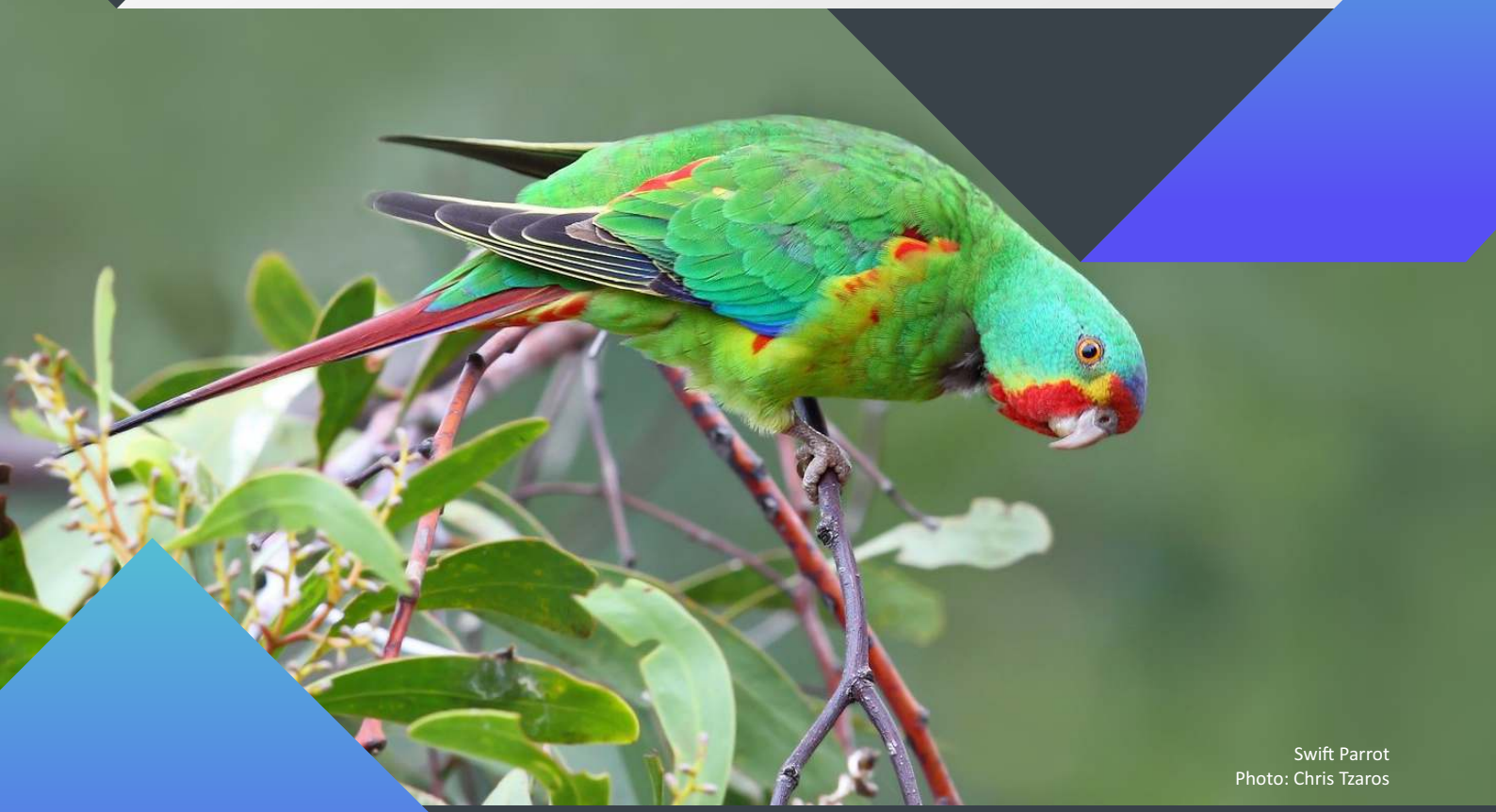
# Best Practices in Energy Transmission Line Routing to Avoid Habitat Fragmentation



Swift Parrot
Photo: Chris Tzaros

Energy Grid
ALLIANCE

"We need to work together and enjoy the benefits of our natural environment, recognising that our long term wellbeing and prosperity is inextricably linked to the health of our natural environment.

This is not just a plan for action, but a blueprint for our success in stopping the decline of Victoria's unique biodiversity."

The Hon. Lily D'Ambrosio MP
Minister for Energy, Environment and Climate Change

*Common Bent Wing Bat*
*Credit: Australian Museum*

# Contents



*Myrniong Biolink*

# Purpose of this document

There is nothing more important to our existence than a healthy natural environment. Yet despite efforts in recent decades, many native plant and animal species remain under threat as Victoria's biodiversity continues to decline. We need to stop the decline of our biodiversity and ensure that our natural environment is healthy, valued and actively cared for.

The decline of our biodiversity also impacts the future health, wellbeing and prosperity of all Victorian communities.

The purpose of this document is to:

- Provide an overview of the vital need to protect Victoria's biodiversity
- Highlight the importance of community and landholder initiatives such as land for conservation
- Identify how creation of biolinks (corridors for the protection of native flora and fauna) can halt further habitat fragmentation and improve the long-term health of our ecosystems and the species they contain.

This document also presents case studies relating to the proposed energy infrastructure project, the Western Victoria Transmission Network Project (WVTNP).

**The proposed final corridor of the WVTNP will have a disturbing and irreversible impact on the important work of government funded conservation groups and directly contravenes the Victorian Government Biodiversity 2037 plan, the purpose of which is to preserve and enhance biodiversity and avoid further loss through habitat fragmentation.**

These case studies highlight an urgent need for energy network operators and related stakeholders to adopt and enforce policies that serve to protect and enhance our environment and prevent further decline of our biodiversity.

The objective of transmission route planning should be to avoid construction of easements through native parks, nature reserves and biolinks to avoid further habitat fragmentation.

# Protecting Victoria's Biodiversity

Victoria is the most intensively settled and cleared state in Australia. This has enabled Victoria to become a powerhouse of agricultural production, with huge benefits to the state economy. But it has also left a legacy of **loss**, **degradation** and **fragmentation of habitats** that is evident across the state. The effects of this legacy will continue, creating more pressure on species and increasing their vulnerability to other threats. Although the rate of land clearing has slowed since the introduction of Victoria's native vegetation regulations in 1989, the quality and extent of native vegetation continues to shrink by about 4,000 habitat hectares each year. This trajectory is largely the result of activities and entitled uses that are outside the regulatory framework (resulting in loss of extent of native vegetation), together with insufficient management of threats (resulting in loss of quality).

The degraded health of Victoria's biodiversity is the result of many individual decisions and actions, or inactions, over two centuries. Under-investment in planning, management, protection, evaluation and reporting for biodiversity and the natural environment has been conspicuous. Even today, decision makers in government, business and land management too often fail to fully acknowledge the impacts of their actions on biodiversity – and are not routinely required to do so.[1] (p.10)

*Protecting Victoria's Environment – Biodiversity 2037*[1] is Victoria's new plan for the future of Victoria's biodiversity. The Biodiversity Plan embraces transformational developments in thinking about conservation and the sustainability of human civilisation and economic development. As such, the Plan is a big step forward for Victoria; it sets the ambitious and achievable task of stopping the decline of our biodiversity. It also marks the start of a long-term pathway for the overall improvement of biodiversity, while sustaining the state's strong economy. Significantly increased effort and investment over a long period is required to achieve these parallel goals. When considering the benefits to current and future generations of Victorians that will flow from improved biodiversity – and the potential consequences of not pursuing such a course of action – the choice is obvious.[1] (p.4)

## Biodiversity has a right to exist

Native plants and animals have an intrinsic right to exist, thrive and flourish. Multiple life forms contribute to biodiversity and have significant intrinsic value. Victorians have a duty to protect biodiversity, regardless of whether it provides tangible benefits to humans.[1] (p.6)

Biodiversity corridors are essential to healthy agriculture and provide significant benefit to sustainability and quality agriculture production.

The Biodiversity Plan represents the Victorian Government's commitment to ensuring consistency with national and international biodiversity programs and agreements. In 2010, the 196 signatory nations to the United Nations Convention on Biological Diversity, including Australia, adopted the international Strategic Plan for Biodiversity 2011- 2020. This provides an international framework on biodiversity for all partners. One commitment of the Convention for signatory nations is that the framework be translated into national biodiversity strategies and action plans within two years. In 2010, Australia delivered on this commitment by producing the Biodiversity Conservation Strategy 2010-2030.

The five strategic goals of the Convention are to:

- Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- Reduce the direct pressures on biodiversity and promote sustainable use.
- Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
- Enhance the benefits to all from biodiversity and ecosystem services.
- Enhance implementation through participatory planning, knowledge management and capacity building.

A legacy of loss, degradation and fragmentation of habitats

*(Protecting Victoria's Environment - Biodiversity 2037)*

# Land for Conservation

Across Victoria, organisations, private landholders and individuals are doing great work for Victoria's biodiversity. However, we can achieve even more when we work together.

The Victorian Government recognises the role that volunteers have in driving positive environmental outcomes. Victoria's volunteers contribute through a range of activities in many ways to enhance and protect biodiversity. The diversity of activities means that different levels of support are required to maintain motivation and interest from volunteers and achieve positive environmental outcomes. Many individuals participate in volunteer groups (examples include Friends groups, Field Naturalists, BirdLife, Coastcare, Landcare, Land for Wildlife), which hold and share valuable local knowledge, and deliver on-the-ground projects that address local and state conservation priorities.

Private landholders set aside land for conservation via permanent conservation covenants or shorter term management agreements, and manage it to enhance biodiversity values. Others contribute as members of Committees of Management or Conservation Management Networks that carry out conservation works on private and public land.

Biolinks Alliance Planting Day

Private landholders manage two-thirds of the Victorian landscape, and therefore have a critical role to play in conserving biodiversity. Private land hosts some of the state's most threatened species and some of its most important and irreplaceable native vegetation.

Many landholders recognise the importance of protecting and restoring biodiversity on their land – not only for its aesthetic value, but also for the ecosystem services, benefits to sustainable agriculture and climate change resilience that it provides. These landholders make significant contributions to nature conservation by protecting and managing their biodiversity to a high standard, participating in private land networks via CMAs and groups such as Landcare and Land for Wildlife, or by entering into voluntary conservation covenants with the assistance of Trust for Nature.

However, to address the ongoing decline of biodiversity, the area and quality of private land managed for conservation needs to be substantially increased to make up for significant ongoing losses of quality and extent of habitats, and for the legacy of past clearing that was promoted by government policies last century. To achieve this, we need to build on current and past efforts and create more opportunities for private landholders to permanently protect biodiversity on private land, to better manage terrestrial, riparian and wetland habitats and species, and to partner with other stakeholders in biodiversity conservation initiatives.[1] (p.36)

### Biodiversity Policy

The objective of transmission route planning should be to **avoid construction of easements through native parks, nature reserves and biolinks** to avoid further habitat fragmentation. Recommended measures to prevent and control impacts to native habitats include:

- Energy transmission lines should not be sited in or across native parks, nature reserves or biolinks
- Site transmission easements, access roads, lines, towers, and substations to avoid further impact on native habitat.
- Use of existing easements for transmission, and existing roads and tracks for construction and maintenance access.

# The Importance of Biolinks

Fragmentation of the landscape over time has led to the decline of many native birds and mammals. As native trees, shrubs, and grasslands have been cleared to make way for farms, residences and infrastructure, mammals such as swamp wallabies, bandicoots, antechinus, echidna, and skinks have lost habitat and become vulnerable to feral cats and foxes. Many reptiles are also in decline due to loss of habitat and predation from introduced animals.

In order to be healthy, native landscapes must remain connected so that wildlife can move safely between areas of food and shelter. A landscape that is highly fragmented can trap animals in areas that are too small for their needs.

Where understorey has been cleared, small mammals and birds that forage on the ground are vulnerable to predators such as cats, dogs and foxes, and their numbers decline rapidly. Those that escape predation may suffer from inbreeding (lack of genetic diversity) and their populations become vulnerable to diseases or sudden death due to disturbances such as pest outbreaks and high-intensity bushfires.

*Greater Glider*
*Photo: Josh Bowell*

Biolinks are areas of bush and other habitat (such as waterways and stands of paddock trees) that connect areas of valuable habitat and forage. Biolinks enable wildlife to move freely and safely and have access to the broader landscape. This is increasingly important in light of climate change, as the requirement of animals to move to more suitable areas becomes critical.

Creating biolinks involves developing corridors of native vegetation on public and private land and/or (where possible) removing barriers such as electrified fences to allow for wildlife movement. A biolink can also be created by developing patches of bushland that act like 'stepping stones' for wildlife, reducing the distances between individual habitat patches. Some actions taken to create biolinks include weeding, planting, strategic fencing to keep out stock and feral animals and the building of underpasses and overpasses at roads to enable safe passage of wildlife.

In a fragmented (partially cleared) landscape biolinks to assist movement of animals can be can created by developing either (a) corridors to provide a continuous connection between habitat patches; or (b) and (c) patches of bushland that act like 'stepping stones' for wildlife, reducing the distances between individual habitat patches.

**Clearing of trees, shrubs, and other plant growth areas for transmission line easements and access tracks will sever biolinks, resulting in permanent damage to, or loss of, significant plant and animal species from the area. Habitats are never able to recover to their original state because of the need to ensure ongoing accessibility to infrastructure for security, repairs, and maintenance.**

### Biodiversity Policy

The objective of transmission route planning should be to **avoid construction of easements through native parks, nature reserves and biolinks** to avoid further spread of invasive species and disease. Recommended measures to prevent and control impacts to native habitats include:

- Energy transmission lines should not be sited in or across native parks, nature reserves or biolinks
- Site transmission easements, access roads, lines, towers, and substations to avoid further impact on native habitat.
- Use of existing easements for transmission, and existing roads and tracks for construction and maintenance access.

# Conservation of Fauna

The Lerderderg and Werribee Gorge State Parks, renowned for their spectacular geological formations, are important areas for the conservation of native flora and fauna close to the residential areas of Bacchus Marsh. Critical biolinks have been established to connect these parks allowing wildlife to move freely and safely and have access to the broader landscape.

The Park Management Plan[5] explains how their scenic qualities and conservation values will be maintained, and how visitor impacts will be carefully managed. Although they are managed primarily for nature conservation purposes, the Parks offer many opportunities for visitors to enjoy the natural environment in remote and semi-remote settings or at established picnic and camping areas.

Both Parks offer panoramic views across the western volcanic plains to Melbourne and the You Yangs. The range of recreational opportunities in both Parks is complemented by outstanding views into scenic gorges.

The Lerderderg protects a diverse range of wildlife habitats from the riparian environment of the Lerderderg River, damp forest pockets and drier open woodlands to dry rocky outcrops along high ridges. The Atlas of Victorian Wildlife hold records in the Park for 125 native bird species, 28 native mammals, 21 reptiles and 16 amphibians. Several native fish species are also known to inhabit the Lerderderg River.

The regions rocky hills and deep valleys provides important habitats for raptors such as the Wedge-tailed Eagle, Peregrine Falcon and Powerful Owl in both Parks, and the Barking Owl in Lerderderg State Park.

Sulphur Crested Cockatoos, Black Cockatoos, White Knapped Honeyeaters, White Throat Tree Creepers, Crimson Rosellas, Gang – Gang Cockatoos, the Superb Lyrebird and Large Forest Owls are also to be found throughout the area.

Native mammals in the Park include the Wombat, Echidna, Common Ringtail Possum, Koala, Black Wallaby and Eastern Grey Kangaroo.

The Park also supports fauna species which are at or close to the western limit of their ranges, such as the Greater Glider, Mountain Brushtail Possum and Red-browed Treecreeper.

## Threatened Fauna

Nine fauna species found in the Park are regarded as threatened in Victoria[5] (appendix 2). Three of these, Powerful Owl, Common Bent wing Bat and Brush-tailed Phascogale, are listed under Schedule 2 of the Flora and Fauna Guarantee Act. The population status of the Mountain Dragon, Freshwater Blackfish and Mountain Galaxias is insufficiently known.

| COMMON NAME | STATUS |
|---|---|
| **Mammals** | |
| Common Bent-wing Bat | Vul, L |
| Brush-tailed Phascogale | Vul, L |
| **Birds** | |
| Black Falcon | End |
| Square-tailed Kite | End, N |
| Barking Owl | End, N |
| Powerful Owl | End, L |
| Swift Parrot | End, L |
| **Reptiles** | |
| Mountain Dragon | DD |
| **Fish** | |
| Freshwater Blackfish | DD |
| Mountain Galaxias | DD |

***Sources**: NRE database (1998a), CNR (1994a).*
***Status (NRE 1998)**:*

*DD Data deficient*
*End Endangered in Victoria*
*Vul Vulnerable in Victoria*
*L Listed under the Flora and Fauna Guarantee Act*
*N Nominated for listing under the Flora and Fauna Guarantee Act*

Based on an appraisal of records and potential and known habitats in the area, nine additional threatened fauna species are considered to have a moderate to high potential to occur directly within the Parks or surrounding areas. These species are: Swift Parrot, Curlew, Sandpiper, Australian Painted-snipe, Growling Grass Frog, Golden Sun Moth, Small Golden Moth, Spotted-tailed Quoll and Striped Legless Lizard.

## Management Strategies

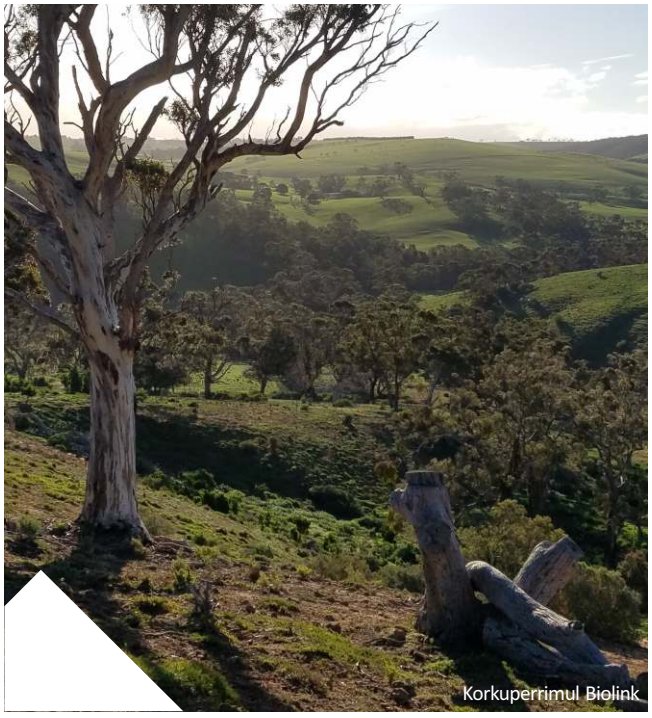
Fauna management is primarily achieved through the connection (biolinks), protection and maintenance of habitat, particularly the quality and diversity of vegetation. Specific management strategies have been developed for some fauna species listed under the Flora and Fauna Guarantee Act.

# Invasive Species and Disease

The introduction of exotic plants and animals has had significant consequences for Victoria's native animal and plant species. Many of these introductions have come through the legacy of European settlement and the associated acclimatisation of animals and plants, which have become pests and weeds. Increased globalisation and a changing climate also bring the risk of new threats.

Introduced plants and animals are a primary cause of biodiversity decline in all Victorian environments. Although Victoria has implemented some successful programs to control introduced species, more consistent, sustained and strategic management approaches are needed, along with better planning for biosecurity responses to new and emerging threats.

Human actions are the primary means of invasive species introductions. Transmission line construction causes disturbance of soil and vegetation through the movement of people and vehicles along the transmission easement and access roads. These activities can contribute to the spread of invasive species. Parts of plants, seeds, and root stocks can contaminate construction equipment and essentially "seed" invasive species wherever the vehicle travels. Infestation by invasive species can also occur during periodic transmission line maintenance activities especially if these activities include mowing and clearing of vegetation. Once introduced, invasive species will likely spread and impact adjacent properties with the appropriate habitat.


Korkuperrimul Biolink

**Phytophthora Cinnamomi (Cinnamon Fungus)** is a microscopic, soil-borne disease-causing organism that attacks and destroys plant root systems causing plants to die through lack of water and nutrients. Patches of dead or dying vegetation can indicate the presence of this silent killer and grass trees are particularly susceptible.

Cinnamon Fungus is listed in the top 100 of the world's most invasive species and is Victoria's most significant plant pathogen affecting both native ecosystems and the horticultural industry. The presence of Cinnamon Fungus threatens not only vegetation communities – it can alter the ecology of entire ecosystems.

Birds, insects, reptiles and mammals that depend on the original plant species for their survival also decline in numbers as shelter and food sources disappear.

The disease spreads naturally but is accelerated though the transport of infected soil and gravel by road-making machinery and other vehicles. Quarantine and vehicle hygiene to limit the spread of the disease can only be achieved through an up-to-date knowledge of its distribution and by restricting access to uninfected sites.

### Biodiversity Policy

The objective of transmission route planning should be to **avoid construction of easements through native parks, nature reserves and biolinks to avoid further spread of invasive species and disease**.
Recommended measures to prevent and control impacts to native habitats include:

- Energy transmission lines should not be sited in or across native parks, nature reserves or biolinks
- Site transmission easements, access roads, lines, towers, and substations to avoid further impact on native habitat.
- Use of existing easements for transmission, and existing roads and tracks for construction and maintenance access.

# Wedge-tailed Eagles

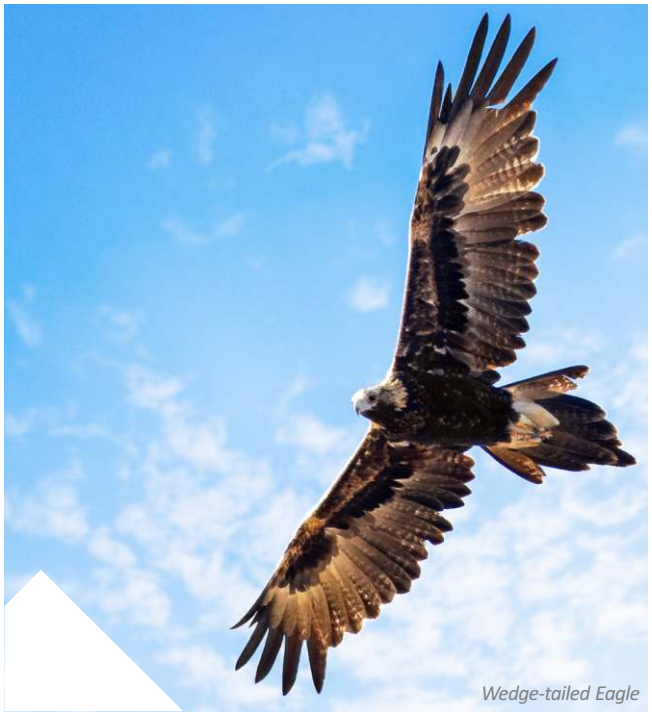
Wildlife is an important part of our environment and essential to the functioning and health of our ecosystems. Wildlife also has an intrinsic value at an individual and species level.

The conservation, welfare and sustainability of wildlife is under increasing pressure from threats such as loss and fragmentation of habitat, introduced pests such as foxes and cats, illegal take from the wild, wildlife trafficking, climate change and growing human populations. All activities involving wildlife must consider impacts on individual animal welfare and on sustainability of populations. *(DELWP)*

With a wingspan reaching more than two metres, the Wedge-tailed Eagle is Australia's largest bird of prey and one of the biggest eagles in the world. Nests are usually built in the tallest tree in the vicinity, commanding an impressive view of their territory. A pair may have up to 10 different nests within their territory, and will often use a different nest in different years. *(Bush Heritage Australia)*

## Habitat

Wedge-tailed Eagles build their nest in a prominent location with a good view of the surrounding countryside. It may be built in either a live or dead tree, but usually the tallest one in the territory. Nests are usually 2.5 km - 4 km apart. If conditions are particularly good, the distances apart may be less than 1 km because the birds require smaller areas to find sufficient food. Established breeding pairs are territorial and live in the one area throughout the year.



*Wedge-tailed Eagle*

## Threats to Wedge-tailed Eagles

In the early to mid 1900s, farmers believed that Wedge-tailed Eagles killed sheep and lambs. A bounty was paid for their destruction, leading to the death of tens of thousands of eagles. It's now understood that eagles only attack sick or dead lambs, and have little real effect on the sheep industry.

Now, the main threats to Wedge-tailed Eagles are **tree-clearing** and the loss of nesting sites; secondary poisoning (eating animals that have died from pesticides and baits); **habitat fragmentation**; **collision with overhead wires**, fences, and with vehicles while eating carcasses on the road. *(Bush Heritage Australia)*

**High voltage transmission lines** are known killers of wedge-tailed eagles and other raptors. In Tasmania alone, 29 wedged-tail eagles, were killed through strikes to electricity infrastructure in 2017-2018.

The number of wedge-tailed eagles dying after coming into contact with electricity network infrastructure in Tasmania is up by more than 140 percent from 2017, TasNetworks' annual report reveals.

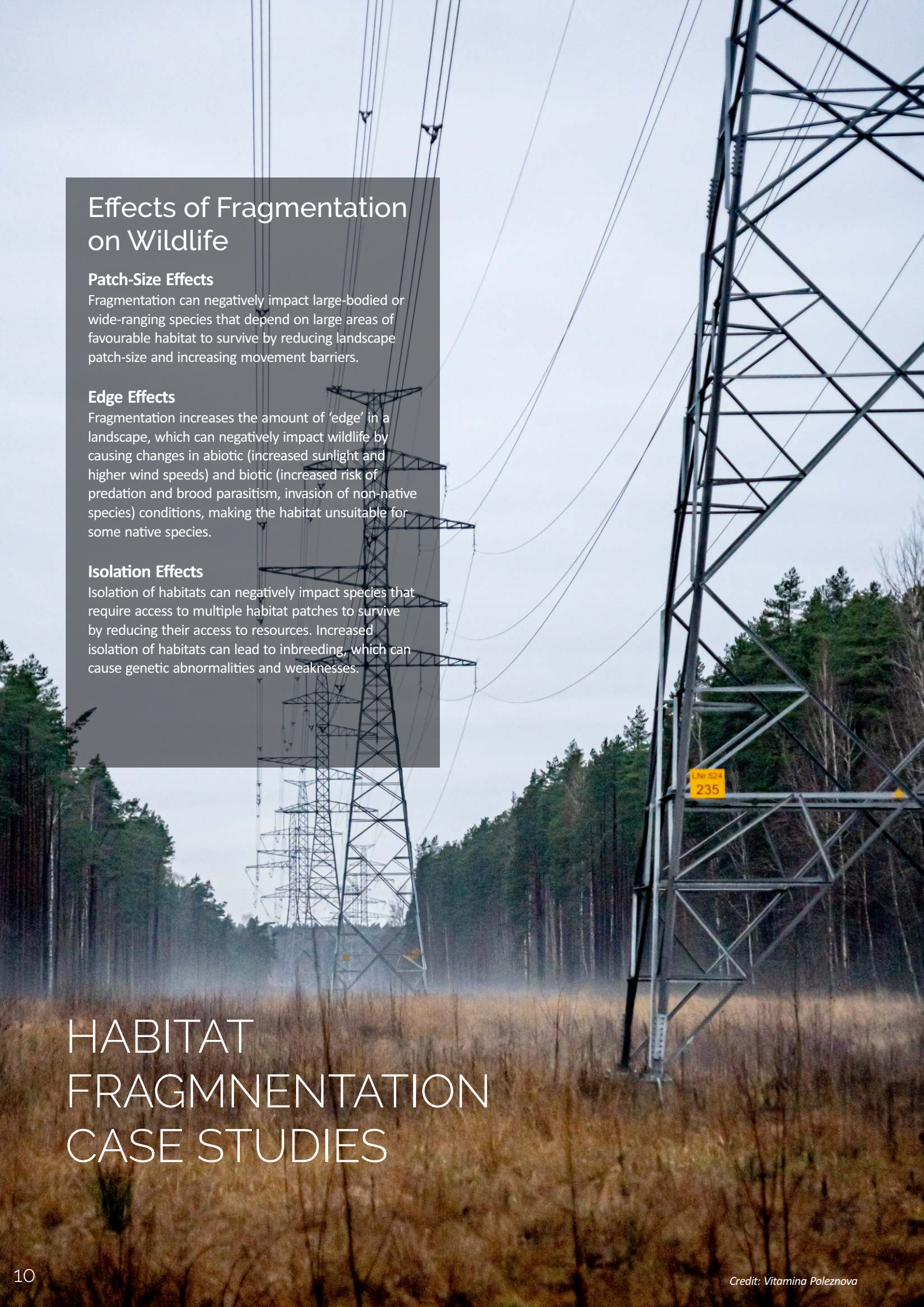
**Key points from the report:**

- Twenty-nine wedge-tailed eagles were killed in 2017-18 — a dramatic rise from the 12 killed the previous year
- The adult population in Tasmania is estimated to be about 700 (350 breeding pairs)

Transmission line construction and maintenance activities can disturb nest sites and breeding from June to October. Clearing of vegetation for access tracks and line easements can also impact habitat and den sites for the other species.

### Biodiversity Policy

The objective of transmission route planning should be to **avoid routing, construction of easements or siting of transmission infrastructure** in or near known Wedge Tailed Eagle nesting sites or habitats.




## Effects of Fragmentation on Wildlife

### Patch-Size Effects

Fragmentation can negatively impact large-bodied or wide-ranging species that depend on large areas of favourable habitat to survive by reducing landscape patch-size and increasing movement barriers.

### Edge Effects

Fragmentation increases the amount of 'edge' in a landscape, which can negatively impact wildlife by causing changes in abiotic (increased sunlight and higher wind speeds) and biotic (increased risk of predation and brood parasitism, invasion of non-native species) conditions, making the habitat unsuitable for some native species.

### Isolation Effects

Isolation of habitats can negatively impact species that require access to multiple habitat patches to survive by reducing their access to resources. Increased isolation of habitats can lead to inbreeding, which can cause genetic abnormalities and weaknesses.

# HABITAT FRAGMNENTATION CASE STUDIES



*Credit: Vitamina Poleznova*

These case studies highlight an urgent need for energy network operators and related stakeholders to adopt and enforce policies that serve to protect and enhance our environment and prevent further decline of our biodiversity.

## Case Study 1:
# Biolink Fragmentation by the Western Victoria Transmission Network Project (WVTNP)

The Moorabool Landcare Network[4] biolinks form key connectors between previously fragmented habitats and the highly biodiverse forests of the Wombat-Lerderderg block and Victorian Central Highlands. This region as a whole can be considered an 'ecological system' with over half of its species seasonally migrating along it or through parts of it, and many species extending along its range.

Re-connecting important natural islands to larger native reserves provides our fauna with safe places to feed, breed migrate and maintain genetic diversity. Connection of habitats is key to the long-term health of our ecosystems and the species they contain.

Most Parks and Reserves in the Moorabool Shire are isolated 'islands' surrounded by a sea of farm land, industry, roadways and increasing urbanisation. Many species will not travel between isolated habitat patches when the area in-between has been cleared or fragmented.

'Connectivity conservation' is an approach that addresses conservation on a large scale by restoring and reconnecting habitat, across land tenures, that benefits both communities and nature.

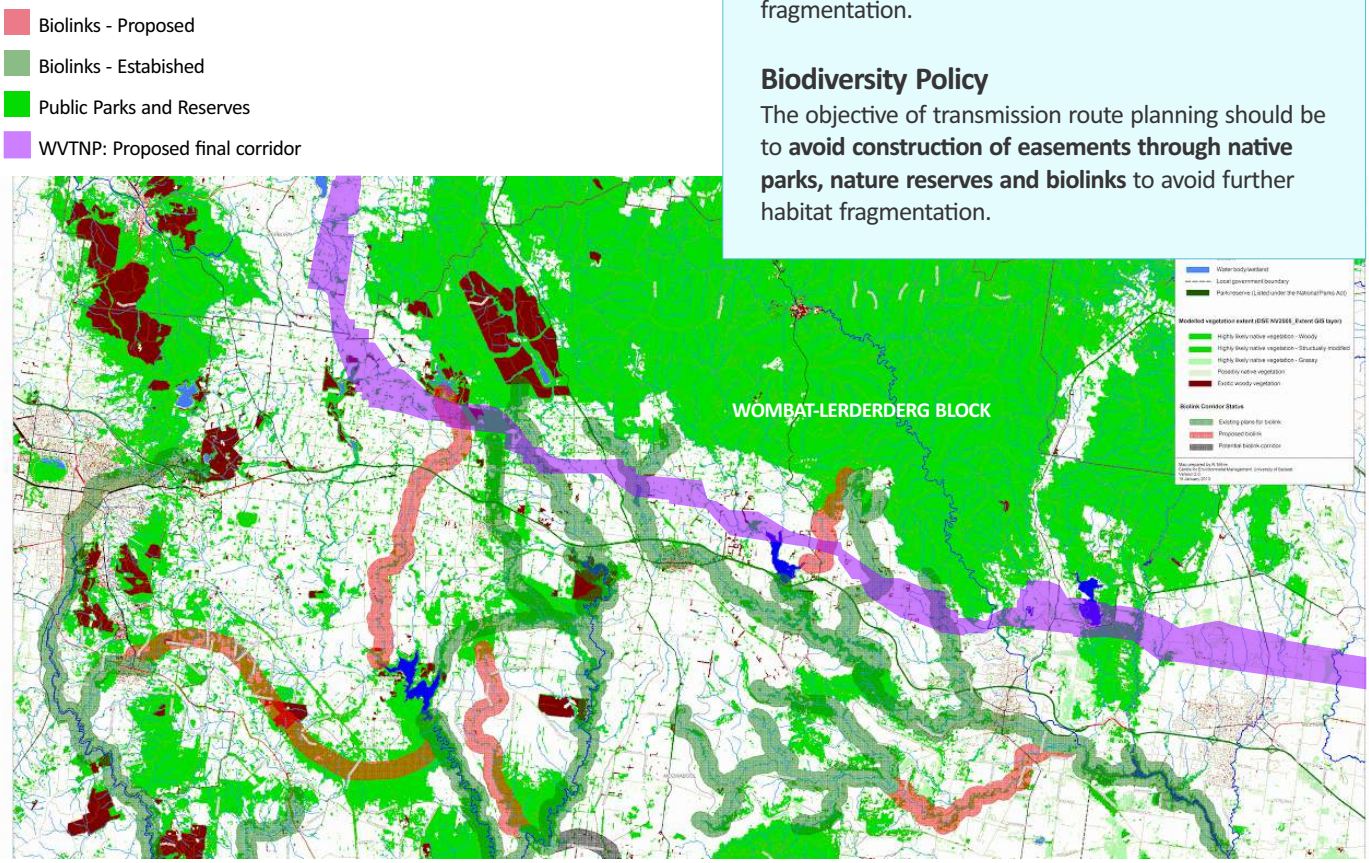
### Western Victoria Transmission Network Project (WVTNP)

On 30 June 2021, the proponent for the WVTNP[2] announced a final preferred transmission corridor (shown below). This proposed corridor **severely fragments** several important native biolinks that connect smaller blocks of native habitat to the larger Wombat-Lerderderg National Park.

This proposed corridor reverses the important work of the Moorabool Landcare Network and directly contravenes the Victorian Government Biodiversity 2037[1] plan, the purpose of which is to preserve and enhance biodiversity and avoid further habitat fragmentation.

### Biodiversity Policy

The objective of transmission route planning should be to **avoid construction of easements through native parks, nature reserves and biolinks** to avoid further habitat fragmentation.




*Map: Moorabool Landcare Network*

These case studies highlight an urgent need for energy network operators and related stakeholders to adopt and enforce policies that serve to protect and enhance our environment and prevent further decline of our biodiversity.

## Case Study 2:
# Lerderderg River Nature Reserve and the WVTNP

On June 2021, the Victorian government announced the creation of three new national parks and a series of reserves in the state's central west in an attempt to protect and preserve some of the region's most precious parkland areas. The largest of these will bring together the Lerderderg State Park and the Wombat State Forest to create a new park covering more than 44,000 hectares between Daylesford and Bacchus Marsh.

The **D17: Lerderderg River Nature Reserve**, an area of 4.7 hectares along the Lerderderg River (shown on map A), was also accepted. This new reserve provides an essential biolink connecting the Lerderderg and Werribee Rivers.

### Western Victoria Transmission Network Project (WVTNP)

On 30 June 2021, the proponent for the WVTNP[2] announced a final preferred transmission corridor. This corridor wraps around the southern and western boundaries of the new Wombat–Lerderderg National Park and substantially fragments the 'government accepted' **D17 Lerderderg River Nature Reserve**.[3](p.39)

This fragmentation directly contravenes important recommendations of the Victorian Environmental Assessment Council, which were accepted by the Victorian Government, that ***energy transmission lines not be sited in or across national parks, conservation parks or nature reserves*** to avoid further habitat fragmentation.

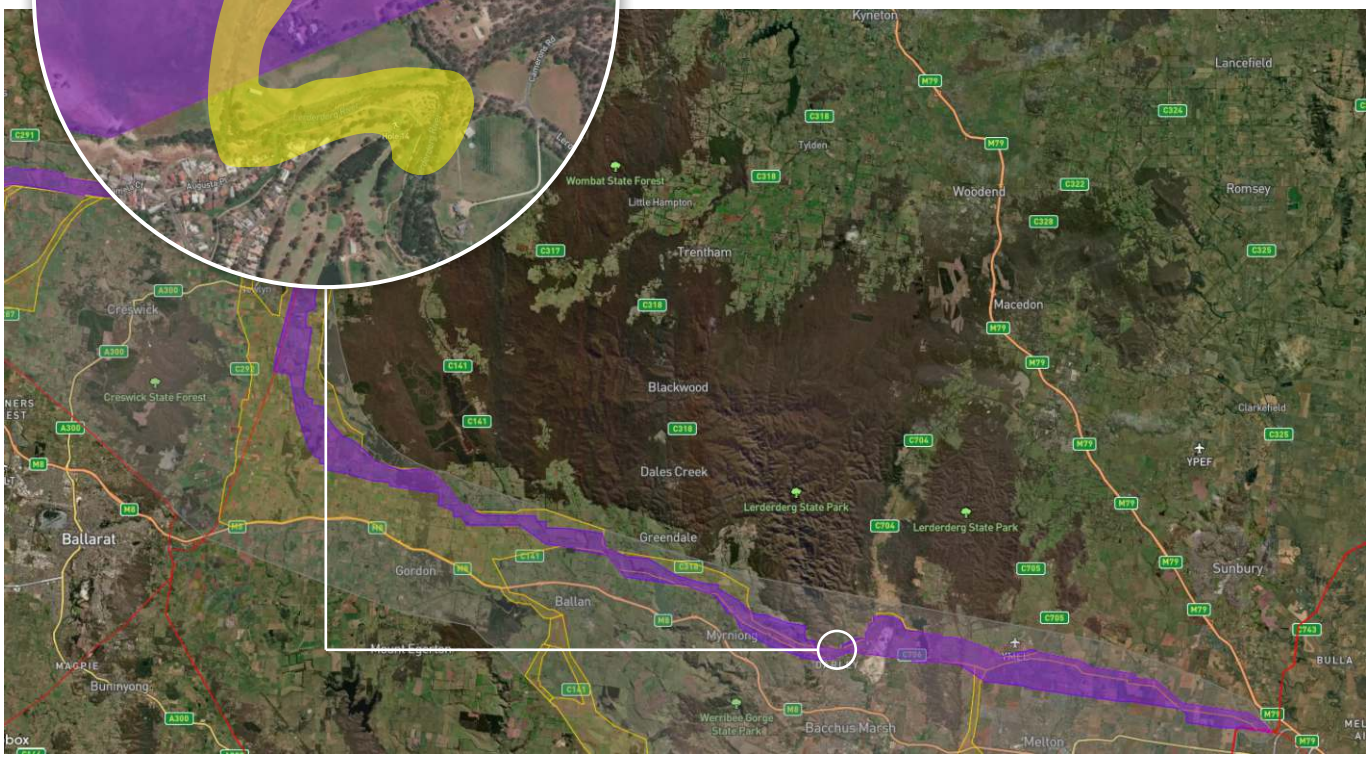
### Biodiversity Policy

The objective of transmission route planning should be to **avoid construction of easements through native parks, nature reserves and biolinks** to avoid further habitat fragmentation.

*Map A*

D17: Lerderderg River Nature Reserve

WVTNP: Proposed final corridor




*Map: AusNet Services*

These case studies highlight an urgent need for energy network operators and related stakeholders to adopt and enforce policies that serve to protect and enhance our environment and prevent further decline of our biodiversity.

## Case Study 3:
# WVTNP Transmission Line Easement

The Western Victoria Transmission Network Project (WVTNP) proposes a new transmission line starting at Bulgana, near Stawell in Victoria's west, and covering approximately 190km to Sydenham in Melbourne's north-west.

The project, being delivered by AusNet Services, includes:

- A new overhead double circuit 220kV line between the existing Bulgana Terminal Station to a new terminal station north of Ballarat.
- A new overhead double circuit 500kV high voltage line from the new terminal station north of Ballarat to a new terminal station at North Sydenham.

The 500kV double circuit transmission line will be designed with a minimum clearance for the lines of 15m above the ground. The 220kV double circuit transmission line will be designed with a minimum clearance for the line of 9.2m above the ground.

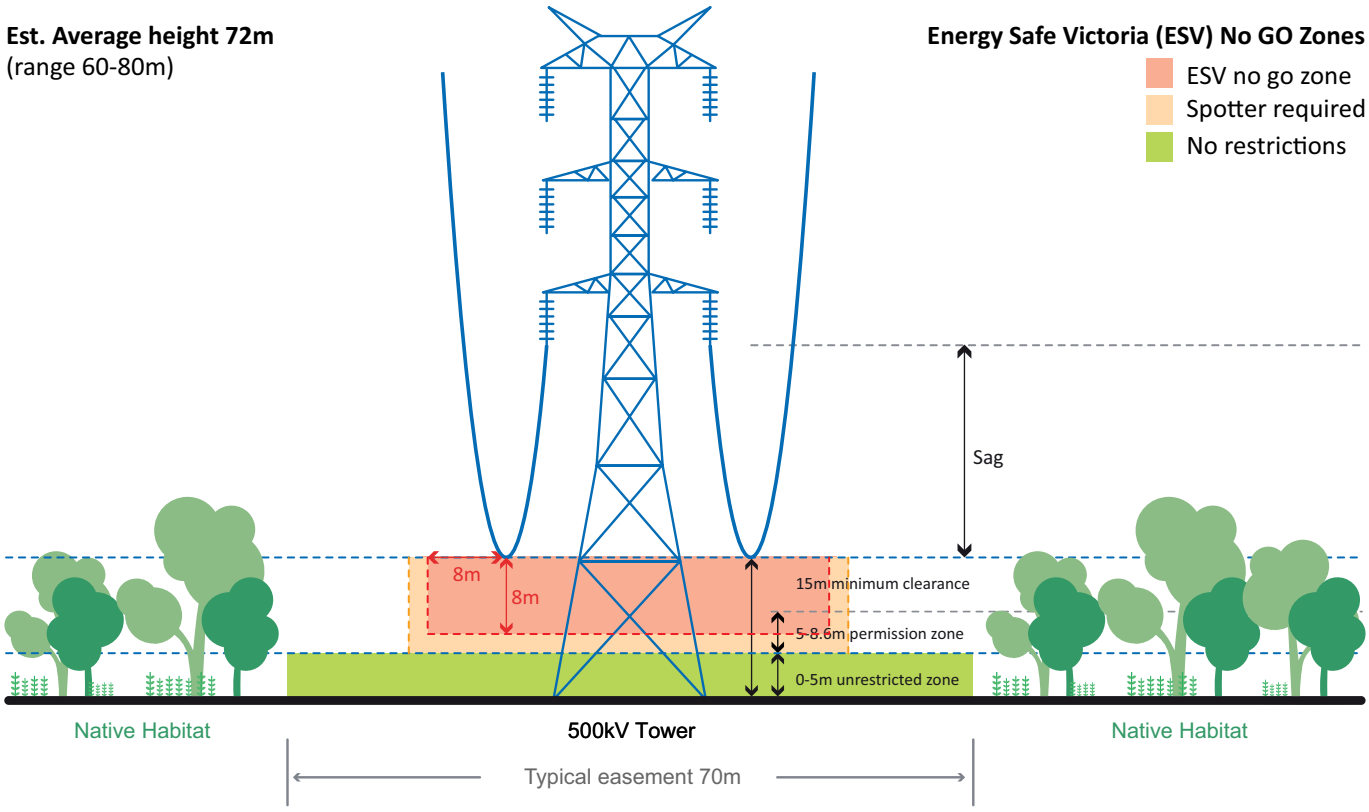
Transmission line easements will be cleared of trees, shrubs, and other plant growth for construction, then continually maintained throughout the life of the project.

In all easements, planting trees and shrubs should be scattered or clumped with no more than 10% density of cover over the easement area.

Within the within 500kV easement, mature tree and shrub growth of 5m in height is permitted. For vegetation between 5m to 8.6m in height an AusNet Services safety assessment is required. Maximum height cannot exceed 8.6m.

Within the within 220kV easement, mature tree and shrub growth of 4.6m in height is permitted, subject to an AusNet Services safety assessment prior to planting. Maximum height cannot exceed 4.6m.

> Habitats in these areas are never able to recover to their original state because of the need to ensure ongoing accessibility to infrastructure for security, repairs, and maintenance. This generally results in permanent habitat fragmentation, damage to, or loss of, significant plant and animal species from the area.




*Transmission Easement Information: AusNet Services*

# References


**1. Protecting Victoria's Environment - Biodiversity 2037**
https://www.environment.vic.gov.au/__data/assets/pdf_file/0022/51259/Protecting-Victorias-Environment-Biodiversity-2037.pdf

**2. Western Victoria Transmission Network Project (WVTNP)**
https://www.westvictnp.com.au/area-of-interest/maps/single-transmission-corridor

**3. Victorian Government response to VEAC's Central West investigation**
https://www.forestsandreserves.vic.gov.au/__data/assets/pdf_file/0041/529889/Victorian-Government-Response-to-VEACs-Central-West-Investigation.pdf

**4. Moorabool Landcare Network Biolinks**
https://www.mln.org.au/projects/biolinks

**5. Lerderderg State Park and Werribee Gorge State Park Management Plan**
https://www.parks.vic.gov.au/-/media/813c97523e2a4c07af7c3a2ef1d38416.pdf

**Daylesford - Wombat Focus landscape**
https://www.environment.vic.gov.au/__data/assets/word_doc/0027/509706/Daylesford-Wombat.docx
https://www.environment.vic.gov.au/biodiversity/working-together-for-biodiversity

**What is special about Central Victoria - Biolinks Alliance**
https://biolinksalliance.org.au/what-is-special-about-central-victoria

**South West Landscape Assessment Study - The Uplands**
https://www.planning.vic.gov.au/__data/assets/pdf_file/0025/94831/2-The-Uplands-Part-1.pdf

**Biodiversity Response Planning - Working together for biodiversity**
https://www.environment.vic.gov.au/biodiversity/working-together-for-biodiversity

**Pentland Hills Landcare Group**
https://www.mln.org.au/landcare-groups/pentland-hills-landcare-group

**Bullengarook Landcare**
https://www.mln.org.au/landcare-groups/bullengarook-landcare

**Brisbane Ranges Landcare**
https://www.mln.org.au/landcare-groups/brisbane-ranges-landcare

**Coimadai Landcare**
https://www.mln.org.au/landcare-groups/coimadai-landcare

**Greendale Wombat Landcare**
https://www.mln.org.au/landcare-groups/greendale-wombat-landcare

**Rowsley Landcare**
https://www.mln.org.au/landcare-groups/rowsley-landcare

**Parwan Landcare**
https://www.mln.org.au/landcare-groups/parwan-landcare

**Western Victorian Transmission Network Project - EPBC Act referral**
https://www.moorabool.vic.gov.au/files/assets/public/orphans/documents/2020-8741-referral_1.pdf

**Linkages in the Landscape; The Role of Corridors and Connectivity in Wildlife Conservation**
https://www.researchgate.net/publication/268036809_Linkages_in_the_Landscape_The_Role_of_Corridors_and_Connectivity_in_Wildlife_Conservation

**Flora and Fauna Guarantee Act 1988 - No. 169 - Swift Parrot**
https://www.environment.vic.gov.au/__data/assets/pdf_file/0027/32895/Swift_Parrot_Lathamus_discolor.pdf

**Living and working with the WVTNP summary guidelines**
https://www.westvictnp.com.au/62122/widgets/312640/documents/207107

# POWERFUL OWL

*Credit: JJ Harrison*

Energy Grid
ALLIANCE

Energy Grid Alliance was established with the purpose of engaging with energy transmission companies, industry regulators, market operators, relevant peak bodies, government and communities to establish best planning practices for new energy transmission infrastructure and to inform on the benefits of working with communities to acquire and maintain social license.

info@energygridalliance.com.au
www.energygridalliance.com.au