1. **Who were the members of the Victorian Forest Industry Taskforce?**
    a. **Can you confirm what agreements, if any, were reached by the Taskforce?**
    b. **What outcomes were agreed by the Taskforce?**
    c. **Were there other findings of the Taskforce? If so, what were these findings?**

VicForests was not represented on the Forest Industry Taskforce and is therefore relying on publicly sourced information to provide a response to these questions. The Forest Industry Taskforce was established in 2015 and was made up of representatives from industry, union and conservation groups. The members of the Taskforce were:

Amelia Young – The Wilderness Society
Jess Abrahams – Australian Conservation Foundation
Vince Hurley – Australian Sustainable Hardwoods
Julian Mathers/Peter Williams – Australian Paper
John McConachy – representing harvest and haulage contractors
Tim Johnston – Victorian Association of Forest Industries (VAFI)
Jane Calvert/Alex Millar/Travis Wacey/Anthony Pavey – CFMEU
Sarah Rees – MyEnvironment
Matt Ruchel – Victorian National Parks Association (VNPA)

In a report tabled by the Parliament of Victoria's Legislative Council Economy and Infrastructure Committee into VicForests' operations, the Committee recommended "that the Victorian Government identify why the Forest Industry Taskforce has failed to provide recommendations about how the government might address the challenges facing the forest, fibre and wood products industries including a lack of employment growth and impact of change on industry, workers and regional communities."[1]

In April 2018, the Government noted the recommendation of the Committee's report acknowledging the Taskforce did not provide the Government with final recommendations, noting that the Statement of Intent identified agreed future workstreams relating to parks and reserves, fibre and wood supply security, and jobs and regional employment. The Government subsequently requested advice from the Victorian Environment Assessment Council (VEAC) on the conservation values of State forests and on future timber supply.[2]

[1] Parliament of Victoria, Legislative Council Economy and Infrastructure Committee, Inquiry into VicForests operations, October 2017:
https://www.parliament.vic.gov.au/images/stories/committees/SCEI/VicForests/Report/EIC_58-11_Text_WEB.pdf

[2] Government response to the Parliamentary Inquiry into VicForests' Operations April 2018
https://www.parliament.vic.gov.au/images/stories/committees/SCEI/VicForests/Government_response_to_EIC_s_Inquiry_into_VicForests.pdf

2. Professor Lindenmayer said in evidence that VicForests has been illegally logging on steep slopes since 2004, with 75 per cent of logging coupes in the Upper Goulburn Catchment exceeding the 30 degree slope limit and 72 per cent of logging coupes have breached codes of practice because logging exclusion zones have been cut. Is this evidence correct?

No. This evidence is not correct. In 2020 the Office of the Conservation Regulator (OCR), investigated the matters alleged within the ANU report and determined that:

- no systemic and widespread breaches of slope prescriptions had taken place
- there was no evidence of impact on water supply protection area values.

The OCR stated:

> *"The overall proposition raised by the* [ANU] *report that there is systemic and widespread breaching of slope prescriptions* ***could not be substantiated****. The allegation was found to be based on modelled data and insufficient in-field sampling to be able to make a valid inference."* [Bold emphasis added.]

In any event, harvesting on steep slopes (with more than 30 degree inclines) is permitted in some circumstances by the *Code of Practice for Timber Production 2014* and the *Management Standards and Procedures for timber harvesting operations in Victoria's State forests 2014*. In these circumstances any potential environmental impacts, such as potential impacts to water quality, are carefully managed.

VicForests puts in place a range of protections (such as stream buffers) in its harvesting operations for the protection of water quality in accordance with these rigorous regulatory requirements. VicForests works with the OCR in relation to these matters.

The annual independent audit of Code compliance by VicForests, commissioned by the Department of Environment, Land, Water and Planning/Office of the Conservation Regulator, over the years has not raised significant concerns nor made significant recommendations for improvement in relation to slope restrictions. A small area of harvesting greater than 30 degrees was noted in the 2017/18 audit, but it was noted that the risk of environmental impact was minor. It also noted that the management of steep slopes and the exclusion of areas steeper than Code requirements was generally **well managed.**

The measurement of the average slope of an area is open to some interpretation and the Code does not provide detailed advice. Slope analysis in the field is influenced by two factors, the horizontal distance between the start and end points of the slope being measured and the height at these locations. For this reason, slope measurements can vary greatly in terrain where there may be large variations in slope over short horizontal distances.

The distance over which slope is measured can make a significant difference. Over short distances of, say, a few metres, it is very easy to find a steep slope depending on the end points for the measurement. VicForests uses data that measures plot points across the entire coupe area and then calculates an average.

3. Is it correct that 15.4 per cent of logging coupes in the Upper Goulburn Catchment have more than 10 per cent of their cut area exceeding 30 degrees?

No this is not correct. The LiDAR model used by VicForests which uses 1m by 1m pixels to determine slope shows that only 2% of the area harvested in the Upper Goulburn catchment since 2004 was over 30 degrees. As this includes very small patches as small as 1 square metre this does not mean that regulatory requirements have necessarily been breached as these areas are too small to exclude in practice and have no meaningful impact on the management of run-off over an operational area of around 40 hectares (i.e. 1 square metre is 0.00025% of an average harvest operation area).

The determination of slopes is highly dependent on the modelling and/or measurement techniques used. It is our understanding that the model used by Professor Lindenmayer used a pixel size of 30m by 30m, and that he has also considered DELWP's terrain model using a 10m by 10m pixel size. The VicForests LiDAR based model is based on a 1m by 1m pixel and is significantly more detailed. These different models will potentially generate different results.

That said, VicForests notes that it has reviewed Professor Lindenmayer's paper and has re-created the analysis using the model and data claimed to have been used by him. We achieved very different results to the results reported by Professor Lindenmayer, in fact, our results using the model and data claimed to be used by Professor Lindenmayer are quite similar to the results produced through VicForests' model. We therefore do not understand the basis of Professor Lindenmayer's claims.

4. Does VicForests use or receive LiDAR data sets and digital terrain models to identify gradients which would exceed the allowable degree limit for timber harvesting?

VicForests has received and uses LiDAR data to generate a range of products, including a spatial layer representing slope. The slope layer is used for planning purposes, particularly to identify areas that exceed the allowable limit for timber harvesting. There are a number of publicly available DEM datasets over Victoria. The DEM data provided by Geoscience Australia captured from the Shuttle Radar Topography Mission (SRTM) is based on a 1 second cell size (˜30 m) with a vertical accuracy of ±5m. DELWP provide the VicMap Elevation DEM dataset that has a cell resolution of 10m (horizontal) and between 5m-12.5m vertical accuracy. The LiDAR used by VicForests has a horizontal and vertical accuracy of 0.2m and is resampled to 1m horizontal resolution for data management purposes.

In the last couple of years VicForests has gained access to new LiDAR data sets and has developed digital slope models from this, as opposed to previous models that have used contour lines. VicForests uses this information, which indicates those areas above the allowable limits, in its desktop planning process and field checks this information with appropriately trained staff.

5. Would LiDAR data find there are more slopes with gradients above 30 degrees as inferred by Professor Lindenmayer?

No. VicForests already uses LiDAR and is able to detect a greater granularity in landscape features that are smoothed out at coarser resolutions. So our model is already more sensitive. VicForests is able to use fine-resolution data so we can plan accordingly, unlike many others who undertake analyses on larger cell resolutions with coarser vertical accuracy.

That said, VicForests notes that it has reviewed Professor Lindenmayer's paper and has re-created the analysis using the model and data claimed to have been used by him. We achieved very different results to the results reported by Professor Lindenmayer, in fact, our results using the model and data claimed to be used by Professor Lindenmayer are quite similar to the results produced through VicForests' model. We therefore do not understand the basis of Professor Lindenmayer's claims.

6. Have any species been declared extinct since the EPBC Act came into force on the Australian mainland and if so, were these extinctions caused by any forest activities?

VicForests is aware that some species have gone extinct since the EPBC Act came into force however we are not aware of any that are associated with forestry activities.

7. What information does VicForests use for species distribution modelling and to identify where priority threatened species exist?

VicForests uses the habitat distribution models provided by DELWP to ensure the most up to date available is used in all planning of operations. VicForests has expert staff with high level species modelling experience who are refining some of the models available.

8. Are current reserve systems adequate for priority threatened species?

The Regional Forests Agreements undertook a Comprehensive Regional Assessment that led to the creation of a Comprehensive, Adequate and Representative reserve system. This has been added to over time to take account of new information. However further work to comprehensively assess threatened species populations across all land tenures would be extremely useful for future land use policy decisions.

9. Is VicForests implementing variable retention harvesting?

Since 1 July 2019, VicForests has implemented a new harvesting and regeneration system that focuses on the retention and protection of current and future habitat with all coupes, in addition to the broader reserve system (both within and outside State forests). Even earlier, from the recommendations of the Leadbeaters Possum Advisory Group (LPAG) in 2014, VicForests was applying Regrowth Retention Harvesting to 50% of all Ash species

coupes (important Leadbeaters Possum forest type). VicForests has met this target every year since that time.

The current variable retention system is based on the assessment and density of current hollow bearing trees. In forest types that are particularly sensitive to fire, such as the Ash species, retention is focused on clumps and islands of retention anchored to important habitat or species detection. In less fire sensitive forest types (Mixed species) VicForests also includes more dispersed retention of important habitat trees. VicForests retention harvesting practices go well beyond the requirements of the Code of Practice.

a. Do the coupes conform to what is considered variable retention harvesting?

VicForests' harvesting approach focuses on applying the most appropriate silvicultural systems to match the forest species and characteristics to management objectives. This is achieved by assessing coupes for forest values and developing an appropriate plan, tailored for each coupe.

Approximately 80% of coupes harvested by VicForests are harvested using a method that is considered to be variable harvesting according to relevant literature or an even less intensive strategy called single tree selection.

All areas that VicForests' harvests are followed by a comprehensive regeneration program.

10. Do the proposed coupes to be logged have high conservation values?

The conservation value of working forest areas should be considered relative to the value of the conservation reserves set aside by agreement between the Commonwealth and Victorian Governments – required to be comprehensive, adequate and representative (CAR). Risks to threatened species are intended to be primarily managed through the maintenance of the CAR reserves.

While VicForests operates in or near areas that contain high conservation value, this reflects the overall quality of the Victorian forest estate. The quality of the working forest is secondary to the intended quality of the reserves.

VicForests makes a secondary contribution to threatened species conservation by designing its operations to mitigate risks to threatened species, and, where possible, enhance the future habitat potential of harvested areas. VicForests' planning process is extensive, with a particular focus on conservation values. It completes detailed risk assessments, consults with DELWP, the Office of the Conservation Regulator (OCR) and biodiversity experts, and it has a suite of adaptive measures that it applies in order to avoid the risk of serious or irreversible damage to the environment.

VicForests' detailed planning includes the identification and management of threatened flora and fauna, old growth forest, rainforest, and Indigenous and non-Indigenous cultural heritage.

The management of these values are steered by science and global best practice and VicForests works closely with scientists, universities, land managers, and other relevant

stakeholders. This helps guide the sustainable harvest and regeneration of forests for the Victorian public.

VicForests, on average, only harvests 40% of planned gross coupe areas due to the exclusion of areas specified through the Code or our own retention harvesting requirements. As noted above, VicForests retain and protect the vast majority of habitat trees present. VicForests typically set aside whole coupes where the protection of HCVs outweighs the timber that may be gained from these coupes. This is particularly the case in East Gippsland presently where fire affected threatened species are given a significantly higher level of priority.

a. Would environmental conditions and biodiversity decline if these coupes are logged?

No. Firstly, VicForests operates under some of the most rigorous regulations in the world, and our forest management procedures often exceed formal prescriptions. These prescriptions are designed to protect important environmental, as well as historical and recreational features.

All VicForests' coupes are harvested in compliance with the requirements outlined within the State's primary regulatory document the Code and the associated Management Standards and Procedures for timber harvesting operations in Victoria's State forests 2014 in addition to VicForests' own adaptive management procedures.

VicForests aims to ensure areas harvested by it are regenerated to at least the quality of forest that existed prior to harvesting.

Secondly, improvements in surveying technology and techniques have made a significant improvement in the estimation of populations of threatened species and the development of more accurate habitat models. The use of the latest LiDAR technology, coupled with improved detection methods, is in particular leading to a greater understanding of the species' habitat.

In fact, recent research undertaken by VicForests has found that the Leadbeater's Possum has a strong preference for forests with high densities of mid-storey connectivity. The research shows that the best mid-storey connectivity exists in forests that are 20 to 30 years old and often consist of acacia and eucalypt regrowth trees. The connectivity increases in the years following disturbance, but starts to decrease after about 30 years, with lower levels in forests older than 50 years.

This is reflective of the lower numbers of Leadbeater's possum detections in older undisturbed forests which were previously considered critical habitat and the increasingly higher numbers in younger regrowth forests.

Older survey techniques, and earlier understandings of preferred habitat have likely led to an understatement of population numbers.

Information about VicForests' analysis is attached.

11. Can VicForests give evidence of biodiversity levels across its coupes?

Biodiversity values are identified through surveys undertaken by DELWP (Forest Protection Survey Program), VicForests and other third parties. This information is

detailed on the coupe plans developed to manage timber harvesting and these can be viewed on our website.

a. Does VicForests measure and monitor biodiversity across its sites? If so, how?

The measuring of biodiversity values associated with timber harvesting is undertaken jointly between DELWP and VicForests as noted above. VicForests has a post-harvest monitoring program which measures forest regeneration, habitat tree survival and persistence of threatened and other species.

Post-harvest monitoring of Greater Glider persistence is showing positive results which were reported to the Ecological Society of Australia 2020 conference.

12. Is there an increase in fire frequency and severity occurring?

Research indicates that the frequency and severity of fires has increased in recent decades.[3]

a. Is there a high probability saw log age trees will meet saw log age because of fire risk?

Mixed species forests have developed a survival mechanism to fire. They have thicker bark which protects epicormic buds in the trunk which sprout after fire. Hence fire does not necessarily impact that greatly on the growth of these trees to saw log age.

Ash forests are however fire sensitive and will die when exposed to higher intensity fires. They generally regrow from seed carried in their canopy that falls onto the ash bed post fire. Therefore, an increased frequency of high intensity fires may reduce the likelihood of ash forests reaching saw log age.

Active forest management can mitigate against the impacts of future fires by reducing the density of overcrowded stands and promoting trees to get bigger quicker. Larger trees are able to withstand the effects of fire more than smaller trees[4]

[3] Tran BN, Tanase MA, Bennett LT, Aponte C (2020) High-severity wildfires in temperate Australian forests have increased in extent and aggregation in recent decades https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0242484

[4] Royal Society of Victoria on 25 March 2021 titled "Changing forests in a changing climate: what might the future hold?" delivered by Professor Patrick Baker (University of Melbourne) https://www.facebook.com/royalsocietyvictoria/videos/vb.201662943328320/140003151376345/?type=2&theater

b. Does this mean industry needs to access stock from plantations instead of native forests?

Wood from plantation grown trees is used for different products due to the different characteristics of the timber, associated with faster growth rates, and the limited range of species currently grown in plantations. The exception is pulpwood which is able to be sourced from hardwood plantations where the tree crop is grown specifically for this purpose.

13. Is 87 per cent of native forest timber in Victoria used for woodchip and paper pulp?

No. Based on 2019/20 sales figures, 38% of timber by volume sold by VicForests was sawlog, 57% was pulp or pallet wood and the remaining 5% included firewood, fencing timbers, poles and woodchop logs. During the high value processing operations, after once again seeking the maximum volume of the highest value products, a quantity of chips is produced as residue, principally from edging material. This by-product is not wasted but either used for energy or on sold for a range of other uses from chicken bedding to pulp and paper.[5]

14. Is there any other evidence provided by witnesses during the public hearing that you seek to correct?

Yes – responses to matters that VicForests seeks to correct are outlined below:

Harvesting on Slopes

During oral evidence Professor David Lindenmayer claimed:

> *"Today I want to present evidence that VicForests has been illegally logging forests on steep slopes since 2004…. In fact, 75 per cent of logging coupes in the upper Goulburn catchment exceed the 30-degree slope limit. That is 160 coupes out of 214, including the photograph of the coupe that I showed before. This logging coupe comes in at 37 degrees in slope. That is confirmed in that paper. Seventy-two per cent of logging coupes also have extensive breaches of codes of practice because logging exclusion zones have been cut. That is documented in that paper."*

In response to questions from Senator Rice, Prof Lindenmeyer also claimed:

> *"These breaches are not minor. In the upper Goulburn catchment, we have assessed 214 cut blocks since 2004. Of those, 74.7 per cent had slopes exceeding 30 degrees, and 15.4 per cent of logging coupes—that's 33 logging coupes—had more than 10 per cent of their cut area exceeding 30 degrees.*
> *"We also see extensive—72 per cent of logging coupes have logging exclusion zones that have actually been logged. Sometimes those areas exceed more than 10 hectares in size, or 33 per cent of the cut block."*

[5] VicForests Annual Report 2019 -20:
https://www.vicforests.com.au/static/uploads/files/vf-annual-report-2020-lowres-v2-1-wfaqfcwlxydu.pdf

The above claims are not correct and surprising as it would appear highly likely that Professor Lindenmayer is aware of the outcome of the investigation by the Victorian Government Regulator into his allegations, that is, that the claims could not be substantiated and were "based on modelled data and insufficient in-field sampling to make a valid inference".

Professor Lindenmayer also claimed:

> *"The Office of the Conservation Regulator examined the set of breaches of the case, and it indicates that these are breaches of the law and therefore breaches of the RFA."*

And in further testimony

> "*The Office of the Conservation Regulator has indicated that that kind of logging is illegal. It breaches the codes of practice and it threatens the integrity of the water supply in those important water catchments, for human consumption and for agriculture and the like."*

And further again

> "*So it's clear that VicForests is not adhering to the codes of practice, and that's not only in the context of steep slopes breaches, which are widespread; that has also been ruled on by the Office of the Conservation Regulator."*

These claims were incorrect. The Regulator found that Professor Lindenmayer's claims could not be substantiated. In relation to 2 very small breaches the Victorian regulator found no evidence of environmental impact. Correspondence in relation to these matters is attached.

Professor Lindenmayer also claimed:

> *To reiterate, these are logging coupes in the Upper Goulburn water supply catchment. There are specific codes of practice around not logging on slopes over 30 degrees because of its impact on soil erosion, water quality and catchment health. Are there ways to solve this problem? Absolutely. The Victorian government has access to high-quality LiDAR datasets and high-quality digital terrain models that would allow proactive management to show VicForests where they should not be logging under steep slopes.*

This claim suggestion is surprising as Professor Lindenmayer must know that VicForests uses LiDAR data to determine slope as he has requested access to VicForests' LiDAR data sets.

On VicForests' financial position:

Professor Lindenmayer claimed:

> "*The debts racked up by VicForests have quadrupled in the last four to five years."*

This claim is incorrect. VicForests annual report shows the following net debt results for the last 5 years noting that figures in brackets reflect a positive position, that means, for example, VicForests had $8.1M in cash and deposits more than it needed to cover liabilities in 2019/20 which was its best financial result in 5 years.

2015-16	2016-17	2017-18	2018-19	2019-20
$(3,388)M	$0.3M	$(0.968)M	$(5,642)M	$(8.145)M

Representative nature of long-term monitoring sites

Professor Lindenmayer claimed:

> They are designed to cover the range of environmental conditions. They cover steep slopes, flat areas, areas that have been recently burnt, areas that are long unburnt, areas of old growth forests and areas of young forest. They cover the range of conditions.

This claim is inconsistent with a 2015 paper co-authored by Professor Lindenmayer which indicated these long-term monitoring sites are not proportionally representative of all the age and structure classes present within the ash forests, and thereby carry inherent limitations for statistical design and randomisation of sampling. In other words, caution needs to be exercised in using any findings derived from measuring these sites to define trends across the forest. (ref: Burns et al 2015, The long-term ecological research network Australia: objectives, design and methods, by Burns, Tennant, Boyer, Nolan, Dickson, Gillespie, Green, Hoffman, Lindenmayer et al, Long Term Ecological Research Network, Australia.)

Alternative use of eucalypt plantation pulp logs

Professor Lindenmayer stated:

> At the moment, there is a significant opportunity in Victoria to process plantation eucalypt pulp logs in the state and grow the forest industry by processing those logs…
>
> If we were to process some of that material and move it 250 kilometres or 300 kilometres across Victoria instead of 6,000 kilometres to Asia, there is an opportunity there for Australian jobs, Australian prosperity and Australian workers. I think there is a solution to that problem.

This proposition seems to demonstrate a significant misunderstanding of the Victorian timber market and geography:

- Pulp wood cannot be processed as sawlog.
- Timber produced by VicForests is already freighted over distances up to 250km.
- Most plantations would freight domestically within a maximum distance of 250km - it is not generally economically viable to transport logs over larger distances.
- Most of the pulp log referred to by Professor Lindenmeyer is grown near Heywood in an area referred to as the Green Triangle. Heywood is 500km from Maryvale, 600km from Bairnsdale and 700 km from Orbost.

On retention harvesting

Prof. Lindenmayer stated:

> "Here is one of the sites that VicForests claims to be a variable retention harvest site. Based on our understanding of what variable retention harvesting is, this does not actually qualify as a VRHS." And later "VicForests has claimed to roll out variable retention harvesting, and this is one of their supposed variable retention harvesting coupes. This does not actually meet the requirements of variable retention harvesting as specified here and in *The Dictionary of Forestry* by Helms in 1998."

This claim is incorrect. VicForests does not claim that this is an example of its new variable retention harvesting approach. The coupe represented in the photograph presented by Professor Lindenmayer is called Eddie Would Go (no. 318-512-0009) harvested in 2018. This coupe was originally identified as a candidate for early trials of variable retention harvesting to meet a commitment to 50% retention harvesting as a part of the actions that flowed from the Leadbeater's Possum Advisory Group recommendations. This was however harvested as a traditional clear fell operation as the 50% target had already been met for that year.

Victorian Leadbeater's Action Statement

Steve Meacher, Friends of Leadbeater's Possum stated:

> "In the case of Leadbeater's possum, we have here a Victorian action statement that is based on the outcome of the Leadbeater's Possum Advisory Group, which was an industry dominated group that advised the previous state government on what it can do."

This claim is not correct. The Advisory Group was not dominated by the native timber industry. Its members were:

- Jenny Gray (co-Convenor), CEO Zoos Victoria
- Robert Green, CEO VicForests
- Bill Jackson, CEO Parks Victoria
- Lisa Marty (co-Convenor), CEO Victorian Association of Forest Industries
- Bram Mason, Chair Leadbeater's Possum Recovery Team

The recommendations of the Advisory Group were based on extensive consultation and scientific advice, particularly the advice of Professor David Lindenmayer, Dr Lindy Lumsden and Dr Dan Harley. Further information about the work of the Group is extracted below.

From the Foreword of the Report of the Leadbeater's Possum Advisory Group:

"*We have completed an extensive consultative process and acknowledge the scientific advice and views provided by individuals and peak organisations.*

This input ensured we had access to world-class science and diverse perspectives on potential actions, their viability, the expected improvements they would provide for Leadbeater's Possum, and their expected impact on the timber industry. Conservation, feasibility and economic criteria were used to iteratively test potential actions, individually and in combination, for their value and cost.

We have recommended a single integrated package of complementary actions, consisting of onground, supporting and enabling actions, which should be viewed as a five-year intervention.

Implementing this package would:

- *provide protection to Leadbeater's Possum colonies;*
- *protect current high quality habitat;*
- *protect existing old growth forest and expand future old growth forest;*
- *enhance the extent and quality of Leadbeater's Possum habitat in the future;*
- *proactively provide additional nesting resources;*
- *support improving knowledge to more effectively implement management actions; and*
- *support community engagement.*

In developing this package we have carefully considered the implications for the Victorian timber industry. We believe the package of actions is viable, can be practically implemented, and is cost effective. Our consultation also identified some actions that, because of the expected resultant profound effect on the timber industry, were beyond our terms of reference.
We have recommended that the implementation of the package of actions be reviewed in four years. We have also recommended an interim review of Action 1 presented in this report (establishing a timber harvest exclusion zone of a 200 metre radius around colonies), to occur within two years or once 200 new colonies have been located, whichever comes first."

Source: wildlife.vic.gov.au/__data/assets/pdf_file/0023/46445/Leadbeaters-Possum-Advisory-Group-Recommendations-Report.pdf