

Wimmera Biodiversity Action Plan

Prepared by: **Wimmera Catchment Management Authority** 24 Darlot St | Horsham VIC 3400

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Report prepared by:

Wimmera CMA

Authors:

Ben Holmes
Jacqui Norris
Tony Baker

Abbreviations

Action Plan

Wimmera Biodiversity
Action Plan

Biodiversity 2037

Protecting Victoria's
Environment –
Biodiversity 2037

BRP Biodiversity Response
Planning

CMA Catchment
Management Authority

DELWP
Department of
Environment, Land,
Water and Planning

FFG Act
*Flora and Fauna
Guarantee Act 1988*

RCS *Regional Catchment
Strategy*

SMP *Strategic Management
Prospects*

Acknowledgements

We acknowledge the Traditional Owners and other Aboriginal and Torres Strait Islander Peoples across the Wimmera and pay respect to Elders past, present and emerging.

Representatives from the Department of Environment, Land, Water and Planning, Parks Victoria, Agriculture Victoria, Trust for Nature, Landcare and Wimmera biodiversity stakeholder organisations and community groups have assisted in the preparation of this *Action Plan*.

Wimmera Catchment

Management Authority

www.wcma.vic.gov.au

24 Darlot Street
Horsham VIC 3400
PO Box 479 Horsham VIC
3402

Telephone 03 5382 1544

Facsimile 03 5382 6076

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Introduction

Purpose

The *Wimmera Biodiversity Action Plan's* (*Action Plan*) purpose is to set out how the Wimmera could contribute to achieving:

- The region's desired outcomes for biodiversity set out in the *Wimmera Regional Catchment Strategy 2021-27* (RCS),⁽¹⁾ and
- Regional targets under the Victorian Government's *Protecting Victoria's Environment - Biodiversity 2037* plan (*Biodiversity 2037*).⁽²⁾

These purposes may be complementary in many instances: some actions to achieve the RCS's desired outcomes may also contribute to *Biodiversity 2037's* targets and vice versa.

The *Wimmera Biodiversity Action Plan* represents a first step in identifying and prioritising projects to conserve the Wimmera's biodiversity. This *Action Plan* seeks to bring together the highest priority landscapes, species and ecological communities to drive management actions in the highest priority locations. Funding and implementation of these management actions will contribute to achieving *Biodiversity 2037's* targets and the *Wimmera Regional Catchment Strategy's* outcomes.

Background

To ensure consistency with *Biodiversity 2037's* targets, this *Action Plan* includes a method for prioritising projects that is based on information developed:

- In the Department of Environment, Land, Water and Planning's (DELWP) *Strategic Management Prospects* tool,⁽³⁾ and
- Through Biodiversity Response Planning (BRP) led by DELWP in the Wimmera during 2020 and 2021.⁽⁴⁾ This includes knowledge and views contributed by regional biodiversity stakeholders during a series of workshops.

Some of this data is incomplete or has since been superseded by updates in data. This *Action Plan* was also developed in a short time frame with minimal resourcing. It should be viewed as a first version with updates and improvements to be made once funding is available.

Action: Seek funding to renew this *Action Plan* with up-to-date information and stakeholder contributions.

What's included in this Action Plan

In summary, the *Wimmera Biodiversity Action Plan* includes:

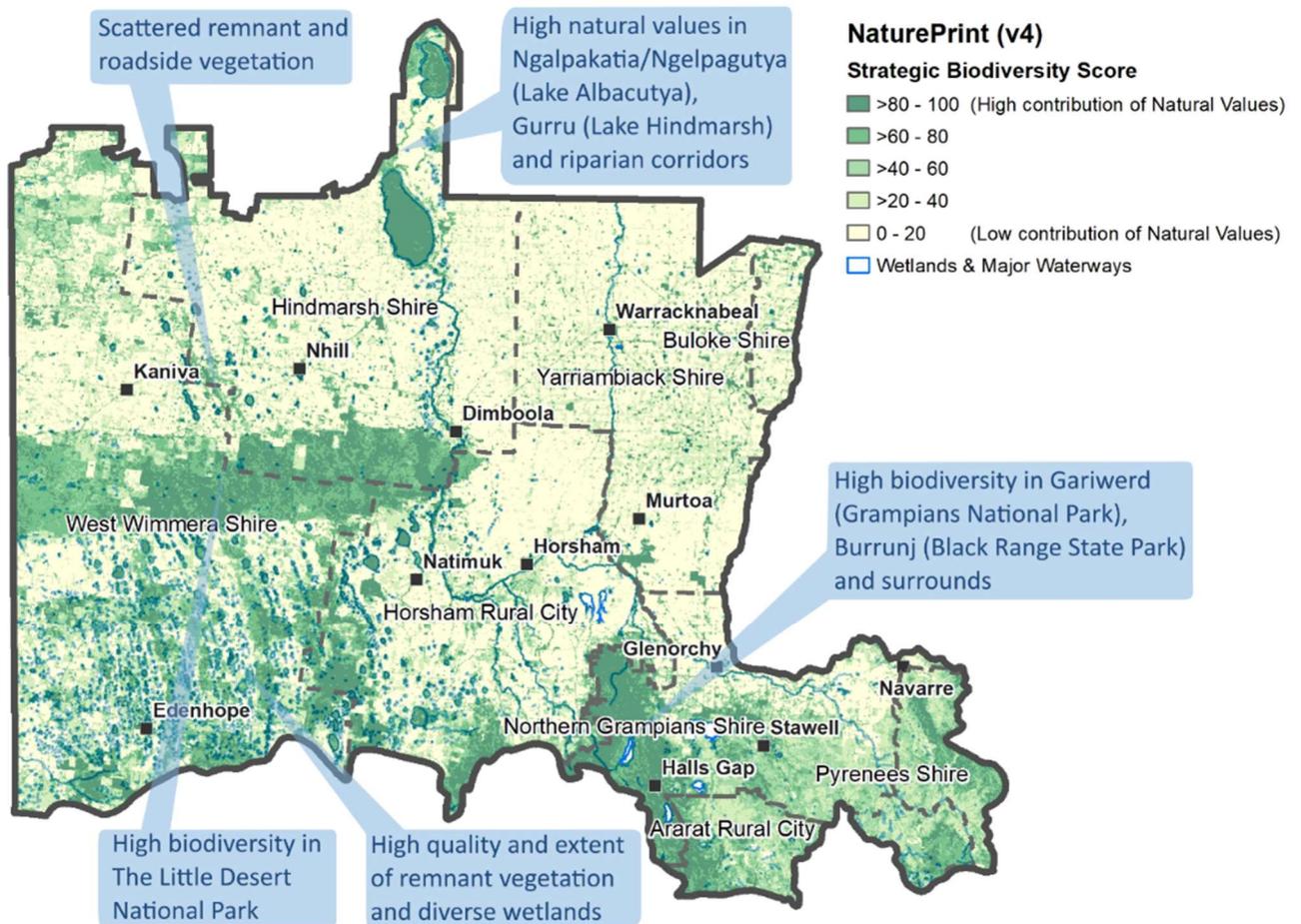
- Context including:
 - A brief overview of the Wimmera's biodiversity (a detailed description is provided in the *Wimmera Regional Catchment Strategy*)⁽¹⁾
 - The Victorian Government's targets for biodiversity, as set out in *Biodiversity 2037*,
 - The region's desired outcomes for biodiversity over the medium to long term, as set out in the *Wimmera Regional Catchment Strategy*,
- A summary list of existing biodiversity projects in the Wimmera (at the time of writing), covering projects funded from 1 July 2021 until 30 June 2024,
- A regional process for prioritising potential future projects to contribute to *Biodiversity 2037's* targets and the RCS's desired outcomes. This process will help to coordinate stakeholder effort and identify the highest priority projects to put forward to funding bodies,
- A summary list of potential future projects and their priority,
- A short description of how this *Action Plan* will be implemented, including the roles and responsibilities of the region's stakeholders and related strategic and planning documents,
- Issues and challenges that pose barriers for implementing this *Action Plan* and *Biodiversity 2037's* targets and the RCS's desired outcomes,
- Monitoring and reporting actions related to this *Action Plan*,
- Next steps, including a list of actions to update and improve this *Action Plan*,
- An Appendix showing the locations in the Wimmera where management actions to control predators, weeds and herbivores are modelled to be the most cost-effective. This means these actions are expected to provide the most benefit to the greatest number of species at the least cost.

Biodiversity in the Wimmera

Biodiversity is all components of the living world: the number and variety of native plants, animals and other living things across land, rivers, coast, and ocean. ⁽²⁾ The Wimmera is a biodiversity hotspot, supporting a diverse variety riverine, wetland and land plants, animals, and ecosystems.

Figure 1 shows that the Wimmera supports large areas of high strategic biodiversity value (Box 1), especially Gariwerd (Grampians) National Park, the Upper Catchment Local Area in the south-east, Little Desert National Park, and Gurrur (Lake Hindmarsh). Ngalpakatia/Ngelpagutya (Lake Albacutya) is recognised as an internationally important wetland under the Ramsar Convention. The Barringgi Gadyin (Wimmera River), MacKenzie River, Yarriambiack Creek and Upper Catchment streams provide narrow but important connections through a largely agricultural landscape. The south-west Wimmera retains numerous patches of native vegetation and wetlands on private and public land, supporting a diverse array of flora and fauna.

Figure 1. Strategic biodiversity values in the Wimmera based on the Strategic Biodiversity Values spatial layer in Naturekit 2.0. ⁽⁵⁾



Box 1. The **Strategic Biodiversity Values** layer developed by DELWP ranks all locations across Victoria for their ability to represent threatened vertebrate fauna, vascular flora, and the full range of Victoria’s native vegetation on a scale of 0 to 100. It combines information on important areas for threatened flora and fauna, levels of depletion, connectivity, vegetation types and condition to provide a **view of relative biodiversity importance of all parts of the Victorian landscape**, enabling comparison of locations across Victoria. ⁽⁶⁾

The main threats to the Wimmera's biodiversity include:

- Clearing of native vegetation and habitat, resulting in loss and fragmentation,
- Invasion by weeds,
- Grazing by introduced and native herbivores,
- Predation by foxes and cats,
- Inappropriate fire regimes, including lack of fire and high-intensity wildfires,
- Climate change and drought, and
- Overharvesting of firewood.

The *Wimmera Regional Catchment Strategy 2021-27* describes the region's biodiversity values and threats to these values in more detail. ⁽¹⁾

Scope and context

The *Wimmera Regional Catchment Strategy 2021-27* (RCS) provides the overarching strategy for integrated catchment management in the Wimmera and the primary planning framework for land, water and biodiversity. The RCS establishes desired outcomes for biodiversity for the region to work together to achieve over 6 and 20 years. These outcomes support and contribute to Victorian and Australian Government goals, targets, and outcomes. The RCS is an important mechanism for focusing the efforts of stakeholders on achieving the Victorian Government's targets set out in *Biodiversity 2037* and the Australian Government's Regional Land Partnerships Program's outcomes.

The *Wimmera Biodiversity Action Plan* is a subordinate plan to the RCS, setting out the actions needed for the region to achieve progress towards the RCS's desired outcomes and Victorian Government's targets.

The *Wimmera Biodiversity Action Plan* sits side by side with the *Wimmera's Regional Land Partnerships Program Action Plan*. This plan sets out how the Wimmera can contribute to the 5-year Outcomes and Investment Priorities of the Australian Government's Regional Land Partnerships Program. It identifies regional investment priorities and projects aligned to national outcomes for Ramsar sites, threatened species, threatened ecological communities and sustainable agriculture.

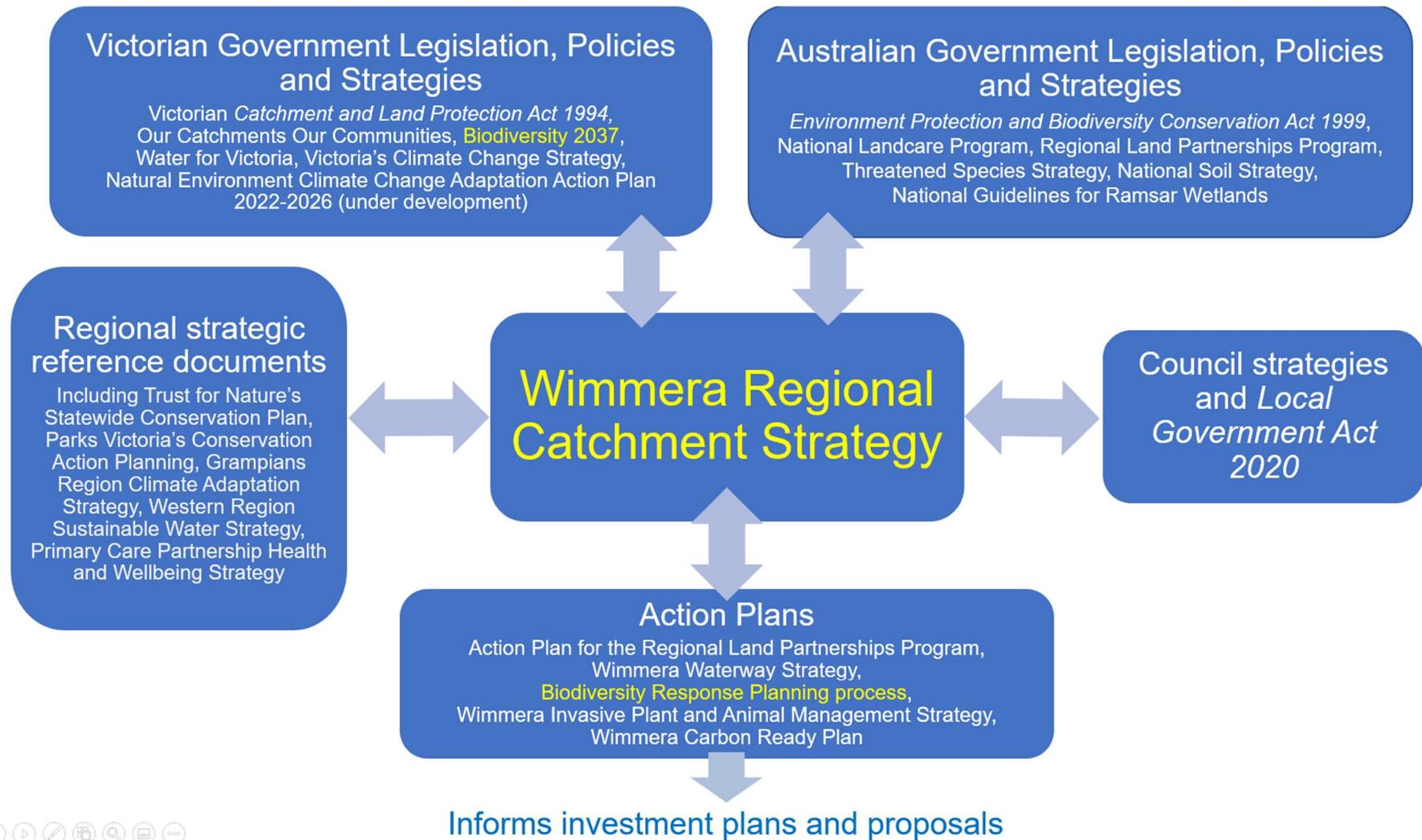
The *Wimmera Biodiversity Action Plan* complements and extends *Biodiversity Response Planning* (BRP) facilitated by the Department of Environment, Land, Water and Planning (DELWP) in the Wimmera. *Biodiversity Response Planning* is a long-term, area-based planning approach to biodiversity conservation that was rolled out on a regional basis across Victoria during 2020 and 2021. It is designed to strengthen alignment, engagement and participation between government, Traditional Owners, non-government agencies and the community. *Biodiversity Response Planning* included:

- Situation analysis - looking at what the current state of biodiversity and its threats are in each region,
- Cataloguing what actions are currently taking place - a list of who's doing what work where,
- Gap analysis - looking for what's missing and what else needs to be done,
- Discussing options - everyone in the network talking about possible actions to take, and
- Determining priorities -what's the most urgent thing to address. ⁽⁷⁾

Several organisations have strategic plans relating to their role and responsibilities in managing biodiversity in the Wimmera, such as Park Victoria's *Conservation Action Plans* ⁽⁸⁾ focused on the Parks and Reserve system and *Trust for Nature's Statewide Conservation Plan* to protect Victoria's biological diversity on private land. ⁽⁹⁾

This *Action Plan* seeks to consolidate an agreed set of actions that stakeholders will partner on based on their respective roles, responsibilities and expertise. It draws heavily on the collaborative planning work contributed by stakeholders as part of *Biodiversity Response Planning*, *Regional Catchment Strategy* development, and other plan development in the region. Figure 2 shows the relationships between Victorian and Australian Government policies and strategies including *Biodiversity 2037*, the *Regional Catchment Strategy* and action plans including this *Wimmera Biodiversity Action Plan*.

Figure 2. Policy context



Outcomes, goals and targets

Desired regional outcomes for biodiversity

The *Wimmera Regional Catchment Strategy 2021-27* (RCS) sets a long-term (>50 years) Vision for: *a healthy Wimmera catchment where a resilient landscape supports a sustainable and profitable community.*

The RCS establishes 20-year and 6-year outcomes for the Wimmera's habitat, native vegetation, flora and fauna species and communities. These outcomes seek to guide the region in protecting and improving habitat quantity and quality, species, and ecosystem functions across terrestrial, river, stream, and wetland environments.

Desired outcomes to be achieved in 20+ years (by 2041+)

1. The biodiversity of the Wimmera is thriving because ecosystems are restored, habitat has been recreated and missing species have been returned.
2. The knowledge and experience of First Nations People is informing biodiversity planning, management and delivery in the Wimmera.

Desired outcomes to be achieved in 6 years (by 2027)

1. Ongoing collaboration and two-way learning in biodiversity planning and management by supporting and strengthening partnerships with First Nations People.
2. Increase the extent, quality and protection of habitat on private land in the Wimmera.
3. Improve habitat quality on public land in the Wimmera.
4. Ecosystems are being restored and species are being conserved by translocating locally extinct and vulnerable species within the Wimmera.
5. A coordinated regional scale monitoring program is providing up-to-date data on habitat, ecosystem and species trend and condition.
6. Vulnerable Wimmera vegetation communities and species have been identified and a strategic plan has been developed and management actions to mitigate threats are being implemented.

This *Action Plan* identifies how the Wimmera region can contribute to achieving these RCS outcomes.

Biodiversity 2037 goals and targets

Launched in 2017, *Biodiversity 2037* is Victoria's plan to stop the decline of native plants and animals and improve the natural environment. *Biodiversity 2037* presents the long-term vision: *Victoria's biodiversity is healthy, valued and actively cared for.*

This vision is supported by the statewide goals shown in Figure 3 and targets to achieve these goals.

DELWP worked with Wimmera stakeholders during 2020 and 2021 through regional *Biodiversity Response Planning* processes to identify and implement on-ground actions that will best contribute to *Biodiversity 2037's* targets. *Biodiversity 2037* seeks to instigate *Biodiversity Response Planning* at scales appropriate to how species operate, and to cost-effectively benefit the maximum number of species.⁽²⁾

DELWP designed NaturePrint's *Strategic Management Prospects* tool to assist biodiversity managers to consider and compare the most beneficial places to deliver management actions. *Strategic Management Prospects* can guide managers in making decisions about:

- Where management efforts can achieve the most benefits for the most species, and
- Which management activities can provide the greatest benefit to the most species at the least cost.⁽¹⁰⁾

Strategic Management Prospects was an integral source of information to support *Biodiversity Response Planning*, together with knowledge contributed by regional and local stakeholders.

Figure 3. The vision and goals for Victoria's biodiversity⁽²⁾



Biodiversity 2037 targets for the Wimmera

Biodiversity 2037 identifies “contributing targets” for management outputs to achieve the statewide goals shown in Figure 3. Table 1 shows the contributing targets identified by DELWP for the Wimmera. These targets are derived from version 2 of *Strategic Management Prospects*. DELWP updated *Strategic Management Prospects* to version 3 in 2021-22. There are likely to be updates to Wimmera targets available in autumn 2022 based on version 3.

Table 1. Estimate of relative area in the Wimmera required to contribute to statewide targets

Target	Hectares by 2027	Hectares by 2037
Total area permanently protected (since 2017)	6,500	13,000
Total area in priority locations under sustained weed control (annually)	32,000	40,000
Total area of revegetation in priority locations for habitat connectivity (since 2017)	11,500	23,000
Total area in priority locations under sustained herbivore control (annually)	80,000	100,000
Total area in priority locations under sustained pest predator control (annually)	24,000	30,000

Priority locations are the top locations across Victoria where management actions are considered to maximise benefits to threatened (and other) species. The *Strategic Management Prospects* tool is used to determine the priority locations.

The hectares of activity in priority locations that contribute to the *Biodiversity 2037* targets are only a part of the total effort to conserve biodiversity across Victoria. Some of this effort is driven by outcomes other than biodiversity. For example, revegetation is undertaken for erosion control and improvement of water quality as well as enhancing biodiversity.

This *Action Plan* identifies how the Wimmera region can help to achieve contributing targets. The following sections:

- Summarise the biodiversity projects that are planned and funded for delivery by regional stakeholders in the Wimmera,
- Provide a prioritisation process that sets out how the region can provide a targeted and coordinated regional approach to prioritising future projects that will contribute to achieving *Biodiversity 2037*'s targets and the *Wimmera Regional Catchment Strategy*'s desired outcomes. This process is based on DELWP's Biodiversity Response Planning process and *Strategic Management Prospects* tool. These in turn drive action in priority locations, contributing to *Biodiversity 2037*'s targets.

Funded biodiversity projects from 1 July 2021 until 30 June 2024

Table 2 summarises the biodiversity projects that are planned and funded for delivery in the Wimmera from 1 July 2021 until 30 June 2024. This covers the duration of most government funding programs at the time of writing. There is minimal funding committed beyond the 2023-24 financial year. These projects summarise the management actions that regional stakeholders are currently doing based on available funding.

Table 2 includes several projects funded under the Victorian Government's Biodiversity Response Planning Program that were completed by 31 December 2021. These projects are included as they will contribute to reporting against the *Wimmera Regional Catchment Strategy's* Outcomes and *Biodiversity 2037's* targets.

There are many actions that benefit the Wimmera's biodiversity implemented by stakeholders each year as part of their "business as usual" roles and responsibilities. These have generally not been included in Table 2, which focuses on larger discretely funded projects. Examples of regular annual activities include ecological burns by Forest Fire Management Victoria and Parks Victoria, implementation of the native vegetation framework by DELWP and local government, and annual pest plant and animal control works by Parks Victoria. There are also small projects delivered by Landcare and other community groups through annual or occasional government grant programs. These projects have not been included here but may be considered in annual and long-term reporting.

Following this section is a prioritisation process that sets out how the region can provide a targeted and coordinated regional approach to prioritising future projects that will contribute to achieving *Biodiversity 2037's* targets and the the *Wimmera Regional Catchment Strategy's* desired outcomes.

Table 2. Funded biodiversity projects in the Wimmera from 1 July 2021 to 30 June 2024

Project name	Project aims	Management actions	Lead agency and contact	Delivery partners	Funder	Funding Duration	RCS 6-year outcomes*	Potential Biodiversity 2037 targets†
Protecting our Malleefowl project	To improve the trajectory of Malleefowl (<i>Leipoa ocellata</i>) in the Wimmera by improving the extent, condition and security of habitat on private property and reducing predation by foxes and cats.	Protect and enhance Malleefowl habitat on private land through management agreements Permanently protect and enhance Malleefowl habitat on private land through conservation covenants Deliver an integrated large-scale fox baiting and cat control program across public and private land	Wimmera CMA Contact: Ben Holmes	Wimmera CMA Trust for Nature Parks Victoria	Australian Government's National Landcare Program	1 July 2018 until 30 June 2023	2. 3. 5.	Herbivore control Permanent protection Predator control Weed control
Food for future project	To improve the south-eastern red-tailed black cockatoo's (<i>Calyptorhynchus banksii graptogyne</i>) (SERTBC) habitat To improve the trajectory of recruitment by supporting land managers and the community to protect and enhance existing nesting and feeding habitat and create new habitat to achieve an increase in overall extent.	Protect and enhance SERTBC habitat on private land through management agreements Permanently protect and enhance SERTBC habitat on private land through conservation covenants Survey SERTBC population size and recruitment Engage the community in volunteering Protect and enhance on private land through management agreements	Wimmera CMA Contact: Ben Holmes	Wimmera CMA Trust for Nature Birdlife Australia Landholders Volunteers	Australian Government's National Landcare Program	1 July 2018 until 30 June 2023	2. 3. 5.	Herbivore control Permanent protection Weed control
Wild-to-wild translocation project	To trial wild-to-wild translocations of dispersal-limited non-threatened species. To inform how wild-to-wild translocations could be employed across Victoria to improve resilience in potentially vulnerable wildlife populations.	Translocate Mitchell's hopping mouse (<i>Notomys mitchellii</i>) into large tracts of intact habitat Translocate fat-tailed dunnarts (<i>Sminthopsis crassicaudata</i>) into fragmented reserves	Wimmera CMA Contact: Ben Holmes	DELWP	DELWP	January 2020 until 30 June 2024	4.	Contributes to goals
Western Victorian woodlands project	To improve biodiversity conservation outcomes for key flora and fauna species by undertaking priority threat abatement works on private property that are strategic and provide multi-species benefits that are valued by the community	Protect and enhance woodlands on private land through management agreements	Wimmera CMA	Landholders	Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	2.	Herbivore control Permanent protection Predator control Revegetation Weed control
Iconic Estates Grampians - Glenelg	To achieve permanent protection of priority habitat in the Gariwerd (Grampians) and Wimmera regions. To buffer and connect Gariwerd (Grampians National Park), aligning management for conservation outcomes and	Supporting landholders to apply covenants that buffer and connect to Gariwerd (Grampians National Park).	Trust for Nature Contact: Adam Blake	DELWP	Victorian Government's Biodiversity Response	1 July 2018 until 31 December 2021	2. 3.	Herbivore control Permanent protection Predator control

* See page 9 "Desired regional outcomes for biodiversity" to match the numbers to RCS outcomes.

† Projects in Table 2 have not been cross-checked to see if they occur in the priority locations needed to contribute to *Biodiversity 2037's* targets.

Project name	Project aims	Management actions	Lead agency and contact	Delivery partners	Funder	Funding Duration	RCS 6-year outcomes*	Potential Biodiversity 2037 targets†
	rationalising management boundaries so that actions and outcomes are increasingly tenure 'blind.' To reduce threats to Gariwerd (Grampians National Park), thereby lessening edge effects of weeds, rabbits, unauthorised access and/or inappropriate activities. (Note: the project area extends outside the Wimmera CMA region to the south)				Planning Program			Revegetation Weed control
Iconic Estates Wimmera	To permanently protect priority native vegetation and habitat in the Wimmera region.	Permanently protect habitat that supports good biodiversity and a viable threatened fauna population in a largely cleared landscape. Implement active conservation management and the control of threats. Engage with and support neighbours, local community and the local branch of Sporting Shooters Australia to control foxes Reduce the impacts of foxes on Malleefowl (<i>Leipoa ocellata</i>) Survey to find Malleefowl mounds and monitor activity at mounds	Trust for Nature Contact: Adam Blake	DELWP Sporting Shooters Australia	Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	2. 3.	Herbivore control Permanent protection Predator control Revegetation Weed control
Gariwerd (Grampians) Sallow Wattle Control	To contain sallow wattle to its current extent and density to protect herb-rich woodlands and species impacted by sallow wattle invasion and work in partnership with Barengi Gadjin Land Council to develop a native food enterprise using sallow wattle seed.	Controlling sallow wattle Developing a native food enterprise using sallow wattle seed	Parks Victoria Contact: Sarah Canham	Barengi Gadjin Land Council	Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	1. 3.	Weed control
Building Biolinks along the Lawloit Range	To re-establish, restore and destock 100 hectares of semi-arid woodland, incorporating the listed threatened grey box-buloke grassy woodland community and habitat for species within the listed threatened Victorian temperate woodland bird community.	Revegetating with native vegetation Improving grazing regimes to result in ecological outcomes Controlling pest plants and animals	Hindmarsh Landcare Network Contact: Jonathan Starks	Landholders	Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	2.	Herbivore control Revegetation Weed control
Trust for Nature Wimmera Reserves	To protect flora and fauna at Trust for Nature's Wimmera Reserves, including Snape Reserve and Mt Elgin Swamp, with local volunteer involvement.	Revegetating with native vegetation Monitoring and controlling weeds, rabbits and foxes Improving volunteer skills and knowledge Improving information about flora including threatened species Grazing to improve ecological outcomes Maintaining fences	Trust for Nature Contact: Adam Blake	Mt Elgin Swamp Committee of Management Snape Reserve Committee of Management	Trust for Nature and donors	Ongoing	2.	Herbivore control Predator control Revegetation Weed control
Bank Australia Conservation Reserve	Through best practice conservation management, the project aims to: Engage a wider audience in habitat and species conservation, Demonstrate corporate responsibility and leadership, Contribute to the Habitat 141 vision, and Incorporate indigenous knowledge in the management of the reserve which also provides meaningful opportunities for indigenous co-management of the reserve.	Land management by Traditional Owners, including cultural burning and protection of cultural heritage Revegetation Restore habitat by controlling weeds, rabbits and foxes Threatened species recovery actions Community involvement	Greening Australia Contact: Jess Gardner	Bank Australia Trust for Nature Barengi Gadjin Land Council Country Fire Authority DELWP Wimmera CMA Landcare Nhill Sporting Shooters Association Edenhope College Goroke College Landholders	Bank Australia	Ongoing	1. 2. 3.	Herbivore control Permanent protection Predator control Revegetation Weed control

Project name	Project aims	Management actions	Lead agency and contact	Delivery partners	Funder	Funding Duration	RCS 6-year outcomes ²	Potential Biodiversity 2037 targets ¹
Roadside weeds and pest management program by local government	To plan and implement control activities for weeds and pests on municipal rural roadsides.	Controlling rabbits and weeds on roadsides Supporting community groups such as Landcare to control pests on roadsides	Local government Contact: various Local government Contact: various	Landcare groups	Victorian Government's Roadside Weeds and Pests Program	Annual	2.	Herbivore control Weed control
Little Desert Ecosystem Enhancement Project	To improve the Little Desert ecosystem by conducting cross-tenure landscape scale fox, rabbit and targeted weed control in the parks and reserves and surrounding private land in the region.	Restore habitat by controlling weeds, rabbits and foxes Monitor predators within the Little Desert National Park	Parks Victoria Contact: Sarah Canham	Parks Victoria Barengi Gadjin Land Council Hindmarsh Landcare Network Kaniva and Telopea Downs Landcare Group Trust for Nature Wimmera CMA	Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	1. 2. 3.	Herbivore control Predator control Weed control
Remnant woodland restoration, Wimmera River Biolink	To restore remnant woodlands via pest plant and animal control on 16,200 hectares of the Barringi Gadyin (Wimmera River) biolink on and between Gurru (Lake Hindmarsh) and Ngalpakatia/Ngelpagutya (Lake Albacutya) and on 200 hectares of private land.	Control and monitor weeds and rabbits Revegetation	Parks Victoria Contact: Sarah Canham	Hindmarsh Landcare Network Barengi Gadjin Land Council DELWP	Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	1. 2. 3.	Herbivore control Revegetation Weed control
Feral cat control, Gariwerd (Grampians National Park)	To implement a landscape-scale project to reduce the population of feral cats in Gariwerd (Grampians National Park) using baits. Targeted research has shown the population of feral cats to be increasing and on par with fox populations in the park.	Deploy Curiosity® feral cat baits across 15,000 hectares in Gariwerd (Grampians National Park)	Parks Victoria Contact: Sarah Canham		Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 May 2021	3.	Predator control
Herbivore control: Deer and goat control over Gariwerd (Grampians National Park)	To reduce the impact from deer and goats in Gariwerd (Grampians National Park)	Control deer and goats via aerial and ground shooting operations	Parks Victoria Contact: Sarah Canham		Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	2. 3.	Herbivore control
Salvanna Stepnell Bequest Habitat 141 Restoration Project	To restore 60 hectares of heathy woodland and shallow sands woodland complex at the Salvanna Conservation Reserve, providing habitat and connectivity values for the south-eastern red-tailed black cockatoo and Malleefowl.	Revegetate with native species	Greening Australia Contact: Jess Gardner	Conservation Volunteers Australia	Salvanna Stepnell Bequest	Unknown	2.	Herbivore control Revegetation Weed control
Boneseed control	To treat boneseed in various public land reserves within the Wimmera CMA area.	Treating known boneseed locations Mapping additional infestations to plan for future projects	DELWP - Forest Fire Management		DELWP	1 July 2020 until 30 June 2021	3. 5.	Weed control
Increasing future food supply for the endangered south-eastern red-tailed black cockatoo	To increase future food supply for the south-eastern red-tailed black cockatoo, primarily addressing lack of canopy species recruitment.	Revegetate with native species, planting 30,000 desert stringybark seedlings across 500 hectares of degraded remnant heathy woodland on private land under conservation covenant	Greening Australia Contact: Jess Gardner	Trust for Nature South-eastern Red-tailed Black Cockatoo Recovery Team	Victorian Government's Biodiversity Response Planning Program	1 July 2018 until 31 December 2021	2.	Herbivore control Permanent protection Revegetation Weed control
Protecting Lake Albacutya's Ramsar Site Values	To maintain and improve the ecological character of Ngalpakatia/Ngelpagutya (Lake Albacutya), one of Victoria's internationally recognised Ramsar Wetlands.	Control pest plants and animals Monitoring	Wimmera CMA	Parks Victoria Barengi Gadjin Land Council		1 July 2021 until 31 December 2024	1. 3.	Herbivore control Weed control
Cultural burns	To restore Country and Culture through cultural burns at Jilpanger, Bryntirion State Forest, Dyurrite (Mount Arapiles), Antwerp, Minimay and Snape Reserve.	Conduct cultural burns across Country	Barengi Gadjin Land Council	Parks Victoria Forest Fire Management Victoria Trust for Nature	DELWP	Ongoing	1. 2. 3.	Contributes to goals
Ranch Billabong	To provide cultural and environmental benefits at the Ranch Billabong.	Construct and maintain a walking track around the Ranch Billabong	Barengi Gadjin Land Council	Wimmera CMA	Victorian Environmental Water Holder	Funded until 30 June 2024	1. 2.	Herbivore control Weed control

Project name	Project aims	Management actions	Lead agency and contact	Delivery partners	Funder	Funding Duration	RCS 6-year outcomes*	Potential Biodiversity 2037 targets†
		Site rehabilitation and weed and pest control Plan for and deliver water through an environmental allocation from the Victorian Environmental Water Holder with support from Wimmera CMA		Victorian Environmental Water Holder	funds water delivery DELWP Waterway Health Program funds works and water delivery planning DELWP's Water, Country and Community Program funds Aboriginal Water Officer positions, engagement and some onground works.			
Wilkurr understanding and management on Wotjobaluk Country	To improve cultural and scientific understanding of Wilkurr (dingo) and their management in the Big Desert-Wyperfeld area, To enable the Wotjobaluk community to engage with and provide input to the management of Wilkurr on Country, To enable the Wotjobaluk Community to spend time on Country and help build traditional and western knowledge of Wilkurr on Wotjobaluk Country, and To share the knowledge accumulated across the project with other Traditional Owner groups.	Engage and document the broader Wotjobaluk community's aspirations for Wilkurr management on Country Engage Wotjobaluk people in on ground and practical works to better understand Wilkurr on Wotjobaluk Country Facilitate an event or opportunity to share knowledge with other Traditional Owner groups.	Barengi Gadjin Land Council	The Wotjobaluk community Wimmera CMA Deakin University DELWP	DELWP	2 years	1. 4. 5.	Contributes to goals
Agriculture Victoria's Invasive Program	To work in partnership with industry and the community to protect agriculture, the environment, the economy, health and lifestyle of the community by stopping pests and diseases from entering, establishing and spreading within the Wimmera catchment.	Control State Prohibited Weeds, including mesquite and water hyacinth, and Regionally Prohibited Weeds including serrated tussock, buffalo burr, English broom, Noogoora burr, spiny emex, African feather grass and prairie ground cherry Monitor the abundance levels of rabbits at the Telopea Downs and Ararat long-term monitoring sites Implement the Victorian fox and wild dog bounty Support communities to engage and build knowledge to better influence biosecurity outcomes across agricultural industries Conduct routine audits of deliberate or accidental introduction of new high risk invasive species via commercial and private trade on the internet Support the Weed Spotters program Supporting landholders to apply covenants that buffer and connect to Gariwerd (Grampians National Park)	Agriculture Victoria Contact: James Rowe		Agriculture Victoria	Ongoing	2. 3.	Weed control Herbivore control Predator control
Wimmera Biodiversity Seminar	To showcase expert and local knowledge of biodiversity locally and beyond to increase people's knowledge of environmental processes in the Wimmera, and beyond.	Deliver an annual biodiversity seminar	DELWP	Trust for Nature Wimmera CMA Parks Victoria Barengi Gadjin Land Council GWM Water Grampians Central West Waste and Resource Recovery Group	Typically funded by a combination of sponsorship and contributions by partners	Annual, ongoing	1.	Contributes to goals

Regional prioritisation process

This section provides a transparent and repeatable method for prioritising the Wimmera's biodiversity assets and projects to conserve them.

Objectives

The objectives of the prioritisation process are:

1. To identify the highest priority biodiversity assets for management effort in the Wimmera, including species, ecological communities, and landscapes, and
2. To develop a systematic and repeatable process for assessing project proposals to identify and rank projects that:
 - Help conserve the Wimmera's highest priority biodiversity assets,
 - Contribute to achieving the *Wimmera Regional Catchment Strategy's* outcomes and *Biodiversity 2037's* targets, and
 - Are cost-effective, meaning they conserve the most priority biodiversity assets at the least cost as guided by *Strategic Management Prospects* and regional stakeholders.

Description of prioritisation process

The prioritisation process builds on the work generated by DELWP's Biodiversity Response Planning (BRP) process in the Wimmera. Participants from the region's natural resource management community, stakeholders and First Nations group representatives attended a series of four workshops between February 2020 and May 2021. The workshops aimed to identify the Wimmera's important biodiversity assets and understand the aspirations of the regional biodiversity community with a specific focus on:

- Identifying and prioritising important Wimmera species (flora and fauna) and ecological communities,
- Identifying and prioritising important Wimmera landscapes (focus landscapes), and
- Nominating potential project ideas and concepts.

This *Wimmera Biodiversity Action Plan* has taken the data and methods generated by the Biodiversity Response Planning workshops and adapted them to fit the aims of this document. This demonstrates a repeatable and transparent prioritisation method that can be adapted to suit different scenarios. This method was first developed for the *Wimmera Regional Land Partnerships Program Action Plan* developed in 2021. This plan sets out how the region is contributing to the Australian Government's Outcomes and Investment Priorities and could contribute further if more funds were available.⁽¹¹⁾ The method has been adapted to contribute to *Biodiversity 2037's* targets.

Note: The data used for this prioritisation process was generated by the Biodiversity Response Planning process, and not this Action Plan specifically. It is possible that some information may be missing or incomplete. Some information has also been superseded by updates in data. Consequently, the lists of priority species, landscapes and projects may have gaps and should be viewed as examples to demonstrate the prioritisation method. Examples of superseded information that should be updated when the next iteration of this Action Plan is developed include:

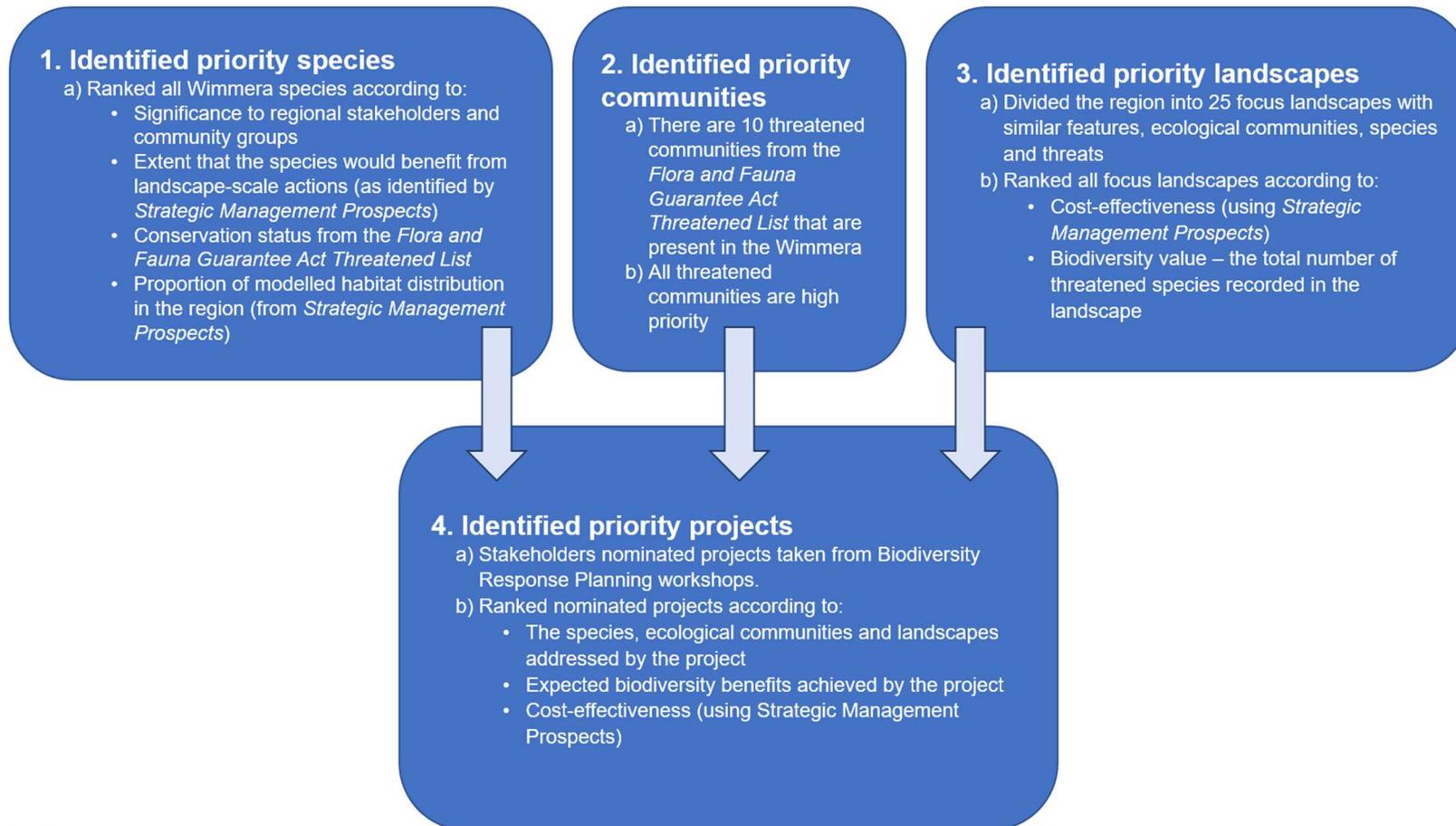
- Biodiversity Response Planning and this prioritisation process use data and information generated using version 2 of DELWP's *Strategic Management Prospects* tool. DELWP updated version 2 to version 3 while this Action Plan was being developed in late 2021 and early 2022. The next iteration of this Action Plan should replace version 2 data with the updated information from version 3.
- The new *Flora and Fauna Guarantee Act 1988 - Threatened List* was finalised in October 2021.⁽¹²⁾ This prioritisation process uses the draft or provisional list that was available prior to release of the final list.

Action: Seek funding to renew this Action Plan with up-to-date information and stakeholder contributions.

The prioritisation method involved identifying the highest priority species, ecological communities, focus landscapes, and projects by assessing them against a set of criteria. The benefit of this method is it can easily be adapted to different scenarios. Criterion can be added or removed, and criterion can be weighted to reflect different objectives.

Figure 4 summarises the steps taken to prioritise species, threatened communities, landscapes and projects nominated by regional stakeholders during regional Biodiversity Response Planning in 2021.

Figure 4. Steps for prioritising projects for the Wimmera’s biodiversity, species and threatened communities



The prioritisation process draws heavily on data and information generated by *Strategic Management Prospects* and the DELWP-led Biodiversity Response Planning process in the Wimmera.

When working with the outputs of models it helps to remain conscious of their limitations. *Strategic Management Prospects* uses models to assess how effective a set of landscape-scale management actions are expected to be at providing benefits for multiple species. It ranks these assessments, taking a state-wide view to inform prioritisation. Like all models, *Strategic Management Prospects* is limited by the accuracy and availability of the data it uses which, while extensive, is not exhaustive. For example, *Strategic Management Prospects* considers over 4,200 Habitat Distribution Models for terrestrial vertebrates and vascular plants but does not yet (as of February 2022) include non-vascular plants, invertebrates, or aquatic species and environments. Likewise, the management actions considered by *Strategic Management Prospects* are not the only options that could be considered by land managers and detailed management strategies specific to a local context are not generated by *Strategic Management Prospects* (see Specific Needs Assessments).

Strategic Management Prospects's output models are presented as a grid of 225m² 'pixels'. This resolution is fine enough to represent narrow features, but some pixelation and hard edges should be paired with local knowledge to meaningfully interpret the pattern being represented in the landscape. Improvements and inclusions to *Strategic Management Prospects* are being continuously developed (such as the inclusion of aquatic species expected by 2023) and users should seek to use the latest release of *Strategic Management Prospects* available.

Analysis of *Strategic Management Prospects*' outputs by regional and local experts and stakeholders is an important part of the planning and decision-making process. Stakeholder involvement in workshops throughout the Biodiversity Response Planning process in the Wimmera provided opportunities for local and regional input into regional priorities and projects. Future iterations of this *Wimmera Biodiversity Action Plan* should continue to incorporate stakeholder and local community knowledge and expertise.

The following sections describe the results of each of the prioritisation steps, including identifying priority species, ecological communities, focus landscapes and projects.

Priority plant and animal species

During the workshops held for Biodiversity Response Planning in 2020-21, data and information that could be used to prioritise the Wimmera's plants and animals was collated, evaluated and reviewed. This *Action Plan* uses this information to prioritise all species recorded in the Wimmera according to the following criteria:

- Conservation status under the Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act). This was determined using the *Provisional Threatened List* (prior to the release of the final *FFG Act Threatened List* in October 2021).⁽¹²⁾ The list was created using the common assessment method, a consistent method being adopted by Australian jurisdictions. The method is based on the best practice standard developed by the International Union for Conservation of Nature,⁽¹³⁾
- Whether the species benefits from landscape-scale actions as assessed in *Strategic Management Prospects* (version 2),⁽⁵⁾
- Community significance – derived from the Wimmera's Biodiversity Response Planning process. Workshop participants from stakeholder organisations and community groups identified species that were regionally and locally important. This information is subjective, and some stakeholders were unable to participate meaning that there are likely to be gaps. Data in this criterion provides a starting point from which to build when this *Action Plan* is reviewed and improved, and
- Proportion of Victorian habitat distribution within the Wimmera as modeled in *Strategic Management Prospects* (version 2).⁽⁵⁾

Table 4 provides a snapshot, listing the highest ranked species and demonstrating how the method can be implemented to efficiently prioritise a large list of over 400 species.

There are limitations in the data considered in the Biodiversity Response Planning process and in this *Action Plan*. A future iteration of this *Action Plan* should seek to include more regional data and knowledge. For example, there may be two species listed as critically endangered. Species A has a single, continuous population within a Parks and Reserves system, and Species B has multiple small and fragmented populations on unmanaged roadside reserves and private land. Clearly, Species B is in greater need of assistance but currently, the process does not distinguish between these two species. It is recommended that the analysis requires further development to incorporate criteria that can assess and prioritise species within a regional context before the outputs can be used in further analysis or decision making. This includes considering including a criterion that considers the level of threat or risk to individual species.

There is also strong regional interest in re-establishing populations of species that are missing from parts of the region or the entire Wimmera. Returning missing species could greatly improve their conservation status, aid in the restoration of ecological functions and improve overall ecosystem health. This aspiration has been captured in the *Wimmera Regional Catchment Strategy's* outcomes for biodiversity:

- 20-year outcome 1: *The biodiversity of the Wimmera is thriving because ecosystems are restored, habitat has been recreated and missing species have been returned.*
- 6-year outcome 4: *Ecosystems are being restored and species are being conserved by translocating locally extinct and vulnerable species within the Wimmera.*

The prioritisation process (Table 3) includes four potential species for reintroduction in the Wimmera.

Table 3: Potential target species for reintroduction, currently missing from Victoria and the Wimmera

Species name	Victorian conservation status (FFG Act Threatened List)	National conservation status (EPBC Act)
Western quoll (<i>Dasyurus geoffroii</i>)	Previously listed as Regionally Extinct	Vulnerable
Brush-tailed bettong (<i>Bettongia penicillata</i>)	Extinct (in Victoria)	Endangered
Greater bilby (<i>Macrotis lagotis</i>)	Not listed	Vulnerable
Western barred bandicoot (<i>Perameles bougainville</i>)	Previously listed as Extinct	Endangered

Table 4. Priority species in the Wimmera

Rank	Common Name	Scientific Name	Conservation status (FFG Act)	Flora / Fauna	Benefit from land-scape scale actions	Community significance	Proportion of habitat in the Wimmera	Rank Score
1	Mountain dragon Grampians form	<i>Rankinia diemensis (Grampians)</i>	Critically Endangered	Fauna	No	Yes	1.0	1.000
2	Forked spyridium	<i>Spyridium furculentum</i>	Critically Endangered	Flora	No	Yes	1.0	0.998
3	Wimmera rice-flower	<i>Pimelea spinescens subsp. pubiflora</i>	Critically Endangered	Flora	No	Yes	0.7	0.995
4	Swamp sheoak	<i>Casuarina obesa</i>	Critically Endangered	Flora	No	Yes	0.7	0.993
5	Jumping-jack wattle	<i>Acacia enterocarpa</i>	Endangered	Flora	No	Yes	1.0	0.990
6	Rock wattle	<i>Acacia rupicola</i>	Endangered	Flora	No	Yes	1.0	0.988
7	Pale Sun moth	<i>Synemon selene</i>	Endangered	Fauna	No	Yes	1.0	0.985
8	Hairy-pod wattle	<i>Acacia glandulicarpa</i>	Endangered	Flora	No	Yes	0.9	0.983
9	Reddish-orange sun moth	<i>Synemon jcara</i>	Endangered	Fauna	No	Yes	0.8	0.980
10	Brush-tailed bettong (SE mainland)	<i>Bettongia penicillata penicillata</i>	Extinct	Fauna	No	Yes	0.0	0.978
11	Western barred bandicoot (Mainland)	<i>Perameles bougainville fasciata</i>	Extinct	Fauna	No	Yes	0.0	0.975
12	Western quoll	<i>Dasyurus geoffroi</i>	Extinct	Fauna	No	Yes	0.0	0.973
13	Burrowing bettong (Inland)	<i>Bettongia lesueur graii</i>	Extinct	Fauna	No	Yes	0.0	0.970
14	Greater bilby	<i>Macrotis lagotis</i>	Extinct	Fauna	No	Yes	0.0	0.968
15	Heath mouse	<i>Pseudomys shortridgei</i>	Endangered	Fauna	No	Yes	0.4	0.965
16	Rosy bush-pea	<i>Pultenaea subalpina</i>	Critically Endangered	Flora	No		1.0	0.963
17	Feathery bush-pea	<i>Pultenaea penna</i>	Critically Endangered	Flora	No		1.0	0.960
18	Thorny bitter-pea	<i>Daviesia pectinata</i>	Critically Endangered	Flora	No		1.0	0.958
19	Grampians mountain-grass	<i>Dryopoa dives subsp. B</i>	Critically Endangered	Flora	No		1.0	0.955
20	Blunt club-sedge	<i>Schoenoplectus dissachanthus</i>	Critically Endangered	Flora	No		1.0	0.953
21	Red-tailed black-cockatoo	<i>Calyptorhynchus banksii graptogyne</i>	Endangered	Fauna	No	Yes	0.4	0.950
22	Striped worm-lizard	<i>Aprasia striolata</i>	Endangered	Fauna	No	Yes	0.4	0.948
23	Wimmera spider-orchid	<i>Caladenia lowanensis</i>	Critically Endangered	Flora	No		1.0	0.945
24	Bow-lip spider-orchid	<i>Caladenia toxochila</i>	Critically Endangered	Flora	No		1.0	0.943
25	Woodland box	<i>Eucalyptus silvestris</i>	Critically Endangered	Flora	No		1.0	0.940
26	Spiked sour-bush	<i>Choretrum spicatum subsp. continentale</i>	Critically Endangered	Flora	No		0.9	0.938
27	Elfin leek-orchid	<i>Prasophyllum aff. fitzgeraldii B</i>	Critically Endangered	Flora	No		0.8	0.935
28	Pomonal leek-orchid	<i>Prasophyllum subbisetum</i>	Critically Endangered	Flora	No		0.8	0.933
29	Striped legless lizard	<i>Delma impar</i>	Endangered	Fauna	No	Yes	0.2	0.931
30	Prickly raspwort	<i>Haloragis myriocarpa</i>	Critically Endangered	Flora	No		0.8	0.928
31	Brolga	<i>Grus rubicunda</i>	Endangered	Fauna	No	Yes	0.2	0.926
32	Satin Mallee	<i>Eucalyptus sp. aff. dumosa (Nhill)</i>	Critically Endangered	Flora	No		0.7	0.923
33	Elegant spider-orchid	<i>Caladenia formosa</i>	Critically Endangered	Flora	No		0.7	0.921
34	Brilliant sun-orchid	<i>Thelymitra mackibbinii</i>	Critically Endangered	Flora	No		0.6	0.918
35	Eastern quoll	<i>Dasyurus viverrinus</i>	Endangered	Fauna	No	Yes	0.0	0.916
36	Grampians rustyhood	<i>Pterostylis planulata s.s.</i>	Endangered	Flora	No		1.0	0.913
37	Grampians boronia	<i>Boronia latipinna</i>	Endangered	Flora	No		1.0	0.911
38	Grampians star-hair	<i>Astrotricha sp. 1 subsp. 1</i>	Endangered	Flora	No		1.0	0.908
39	Swamp onion-orchid	<i>Hydrorchis orbicularis</i>	Endangered	Flora	No		1.0	0.906
40	Glossy hovea	<i>Hovea corrickiae</i>	Endangered	Flora	No		1.0	0.903
41	Grampians spyridium	<i>Spyridium daltonii</i>	Endangered	Flora	No		1.0	0.901
42	Arapiles peppermint-box	<i>Eucalyptus hawkeri</i>	Endangered	Flora	No		1.0	0.898
43	Western sheoak	<i>Allocasuarina mackliniana subsp. hirtilinea</i>	Endangered	Flora	No		1.0	0.896
44	Southern pipewort	<i>Eriocaulon australasicum</i>	Endangered	Flora	No		1.0	0.893
45	Grampians triggerplant	<i>Stylidium soboliferum</i>	Endangered	Flora	No		1.0	0.891

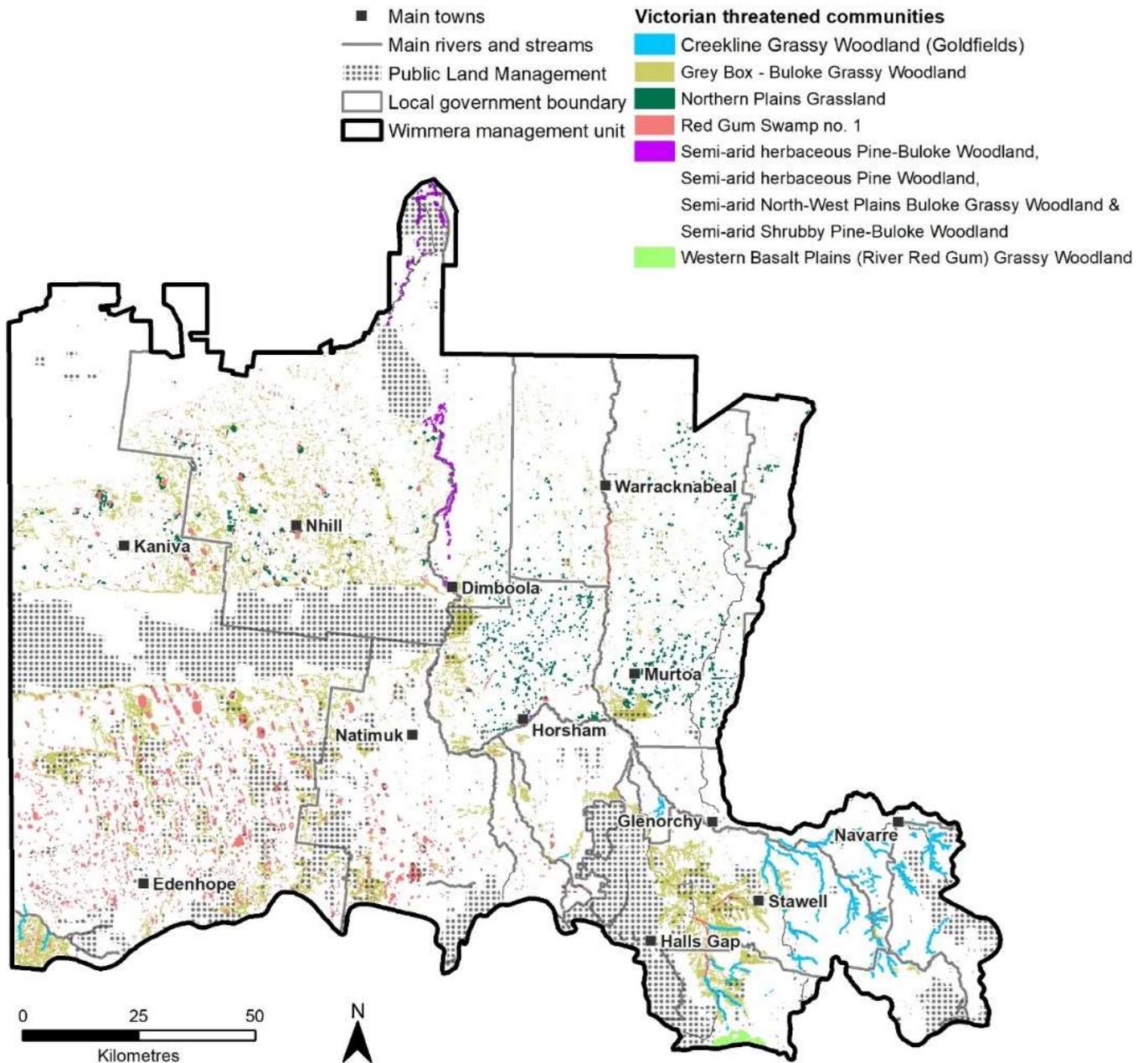
Priority communities

Ten communities of flora and fauna listed on the *FFG Act Threatened List* are known to occur in the Wimmera. These communities are all priorities for conservation as they are all highly endangered and under threat of ongoing decline. They are listed in Table 5. Figure 5 shows their location in the region except for the Victorian temperate-woodland bird community which is not mapped.

Table 5. Threatened communities that occur in the Wimmera

Threatened community
Creekline Grassy Woodland (Goldfields)
Grey Box - Buloke Grassy Woodland Community
Northern Plains Grassland Community
Red Gum Swamp Community No. 1
Semi-arid Northwest Plains Buloke Grassy Woodlands Community
Semi-arid Shrubby Pine-Buloke Woodland
Semi-arid herbaceous Pine Woodland
Semi-arid herbaceous Pine-Buloke Woodland
Victorian temperate-woodland bird community
Western Basalt Plains (River Red Gum) Grassy Woodland

Figure 5. Threatened communities in the Wimmera listed on the FFG Act Threatened List



Priority landscapes

Priority or focus landscapes are places where priorities for on-ground biodiversity action are located.

This *Action Plan* prioritises focus landscapes using an analytical and data-driven set of criteria to identify the Wimmera landscapes that are likely to provide the greatest benefit for biodiversity. Twenty-five focus landscapes were prioritised based on:

1. The most beneficial and cost-effective locations to implement management actions as modeled using *Strategic Management Prospects* (version 2), and
2. The number of threatened species recorded in the focus landscape.

Method

The method used to identify and prioritise focus landscapes draws on Biodiversity Response Planning in the Wimmera and the *Strategic Management Prospects* tool.

Two Biodiversity Response Planning workshops focused on identifying and prioritising the Wimmera's focus landscapes. Stakeholder and community participants identified focus landscapes using natural features, ecological communities and areas that were important or significant to them and the community. Workshop participants divided the catchment into 25 focus landscapes. All focus landscapes were identified as important by one or more participants. ⁽⁴⁾

During Biodiversity Response Planning, DELWP using *Strategic Management Prospects* (version 2) to identify the highest priority locations for management effort in the Wimmera based on cost-effectiveness. ‡ *Strategic Management Prospects* is a spatially driven decision-support tool developed to help inform land management decisions. This includes identifying the most beneficial and cost-effective locations to implement management actions such as rabbit control, revegetation and fox control. (5; 3)

The highest priority or most cost-effective locations are those where management actions provide the greatest benefit to the most species at the least cost. The method used by *Strategic Management Prospects* to generate this data is explained in DELWP's publication, *Natureprint: Strategic Management Prospects Overview and Approach*, available on DELWP's website. ⁽¹⁰⁾

DELWP used *Strategic Management Prospects* to identify two categories in the Wimmera where management actions will benefit the most species at the least cost:

1. The top 3% of locations (best cost-effectiveness), and
2. The top 10% of locations (second best cost-effectiveness).

This *Action Plan* evaluates and prioritises the 25 focus landscapes using:

1. The area within each focus landscape that falls within the top 3% plus top 10% of most cost-effective locations, and
2. The number of threatened species recorded in the focus landscape.

Table 6 shows the prioritisation workings and results. Note that the method sums the amount of area of the most cost-effective locations for each management action, such as herbivore control, revegetation and predator control, for each focus landscape. This potentially double-counts locations if they are priority areas for multiple management actions. It is recommended that the next iteration of this *Action Plan* should review this method and remove duplication. The method would also be improved by incorporating further regionally specific data and knowledge provided by local and regional stakeholders.

Action: Seek funding to renew this *Action Plan*, including reviewing the method for prioritising focus landscapes and rerunning it with up-to-date information and stakeholder contributions.

‡ The prioritisation work in this *Action Plan* used version 2 of *Strategic Management Prospects*. Since this analysis was completed, version 3 has become available. The next iteration of this *Action Plan* should be updated using version 3 data and information. Note that, due to changes in scaling of indices from version 2 to 3, the top 10% of cost-effective locations in version 2 are approximately equivalent to the top 20% in version 3. This *Action Plan* uses version 2 data and terminology (top 10%) unless stated otherwise.

Wimmera priority landscapes

Figure 6 maps the prioritisation results, showing that the highest priority landscapes include:

- Gariwerd (Grampians) National Park together with Burrunj (Black Range) State Park, supporting a diverse range of habitats and species, including one third of Victoria's native flora species and about 17% of Victoria's wildlife species,
- Little Desert National Park, the largest contiguous area of remnant native habitat in the Wimmera, protecting just over 130,000 hectares and supporting a vast array of biodiversity, including 80 nationally threatened plant and animal species,
- The Barringgi Gadyin (Wimmera River) corridor and its terminal lakes, including Ngalpakatia/Ngelpagutya (Lake Albacutya) and Gurru (Lake Hindmarsh) system, providing a corridor of aquatic and riparian habitat through a largely agricultural landscape, and
- Stawell and the surrounding area containing the western and southern most extent of Victoria's Box Ironbark forests, notable for their species richness and supporting threatened fauna like the swift parrot (*Lathamus discolor*).

Areas assessed as low priority are generally agricultural landscapes with limited and fragmented remnant habitat and species.

Figure 6. Priority landscapes in the Wimmera

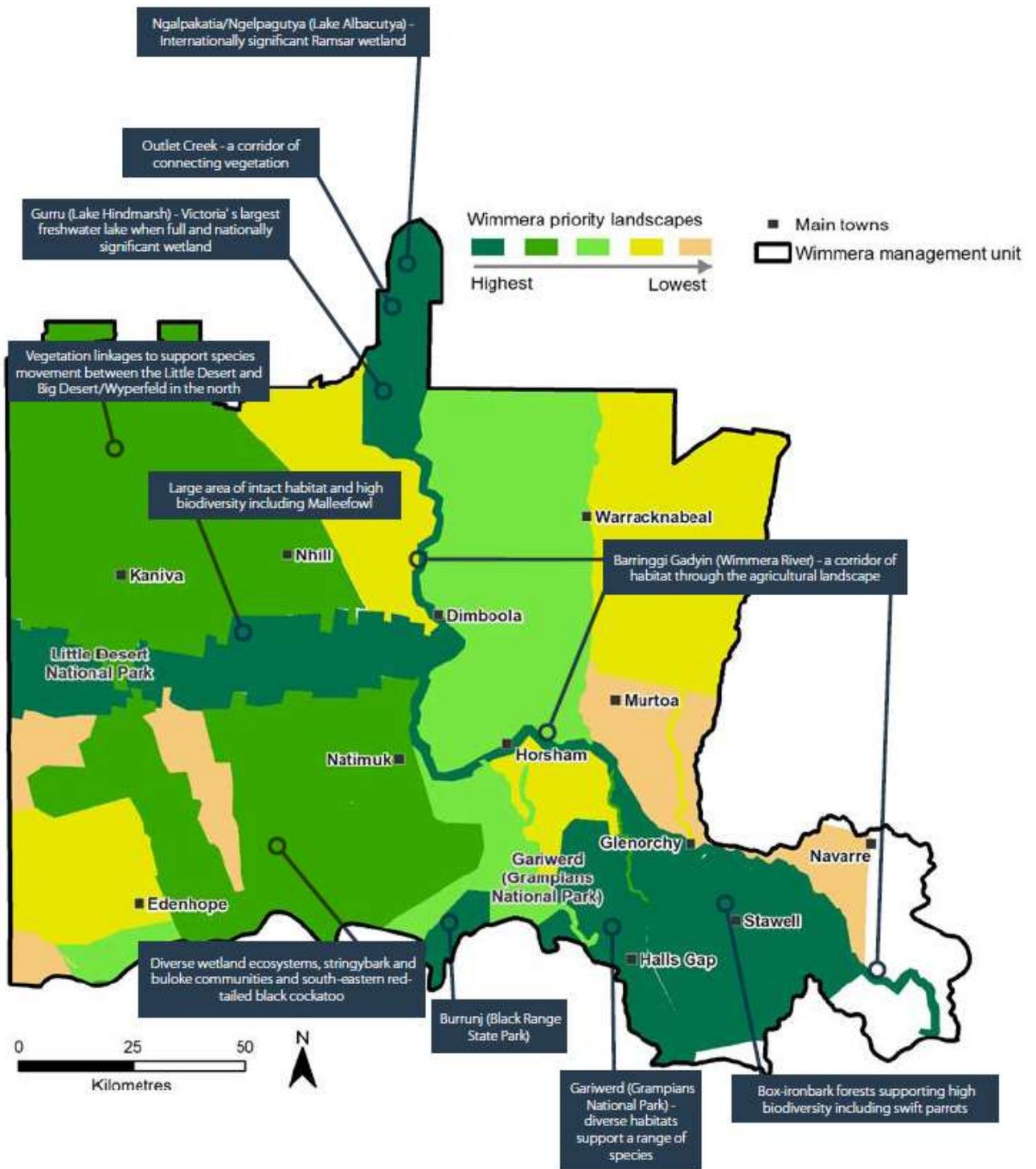


Table 6. Focus landscape prioritisation outcomes

Landscape name	Total area of the focus landscape (hectares)	Sum of area with top 3% actions [§] (hectares)	% of area with top 3% actions	Rank: Top 3%	Sum of area with top 10% actions** (hectares)	% of area with top 10% actions	Rank: Top 10%	Total priority area: Sum of area with top 3% actions + Sum of area with top 10% actions (hectares)	% of total priority area	Rank: Total priority area	Number of threatened species recorded	Rank: Threatened species	Total rank: Sum of rank scores	Total rank
Gariwerd (Grampians) and Burrunj (Black Range)	299,006	198,257	66%	1	906,306	303%	2	1,104,566	369%	2	390	2	7	1
Little Desert	145,081	58,586	40%	2	484,570	334%	1	543,156	374%	1	287	12	16	2
Barringgi Gadyin (Wimmera River)	154,327	29,368	19%	7	160,627	104%	4	189,995	123%	5	489	1	17	3
Stawell and surrounds	128,694	36,982	29%	4	127,891	99%	5	164,873	128%	4	317	8	21	4
Ledcourt and Lake Lonsdale	26,818	7,829	29%	4	21,977	82%	8	29,806	111%	6	320	6	24	5
Dergholm area	84,687	17,353	20%	6	105,636	125%	3	122,989	145%	3	258	17	29	6
North-South Dune System	285,143	11,564	4%	10	277,513	97%	6	289,077	101%	7	304	10	33	7
Douglas-Natimuk Wetlands	116,653	1,033	0.90%	15	54,428	47%	9	55,461	48%	9	370	3	36	8
Mount William Creek	2,535	132	5%	9	2,224	88%	7	2,356	93%	8	261	16	40	9
Desert Biolink	411,451	4,369	1%	13	138,266	34%	11	142,635	35%	12	319	7	43	10
Kadnook and Powers Creek	45,221	775	2%	11	19,311	43%	10	20,086	44%	10	265	13	44	11
MacKenzie River	16,739	1,643	10%	8	4,581	27%	12	6,224	37%	11	264	14	45	12
Quantong to Balmoral	70,371	849	1%	13	17,842	25%	14	18,691	27%	13	309	9	49	13
Yarriambiack Creek (200m buffer)	16,352	5,694	35%	3	32	0.20%	25	5,726	35%	12	289	11	51	14
West Yarriambiack grasslands	283,197	241	0.08%	16	20,262	7%	20	20,503	7%	21	356	5	62	15
Gerang Gerung, Glenlea and Netherby	117,725	228	0.20%	18	8,047	7%	20	8,275	7%	21	361	4	63	16
Plains woodlands and wetlands	91,493	1,559	2%	11	11,738	13%	16	13,297	15%	16	193	24	67	17
Dunmunkle Creek (200m buffer)	10,009	0	0	21	2,580	26%	13	2,580	26%	15	225	20	69	18
Wonwondah, Laharum and Brimpaen	44,002	269	0.60%	17	4,060	9%	17	4,329	10%	18	243	18	70	19
Minyup, Donald, Warracknabeal	296,621	647	0.20%	18	22,383	8%	19	23,030	8%	20	264	14	71	20
Murtoa, Rupanyup	177,053	1,002	0.60%	17	16,278	9%	17	17,280	10%	18	214	21	73	21
Flora and Fauna Guarantee Act -listed community wetlands	34,945	4	0.01%	20	4,807	14%	15	4,811	14%	16	194	23	74	22
Mosquito Creek	867	0	0	21	50	6%	22	50	6%	23	197	22	88	23
Langkoop	19,200	0	0	21	786	4%	24	786	4%	25	241	19	89	24
Neuarpurr	24,240	0	0	21	1,566	6%	22	1,566	6%	22	192	25	90	25

[§] This column sums the area of top 3% of locations for each management action as identified in *Strategic Management Prospects*. The area was calculated by summing the top 3% of locations for undertaking management actions such as predator control, herbivore control and revegetation.

** This column uses the same method as the top 3% column, summing the area of top 10% of locations for each management action as identified in *Strategic Management Prospects*. This explains why the calculated area sometimes exceeds the size of the focus landscape and why some of the “% of area with top %” column are greater than 100%. This method has introduced some duplication which should be removed in a future iteration of this plan.

Priority future projects

This section provides an interim set of proposed projects that are prioritised using information contributed by regional stakeholders and community members as part of the DELWP-led Biodiversity Response Planning process in the Wimmera. This has the potential to improve the cost-effectiveness of funding spent in the region but also ensure projects are aligned with, and will contribute to, regional outcomes as set out in the *Wimmera Regional Catchment Strategy* and state targets established in *Biodiversity 2037*.

The fourth Biodiversity Response Planning workshop in May 2021 focused on understanding community and stakeholder aspirations for biodiversity management and potential projects. Stakeholder participants contributed over 120 project ideas and biodiversity aspirations for the region. There was a vast array of projects and detail provided: some were extensions or an evolution of existing projects, some were well developed projects and others were ideas or aspirations.

Following the workshop, DELWP sent a project template to all participants asking them to provide further detail on their proposed project ideas to inform the prioritisation process. Wimmera CMA used the information gathered at the workshop along with knowledge of regional projects and partner proposals to fill in missing information where possible and practical. Projects were set aside from the process if there was insufficient information to assess them. The result was a list of 18 projects that are described and assessed in this *Action Plan*.

This list of projects is a first step in identifying the potential future projects that stakeholders and the biodiversity community would like to see in the Wimmera. It requires further development to generate a complete and comprehensive list. This information should be viewed as a proof of concept to demonstrate a proposed prioritisation method. It requires additional work in collaboration with regional stakeholders before it can fully inform further analysis or decision-making processes. Potential gaps in projects include the role of fire as an ecological management tool and adapting to climate change.

The project prioritisation process for this *Action Plan* scored and ranked projects according to:

- Alignment with the Victorian Government's *Biodiversity 2037* strategy. Projects that did not align were eliminated from the analysis,
- The biodiversity assets (species and communities) proposed to benefit from the project, including:
 - Primary target assets – assets that were directly targeted by the project's activities, and
 - Secondary assets – assets that would benefit from the proposed activities but are not actively targeted.
- The priority (rank score) for each identified species was combined to provide a total species score,
- The priority (rank score) of focus landscapes targeted by the project, and
- The extent that the proposed project aligns with priority actions identified in *Strategic Management Prospects*. This involved manually assessing each project's actions. Projects are rated between 1 and 0, where 1 means the project focuses entirely on *Strategic Management Prospects* priority actions and 0 means the project does not include *Strategic Management Prospects* priority actions.

This *Action Plan* provides an example of how the Wimmera can implement a strategic, transparent and repeatable process for prioritising biodiversity assets and projects. To maximise the potential outcomes this process provides, we will seek funding for this process to be rerun so that the learnings and shortcomings can be rectified, including:

1. Providing stakeholders and the community an opportunity for further collaboration and to resubmit detailed, up-to-date project proposals that can be accurately and fairly assessed,
2. Reviewing strategic priorities and objectives to ensure the data and criteria used are fit for purpose,
3. Incorporating additional regionally specific data and knowledge into species, landscape and project prioritisation criteria,
4. Electronic analysis of proposed projects, activities and locations against *Strategic Management Prospects* priorities and *Biodiversity 2037* targets, and
5. Updating to incorporate the full list of threatened communities and species on the *FFG Threatened List* and known to be in the Wimmera.

Table 7 shows the outcome of the project prioritisation process.

Table 7. Demonstration of project prioritisation process

Table 7 presents a subset of projects contributed by regional biodiversity stakeholders during the Wimmera’s Biodiversity Response Planning process in May 2021. The 18 project examples presented here were derived from more than 120 project ideas. Detail absent from original Biodiversity Response Planning proposals may have been added by Wimmera CMA to allow analysis for this demonstration and not for contributing to further analysis or decision making.

Priority rank	Project title	Project aims	Organisations involved	Aligns with Biodiversity 2037	BRP focus landscape area rank score	Primary Target Assets	Secondary non-target assets	Total target asset rank score	Strategic Management Prospects score	Total project score	Wimmera RCS 6-year outcomes ^{††}	Potential Biodiversity 2037 targets
1	Habitat and vegetation protection and management in the Little Desert region	To increase the protection of understorey by reducing total grazing pressure within the Little Desert region. Control and monitoring of all herbivores, including rabbits, hare, deer, goats, and macropods. Cross-tenure.	Parks Victoria Wimmera CMA Trust for Nature DELWP Local Landcare	YES	0.96	Malleefowl, silky mouse, little pygmy-possum, Rosenberg's goanna, striped worm-lizard, western pygmy-possum, colourful spider-orchid, Wimmera spider-orchid, floodplain rustyhood, semi-arid herbaceous pine-buloke woodland community, Semi-arid shrubby pine-buloke woodland community		0.94	0.8	2.70	2. 3. 5.	Herbivore control
2	Swift parrot and box-iron bark woodland protection and management	Protect and enhance the Victorian temperate-woodland bird community and box-ironbark woodlands occurring in the Wimmera. Establish permanent protection, long-term management agreements and improved management of remnant vegetation on private land and conduct revegetation.	Birds Australia Trust for Nature Greening Australia Parks Victoria Wimmera CMA DELWP Local Landcare	YES	0.86	Swift parrot, grey Box - buloke grassy woodland community, Victorian temperate woodland bird community	Brush-tailed phascogale, squirrel glider, Pomonal leek-orchid, tawny spider-orchid, candy spider-orchid	0.78	0.8	2.44	2.	Herbivore control Permanent protection Predator control Revegetation Weed control
3	Restoring ecological function in the Little Desert	Restore connections to Country and ecological function by returning regionally extinct and locally uncommon wildlife back into the Little Desert landscape.	Wimmera CMA Parks Victoria Barengi Gadjin Land Council Trust for Nature	YES	0.96	Western barred bandicoot (Mainland), burrowing bettong (Inland), brush-tailed bettong (SE mainland), western quoll, greater bilby, semi-arid herbaceous pine-buloke woodland community, semi-arid shrubby pine-buloke woodland community	Silky mouse, little pygmy-possum, Rosenberg's goanna, striped worm-lizard, western pygmy-possum	0.89	0.5	2.35	2. 3. 4.	
4	Protecting our Malleefowl	Cross tenure, landscape scale cat and fox control in the Little Desert region. To continue expanded fox control and explore other fox control options. Monitoring and research. Improve knowledge of population, extent and status of Malleefowl, including: additional LIDAR, assessment of small fragmented populations north of the Little Desert National Park, and genetic assessment of fragmented Malleefowl populations.	Parks Victoria Wimmera CMA Trust for Nature National Malleefowl Recovery Group Victorian Malleefowl Recovery Group Local Landcare	YES	0.96	Malleefowl	Silky mouse, little pygmy-possum, Rosenberg's goanna, striped worm-lizard, western pygmy-possum, Victorian Mallee birds	0.56	0.4	1.92	2. 3. 5.	Predator control
5	Protecting the Wimmera's threatened flora	To implement recovery actions from National Recovery Plans and FFG Act Action Statements for threatened flora in the Wimmera, including species recently reclassified by the common assessment method related to FFG Act implementation. This project will foster ownership of relevant land managers and target species and locations that aren't benefiting from landscape scale actions.	DELWP Trust for Nature Royal Botanic Gardens Melbourne Greening Australia Local government	YES	0.504	35 Species. Including: forked spyridium, Wimmera rice-flower, jumping jack wattle, Wimmera spider-orchid, elfin leek-orchid, Pomonal leek-orchid, elegant spider-orchid, brilliant sun-orchid, southern pipewort, floodplain rustyhood, rigid spider-orchid		1.00	0.4	1.90	2. 3. 4. 6.	Herbivore control Revegetation Weed control

^{††} See page 7 “Desired regional outcomes for biodiversity” to match the numbers to RCS outcomes

6	Wimmera orchids protection and management	Protect and manage wild populations and translocated populations of rare and threatened orchids in the area. Including weed and grazing control, protect areas where they occur, improve knowledge gaps.	DELWP Royal Botanic Gardens Victoria Trust for Nature	YES	0.56	Pomonal leek-orchid, candy spider-orchid, Wimmera spider-orchid, tawny spider-orchid, floodplain rustyhood, colourful spider-orchid		0.83	0.5	1.89	2. 3. 4. 6.	Herbivore control Revegetation Weed control
7	Food For Futures – south-eastern red-tailed black-cockatoo (SERTBC) conservation and management	Continue the existing project. To encourage habitat restoration, food resources and habitat trees. Permanently protect habitat. Restore food resources through revegetation. Engage the community. Support the SERTBC recovery group. Increase protection of paddock trees during stubble burns and roadside vegetation.	Birds Australia Trust for Nature Greening Australia Wimmera CMA Local Landcare	YES	0.78	South-eastern red-tailed black-cockatoo, Victorian temperate woodland bird community	Red gum swamp no.1	0.44	0.6	1.82	2. 3. 5. 6.	Herbivore control Permanent protection Revegetation Weed control
8	Outlet Creek biolink	Revegetation, remnant enhancement and woody weed control along Outlet Creek. Improve habitat for the Major Mitchell's cockatoo. Manage Traditional Owner values and benefit Ross Lake.	Hindmarsh Landcare Network Parks Victoria	YES	0.92	Major Mitchell's cockatoo,	Semi-arid northwest plains buloke grassy woodlands community, semi-arid herbaceous pine-buloke woodland community, semi-arid shrubby pine-buloke woodland community	0.28	0.6	1.80	1. 2. 3.	Herbivore control Revegetation Weed control
9	Weed management in the northern Grampians and Stawell regions	To control, manage and prevent establishment of new and emerging weeds in nationally significant ecosystems. Including sallow wattle in the northern Gariwerd (Grampians), reserves and private land; acacia spp; Yarra burgan around Halls Gap; cape tulip. To continue currently funded weed control in Stawell and Ararat to target boneseed (<i>Chrysanthemoides monilifera</i>) and other woody weeds like invasive acacias.	DELWP Parks Victoria Project Platypus	YES	0.85		Candy spider-orchid, Pomonal leek-orchid, tawny spider-orchid, Victorian temperate woodland bird community	0.33	0.6	1.78	2. 3.	Herbivore control Permanent protection Predator control Revegetation Weed control
10	Mackenzie River invasive species management	To manage invasive species (both flora and fauna) along Mackenzie River and other DELWP managed water frontages. Targeting species: cats, rabbits, foxes and weeds. Works with protecting platypus from foxes and existing bird populations.	DELWP	YES	0.56	Platypus, river blackfish (upper Wannon River form)		0.22	1	1.78	3.	Herbivore control Predator control Weed control
11	Wimmera grasslands restoration and management	The Wimmera's grasslands have been extensively cleared and modified. This project aims to protect and enhance grassland systems, including: Management and restoration of roadsides and remnant reserves. Signage of important roadsides in conjunction with councils. Education of landholders adjoining roadside grasslands. Compliance for illegal removal. Manage key threatened species within grasslands.	DELWP Department of Transport Trust for Nature Local government Wimmera CMA	YES	0.328	Plains-wanderer, Wimmera rice-flower, turnip copperburr, spiny rice-flower, grey box - buloke grassy woodland community		0.72	0.6	1.65	3.	Herbivore control Predator control Revegetation Weed control
12	Understanding the ecological impact of	Asset monitoring of small terrestrial vertebrates across the Little Desert	Wimmera CMA Parks Victoria DELWP	YES	0.96	Silky mouse, little pygmy-possum, Rosenberg's goanna, striped		0.50	0	1.46	5.	

	management actions in the Little Desert region	National Park to understand the effectiveness of management actions.				worm-lizard, western pygmy-possum						
13	Grampians to Pyrenees biolink	Implementing the Grampians to Pyrenees Biolink Conservation Action Plan: Revegetation activities in the upper catchment to link the Grampians to the Pyrenees range along priority corridors. Victorian temperate woodland bird community and the southernmost extent of box-ironbark forests and woodlands occurring in the Wimmera will become critical habitat under climate change.	Project Platypus Trust for Nature Wimmera CMA	YES	0.6	Swift parrot, Victorian temperate woodland bird community	Brush-tailed phascogale, squirrel glider	0.39	0.4	1.39	2.	Herbivore control Revegetation Weed control
14	Wimmera platypus rescue.	To establish a second platypus population in the Wimmera and look at the genetic rescue of the MacKenzie River population. Including landscape scale predator control across the Laharum area.	Wimmera CMA	YES	0.74	Platypus	River blackfish (upper Wannon River form)	0.11	0.5	1.35	2. 3. 4.	Predator control
15	Glenlee and Little Desert Biolinks.	Glenlee Biolink: revegetation, remnant enhancement and connectivity in the Gerang Gerung and Glenlee landscape. To establish a Little Desert Edge Biolink focused project to enhance remnant vegetation and revegetate degraded land along the northern edge of the Little Desert, providing habitat for threatened species and connectivity for biodiversity.	Hindmarsh Landcare Network	YES	0.4	Malleefowl, semi-arid northwest plains buloke grassy woodland community, grey box - buloke grassy woodland community, semi-arid herbaceous pine-buloke woodland community	Silky mouse, little pygmy-possum, western pygmy-possum, Major Mitchell's cockatoo	0.67	0.2	1.27	2. 3.	Herbivore control Revegetation Weed control
16	Future proofing the Major Mitchell's cockatoo	To focus on climate change - ensuring that the critical feeding and nesting requirements of Major Mitchell's cockatoo are enhanced to the south of their current range. They may start moving south with increasing temperatures and wildfires making habitat to the north less habitable or destroyed. Large scale planting of slender cypress pine (<i>Callitris gracilis murrayensis</i>) in grey box – grassy woodland vegetation community	Parks Victoria Mallee CMA Wimmera CMA	YES	0.6	Major Mitchell's cockatoo, semi-arid herbaceous pine-buloke woodland community, semi-arid shrubby pine-buloke woodland community	Malleefowl	0.61	0	1.21	2. 3.	Herbivore control Revegetation Weed control
17	Mount Cole Creek management and restoration	Manage environmental flows for the Mount Cole Creek and potential platypus re-introductions.	Project Platypus Wimmera CMA	YES	0.2	Platypus, river blackfish (upper Wannon River form)		0.17	0.5	0.87	2. 3.	
18	Yellow-bellied glider survey and management	Improve the understanding and management requirements of the Mosquito Creek yellow-bellied glider population, including its potential importance in a state and national context.	Wimmera CMA	YES	0.26667	Yellow-bellied glider		0.06	0	0.32	6.	

Implementation of this Action Plan

Stakeholder roles and responsibilities

Achieving the *Wimmera Regional Catchment Strategy's* outcomes for biodiversity and *Biodiversity 2037's* targets are dependent on the collaborative effort of all parties involved in biodiversity management in the Wimmera. The Partners section of the *Wimmera Regional Catchment Strategy* lists implementation partners and their relevant roles and responsibilities.

Table 2 and Table 7 of this *Action Plan* identify the organisations involved in regional biodiversity projects. This approach is based on the principle of delivering efficient and effective services and reducing duplication.

Delivering projects

There are several factors, strategies and plans that influence how regional delivery partners implement projects and make decisions about priorities and management actions. Primary factors include:

- Government policies, strategies and plans,
- The objectives and requirements of funding programs and investors, and
- The respective roles and responsibilities of delivery partners. Many partners have developed strategies and plans that guide their priorities and delivery methods. Examples include *Trust for Nature's Statewide Conservation Plan* and Parks Victoria's *Wimmera Park Landscape Conservation Action Plan*.

The *Wimmera Regional Catchment Strategy* seeks to bring these factors together for an integrated and strategic approach to long-term planning for the region's biodiversity as well as its land and water assets. This *Action Plan* provides a first step model for setting out how these factors come together at a short to medium term action plan level, through stakeholders collaborating on identifying, prioritising and planning for projects at a regional scale.

Several organisations have developed strategic plans or prioritisation processes that encompass elements of the Wimmera's landscape and biodiversity. These contribute to guiding project and management action delivery and priorities. As a region, we can be more sophisticated with our planning approach, including bringing these complementary plans together, if we are successful in gaining funding and resources to improve, update and advance this *Action Plan*.

Plans and strategic documents include:

1. Strategic Management Prospects

DELWP designed NaturePrint's *Strategic Management Prospects* (SMP) tool to assist biodiversity managers to consider and compare the most beneficial places to deliver management actions. SMP can guide managers in making decisions about:

- Where management efforts can achieve the most benefits for the most species, and
- Which management activities can provide the greatest benefit to the most species at the least cost.

Management actions delivered in priority locations identified using SMP contribute to *Biodiversity 2037's* targets. DELWP have provided maps from SMP (Version 3) for this *Action Plan*. The maps contained in Appendix 1 align to *Biodiversity 2037's* targets and show priority locations in the Wimmera for:

- Controlling predators (all predators combined),
- Controlling weeds (all transformer weeds combined), and
- Controlling problem herbivores (all herbivores combined).

The maps show the most cost-effective locations in the Wimmera to control predators, weeds or herbivores. This means that actions in these locations will provide the most benefit to the greatest number of species at the least cost.

Further information about Natureprint and SMP is available from DELWP's website:

<https://www.environment.vic.gov.au/biodiversity/natureprint>. NaturePrint products and tools, including *Strategic Management Prospects* Version 2.0, can be accessed on NatureKit, DELWP's biodiversity web mapping and reporting tool: <https://maps2.biodiversity.vic.gov.au/Html5viewer/index.html?viewer=NatureKit>.

2. Carbon Ready Plan

The *Carbon Ready Plan* is an action plan under the *Wimmera Regional Catchment Strategy* that details the actions required for the management of native vegetation, soils and other natural assets in the context of adapting to and mitigating the impacts of a changing climate. The *Carbon Ready Plan* includes analysis and maps for climate change mitigation and adaptation activities including priority areas for revegetation, and vegetation protection and management based on carbon potential, biodiversity and agricultural protection datasets. It also maps native vegetation vulnerability to climate change. The maps can be combined with other mapping to refine priorities. The plan can be viewed here: http://wcma.vic.gov.au/docs/default-source/corporatedocs/Carbon-Ready-Plan/wimmera-carbon-ready-plan.pdf?sfvrsn=69d49b69_10.

3. Wimmera Invasive Plant and Animal Management Strategy

The *Wimmera Invasive Plant and Animal Management Strategy* is an action plan under the *Wimmera Regional Catchment Strategy*. It outlines an approach to setting priorities for coordinated management of invasive plants and animals in the region. The strategy can be viewed here:

[http://wcma.vic.gov.au/docs/default-source/plantanimalsdocs/2-2019pestmanagement-strategy-\(002\).pdf?sfvrsn=84479d69_6](http://wcma.vic.gov.au/docs/default-source/plantanimalsdocs/2-2019pestmanagement-strategy-(002).pdf?sfvrsn=84479d69_6)

4. Growing What is Good Country Plan: Voices of the Wotjobaluk Nations

In 2016 Barengi Gadjin Land Council engaged the Wotjobaluk Nations on the development of the *Country Plan: Growing What is Good*. The *Country Plan* was developed by hosting yarns with individual family groups, regional meetings and group gatherings through 2016 and 2017, to gain as much information as possible from Traditional Owners living both on and off Country.

The Barengi Gadjin Land Council Board of Directors have committed to several actions within the *Country Plan*. These include re-engaging with Community, creating strategies to better manage land and water, looking after historical cultural sites such as Ebenezer, The Ranch, and maintaining cultural practices. The plan can be viewed here: <https://www.bglc.com.au/bglc-country-plan>.

5. Trust for Nature's Statewide Conservation Plan

Trust for Nature's *Statewide Conservation Plan* defines Trust for Nature's conservation priorities and priority areas. Taking a statewide perspective of the value of private land for healthy ecosystems, the Plan provides a baseline for achieving conservation targets across the state. It guides priority areas for permanent protection for achieving the conservation priorities and contributing to a comprehensive, adequate and representative National Reserve System. It also includes mapping of priority areas.

The plan can be viewed here: <https://trustfornature.org.au/resources/statewide-conservation-plan/>. Trust for Nature are developing a new version of the plan which will be available in 2022.

6. Wimmera Parks and Gariwerd (Grampians) Conservation Action Plans 2018-23

Conservation Action Plans for parks and reserves managed by Parks Victoria focuses on the resilience of natural assets and maintaining ecosystem services. The *Conservation Action Plan* identifies strategies that target Parks Victoria's conservation efforts to achieve the best outcomes for ecosystems and species with the available resources. There are *Conservation Action Plans* for both the Wimmera Parks region and Gariwerd (Grampians) Parks Landscape.

The plan can be viewed here: <https://www.parks.vic.gov.au/get-into-nature/conservation-and-science/conserving-our-parks/conservation-action-plans>. <https://www.parks.vic.gov.au/-/media/project/pv/main/parks/documents/get-into-nature/conservation-and-science/caps/wimmera-conservation-action-plan-cap-summary.pdf?la=en&hash=80A87A1A5BC193B9C7A30D76BE07E5F2934907A0>

Implementing *Biodiversity 2037*'s targets

Achievements

DELWP have monitored and reported on progress towards *Biodiversity 2037*'s targets since the strategy commenced in 2017. This helps to assess if Victoria and the Wimmera region are moving towards *Biodiversity 2037*'s vision that Victoria's biodiversity is healthy, valued and actively cared for.

Table 8 shows DELWP's 2020 statewide analysis of the progress towards *Biodiversity 2037*'s contributing targets in the Wimmera CMA region from 1 July 2018 until 30 June 2020. The progress figures include data from Wimmera CMA and other contributors to capture activity within the catchment area. The figures are calculated from all data submitted to DELWP that is compliant with DELWP's output data standards.⁽¹⁴⁾

This is likely to under-report the total amount of work done in the region as it does not include all output and activity information implemented by all stakeholders. For example, it may not include all activities funded by non-Victorian Government sources such as Australian Government or philanthropic funding. DELWP and CMAs are investigating how other work may be captured.

Table 8. Progress towards *Biodiversity 2037*'s contributing targets in the Wimmera⁽¹⁴⁾

Action	Measure	Target by 2037 (Hectares of activity in priority locations)	Progress WITHIN priority locations (Hectares, 30 June 2020)	Progress OUTSIDE priority locations (Hectares, 30 June 2020)
Sustained Herbivore Control	Hectares per year	100,000	43,993	34,560
Sustained Predator Control	Hectares per year	30,000	18,190	213,258
Sustained Weed Control	Hectares per year	40,000	12,428	8,211
Revegetation	Hectares since 2017	23,000	0	608
Permanent protection	Hectares since 2017	13,000	658 ^{‡‡}	-

^{‡‡} This includes all permanent protection in the Wimmera from 1 July 2018 until 30 June 2020. Priority areas do not apply for permanent protection.

Issues and challenges

Biodiversity 2037's targets are unachievable with current levels of investment in the Wimmera. More funding is required for the region to achieve the targets.

There are broader structural challenges to good biodiversity management that need to be resolved for regional efforts to be fully successful.

- Cats can be destroyed on public land while on private land they need to be trapped. This is a significant impediment to the protection of native wildlife such as birds, small mammals and reptiles. We recommend that the provisions for cat destruction be applied to private land.
- Foxes continue to pose a major impact on wildlife including threatened species. Tight restrictions on the use of 1080 baits limits the effectiveness of our fox control programs.
- Deer are a major issue impacting native vegetation in sensitive areas including parks. Deer are protected under the *Wildlife Act 1975* which hinders their destruction. Deer should be listed as a pest.
- Destructive feral animals such as pigs and goats continue to be released into the wild illegally. The penalties and enforcement approach is currently not strong enough to deter this practice. We suggest penalties be increased significantly and this be communicated to the public in a concerted media campaign supported by compliance and enforcement.
- Native vegetation loss continues. Illegal land clearing is often left without adequate compliance and enforcement outcomes and offsets for permitted clearing takes decades to provide adequate biodiversity benefit.
- There are few incentives for landholders to protect and manage native vegetation on private land. Some options could include:
 - Tax incentives. For example, reductions in stamp duty, rates or water levies.
 - Ecosystem services payments and support for long term protection and management of land.
 - Combined biodiversity and carbon credit schemes for strategic revegetation projects.

While this *Action Plan* goes a long way to meeting the targets in *Biodiversity 2037*, many of its desired outcomes may not be realised unless there is reform in the above areas.

Natural disasters like fire, flood drought and plagues occasionally occur in the Wimmera. From time-to-time funding is diverted to deal with recovery from the impacts of these events.

Monitoring and reporting

Biodiversity condition monitoring

There are several monitoring programs in the Wimmera collecting data that indicate the trend and condition of specific species, habitats or ecosystems in localised situations. Examples include Malleefowl (*Leipoa ocellata*) and the Red-tailed Black Cockatoo (south-eastern) (*Calyptorhynchus banksia*). The region's biodiversity managers would benefit from a strategic and coordinated region-wide monitoring program for biodiversity that provides evidence to support decision making and provides a holistic indication of the condition of biodiversity and trends over time.

The RCS's desired 6-year outcomes for biodiversity seek to address this:

Outcome 5. A coordinated regional scale monitoring program is providing up-to-date data on habitat, ecosystem and species trend and condition.

Steps can be made regionally to improve coordination and implementation of monitoring programs so that they better contribute to achieving this outcome. Further funding, including the ability to include asset monitoring into funding proposals, is required to fully develop and implement an efficient and effective ecological monitoring program.

RCS Outcomes Framework

Wimmera CMA will coordinate annual regional monitoring and reporting that focuses on assessing progress towards the RCS's outcomes for biodiversity.

Victorian CMAs and DELWP have developed an *Outcomes Framework* (Figure 7), providing a consistent approach to monitoring and reporting on the implementation of *Regional Catchment Strategies* (RCSs) across Victoria's 10 catchment management regions. The framework identifies a set of standard indicators that align with Victorian Government policies including *Biodiversity 2037*, thereby improving the way RCSs reinforce, promote and support government policy and objectives. Improved reporting consistency across the state will help demonstrate how local and regional-scale actions achieve regional and state outcomes.

Figure 7 shows the state-wide *RCS Outcomes Framework*, including regional outcome indicators for biodiversity highlighted in green. These indicators align with *Biodiversity 2037's* targets. Wimmera CMA will collaborate with other Victorian CMAs during 2022 to determine a process for reporting on the *RCS Outcomes Framework*. Projects and actions implemented under this *Action Plan* will contribute to this reporting.

Additional region-specific indicators for assessing the Wimmera's progress towards achievement of the RCS's outcomes for biodiversity will be specified in an *Outcomes Monitoring Plan* for the Wimmera RCS. Progress towards RCS implementation will be assessed and reported annually. The *Outcomes Monitoring Plan* will be finalised in 2022.

Biodiversity 2037 reporting

DELWP releases a brief annual progress update on *Biodiversity 2037* implementation, including progress towards the on-ground management targets (*Implementing Biodiversity 2037* (environment.vic.gov.au)).

To assess progress against the targets, DELWP collates activity data supplied by organisations working on biodiversity management across Victoria. This is then compared to priority areas (for herbivore, predator and weed control, and revegetation). Activity that falls within the priority areas is counted towards the targets.

DELWP will develop a more comprehensive picture of progress through the 5-yearly evaluation of *Biodiversity 2037*, with the first report planned for release in 2022.

Figure 7. Statewide outcomes framework for Regional Catchment Strategies



Next steps

This document provides the first version of a *Biodiversity Action Plan* for the Wimmera region.

Implementation

This *Action Plan* consolidates and prioritises potential future projects identified collaboratively with regional stakeholders.

- A key next step is for stakeholders to work together to seek funding to implement the future projects identified in this *Action Plan*.

Achieving the *Wimmera Regional Catchment Strategy's* Outcomes and *Biodiversity 2037's* targets will be extremely challenging at the current levels of investment in the Wimmera. More funding is required for the region to make substantial benefits for the Wimmera's biodiversity.

Progressing and improving this Action Plan

Further collaborative work with stakeholders to improve this plan would provide a more comprehensive and coordinated regional plan aligned to delivering *Wimmera RCS* outcomes and *Biodiversity 2037* targets. This would provide the opportunity to update the project prioritisation process with current information, address gaps and build on and improve the approach in conjunction with DELWP, regional stakeholders and community representatives.

- A key next step is to seek funding to update and improve this *Action Plan*.

Potential actions to improve this *Action Plan* include:

Strategic actions

- Improving the way that the *Action Plan* complements and aligns with other regional and local strategic plans for biodiversity
- Considering practical actions to address gaps in this *Action Plan*, for example the potential impacts of climate change on the region's biodiversity and the role of fire as a management tool
- Considering practical actions to address the issues and challenges listed in this *Action Plan*

Project prioritisation

- Reviewing and improving the prioritisation process and criteria with stakeholders. This includes incorporating threats into the prioritisation process to consider the level of risk to important biodiversity assets (for example, high value biodiversity assets under high threat may be considered higher priority than those facing low threats)
- Including additional regionally specific data and knowledge into species, landscape and project prioritisation criteria. This includes gathering and updating information about the plants, animals, communities, landscapes and cultural values of importance to stakeholders and the community, including Traditional Owners and the Aboriginal and Torres Strait Islander community, and feeding this into the prioritisation process
- Updating superseded data, including stakeholder project proposals, the final *FFG Threatened List* and version 3 of *Strategic Management Prospects*
- Working with stakeholders and the community to identify detailed, up-to-date project proposals that can be accurately and objectively prioritised
- Analysing proposed projects, activities and locations against *Strategic Management Prospects* priorities, *Biodiversity 2037* targets and the *Regional Catchment Strategy's* outcomes

Monitoring and reporting

- Seeking funding and collaborating with stakeholders on a coordinated regional scale monitoring program to provide up-to-date data on habitat, ecosystem and species trend and condition

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Appendix 1. Priority location maps from Strategic Management Prospects

DELWP designed NaturePrint's *Strategic Management Prospects* (SMP) tool to assist biodiversity managers to consider and compare the most beneficial places to deliver management actions. *Strategic Management Prospects* can guide managers in making decisions about:

- Where management efforts can achieve the most benefits for the most species, and
- Which management activities can provide the greatest benefit to the most species at the least cost.

Management actions delivered in priority locations identified using *Strategic Management Prospects* contribute to *Biodiversity 2037's* targets. DELWP have provided maps from *Strategic Management Prospects* (version 3) for this *Action Plan*. The maps align to *Biodiversity 2037's* targets and show the highest priority or top 20% of locations in the Wimmera for:

- Controlling predators (all predators combined) (Figure 8),
- Controlling weeds (all transformer weeds combined) (Figure 9). A 'transformer weed' is an invasive plant species that has the capacity to change the character, condition, form, or nature of one or more ecosystems over substantial areas relative to the extent of that ecosystem. Transformer weed invasion can also alter the three-dimensional arrangement, nature and abundance of food resources within an ecosystem and as such can have a profound impact on animals. ⁽⁹⁾,
- Controlling problem herbivores (all herbivores combined) (Figure 10), and
- Controlling herbivores, weeds and predators combined (Figure 11).

The maps show the most cost-effective locations in the Wimmera to control predators, weeds or herbivores. This means that actions in these locations will provide the most benefit to the greatest number of species at the least cost.

The maps in figures 8 to 11 aid in identifying the highest priority locations for management effort to implement this *Action Plan*.

Equivalent maps from version 2 of *Strategic Management Prospects* were used to prioritise the Wimmera's focus landscapes in the "Priority landscapes" section of this *Action Plan*. DELWP updated *Strategic Management Prospects* from version 2 to version 3 in late 2021. Version 3 was not ready when the landscape prioritisation analysis was done. The maps in this Appendix are from version 3 and were available in time to be included.

Note that, while the maps in this Appendix show the top 20% of locations for management effort, the priority landscapes work uses the top 10% of locations. This is because the top 20% of locations in version 3 is almost equivalent to the top 10% of locations in version 2 of *Strategic Management Prospects*.

Figure 8. Priority areas for predator control in the Wimmera as assessed by Strategic Management Prospects

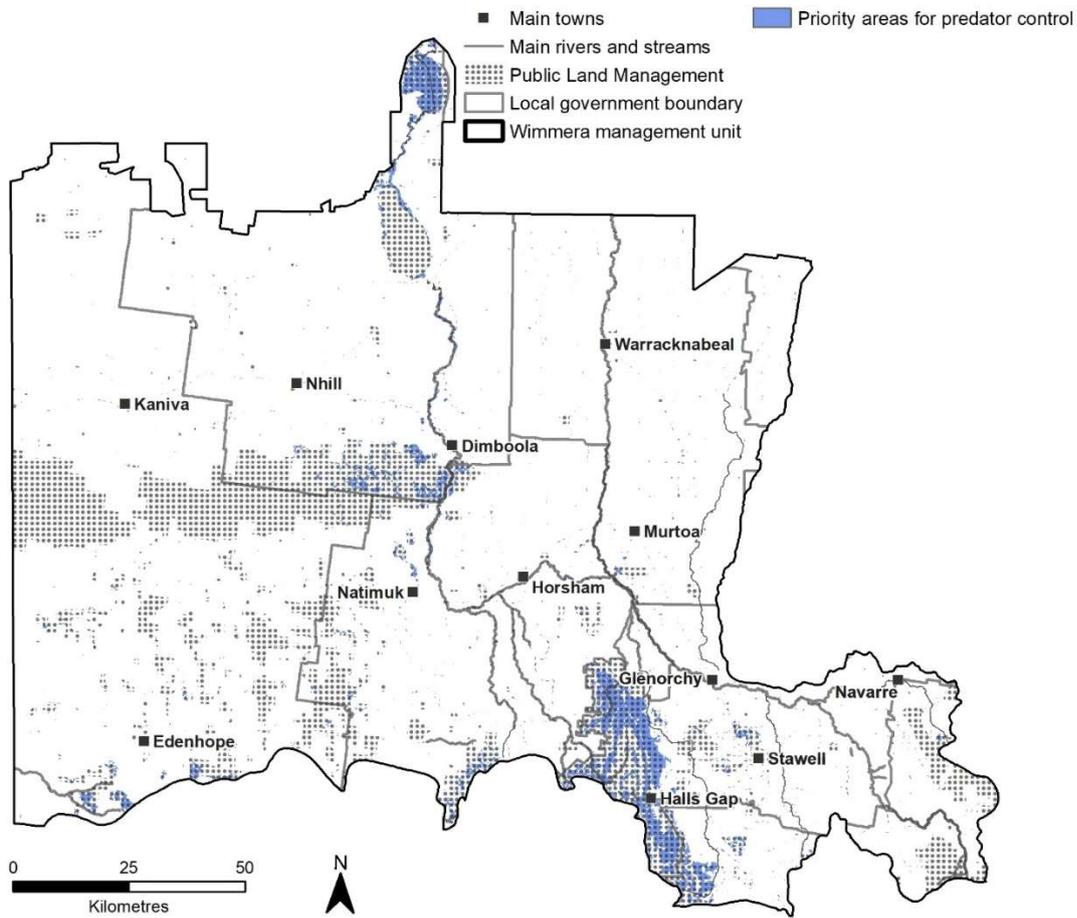


Figure 9. Priority areas for weed control in the Wimmera as assessed by Strategic Management Prospects

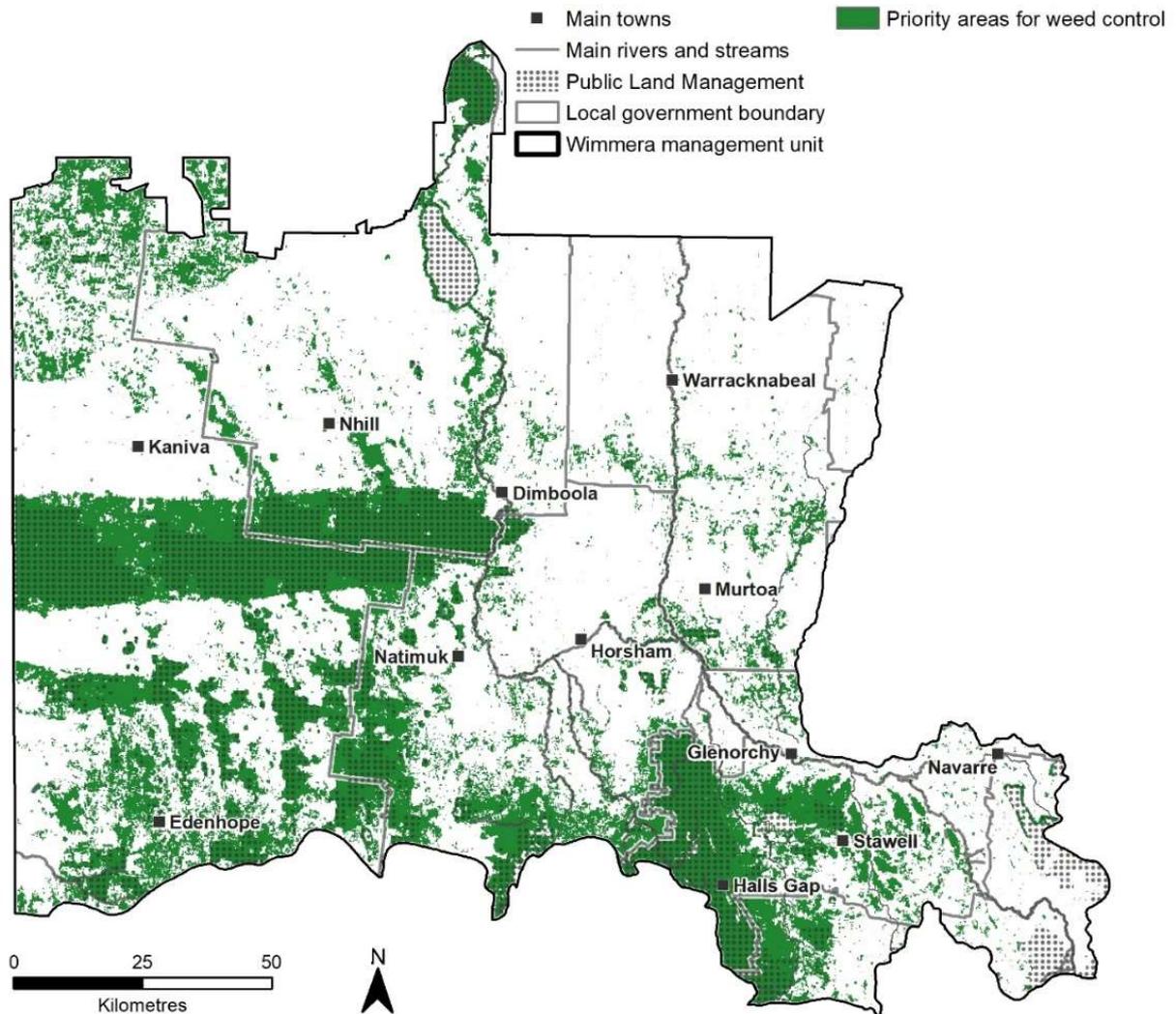


Figure 10. Priority areas for herbivore control in the Wimmera as assessed by Strategic Management Prospects

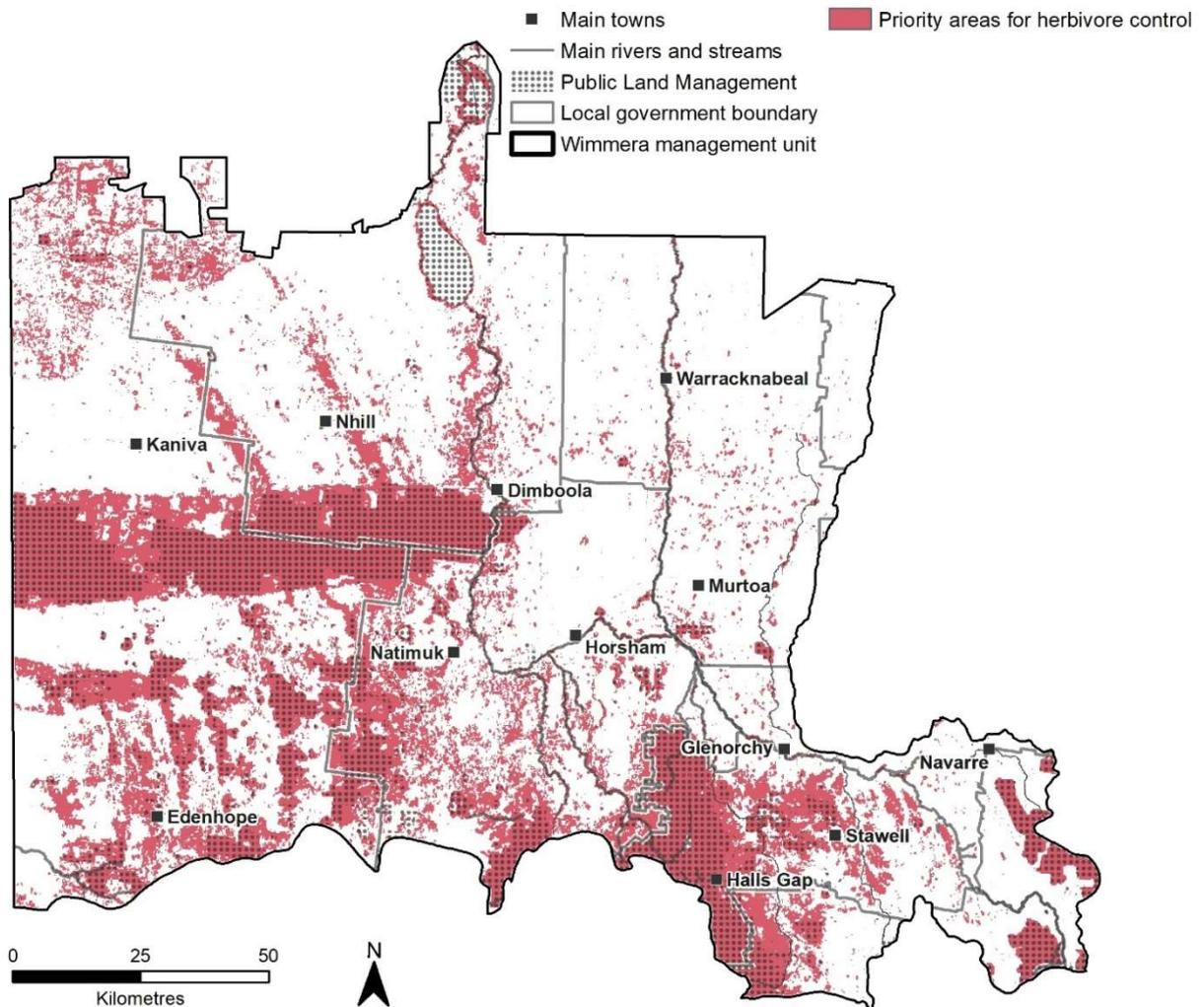


Figure 11. Priority areas for herbivore, weed and predator control combined in the Wimmera as assessed by Strategic Management Prospects

