Victorian Environmental Assessment Council

# Assessment of the values of the Mirboo North Immediate Protection Area

## Gunaikurnai Country

MARCH 2022

VICTORIA

**Victorian Environmental Assessment Council**

The Victorian Environmental Assessment Council (VEAC) was established in 2001 under the *Victorian Environmental Assessment Council Act 2001*. It provides the State Government of Victoria with independent advice on protection and management of the environment and natural resources of public land.

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**Errata**

- P ii, line 2 of Citation – changed to 'Mirboo North'
- p 9 – Figure 1.4 caption changed
- p 10, line 4 – replaced 'Millennium Development Goals' with 'Sustainable Development Goals'
- p 29, third bullet point – changed from '181' to '183'
- p 33 – corrected text under Planned burn history to read 'There have been six planned burns in the Mirboo North IPA (see figure 3.8). The two burns in the western corner were carried out in 2015 and 2016, and the other burns were carried out between 1981 and 1992.'
- p 34, section 3.5.3, end of paragraph 3 – removed 'see figure 3.10'
- p 36, section 3.5.5, line 2 – changed 'figure 3.18' to 'figure 3.12'

**To improve image quality, the following maps were redrafted:**

- Figures 1.3, 2.3, 3.4, 3.7, 3.9, 3.11
- Appendix 1 – A1 to A8

**The following maps were corrected:**

- Figures 2.1, 3.6 and 3.8

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For more information contact the Victorian Environmental Assessment Council on (03) 9637 9902 or 1800 134 803, or email veac@delwp.vic.gov.au



## Acknowledgement of Aboriginal Victorians

The Victorian Environmental Assessment Council pays its respects to Victoria's Aboriginal peoples, Native Title Holders and Traditional Owners and acknowledges their rich cultural and intrinsic connections to Country. Council recognises that the land and sea is of spiritual, cultural, environmental and economic importance to Aboriginal people and values their contribution and interest in management of land and water.

# Contents

# Executive summary

In November 2021, the Victorian Environmental Assessment Council (VEAC) was requested by the Minister for Energy, Environment and Climate Change, the Hon Lily D'Ambrosio MP, to carry out an assessment of the values of state forests in the areas identified as Immediate Protection Areas (IPAs) in the Strathbogie Ranges and Mirboo North.

The IPAs were put in place in November 2019 alongside the Victorian Forestry Plan and the announcement by the Victorian government that timber harvesting would end in Victoria's native forests by 2030. Environmental protections that were announced included the immediate protection from commercial timber harvesting of 96,000 hectares of state forest in eastern Victoria. The IPAs are in the Strathbogie Ranges, Central Highlands, East Gippsland and near Mirboo North.

In 2021 the government announced that VEAC will undertake scientific assessment of the IPAs and community consultation will be undertaken by an Eminent Panel for Community Engagement (EPCE) on the future uses of State forest in eastern Victoria. The assessment of the IPAs will be delivered in two phases with phase 1 covering IPAs in the Strathbogie Ranges and near Mirboo North.

This report provides an assessment of the values of the Mirboo North IPA for the purposes of informing the community consultation to be undertaken by the EPCE on phase 1.

VEAC is not undertaking community consultation or receiving submissions on this assessment.

The final assessment, including VEAC's economic assessment of the proposed land use changes recommended by the EPCE, will be submitted to the Minister by 31 May 2022.

## Scope of this report

The assessment is published to inform the work of the EPCE in its provision of advice and recommendations to the Minister for Energy, Environment and Climate Change on the future uses of the IPAs and State forest in eastern Victoria.

The purpose of the assessment specified in the terms of reference is to:

a) identify the biodiversity, ecological, geological and geomorphological values of the specified area

b) identify the cultural heritage, social and economic values of the specified area

c) identify the current and likely future threats to those values, including climate change

d) identify the typical land use categories commensurate with the identified values

e) assess the potential economic implications of proposed land use changes recommended by the EPCE and provided to the Council.

This report addresses topics (a) to (d) of the terms of reference for the Mirboo North IPA through identification of the values, threats to the values and typical land use categories commensurate with the identified values.

VEAC will address topic (e) of the terms of reference for both the Mirboo North and Strathbogie Ranges IPAs in its full report to the Minister by 31 May 2022.

### VEAC's approach to the assessment

In preparing this report, information was sourced from government datasets such as the Victorian Biodiversity Atlas, published reports, external publicly available datasets, meetings with scientists, land managers, resource managers, and information and reports from community groups and forest users where available.

A preliminary statement of Aboriginal cultural heritage values, rights and interests has been provided to VEAC by the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) for the Traditional Owners of the land and is reproduced in this report.

### Mirboo North Immediate Protection Area

The Mirboo North IPA is a small area of state forest (approximately 440 hectares) located north of the Mirboo North township in the Strzelecki Ranges, about 130 kilometres south east of Melbourne. The Strzelecki Ranges is one of the most heavily cleared bioregions in Victoria retaining less than one third of the original extent of native vegetation and one of the lowest proportions in the protected area system at 1.5 per cent. Much of the surrounding landscape is used for agriculture.

Public land near the IPA includes the four forested blocks that make up the Mirboo North Regional Park, several softwood plantations and some small blocks of state forest. Further afield is the Mount Worth State Park, the Brataualung Forest Park and the Tarra-Bulga National Park.

The Gunaikurnai are the recognised rights holders over about 1.33 million hectares in Gippsland, including the area of the Mirboo North IPA. The IPA is in proximity to the boundaries of the Brayakaulung Clan Group and the Brataualung Clan Group of the Gunaikurnai people. The State of Victoria has a Recognition and Settlement Agreement with the Gunaikurnai People. GLaWAC is a Registered Aboriginal Party for the purposes of the *Aboriginal Heritage Act 2006*.

Previous major assessments of public land including the area of the Mirboo North IPA are:

- South Gippsland District 2 Final Recommendations (LCC, 1982)
- Gippsland Regional Forest Agreement Comprehensive Regional Assessment (1999) and Further Assessment of Matters (2019).

### Summary of values

A preliminary GLaWAC report to VEAC of the importance of the cultural values of the Mirboo North IPA to the Gunaikurnai People is reproduced in this report. To provide a more through picture GLaWAC seeks to undertake cultural heritage survey work and conduct Reading Country Assessments and associated research.

The biodiversity and ecological values of the IPA are summarised as follows:

- The area forms a core part of the area of highest biodiversity value in the western half of the Strzelecki Ranges; this relatively small area forms a belt from Mount Worth in the west to Morwell National Park in the east.
- It is a key site for the threatened species: southern greater glider, Narracan burrowing crayfish, South Gippsland burrowing crayfish and potentially South Gippsland spiny crayfish.
- The IPA is known or likely to contribute to the conservation of several other threatened species, including the powerful owl and lace monitor, as well as the genetically diverse Strzelecki koala population.
- If the protected area system in the Strzelecki Ranges bioregion is to meet nationally agreed comprehensiveness, adequacy and representation (CAR) targets, almost all of the IPA should be included.
- Despite some recent wildfire, its proximity to settled areas, and a long history of use, the forest is in as good or better condition for biodiversity than comparable forests elsewhere.

The forests of the IPA make up a significant part of the catchment area for the northern arm of the Little Morwell River, which is the source of Mirboo North's water supply.

Recreational use – and associated tourism – of the forest for activities such as four-wheel driving, horse riding, trail bike riding, bushwalking, mountain biking is valued. Local residents use the forest for wellbeing, health and social values associated with access to and connection with natural areas.

### Summary of threats

Threats and threatening processes include:

- Climate change - more dangerous fire weather, more days over 35 degrees Celsius, more heatwaves and changes in rainfall are all projected to affect the Gippsland region
- Invasive plant and animal species (such as blackberry and deer)
- Wildfires and planned burning
- Further loss and fragmentation of habitat putting greater pressure on remaining habitat in an already extensively cleared bioregion
- Growing regional community leading to more recreational/human use pressures
- Soil disturbance and creation of unplanned tracks from illegal off road recreational activities e.g. trail bikes and mountain bikes.

### Public land use categories commensurate with the identified values of the Mirboo North IPA

An overview of public land categories in Victoria is provided in sections 5.1 and 5.2. This includes an outline of the process for determining the public land use category or categories which best align with the purpose and allowed uses and activities for the Mirboo North IPA. A summary of the analysis is provided in sections 5.3 and 5.4.

The very small size of the area and the requirement to assess the land in isolation from other public land provided some challenges for VEAC. These are reflected in our conclusions about the typical land use categories that are commensurate with the values identified earlier in the report.

Given the very small size of the IPA, **regional park** is considered the most appropriate land use category for the IPA. It fits well into the landscape with similar forest in the contiguous block of the Mirboo North Regional Park and affords protection for the high natural values from sawlog and pulpwood harvesting, while facilitating continued use of the forest for a broad range of activities. It also provides management continuity and simplifies land boundaries to support public understanding of allowed activities.

However, if size and management viability were not a consideration the land use category commensurate with the identified values of the Mirboo North IPA is **conservation park**. As a conservation park, under-represented EVCs in the Strzelecki Ranges bioregion would be added to the protected area system and the IPA would be managed for the protection of its natural values, while allowing an appropriate level of access and a range of recreational activities valued by the community.

VEAC further observes that our initial assessment suggests that the values of the surrounding regional park areas outside the IPA may warrant increased protection commensurate with the conservation park category, subject to further assessment. The Mirboo North IPA area on its own is much smaller than any existing conservation park, but its high natural values combined with the likely comparable values of the surrounding regional park areas, could be commensurate with conservation park.

In addition, VEAC supports future work on the concepts of cultural landscapes and cultural reserves being explored by Traditional Owners for public land and their possible future incorporation into the categorisation and management of the Strzelecki Ranges native forests.

# 01 Introduction

In November 2021, the Victorian Environmental Assessment Council (VEAC) was requested by the Minister for Energy, Environment and Climate Change, the Hon Lily D'Ambrosio MP, to carry out an assessment of the values of state forests in the areas identified as Immediate Protection Areas (IPAs) in the Strathbogie Ranges and Mirboo North.

This report provides an assessment of the Mirboo North Immediate Protection Area. A full report will be provided to the Minister by 31 May 2022.

VEAC is not undertaking community consultation or receiving submissions on this assessment. See the following sections 1.1 to 1.4 for details of the process for community engagement on the information in this report.

## 1.1 Background to the assessment

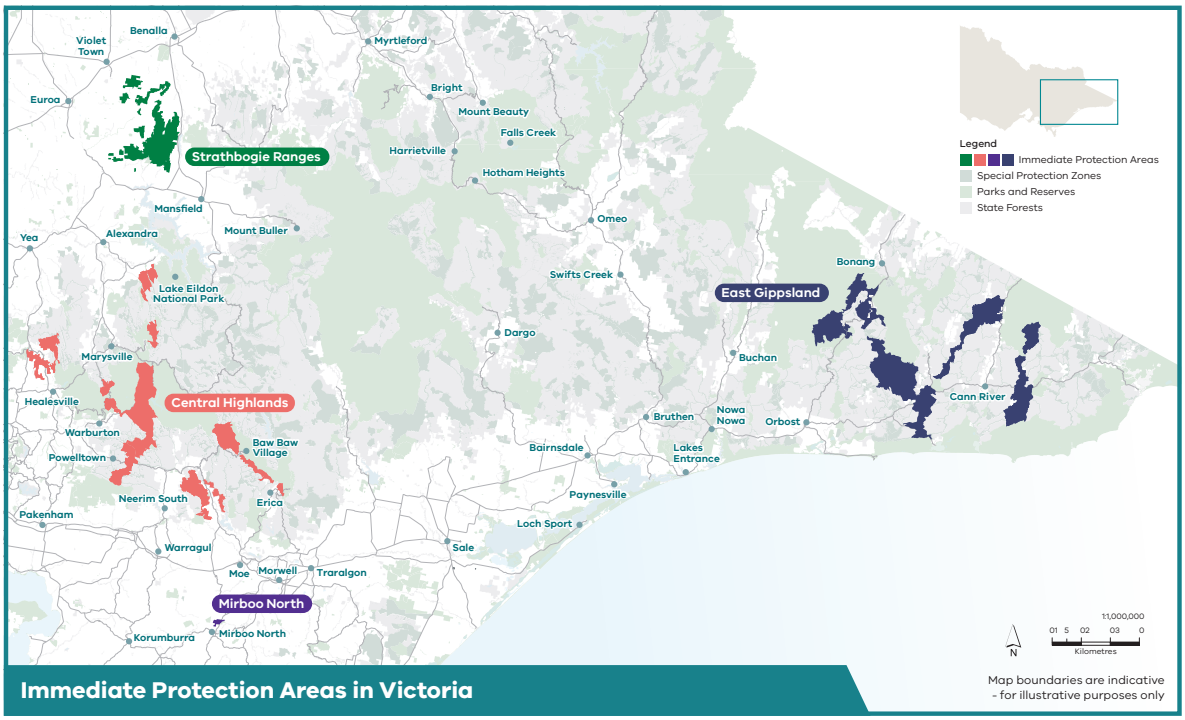
The current assessment of IPAs originated with the Victorian government's announcement in November 2019 that timber harvesting would end in Victoria's native forests by 2030 following a managed 10-year transition to an entirely plantation-based timber supply. The Victorian Forestry Plan (VFP) was developed to assist the industry as it manages its gradual transition away from native forest harvesting.[1] Under the 30-year plan, a funding package will provide support for workers, businesses and communities.

Alongside this announcement the Victorian government announced environmental protections including the immediate protection from commercial timber harvesting of 96,000 hectares of state forest in Immediate Protection Areas (IPAs). The IPAs support the protection of critical habitat for more than 35 forest-dependent species, including southern greater glider (*Petauroides volans*) and Leadbeater's Possum (*Gymnobelideus leadbeateri*). The Greater Glider Action Statement, released with the announcement of the VFP, outlined conservation measures for the southern greater glider, listed as threatened in 2017, and included an indicative map of the IPAs.[2]

1 https://djpr.vic.gov.au/__data/assets/pdf_file/0012/2042040/13318-VIC-Forestry-Plan_V2_FA_WEB.pdf
2 https://www.environment.vic.gov.au/_data/assets/pdf_file/0019/440371/267-Greater-Glider-2019-Action-Statement.pdf

The IPAs are located in the Strathbogie Ranges, Central Highlands, East Gippsland and near Mirboo North (see figure 1.1).

**Figure 1.1** Immediate Protection Areas in eastern Victoria




At the time of the VFP announcement, the Victorian government made a commitment to a community engagement process to determine the permanent protection and reservation of the IPAs.

In August 2021 the Victorian government announced that VEAC will undertake a scientific assessment of environmental, biodiversity and other values in areas identified as Immediate Protection Areas, and that the assessment will be made available to the public and will provide advice on appropriate land tenure for the IPAs. The government also announced that community consultation will be undertaken by an Eminent Panel for Community Engagement (EPCE) on the future uses of State forest in eastern Victoria to be chaired by Karen Cain and including the formal representation of VEAC.[3]

The EPCE was formally established by the Minister for Energy, Environment and Climate Change in January 2022.[4] Formally recognised Traditional Owner groups relevant to each region will be appointed to the panel during the engagement process for each Immediate Protection Area on their Country.

The assessment of the IPAs is being delivered in two phases:

- phase 1 – IPAs in Mirboo North and Strathbogie Ranges
- phase 2 – IPAs in Central Highlands and East Gippsland and future use and management of State forests in eastern Victoria.

The membership of the EPCE for phase 1 and more information about the panel is available at https://www.delwp.vic.gov.au/futureforests/immediate-protection-areas/eminent-panel-for-community-engagement. The panel will present a report and recommendations to the government on Mirboo North and Strathbogie Ranges in mid-2022. Terms of reference for VEAC's phase 2 assessment of the Central Highlands and East Gippsland are expected in mid 2022 with community engagement by the panel to begin later in 2022.

VEAC's current assessment covers phase 1 and includes an assessment of the Mirboo North and

3 Media release https://www.lilydambrosio.com.au/media-releases/protecting-victorias-forests-and-threatened-species/
4 https://www.premier.vic.gov.au/next-steps-guide-future-our-protected-forests

Strathbogie Ranges IPAs. The assessment will be presented in individual reports for the two IPAs to facilitate community engagement.

This report addresses the purposes in (a) to (d) of the terms of reference for the Mirboo North IPA.

## 1.2 Terms of reference

On 25 November 2021, the Minister for Energy, Environment and Climate Change requested VEAC to assess the values of state forests in the Immediate Protection Areas in the Strathbogie Ranges and Mirboo North. See box 1.1 for the terms of reference. The terms of reference were tabled in Parliament and gazetted on 2 December 2021.

**Box 1.1** Terms of reference

Pursuant to section 26B of the *Victorian Environmental Assessment Council Act 2001*, the Minister for Energy, Environment and Climate Change hereby requests the Victorian Environmental Assessment Council (the Council) to carry out an assessment of the values of state forests[1] in the Immediate Protection Areas (IPAs) in the Strathbogie Ranges and Mirboo North[2] as shown on the accompanying map.

The assessment will inform the work of an Eminent Panel for Community Engagement (EPCE) in its provision of advice and recommendations to the Minister for Energy, Environment and Climate Change on the future uses of the Immediate Protection Areas and state forest in eastern Victoria.

The purpose of the assessment is to:

a) identify the biodiversity, ecological and geological and geomorphological values of the specified area
b) identify the cultural heritage, social and economic values of the specified area
c) identify the current and likely future threats to those values, including climate change
d) identify the typical land use categories commensurate with the identified values
e) assess the potential economic implications of proposed land use changes recommended by the EPCE and provided to the Council

This assessment will build upon the Council's *Conservation values of state forests - Assessment report* (2017) by providing a more localised assessment of these areas.

The Council is required to consider the values referred to above at the relevant state, regional and local levels, including their occurrence in existing protected areas and on other public land.

This request is for an assessment and report on the above values and the economic implications of the proposed recommendations of the EPCE. Public consultation and recommendations are not required.

The Council will engage with the EPCE regarding the content of the Council's assessment.

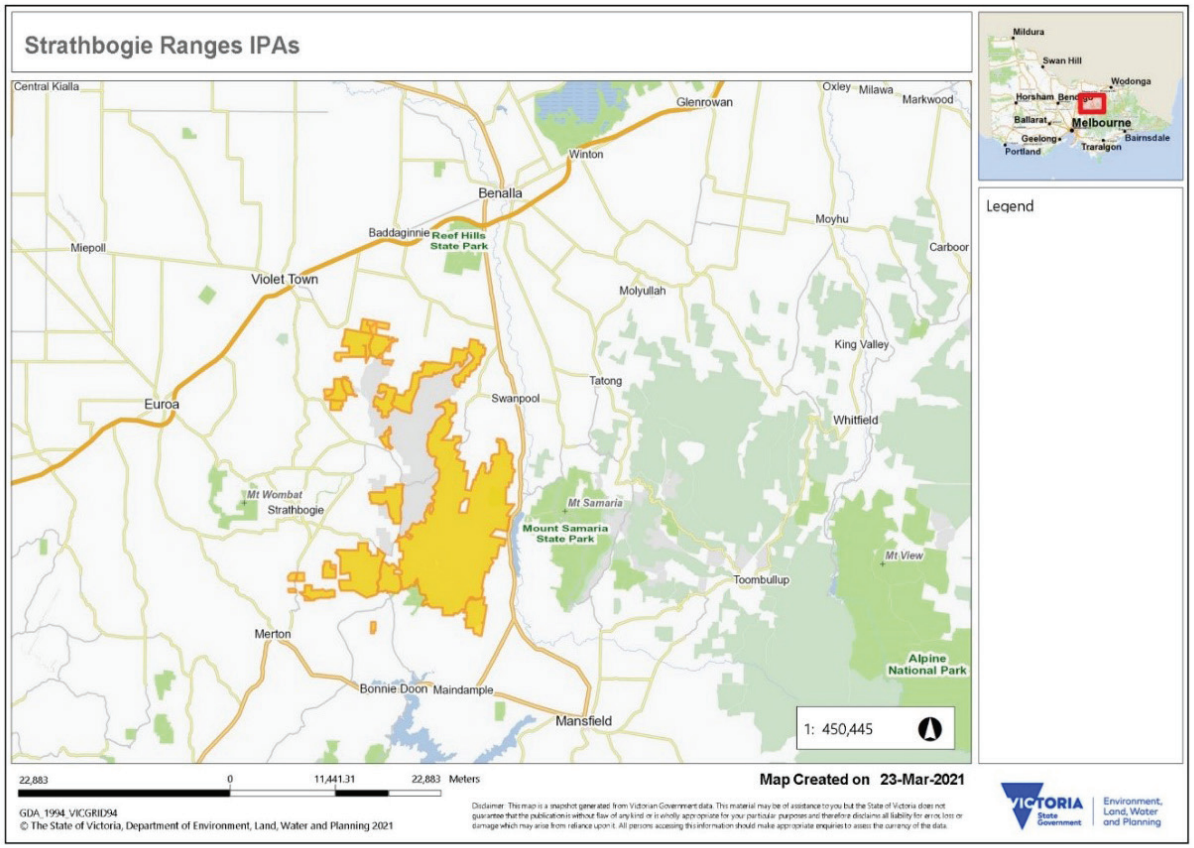
The Council must publish its assessment of the matters specified in paragraphs (a) to (d) above by 31 March 2022* and submit a report on the completed assessment by 31 May 2022.

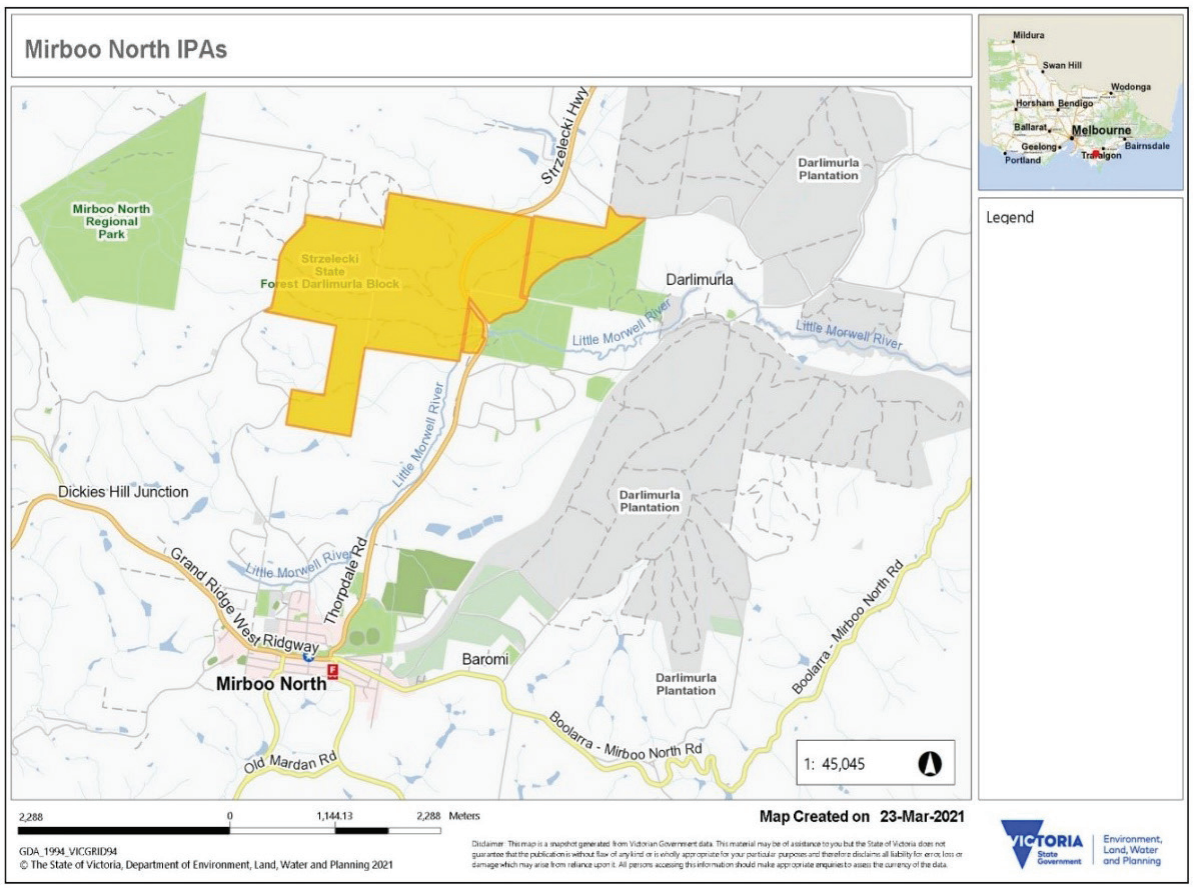
1 For the purposes of this assessment, State forest is defined as the areas of public land depicted as General Management Zone, Special Management Zone and Special Protection Zone in the maps accompanying the Regional Forest Agreements as updated from time to time and expressed in the DELWP forest zoning data set (FMZ 100) as at the time of commencement of the assessment.

2 For the purposes of this assessment, IPAs are defined as the areas announced as part of the Victorian Forestry Plan in November 2019 and updated on 21 November 2019.

*originally 28 February 2022

**Figure 1.2** Map accompanying the terms of reference:
Immediate Protection Areas in the Strathbogie Ranges and Mirboo North (orange shading)



## 1.3 About VEAC

VEAC provides the Victorian government with independent and strategic advice on matters related to the protection and management of the environment and natural resources of public land. VEAC was established under the *Victorian Environmental Assessment Council Act 2001*. VEAC is a successor organisation to the Land Conservation Council (LCC), established in 1971, and the Environment Conservation Council (ECC), which replaced the LCC in 1997.

VEAC carries out its investigations and assessments and provides advice at the request of the Minister for Energy, Environment and Climate Change. Together, the Act and terms of reference provided by the Minister describe how an investigation or assessment must be conducted, including the number of reports to be prepared, matters to be taken into account, timeframes and public consultation.

Public land is defined in the VEAC Act and includes Crown land and land owned by state government public authorities. It excludes private freehold land, land owned by local councils and Commonwealth land.

The VEAC Act was substantially amended in 2016 to allow the Minister to request the Council to conduct an assessment or to provide advice in relation to a matter that, in the opinion of the Minister, does not require an investigation, having regard to the matter's limited scale or scope or its technical nature. Assessments do not require formal public consultation unless specified by the Minister in the terms of reference.

This assessment of the Immediate Protection Areas in state forest was requested pursuant to section 26B of the VEAC Act.

The current five members appointed to VEAC are Mellissa Wood (Chairperson), Joanne Duncan, Anna Kilborn, Nicola Ward and Nick Wimbush. A brief biography of each of the current Council members can be found on VEAC's website at veac.vic.gov.au. The Council is supported by a small research and policy team and an administrative secretariat.

## 1.4 Role of VEAC's assessment in determining the future uses of State forest

The full process to provide advice to government on the future uses of State forest in eastern Victoria involves scientific assessments undertaken by VEAC and community engagement on the assessments to be undertaken by an Eminent Panel for Community Engagement (see sections 1.1 and 1.2). The work will be undertaken in two phases as outlined in section 1.1. The assessment of the Mirboo North and Strathbogie Ranges IPAs is part of phase 1.

The provisions of the VEAC Act under which this assessment was requested do not include mandatory consultation requirements or the release of draft reports for public comment. VEAC is not required to undertake community consultation for this assessment.

This report addresses topics (a) to (d) of the terms of reference (see box 1.1) for the Mirboo North IPA through identification of the values, threats to the values and typical land use categories commensurate with the identified values.

VEAC will address topic (e) of the terms of reference for both the Mirboo North and Strathbogie Ranges IPAs in its full report to the Minister by 31 May 2022.

The process for this assessment will be undertaken in accordance with the VEAC Act and the terms of reference for the assessment. The process and timelines are shown in table 1.1 together with the relevant links to the EPCE processes.

**Table 1.1** Assessment process and timelines

| Phase | Timing | Activity |
|---|---|---|
| Preliminary | November 2019 | Victorian government announces cessation of logging in native forests by 2030 and establishes Immediate Protection Areas (IPAs) |
| | August 2021 | Minister announces process for assessment and advice on permanent protection of IPAs in eastern Victorian forests |
| | January 2022 | Eminent Panel for Community Engagement (EPCE) established |
| Phase 1 | November 2021 | Minister provides terms of reference to VEAC for assessment of the values of Mirboo North and Strathbogie Ranges IPAs |
| | 31 March 2022 | VEAC publishes assessment of Mirboo North and Strathbogie Ranges IPAs for the matters specified in paragraphs (a) to (d) in terms of reference |
| | April – May 2022 tbc | EPCE conducts community engagement informed by VEAC's assessment |
| | May 2022 tbc | EPCE provides proposed land use changes to VEAC |
| | May 2022 tbc | VEAC assesses the potential economic implications of EPCE's proposed land use changes as specified in (e) in terms of reference |
| | 31 May 2022 | VEAC submits full report to Minister addressing (a) to (e) in terms of reference |
| | Mid 2022 | EPCE submits Phase 1 report to the Minister |
| | 7 June 2022 tbc | VEAC report publicly released |
| Phase 2 | Mid-2022 tbc | Terms of reference provided to VEAC for assessment of the values of IPAs in Central Highlands and East Gippsland and future use and management of State forests in eastern Victoria |
| | tbc | VEAC report due |
| | tbc | EPCE report due |

## 1.5 Information sources

In preparing this report, information was sourced from various government datasets such as the Victorian Biodiversity Atlas, published reports, external publicly available datasets, meetings with land managers and resource managers, and from community groups and forest users where available. Statements of Aboriginal cultural heritage values, rights and interests have been provided to VEAC by the Traditional Owners of the land.

The extent and nature of assessments of biodiversity and other values are shaped by the size of the assessment area, the time provided, and the available data and expertise. For VEAC's 2017 assessment of the conservation values of state forests VEAC commissioned specialist modelling and spatial analysis expertise through DELWP's Arthur Rylah Institute for Environmental Research and utilised the best available biodiversity data at the time. Since then, a considerable amount of additional information has been collected and compiled associated with modernisation of the Victorian Regional Forest Agreements and development of action statements for protection of threatened species such as the southern greater glider.

Details of information sources are provided in the relevant sections of this report and on the VEAC website.

## 1.6 Overview of Victoria's forests

For the purposes of its 2017 Statewide Assessment of Public Land VEAC recalculated the area of terrestrial land in Victoria as 22.8 million hectares (including islands, lakes and rivers) and the area of terrestrial public land as approximately 8.4 million hectares.

The 2018 State of the Forests report estimated forested public land in Victoria at 6.4 million hectares across parks, reserves and state forest.[5]

DELWP estimates that Victoria has approximately 8.2 million hectares of forests, including native forest and plantations on public and private land. Approximately 81 per cent of Victoria's forested land is estimated to be Crown land. In addition, private landholders manage 1.45 million hectares of forest of which around 422,000 hectares are plantations.

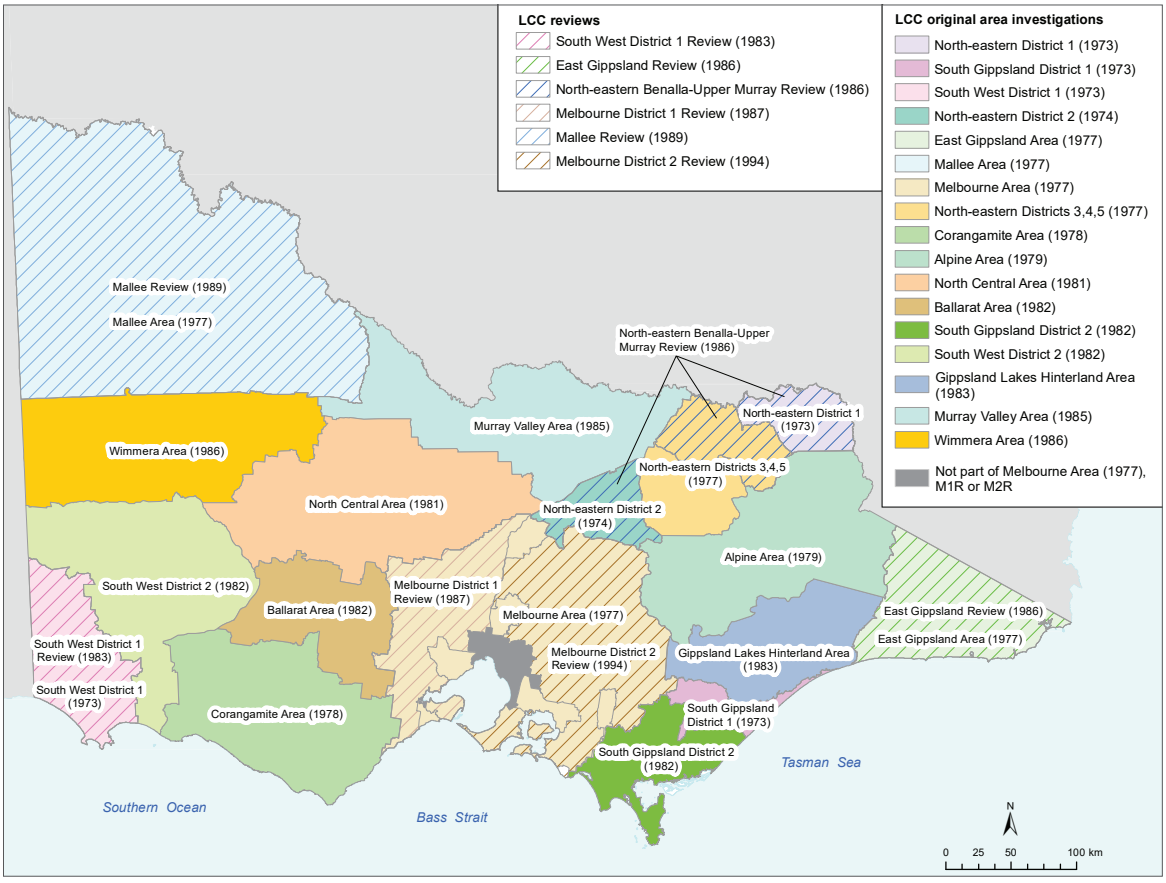
## 1.7 Past studies

### LCC , ECC and VEAC investigations and assessments

For 50 years the role of VEAC and its predecessors, the Land Conservation Council and the Environment Conservation Council, has been to draw together scientific and other research, consult with the community and make recommendations to the government on the protection and management of Victoria's public land.

The recommendations, as accepted by government, form the framework for the way in which public land is used and managed in Victoria.

**Figure 1.3** LCC study areas




5 https://www.ces.vic.gov.au/sites/default/files/publication-documents/State%20of%20the%20Forests%202018%20Report.pdf

Government-accepted LCC/ECC/VEAC recommendations are binding on government departments and public authorities. The recommendations govern how the public land is used and managed, regardless of the underlying legal status. To enable the orderly investigation of public land, the LCC initially divided Victoria into 17 study areas. The study areas for LCC regional investigations and reviews are shown in figure 1.3.

Since it made its first recommendations to government in 1973, the LCC and its successors have conducted 49 separate regional studies, reviews and statewide or special investigations on most public land in Victoria. The area-specific recommendations of the councils identify land use categories and, for each category, specify its purpose, nominate the suitable uses and list the incompatible uses that are not permitted.

Recommendations for state forest near Mirboo North were included in the LCC's South Gippsland District 2 Final Recommendations (1982), and accepted by government, with the current IPA area recommended to continue as a hardwood production area and adjacent forested public land recommended as the Mirboo Regional Park.

VEAC investigations of relevance to the area include the Remnant Native Vegetation Investigation (2011), Statewide Assessment of Public Land (2017) and the Assessment of the Conservation Values of State Forests (2017).

The terms of reference for this assessment state that it will build upon the Council's *Conservation values of state forests - Assessment report* (2017) by providing a more localised assessment of these areas.

### Regional Forest Agreements

At the national level, the National Forest Policy Statement, first published in 1992, sets out a nationally shared vision for the ecologically sustainable management of Australia's forests.

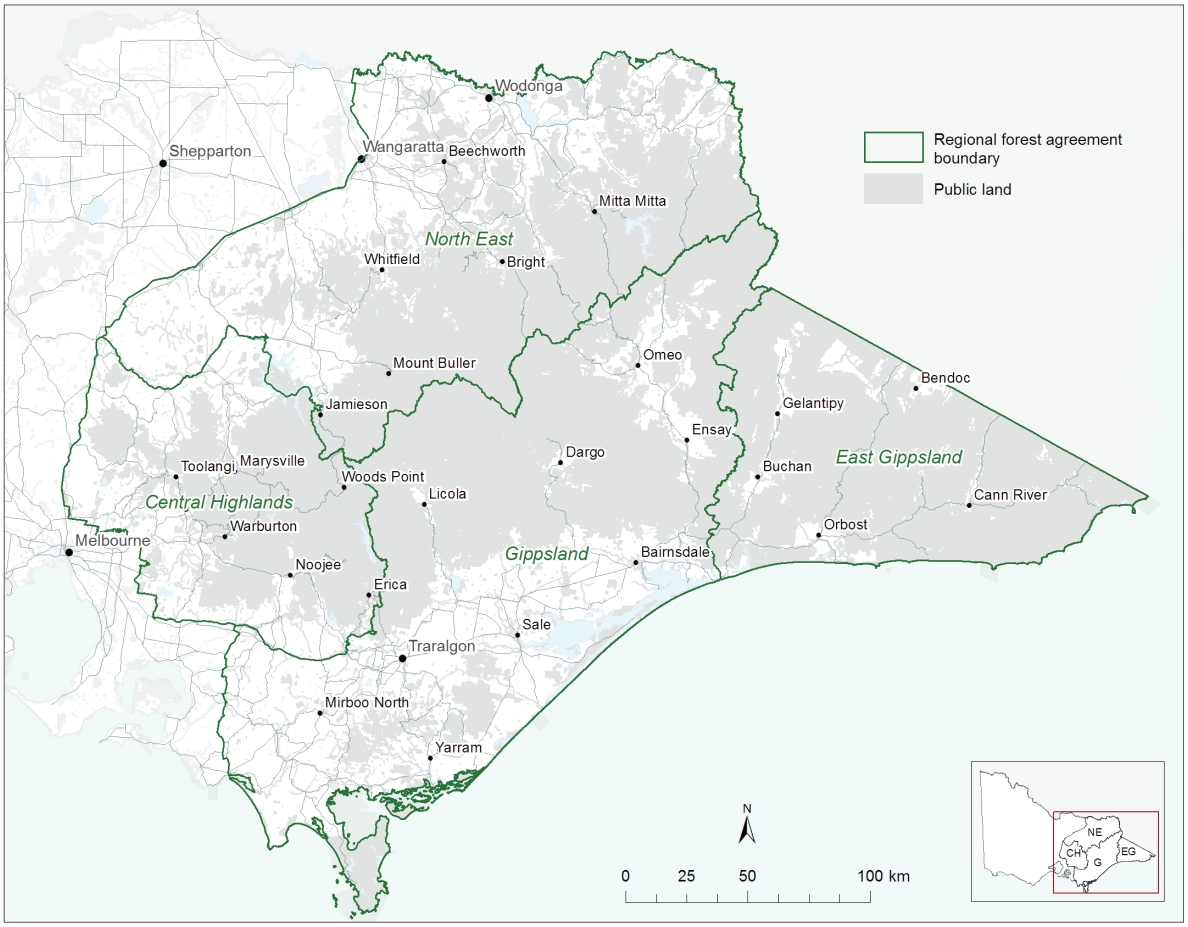
Regional forest agreements (RFAs) between the federal, state and territory governments were a key outcome of the National Forest Policy Statement. Victoria has five such agreements, signed between 1997 and 2000. These agreements were intended to last for 20 years.

Each RFA in Victoria was developed following a comprehensive regional assessment within the relevant region. The CRA considered timber production, regional employment, biodiversity conservation, wilderness, water catchment protection, tourism, recreation, and cultural and heritage values.

Victoria's regional forest agreement areas are shown in figure 1.4.

The Mirboo North IPA lies within the Gippsland RFA area.

**Figure 1.4** Regional Forest Agreement areas east of the Hume Highway




On 30 March 2020, 10-year extensions were formalised for the five Victorian RFAs covering the Central Highlands, East Gippsland, Gippsland, North East and West Victorian regions. To inform the extension of the Victorian RFAs, the Australian and Victorian governments undertook a further assessment of forest-related environmental, social and economic values in the Victorian RFA regions.[6] The extensions followed this assessment process, public consultation and independent review. A consultation summary report for the Gippsland region can be viewed at https://www.awe.gov.au/sites/default/files/documents/consultation-summary-report-gippsland.pdf

A new feature of the modernised Victorian RFAs is that the Victorian and Australian governments can undertake a joint review to assess the impacts of major events, such as significant natural disturbances, that may have a significant impact on RFA matters.

Following the 2019-20 bushfires, the Commonwealth and Victorian governments agreed to undertake a Major Event Review to assess the impacts of the fires and identify if future remedial actions need to be taken. The major event review is being overseen by an independent Panel and is currently underway. A summary report was published in 2021 presenting known data about key impacts of the 2019–20 bushfires on Victoria's RFAs, to inform public consultation and the work of the panel.[7]

6 https://www.awe.gov.au/sites/default/files/documents/qid78487_att_a_-_further_assessment_of_matters_report_2019.pdf
7 https://www.delwp.vic.gov.au/__data/assets/pdf_file/0023/542156/Summary_Report_May_2021_-_Accessible_Version_002.pdf

## 1.8 Victoria's protected area system

Protected areas – national parks, wilderness areas, nature conservation reserves and so on – are the cornerstone of biodiversity conservation. Effectively managed systems of protected areas are recognised as critical instruments in achieving the objectives of the Convention on Biological Diversity and the Sustainable Development Goals.

Protected areas are defined by IUCN (International Union for Conservation of Nature) as follows:

> *A protected area is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.*

All the state and territory governments and the Australian government have agreed to adopt international standards for the definition of a protected area used by the IUCN, e.g. under Australia's Strategy for the National Reserve System 2009-2030.

Through the Convention on Biological Diversity the Australian and Victorian governments are committed to establishing a representative protected area system. For terrestrial areas, this is largely achieved through the National Reserve System (NRS). The NRS is a formally-recognised, national network of protected areas which cover terrestrial and inland freshwater ecosystems. It is complemented in marine environments by the National Representative System of Marine Protected Areas (NRSMPA). The NRS and the NRSMPA processes incorporate the broad requirement for a comprehensive, adequate and representative protected area system. This is commonly referred to as the 'CAR' system. Protected areas also include areas outside the CAR system where their primary purpose is to protect particular features of the natural environment.

National targets have been set in agreements between the Commonwealth and state/territory governments to help establish a comprehensive, adequate and representative terrestrial protected area system. The first of these were developed in 1996 for forests and are widely known as the JANIS criteria.[8]

While the CAR system for protected areas in Victoria has its origins in forest policy of the 1990s and a CAR system for Victoria's forests is formally part of the RFAs there are significant differences between the two. Broadly speaking the CAR system for protected areas does not include 'informal reserves' or areas where 'values are protected by prescription' which are recognised in the CAR system under the RFAs.

Some park categories which are not classified as protected areas may also be included in the RFA CAR system with its focus on areas where timber harvesting is prohibited or excluded. Regional parks exclude timber harvesting but are not categorised as protected areas because their primary purpose is related to informal recreation for potentially large numbers of people in a natural or semi-natural setting. Historic reserves are not protected areas for similar reasons relating to their primary purpose being other than protection of nature. Other differences are that the CAR system for protected areas covers all Victoria's natural environments, while the RFA system is restricted to forested land in RFA regions.

8 JANIS (1997) *Nationally agreed criteria for the establishment of a comprehensive, adequate and representative reserve system for forests in Australia*. Commonwealth of Australia, Canberra, Australia.

## 1.9 Legislative and policy context

Management of state forests in Victoria is carried out within a complex legal and policy framework. An overview of Victoria's forest management system was published in late 2019.[9] This document provides an overview of Victoria's forest management system as at December 2019 and its various components, including legislation, policies, codes, plans and management practices and processes.

Since then, key policies and programs recently developed or currently underway and of relevance to forest management or this assessment include:

### *Victorian Traditional Owner cultural landscape strategy*

Victorian Traditional Owners developed the Cultural Landscapes Strategy to set out a framework to systematically enable and empower Victorian Traditional Owners to lead planning and activate cultural knowledge and practices to manage Country.[10]

### *Renewing Victoria's public land legislation*

The Victorian government is developing proposals to renew Victoria's public land legislation, including the creation of a new Public Land Act.[11]

### *Wildlife legislation review*

An independent Expert Advisory Panel was appointed in 2020 to review the *Wildlife Act 1975*. The review is part of a wider examination of Victoria's legislative framework for protecting and managing biodiversity.[12]

### *Climate change adaptation action plans*

Adaptation Action Plans have been prepared for seven essential systems, including the natural environment, that are vulnerable to climate impacts or critical to our climate resilience.[13]

### *Bushfire emergency – biodiversity response and recovery*

The Victorian bushfires of 2019-2020 were exceptional in size and impact. Guided by analysis of the fire extent as of 20 April 2020, including impacts to IPAs, DELWP has worked alongside species experts, academics, and land managers to prioritise actions for fire-affected threatened species and habitats.

## 1.10 Management arrangements and administrative areas

The Mirboo North IPA is located within the following administrative areas:

| Local Government Areas | DELWP Region | DELWP District | Regional Forest Agreement region | Representative Aboriginal body | Catchment Management Authority |
|---|---|---|---|---|---|
| South Gippsland Shire | Gippsland | Latrobe | Gippsland | Gunaikurnai Land and Waters Aboriginal Corporation | West Gippsland |

9 https://www.delwp.vic.gov.au/__data/assets/pdf_file/0027/458640/Forest-Management-System-Overview-2019-1.pdf
10 https://www.fvtoc.com.au/cultural-landscapes
11 See https://engage.vic.gov.au/renewing-victorias-public-land-legislation
12 See https://engage.vic.gov.au/independent-review-victorias-wildlife-act-1975
13 https://www.environment.vic.gov.au/__data/assets/pdf_file/0030/558264/Natural-environment-Climate-Change-Adaptation-Action-Plan-2022.pdf

# 02 Regional and landscape context

This chapter provides an overview of the region and landscape within which the Mirboo North Immediate Protection Area is situated.

## 2.1 Regional overview

The Mirboo North Immediate Protection Area (IPA) is made up of parts of the Strzelecki Darlimurla Block State Forest. Located north of the Mirboo North township, the IPA lies approximately 130 kilometres south east of Melbourne in the Strzelecki Ranges.

Mirboo North township sits on the main ridgeline of the Strzelecki Ranges, with a population of approximately 1700 people, and around 2030 people living in the wider area (2016 Census). Much of the surrounding landscape is used for agriculture. There are several softwood plantations in the area, including the Darlimurla plantation adjacent to the IPAs. The area around the township includes the headwaters of the Little Morwell River and forms part of the Latrobe River catchment.

Compared to other mountainous or hilly regions, the Strzelecki Ranges have been heavily cleared. Early settlers reasoned that dense forest indicated great agricultural potential and by 1900 most of the land had been cleared with axe, saw and fire. In addition much of the Strzeleckis was burnt in intense wildfires – particularly in 1898, 1939 and 1944. Dairying quickly became the dominant land-use but in some areas regrowth of native vegetation remained difficult to control for years after clearing, or soils were too shallow or slopes too steep for long-term profitable farming. As a result some cleared land was abandoned to be replaced by natural regrowth which was subsequently targeted in large reafforestation schemes leading to pine and eucalypt plantations replacing the dogwood and bracken of abandoned farms.

Today, the region has dairy farms, as well as beef producers, vegetable farms, softwood and hardwood plantations and state forests, interspersed with townships and rural lifestyle properties.

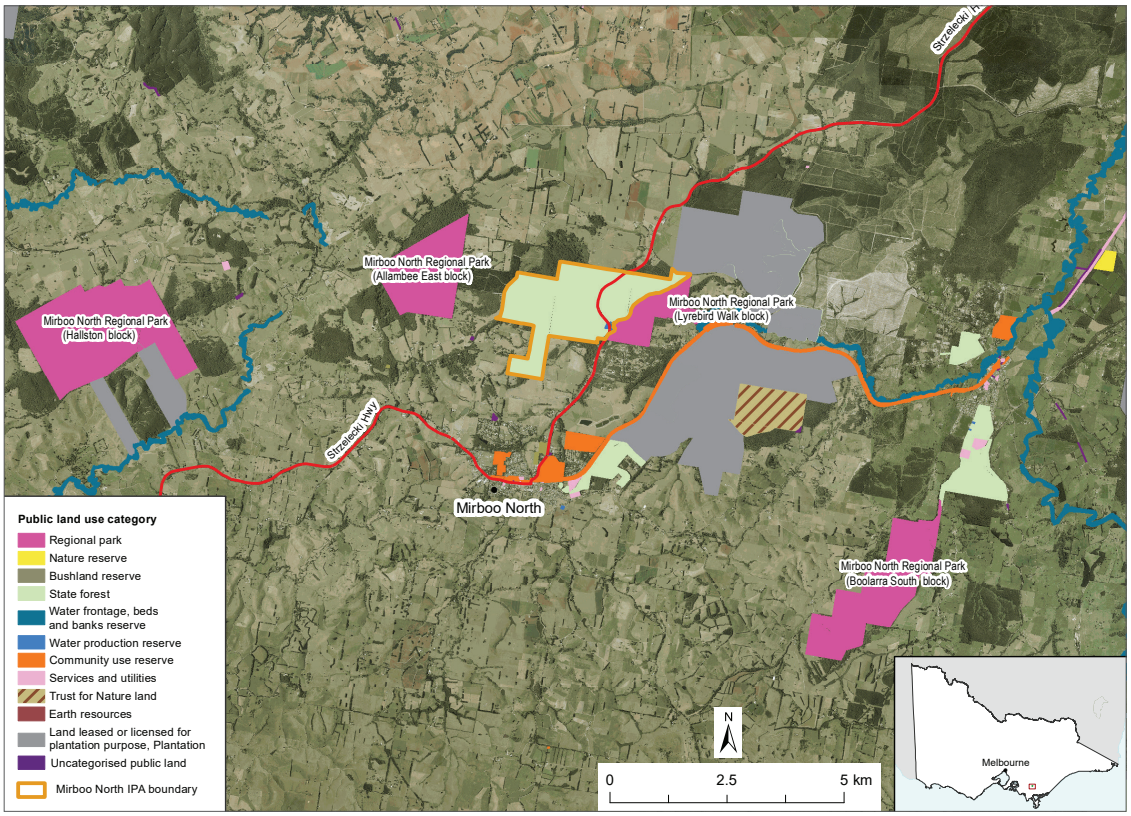
## 2.2 Public land

The area of the IPA originally estimated from data extracted from DELWP's corporate spatial data library was approximately 425 hectares. Since then, VEAC has recalculated the area using more accurate public land spatial data to get an updated boundary. The recalculated area for the Mirboo North IPA is 442 hectares. Approximately 240 hectares of the State forest in the IPA is currently Special Protection Zone.

There are several areas of public land around the Mirboo North township, including the four forested blocks making up the Mirboo North Regional Park to the west, east and south-east of the IPA. The Mirboo North block of the regional park, containing the Lyrebird Forest Walk, is contiguous with the IPA, separated by the Strzelecki Highway. The Strzelecki Yinnar Block, forested blocks making up the Strzelecki Boolarra Block, and the Strzelecki Baromi Block of State Forest are located to the east, to the southeast, and to the south, southeast respectively. Further afield, the Mount Worth State Park is north-west of the IPAs, the Brataualung Forest Park is to the southeast and the Tarra-Bulga National Park to the east. Figure 2.1 shows the IPA and surrounding public land.

There has been a long history of public campaigning for greater protection of the forests in the Strzelecki Ranges. After a turbulent period in the 1990s and 2000s, an agreement was signed in 2008 by the Victorian Government and HVP Plantations. The agreement provides for the protection of the native forest to the east and south of the IPA in an area known as 'Cores and Links' and the eventual return of all 8000 hectares to public management and, ultimately, protection as part of the conservation reserve system (protected areas). Some 1200 hectares have been returned to date and included in the Bratualung Forest Park as an interim measure. In 2017 Minister D'Ambrosio announced that VEAC will be requested to undertake an investigation prior to 2028 to provide recommendations on permanent protection for the 'Cores and Links' area of the Strzelecki Ranges.[14]

**Figure 2.1** Public land in the Mirboo North IPA and surrounding area



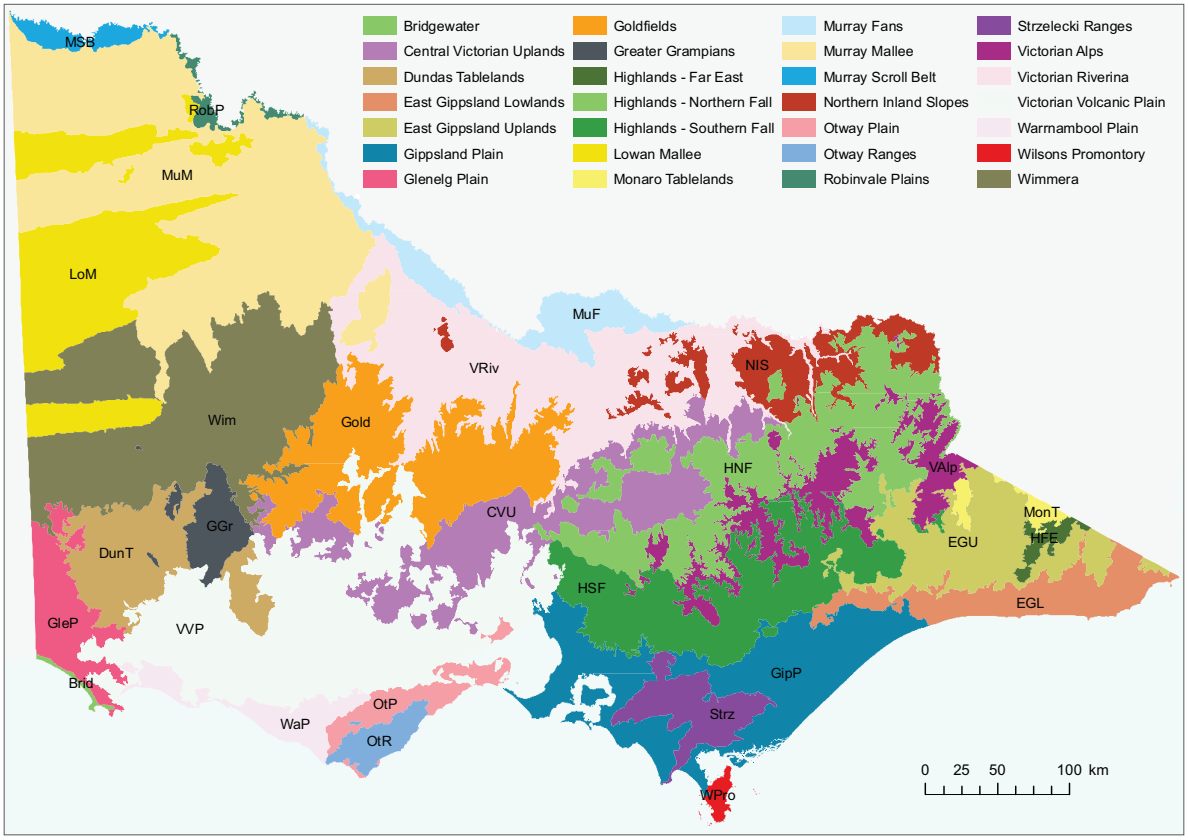

## 2.3 Landscape context

Bioregions are a landscape-scale classification of the environment delineated by physical characteristics such as geology, natural landforms, and climate, which are correlated to ecological features, plant and animal assemblages and landscape-scale ecosystem processes. Eleven of the 89 terrestrial bioregions recognised nationally occur in Victoria. The broad scale appropriate for national purposes does not provide adequate discrimination at a statewide level, and Victoria has been further subdivided into 28 bioregions (equivalent to national sub-regions) (figure 2.2).

The Mirboo North IPA is within the Strzelecki Ranges bioregion.

14 https://www.forestsandreserves.vic.gov.au/initiatives/bratualung-forest-park

**Figure 2.2** Victorian bioregions




The Strzelecki Ranges bioregion consists of moderate to steep slopes, deeply dissected blocks of alternating beds of sandstone, siltstone and shales, and swampy alluvial fans in the lowlands. The geology is of Mesozoic nonmarine deposits covered with younger Cainozoic deposits including newer basalts. Textured acidic and occasional red earths are found throughout the bioregion with leached sands in the lowlands. The dominant native vegetation is Wet Forest and Damp Forest on the higher slopes, and Shrubby Foothill Forest and Lowland Forest on the lower slopes. Average annual rainfall across the bioregion is 700-1000 mm and daily mean temperature across the bioregion is 12-15˚C.

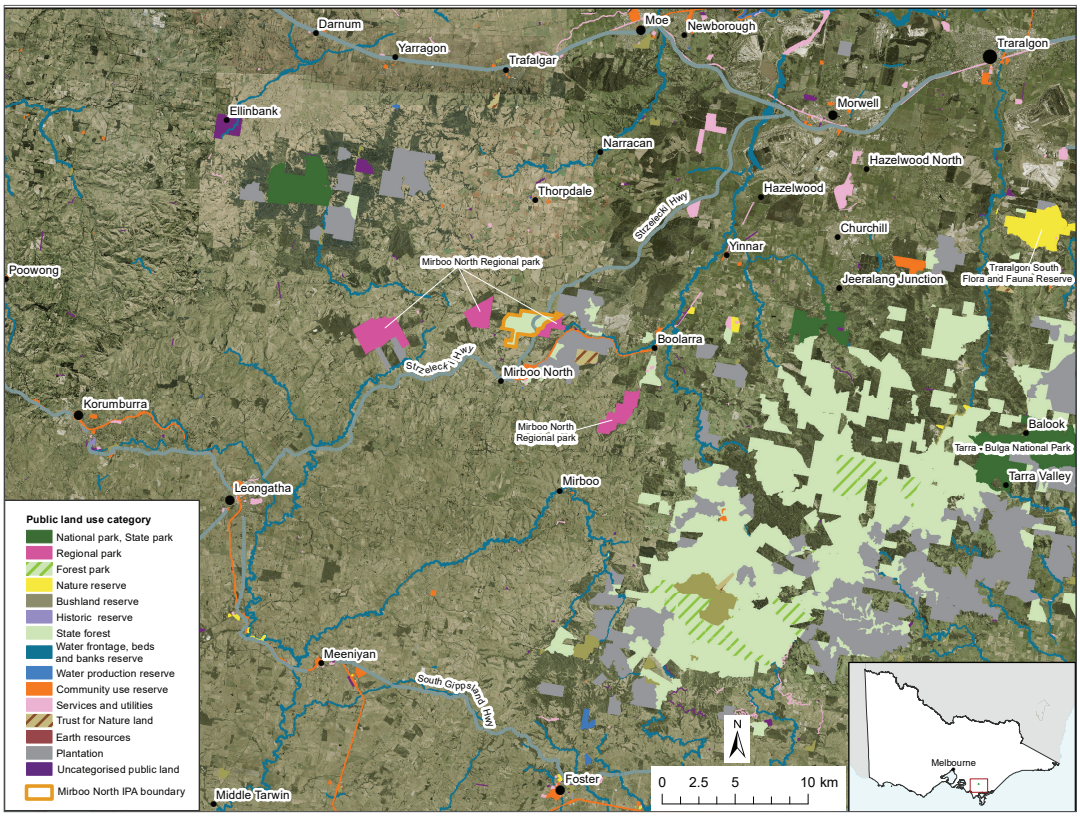
VEAC's Remnant Native Vegetation Investigation examined remnant native vegetation outside of Victoria's largely-intact landscapes.[15] VEAC's analyses showed that the Strzelecki Ranges bioregion falls into the group of the 10 most cleared bioregions in Victoria, containing no largely-intact landscapes and retaining less than one third of the original extent of native vegetation. Less than half of the remaining native vegetation is on public land with a small proportion within the protected area system (1.5 per cent of the bioregion).

In the central west of the bioregion, larger patches of native vegetation are associated with the Mount Worth State Park and Mirboo North Regional Park.

Figure 2.3 shows the fragmented nature of native vegetation in the heavily cleared landscape.

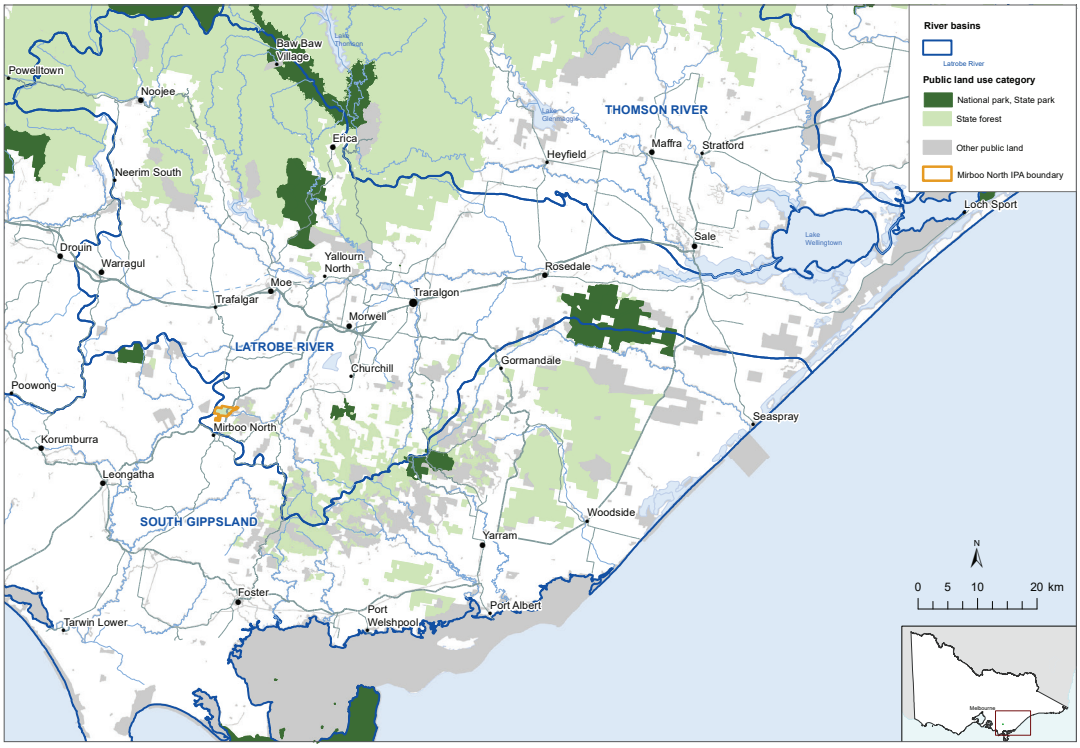
15 VEAC (2010) *Remnant Native Vegetation Investigation Discussion Paper*

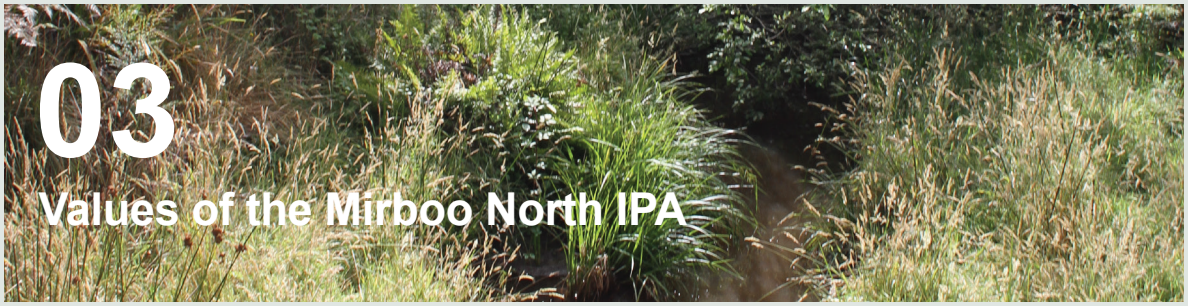
**Figure 2.3** Aerial image of the IPA and surrounding land




The Mirboo North IPA lies in the southwest corner of the 513,000 hectare *Durt-Yowan* (Latrobe River) basin (see figure 2.4). The Little Morwell River originates just north of the Mirboo North township and feeds into the Morwell River near Boolarra. The Morwell River then flows into *Durt-Yowan* (Latrobe River) just south of Yallourn North, which flows east into Lake Wellington and then Lake Victoria before emptying into Bass Strait southwest of Lakes Entrance.

**Figure 2.4** *Durt Yowan* (Latrobe River) basin





# 03 Values of the Mirboo North IPA

This chapter addresses the topics in (a) and (b) of the terms of reference, to:

- identify the biodiversity, ecological and geological and geomorphological values of the specified area
- identify the cultural heritage, social and economic values of the specified area.

The chapter begins with a discussion of Traditional Owner values, rights and interests in the IPA as provided to VEAC by Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC).

Recently, Victorian Traditional Owners developed a Cultural Landscapes Strategy for forests and parks with the vision that 'we have the enabling conditions to heal country and culture through the application of our knowledge and practice in the contemporary expression of living bio-cultural landscapes'.[16] The strategy notes that while Traditional Owners take a holistic approach to management of Country, the government takes a values-driven approach to the management of public land.

The Gunaikurnai people say:

> *Our Country is the land, the rivers and the ocean, the people and the stories, the past and the future. All of it is connected. All of it is important to us. Country heals us and connects us to our ancestors, our culture and our history.*[17]

## 3.1 Values, rights and interests of Traditional Owners

This section reproduces the GLaWAC report to VEAC regarding Gunaikurnai input to the assessment of the values of the Mirboo North Immediate Protection Area and provided to VEAC in March 2022.

16 https://www.delwp.vic.gov.au/futureforests/what-were-doing/victorian-cultural-landscapes-strategy
17 https://gunaikurnai.org/our-country/

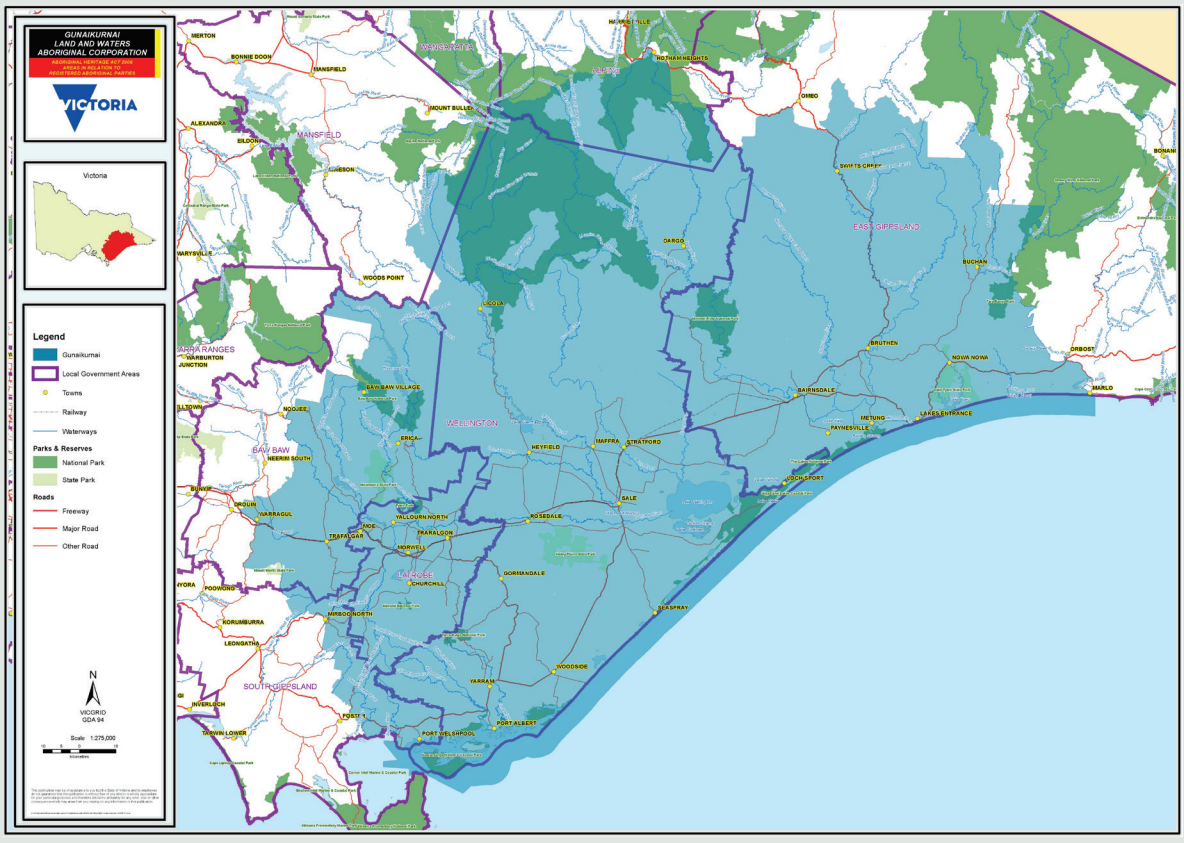
# **Gunaikurnai Land and Waters Aboriginal Corporation** report on the Mirboo North Immediate Protection Area

## About GLaWAC

The Gunaikurnai are the recognised rights holders over about 1.33 million hectares in Gippsland – spanning from Warragul in the west, to the Snowy River in the east, and from the Great Divide in the north to the coast in the south, including 200 metres of offshore sea territory.

The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) is the prescribed body corporate on behalf of the Gunaikurnai people, for the purposes of the Native Title Act 1993 (Commonwealth). GLaWAC is a Registered Aboriginal Party (RAP) for the purposes of the Aboriginal Heritage Act 2006 (Victoria). Figure 3.1 shows the Gunaikurnai RAP area. The State of Victoria has also entered into Recognition and Settlement Agreement with the Gunaikurnai People. The Recognition and Settlement Agreement, executed under the Traditional Owner Settlement Act 2010, affords Gunaikurnai people rights relating to the use of public land within their Agreement area.

**Figure 3.1** Gunaikurnai RAP map




As part of the package of agreements in the Traditional Owner Recognition and Settlement Agreement, the Gunaikurnai were granted Aboriginal Title over 10 national parks and reserves. This affords joint management in a partnership between Gunaikurnai and the State. The longer term objectives of the Gunaikurnai and the Gunaikurnai Traditional Owner Land Management Board (GKTOLMB) is to move to full management of all Aboriginal Title land, generating cultural and economic benefits for Traditional

Owners, and environmental and social benefits for the broader community. This has most recently been expressed in the GKTOLMB Strategic Plan.

### Values of the Mirboo North IPA

The Victorian Government has identified several Immediate Protection Areas to protect identified high conservation values. Late in 2021 the Government announced a two part process to determine the future use and management of these areas.

- the Victorian Environmental Assessment Council (VEAC) would undertake scientific assessment of the "environmental, biodiversity and other values in areas identified as Immediate Protection Areas.
- community consultation will be undertaken by an Eminent Panel for Community Engagement.

The five clans of the Gunaikurnai include the Brabralung, Brataualung, Brayakaulung, Krauatungalung and Tatungalung groups (figure 3.2).

The Mirboo North IPA is in proximity of the Brayakaulung (*meaning men of the west*) Clan Group, and the Brataualung (*men of the south*) Clan Group boundaries.

**Figure 3.2** Gunaikurnai Clan map


In February 2022 GLaWAC commenced participation with the Mirboo North Immediate Protection Area (IPA) Eminent Panel for Community Engagement. Corresponding with this, GLaWAC has also been requested to provide Traditional Owner cultural values to VEAC as part of the VEAC assessment.


GLaWAC had an on Country meeting at the Mirboo North IPA with the Eminent Panel in March

GLaWAC appreciates the Victorian Government and its agencies' genuine intent to recognise and look at how to return cultural values to land management. We look forward to working further with the Panel, and with VEAC. This first step outlines the pathways to meet the objectives of the Gunaikurnai for caring for Country.

The Mirboo North IPA is extremely important to the Gunaikurnai people, just as all of Country is important. The Strzelecki Ranges have not been well surveyed for Traditional Owner cultural heritage values, tangible or intangible. Regardless, the area is known as culturally very significant, including as a central part of the Gunaikurnai creation storyline where Borun, carrying his canoe, travelled from the mountains in the north to the place called Tarra Warackel – now known as Port Albert - on the coast south of the park (GLaWAC 2015). Mirboo North is also a known journey route from the Latrobe Valley to the coast.[18] Just 3.5 kilometres from the Mirboo North IPA, is a site that anecdotally was an old fish trap on the Little Morwell River, and a gathering place a bit further along toward Stony Creek.[19] The stones are not on the river anymore but are still on the adjacent property.

GLaWAC welcomes the opportunity to outline cultural values of the Mirboo North IPA, cautioning however the need to understand the breadth and depth of Traditional Owner cultural values, to increase understanding but most importantly hopefully to ensure these values help drive outcomes that enable Traditional Owner self determination and what is best for Country, and best for the Gunaikurnai people.

Cultural values of the Gunaikurnai encompass place, custodial obligation, future use including economic, affective values, customary practice, spiritual or historical connect to the landscape, identity law and custom, social cohesion and interaction and well-being.

GLaWAC has conducted two preliminary peripheral site visits to the Mirboo North IPA. These visits have concluded with the initial impressions that Country is not healthy. There is in sections clear lack of plant diversity, trees growing close together, straight and with repressed canopies, weeds, evidence of pest animals, and unfettered recreation and off road track creation. There are however some pockets where Country is healthier, where the Little Morwell River meanders, and where plant regeneration is mimicking what nature intended more closely – noting that these observations are not conclusive and need testing.

18 Gunaikurnai Elder, 2022
19 John McDonald, per con with Dr Sue Wesson & Lisa Hocking, February 2021

From the chapter three attachment in the report Conservation Values of the Mirboo North State Forest IPA[20] GLaWAC has mapped across the plant species there named, across species known to be of cultural value to the Gunaikurnai. A few of these species were also identified in GLaWAC's site visits; however a more thorough assessment would be required to map the presence and distribution, and indeed if all species seen from the 2017 field assessment are remain.

Plants were used by the Gunaikurnai as a food source, for drinks, medicine, for weaving, making canoes, boomerangs, spears, sticks, and nets, and for trade. The Gunaikurnai understood the life cycle of plants and animals, and the right time to harvest in a sustainable way. In addition to plants, orchids were an important food source for the Gunaikurnai. Tubers were available throughout the year and were harvested and eaten raw or roasted.[21] [22]

### Plants

Of the plant species noted in the Mirboo North Preserve Our Forests report (some were also observed in the IPA by GLaWAC members on the 2022 site visits), the following have also been noted to be of cultural significance to the Gunaikurnai:

- Austral Mulberry
- Black-anther lily
- Blackwood
- Bootlace Bush
- Drooping Mistletoe
- Hairpin Banksia
- Indigo
- Kangaroo Apple
- Messmate
- Milkmaids
- Prickly Currant Bush
- Prickly Geebung
- Purple Apple-berry
- Scented Paperbark
- Silver Banksia
- Silver wattle
- Spiny Mat-rush
- Swamp Paperbark
- Tall Grasstree
- Tall Sword Grass
- Trailing Ground-berry
- Twin-flower Cranesbill
- White Elderberry
- Wild Flax

### *Orchids*

Orchid species of cultural significance that may be present in the Mirboo North IPA include:

- Cinnamon Bells
- Hyacinth
- Nodding Greenhood
- Pink Fingers

GLaWAC has not accessed any report outlining what fungi or non-vascular plants have been recorded at the Mirboo North IPA. Nor has GLaWAC accessed any report of fauna species, but would like to understand if culturally important species such as but not limited to the South Gippsland spiny cray, the Strzelecki burrowing cray, koala etc are present and the implications of current and/or future habitat may mean.

20 Preserve Our Forests Mirboo North and District Steering Committee, September 2021, Conservation Values of the Mirboo North State Forest Immediate Protection Area: Findings From Preservice our Forests Mirboo North and District Community Field Studies and Research into the Conservation Values of the Mirboo North State Forest September 2017 – February 2020

21 Plants of significance to the Ganai Community, Woolum Bellum Koorie Open Door Education Campus of Kurnai College, Rob de Souza-Daw, Ken Harris, Doris Paton, November 2000.)

22 Gunaikurnai and Victorian Government Joint Management Plan, Gunaikurnai Traditional Owner Land Management Board, September 2018

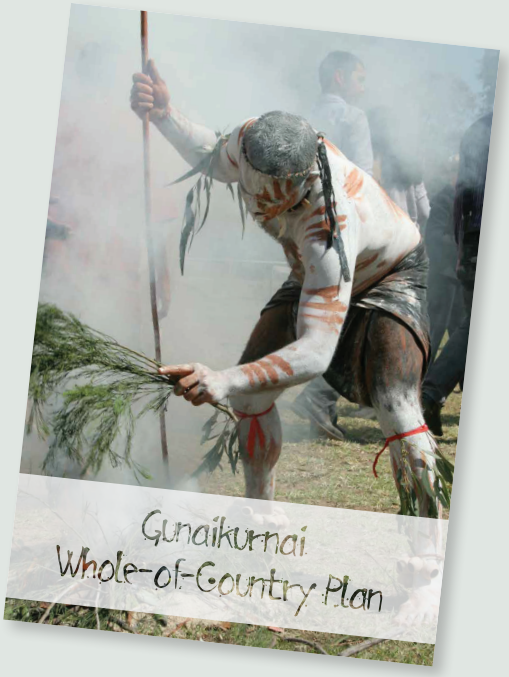
Please note the GLaWAC observations are preliminary only. To provide a more thorough picture GLaWAC seeks to:

- undertake cultural heritage survey work around the Mirboo North IPA and associated areas of Country
- conduct Reading Country Assessments and other associated research.

The timelines to deliver these works must be driven by GLaWAC's priorities, as the basis of self determination. GLaWAC looks forward to discussing how self determination can be realised to recognise the cultural values and achieve objectives for the Mirboo North IPA.

### Gunaikurnai objectives for Country

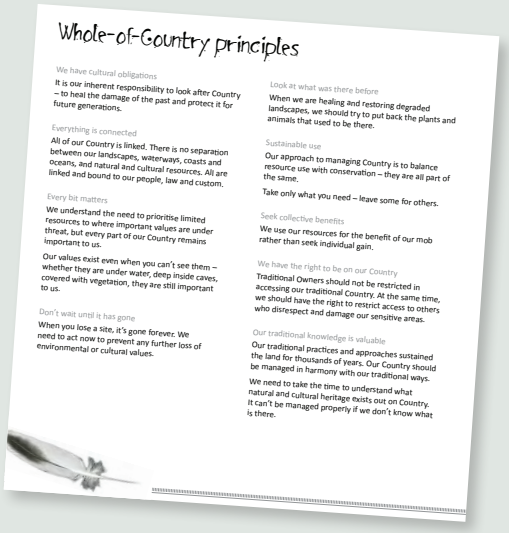
While fulsome assessments of the Mirboo North area will be undertaken to determine place based priorities for the Gunaikurnai, and outline how that will interact within the cultural landscape of Country, there are high level objectives for Country already articulated by GLaWAC through the Gunaikurnai Whole of Country Plan.




The Gunaikurnai Whole of Country Plan principles reflect the intrinsic connectivity between the Gunaikurnai people, and Gunaikurnai Country. There can be no separation from one nor the other – the interrelationship is built on thousands upon thousands of years of journey together with Country, with Mob.

For the Gunaikurnai, Country has been drastically altered since white colonisation. Isolation of forest from land clearing for farming, mining or towns has enormous impact on the ability of Country to sustain the cultural values of the Traditional Owners of land and waters. When Country is sick, the people whose custodial obligation it is to care for it cannot be healthy.

The criminalisation of Traditional Owner lore following (un) settlement has denied the custodians of Country the ability to employ any remedial actions. The impacts of these punitive actions has created an imbalance where the people that managed Country successfully for tens of thousands of years have been excluded in the 150 or so years since settlement began in the Strzelecki Ranges in the late 1800s.


Whole-of-Country principles

We have cultural obligations
It is our inherent responsibility to look after Country – to heal the damage of the past and protect it for future generations.

Everything is connected
All of our Country is linked. There is no separation between our landscapes, waterways, coasts and oceans, and natural and cultural resources. All are linked and bound to our people, law and custom.

Every bit matters
We understand the need to prioritise limited resources to where important values are under threat, but every part of our Country remains important to us.

Our values exist even when you can't see them – whether they are under water, deep inside caves, covered with vegetation, they are still important to us.

Don't wait until it has gone
When you lose a site, it's gone forever. We need to act now to prevent any further loss of environmental or cultural values.

Look at what was there before
When we are healing and restoring degraded landscapes, we should try to put back the plants and animals that used to be there.

Sustainable use
Our approach to managing Country is to balance resource use with conservation – they are all part of the same.

Take only what you need – leave some for others.

Seek collective benefits
We use our resources for the benefit of our mob rather than seek individual gain.

We have the right to be on our Country
Traditional Owners should not be restricted in accessing our traditional Country. At the same time, we should have the right to restrict access to others who disrespect and damage our sensitive areas.

Our traditional knowledge is valuable
Our traditional practices and approaches sustained the land for thousands of years. Our Country should be managed in harmony with our traditional ways.

We need to take the time to understand what natural and cultural heritage exists out on Country. It can't be managed properly if we don't know what is there.

As noted in many accounts, and evidenced from the current cultural landscape, in the early days of (un) settlement clearing the land was the initial priority of the settler. More recently re-foresting the land became the imperative for plantation harvesting.

As a result of all of the above, the Mirboo North IPA is symptomatic of substantial human intervention over a very short period of time, that has changed the area considerably. However, in accordance with the GLaWAC Whole of Country Plan objectives, and cultural values communicated regarding the Strzelecki Ranges and more broadly across the area as a journey route for Gunaikurnai people, GLaWAC is interested to discuss what restoration may look like. Every part of Country is important.

The Gunaikurnai Whole of Country Plan goals include to have the right to use, *manage and control our Country:*

- all public land is handed back as Aboriginal Title, and managed to deliver on the rights and interests of Gunaikurnai
- Gunaikurnai have access to resources for commercial, customary and ceremonial purposes, and as Traditional Owners, determine what is sustainable and appropriate
- there is unrestricted access to all of Country and the right to restrict access of others to culturally significant sites
- the Gunaikurnai are fairly compensated for the resources others take from Country – including minerals, timber and water
- the Gunaikurnai control who accesses and uses Traditional knowledge. This includes, but is not limited to, Traditional Ecological Knowledge.

In addition, the GKTOLMB has recently commenced a substantive exercise to develop a forward facing strategic plan. In the Gunaikurnai Joint Management Plan it clearly states that Part of the implementation of the plan will be reviewing the type of Committee of Management arrangements that are best suited to GLaWAC managing land. These objectives start to inform what the land tenure of the Mirboo North IPA may look like.

The Gunaikurnai Whole of Country Plan objectives to heal Country include how Gunaikurnai People should be empowered to do so:

- Gunaikurnai skills and knowledge in managing Country are recognised, actively sought and respected
- GLaWAC is treated as an equal partner
- Gunaikurnai are working on Country in all areas of natural and cultural resource management
- GLaWAC ranger positions are available to properly manage Country, including land, water and sea
- Gunaikurnai are empowered to make and enforce the laws of Country
- Country is managed according to Traditional laws and customs.

### Land tenure

GLaWAC considers since the Victorian government is in the process of reviewing public land, any lasting decision on the Mirboo North IPA should not pre-empt those opportunities. For that purpose, GLaWAC would seek for the Mirboo North IPA to continue to be managed under existing State legislation. GLaWAC is not in favour of the Mirboo North IPA moving under the National Parks Act 1975, as this will preclude any opportunities both current - such as what occurs at the Knob Reserve, Stratford, an important meeting place for Gunaikurnai clans, and where tenure and management was transferred to GLaWAC in 2010 – and future opportunities, as the new Public Land Act crystalises and is enacted. GLaWAC would like to further explore tenure as the Mirboo North IPA process unfolds, but does see the tenure as extremely important in regard to any integration of cultural values into the management of the Mirboo North IPA, reflecting again on the Whole of Country Plan.

## Conclusion

The remnants of forest in the Strzelecki Ranges are important to protect, and to connect, to view Gunaikurnai Country as the cultural landscape it is rather than the remnant of isolated patches. Noting that Country means much more than the land, but the waters, connectivity and all the cultural values associated, as outlined above.

While GLaWAC has joint management over 10 parks and reserves under the Gunaikurnai and Victorian Government Joint Management Plan, the model for management of the Mirboo North IPA may eventually be led more by the Victorian government current review of public land, and work toward a new Public Land Act. These potential changes are important and may open the door for different management models.

While GLaWAC is embedded in the Mirboo North IPA through its role on the panel, the timelines of the process are pre-determined, which is a learning for further IPA areas to ensure timelines enable self-determined responses.

Regardless of the level of detail provided by GLaWAC, it is clear that further surveys need to be undertaken on the Mirboo North IPA to determine:

- plant, orchid, fungi, animal species of cultural significance
- cultural heritage areas of significance – tangible and intangible
- archival research
- consideration of how the IPA sits within the broader cultural landscape, as a journey route and part of the Creation Story.

We look forward to working with the Panel and broader community on these issues.

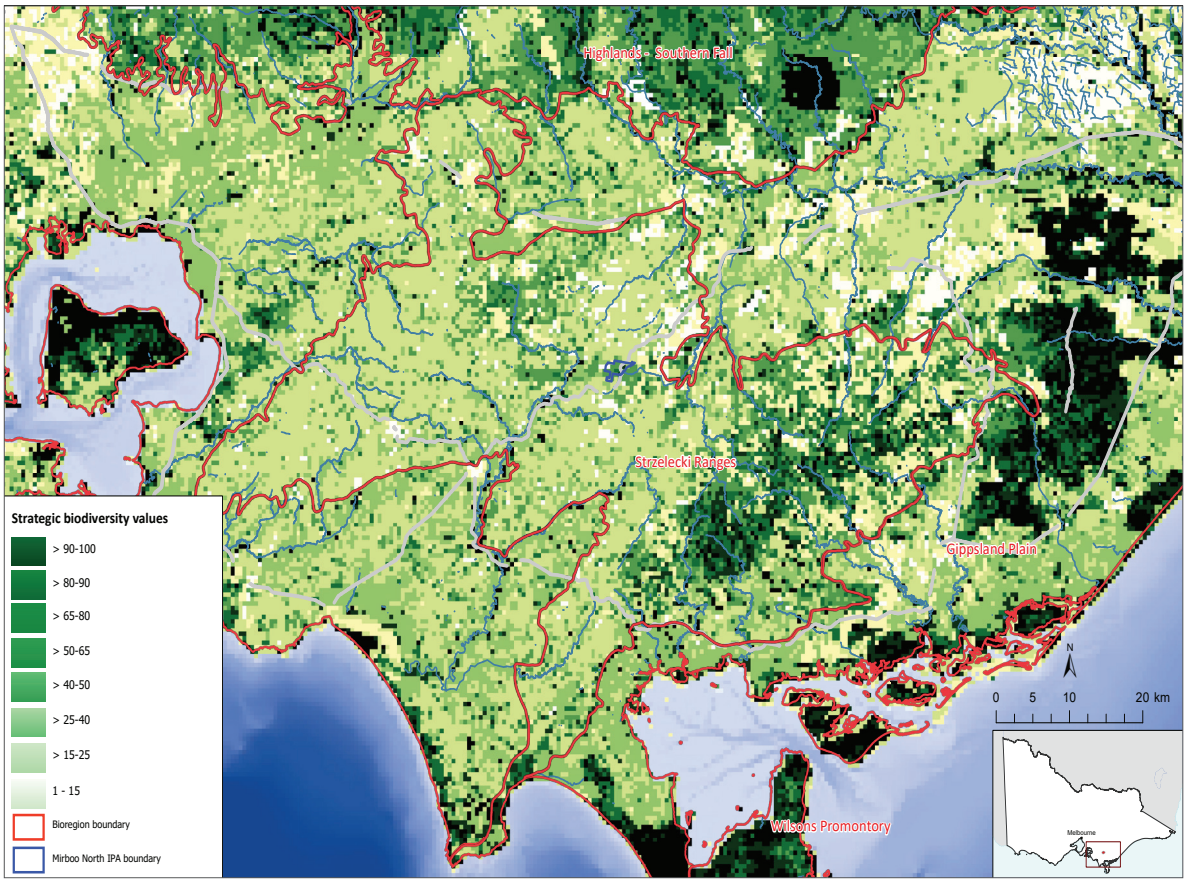
## 3.2 Biodiversity and ecological values

For biodiversity and ecological values of the Mirboo North IPA, the standard information sources noted in section 1.5 and detailed in appendix 1 were supplemented with information obtained from the detailed report provided by the local community group Preserve Our Forests Mirboo North and District[23] and through discussions with members of POFMND, local naturalists, scientists and DELWP staff based in the region and in Melbourne.

### 3.2.1 Threatened species

Strategic Biodiversity Values (SBV) is one of DELWP's NaturePrint decision-support products. It combines information on areas important for threatened flora and fauna, and vegetation types and condition to provide a view of relative biodiversity importance of all parts of the Victorian landscape.[24] The map of Strategic Biodiversity Values across the Strzelecki Ranges bioregion (figure 3.3) shows the IPA as part of a belt of intermediate relative contribution to biodiversity conservation. This belt stands out as the area of the highest relative value in the western half of the bioregion despite its small size. It runs west to east from around Mount Worth through the Mirboo North Regional Park and the IPA to near Morwell National Park. At this eastern end it is contiguous with the areas of highest value in the bioregion that occur in a large block further east to Tarra-Bulga National Park and south towards Foster.

**Figure 3.3** Strategic Biodiversity Values in the Strzelecki Ranges bioregion




23 *Preserve our Forests Mirboo North and District Steering Committee (2021) Conservation Values of the Mirboo North State Forest Immediate Protection Area: Findings from Preserve our Forests Mirboo North and District Community Field Studies and Research into the Conservation Values of the Mirboo North State Forest September 2017-February 2020.*

24 https://www.environment.vic.gov.au/__data/assets/pdf_file/0031/82993/3-NaturePrint-Strategic-Biodiversity-Values.pdf

The Strategic Biodiversity Values analysis is not intended to provide results at the scale of the Mirboo North IPA in isolation, or even as part of an area ten times that size. As a result, the following more detailed assessment of biodiversity values uses individual species records and Habitat Distribution Models[25] in and around the IPA.

As listed in table 3.1, four threatened species have been recorded in the IPA, and an additional 10 threatened species have been recorded within two kilometres of the IPA.

**Table 3.1** Threatened species recorded in and within two kilometres of the Mirboo North IPA

| Species names | Conservation status in Victoria | No. of records | |
|---|---|---|---|
| | | in IPA | within 2 km |
| Southern greater glider *Petauroides volans* | vulnerable | ~50 (up to 2019) | ~20 |
| Narracan burrowing crayfish *Engaeus phyllocerus* | endangered | 5 (1999) | 1 |
| Powerful owl *Ninox strenua* | vulnerable | 2 (2000-2018) | 8 |
| South Gippsland burrowing crayfish *Engaeus karnanga* | endangered | 2 (2021) | |
| Lace monitor *Varanus varius* | endangered | | 5 |
| South Gippsland spiny crayfish *Euastacus neodiversus* | endangered | | 1 |
| Swamp sun-orchid *Thelymitra incurva* | critically endangered | | 1 |
| Lewin's rail *Lewinia pectoralis* | vulnerable | | 3 |
| Southern brown bandicoot *Isoodon obesulus* | endangered | | 1 |
| Slender tree fern *Cyathea cunninghamii* | critically endangered | | 1 |
| White-throated needletail *Hirundapus caudacutus* | vulnerable | | 10 |
| Growling grass frog *Litoria raniformis* | vulnerable | | 2 |
| Strzelecki gum *Eucalyptus strzeleckii* | critically endangered | | 5 |
| Grey goshawk *Accipiter novaehollandiae* | endangered | | 2 |

### *Southern greater glider*

Figure A1 in appendix 1 shows Victorian Biodiversity Atlas records of southern greater glider across most of the Strzelecki Ranges bioregion. Figure A2 shows the corresponding habitat distribution model for the same area. Both maps reveal the importance of the Mirboo North IPA and nearby forests for the Strzeleckis population of this otherwise declining species. The cluster of records in and near the IPA could be the result of more intensive survey effort in this area compared to the other parts of the bioregion but the habitat distribution model adjusts for such potential biases and confirms the importance of the IPA.

The southern greater glider appears to have a low capacity for dispersal, and habitat fragmentation leading to genetic decline is a major threat.[26] The clearing of trees in the Latrobe Valley may have now isolated the Strzeleckis population from the rest of the species further north. As a result, the Strzeleckis population may be more prone to extinction in the long term, even if it may not have declined as dramatically as other populations in recent decades. Habitat fragmentation within the Strzeleckis further increases extinction risk.

25 For a description of Habitat Distribution Models see https://www.ari.vic.gov.au/research/modelling/habitat-distribution-models-hdms
26 See action statement at https://www.environment.vic.gov.au/__data/assets/pdf_file/0019/440371/267-Greater-Glider-2019-Action-Statement.pdf

The Mirboo North IPA plays a key role in mitigating this risk as a significant part of the largest patch of habitat in the western Strzeleckis that links patches further west and east. Other threats to this species in Victoria are the loss of hollow-bearing trees, bushfire, planned burning, drought, timber harvesting and hyper-predation. More extreme droughts and heat stress resulting from climate change may also be threats.

Relatively abundant hollow-bearing trees are essential for greater gliders as shelter sites during the day (den sites) and as breeding sites. As the largest gliding marsupial, greater gliders require relatively large hollows that take many decades to develop. Greater gliders use multiple den sites within their home ranges, potentially to reduce predation; the powerful owl is its major predator. The forests across the IPA appear to support above-average abundance of large hollow-bearing trees and the Ecological Vegetation Classes (see section 3.2.2) found there are among those favoured by the southern greater glider. While records are concentrated around access points such as tracks, greater gliders probably occur across the IPA.

### *Powerful owl*

Powerful owls are known to be able to disperse across tens of kilometres of unfavourable habitat, and to establish and move around territories covering thousands of hectares in favourable habitat. Maps of powerful owl records and the habitat distribution model (figures A3 and A4 in appendix 1) show that it is distributed across the remaining native forests of the Strzelecki Ranges, but the Mirboo North IPA has apparent high habitat suitability and is one of a number of areas with a cluster of records. It is unclear whether this cluster is indicative of one or more permanently occupied breeding territories or more transient birds but the only Strzelecki Ranges breeding record in the dataset is from 2018 about two kilometres to the west of the IPA in the Allambee East block of Mirboo North Regional Park. On this information, the IPA is likely to be one of the more important sites for the powerful owl in the Strzelecki Ranges.

The protection of known active nesting areas is considered crucial for the persistence of local populations.[27] For breeding, powerful owls require large tree hollows that require many decades to develop. Abundant hollow-bearing trees are also required to sustain sufficient populations of prey such as possums and parrots to support resident owls. The forests of the IPA appear to support above-average abundance of hollow-bearing trees and all the forests of the IPA provide suitable habitat for powerful owls.

### *Narracan and South Gippsland burrowing crayfish*

South and West Gippsland is a particularly diverse area for burrowing crayfish, with nine of Victoria's 22 species found in the region. Five of these nine are threatened species that are only found in South and West Gippsland. Two of these – the Narracan and South Gippsland burrowing crayfish – have been recorded in the IPA. The endangered Strzelecki burrowing crayfish occurs further southeast with the closest record about 10 kilometres away near Boolarra South, but is not likely to occur in the IPA.

The Narracan burrowing crayfish occurs in a relatively small area from west of Mount Worth to near Hazelwood in the east and north almost to Trafalgar, then south to the IPA where there are five records and one nearby (figure A5 in appendix 1). Narracan burrowing crayfish live in burrow networks that they build in the flood bed region of tree-fern gullies. Burrow networks extend from the water table to the surface and each network has two or more above-ground openings. Around each opening there is a conical chimney made of pelletised mud. Burrowing crayfish are relatively small, shy and rarely leave their burrows so the chimneys are usually the only indication of their presence. Different species of burrowing crayfish build different types of burrows, in different soils, habitats and parts of the landscape.

27 See action statement at https://www.environment.vic.gov.au/__data/assets/pdf_file/0023/32882/Powerful_Owl_Ninox_strenua.pdf

They seem to be adapted to different water regimes and, for the Narracan burrowing crayfish, changes in the nature of the streamside water table and drainage patterns could seriously impact its survival,[28] including as a result of climate change. Loss of native vegetation (especially tree-ferns), increased soil erosion, salinisation and sedimentation are also likely to be threats. In the IPA and especially near flood bed habitat, activities that might initiate these threats include the creation of vehicle tracks – notably unplanned (illegal) mountain and trail bike tracks – and excessive churning of tracks and nearby areas such as by four wheel drives and mountain and trail bikes. Timber harvesting, were it to occur, near or upslope from the flood bed also has the potential to trigger these threats, as do some invasive species such as sambar, feral pigs and fallow deer although none of these species are currently especially abundant in the Strzeleckis.

As shown in figure A5 in appendix 1, most sites where the Narracan burrowing crayfish has been recorded are on private land or small or narrow areas of public land, often water frontage, bed and banks reserves. The only sizeable public land blocks where it has been recorded are the IPA and Mount Worth State Park. The latter, and the adjoining Allambee East Bushland Reserve along the Tarwin River West Branch are the only protected areas in which the species has been recorded.

The South Gippsland burrowing crayfish is not as well studied as the Narracan burrowing crayfish, and there are fewer than 20 records from fewer than 10 locations, one of which is the IPA and adjacent regional park and water production reserve, where it was recorded in 2021 near the Little Morwell River. With so few known locations and records, all locations including the IPA are potentially very important for this species.

South Gippsland burrowing crayfish has been recorded under ferns on floodplains of slow-flowing creeks with shallow but extensive pools, and soils with very high organic content. On current knowledge, threats are difficult to determine but potentially include pollution to waterways, altered hydrological regimes including from dams and water extraction, and changed weather, water and drainage patterns as a result of climate change. In the IPA, the most likely triggers for these threats are unplanned (illegal) tracks, excessive churning of tracks and nearby areas, ill-planned water treatment and extraction and, were it to occur, timber harvesting. Sambar, feral pigs and fallow deer could become a threat if their populations increased.

### *Lace monitor*

The lace monitor has not been recorded in the IPA but the Victorian Biodiversity Atlas has records from about 3 kilometres to the west and 3-5 kilometres to the east of the IPA (figure A6 in appendix 1) and there was an additional recent sighting along the Lyrebird Walk in Mirboo North Regional Park less than a kilometre from the IPA. The habitat distribution model indicates high quality habitat in the IPA and adjoining forested areas (figure A7 in appendix 1). Therefore, it is very likely to occur in the IPA, even if its most favoured habitat in the Strzeleckis is somewhat drier more open forests than those of the IPA; this preference is evident in the habitat distribution model which shows high quality habitat in patches scattered around the foothills of the Strzeleckis (figure A7 in appendix 1) rather than the wetter higher elevation forests. This map also highlights the centrality of the IPA to the only substantial patch of high-quality habitat in the western Strzeleckis. Lace monitors have large home ranges and large patches of high-quality habitat are likely to be essential to sustain viable populations. Very little of the high quality habitat in the Strzeleckis is in protected areas, and virtually none in larger protected areas.

Lace monitors require large hollow-bearing trees for refuge and foraging, active termite mounds for nesting and complex ground layer vegetation and debris with abundant logs for survival of dispersing young. In the IPA, activities that are most likely to compromise these requirements are firewood collection, too frequent burning, and timber harvesting should it occur. Young are likely to be vulnerable to introduced predators such as red foxes and feral pigs, which may also compete for food with adults.

28 See action statement at https://www.environment.vic.gov.au/__data/assets/pdf_file/0014/32522/Narracan_Burrowing_Cray_Engaeus_phyllocercus.pdf

### *South Gippsland spiny crayfish*

The South Gippsland spiny crayfish has not been recorded in the IPA but in 2012 was recorded in the centre of the Allambee East block of Mirboo North Regional Park, about 1.7 kilometres west of the IPA. It has also been recorded near Mount Worth, about 14 kilometres northwest of the IPA, and about 13 kilometres east of the IPA near Yinnar South (figure A8 in appendix 1). There is therefore a reasonable probability that it occurs in the IPA and it is prudent to treat it accordingly, especially as it is found only in the Strzelecki Ranges and in low abundance.

South Gippsland spiny crayfish inhabit narrow shallow freshwater streams with high dissolved oxygen, and they are more common in streams with pools and little or no aquatic vegetation. The main threats to *Euastacus* crayfish in upland environments are drought and extended or large sediment pulses. Sediment pulses cause sedimentation which reduces water and in-stream substrate quality; there is a negative relationship between the presence of South Gippsland spiny crayfish and in-stream silt levels. Roads across or along streams are the most likely potential source of sediment pulses, but timber harvesting could also be a cause.

In addition, removal of riparian native vegetation alters temperature and light levels and affects the type and amount of in-stream debris, factors which are likely to be important to South Gippsland spiny crayfish. Exotic species including brown trout are also likely to adversely affect crayfish populations through predation and – if they become more common – sambar, feral pigs and fallow deer through churning soil.

### *Other species*

The remaining threatened species recorded within two kilometres of the IPA are listed in table 3.1 in approximate descending order of likelihood that the IPA makes an important contribution to their conservation. Species towards the bottom of the table are either unlikely to occur in the IPA (e.g. Strzelecki gum), would only have a small fraction of their total population occur there (e.g. white-throated needletail, slender tree-fern) or both (e.g. growling grass frog, grey goshawk). Of the remainder, Lewin's rail and southern brown bandicoot are similar in that they favour areas of dense understorey (the rail in riparian areas, the bandicoot in drier heathier areas) and do occur more commonly and reasonably widely elsewhere. Key threats are likely to be introduced predators and activities that adversely affect understorey habitat, especially in combination.

The swamp sun-orchid is known from only six sites that, apart from the record near the IPA, are in coastal far East Gippsland and the south coast of New South Wales. It grows in heathlands and heathy woodlands mostly around the edges of grasstree plains, often in disturbed sites such as roadsides and gravel scrapes. The latter part of this description may apply to the record along the Grand Ridge Rail Trail, 1.7 kilometres east of the IPA, and raises the possibility of it occurring in such habitat in the IPA. However, without more information about its occurrence, if any, in the IPA, it is difficult to draw conclusions on its conservation biology.

Although not a threatened species in Victoria, the koala population of South Gippsland is of special interest because it has much more genetic diversity than all other Victorian koala populations. This is thought to be because the koalas of South Gippsland comprise a remnant population that survived the dramatic population decline and bottleneck of the early 20th century. Unlike elsewhere in Victoria, the population is not the result of the subsequent translocations from French and Phillip Islands between 1923 and 2006. As a result it is of particular conservation, scientific and management interest. There are many records of koalas in the IPA and across the Strzeleckis and there is substantial active community and scientific engagement in monitoring, studying, managing and conserving the local population.

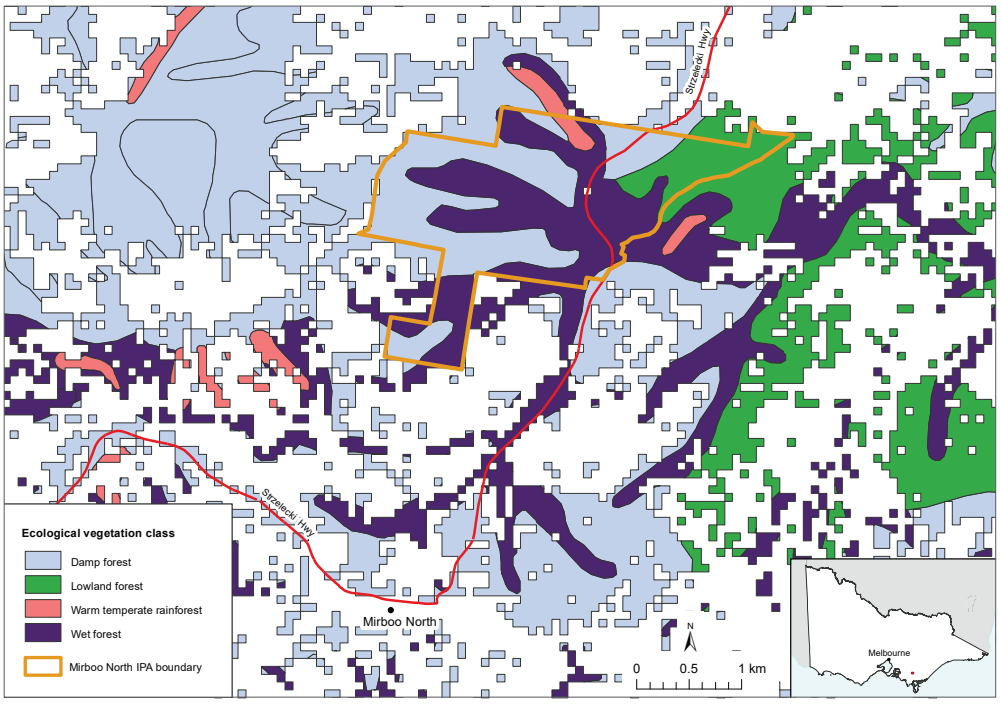
### 3.2.2 Ecosystems

A key component of conservation planning for public land is the need to provide for a protected area system – comprising national and state parks, conservation parks, nature reserves and bushland reserves – which addresses the national and state targets for comprehensiveness, adequacy and representativeness (see section 1.8). These targets are set at the ecosystem level and, in Victoria, Ecological Vegetation Classes (EVCs) are used as ecosystem surrogates. EVCs are the standard unit for classifying vegetation types in Victoria. They are described through a combination of floristics, lifeforms and ecological characteristics, and through an inferred fidelity to particular environments.[29]

Figure 3.4 shows the current extent of Ecological Vegetation Classes (EVCs) in the Mirboo North IPA and table 3.2 presents the extent in hectares of each EVC as well as information relating to the conservation status of each EVC. The Mirboo North IPA is entirely within the Strzelecki Ranges bioregion. Together the map and table show:

- 47 hectares of Lowland Forest on the northwest facing slope towards the northeast corner of the IPA
- 6 hectares of Warm Temperate Rainforest along a southeast-flowing stream coming from private land on the northern boundary of the IPA
- 183 hectares of Wet Forest in the valleys of the IPA
- 179 hectares of Damp Forest on the east-facing slopes and ridges of the IPA.

**Figure 3.4** Current extent of Ecological Vegetation Classes in the Mirboo North IPA




The following analysis is based on the numerical JANIS targets combined with the threat status and remaining extent of EVCs.

As part of its Statewide Assessment of Public Land (2017) VEAC assessed Victoria's terrestrial protected area system against the nationally agreed criteria, and this approach has been applied to the IPA to identify those EVCs which currently do not meet the targets and the extent of their shortfalls. The shortfall is a percentage of the public land potentially available to improve representation (i.e. public land other than that already in protected areas) for each bioregional EVC within the relevant study area and is the same as that for the corresponding bioregional EVC across the entire extent of the bioregion in Victoria.

29 For further information, see https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks

The rationale is that ecosystem (EVC) representation should be generally spread across the distribution of that ecosystem in each bioregion. Shortfalls of 100 per cent mean that all public land areas where they occur should be in protected areas if this can be reconciled with other public land uses and if there are no issues relating to the management viability of small areas.

**Table 3.2** Ecological Vegetation Classes (EVCs) in the Mirboo North IPA

| EVC name | Conservation status | Current extent (hectares) | Shortfall (%) |
|---|---|---|---|
| Lowland Forest | vulnerable | 46.7 | 100.0 |
| Damp Forest | endangered | 178.6 | 100.0 |
| Wet Forest | depleted | 182.5 | 58.4 |
| Warm Temperate Rainforest | endangered | 6.1 | 100.0 |

Table 3.2 also shows that if the protected area system in the Strzelecki Ranges bioregion is to meet nationally agreed targets for a comprehensive, adequate and representative protected area system, the proportionate contribution from the IPA would amount to at least 82 per cent of the IPA i.e. all but 74 hectares of Wet Forest. In reality, a bioregion-wide review would be likely to take this figure close to 100 per cent of the IPA because, given the highly fragmented nature of native vegetation in the bioregion, much of the remaining Wet Forest EVC is likely to occur in areas unsuitable as protected areas (e.g. roadsides), increasing the focus for protected area additions to more consolidated patches such as the IPA.

These results are unsurprising as the Strzelecki Ranges bioregion has one of the lowest levels of protected area system representation in the state, at 1.5 per cent of the original extent of native vegetation.[30] With such a low level of overall representation, nearly all the component ecosystems in this bioregion will be priorities to address under the National Reserve System.

### 3.2.3 Forest condition

Not apparent in the survey data and analyses relevant to the Mirboo North IPA is information about the condition of the forest. From field inspections of the site and, in the context of VEAC's experience across Victoria, several conclusions can be drawn.

The boundaries and species composition of the EVCs mapped for the IPA reasonably accurately reflect the native vegetation of the IPA except that mountain ash – one of the characteristic tree canopy species of the Wet Forest EVC in the Strzelecki Ranges – is very rare in the IPA and is effectively replaced by mountain grey gum in the Wet Forest there. Otherwise, the floristic diversity of the mapped EVCs is apparent on-ground. The small remote area of Warm Temperate Rainforest in the IPA was not visited by VEAC.

No evidence of significant invasive species problems was observed. Some fox scats were found on forest tracks and the distribution of environmental weeds – generally restricted to edges of those tracks and the Strzelecki Highway, and where the forest abuts cleared private land – is typical of wetter upland forests adjoining pine plantations and near settled areas in Victoria. The exception is in the small area where the Strzelecki Highway crosses the Little Morwell River and around some of the nearby water supply infrastructure which is weedier than elsewhere.

30 Bioregions with the lowest levels of reserve system representation (less than 5% of original extent) are Victorian Riverina and Dundas Tablelands (both 0.6%), Victorian Volcanic Plain (1.3%) and Wimmera and Strzelecki Ranges (both 1.5%). VEAC (2010) *Remnant Native Vegetation Investigation Discussion Paper* page 48

The level of recreational use and related disturbances are typical of a relatively small block of state forest in the settled areas of Victoria. There are moderate levels of use for horse-riding and four wheel driving, and higher and possibly increasing levels of mountain and trial bike riding, including many new unplanned and illegal 'single' (i.e. one tyre width) tracks. These illegal tracks are initiating considerable soil disturbance and destruction of ground vegetation and are a significant emerging threat to the biodiversity of the IPA.

Despite a history of timber harvesting, recreational uses and recent wildfire (including nearly all the IPA being burnt in the Delburn fire in 2009), the forest exhibits many key characteristics of a healthy forest for biodiversity: relatively abundant large hollow-bearing trees and large fallen timber; a multi-layered, heterogeneous and often open forest structure; and low levels of soil disturbance.

In summary, despite some recent wildfire, its proximity to settled areas and a long history of use, the forest is in as good or better condition for biodiversity than comparable forests elsewhere. There is nothing to suggest that the values recorded and modelled in the IPA are not an accurate depiction of the IPA.

## 3.3 Geological and geomorphological values

The Mirboo North IPA is almost entirely over Haunted Hills Gravel, which rests in turn on Older Volcanics basalt. The underlying rocks here area most-likely Cretaceous Wonthaggi Formation.

There are no recorded geological or geomorphological sites of significance in the IPA.

## 3.4 Water and catchments

The area around the township of Mirboo North includes the headwaters of the Little Morwell River and forms part of the Latrobe River catchment. Also see section 3.5.5 on water production and supply.

## 3.5 Cultural heritage, social and economic values

### 3.5.1 Non-Aboriginal cultural heritage

There are no recorded historic sites in the IPA on the Victorian Heritage Register or the Victorian Heritage Inventory.

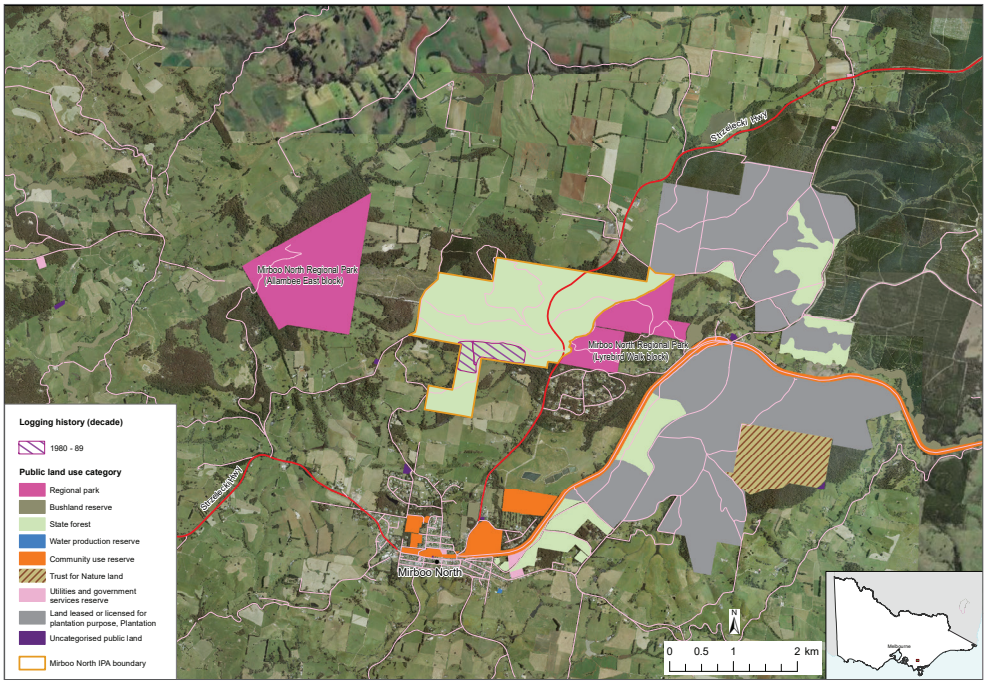
### 3.5.2 Timber harvesting

Since the announcement of the Immediate Protection Areas by the Victorian government in 2019, there has been no timber harvesting in the Mirboo North IPA.

#### *Logging history*

The last timber harvesting to take place in the IPA was in 1988 to 1990 when two areas totalling 32 hectares were logged. Both areas were located just south of Samson Road at the southern end of the IPA (see figure 3.5). The current appearance of the forest suggests that the coupes were selectively harvested, rather than clear-felled. While it is very likely that there was logging in the IPA prior to these two coupes, comprehensive records were not kept prior to the 1990s and no other coupes are mapped.

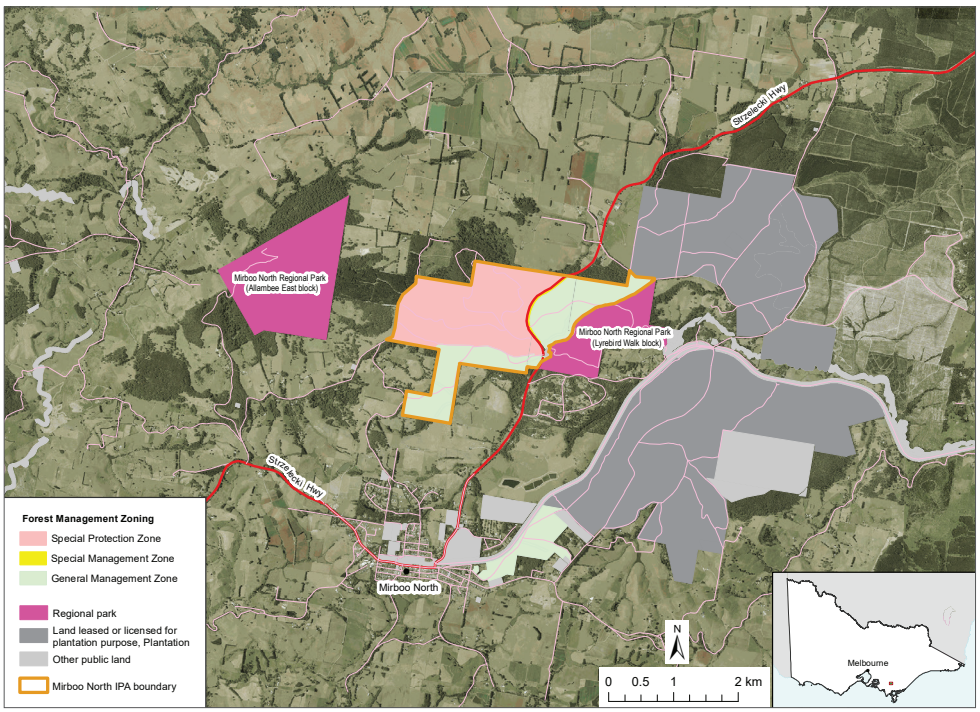
**Figure 3.5** Recorded logging history in the Mirboo North IPA




## *Forest management zones*

The current forest management zoning for the IPA is shown in figure 3.6. Approximately 60 per cent of the Mirboo North IPA is Special Protection Zone to protect Lowland Forest, Damp Forest, Swampy Riparian Complex EVCs as well as Powerful Owl and to preserve landscape values along the Strzelecki Highway. A small area along the Strzelecki Highway is Special Management Zone for landscape values.

**Figure 3.6** Forest management zones in the Mirboo North IPA

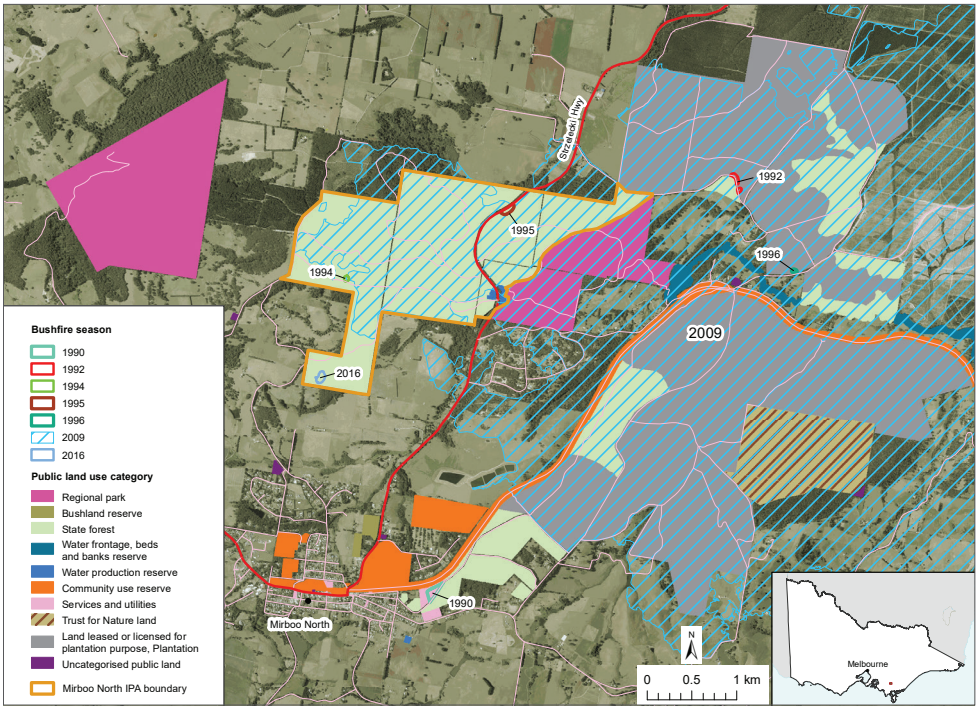


### *Wildfire history*

Approximately 80 per cent of the IPA was impacted by the Delburn Fires that started on 28 and 29 January 2009, just over a week before the Black Saturday fires. Three small areas in the IPA were also impacted by wildfires in 1994, 1995 and 2016 (see figure 3.7).

While it is evident that extensive areas of the IPA have been burnt, the negative impact of these wildfires on the forests within the IPA is minimal.

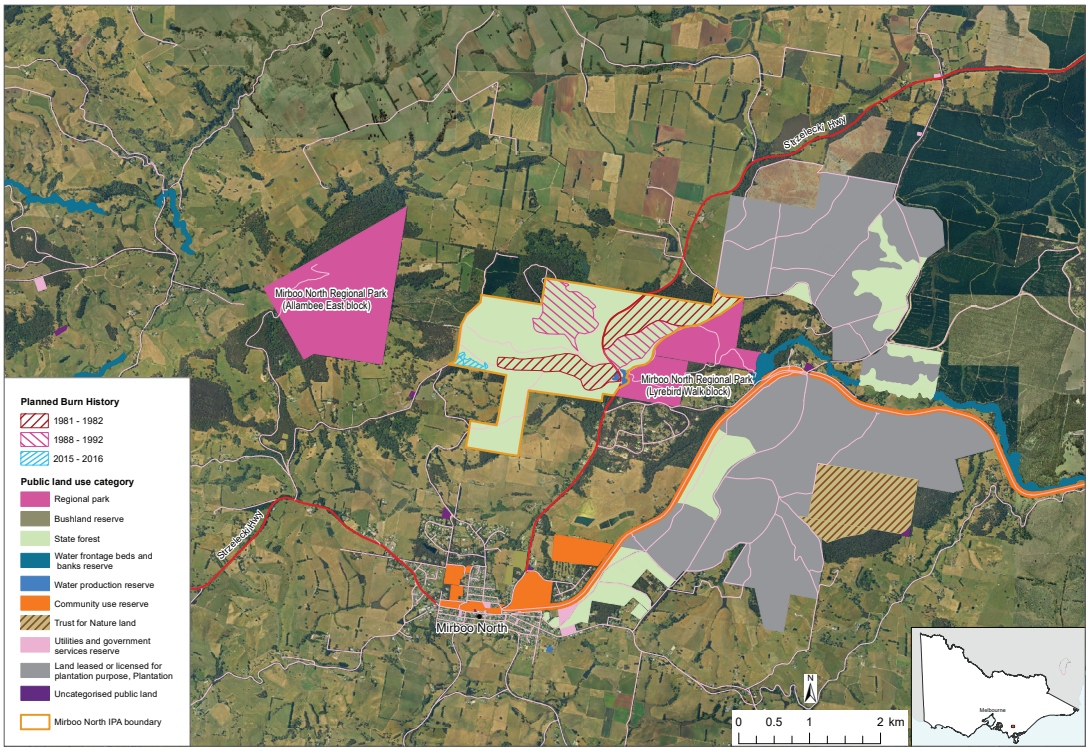
**Figure 3.7** Wildfire history in and surrounding the Mirboo North IPA




### *Planned burn history*

There have been six planned burns in the Mirboo North IPA (see figure 3.8). The two burns in the western corner were carried out in 2015 and 2016, and the other burns were carried out between 1981 and 1992.

**Figure 3.8** Planned burn history in the Mirboo North IPA




### *Domestic firewood*

There are no designated firewood collection areas in the Mirboo North IPA for the current Autumn 2022 season and, according to land managers, there have not been any firewood collection areas in the IPA in recent years. Across most of Victoria, there are few data available on firewood collection volumes since 2011 when Victoria's permit system was ceased. Illegal firewood collection from forests within and surrounding the IPA has been reported.

Current season firewood collection areas closest to Mirboo North include three areas north of Moe at Willow Grove, Erica and Tyers, and two areas at Won Wron and Alberton, near Yarram.

## 3.5.3 Earth resources

Within the Mirboo North IPA, there are no current mining licences, exploration licences, prospecting licences or work authorities. There is no record of historical mining activity in the Mirboo North IPA and Geological Survey of Victoria advises there is generally low prospectivity in the area.

As shown in figure 3.9, there are mapped extractive industry interest areas to the east of the IPA. There is one current work authority (for sand and gravel) located approximately 800 metres northwest of the IPA (figure 3.10). It was first granted in 2013 and abuts part of the existing Mirboo North Regional Park, covering 4.9 hectares of private land. An application for another work authority has also been lodged in the same area.

South of the IPA, there is an application from 2010 for an exploration licence allowing for mineral exploration (Commodities: Coal Bed Methane) over a large area of private and public land around Mirboo, Boolarra South, Dumbalk North, including part of the existing Mirboo North Regional Park.

**Figure 3.9** Extractive Industry Interest Areas nearby to the Mirboo North IPA

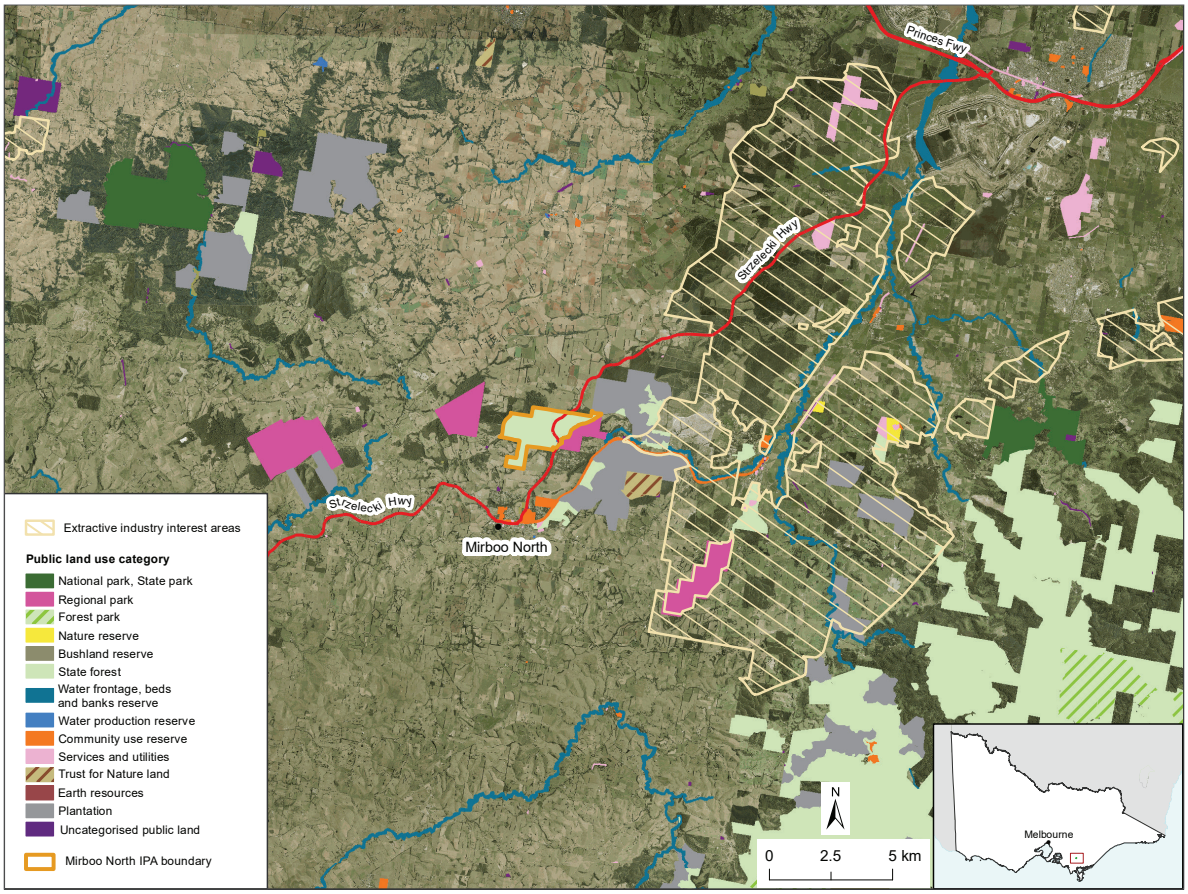
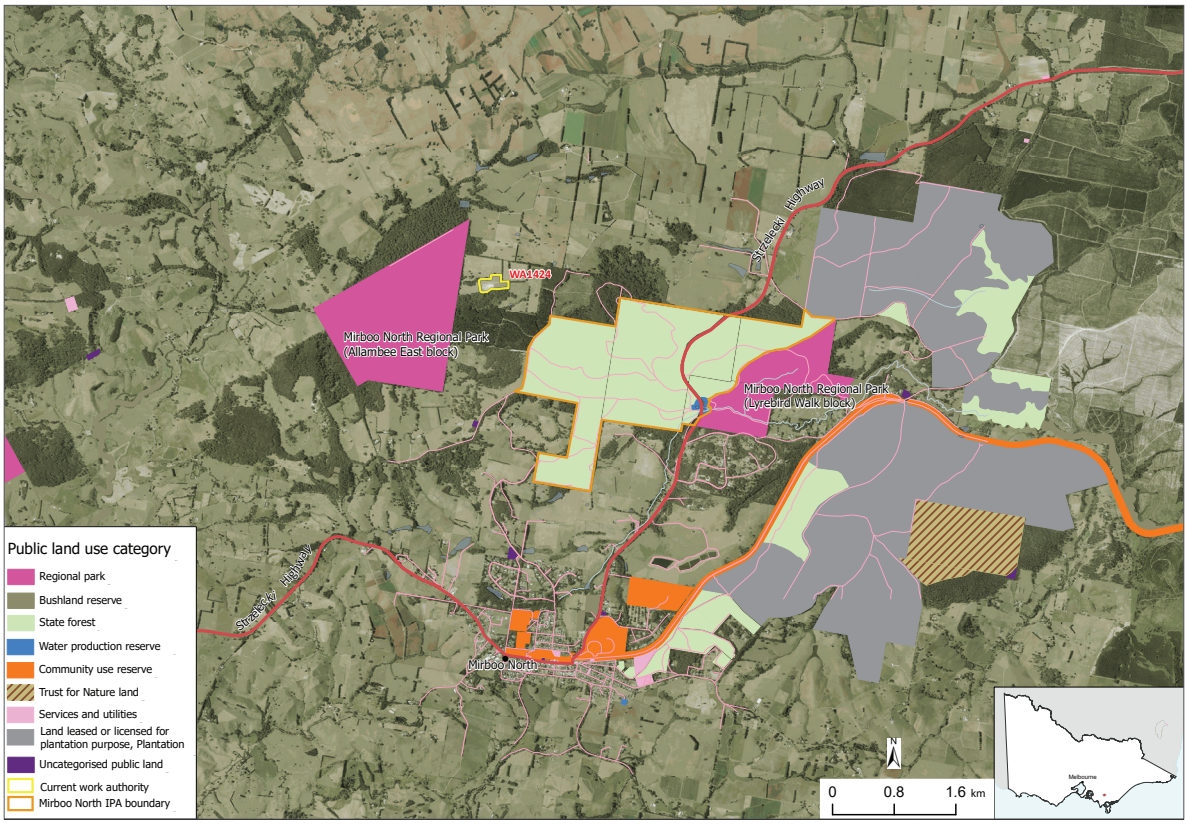



**Figure 3.10** Earth resources tenement northwest of the IPA

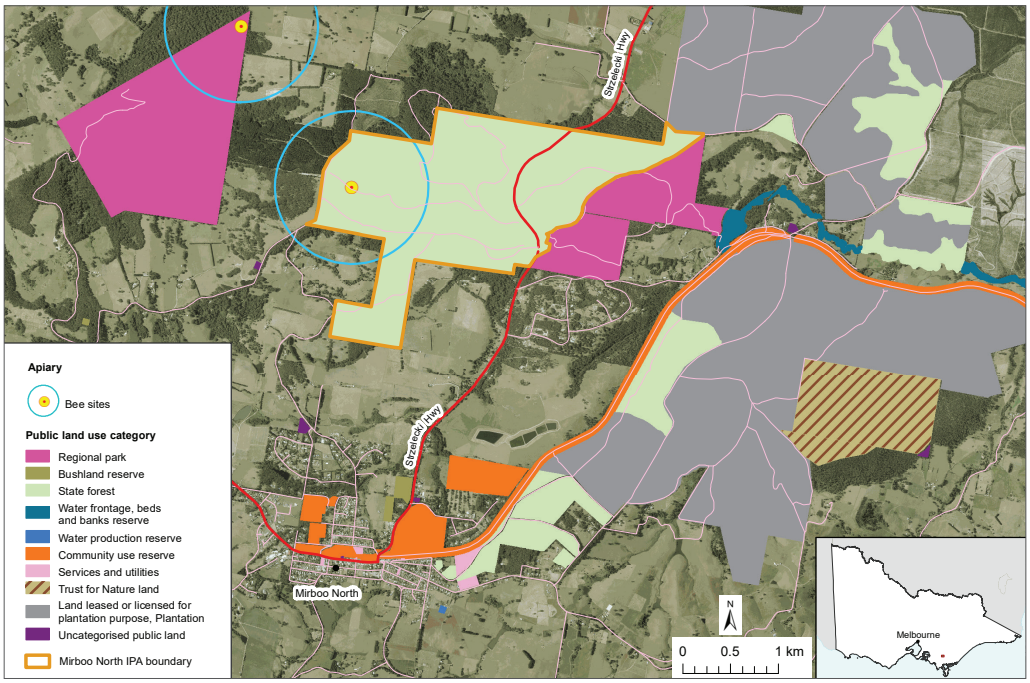


### 3.5.4 Apiculture

Apiculture or beekeeping is a longstanding use of public land in Victoria. There is one bee site located in the IPA near the western boundary. It is a category one bee site which has a smaller bee forage area or bee range (1.6 kilometre diameter) than category two sites (3.2 kilometres). Figure 3.11 shows the location of the bee site in the IPA and the number and distribution of bee sites in the adjacent Mirboo North Regional Park.

Apiculture utilises public land for both production of honey and to rest bees before undertaking pollination of private agricultural crops, particularly almond orchards near Robinvale. For this reason, public land close to Robinvale, or within a day's drive of the almond orchards, is typically densely covered by bee sites so bees can be rested nearby to the crops. Given the distance from Mirboo North to the almond orchards near Robinvale, this is not the case in the IPA.

**Figure 3.11** Bee sites within and around the Mirboo North IPA




### 3.5.5 Water production and supply

Approximately 80 per cent of the Mirboo North IPA is covered by a designated water supply catchment area for Mirboo North (see figure 3.12). The catchment area (approximately 895 hectares) consists of both forested land (mostly public land but some private land immediately north of the IPA) and cleared land (private land). Water from this catchment area flows into the Little Morwell River and Mirboo North's water supply is taken from the Little Morwell River.

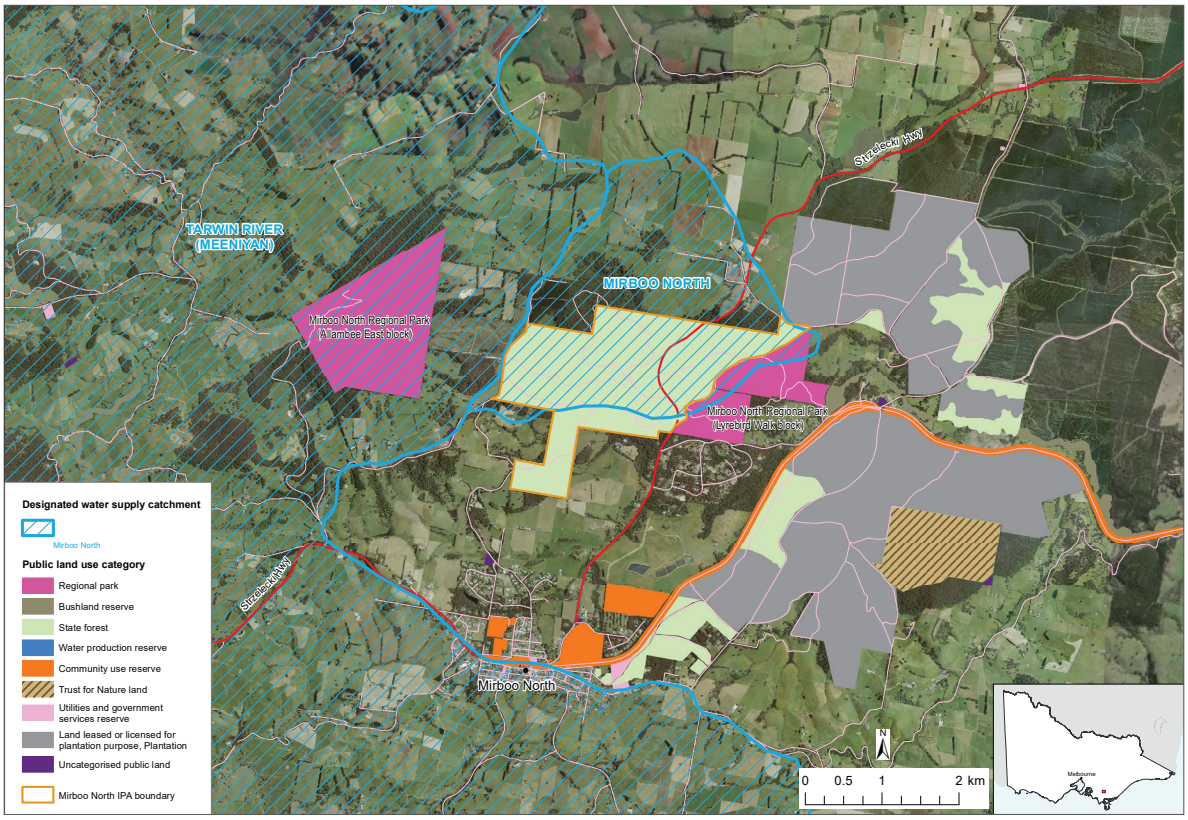
Mirboo North sources its water from a weir on the northern arm of the Little Morwell River which diverts a portion of the streamflow via a pumping station (situated immediately upstream from the junction of the northern and southern arms of the river) and pipeline to the Mirboo North Water Treatment Plant for treatment. Treated water is then transferred from the water treatment plant to the Mirboo North township via the 4 kilometre Mirboo North rising main, which was recently replaced.

The quality and quantity of water entering the Little Morwell River is important to the ongoing supply of Mirboo North's water.

The water supply reserve and treatment plant are currently mapped within the IPA boundary. There is a

delegated management reserve over the Mirboo North Water Treatment Plant. The treatment plant is managed by Gippsland Water and the reserve covers 0.5 hectares on the west side of the Strzelecki Highway near the southeast boundary of the IPA.

**Figure 3.12** Designated water supply catchment areas overlapping and near the Mirboo North IPA




### 3.5.6 Recreational uses

The Mirboo North IPA does not have any recreation infrastructure such as day visitor areas, campgrounds or walking trails.

The Lyrebird Forest Walk is a popular walking trail located just outside of the IPA in the adjacent Mirboo North Regional Park (south of Ricardo Road, east of the Strzelecki Highway). The walking trail is well-used, particularly by locals but also by visitors to the area. It is a pleasant 4.8-kilometre return (with a shorter 3-kilometre return option) walking track with mostly flat terrain through native forest. It follows the Little Morwell River for a stretch and has views of surrounding farmland.

Within the IPA, there is evidence of trail bike and mountain bike usage, including some illegal tracks throughout the area. The broader area of Mirboo North (including some of the areas of existing regional park near the IPA) are popular for four-wheel driving.

Due to the small size of the IPA and its proximity to dwellings, recreational hunting is limited.

There is good access throughout the IPA with a number of major tracks and roads (such as Samson Road, Old Thorpdale Road, School Road and Ricardo Road). These provide easy, 2WD access across most of the IPA with some rougher tracks particularly in the northwest of the IPA. Several properties abutting the IPA have horses and there is evidence of horse riding in the IPA. There is also a visitor accommodation provider adjacent to the IPA offering horse agistment.

Heatmaps from the fitness-tracking app Strava for the area[31] indicate low use of the Mirboo North IPA by both walkers/runners and bike riders. The heatmap shows high usage of the Lyrebird Forest Walk in the adjacent Mirboo North Regional Park by walkers/runners, but not riders.

The nearby Grand Ridge Rail Trail stretches 13 kilometres along the former railway route between Mirboo North and Boolarra. While the rail trail is well used by both walkers/runners and bike riders, few riders use the regional park and even fewer riders use the IPA.

Research and surveys conducted in 2018 by a Mirboo North community organisation assisted by the South Gippsland Shire Council aimed to gather information from residents and visitors and local businesses on social and economic values of the native forests near the township.[32] The results show a range of wellbeing and amenity, active and passive recreation values held by both residents and visitors. Activities included sightseeing and scenic driving, horse riding, forest walking and bushwalking, walking dogs, birdwatching, trailbike riding, nature appreciation.

### 3.5.7 Tourism

Many of the recreational activities taking place in and around the IPA may encourage visitors to stay overnight in the area, thereby contributing to the local economy. The Lyrebird Forest Walk and the Grand Ridge Rail Trail – both located just outside the IPA – are two examples. They are well-used by locals but are also popular attractions for day and overnight visitors.

The Mirboo North township has several cafes and restaurants as well as a craft beer brewery operating out of the old butter factory near the recreation reserve and the entry point to the rail trail.

The 130-kilometre Grand Ridge Road tourist drive winds its way along the ridge of the Strzelecki Ranges from Warragul to Tarra Bulga National Park. It provides views across the Latrobe Valley in the north and to Bass Strait in the south. The Grand Ridge Road tourist drive takes approximately six hours to complete with Mirboo North a convenient halfway point for shorter drives.

There are no licensed tour operators currently using the Mirboo North IPA.

### 3.5.8 Licensed uses and leases of Crown land

There are no grazing licences or water frontage licences in the Mirboo North IPA.

There is one unused road licence (for primary production) covering 0.8 hectares on the northern boundary of the IPA that is used for domestic stock grazing by the licence holder.

There is no plantation land within the Mirboo North IPA. There are two large areas of softwood plantation land located immediately east of the IPA covering 1146 hectares in total (see figure 2.1). Of this 1146 hectares, two small areas (seven hectares and five hectares) are plantations managed by DELWP while the rest is former Victorian Plantations Corporation (VPC) land licensed to HVP Plantations with the right to operate a plantation business on that land in perpetuity.

31 Strava heatmaps shows ‘heat’ made by aggregated, public activities over the last year.
32 South Gippsland Shire/Preserve Our Forests (2018) This is my home- a socio-economic analysis of logging in Mirboo North.

# 04 Threats to the values of the Mirboo North IPA

This chapter addresses the topic in (c) of the terms of reference, to identify the current and likely future threats to the values described in chapter 3 of this report, including climate change.

Threats to the values of the small area of the Mirboo North IPA have been discussed in the previous chapter, particularly for the biodiversity values. The report from Gunaikurnai Land and Waters Aboriginal Corporation on Traditional Owner values, rights and interests, reproduced in section 3.1, also makes some preliminary comments on threats while noting that further work remains to be done.

There are several different approaches used to assess threats to biodiversity. Some involve qualitative, judgement-based assessment utilising expert opinion, while others are quantitative assessments that include modelling. There has been a significant amount of work undertaken in Victoria on threats to forest biodiversity in eastern Victoria.

Assessment of the threats to social values such as recreation, amenity and community wellbeing are generally qualitative judgement-based assessments. They utilise community opinions as well as expert opinion and the input of land managers. The Mirboo North IPA is very small and threats to social values need to be considered in the context of the surrounding areas of forested public land.

## 4.1 Previous and current work

In 2017 VEAC was requested to carry out an assessment of the conservation values of state forests in the Central Highlands, North East, Gippsland and East Gippsland regional forest agreement areas. The terms of reference specified that VEAC was to report on the current and likely future threats to the biodiversity and ecological values of the assessment area. This section updates that report.[33]

Some of the most detailed work relating to threats to forest values in the area was carried out more than 20 years ago in the preparation of the comprehensive regional assessment for the original Gippsland Regional Forest Agreement (RFA) in 1999.[34] An updated assessment of matters listed in the five Victorian RFAs, including current status of the values, has since been jointly prepared in 2019 by the State of Victoria and Commonwealth of Australia to inform the modernisation of Victoria's RFAs.[35]

In addition, action statements prepared for listed species, communities and threatening processes under Victoria's *Flora and Fauna Guarantee Act 1988* (FFG Act) specifically focus on threats and management action to address those threats.

Victoria's biodiversity plan *Biodiversity 2037* focuses on the planning and management of:

- actions to treat broad-scale common threats across a landscape that provide the greatest benefit to the greatest number of species and a preventative approach to reduce the risk of species becoming more threatened
- bespoke actions to meet the unique needs of individual species.

33 See https://www.veac.vic.gov.au/investigations-assessments/previous-assessments/investigation/conservation-values-of-state-forests-assessment-report
34 See https://www.awe.gov.au/sites/default/files/sitecollectiondocuments/rfa/regions/vic-gippsland/regional-assessment/vic_gippscra.pdf
35 See *Assessment of matters pertaining to the modernisation of Victoria's Regional Forest Agreements* 2019 at https://www.awe.gov.au/sites/default/files/documents/qid78487_att_a_-_further_assessment_of_matters_report_2019.pdf

At a national level, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for the identification and listing of key threatening processes. The Australian government has developed threat abatement plans for most of the key threatening processes registered under the EPBC Act where a threat abatement plan was considered a feasible, effective or efficient way to abate the process.

### 4.1.1 Regional Forest Agreements

In the preparation of the comprehensive regional assessments for the RFAs, the Victorian and Commonwealth governments agreed that the biodiversity assessments should be undertaken at the species and ecosystem levels and should include reviews of the main threats to such biodiversity in the regions. Each of the biodiversity assessments for the four RFAs in eastern Victoria identified threats or disturbances to forest ecosystems, terrestrial flora, terrestrial fauna and aquatic fauna.

Threatening processes identified as likely to affect forest ecosystems were summarised and discussed in the assessment reports (dated from 1997 to 1999). At a species level, the assessments generally noted that the decline of species can be largely attributed to the impacts of disturbances, both directly on the species and indirectly on essential components of their habitat. Disturbances which can have negative effects (direct or indirect) on a species were referred to as potentially threatening processes.

Table 4.1 lists the potentially threatening processes identified for the four eastern RFAs, most of which were mentioned in the biodiversity assessments for the Gippsland RFA.

**Table 4.1** Potentially threatening processes identified in comprehensive regional assessments for the eastern RFAs

| Threatening process or disturbance |
|---|
| Clearing of native vegetation/fragmentation |
| Timber harvesting |
| Planned burning - fuel reduction |
| Planned burning - regeneration burning |
| Planned absence of fire |
| Unplanned fire (wildfire) |
| Grazing |
| Road construction and maintenance |
| Recreation |
| Environmental weed invasion |
| Introduced fauna species/predation/competition |
| Pest control |
| Firewood collection |
| Deliberate collection/harvesting (legal and illegal) |
| Mining/quarrying |
| Dams/impoundments/instream barriers |
| Climate change |
| Mineshaft collapse |
| Pathogens/disease/dieback |
| Loss of genetic diversity/genetic pollution |
| Drainage of wetland habitat |
| Waste disposal |

### 4.1.2 Flora and Fauna Guarantee Act listings and action statements

The FFG Act provides for the listing of taxa (genera, species, subspecies, varieties), threatened communities of flora and fauna and potentially threatening processes.

More than 2000 species, communities and threats are currently listed under the Act. This is a substantial increase from the 750 or so in 2017 when VEAC's Conservation Values of State Forests Assessment was prepared. Amendments to the FFG Act in 2019 almost tripled the number of threatened species by establishing a single comprehensive list of threatened flora and fauna species. Previously, Victoria had multiple lists of threatened species - those listed under the FFG Act, and non-statutory lists called the Victorian threatened species advisory lists. To date, about 325 action statements have been developed for threatened species, communities and threatening processes listed under the Act, although there are advanced drafts for others.

In 2021 VAGO reported on how well DELWP is acquitting its responsibilities under the FFG Act and in Biodiversity 2037 to better protect threatened species.[36]

VAGO noted that the backlog of action statements has only worsened since a previous audit in 2009 due to the increased number of listed species following FFG Act amendments in 2019. Only 20 per cent of listed species, excluding communities and potentially threatening processes, are covered by an action statement although many have advanced drafts. VAGO further commented that many of these action statements are more than 10 years old and may no longer reflect a species' status or current and emerging threats to species' persistence.

There are 37 potentially threatening processes listed under the FFG Act of which 12 have action statements (excluding those relating exclusively to marine and estuarine environments). There have been no additions to the list of potentially threatening processes since December 2016.

Listed potentially threatening processes relevant to forest ecosystems in eastern Victoria are shown in table 4.2, ranked in two categories with the first being those with potentially relatively high significance for forest biodiversity in the assessment area and the second being those with potentially moderate significance.

Action statements for forest-dependent threatened species typically contain intended management actions that require the establishment of timber harvesting exclusion zones or modified harvesting procedures.

Of the 35 threatened species used in the focused forest-dependent species analysis presented in VEAC's 2017 assessment of the conservation values of State forests,[37] 12 had approved action statements under the FFG Act. Eleven of the 12 action statements mention timber harvesting as a threat, six mention wildfire and six mention competition from other plants/weeds/pests/predators and so on. The next two most frequently mentioned threats are roading and visitor pressures including over collection.

36 https://www.audit.vic.gov.au/sites/default/files/2021-10/20211013-Protecting-Victoria%27s-Biodiversity.pdf
37 Chapter 2 in VEAC (2017) *Conservation values of State forests assessment report.*

**Table 4.2** Potentially threatening processes listed under the FFG Act potentially relevant to the assessment area (current as of December 2016)

| Potential high significance for forest biodiversity |
|---|
| High frequency fire resulting in disruption of life cycle processes in plants and animals and loss of vegetation structure and composition |
| Human activity which results in artificially elevated or epidemic levels of Myrtle Wilt within *Nothofagus*-dominated Cool Temperate Rainforest |
| Infection of amphibians with Chytrid Fungus, resulting in chytridiomycosis |
| Invasion of native vegetation by Blackberry *Rubus fruticosus* L. *agg.* |
| Invasion of native vegetation by 'environmental weeds' |
| Loss of coarse woody debris from Victorian native forests and woodlands |
| *Loss of hollow-bearing trees from Victorian native forests |
| Loss of terrestrial climatic habitat caused by anthropogenic emissions of greenhouse gases |
| *Predation of native wildlife by the cat, *Felis catus* |
| *Predation of native wildlife by the introduced Red Fox *Vulpes vulpes* |

| Potential moderate significance for forest biodiversity |
|---|
| *Alteration to the natural flow regimes of rivers and streams |
| Alteration to the natural temperature regimes of rivers and streams |
| Collection of native orchids |
| *Degradation of native riparian vegetation along Victorian rivers and streams |
| Habitat fragmentation as a threatening process for fauna in Victoria |
| Inappropriate fire regimes causing disruption to sustainable ecosystem processes and resultant loss of biodiversity |
| *Increase in sediment input into Victorian rivers and streams due to human activities |
| *Introduction of live fish into waters outside their natural range within a Victorian river catchment after 1770 |
| Loss of biodiversity in native ant populations and potential ecosystem integrity following invasion by Argentine Ants (*Linepithema humile*) |
| *Prevention of passage of aquatic biota as a result of the presence of instream structures |
| Reduction in biodiversity of native vegetation by Sambar (*Cervus unicolor*) |
| Reduction in biodiversity resulting from Noisy Miner (*Manorina melanocephala*) populations in Victoria |
| Reduction in biomass and biodiversity of native vegetation through grazing by the Rabbit *Oryctolagus cuniculus* |
| Soil degradation and reduction of biodiversity through browsing and competition by feral goats (*Capra hircus*) |
| *Soil erosion and vegetation damage and disturbance in the alpine regions of Victoria caused by cattle grazing |
| Spread of *Pittosporum undulatum* in areas outside its natural distribution |
| The spread of *Phytophthora cinnamomi* from infected sites into parks and reserves, including roadsides, under the control of a state or local government authority |
| Threats to native flora and fauna arising from the use by the feral honeybee *Apis mellifera* of nesting hollows and floral resources |
| Use of *Phytophthora*-infected gravel in construction of roads, bridges and reservoirs |
| Wetland loss and degradation as a result of change in water regime, dredging, draining, filling and grazing |

*Note: an asterisk (*) denotes potentially threatening processes for which there is an approved Action Statement.*

### 4.1.3 Biodiversity 2037

*Protecting Victoria's Environment – Biodiversity 2037* (the Biodiversity Plan) was published in 2017 as the new Flora and Fauna Guarantee Strategy for the purposes of the FFG Act.

In its 2021 audit, the Victorian Auditor-General's Office (VAGO) noted the move away from single-species planning and management. Instead, DELWP's approach is increasingly to manage broad and pervasive threats to species habitats across larger connected geographical areas (landscapes) that provide benefits to multiple species, in balance with cost-effective bespoke actions to protect prioritised single species. This approach is based on scientific evidence that threats which occur across a landscape, such as invasive pests and animals, pose a common risk to many flora and fauna species. Treating extensive, rather than localised smaller areas, is also chosen on the basis that treatments are more likely to maintain intact ecological processes and support more species and larger populations.

A suite of products and tools have been developed by DELWP under the NaturePrint brand to help make effective investment and management decisions to deliver the Biodiversity Plan. The Strategic Management Prospects tool (SMP) has modelled the benefit of management actions to mitigate the threats from a range of invasive species. Adding to this work, VEAC commissioned specialist modelling and spatial analysis expertise for its Conservation Values of State Forests Assessment through the Arthur Rylah Institute. In these assessments the analyses for foxes, deers and weeds were applied to 35 forest-dependent threatened species in the eastern Victorian forests The likelihood and consequences for biodiversity of 'too frequent' planned burning were also modelled.

### 4.1.4 Environment Protection and Biodiversity Conservation Act (Cwlth)

As of July 2019, there were 80 EPBC Act listed fauna and flora species known or likely to occur within the Gippsland RFA region. Since the commencement of the EPBC Act in 1999, 28 additional species known or likely to occur in the Gippsland RFA region have been listed as threatened under this legislation.

There are 14 threatening processes listed under the EPBC Act potentially affecting threatened species in Victorian RFA regions. The Australian government has developed threat abatement plans for most of the key threatening processes registered under the EPBC Act where a threat abatement plan was considered a feasible, effective or efficient way to abate the process. Of these 11 are potentially relevant to the Mirboo North IPA.

**Table 4 3** EPBC Act listed key threatening processes potentially affecting threatened species in the Mirboo North IPA[38]

| Potential high significance for forest biodiversity |
|---|
| Competition and land degradation by rabbits |
| Dieback caused by the root-rot fungus (*Phytophthora cinnamomi*) |
| Infection of amphibians with chytrid fungus resulting in chytridiomycosis |
| Land clearance (excludes silvicultural operations in native forests) |
| Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants |
| Loss of climatic habitat caused by anthropogenic emissions of greenhouse gases |
| Novel biota and their impact on biodiversity |
| Predation by European red fox |
| Predation by feral cats |
| Predation, habitat degradation, competition and disease transmission by feral pigs |
| Psittacine Circoviral (beak and feather) Disease affecting endangered psittacine species |

38 http://www.environment.gov.au/cgi-bin/sprat/public/publicgetkeythreats.pl

## 4.2 Climate change

The most notable change since the original comprehensive regional assessments more than 20 years ago is the increased attention given to climate change and its potential effects on biodiversity. It is recognised that climate change is likely to exacerbate and alter the nature of other threats, as well as increase the frequency and severity of extreme events like fire, floods, and drought. Several substantial international and national reviews have documented the nature of the threats to biodiversity and continue to be updated, e.g. Steffan et al 2009 in Australia.[39]

Victoria's Natural Environment Climate Change Adaptation Action Plan 2022-26 released earlier this year notes that Victoria's natural environments are already experiencing early impacts of a changing climate and these impacts are expected to increase through this century. Victoria's climate has changed in recent decades, becoming warmer and drier. These changes are expected to continue in the future.[40]

Across Australia, climate change will affect terrestrial biodiversity and ecosystems through both gradual and sudden changes in response to the average climate (e.g. increased temperatures, decreased rainfall, changes to seasonality), and extreme events (increased hot days, fire, increased frequency and severity of cyclones, heat waves, intensified wet seasons).The effects of climate change on terrestrial biodiversity will have cultural, social, and economic impacts including loss of ecosystem services such as clean water, pollinators and amenity.[41]

At a national level, evaluating the synergistic impacts on terrestrial biodiversity of multiple drivers such as climate change, extreme events, land cover change, fire, invasive species, water availability and changing disease dynamics on ecosystems is becoming increasingly important. Synergistic impacts are particularly challenging in ecology and conservation and will require multidisciplinary research that includes both biophysical and socio-political issues and sophisticated analytical approaches that integrate the variable contributions of stressors and their socioecological interactions.[42]

## 4.3 Pressures from increasing population and human use

### 4.3.1 Population projections

Victoria's population was 6.5 million at 30 June 2018. It is the second largest state in Australia by population, but has been growing by more than any other state or territory and at the highest rate of up to 2.5 per cent per annum. Victoria has grown by a million people since 2011 and is expected to add another million by 2026.

Victoria in Future is the official state government projection of population and households. Projections are based on trends and assumptions for births, life expectancy, migration, and living arrangements across all of Victoria.[43]

The COVID-19 pandemic has disrupted these projections, and new projections are not yet available. The most recent report in 2019 predates the COVID-19 pandemic.[44] It projected that the population of Victoria is expected to grow from 6.5 million people in 2018 to 11.2 million in 2056. Greater Melbourne is projected to grow by approximately 4.0 million people, increasing from 5.0 million in 2018 to 9.0 million in 2056.

39 Steffen W, Burbidge AA, Hughes L, Kitching R, Lindenmayer D, Musgrave W, Stafford Smith M, Werner PA (2009) *Australia's biodiversity and climate change: A strategic assessment of the vulnerability of Australia's biodiversity to climate change,* Report to the Natural Resource Management Ministerial Council commissioned by the Australian Government. CSIRO Publishing

40 See https://www.environment.vic.gov.au/natural-environment-adaptation-action-plan

41 https://nccarf.edu.au/wp-content/uploads/2019/04/Impacts-on-Terrestrial-Biodiversity.pdf

42 Williams S. E., Falconi L., Lowe A., Bowman D., Garnett S., Kitching R., Moritz C., Christmas M., Boulter S. & Isaac, J. (2017). *National Climate Change Adaptation Research Plan Terrestrial biodiversity: Update 2017.* National Climate Change Adaptation Research Facility, Gold Coast,.

43 See https://www.planning.vic.gov.au/land-use-and-population-research/victoria-in-future

44 https://www.planning.vic.gov.au/__data/assets/pdf_file/0032/332996/Victoria_in_Future_2019.pdf

The Australian Bureau of Statistics has analysed the impact of COVID-19 on Australia's population and components of growth in the year 2020.[45] COVID-19 had a dramatic impact on Australia's population in 2020. International travel and overseas migration slowed to a trickle, interstate migration patterns were disrupted, while births and deaths continued with relatively little change. Changes in overseas and interstate migration due to COVID-19 disruptions meant that the ACT, Queensland and Victoria all had net overseas migration losses in the 2020 calendar year. While the total number of interstate movements was comparable to previous years, interstate migration patterns changed markedly in 2020. In the last decade, more people moved to, rather than from Victoria. In 2020 however, Victoria had a net loss of people to other states and territories.

### 4.3.2 Impacts on the use of public land

As well as increasing housing densities, dwelling change and infill development in metropolitan Melbourne, large subdivisions and estates in greenfield areas are being developed to meet increasing housing demand. The proximity of these south east Melbourne subdivisions and estates to Gippsland is expected to result in increases to the number of people using the forests, parks and reserves in the region.

The impacts of COVID-19 travel restrictions on the levels and patterns of use of public land are not yet fully known. However there is some information on increased levels and altered patterns of domestic tourism, and anecdotally there are reports of increased visitation to parks, forests and other public land and open spaces close to where people live.

45 https://www.abs.gov.au/articles/population-change-2020

# 05 Public land use categories commensurate with the values of the Mirboo North IPA

This chapter addresses the topic in (d) of the terms of reference: to identify the typical land use categories commensurate with the identified values in chapter 3.

## 5.1 Overview of public land categories

Most modern states hold some land in government ownership (public land) and most Australian and international jurisdictions have developed systems of public land classification. For the purposes of VEAC's work, public land classification is the assignment of public land to specific purposes and uses, and the naming of the resulting public land categories.

In VEAC's Statewide Assessment of Public Land (2017) it was recommended that a rationalised and consolidated system of public land use categories be adopted of 15 (reduced from 18) primary terrestrial categories and four marine categories, and that these revised public land categories and their purposes (or objectives) be aligned with the various Acts reserving land.[46] VEAC also recommended explicitly stating that one of the purposes of public land (all categories) is to protect the rights and interests of Traditional Owners, native title holders and Aboriginal Victorians, and their cultural values.

The Government accepted this recommendation in principle, noting that there may need to be minor refinements to some categories and purposes, and further targeted consultation.

The government accepted VEAC's recommendation to rewrite Victoria's land legislation. A consultation paper was released for public comment by the Victorian government in 2021 seeking comment on proposals to renew Victoria's public land legislation, including the creation of a new Public Land Act and amending and modernising the National Parks Act to work alongside the Public Land Act.[47] The Public Land Act will replace the Land Act, the Crown Land (Reserves) Act and the Forests Act.

The consultation paper re-instated 'forest park' and 'metropolitan park' categories which VEAC had consolidated into 'regional park'. A 'forest park' category is a sensible response to the changed State forest landscape across Victoria after the phasing out of timber harvesting in all native forests on public land by 2030.

The Victorian government has committed to enabling self-determination for Traditional Owners and other Aboriginal Victorians, including in relation to land, water, and cultural heritage rights. The reform of Victoria's public land legislation is an opportunity to enable Traditional Owners' self-determination by reframing the legislation and addressing key gaps and limitations in Victoria's public land legislation that currently limit this.

46 https://www.veac.vic.gov.au/investigations-assessments/previous-investigations/investigation/statewide-assessment-of-public-land
47 https://engage.vic.gov.au/renewing-victorias-public-land-legislation

## 5.2 Identifying typical land use categories

Much of the work of VEAC has involved recommendations for public land use. This involves considering the following matters:

- specific directions of government if any and legislative requirements
- pattern and significance of values including natural values, Aboriginal and non-Aboriginal cultural values, resource uses and other economic activities, licensed uses, recreational uses
- size of area and boundaries of area including shape (e.g. linear, fragmented) that may affect management viability
- regional and local context including adjacent or nearby areas of public land; including their values and uses
- the environmental, social and economic implications of implementing land use changes
- ease of public understanding e.g. avoiding unnecessary complexity in allowed uses or boundaries.

In addition to these considerations VEAC adopts the principle where possible of avoiding foreclosure of future options for environmental protection.

Following assessment and analysis of the best available information, VEAC maps the public land use category or categories which have the best alignment of purpose and allowed uses and activities for the areas under investigation or assessment.

Usually at this point in investigations, VEAC and its predecessors would prepare draft recommendations and formally seek public comment on them before finalising recommendations to

For the Immediate Protection Areas in the state forests in eastern Victoria, including the Mirboo North IPA, the Eminent Panel for Community Engagement will undertake consultation on the VEAC assessments and provide final advice to government.

## 5.3 Mirboo North IPA

At less than 450 hectares, the Mirboo North IPA covers only a small area of state forest within a broader landscape of public land. The surrounding area includes public land classified in various land use categories such as regional park, nature reserve and state park, as well as areas used for plantations – see figure 2.1 showing the public land use surrounding the IPA. Typically, public land use studies have covered much larger areas allowing for the public land blocks to be assessed within the broader context.

The small size of the area and the requirement to assess the land in isolation from other public land provided some challenges for VEAC. These are reflected in our conclusions in section 5.5 about the typical land use categories that are commensurate with the values identified earlier in the report.

Several activities are managed in the same way across all the public land use categories under consideration as follows:

- timber harvesting for sawlogs and pulpwood is not permitted
- apiculture is allowed
- the rules for four wheel driving and trail bike riding are the same across parks, forests and other public land.

Of the 19+ public land use categories referred to in section 5.1, some are clearly unsuitable for the Mirboo North IPA. These include categories such as utilities and government services reserve, alpine resort, plantation, and the marine and coastal categories.

Of the potentially suitable categories, State forest, forest park and national park are also excluded from further consideration (see table 5.1).

**Table 5.1** Public land use categories excluded from consideration for the Mirboo North IPA

| Public land category | Reason for exclusion |
|---|---|
| **State forest** | Unsuitable as its purpose in part is to provide for harvesting of hardwood timber and other forest products. This is inconsistent with the announcement in 2019 that the Victorian government is immediately protecting more than 96,000 hectares of high conservation forest |
| **Forest park** | Usually a larger,sometimes remote area that can provide for activities such as dispersed camping, hunting and (potentially) the production of incidental forest produce such as domestic firewood which has not been allowed for some time in the IPA and for which there appears to low demand. |
| **National park** | Usually a much larger area with high natural values. Does not easily accommodate some of the recreational uses of the IPA, such as dog walking and horse riding. |

Four public land use categories were identified as potentially commensurate with the identified values of the Mirboo North IPA: conservation park, regional park, nature reserve and bushland reserve. A description of the characteristics of each of these categories is included in table 5.2 together with VEAC's assessment of their suitability. The purposes of each category should be read together with an over-arching purpose to protect the rights and interests of Traditional Owners and native title holders and their cultural values.

**Table 5.2** Assessment of typical public land use categories

| Public land category | Characteristics and purposes[48] | Assessment |
|---|---|---|
| **Conservation park** | Land often linear in shape (e.g. coastal park) with natural features, flora and fauna of landscape or conservation significance<br>**Purposes**<br>• Protect the natural environment including biodiversity<br>• Protect and maintain natural, cultural, or historic features and natural landscapes.<br>• Provide opportunities for informal recreation associated with the enjoyment of nature, and education, where consistent with the purposes above. | • consistent with biological and ecological values and improves protected area representation of under-represented EVCs in Strzelecki Ranges bioregion<br>• addresses threats from timber harvesting in accordance with government decisions<br>• can potentially accommodate a low level of recreational activities not usually allowed in national parks (e.g. walking with dogs)<br>• size in isolation too small<br>• different category to similar forest in adjacent regional park block, potentially leading to public confusion. |
| **Regional park** | Extensive areas of natural or semi-natural land close to population centres or major tourist routes or easily accessible areas<br>**Purposes**<br>• Provide opportunities for informal recreation for large numbers of people associated with the enjoyment of natural or seminatural surroundings or semi-natural open space.<br>• Protect and maintain natural or semi-natural features and scenic landscapes.<br>• Protect the natural environment including biodiversity to the extent consistent with the above. | • addresses threats from timber harvesting in accordance with government decisions<br>• accommodates range of recreational uses<br>• suitable size together with similar forest in adjacent block of Mirboo North Regional Park<br>• does not improve protected area representation of under-represented EVCs in Strzelecki Ranges bioregion (not categorised as a protected area) |
| **Nature reserve** | An area of land or wetland of particular importance for its significant flora, fauna, natural habitat, geology, or geomorphology<br>**Purposes**<br>• Protect the natural environment, including significant species, communities and habitats of native flora and fauna.<br>• Protect and maintain natural, cultural, or geomorphic features and natural landscapes.<br>• Provide for low-levels of informal recreation associated with the enjoyment of nature, and education, where strictly consistent with the purposes above. | • consistent with biological and ecological values and improves protected area representation of under-represented EVCs in Strzelecki Ranges bioregion<br>• addresses threats from timber harvesting in accordance with government decisions<br>• suitable size for the category<br>• level and nature of recreational use inconsistent with strict management of nature reserves<br>• different category to similar forest in adjacent regional park block, potentially leading to public confusion |
| **Bushland reserve** | An area of land containing important elements of the natural environment or landscape that are of habitat or scenic significance<br>**Purposes**<br>• Protect and restore the natural environment, including significant species, communities and habitats of native flora and fauna, remnant vegetation and areas with value as habitat linkages<br>• Protect and maintain natural or cultural features and natural landscapes<br>• Provide opportunities for informal recreation associated with the enjoyment of nature, or education, where consistent with the purposes above<br>• Provide for sustainable, controlled, low-intensity use of natural resources where consistent with the purposes above | • improves protected area representation of under-represented EVCs in Strzelecki Ranges bioregion<br>• characteristics and purposes of the category do not fully align with the values of the area and government decisions about timber harvesting (some low-intensity use of natural resources allowed)<br>• size larger than usual fragmented patches or linear areas of the category<br>• different category to similar forest in adjacent regional park block potentially leading to public confusion |

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## 5.4 Conclusion

Given the very small size of the IPA, **regional park** is considered the most appropriate land use category for the IPA (see figure 5.1). It fits well into the landscape with similar forest in the contiguous block of the Mirboo North Regional Park and affords protection for the high natural values from sawlog and pulpwood harvesting, while facilitating continued use of the forest for a broad range of activities. It would also provide management continuity and simplify land boundaries to support public understanding of allowed activities.

However, if size and management viability were not a consideration the land use category commensurate with the identified values of the Mirboo North IPA is **conservation park.** As a conservation park, under-represented EVCs in the Strzeleckis Ranges bioregion would be added to the protected area system and the IPA would be managed for the protection of its natural values, while allowing an appropriate level of access and a range of recreational activities valued by the community.

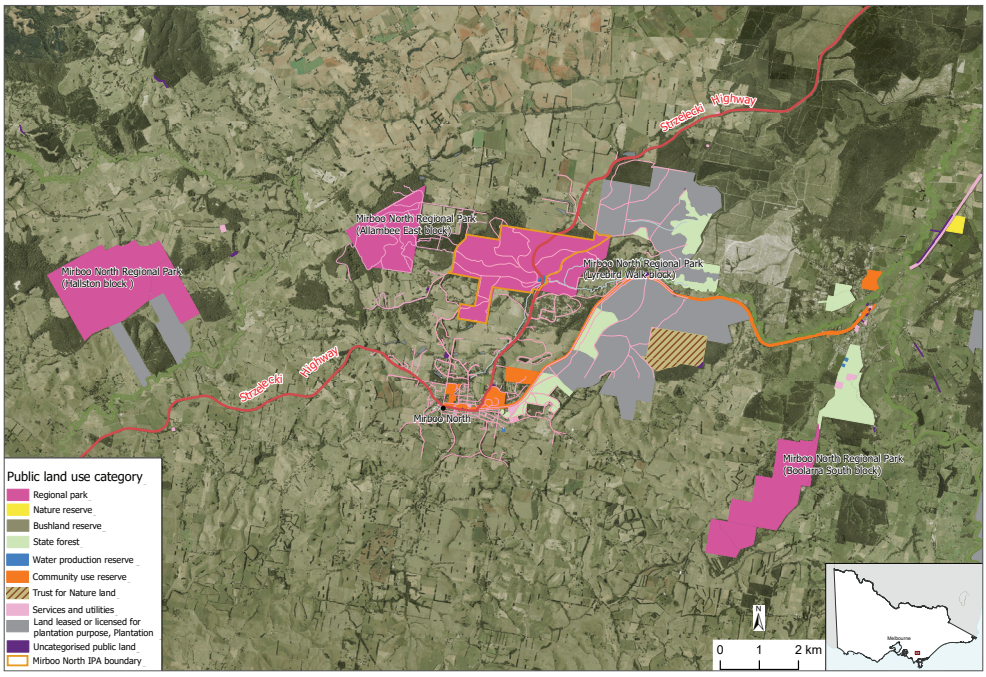
VEAC adds an important further caveat to our conclusions. Our initial assessment suggests that the values of the surrounding regional park areas outside the IPA are likely to warrant increased protection commensurate with the conservation park category. The Mirboo North IPA area on its own is much smaller than any existing conservation park, but its high natural values combined with comparable values of the surrounding regional park areas, if confirmed by further assessment, could be commensurate with conservation park.

The existing Mirboo North Regional Park is managed in accordance with the government-accepted recommendations of the Land Conservation Council in 1982 but has not yet been formally established under the Crown Land (Reserves) Act. Implementation of the existing government-accepted recommendation could be completed if the IPA area is added to the regional park.

In the medium term, further assessment of the IPA and surrounding regional park areas could be considered for its suitability as a conservation park as part of a future VEAC investigation announced by the Minister in 2017 on the future classification and permanent protection of the 8 000 hectares of land known as the ‘Cores and Links’ in the Strzelecki Ranges.

At this time progress is likely to have been made on how the thinking of Traditional Owners about cultural landscapes and cultural reserves can be reflected in 21st century public land legislation to support self-determination. VEAC supports the future incorporation of these concepts into the categorisation and management of the Strzelecki Ranges native forests.

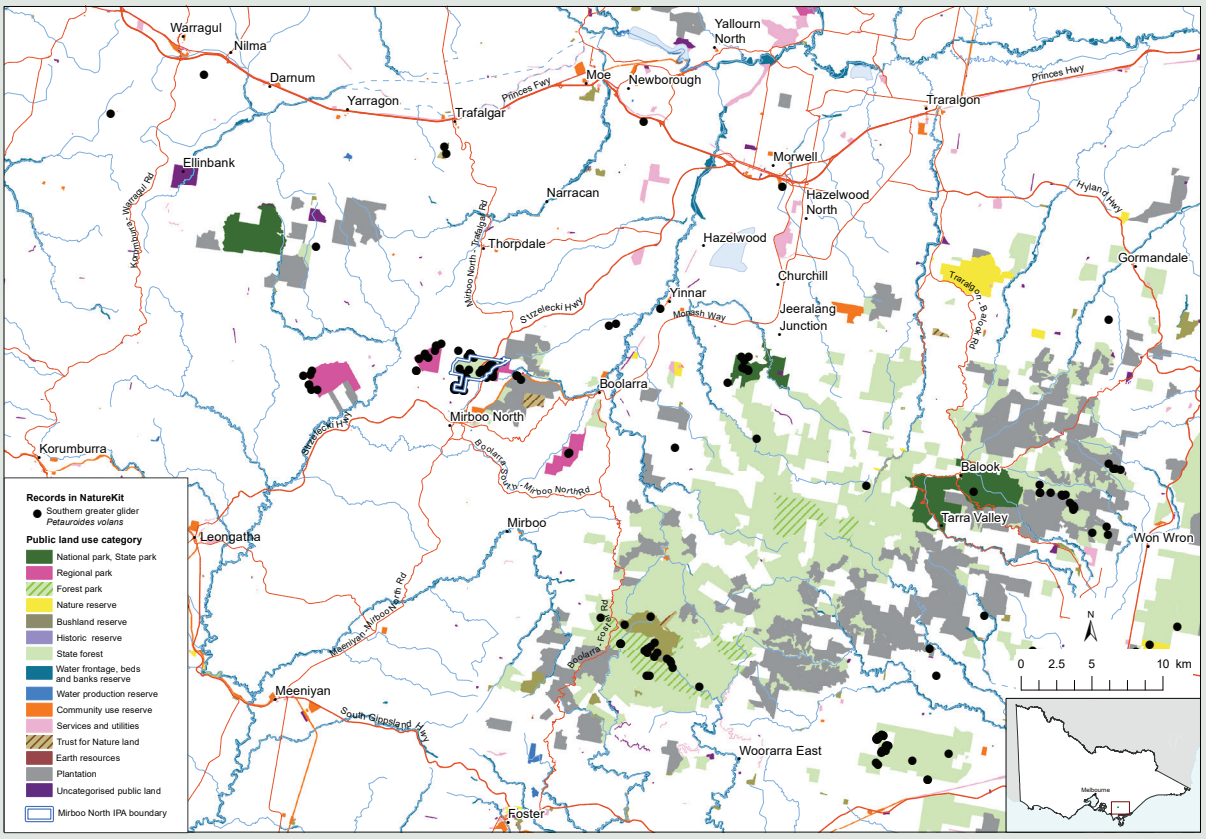
**Figure 5.1** Suggested land use category commensurate with the values of the Mirboo North IPA



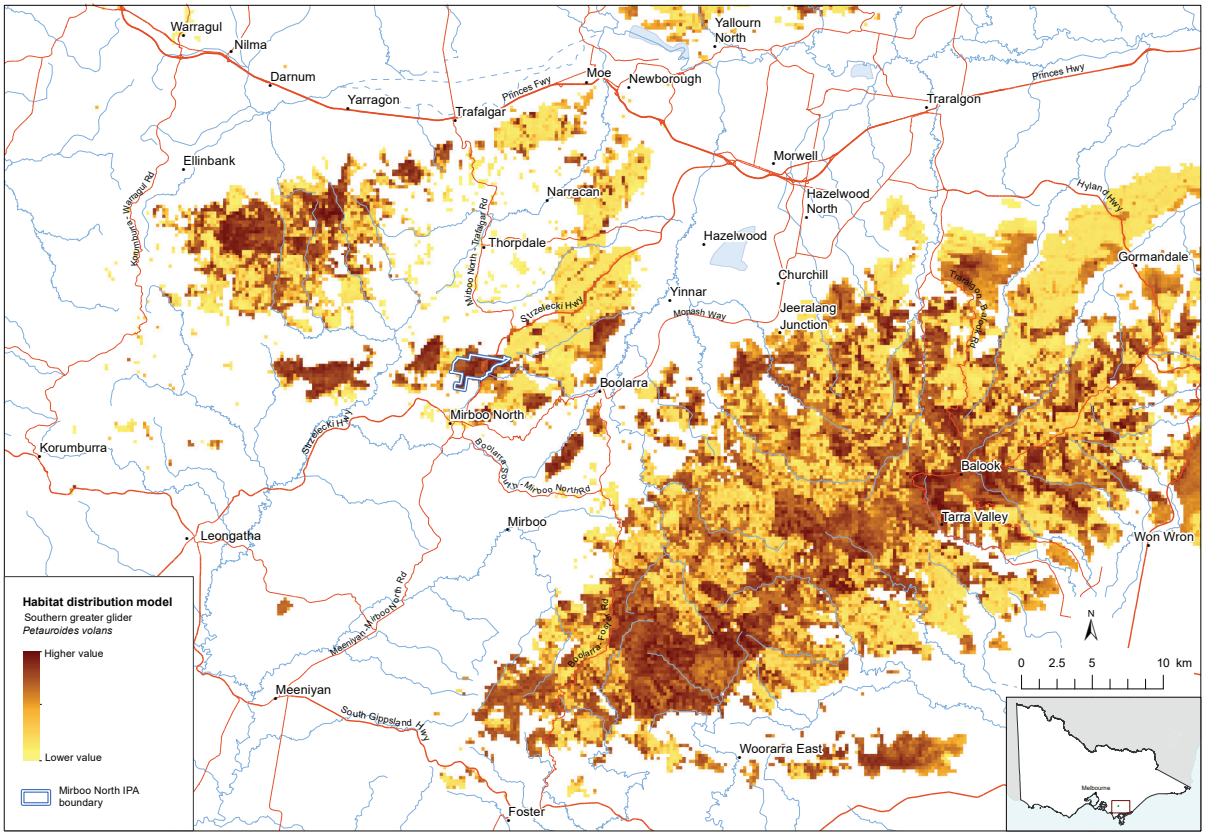
# Appendix 1

## Threatened species records and habitat distribution models

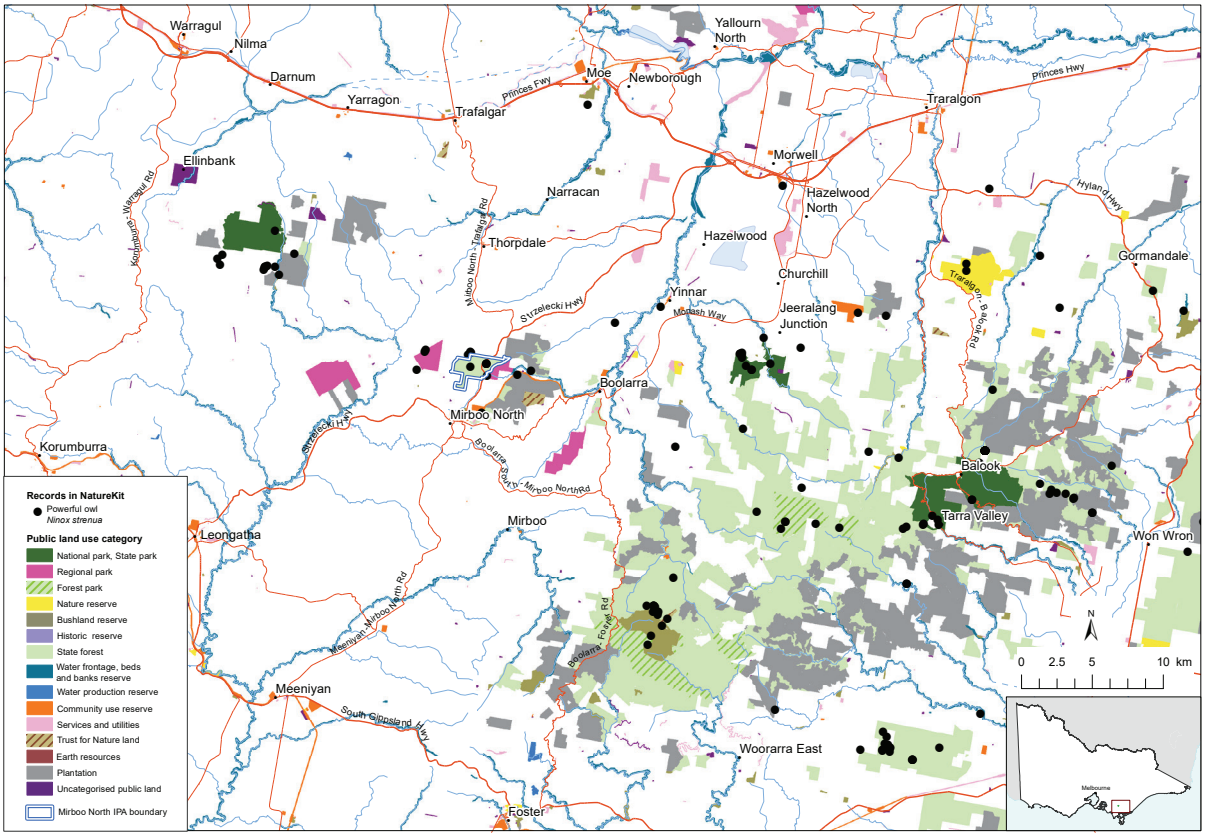
**A1** Southern greater glider records (*source: Victorian Biodiversity Atlas*)



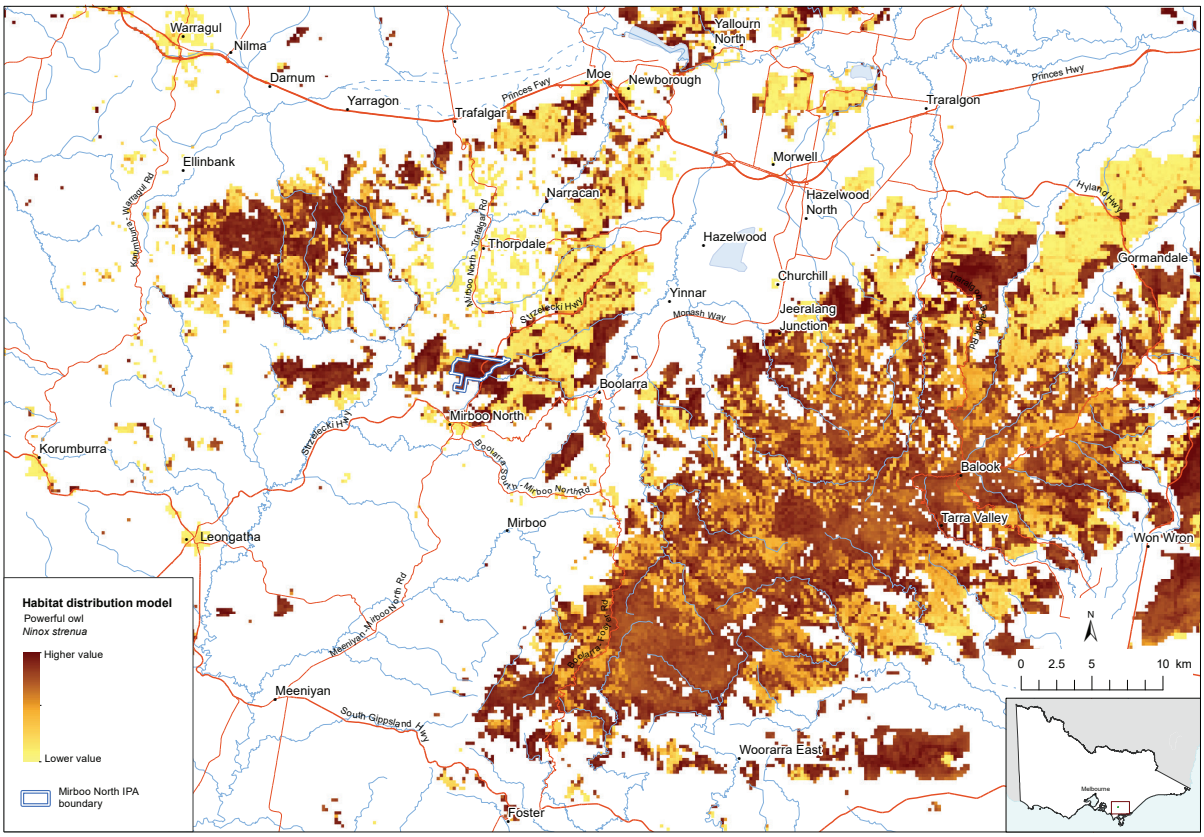
## A2 Southern greater glider habitat distribution model



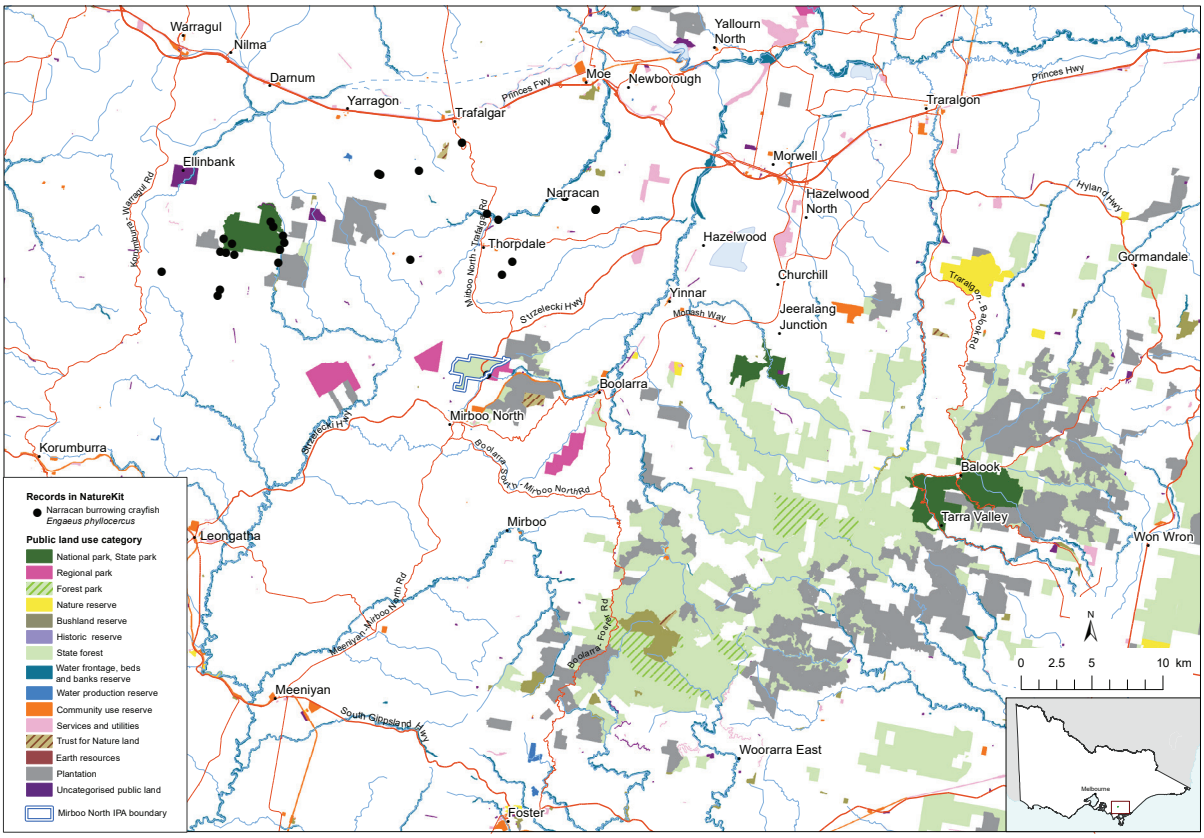

## A3 Powerful owl records (*source: Victorian Biodiversity Atlas*)



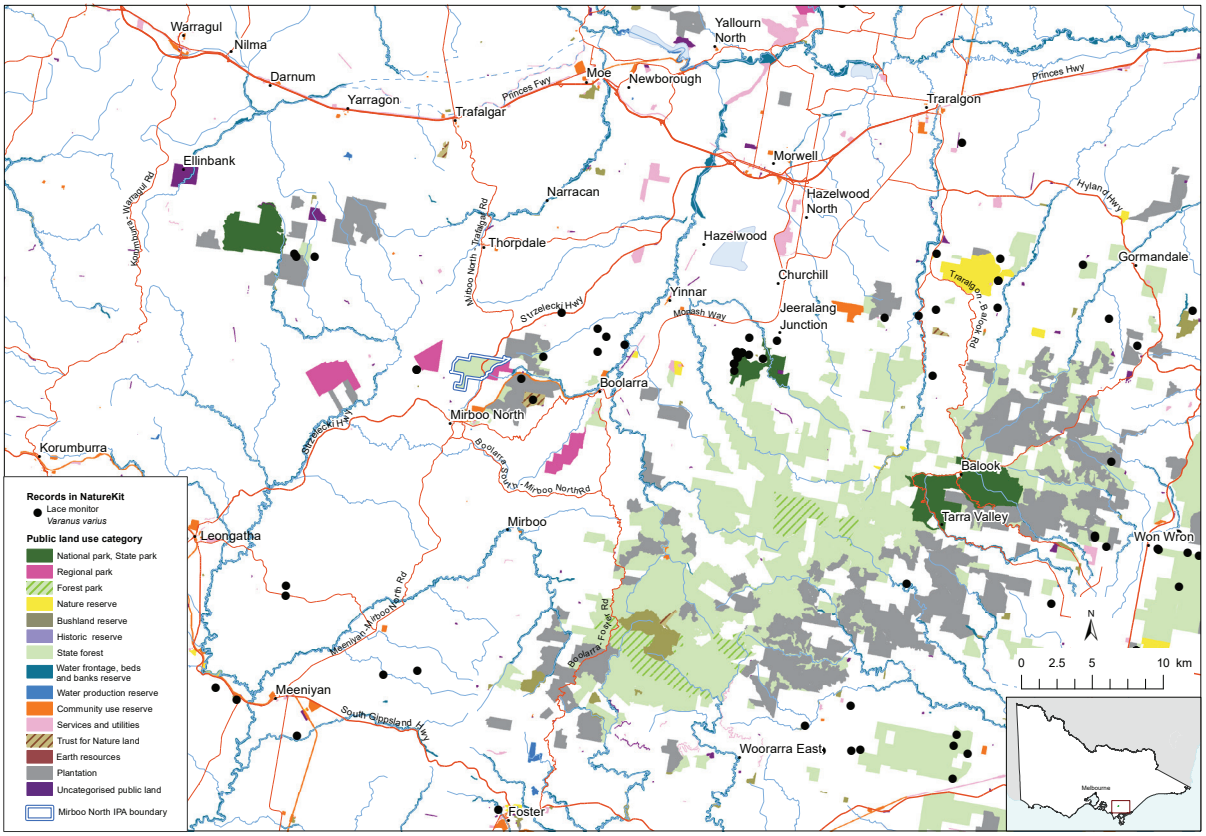
## **A4** Powerful owl habitat distribution model



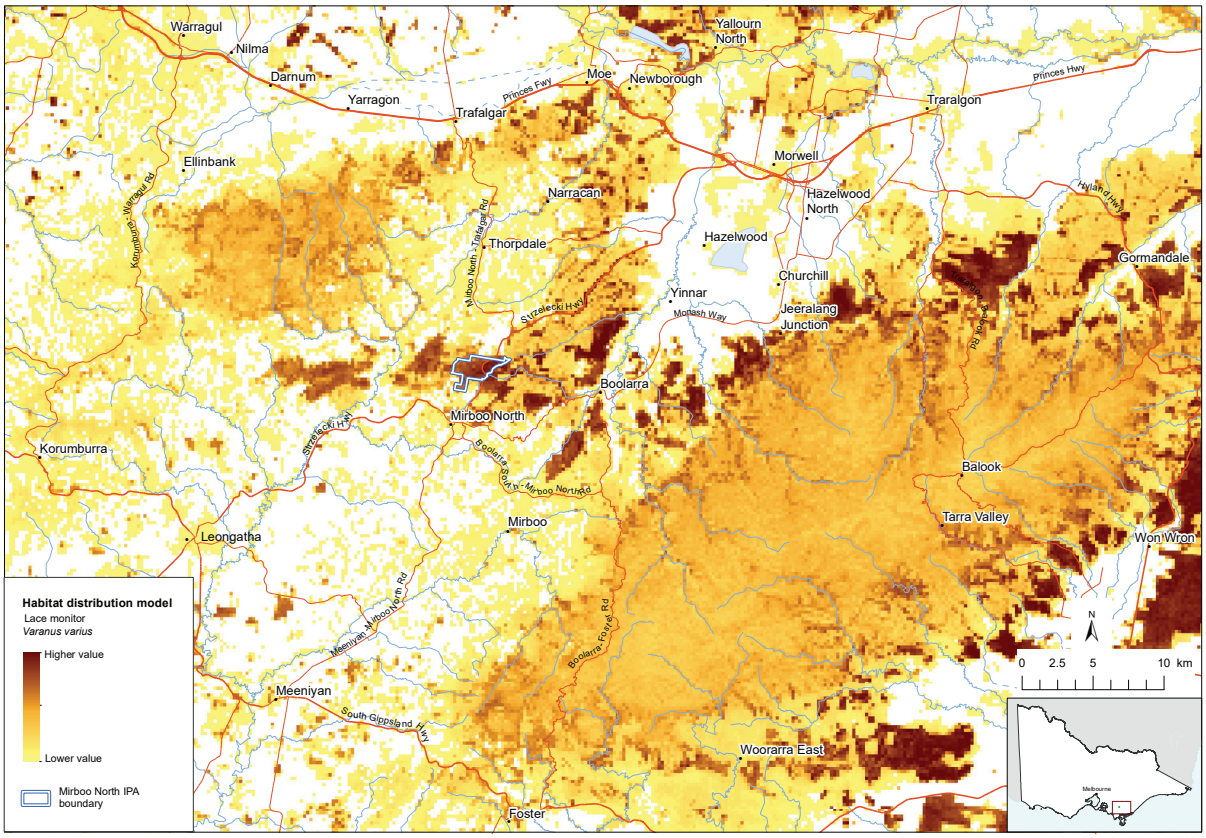

## **A5** Narracan burrowing crayfish records (*source: Victorian Biodiversity Atlas*)



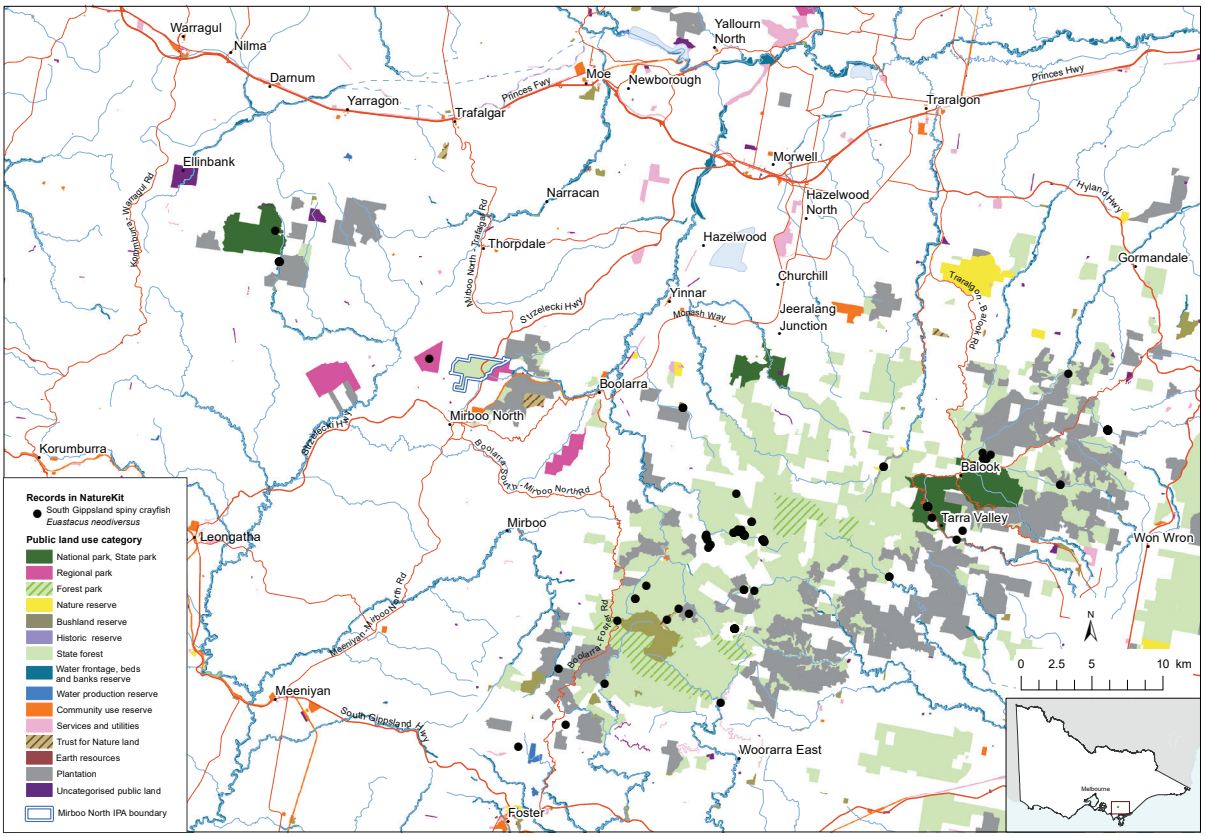
**A6** Lace monitor records (*source: Victorian Biodiversity Atlas*)




**A7** Lace monitor habitat distribution model



**A8** South Gippsland spiny crayfish records (*source: Victorian Biodiversity Atlas*)



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