

# Landscape Conservation Action Plans – Parks Victoria planning for conservation

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## Abstract

Conservation Action Planning, originally developed by the Nature Conservancy, is in widespread use across Australia and internationally. Parks Victoria is also utilising the framework to develop and implement Conservation Action Plans (CAP) by clearly identifying conservation priorities and specifying measurable outcomes across the landscapes.

Parks Victoria recognises sixteen landscapes across the State for which CAP are progressively being developed. The Wilson Promontory Landscape CAP was the first of these to be published in 2017, and in 2018 it is anticipated that several more plans will be published, including for the Wimmera and the Mallee Park Landscapes.

For Parks Victoria, our primary conservation assets are generally vegetation types (habitat), but may be other significant areas (eg. Ramsar sites). Within these assets we recognise nested assets, such as Malleefowl, that are important considerations in our management. Through the process we clarify the current and desired condition of assets, their threats, and actions to address the threats. Monitoring and evaluation is also included to enable success of the actions to be measured, and learnings to be incorporated in future planning.

CAP provides a structured approach to ensure our conservation efforts are targeted and prioritised to achieve the best outcomes for ecosystems and species. This planning helps us to direct resources wisely to protect Victoria's biodiversity. The development of the Wimmera and the Mallee Landscape Conservation Action Plans is critical for the future management of their parks and reserves. These hold significant high value ecosystems which have been the focus of landscape-scale environmental management programs for many years.

## Introduction

Parks Victoria manages over 4 million hectares of land, including over 100 national parks. Victoria's parks are home to more than 4,300 native plants and around 1,000 native animal species. Many species are endemic to Victoria, occurring nowhere else in the world. A clear process for planning and prioritising resource allocation is critical to protect Victoria's biodiversity.

Parks Victoria has identified sixteen geographic landscapes (Figure 1) across the state, classified based on a combination of ecological attributes, land forms and administrative boundaries, upon which to base management planning. Conservation Action Plans are progressively being developed for each of these landscapes. Where park management plans are currently being developed, conservation planning is incorporated into the park management planning process. The Wilson's Promontory Conservation Action Plan was the first to be developed and released in 2017.

Parks Victoria has drawn from the *Conservation Action Planning Handbook* (TNC, 2007) and the *Open Standards for the Practice of Conservation* (CMP, 2013) in the development of its conservation action planning process. Conservation action planning is a framework that focuses on developing, implementing and evaluating approaches that address conservation priorities and achieve expected conservation outcomes. It is suitable for planning conservation projects with joint management partners and in

partnership with all stakeholders for land managed by Parks Victoria and it is consistent with the approach used by numerous other neighbouring conservation land managers, including Trust for Nature, Greening Australia, Bush Heritage, Landcare groups and catchment management authorities.

Figure 1. Parks Victoria’s 16 park landscapes, highlighting the two landscapes Mallee and Wimmera that are summarised in this paper.

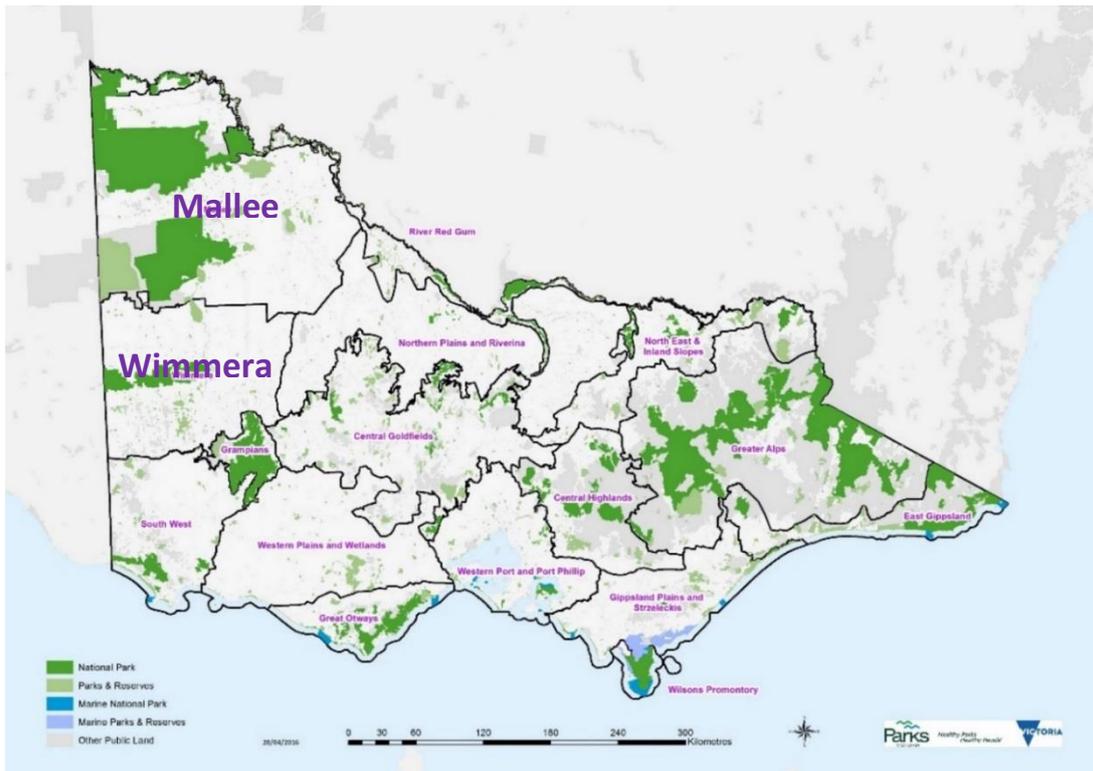


Figure 2. Parks Victoria uses a ten-step process for conservation action planning, the Plan covers the first seven steps in the process



Figure 2 illustrates Parks Victoria's cyclical ten-step conservation action planning process. It provides a structured process for identifying the key ecological assets in a landscape, clarifying their current and desired condition, assessing threats and developing prioritised actions into strategies to address the threats. For each strategy, component actions and monitoring indicators have been developed, and will be used to track the achievement of threat mitigation objectives and conservation outcomes defined for each of the assets. In this way monitoring and evaluation are built in to enable success of the management actions to be measured, and learnings to be incorporated in future planning through adaptive management.

A key component of the plans is utilising local knowledge in the planning, production and delivery of conservation action plans. Conservation experience, scientific understanding, local environmental knowledge, Traditional Ecological Knowledge and strategic thinking are all key components of successful conservation action planning. Through workshops, Parks Victoria identifies conservation strategies that target clearly defined elements of the natural environment, the threats to those assets, and how success can be measured. The emphasis is on identifying conservation strategies that tackle threats that pose greatest risk to priority conservation assets and key ecological attributes and that may affect our ability to achieve the expected conservation outcomes.

The Conservation Action Plans are implemented by regional teams in partnership with Traditional Owners, and with detailed planning and design assisted by restoration partners, researchers, other agencies, Friends groups and volunteers.

Parks Victoria's Conservation Action Plans define and prioritise conservation strategies for Park Landscapes over a five-year period, and broadly describe the expected outcomes of these strategies for a 15-year period. The plan outlines what can be realistically achieved to tackle the threats that pose the most risk to conservation assets. The Conservation Action Plan will support Parks Victoria in achieving our vision to:

**Increase the resilience of natural assets in the Park Landscape and maintain ecosystem services in the face of climate change and other stressors.**

Parks Victoria has adopted the conservation action planning process in response to recommendations from the Victorian Auditor General's Office on the need for more clearly stated conservation targets and outcome-based measures. The recommendations arose from reviews of Parks Victoria's management of marine protected areas and management of pest plants and animals. Being able to clearly state why and how public monies are being spent in conservation, and being able to demonstrate the results, is critical in engendering ongoing trust and ensuring forward funding. Conservation Action Plans provide a line of sight between investment and conservation outcomes. Clear priorities and measures also aid in strengthening our partnerships with other groups and in maintaining the enthusiasm of volunteers.

The following sections summarise the Conservation Action Plans being developed for the Wimmera Park Landscape, and for the Mallee Parks Landscape. In both of these landscapes, Malleefowl have been recognised as an important nested asset of the Mallee ecosystems.

## **Wimmera Parks Landscape Conservation Action Plan (summary)**

The Wimmera Park Landscape Conservation Action Plan was released in September 2018 and is available from the Parks Victoria website ([www.parkweb.vic.gov.au](http://www.parkweb.vic.gov.au)).

The Wimmera Parks Landscape includes dune systems supporting heathlands and mallee, dry forests and woodlands, and river and wetlands connecting the landscape. The reserve system creates stepping-stones across the landscape, connected by permanent and ephemeral waterways.

Parks and reserves include Little Desert National Park, Lake Hindmarsh Lake Reserve, Jilpanger Nature Conservation Reserve, Mount Arapiles-Tooan State Park, Tallageira Nature Conservation Reserve, Wimmera River Heritage Area Park, and 355 other reserves managed by Parks Victoria

The area is significant to the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagulk peoples, who are traditionally and culturally associated with the area. They are represented by the Barengi Gadjin Land Council Aboriginal Corporation who have a co-operative management agreement with the State of Victoria.

### ***Conservation assets and condition***

Six ecosystems have been identified as conservation assets in the Wimmera Parks Landscape. Within each of these assets a range of nested assets, such as threatened species and important ecological assemblages, have also been identified, including the Threatened Mallee Birds.

The plan identifies a range of key ecological attributes (components that are believed to best reflect the health of the asset). The plan describes their current condition (very good, good, fair, poor) and the trend in condition (improving, stable, declining), and sets the anticipated future condition of each key ecological attribute. In this classification system, 'very good' defines attributes that are functioning at an ecologically desirable status and require little human intervention to maintain or improve health, whilst at the opposite end of the spectrum 'poor' attributes, if they remain in their condition for an extended period of time will make restoration or preventing extinction practically impossible. The overall condition of each Wimmera asset was assessed as:

- Heathlands and Mallee habitats are in fair condition.
- Riverine Forests and Woodland and the Dry Forest and Woodland habitats are generally in fair condition.
- Freshwater Wetlands and Saline Wetlands habitats are in fair condition.

### ***Threats***

Ten threats to the conservation assets in the Park Landscape are identified in the plan. Five of these are considered key threats and are therefore the priority threats considered in this plan. They are:

- Total grazing and browsing pressure (by introduced and native animals).
- Predation by introduced species (foxes and feral cats).
- Fire regimes and management.
- Weed invasion.
- Alterations to natural hydrology.

### ***Conservation strategies***

The following conservation strategies will be undertaken to tackle these threats. They have been selected for their impact, feasibility and cost in achieving the desired conservation.

- **Establish collaborative partnerships to support the sustained management and connectivity of assets** — implement working partnerships between Parks Victoria and restoration partners to improve the condition of assets across public and private land tenures to facilitate connected management across the fragmented landscape.
- **Management of total grazing pressure** — in partnerships with neighbours encourage species and structural diversity of native flora and habitats by reducing the total grazing pressure across the landscape.
- **Introduced predator control** — to increase the distribution and occurrence of predation-sensitive native fauna at high priority locations.
- **Fire management for healthy assets** — improve the structural diversity and distribution of vegetation growth stages in the fire associated vegetation communities, and protect values in ecosystems that are sensitive to inappropriate fire management.

- **Environmental weed management using a biosecurity approach** — to effectively manage priority weed species at relevant locations in partnership with neighbours, to encourage species and structural diversity of native flora and habitats.
- **Management of water dependent ecosystems** — to implement management interventions that will create ecosystems more resilient to the cumulative impacts of changes to natural hydrology and the effect of climate change.

## **Mallee Parks Landscape Conservation Action Plan (summary)**

The Mallee Park Landscape Conservation Action Plan is expected to be released in late 2018.

The Mallee Parks Landscape includes significant areas of remote wilderness comprising mallee and heathland on sandy dunes, with saline soaks and remnant cypress pine and buloke woodlands in lower parts of the landscape, connecting with ephemeral inland riverine and lake systems, including the Lake Albacutya Ramsar site.

Parks and reserves include Murray-Sunset National Park (*non-riverine part*), Wyperfeld National Park, Big Desert Wilderness Park, Hattah-Kulkyne National Park (*non-riverine part*), Bronzewing Flora and Fauna Reserve, Annuello Flora and Fauna Reserve, Wathe Flora and Fauna Reserve, and 329 other reserves managed by Parks Victoria.

The landscape is significant to several Traditional Owner groups who are traditionally and culturally associated with various areas. The Barengi Gadjin Land Council Aboriginal Corporation have a co-operative management agreement with the State of Victoria in the southern Mallee.

### ***Conservation assets and condition***

Eight conservation assets have been identified in the Mallee Park Landscape: Mallee Triodia, Heathlands and Mallee Heathlands, Sunset Plains and Swales, Lowan Broombush and Swales, Semi-arid Woodland, Inland Saline Soaks, Inland Riverine Forests, and Albacutya Ramsar.

Within each of these, a range of nested assets have also been identified, including threatened species and important ecological assemblages, including the Threatened Mallee Birds.

The plan identifies a range of key ecological attributes (components that are believed to best reflect the health of the asset). The plan describes their current condition (very good, good, fair, poor) and the trend in condition (improving, stable, declining), and sets the anticipated future condition of each key ecological attribute. In this classification system, 'very good' defines attributes that are functioning at an ecologically desirable status and require little human intervention to maintain or improve health, whilst at the opposite end of the spectrum 'poor' attributes, if they remain in their condition for an extended period of time will make restoration or preventing extinction practically impossible. The overall condition of each Mallee asset was assessed as:

- Mallee Triodia, Sunset Plains and Swales, and the Inland Saline Soak assets are in good condition.
- Heathlands and Mallee Heathlands, Lowan Broombush and Swales, Semi-Arid Woodlands, and Inland Riverine Forest assets are in fair condition
- Albacutya Ramsar asset is in poor condition

The desired trends in condition are mostly stable or improving. The desired future status of most assets is good, but is dependent on the implementation of all the listed strategies. The exceptions are the Inland Riverine Forests and Albacutya Ramsar assets, for which the desired future status reflects that the lack of riverine flows and continuing dry conditions will not improve these assets.

## Threats

Six key threats to the conservation assets in the Park Landscape are described in the plan, they are:

- Habitat degradation
- Inappropriate fire regimes and fire management activities
- Weed invasion
- Predation by introduced species (foxes, feral cats).
- Total grazing, browsing, trampling and wallowing – introduced and over-abundant native herbivores.
- Human-induced competitive disadvantage limiting threatened species.

## Conservation strategies

The following strategies will be implemented to tackle the threats. They have been selected for their likely impact, feasibility and cost-effectiveness in achieving the desired conservation outcomes. For each strategy, a results chain has been developed to help guide implementation and monitoring indicators. These chains test the ability of Parks Victoria management to achieve the conservation outcomes defined for each of the assets.

- **Collaborative working on country with Traditional Owners, special interest groups, and researchers** — implement working partnerships that support long-term engagement in management programs and facilitate good adaptive management to improve the condition of assets.
- **Management of total grazing pressure** — support native flora species to flourish and improve structural diversity by managing the total grazing pressure of rabbits, goats and kangaroos.
- **Rangeland restoration** — increase habitat quality and canopy extent by supplementing natural regeneration through revegetation of semi-arid woodlands.
- **Fire management for healthy assets** — improve the structural diversity and distribution of vegetation growth stages, and protect nested assets that are sensitive to inappropriate fire management.
- **Environmental weed management using a biosecurity approach** — effectively manage priority weed species at relevant locations in partnership with neighbours, to protect species and improve structural diversity of native flora and habitats.
- **Introduced predator control to support resilient native fauna populations** — effectively manage predators at high priority locations to support susceptible species recruitment and movement.
- **Reintroduction of locally extinct species** — improve ecosystem functioning by reintroducing locally extinct native species that can help restore ecological processes, including soil disturbance (digging, burrowing), seed and fungi dispersal, and predation.
- **Reducing visitor impacts on natural and cultural assets** — maintain biophysical and aesthetic naturalness by limiting the impacts of illegal and legal recreational activities.

## References

- CMP 2013. *Open Standards for the Practice of Conservation*. The Conservation Measures Partnership, <<http://cmp-openstandards.org>>
- Parks Victoria 2017. *Conservation Action Plan for Parks and Reserves Managed by Parks Victoria. Wilsons Promontory*. Parks Victoria: Melbourne, Australia.
- Parks Victoria 2018. *Conservation Action Plan for Parks and Reserves Managed by Parks Victoria. Wimmera*. Parks Victoria: Melbourne, Australia.
- Parks Victoria *in prep*. *Conservation Action Plan for Parks and Reserves Managed by Parks Victoria. Mallee*. Parks Victoria: Melbourne, Australia.
- TNC 2007. *Conservation Action Planning Handbook: Developing Strategies, Taking Action and Measuring Success at Any Scale*. The Nature Conservancy, Arlington, VA.