



TreeTop Adventure Park, Yarra Flats Reserve, Heidelberg

Expert Witness Statement of Brett Lane

**Prepared for
David Gentle and
Save Yarra Flats Park Inc.**

25th June 2021
Report No. 21085 (1.1)



**Nature
Advisory**

(Formerly Brett Lane & Associates Pty Ltd)

5/61-63 Camberwell Road
Hawthorn East, VIC 3123
PO Box 337, Camberwell VIC 3124
(03) 9815 2111
www.natureadvisory.com.au

Contents

1.	Preface	3
1.1.	Expert witness information	3
1.1.1.	Name and address	3
1.1.2.	Area of expertise	3
1.1.3.	Business relationship	3
1.2.	Declaration	3
2.	Introduction	4
3.	Ecological attributes and values	5
3.1.	Native vegetation	5
3.2.	Fauna habitat	8
3.3.	Regional and wider context and value	8
4.	Impacts of the Treetop Adventure Park	12
5.	Appropriateness of the proposal	14
5.1.1.	Clause 12 - Environment and Landscape Values	14
5.1.2.	Clause 12.01-1S - Protection of Biodiversity	14
5.1.3.	Clause 12.03-1R - Yarra River Protection policy in the State Planning Policy Framework	15
5.1.4.	Middle Yarra River Corridor Study - Recommendations Report	16
5.2.	Alternatives	18
6.	Conclusions	19

1. Preface

1.1. Expert witness information

1.1.1. Name and address

Brett Alexander Lane
Nature Advisory Pty Ltd
Suite 5, 61 – 63 Camberwell Road
Hawthorn East VIC 3123

1.1.2. Area of expertise

Brett Lane has extensive expertise in terrestrial ecology and related legislation and policies.

His qualifications and experience are summarised in Appendix 1.

1.1.3. Business relationship

David Gentle and Save Yarra Flats Park Inc. engaged me to review plans for a tree and cable-based adventure park in Yarra Flats Park on Banksia Street, Heidelberg and discuss the impacts of the proposal on the ecological values of the affected area. They also retained me to prepare this expert witness statement and to present evidence on ecological considerations to the Planning Panel inquiring into proposed amendment C107 to the Banyule City Council Planning Scheme that aims to facilitate the proposed development.

1.2. Declaration

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance that I regard as relevant have to my knowledge been withheld from the Panel.

Signed:

Brett Lane



Principal Consultant
Nature Advisory Pty Ltd
Suite 5, 61 – 63 Camberwell Road
Hawthorn East, VIC 3123
25th June 2021

2. Introduction

David Gentle and Save Yarra Flats Park Inc. retained my services as an ecological expert to review plans for the development of an adventure park that involves installing platforms, rope and cable walkways and flying foxes in a densely treed portion of the Yarra Flats Park on Banksia Street, Heidelberg.

My review of the plans aimed to address the questions below and this statement is structured in accordance with them.

- What are the ecological attributes and values of the Yarra Flats Park and the area where the facility is to be located and how important is Yarra Flats Park to biodiversity in Melbourne? (Section 3)
- What are the impacts of the proposal on those ecological values? (Section 4)
- Are those impacts appropriate given the ecological values identified and policy directions and protections for biodiversity in the Yarra River corridor? (Section 5)

Responses to these questions are provided in the following sections. My conclusions are presented in Section 6.

3. Ecological attributes and values

I provide below a summary of my findings in relation to the ecological values of the Yarra Flats Park and of the area affected by the proposed TreeTop Adventure Park in particular.

3.1. Native vegetation

All areas of remnant and regenerating native vegetation in the assessed area (Yarra Flats Park) were inspected on 6th May 2021 for their vegetation condition and fauna habitat value by myself. Particular attention was paid to the following attributes that contribute to vegetation and habitat quality:

- The condition of the tree canopy, including the presence and number of hollow-bearing trees;
- The structural diversity (combining different vegetation layers) in the vegetation;
- The presence of high threat weeds; and
- The capacity of the land to be restored through a range of feasible, proven management measures.

The area assessed (yellow outline) and the project area (green outline) are shown in the aerial photograph below.



It was evident that the area in which the adventure park is proposed supported vegetation characterised by the following attributes:

- A tree canopy of a number of age cohorts;
- More large, hollow-bearing trees than any other part of the Yarra Flats reserve (see below)

- A diverse, multi-height understorey with a dense shrub layer in places;
- Evidence of natural tree and shrub recruitment; and
- High levels of weed invasion in the ground layer.

Vegetation throughout the Yarra Flats Park comprises the Ecological Vegetation Class Floodplain Riparian Woodland (EVC 56), considered by DELWP to be endangered in the Highlands – Southern Fall bioregion in which the site occurs. This means that less than 10% of the pre-European settlement extent of this vegetation remains in the bioregion. This same vegetation type would be disturbed and partly removed for the proposed development (Practical Ecology 2018).

The photos below show some of these attributes of the adventure park area.



The vegetation in the adventure park site is more structurally complex and established than other parts of the Yarra Flats Park. The photographs below show conditions in other vegetated parts of the park.



These are characterised by:

- Younger trees;
- Very few hollow-bearing trees;
- Less extensive areas of shrubby understorey;
- Less structurally complex vegetation and habitat; and
- High levels of weed invasion in the ground cover.

The reasons for these differences are clear when one examines historical aerial photography. The photos below compare the Melbourne University 1945 aerial image of the area (<https://1945.melbourne/> viewed 29th May 2021) with the current aerial image. The adventure park site is circled in green.



This shows that almost all the terrestrial/riparian vegetation in the Yarra Flats floodplain area has regrown in the last seventy or so years. The key exceptions are the banks of the Yarra River and the site proposed for the adventure park. These areas support the last remaining old growth trees in the district that have now become rare.

The significant regrowth and recovery of the endangered Floodplain Riparian Woodland at Yarra Flats Park represents a significant conservation achievement, contributed to by a combination of Parks Victoria management activities and local community group action. The recovery of endangered ecological vegetation classes, the restoration and enhancement of such vegetation, and the re-establishment of

landscape-scale vegetation links are important conservation objectives in many planning and environmental policies relevant to the area (see Section 6).

3.2. Fauna habitat

During my site inspection, I found that the proposed development site supported the following important fauna habitat attributes:

- A structurally diverse understorey of small trees and shrubs, and an uneven-aged stand of trees, providing a range of niches and foraging opportunities for birds and mammals; and
- A rare stand of old-growth, hollow-bearing trees that support good populations of hollow-dependent birds, providing them with comparatively rare opportunities for shelter and breeding.

I consider the structural diversity and presence of a good stand of old-growth hollow trees in the proposed development area to be unique within Yarra Flats Park and it represents important fauna habitat within nearby sections of the Yarra River vegetation corridor. As I did not undertake any nocturnal spotlighting surveys, I was unable to confirm whether populations of hollow-dependent mammals were more abundant in this area, but the habitat characteristics indicate that this is likely.

Because of its attributes, the development area supported a very noticeably higher abundance of hollow-dependent bird species, such as lorikeets and cockatoos compared with any other part of the park that I visited. This indicates that the old growth elements of the vegetation here are particularly important to sustain the diversity of fauna in the park and nearby areas of the Yarra Valley vegetation corridor.

3.3. Regional and wider context and value

The combination of a rare stand of old growth, hollow-bearing mature trees and structurally diverse vegetation, linked to nearby replanted treed vegetation upstream and downstream along the Yarra River, makes the Yarra Flats Park, and the proposed development site in particular, an important component of the wider Yarra Valley vegetation corridor.

The Yarra Valley vegetation corridor is particularly important within metropolitan Melbourne as a reservoir of indigenous biodiversity, both remnant and recovering. This is explored in more detail below to provide context.

At a wider, regional scale, the role of remnant native vegetation in maintaining the biodiversity of the Port Phillip and Western Port Catchment management region is vital. The 2017-18 Port Phillip and Western Port Catchment Condition report (PWCMA 2018) found that of all the natural assets in the catchment, the matter of greatest concern in the region in terms of trends was biodiversity (see the extract from the report below).

SUMMARY OF THE PPWCMA'S VIEW OF TRENDS

THEME	2016-17 ASSESSMENT	2017-18 ASSESSMENT	SUMMARY OF CONDITION ASSESSMENT
Biodiversity	Highly concerned	Highly concerned	There is concern at the decline in biodiversity of this region due to significant pressure on native plants and animals from various sources including urban development, invasive species and climate change.
Waterways	Neutral	Neutral	While government bodies and communities are actively contributing to waterway health, there are threats and impacts from urbanisation, population growth and climate change.
Land	Concerned	Concerned	Loss of productive agricultural land to urban uses remains a concern.
Coasts	Concerned	Concerned	Coastal development, invasive species and climate change continue to contribute to a decline in environmental condition of coastal areas.
Port Phillip & Western Port	Positive	Positive	Data shows that the region's bays, particularly Port Phillip Bay, are in good condition. Regular environmental monitoring occurs.
Community	Positive	Positive	There is strong community contribution to environmental management in this region, including from extensive Landcare groups and networks.

The same report found that the greatest depletion of native vegetation had occurred in the urban areas of Melbourne (see extract below).

AREA	EXTENT (AREA OF NATIVE VEGETATION AS A PROPORTION OF TOTAL AREA)	QUALITY (% OF NATIVE VEGETATION WITH QUALITY SCORE GREATER THAN 0.5, IN A SCALE OF 0-1)
Mornington Peninsula	28%	45%
Moorabool, Melton, Wyndham and Greater Geelong	39%	62%
Urban Melbourne	11%	24%
Macedon Ranges, Hume and Whittlesea	30%	46%
Yarra Ranges and Nillumbik	74%	85%
Casey, Cardinia and Baw Baw	33%	67%
Bass Coast, South Gippsland and Islands	31%	67%

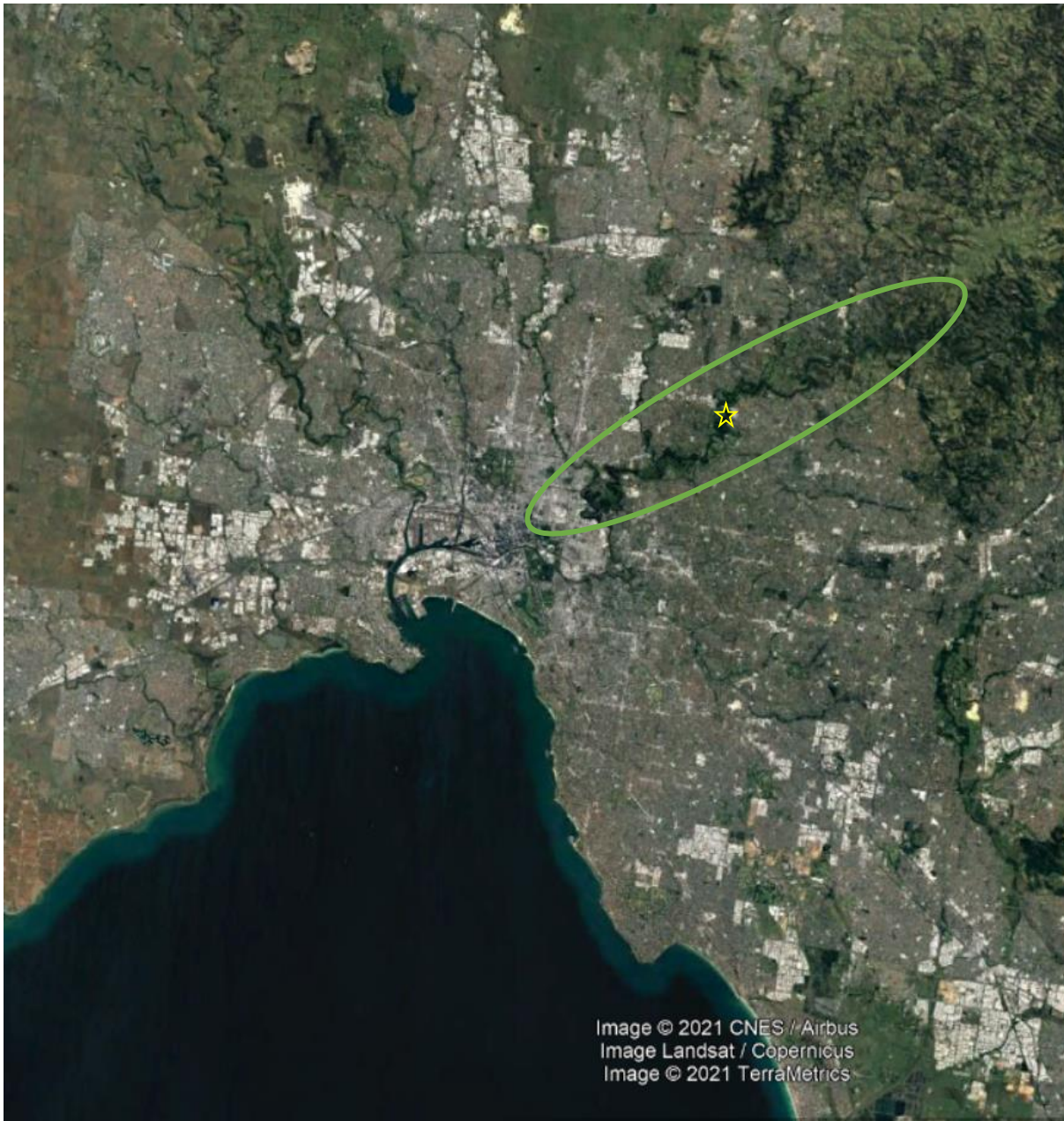
This table shows that only 11% of urban areas support native vegetation compared to elsewhere in the region found to be supporting between 28% and 74%.

Key findings of the up-to-date review (PWCMA 2018) are:

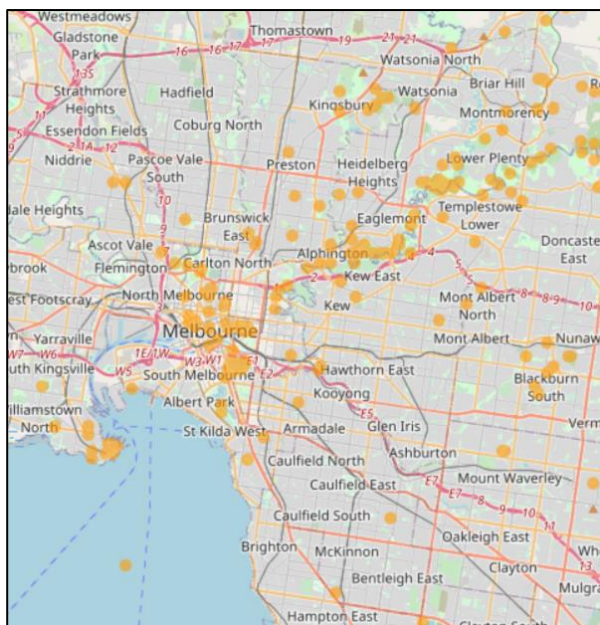
- 39% of the original native vegetation remains in the region (c. 500,000 hectares); and
- One third of this is protected in reserves (e.g. Yarra Flats Park).

The report specifically states (p. 49) in relation to the reserve network: *“Protection and maintenance of this vegetation is the top priority because its large area and security offer the most achievable conservation prospects.”* Uses within reserves that do not give priority to the protection and enhancement of biodiversity run counter to this clear regional priority.

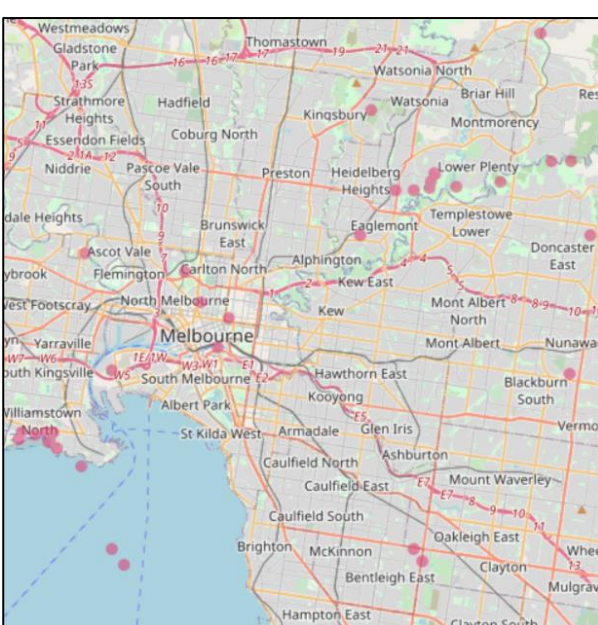
The image on the following page provides a context within Melbourne's urban areas of the extent of native vegetation along the Yarra Valley compared with other parts of the metropolitan area. This image shows that the Yarra Valley (outlined in green) is the single most important linear remnant of treed native vegetation remaining in Melbourne. The yellow star is the location of the proposed adventure park.



As such, the Yarra Valley vegetation corridor supports some of the last remaining populations of several threatened fauna species, such as Powerful Owl and Lewin's Rail, both listed as vulnerable on the state *Flora and Fauna Guarantee Act 1988*. The maps on the following page from the Atlas of Living Australia (ALA; <https://auth.ala.org.au>, accessed 28th May 2021) show the clear relationship between the occurrence of these threatened species and the habitats of the Yarra Valley vegetation corridor within the Melbourne metropolitan area.

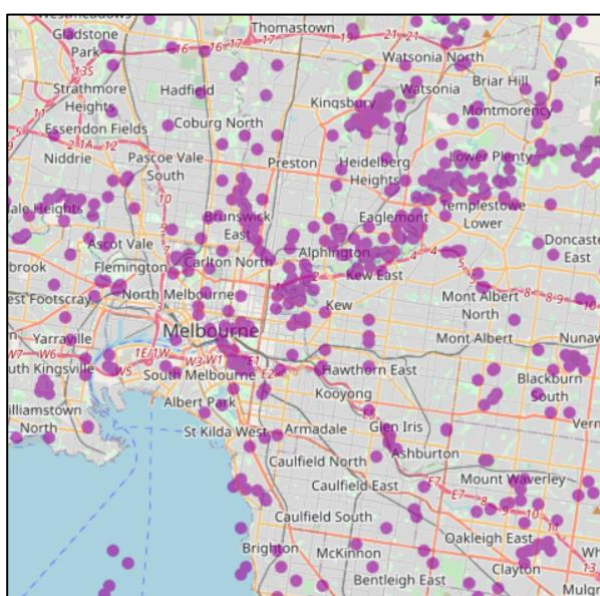


Powerful Owl

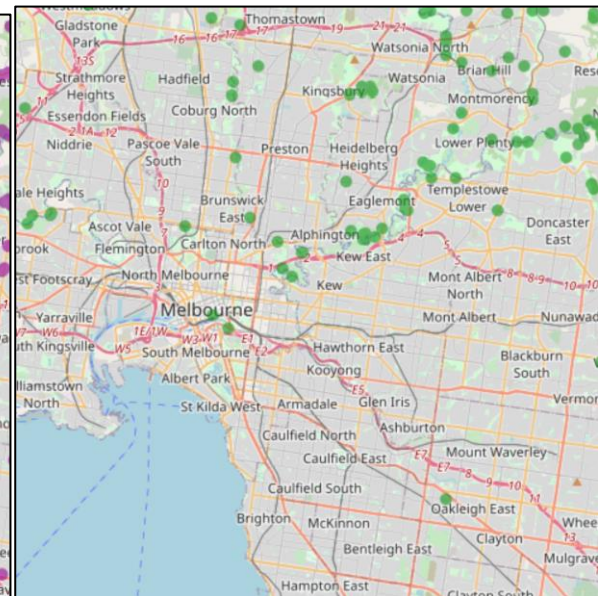


Lewin's Rail

Even for non-threatened species, the Yarra Valley vegetation corridor supports the largest connected populations and habitat, and is responsible in no small part for their persistence within the metropolitan area (source: <https://auth.ala.org.au>, accessed 28th May 2021). Two examples from the ALA are provided below.



Sacred Kingfisher



Swamp Wallaby

The values and role of the proposed development site in the wider Yarra Valley vegetation corridor should be considered in any decision about the future of the area.

As the following sections of my statement show, the impacts of the proposed TreeTop Adventure park on the biodiversity value of the Yarra Flats Park and the wider Yarra Valley vegetation corridor are significant, particularly having regard to the unique attributes and values of the development site itself within the park and wider corridor.

4. Impacts of the Treetop Adventure Park

The impacts of the proposed TreeTop Adventure Park have been partly assessed by Practical Ecology (2018) in their report *Flora and Fauna Assessment, Native Vegetation Impact Assessment and Land Management Plan, Yarra Flats TreeTop Adventure Park, Ivanhoe East*.

This report indicates that the proposal will involve the following impacts on native vegetation:

- 0.498 hectares of native vegetation will be removed or significantly modified, including:
 - 0.025 hectares of complete removal for the administration building; and
 - 0.472 hectares of disturbance including removal of understorey and 'deadwooding', presumably referring to the removal of old dead branches, including hollows from tress to facilitate the in-tree platforms and bridges proposed for the park.

The area of partial vegetation removal will have two zones: a fuel-modified zone, designed to reduce fire risk to the new administration building (to a distance of 19 metres) and a modified conservation zone.

The fuel-modified zone will be maintained in accordance with the Country Fire Authority's (CFA) guidelines for the management of vegetation and fuel within bushfire defendable space. This will result in a significant loss of understorey, the removal of some canopy trees, maintenance of ground cover to less than 10 cm height and raking and disposal of logs and woody debris. This management will lead to a significant loss of habitat complexity and tree cover in this zone, as well as a long term decline in ground fauna habitat condition.

The more extensive modified conservation zone occupies a larger area than the deemed area of native vegetation removal under the proposed in-tree walkways and lines. In this zone the main impact will be tree-trimming (e.g. 'deadwooding') and the construction of in-tree infrastructure. Under these areas, weed control and revegetation will occur. This will result in an improvement in low shrubby understorey and ground cover in the limited area concerned that encompasses the extent of the adventure park infrastructure.

Although modelled as occurring in the area by DELWP, the state threatened Pink Mountain Correa is not known to occur in the area and DELWP have indicated that this is likely a modelling error. An offset for impacts on it is not required. I concur with this view.

In discussing the impacts of the proposal, Practical Ecology (2018) fail to consider impacts on fauna and the role of the development site in Yarra Flats Park in the wider Yarra Valley vegetation corridor. Although they have correctly assessed impacts on native vegetation in accordance with Cl. 52.17 of the Banyule Planning Scheme and with the *Guidelines for the removal destruction and lopping of native vegetation* (DELWP 2017), other planning controls and policies (see Section 6 of this statement) require these impacts to be considered.

The removal of dead wood and some branches from trees in the affected area will reduce the availability of a rare fauna habitat resource in this area – tree hollows. The report by Practical Ecology (2018) did not consider the long-term impacts on fauna populations of this change.

A key impact on fauna that has not been considered is the impact of visitation to the adventure park. The area is currently densely vegetated and difficult to access with informal, narrow, muddy paths away from the sealed road and car park. It is estimated by the proponent in the traffic report prepared by One Mile Grid Traffic Engineering (2016) that daily visits will involve up to 100 people present at any one time, each spending between two and two-and-a-half hours on site. The extent of this disturbance will not only be at ground level but also in the trees, disturbing fauna that would use hollows for shelter and breeding.

This impact will significantly affect the suitability of the area and its surrounds for fauna, effectively precluding breeding and shelter by a range of tree-dwelling, hollow-dependent fauna. In view of the lack of hollow-bearing trees in the park and the wider area, this impact is considered significant and will reduce populations of hollow-dependent fauna in the area.

5. Appropriateness of the proposal

This section reviews relevant recent planning documents that provide strategic direction and guidance to decision-makers along the Yarra River within Metropolitan Melbourne. The appropriateness of the proposed development is evaluated in the light of the directions and policies in these recent strategic documents.

The Yarra River valley has been subject to a several recent strategic studies and relevant State Planning Policy Framework provisions. Relevant ones are listed below.

- Clause 12 - Environment and Landscape Values policy in the State Planning Policy Framework of the Banyule Planning Scheme;
- Clause 12.01-1S – Protection of Biodiversity policy in the State Planning Policy Framework of the Banyule Planning Scheme;
- Clause 12.03-1R Yarra River Protection policy within the State Planning Policy Framework of the Banyule Planning Scheme; and
- Middle Yarra River Corridor Study - Recommendations Report (DELWP 2015)

These are reviewed here with regard to how the proposed TreeTop Adventure Park sits with the directions and policies in these relevant planning documents and policies.

5.1.1. Clause 12 - Environment and Landscape Values

This clause requires planning to:

- Protect ecological systems and biodiversity and areas of environmental and landscape value
- Implement key national and international environmental policies and strategies
- Protect, restore and enhance features of nature conservation, biodiversity and other natural value.

The establishment of the TreeTop Adventure Park where proposed contradicts the directions in this planning policy in that it:

- Reduces protections for the biodiversity values of the Yarra Flats Park being in one of the most valuable areas of habitat in the area;
- Contributes to environmental change that is in the opposite direction of the protection, continued restoration and enhancement of an area of unique nature conservation and biodiversity value within the park due to the presence of high structural habitat diversity and old growth hollow trees used by hollow-dependent fauna.

5.1.2. Clause 12.01-1S - Protection of Biodiversity

The objective of this planning policy is:

“To assist the protection and conservation of Victoria’s biodiversity.”

Some of the strategies it sets for achieving this include:

- The use of biodiversity information to identify important areas including habitat for threatened species and communities and strategically valuable biodiversity sites.
- Strategically plan for the protection of and conservation of Victoria’s biodiversity

- Ensure planning decisions consider the impacts of land use and development on Victoria's biodiversity, and have regard to:
 - *"Cumulative impacts*
 - *Fragmentation of habitat and*
 - *The spread of pest plants, animals and pathogens into natural ecosystems."*
- Avoid impacts on important areas of biodiversity
- Consider impacts in particular on biodiversity in conservation reserves.
- Identify, protect and manage important areas of biodiversity
- Promote the creation, enhancement and protection of links between important areas of biodiversity.

The proposed TreeTop Adventure Park goes against the strategies outlined in this planning policy as it:

- Removes structural diversity and modifies rare old growth trees in an area of bioregional endangered Ecological Vegetation Class (with less than 10% of its original extent remaining).
- Goes against one of two purposes of the PCRZ zoning of this area, designated for strategic planning purposes in the Banyule Planning Scheme in recognition of its conservation values namely:
 - *"To **protect and conserve the natural environment** and natural processes for their historic, scientific, landscape, habitat or cultural values.*
 - *To provide facilities which assist in public education and interpretation of the natural environment with **minimal degradation of the natural environment or natural processes**".* (bold my emphasis)
- Fails to avoid impacts on an important area of biodiversity.
- Has an unacceptable impact on a key biodiversity value in the Yarra Flats Park, much of which is zoned for and subject to management measures from a number of agencies that aim to protect and enhance its environmental values (e.g. Parks Victoria and community revegetation works, and Melbourne Water billabong restoration plans) by reversing the positive environmental and biodiversity trends these measure have and will continue to put in train.
- Fails to protect an area of important biodiversity in the form of a bioregional endangered Ecological Vegetation Class and rare old growth trees important for hollow-dependent fauna within the Yarra Flats Park and nearby reaches of the Yarra River vegetation corridor.
- Through habitat and old growth tree modification, as well as much increased levels of human disturbance, compromises the habitat link function of an important component of a broader habitat link along the Yarra River vegetation corridor. This is so important to the persistence and re-establishment of indigenous fauna species of significance for Metropolitan Melbourne.

5.1.3. *Clause 12.03-1R - Yarra River Protection policy in the State Planning Policy Framework*

C. 12.03-1R of the Banyule Planning scheme resulted from Amendment VC121 on 21 December 2015 to the State Planning Policy Framework. It aimed to strengthen the Yarra River corridor through a new 'Yarra River Protection' policy to protect Yarra River corridor and to inform decision making.

Its objective is *"To maintain and enhance the natural landscape character of the Yarra River corridor."*

It does this by setting strategies, some of which include:

“Strengthen the Yarra River’s natural environment, heritage and overall health by: ...

- *Protecting and enhancing both terrestrial and aquatic habitats and their linkages along the river corridor.”*

“Promote a sense of place and landscape identity by:

- *Retaining a dominant and consistent tree canopy along the river corridor and in its broader landscape setting...”*
- *“Consider as relevant:*
- *Middle Yarra River Corridor Study - Recommendations Report (Department of Environment, Land, Water and Planning, 2016).”*

This protection policy directs that decision-makers both protect and enhance terrestrial and aquatic habitats and their linkages. As described in Section 3, the site of the proposed development is one of the last remaining old-growth forested areas with abundant tree hollows in Yarra Flats Park because of its particular history. This unique habitat value is found nowhere else in the park and in limited areas of nearby parts of the Yarra Valley vegetation corridor given its history as a former agricultural area. The removal of half a hectare of understorey vegetation that contributes to the structural complexity of fauna habitat and the trimming and occupation of rare old growth trees with structures is not consistent with terrestrial habitat protection of this important part of the park. In addition, the introduction of much higher visitor numbers to this sensitive forest fauna breeding habitat will lead to much higher levels of human disturbance in the very trees valued as breeding habitat by hollow-dependent fauna. These impacts on structural complexity (and associated fauna diversity), breeding habitat and fauna populations are not appropriate to the habitat protection and enhancement strategy in Cl. 12.03-1R.

5.1.4. Middle Yarra River Corridor Study - Recommendations Report

This document provides strategic direction for the middle reaches of the Yarra River and is an important strategic planning document referenced in the State Planning Policy framework (Cl. 12.03-1R).

In Chapter 2, Section 2.5, environmental and biodiversity values of the Middle Yarra River Corridor are considered. The report specifically states:

“A large proportion of the study area contains vegetation classes classified as endangered or vulnerable.... Over 600 flora species have been recorded along the river corridor, including four of National significance. While Riparian plant communities are adapted to respond to natural disruptions from flooding and erosion, ongoing effort is required to balance destructive impacts from the surrounding city, including invasions of weeds, litter, urban development, and wear from recreational activities. These vegetation communities provide habitat for an extensive variety of reptile, fish, amphibian, and mammal species. Over 230 fauna species have been recorded within the Middle Yarra River corridor, including 11 of National significance.”

This report recognises the value of the Yarra River vegetation corridor described earlier in Sections 3 and 4 of my statement.

Section 3 of this document recognises the Yarra Flats Park as having an interface character Type 6, Yarra River Conservation. Other less vegetated and environmentally valuable parts of the Yarra River corridor are recognised as Type 5, Parklands and Recreation, such as Bulleen Park, Banksia Park and Westerfolds Park. This report prioritises recreational use in areas of lower tree cover and less extensive regenerating native vegetation compared with Yarra Flats Park. This points to a strategic direction in planning the corridor that gives priority to the conservation of biodiversity where it is most warranted and directs recreational use to less environmentally valuable and sensitive areas of the Yarra River corridor.

Section 3.7 sets more specific guidance for Type 6 areas (p. 39). Some of the key features of this type are noted as:

- *“...Locally and regionally significant open space network of parklands and conservation areas*
- *Important habitat areas for numerous of flora and fauna species*
- *Discreet and minimal visitor facilities such as picnic areas and amenities...”*

Under the heading ‘Land Use and Built Form, the document indicates that:

“There are limited buildings and structures within this river interface character type, which are those ancillary to the recreational role of the spaces, such as informal picnic grounds and amenity blocks”

Among other values recognised in Type 6 areas are:

- *“The western section of the Yarra corridor within the study area is classified as ‘Riparian Floodplain Woodland’ and ‘Grassy Woodlands’ and features River Red Gum and Manna Gum wetlands.*
- *...*
- *These parts of the river corridor are home to a wide range of flora and fauna. This includes insects, birds, frogs, wombats and platypus.*
- *Wetland areas in particular support a high diversity of species, including wetland birds.*
- *The recreational, environmental and cultural attractions of the Yarra River Conservation river interface character type are of high local and regional significance to the people of Melbourne and recognised and protected through the application of local Planning Scheme overlays.”*

Potential threats to values in Type 6 areas are discussed in this Section, to quote:

“As conservation areas under public management, there is limited new development occurring in this river interface character type. However, new buildings or structures associated with its recreational function could potentially form a threat to its character through inappropriate scale or detailed design. Public land managers must ensure that buildings and structures are designed to remain visually recessive to vegetation, and sited away from the river’s edge.”

The report then goes on to provide detailed advice on how new strategic planning and development control should be directed to protect and enhance the full range of values of the Middle Yarra River Corridor.

This report, referenced in Cl. 12.03-1R of the Banyule Planning Scheme clearly identifies the Yarra Flats Park as primarily being for nature conservation and associated low impact recreational pursuits, such as the use of the Yarra Trail and nature-based recreation.

The proposed TreeTop Adventure Park runs counter to the directions and compromises the values of the Yarra Flats Park recognised in this document as it:

- Of a recreational use inconsistent with the low level, nature-based uses contemplated for the Park;
- Is not a “discreet and minimal visitor” facility consistent with the current use and character of the Park that prioritises low level, passive recreation that does not compromise its nature conservation values.

- As described in Section 4 of this statement, it represents a threat to the nature conservation values recognised for the area in this report.

5.2. Alternatives

Similar facilities have been developed in regional Victoria in areas of more extensive forest with larger areas of treed vegetation in less ecologically sensitive locations. Examples include:

- Otway Fly Treetop Adventures, south of Gellibrand in the Otway Ranges;
- Trees Adventure – Yeodene Park, south of Colac in the northern Otway Ranges;
- Live Wire Park, Lorne;
- Enchanted Adventure Garden, Arthur’s Seat, near Dromana;
- Kinglake Forest Adventures, Kinglake National Park;
- Glen Harrow Park, Belgrave; and
- Amaze-n-Things, Cowes, Phillip Island.

Where located in native forest environments, either on public or private land, these facilities occupy a small proportion of much more extensive areas of forest of lesser strategic biodiversity conservation value than occur along the Yarra River within metropolitan Melbourne.

The proposed facility should be moved to an alternative area where the combination of vegetation removal, vegetation and tree modification and intensive human disturbance will not compromise biodiversity values and habitat links as strategically important as those in the Yarra Valley vegetation corridor.

6. Conclusions

From this review of the ecological conditions of the site and the wider regional context of the Yarra Flats Reserve, the proposed adventure park, which will remove about half a hectare of native vegetation, and disturb a significant area around this, is an inappropriate use of the reserve. The reasons are set out below.

- The adventure park compromises the achievement of a positive outcome for biodiversity conservation in the Yarra Flats Park, the value in the region of highest concern to the regional nature resource planning and management body, the Port Phillip and Western Port Catchment Management Authority.
- The proposal goes against the clear direction from the CMA that protection of biodiversity in reserves is a priority as their *“large area and security offer the most achievable conservation prospects”*.
- In the Metropolitan area, more native vegetation has been lost than in any other part of the region (see table above), placing a premium on the remaining native vegetation.
- Although historically much of the Yarra Flats Park was cleared of native vegetation, the project area represents a much older treed area than the successfully regenerating riparian forest elsewhere in the reserve. The choice of this site fails to recognise the unique and rare habitat values of the site.
- The Yarra Flats Park, in concert with other vegetated areas within the Yarra Valley vegetation corridor, is part of the largest consolidated area of native vegetation and indigenous fauna habitat in the Melbourne Metropolitan urban area.
- As such, it supports often the largest remaining viable populations of both threatened and, importantly, many more non-threatened fauna species of limited occurrence within the Melbourne metropolitan urban area.
- Removal or significant alteration to half a hectare of native vegetation across a larger area will significantly compromise a core area of remnant native vegetation and fauna habitat within the Yarra Flats Park compromising its role in the Yarra Valley vegetation corridor.
- Ongoing intensive disturbance to wildlife from visitors will result in impacts well beyond the extent of direct vegetation removal (with up to 100 visitors present at any one time for an average of 2 to 2.5 hours predicted).

Considering these impacts, the proposal conflicts with the strategic planning directions and policies in the Banyule Planning Scheme in relation to biodiversity generally and the biodiversity of the Yarra Valley in particular. In view of this, I conclude that the TreeTop Adventure Park is an inappropriate development in the location in which it is proposed. Serious consideration should be given by Parks Victoria to locating the facility in an area of far lesser biodiversity value, consistent with the strategic directions in the planning scheme and other strategic planning documents.

Appendix 1: *Curricula Vitae*

Brett Lane

Managing Director

Profile

Brett Lane has over 40 years' experience in ecological research and management. Specialising in birds, wind farms, wetlands and coastal ecosystems, and development impact assessment, he has over 30 years' experience as an ecological consultant to industry, government and private clients. He has worked on projects ranging from large metropolitan road projects, broadacre property development and wind farms to powerlines and small private subdivisions. He understands the legislation and planning policies that developers must respond to for successful projects and has facilitated development assessments for hundreds of projects. He has extensive experience as an expert witness in courts, tribunals and planning panels.

He has been principal consultant and sole director of the former Brett Lane & Associates Pty Ltd, now Nature Advisory Pty Ltd. His technical and personal leadership, combined with the hard work of those around him, has built one of the country's leading ecological consulting teams. This team brings a refreshing approach to development assessment that combines a commitment to good scientific investigations that reliably inform decision-makers while understanding the commercial and compliance concerns of clients.

Biography

Brett's 40 years of experience started studying Orange-bellied Parrots between study years at university, followed by work for the predecessor of Birdlife Australia for seven years, coordinating a citizen-science project to gather information on the numbers and distribution of shorebirds in Australia. This culminated in the publication of the book *Shorebirds in Australia*. This was followed by work in his own consulting practice throughout eastern Australia in the 1980's. After this, he worked for the predecessor to Wetlands International - Asia Pacific in Kuala Lumpur as Assistant Director for East Asia, building a multi-country wetland conservation program that worked with local communities to conserve wetlands. On return to Australia in 1993, he held positions as principal ecological consultant with consultancies in Brisbane and Melbourne before establishing Brett Lane & Associates Pty Ltd in January 2001. In 2019, this became Nature Advisory and he continues to lead the company's technical, professional and commercial development.

Qualifications

B.A (Zoology & Physical Geography), Monash University

Key skills

- Technical team leadership
- Ecological Impact Assessment
- Ecological Monitoring

- Specialist threatened species investigations
- Bird and bat studies for wind farm impact assessment
- Biodiversity regulations
- Wetland and coastal ecology
- Marine birds
- Shorebirds
- Aerial wildlife surveys
- Expert Witness work

Project examples

Renewable Energy

Golden Plains Wind Farm, Victoria - Project director for a major 800MW wind farm project west of Geelong in Victoria, involving initial advice on regulatory requirements and strategy, preparation of detailed biodiversity assessment and Brolga Impact Assessment in accordance with government guidelines for an Environment Effects Statement then preparation of post-approval, pre-construction compliance plans.

Capital Wind Farm, NSW - Prepared the operational phase bird and bat adaptive management plan for this large wind farm in the southern highlands of NSW, then implemented the plan. This involved over 4 years' of work including designing the bird and bat impact monitoring program, approval of this by NSW Office of Environment and Heritage (OEH), implementation of monitoring and periodic reporting to OEH. Contingency plans and responses for potential for significant impacts, including on Eastern Bentwing Bat and Wedge-tailed Eagle.

Property Development

Modeina, Burnside, Victoria - Coordinated ecological assessments and approvals for a greenfields property development in Melbourne's west that faced complex and challenging ecological issues. This involved high level advice on issues and risks for the project, permits for native vegetation removal, Commonwealth Environment Protection and Biodiversity Conservation Act Referrals Assessment and Approval, and post-approval planning and compliance.

Eynesbury Town Development, Victoria - Advised on and coordinated biodiversity assessments and approvals for an extensive staged greenfields property development west of Melbourne, including preparing and tendering the implementation of management plans for over 300 hectares of protected environmental reserves. The project won an award for environmental excellence from the Urban Development Institute of Australia and a commendation in the environment section of the Planning Institute of Australia awards.

Infrastructure

Port Phillip Bay channel-deepening project - Assessed the impacts of a major capital dredging project on coastal ecosystems and marine birds for a Victorian Environment Effects Statement, including detailed mapping and assessment of coastal vegetation and fauna habitats, assessment of impacts on listed rare and threatened coastal birds, and specific assessment of impacts on marine birds that use Port Phillip Bay. Subsequent work included reviewing implementation of the environmental management plan for the project, including updating regular risk assessments based on the periodic findings of the impact monitoring program.

Nagambie ByPass Flora and Fauna Assessment - This work involved coordinating a team of specialists to assess native vegetation and threatened flora and fauna along a number of route options for the Nagambie ByPass. A report on impacts on native vegetation, consistent with the requirements of the planning scheme enabled the project to avoid and minimise impacts on native vegetation and to obtain approval for the removal of a reduced, residual area of impacted native vegetation.

Outer Metropolitan Ring Road - Strategic Assessment - Undertook detailed collation of existing native vegetation and threatened flora and fauna mapping along alternative routes for this 72-kilometre outer metropolitan freeway to Melbourne's west and north. This resulted in a report that accompanied the impact assessment for the EPBC Act Melbourne Strategic Assessment, which included Melbourne's growth areas, the Regional Rail Link and this project.

Ecosystem Monitoring and Management

Wind Farm bird and bat impact monitoring - Brett has provided technical leadership and regulator liaison for the design, implementation and reporting of wind farm bird and bat impact studies. This has involved working with statisticians to develop robust sampling designs for caracss searches, and scavenger and observer efficiency trials, collating and analysing the results to estimate bird and bat mortality rates at wind farms, and reporting the findings to the regulator. Occasionally, impact events trigger a contingency response and Brett has coordinated such responses and liaised with the regulator to keep them informed and, with project owners, proposed solutions to problems as they arose.

River Red-gum condition monitoring - In response to an urgent need for objective data on the condition of riparian vegetation in the lower Murray River, Brett developed a rapid assessment method and sampling design to monitor River Red-gum condition in areas subject to long term drought due to water diversion. This laid a foundation for subsequent monitoring programs and lead to the establishment of regular environmental watering programs along the lower Murray River. Since this time, the scale and scope of monitoring and environmental watering has improved substantially.