harvesting (RRH) systems, which have been applied to Ash regrowth stands to protect and enhance habitat for Leadbeater's Possum (VicForests 2019a, 2019b).
- The use of fire post-burn or mechanical disturbance to promote certain ecological elements such as fire recruiting species.
- On coupes or in areas where a history of timber harvesting, or other anthropogenic disturbance, has disproportionately removed habitat trees, structural complexity is created by retaining both extant habitat trees and a selection of regrowth trees, i.e. the next habitat cohort.
- Clear-felling has historically been the most commonly employed silvicultural system in ash eucalypt forests of Victoria because it is the most reliable method for achieving successful eucalypt regeneration of this light-dependant species. It also falls within the natural process of wildfire. Furthermore, clear-felling is generally the safest and most efficient system for harvesting contractors as it minimises the risks to workers associated with retained trees and falling limbs.

- Encourage rainforest-like environments through selectively harvesting eucalypts and promoting shade tolerant acacia species.
- Increasing focus on monitoring of tree retention levels and fauna values, through the routine collection of data.

Currently DELWP and FFMV have adopted a number of these techniques to promote old growth, increase vegetation structure and reduce fuel loads. However, the use of timber from these activities would incur unwanted “baggage” from environmentalists, so it is often mulched or left on the forest floor.

There are many silviculture techniques that are being applied to increase the ecological sustainability of harvesting operations and promote species richness and resilience in our native vegetation. Harnessing these attributes and capabilities, including allowing a respectful contest of ideas, is necessary to overcome the current oppositional impasses and realise better outcomes for the balance of natural resource management (Brockington et. al. 2018).

The balance

The point at which timber harvesting can benefit the environment is the point at which it should be socially acceptable. Getting the ecological balance right should equate to a socially acceptable balance – one that is mutually beneficial for Victorians and the environment.

The Investigation into the regulatory role of DELWP raised one of the most pertinent questions in its closing finding – The lack of a clear policy position articulating the trade-offs (apparent) between environmental and native timber harvesting uses and values – “The Balance” (Brockington 2018). Both the forest industry Taskforce and the Timber Industry Action Group were given this as an aim, yet neither appears to have put forward any practical solutions.

For many years this has been the focus for much political debate and is likely the reason for much of the ENGO fuelled litigation. It could be seen in some regards as a subjective decision, since the focus is often about human priorities and public perception, not based on scientific consensus or ecological processes.

From an ecological perspective the balance is much easier to find, since there is a lot that we know about our Victorian EVC's, fire regimes (Cheal 2010), threatened species (Lumsden et. al. 2013) and threatening processes. We also know that an intermediate level of disturbance has many benefits, such as the example of fire. If we combine this data with threatened species distributions, essential habitat features, the Strategic Wood Supply Modelling (SWSM) and threatening processes such as fire and climate change, we can work out a disturbance matrix for any given area. These figures will also help in understanding appropriate fire regimes and the fire response for achieving biodiversity targets. Timber harvesting is similar in some ways to fire regimes (VEAC 2017c), so once we determine the capacity of ecosystems to respond to the impact of high severity fire, we can use this as a surrogate to determine appropriate levels of both timber harvesting and control burns. Both of these disturbance mechanisms cause different recruitment situations – a mixture of both will create greater diversity than any one disturbance method.

Table 1. shows a simple example for the Wet Forest EVC of the Central Highlands.

Table 1. Simple example of sustainable disturbance levels for extant Wet Forest EVC in the Central Highlands RFA region based on old growth, habitat protection and minimum tolerable fire intervals of high severity fires (DELWP 2017b, Cheal 2010). This simple example does not consider age classes or other factors and is intended as an illustration of how ecological sustainability of timber harvesting can integrate with natural disturbance regimes.

EVC	30 - Wet Forest
Total area in Central Highlands RFA	120,880
Protected area (ha) in formal and informal reserves (%)	49,483 (41)
Is this within the 30–60% threshold level	Yes
Area available (ha) in the GMZ (%)	46,260 (38)
Minimum Tolerable Fire Interval for high severity fire	80 years
Disturbance Area (ha) of Wet Forest in CHRFA Per Year (%)	578 (0.48)

An average harvest area of 578ha/yr would be ecologically sustainable within Wet Forest of the Central Highlands RFA

So, for this example, within the Wet Forest EVC of the Central Highlands RFA an average maximum mosaic disturbance regime of 578ha/yr., or 0.48% of the extant EVC cover, would be ecologically sustainable and beneficial to biodiversity.

In addition to an ecologically sustainable approach, the target resource needs to be for a socially acceptable product. Fibre and pallet timber should only be a bi-product resource, since both of these can be easily sourced from plantations. Target resources should be focused on products that have a long carbon storage potential, such as framing, furniture, and other boutique products such as timber for musical instruments.

The rotational timeframes of vegetation subject to timber harvesting already fall within the minimum tolerable fire intervals for high severity fires and many prescriptions are in place around protection of threatened species habitat. All old growth forests are protected, and many regions have a greater proportion of forests that are protected than what is available for timber harvesting.

The balance, from an ecological perspective, appears to have already been struck. The main issues at the moment seem to be an unbalanced public perception.

Montane ash forests and Victoria's forest management.

Forest management in Victoria should not be based on one vegetation type in a specific part of the state.

Whilst preferring to avoid the political controversy around the issues in the central highlands, the application of it to forest management across Victoria is too great to ignore.

There has been a lot of research into Montane Ash forests of the Central Highlands of Victoria (Nelson et. al. 2015, Smith et. al. 1985, Lindenmayer et. al. 1991, Lindenmayer et. al. 1990, Smith and Lindenmayer 1988, Lindenmayer 2015, DEPI 2014d). This research shows us that Old Hollow Bearing Trees and Old Growth habitat are important ecological assets that are under-represented in Montane Ash forests of the Central Highlands of Victoria. The importance of this research for ensuring the protection of hollow dependent species in montane ash forests of the Central Highlands, including the nationally critically endangered Leadbeater's Possum, should not be underestimated.

Montane Ash forests of the Central Highlands are a unique forest type. It is largely capable of withstanding the exclusion of fire over long periods of time yet relies on fire almost entirely for regeneration. When comparing this to other vegetation types across the state we can see that almost all other vegetation types need fire much more frequently in order to maintain species diversity (Cheal 2010). The Australian ecology is unique in that it is extremely reliant on small, frequent fire events. This is a good thing for disturbance activities like timber harvesting, if it can fit within these ecological parameters.

The Central Highlands has the least amount of old growth of any RFA region, almost exclusively due to wildfires. It also has a higher fire proneness than other east Victorian FMA's.

The proportion of Old Growth and the importance of it for threatened species habitat varies across the state. The Montane Ash Forests of the Central Highlands have the least amount of old growth in any RFA region (DELWP 2017b), almost exclusively due to wildfires (Burns et. al 2015, Lindenmayer and Taylor 2020). In addition, many of the estimated future impacts of fire in wet forest have been based on fire frequencies in the Central Highlands, which has a fire proneness that is greater than other eastern Victorian FMA's since it experiences warmer and drier climatic conditions (Baker et al. 2017). For example, there have been no large wildfires in Wet Forest in the Otway Ranges since 1939 despite extensive timber harvesting up until 2008. This is an example of how localised the research in the central highlands is. It cannot be used as a blanket tool for management across the state or other FMA's.

Prominent threatened species such as the Leadbeater's Possum and the Greater Glider have localised distributions and do not occur across much of the state. The Leadbeater's Possum is restricted to an area of 80km x 65km of Montane Ash forests within the Central Highlands (Baker et al. 2017, Commonwealth of Australia 2016, VEAC 2017). The Greater Glider occurs in Montane Ash forests in eastern-Victoria and near Ballarat, it is not present in the Otway Ranges or further West in the state. Its range extends up the east coast into Queensland (DELWP 2019b).

The Leadbeater's Possum is restricted to Montane Ash forests of the Central Highlands.

Despite the localised overlap between threatened species and timber harvesting and the proportionally low impact of timber harvesting on threatened species relative to other threats, some scientific authors have contrived a narrative that timber harvesting is the biggest threat to Montane Ash forests of the Central Highlands.

Scrutiny needs to be applied before making broad management decisions for the future of Victoria's Forests. The broader application of finely focused research for one vegetation community in a small part of Victoria with unique environmental issues should not be used as a surrogate for state-wide forest management.

Common Misconception – The impacts of timber harvesting are excessive

Based on campaigns by ENGO's it is easy to assume this, particularly if Nation-wide statistics are given. However, the truth for Victoria is much different. Below are a variety of figures regarding the impacts of timber harvesting, some of which have historical legacies that do not reflect current practices.

- In Eastern Victoria, VicForests is currently harvesting approximately 3000 ha per year, or 0.04% of the public forest area – nominally the equivalent to 4 trees in every 10,000 trees across the landscape (VicForests 2019a).
- Timber harvesting in eastern-Victoria is focused on 80-year-old regrowth from the 1939 wildfires –vegetation 40 years too young to provide hollows.
- The impacts on LBP habitat are largely due to wildfire. 96% of Wet Forest in the Central Highlands was impacted by the 1939 fires including approximately 89% (29% of EVC extent) of old growth forest (Burns et. al. 2015).
- Wildfires were responsible for 98% of the impact to old growth forest in Victoria in the last 25 years. Over the same time, timber harvesting was responsible for 1.3% (including salvage harvesting) – little of which is likely to be associated with contemporary timber harvesting practices that exclude old growth harvesting.
- Timber harvesting has been estimated to account for 0.25% of the impact to unburnt old-growth Wet Forest in the Central Highlands since 1964 (Burns et. al 2015).
- No Australian mammals have become extinct due to timber harvesting and timber harvesting poses a very low threat to future extinctions.
- The greatest threat to Australian mammal extinctions is due to cats, livestock and feral herbivores, foxes, habitat loss and fragmentation, disease and fire regimes – in that order.
- Timber harvesting impacts 0.7% of the land area that wildfires and fuel reduction impact each year. Planned fuel reduction burns approximately 200,000 ha of public land every year (DEPI 2013b, 2021a, 2021b), equivalent to 1/3 of the total net area available for timber harvesting in Victoria (DEPI 2013b). The average area of land in Victoria subject to bushfires between 1983 to 2021 is 266,000 ha/yr (DELWP 2021b), just under half the total area available for timber harvesting in Victoria.
- Prior to the additional reserve areas for LBP and the GG under the VFP, there was already over 51% of Wet Forest in the Central Highlands excluded from timber harvesting (DELWP 2017b) that will develop into old growth over time, if fire is excluded.
- Wet Forest is one of the most intact vegetation types across the state.
- Timber harvesting creates a mosaic of age classes, including optimum foraging habitat for the Leadbeater's Possum.
- Contemporary timber harvesting operations are highly responsive to protecting habitat and areas where LBP have been sighted. Trees over 120 years old have been excluded from timber harvesting in the Central Highlands since 2014.

Misinformation fuelling the anti-logging narrative.

Prominent academic authors have published misleading statements towards timber harvesting. They have intentionally moved the focus away from the greatest threats to conservation in an attempt to devalue contemporary sustainable timber harvesting. This information has been used to encourage misinformation through ENGO campaigns and anti-logging media.

There are many examples of misinformation that have been picked up by ENGO's to push for a cessation in timber harvesting (Burns et. al 2015, Lindenmayer & Taylor 2020, Taylor et. al 2014, Taylor and Lindenmayer 2019). Some examples below attempt to show that timber harvesting impacts old growth forest and that it encourages wildfires. In addition, there are claims that Montane Ash Forests of the Central Highlands are Critically Endangered – pointing the finger at timber harvesting. However, under closer investigation they do more to point out the insignificance of the impacts from timber harvesting and the authors' flawed approach to scientific inquiry.

A study in 2020, "Extensive recent wildfires demand more stringent protection of critical old growth forest" found that 77% of old growth forest and woodlands across Victoria have been disturbed by fire and logging over the past 25 years (Lindenmayer and Taylor 2020). Given this alarming sentence in the abstract you would think that timber harvesting had a significant impact. However, the body of the report explains that 98% of the impact was due to wildfires and 1.3% was due to timber harvesting. There was also no distinction of impacts from salvage harvesting, which was a contributor to the 1.3% figure. In fact, the term "salvage harvesting" was not even mentioned in the study. Despite the extent of timber harvesting being scientifically statistically insignificant, this study referenced "logging bans" in the key words. It implied "more protection of old growth" from timber harvesting was the highest priority – avoiding any detailed comment on conservation measures to limit large scale wildfires. The study regularly combined the impacts of wildfire and timber harvesting in the same sentence so as not to separate out the relative impacts. The author's clear bias is emphasised by the elevation of the impacts of "logging" far beyond that which the study has warranted.

A preceding study investigated the conservation status of Wet Forest in the Central Highlands and termed it to be Critically Endangered based on the modelled distribution of old growth as a surrogate for hollow bearing trees (Burns et. al 2015). This study suggested greater protection of unburnt forests and a reduction in logging pressure were the key conservation directives. Again, the authors overlook the information that they presented, to target logging as the greatest conservation threat. The study used old growth as a surrogate for hollow bearing trees – a clear bias to reduce the estimated extent of hollow bearing trees on the authors' behalf. The authors were well aware that hollow bearing trees form as early as 120 years (Lindenmayer et. al 2015) and have been protected from timber harvesting in the Central Highlands since at least 2014 (DEPI 2014a). They also did not assess the Wet Forest EVC at the ecosystem extent, instead giving an isolated reading for the Central Highlands – the most impacted RFA from wildfires.

This study showed that since 1964, 0.6% of the total cover of Wet Forest in the Central Highlands was old growth that was impacted by timber harvesting. Sixty percent of this was from salvage harvesting: post fire. So that equates to 0.24% of the wet forest extent had been harvested old-growth forest since 1964. The 1939 wildfires were responsible for impacting approximately 88% (29% of total Wet Forest cover) of the existing old growth Wet Forest and impacted 96% of the total Wet Forest area – *in just one summer* (Figure 10). Even the 2009 fires impacted more than eight times as much old growth

forest (2%) than timber harvesting had since 1964. The impacts of fire on old-growth since 1939 account for the current level of old-growth forest in the Central Highlands, at just 1.16% cover. Again, this is another example of the lack of impacts to old-growth forest from timber harvesting and the attempts to vilify the timber industry.

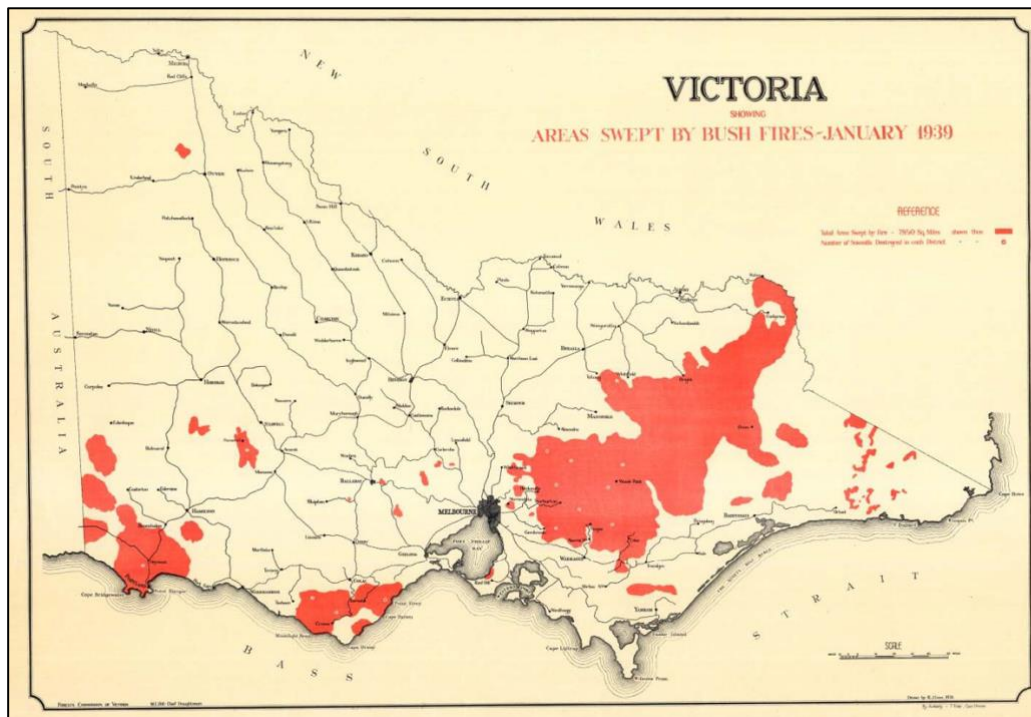


Figure 10. 1939 Bushfire Extent. Large portions of the Otways, Central Highlands and Alps were burnt in one year.

The third key example has perpetuated the notion that younger Ash regeneration fuels wildfires and hence, that timber harvesting should cease (Taylor, McCarthy and Lindenmayer 2014). To clarify, this study did not show that younger vegetation fuels wildfires, or creates a greater intensity of fire, but that younger vegetation (7–35 years) was more susceptible to being impacted by wildfires. This relative susceptibility can be explained through stand structure and fuel accumulation, rather than as a dichotomy of regrowth stands being highly flammable but mature and old-growth stands not highly flammable (Attiwill et. al 2013).

The methodology of this study failed to acknowledge landscape context and adjacent vegetation. It did not acknowledge that the 300-year-old forest did not burn in the 1939 wildfires, despite these fires completely surrounding it. This suggests that the landscape context for the oldest vegetation in each of the study areas were already at a lower risk of high severity fires. Secondly, the “other native vegetation” surrounding the younger forest was Damp Forest and Herb-rich Foothill Forest – both of which are drier and include dominant species with extreme risk of spotting, such as messmate. The “other native vegetation” surrounding the older forests was Cool Temperate Rainforest – known to suppress wildfire behaviour. The study showed that the occurrence of high severity fire was clearly spatially correlated yet does not control for adjacent vegetation or landscape context: two factors that strongly influence fire behaviour.

Given the low sample area and lack of consideration of landscape context and adjacent vegetation this study has exaggerated the wildfire susceptibility of 7–36 yr old Ash regrowth. However, other studies have also shown an increase in the susceptibility of this age class to fire (Attiwill et. al 2013, Price &

Past logging and wildfire disturbance had a very low effect on severe canopy damage in the 2019/20 fires.

Bradstock 2012, Zylstra 2018), just not to the same extent. A recent study analysing the 2019/2020 fires showed that there was no connection between fire severity and logging under extreme fire conditions (Bowman et. al 2021). Fuel dryness and extreme fire weather were the most dominant and parsimonious explanation for the impacts of the 2019/2020 fires.

Although the methodology could be improved to more accurately quantify relative fire severity of younger Wet Forest, the study raises important questions for conservation and forest management. Most notably, the apparent susceptibility of the most suited foraging habitat for LBP to wildfire – a dilemma not discussed in this study.

If these “anti-logging” accusations, targeting the susceptibility to fire of specific age classes were to take this thinking to the extreme, they may be inclined to preference pasture over forest, or be against plantations due to its higher fire severity risk. But this would be irrational. All age classes are important for one reason or another. Whether it's foraging habitat for LBP or nesting habitat for LBP, both are important. These “anti-logging” studies are clutching at straws to gain whatever angle they can to vilify and devalue timber harvesting.

The most important factor for biodiversity still remains: that landscape-scale age-class-heterogeneity will create the most biodiversity. By preferencing one age class over another we will lower overall biodiversity and reduce the ecosystems resilience to large scale wildfires.

These skewed interpretations of the impacts of timber harvesting have been promoted by anti-logging media, activist conservation organisations and even academics. They focus all the attention on timber harvesting as the cause for extinctions and the greatest threat to the Leadbeater's Possum – ignoring the threat and impacts from wildfires. They also imply timber harvesting as the cause for high severity fires, when the science suggests otherwise:

“Decades of unsustainable logging has created an “extinction debt” in Victoria's central highlands that will trigger an ecosystem-wide collapse within 50 years without urgent intervention from the state government, ecologists have warned. If current logging practices continue.... the likelihood of collapse approaches 100%. (The Guardian 2017a).

“VicForests’ logging operations are driving Victoria's animal emblem, the Leadbeater's possum, as well as the greater glider to extinction” (Amelia Young – The Wilderness Society 2018).

“Only 1% of the Central Highlands Mountain Ash ecosystem remains unlogged and unburnt. Will these places be protected for people, nature and wildlife, or will the logging industry continue to eat away at them until there's nothing left?” (Wilderness Society 2021a).

In relation to the protection of areas of State forest in the Central Highlands from timber harvesting EJA wrote *“We are so thrilled that the Greater Glider and Leadbeater's Possum in these areas of forest can rest easy for now ” (Environmental Justice Australia 2021),* ignoring the far greater threat from wildfires.

In reference to the 2009 fires and the study by Taylor, McCarthy and Lindenmayer 2014, University of Wollongong academics wrote *“Then it (the 2009 wildfire) reached the old, unlogged mountain ash forests on Mount Disappointment and dropped to the ground,*

spreading as a slow surface fire." "Meanwhile, logged ash forests drove flames high into the canopy." (Zylstra et. al 2021).

"Removal of industrial clearfelling from Victoria's wet ash forests is the only way to conserve Leadbeater's Possum. The Victorian Government has no alternative but to do this and prevent Leadbeater's Possum being added to Australia's already shockingly long list of mammal extinctions." (Lindenmayer 2015).

These clear biases and misleading statements undermine scientific integrity and confuse the public discussion around timber harvesting and the conservation issues of greatest concern. Science should be objective. If it shifts from a point of objectivity, then there is little hope for a future of effective conservation.

In addition to the VFP, a number of influential investigations have been side-tracked by the extrapolations of this research (EIC 2017, Brockington 2018) without proper consideration for the magnitude of relative impacts from timber harvesting or the environment's ecological dependence on disturbance. An enquiry into VicForests operations incorporated suggestions from the Wilderness Society and EJA representatives that "harvesting wood from state forests has come at a significant cost to the environment and native species" (EIC 2017). The evidence for any significant impact was not provided and simply does not exist, yet this statement was given weight in its recommendations. This document included a minority report from an anti-logging greens spokesperson – the only supplementary report included in their assessment. This enquiry was embedded with statements from individuals and organisations with a clear bias against timber harvesting and Victoria's connection with timber from the bush.

The lack of forestry integrated education from forestry advocates is also disheartening – more could be done to educate on the relative impacts of timber harvesting and the benefits of small-scale disturbance in Victorian forests.

This critique is not meant to deny the importance of hollow bearing trees or underestimate age-class fire susceptibility in forests, but to point out the efforts to condemn timber harvesting and divert us from the greatest conservation threat to Victorian forests: wildfire.

The scientific consensus that still stands is that old growth and hollow bearing trees are important habitat elements that are under-represented in many landscapes, but most notably in the wet forest EVC of the Central Highlands. However, by far the most significant cause of this is due to wildfires (Taylor, McCarthy and Lindenmayer 2014, Burns et. al 2015, Lindenmayer and Taylor 2020). The impact from timber harvesting on old growth has been statistically insignificant across Victoria and the Central Highlands over the last 25 and 50 years, respectively. Despite this low impact, contemporary timber harvesting efforts have considerable prescriptions in place and have been protecting old growth, hollow-bearing trees and LBP habitat for many years.

Certain academic authors are clutching at straws – using misleading statements and avoiding lines of enquiry to undermine the environmental efforts and relative impacts of contemporary timber harvesting. This has been strengthened by moving the platform of debate from a scientific one to a political one – using ENGO campaigns to fuel public support.

ENGO'S

Activist, Environmental Non-government Organisations (ENGO's) have been pushing to cease timber harvesting for many years. However, the greatest contemporary conservation threats are being ignored at the expense of human-centered campaigns. Existing government organisations are putting the greatest efforts towards wildfires and threatened species research and conservation.

There are two main groups of Environmental Non-Government Organisations (ENGO's): some are activists and campaigners that move for political change, and others focus on on-ground conservation. Organisations like Environment Victoria (EV), Greenpeace, Environmental Justice Australia (EJA), the Wilderness Society and the World-Wide Fund for wildlife (WWF) are all primarily activist organisations. They gather members and use the funds to make political and policy changes and support other organisations that undertake on-ground activities. The VNPA is somewhere in the middle, with most of the on-ground efforts going to public education, monitoring and threatened species detection - all focused around turning the bush into National Parks. But the ones doing most of the on-ground-work are often less outspoken. They are aware that the greatest contemporary conservation issues such as feral animals and wildfires don't stop at National Parks. These threats don't adhere to regulations or changes in policy, and they most certainly can't be litigated. They don't discriminate on the threatened status of a species - whether data deficient or critically endangered - it's irrelevant. These threats require on-ground effort.

To get the greatest return in on-ground conservation, you will need to support organisations that target these threats. Look for patch-burning, invasive species control, nest boxes, trees-in-ground, projects on private land, threatened species conservation activities and on-ground monitoring of results. In Victoria, 92% of public land is already treed (VEAC 2017a), so largely there isn't much point spending effort in planting trees on public land. Efforts to plant trees on private property are likely to have the greatest impact. However, planting trees wherever they will fit is always a worthy endeavour. Organisations like Landcare, Greening Australia, Bush Heritage, Australian Wildlife Conservancy and Farm Forestry are all actively engaged on-ground, in targeted conservation including education, monitoring, threat suppression, promoting conservation values for native flora and fauna and planting trees.

Activist ENGO's have gotten so caught up in their mission to vilify timber harvesting that they are ignoring the threat from wildfires.

A number of activist ENGO's have missed the elephant in the room when it comes to their obligation to provide efficacious conservation outcomes. Despite acknowledging the traditional custodians and identifying that the Leadbeater's Possum habitat is in need of protection, the Wilderness Society currently have no plans to promote indigenous burning practices or any measures to prevent impacts from large-scale wildfires - the greatest threat to Leadbeater's Possum habitat. This is something that David Lindenmayer and other conservationists have acknowledged - the "*far greater magnitude of losses due to fire and climate change*" compared with timber harvesting, on the persistence of the Leadbeater's Possum (Blair et. al 2017). With great personal appreciation for his humbleness in confession, Lindenmayer was ashamed to have only recently acknowledged his lack of engagement with indigenous people in 2018 (Lindenmayer 2018), yet still advocates for a single species approach to conservation and an absence of support for indigenous land management techniques. Ironically, EJA have highlighted the need to address large-scale wildfires and the inadequacy of current action yet, like the Wilderness Society, have no focus on promoting indigenous burning practices to protect

ecological values. They emphasise “*the massive chasm between the reality faced by the planet and the vacuousness and inadequacy of current action.*” (Environmental Justice Australia 2021).

This critique is not to condemn activist environmental non-government organisations – they do achieve a lot of great outcomes for the environment. I have been a member for a couple for over a decade. However, their plight to cease timber harvesting is extreme and unjustified. Asking The Wilderness Society to achieve a balanced outcome for forest management is like asking Allan Jones or Pauline Hanson to write policy for immigration. Yet they have been given this role as part of the Timber Industry Task Force and have been actively informing many forest management investigations (Brockington et. al 2018, EIC 2017, VEAC 2017c). This is despite lead spokespersons from these organisations not having relevant qualifications in ecology or conservation. In fact, the organisations with the most expertise, doing the most research for conservation and biodiversity, are our very own environmental government organisations, such as DELWP, ARI and SAC. However, for a government organisation to stand up against ENGO's inflammatory statements has become a political battle of David and Goliath. For example, VicForests are not an organisation that makes policy changes. They simply enact the policy and legislation that exists. They are fence sitters, and that's the way it should be. Yet ENGO's have pushed their name so far into the dirt that few environmentalists give them any credibility. This is despite great effort that has gone into conservation, such as the implementation of Variable Retention Harvesting Systems, protection of trees over 2.5m diameter, increasing prescriptions to protect LBP habitat and the discovery of over 300 new LBP colonies and many more threatened species detections.

By far the most actively engaged organisations in preventing large-scale wildfires are Forest Fire Management Victoria (FFMV) and the Country Fire Authority (CFA). Many of which have members and volunteers that work in the timber industry. They are often reserved members of the community, not outspoken activists.

Efforts from ENGO's in educating the public are much higher than that from the timber industry or government. This is primarily because of the reliance of ENGO's on conscientious members of the public for revenue and the associated expectations of the ENGO's to deliver outcomes. The greater public presence from some ENGO's is reflected in the inaccurate public perception of timber harvesting. Many people believe that timber harvesting is deforestation and that it is a large contributor to threatened species loss, when in fact both of these are false. The COVID outbreaks have shown that misinformation can be extremely detrimental in diverting attention away from making efficacious management decisions. A review of Variable Retention harvesting noted that “there can be disparity between the public debate over the environment and the issues of greatest conservation importance” (Baker 2011). The main message that we hear from the timber industry seems to be about jobs, yet there is a vast amount of silvicultural and conservation expertise that doesn't get any attention.

A number of ENGO's are targeting anthropocentric conservation at the expense of the conservation of most importance. Their louder misguided voices have gained unwarranted attention in the current political climate. This combination of misinformation and litigation attempts has likely been a strong influence for the extreme measures of the VFP.

Politics

The current government has neglected its election promises and adopted other parties' policies to form the Victorian Forestry Plan. Unlike the COVID response, the Government is not considering expert advice. Instead it is taking forest management into its own hands – taking a political stance on our future connection with timber from the bush.

In some respects, it's a shame that the future of our forests is determined by politics, but none-the-less it's an essential part of a democracy. The important thing is that science is largely guiding the decisions, so that long-lasting, effective management outcomes can be delivered for our environment.

The Andrews Government is taking Forest Management into their own hands, ignoring advice from experts.

Despite the Andrew's governments unwavering approach to the COVID outbreak in taking advice from health experts, it has now decided to take conservation and our connection with timber into its own hands. Why has the government ignored advice from the VEAC, indigenous organisations and conservationists? – The Victorian Forestry Plan is political, that's why. It is a knee jerk reaction to ENGO activism and litigation against timber harvesting.

The VFP does not reflect the 2018 Labour election promises (Victorian Labour Party 2018) that include:

- Take all possible steps to ensure ongoing secure wood and fibre supply for the timber industry whilst continuing to protect rare, old growth forests.
- Ensure that forests are managed in such a way as to protect social and economic values.
- Foster community understanding and support for ecologically, socially and economically sustainable forest management, including awareness of environmental values, including old growth, wilderness, endangered species, national estate values and world heritage values.

The VFP is a mirror image of the Greens current forest policy, to transition from native forests to plantations in 5 years, with an end to all clear-felling in native forests (The Greens 2021). However, The Greens' principle that "*Ecological principles and scientifically robust information should guide forest management*" is being overlooked in relation to the intermediate disturbance interaction in promoting biodiversity. The Greens push for the development of sustainable alternative fibre industries – an obvious ideological trajectory, yet do not acknowledge that fibre has already been a bi-product from high quality sawlog harvesting – not the target. Their aim to support the creation of high value products does not align with their 5-year transition plan into plantations.

Why a 5-10-year plan? So it can be pushed through in 1-2 election terms. However, forestry is not short-term. It is for this reason that RFA's have traditionally had a 20-year period – because investment and planning for trees is a long-term commitment. The VFP is a political plan, not a plan for forestry.

Why is the Victorian Government overlooking key elements of their election promises to completely remove our connection with timber from the bush? The current government has adopted Greens policies, suggesting that this decision is political. Is the government playing politics with our connection with the bush?

Transition to Plantations

A 10-year-plan to transition to plantations shows a lack of understanding of trees and the timber industry.

This concept should be clear in your mind – A transition can only occur if the resource is there and ready to harvest. The government intends for the supply chain of the timber industry to take a leap of faith onto the platform of plantations that simply doesn't exist. In addition, the rate of new plantation establishment in Victoria has been declining dramatically since 2000 (DEPI 2013a).

Any industry that relies on timber for production needs assurance that the resource is available.

"If we transition too early and the resource is not there, then markets may be lost, and growers may need to rebuild markets from scratch. This will take longer and require larger reliable quantities of timber" (Featherston 2007).

A transition to plantations cannot occur if the resource is not there.

The Commissioner for Environmental Sustainability Victoria is aware that there will be a sawlog supply gap due to the time needed to realise the production availability of the government's plantation plans.

The extent of the governments transition plan to plantations has been the establishment of 480ha of Bluegum plantations in the La Trobe Valley and a plan to establish the Gippsland Plantations Investment Program (DJPR 2020). This is hardly a plan for the Victorian Forest Industry. Without collaboration with the broader timber industry or willingness to address nuances in harvesting operations and biodiversity, the government has dug its heels in. It appears more like a plan to quiet misguided environmental activism than a practical approach to a transition for the Victorian Timber Industry.

The diversity of existing plantations is limited and by forcing a transition now we will be reducing the diversity of applications and products that are currently coming from native timbers. Within Victoria, hardwood plantations make up 47% of the plantations estate and consist of mainly Blue Gum (*Eucalyptus globulus*). Softwood plantations make up 52% and are mainly Radiata Pine (*Pinus radiata*). Both of these species have limited application towards high-value products, with their primary applications being fibre for pulp and internal house framing and fence posts.

By completely removing harvesting in native forests it will be more difficult for diverse local markets, including farm forestry and agroforestry, to be profitable, since operations that are able to process diverse native hardwoods will be lost. Harvesting and milling costs will be higher if an industry is not there to scoop up the resource when it becomes available and the demand will be lower if a supply chain to markets has been lost.

A 10-year-plan, is a plan to close down timber harvesting, not a transition. As many of us know, trees take time to grow and 10 years might be enough to grow a banana plantation but it's not enough to grow trees for timber. The idea of joining two concepts together, say, "\$120million" and "Plantations" sounds nice but unless there are steps in place to achieve an outcome it won't matter how much money is thrown at it, it just won't work. Currently, much of the funds are going towards consultants' fees and payouts to help businesses to transition or move on; so, most of the money is going toward tailoring a plan; so currently – there is no plan.

Some businesses have been in the process of relying on plantation timbers, such as Radial Timber Australia, one of 5 businesses to accept government transition support up until July 2021 (Forestry Australia 2021). This appears to be a suitable plan for those businesses. Yet many businesses are not suited to this type of transition.

Ultimately the transition into plantations does have benefits, and this should be available for operations that are able to. However, a 10-year timeframe with no plan for a diverse timber industry, is a "phase out" not a transition. By increasing the 10-year timeframe to at least one rotational period for any commercially harvested species, there may be a chance for a smooth transition. The question of suitable land availability is another hurdle in achieving a smooth transition.

Lessons from last time

In 2008 the government ceased "logging" in the Otways. However, no additional plantation areas or investment in tourism was provided.

Since 2008 there has been no increase in the public land available for plantations in the Otways, nor has there been government investment into increasing tourism in regions where timber harvesting occurred.

The last "transition into plantations" was when timber harvesting of logs ceased in the Otways in 2008, coinciding with the creation of the Great Otway National Park. There were promises then to move into plantations, but the government did not stand by its promise and local industry was lost. Mills closed and skilled workers begrudgingly accepted and moved on. There was a perception that the louder voices of a disconnected metro-Melbourne were prioritised over their local historic cultural connection with the bush. The opportunity to tailor a locally sustainable native timber industry became lost in the politics.

Can we trust that the Victorian Government will provide an adequate alternative to the supply of sawlog and specialty timber from plantations? Based on the timeframe of the VFP it is impossible.

Plantations: saviour or silver lining?

The move toward plantations has benefits but there are also ecological implications. The retention of native timber harvesting will complement the use of plantations, both as a buffer to wildfire and an alternative more diverse resource.

Plantations provide an efficient way to harvest timber but it's not the silver bullet that the government or green groups exemplify. There are benefits in revegetating cleared land but this will most likely need to come from productive land suitable for farming. The same affects that "clear-fell logging of native timber" has on the environment are also present in plantations – except no habitat trees or habitat patches are retained. Many studies have found that animal assemblages in plantations are less diverse than those in native forests (Salt et. al 2004). Many plantations use herbicides and pesticides to ensure the effort spent is maximised in the initial growth phase and establishment of the plantation. Most species will take many decades to select the right genetics suitable for establishing plantations and then growing the seedlings to plant takes more time and resources. These additional

resources that are required to establish and manage plantations need to be compared with ecologically sustainable native timber harvesting that requires less inputs and falls within the natural cycles of those systems (Church and Richards 1998).

The idealistic trajectory of moving toward plantations will not be a solution to high quality sawlogs. Most hardwood plantations cannot be managed to produce sawlogs of comparable quality to native forests (DAWR 2018).

The impacts of fire and climate change are not unique to native forests and impose a greater threat to plantations (Bowman et. al 2021). Plantations are best established in areas that have deep soils and high rainfall – often amongst areas of existing native vegetation. The financial threat of fire in these areas is equally if not more detrimental to plantations as it is to native vegetation due to the financial losses from establishment costs. Mixed eucalypt forests are less susceptible to fire-induced mortality compared with exotic and fire susceptible plantations, due to their ability to re-shoot and coppice from epicormic buds and provide greater certainty in the resource than plantation timbers (Baker et al. 2017). From a supply perspective, native vegetation harvesting will always be an important element in buffering affects from bushfires on the supply of high-value timbers.

Plantations are more prone to being burnt and have a greater financial risk due to establishment costs.

There are benefits in establishing plantations to increase efficiencies and reduce the reliance on native timbers for lower-value products. However, the impacts of plantations need to be weighed up against these benefits. The establishment of plantations within 10 years will not accommodate high value hardwood products but if done in conjunction with native timber harvesting may provide a smoother transition to the establishment of long-term hardwood plantations. The retention of native timber harvesting will complement both plantations and farm forestry and ensure greater resource assurance and versatility for the future.



Figure 11. Plantation harvesting in the Otway Ranges

Timber certification

VicForests operations are certified under the Australian Forestry Standard (AFS) and the Programme for the Endorsement of Forest Certification (PEFC). Forest Stewardship Certification (FSC) has been a priority for VicForests for a number of years. However, due to the potential for impacts to old-growth and rainforest, they have been unsuccessful and have ceased pursuing FSC certification.

The most comprehensive certifications for timber production from both native and plantation forests is PEFC and FSC. These global standards are the benchmark for sustainably sourced timbers. Currently all timber harvesting on public land in Victoria is certified under the AFS which is recognised under PEFC; the largest forestry standard in the world.

Most harvesting operations would also qualify FSC certification, however since not all operations qualify, particularly large-scale clear-fell operations in the Central Highlands, VicForests is unable to obtain FSC certification. While the FSC audit in 2017/18 found VicForests' operations conformed with most indicators, it raised a number of areas which required further attention by VicForests in order to conform with the FSC® Controlled Wood standard. In relation to harvesting and regeneration systems specifically, the audit identified the need for further attention in relation to clear-felling and regeneration burns that may impact on old-growth forests, rainforest areas and threatened species habitat (VicForests 2019a). VicForests has ceased its aim to achieve FSC certification due to the imminent timeframe of the VFP to phase out native timber harvesting by 2030.

What do the Feds think?

The federal government disagrees with the State Governments decision suggesting that it is throwing away a valuable industry.

ABC News Nov 2019 – Federal Agriculture Minister Bridget McKenzie condemned the Andrews Government's plans, arguing the industry was sustainable. "It's a clean, green, sustainable, well-managed resource," Senator McKenzie said. "The decision today shows that the Victorian Government doesn't care about these families in regional towns, 4,700 people will be out of work and this will have serious flow-on effects for the state's regional economy. Our beautiful natural hardwood is in demand and for good reason. It's a sustainable resource when managed well."

Summary

This petition aims to shed light on some issues that appear to have been overlooked. If we really want to lose this connection with the bush then so-be-it, but at least let's be aware of the issues around what we are doing before it slips away from us. This may be the last opportunity we have to retain this connection for current and future generations.

The Victorian Forestry Plan will be the end of any connection with timber-from-the-bush for all Victorians. It will put an end to all harvesting no matter how big or small, how sustainable, how ecologically beneficial or insignificant.

The Government is overstepping the recommendations of the VEAC, WWF and much scientific consensus around sustainable timber harvesting. It is getting caught up in the anti-logging narrative fuelled by ENGO's and anti-logging media.

The current public perception is not an accurate reflection of the extent of timber harvesting on the landscape relative to other impacts such as wildfire, fuel reduction and other threats. The impacts of contemporary timber harvesting on threatened species relative to other drivers are also grossly overestimated and the many elements that can benefit biodiversity are being completely overlooked.

Localised environmental concerns in specific parts of the state are being used to apply broad management decisions for state-wide timber harvesting, for many of which these issues are absent.

The Victorian Government is using limited public opinion to inform the management of the future of our forests. It mimics the Greens priority to phase out large-scale logging yet takes it further to exclude all types of timber harvesting. The lack of a coherent plan suggests the VFP is politically motivated. The Victorian Forestry Plan is an extreme approach that overlooks many local and environmental elements to timber harvesting.

To put it simply there is not a large enough reason to stop timber harvesting in native forests. There are many reasons why ecologically sustainable harvesting should be retained and promoted as part of our culture.

If you want to show support for ecologically sustainable timber harvesting, there are a number of things that you can do:



Sign the e-petition

<https://www.parliament.vic.gov.au/council/petitions/electronic-petitions/view-e-petitions/details/12/419>



See and post photos of sustainable native timber products

[#nativetimbersvictoria](#)

- **Receive information directly** from the Victorian Government regarding the Victorian Forestry Plan by visiting this site and entering your email: <https://globalvictoria.formstack.com/forms/vicforestryplan>
- **Email the Minister** for the Environment and express your concerns to retain Ecologically Sustainable Timber Harvesting as part of the Victorian Forestry Plan. Minister for Energy, Environment and Climate Change - The Hon Lilian D'Ambrosio. Email: lily.dambrosio@parliament.vic.gov.au
- **Share the flyer** via email or print and put it in a cafe. Give someone something to read whilst they wait for a coffee. Visit www.otwaytonewoods.com.au/petition

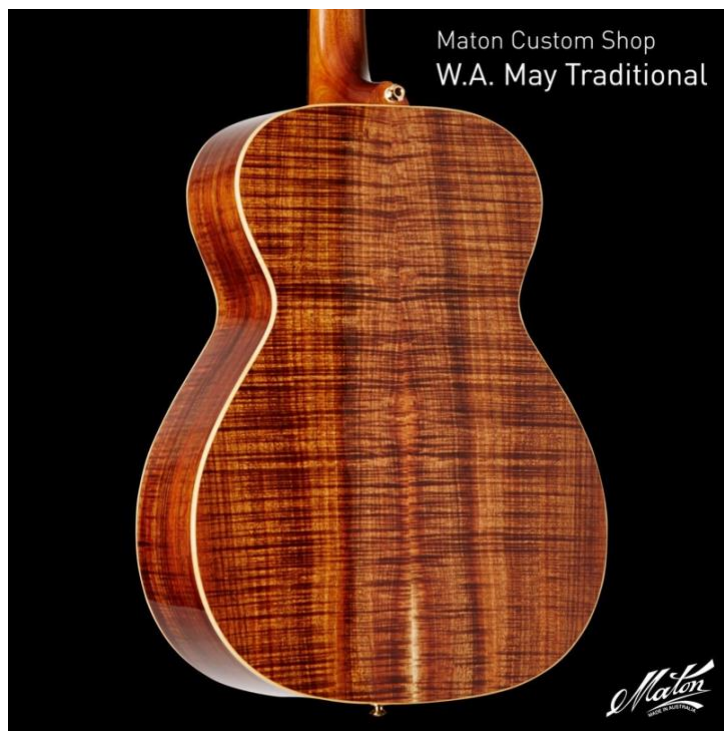


Figure 12. Sustainably sourced and locally made Victorian Blackwood Custom Shop Guitar

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