

# South Australian Arid Lands Regional Landscape Plan

2021-2026





## Acknowledgement of Country

The SA Arid Lands Landscape Board acknowledges Aboriginal people as the First Peoples and Nations of the lands and waters of our region. We pay our respects to the Elders past, present and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country, and commit to working together to look after our landscapes.



## FOREWORD

Welcome to the SA Arid Lands Landscape Board's Strategic Landscape Plan 2021-2026.

This plan was developed with input from the SA Arid Lands community. Partnerships and the Board's relationship with the community are foundational to the Board's priorities and have informed the development of this plan in line with the new *Landscape South Australia Act 2019*.

The Board values the ongoing input, influence and guidance of First Nations People as the cultural authority of the SA Arid Lands region, alongside the communities and industries responsible for sustainable land management, protection and prosperity of the region. This plan recognises the history of the region and the enduring community commitment to protect, sustain and enhance its landscapes for the benefit of all for generations to come.

This plan is simple, clear and echoes and reflects many voices and values.

The inaugural SA Arid Lands Landscape Board welcomes the community's ongoing involvement in implementing this plan, one based on significant environmental evidence, historical data and community planning processes and an interconnectedness across landscapes, regions, land uses and values.

### **Ross Sawers**

Presiding Member  
South Australian Arid Lands Landscape Board



## Minister's endorsement

I, David Speirs, Minister for Environment and Water, after taking into account and in accordance with the requirements of Section 50 of the *Landscape South Australia Act 2019*, hereby approve the South Australian Arid Lands Regional Landscape Plan for 2021-2026.

**Hon. David Speirs MP**  
Minister for Environment and Water

Date: 28/07/21



SOUTH AUSTRALIAN ARID LANDS LANDSCAPE REGION – STATS & FACTS

POPULATION: ~24,000  
(Port Augusta 13,862; Roxby Downs 3,954; Coober Pedy 1,834; Flinders Ranges 1,692; Outback 2,542)

AREA: ~525,000 km²

FIRST NATIONS\*: Adnyamathanha, Antakirinja Matu – Yankunytjatjara, Arabana, Barngarla, Dieri, Eringa, Gawler Ranges, Irrwanyere, Kokatha, Malyankapa, Ngadjuri, Nukunu, Tjajiwara Ummuru, Wangkangurru/ Yarluyandi, Walka Wani, Wilyakali, Yandruwandha/Yawarrawarrka,

MAIN LAND USES: Livestock grazing (cattle and sheep), conservation (public and private reserves), mining (minerals, petroleum and gas), First Nations managed land.

MAIN INDUSTRIES: Pastoralism, mining, gas and petroleum, tourism, conservation

OUR VISION

Leading the way to biodiverse and productive landscapes in a changing climate



REGIONAL PRIORITIES



CLIMATE RESILIENT REGION

*Resilient landscapes, communities, and enterprises are mitigating and adapting to climate change*



WATER MANAGEMENT

*The region's water resources are managed judiciously*



SUSTAINABLE LAND MANAGEMENT

*Land management practices protect soil, vegetation and biodiversity*



PROTECTING AND ENHANCING BIODIVERSITY

*Intrinsic biodiversity values are protected and enhanced*



PEOPLE AND PARTNERSHIPS

*People and community are central to looking after our landscapes*

OUR FOCUS AREAS

- Ensuring climate risk is embedded in all Board business
  - Providing land managers with the knowledge and skills they need to mitigate and adapt to climate change
  - Exploring adaptation pathways to ensure communities are climate resilient
- Planning, research & leveraging infrastructure investment to support the judicious use of groundwater
  - Maintaining hydrogeology to protect Great Artesian Basin springs and groundwater-dependent ecosystems
  - Understanding and managing surface water systems including the Lake Eyre Basin
- Effective pest plant and animal control protecting production systems
  - Addressing the threat of excessive total grazing pressure
  - Building land managers' capacity in adaptive agriculture, best practice land management and rehabilitation
- Managing key threats to protect natural values
  - Taking action for threatened species and ecosystem recovery
  - Maintaining and improving the condition of Great Artesian Basin springs and water-dependent ecosystems
- First Nations partnerships supporting cross-cultural knowledge sharing and landscape management outcomes
  - Supporting Landscape Groups to lead community action and education
  - Raising awareness of the region's natural values and connecting people to nature
  - Supporting community action to achieve land, water and coastal management outcomes





## Why our landscapes matter

The arid lands region is vast and is home to some of Australia's iconic outback landscapes, from the sandy deserts, gibber plains, breakaways and channel country of the north, to the worn, rounded granite outcrops of the Gawler Ranges, the rugged mountains of the Flinders and Gammon Ranges in the east and the top of the Spencer Gulf in the south. The region intersects two major inland water systems – the Great Artesian Basin aquifer – supplying ancient groundwater on which the region's industries depend, and the Lake Eyre Basin, one of the world's last wild, unregulated river systems. The region covers more than half of South Australia, yet with only 1-2 % of the state's population it contributes significantly to the State's resources for consumption and the export market.

The landscapes are biodiverse and culturally rich. They contain a diversity of natural ecosystems, supporting native plants and animals, First Nations and European cultural values, ecosystem services and established industries that underpin the regional economy.

These include pastoralism (sheep and cattle production on native pastures, covering 77% of the region), mining and energy production (mineral, gas, petroleum and renewables), conservation (public and private) and nature-based tourism. In turn, these industries sustain the remote townships and communities of the region.

Healthy landscapes underpin the region's prosperity and wellbeing. Sustainable landscape management delivers benefits to all people in the SA Arid Lands region and everyone has a role to play.

## Challenges and opportunities for landscape management

The SA Arid Lands has a long and successful history of community participation in coordinated landscape management. While much has been achieved, threats to landscape condition remain.

We need to be able to prepare, respond and adapt to change.

Climate change, the emergence of new markets, growth in tourism, advances in technology and improved network access in the outback will create new opportunities and challenges for landscape management.

Opportunities include:

- Diversification of land use into emerging markets, including carbon farming, renewables, and ecosystem services;
- Trialling of new technologies and innovative practices to increase profits while maintaining and monitoring land condition;
- Engaging with community and visitors to the region to improve peoples' appreciation of, and advocacy for, the natural environment;
- Investigation of new approaches to manage total grazing pressure, such as niche markets that recognise over-abundant kangaroos as a valuable resource; and
- Leveraging external funds to deliver greater landscape benefits through partnership and co-investment.

Key challenges for landscape management identified by the SA Arid Lands community<sup>i,ii,iii</sup> include:

- **Managing total grazing pressure** from livestock and other herbivores, and adapting management to maintain land condition in a variable climate
- **Climate change mitigation and adaptation**, landscape resilience and ability to recover from prolonged dry periods
- **Water resource management**, including the judicious, or efficient, use of the Great Artesian Basin groundwater resource and improved capacity to measure its condition and supply
- **Pest animals and weeds** – existing and emerging
- Managing environmental impacts of **growing visitor numbers**
- Competition for land and water as industries become more marginal or market and political drivers influence economic opportunities



Role of the Board

Under the *Landscape South Australia (LSA) Act 2019*, the Board’s role is to undertake, promote and integrate the management of natural resources. Particular reference is given to land management, water resource management and pest animal and plant control. Ultimately the goal of the board is to build resilience in the face of change and to facilitate integrated landscape management and biodiversity conservation.

A key function of the Board is the development of a regional landscape plan (this plan). The Board is also responsible for developing a water allocation plan for prescribed water resources. The Board operates as the relevant authority for a range of water, land protection and animal and plant control activities.

The Board works with the community in delivering its responsibilities under the LSA Act. Its roles include education and awareness raising aimed at practice change and adoption, encouraging and supporting legislative compliance, and enforcement when needed.

Landscape planning framework



How we will deliver this plan

Each land owner in the SA Arid Lands pays a Landscape and/or Water Levy which the Board has the responsibility of investing wisely to achieve the goals and strategies within this plan. An annual business plan provides information on the proposed annual expenditure against the Board’s regional priorities and legislated requirements, and the Board’s staffing arrangements.

The Board’s regional delivery model is key to successful partnerships and program delivery in a diverse, and largely remote region. Seven district Landscape groups connect the community and the board. This model supports local relationships and access to education, capacity building, grants, community events and volunteer support.

Partnership agreements with the Australian Government continue to resource significant elements of the Board’s plan and align with national environmental and economic priorities. Specific projects are outlined in the Board’s business plan.

The Board values its relationships with First Nations, peak bodies and industry groups – including pastoral, tourism and mining, community groups and non-government organisations, education and research bodies, local, State and Australian Governments and statutory authorities, and volunteer groups in the region. Current and new partnerships are fundamental to the successful delivery of the plan. Key delivery partnerships are identified in the Board’s business plan.

THE BOARD’S GUIDING PRINCIPLES

- The Board is:
- Collaborative, considers community values and involves people in decision-making
  - Facilitates resilient and adaptive landscape management
  - Is accountable, transparent, adaptive, innovative and action-oriented
  - Takes a best-practice systems approach to regional planning
  - Employs evidence-based decision making that incorporates the best available science, local and cultural knowledge that improves understanding of landscape resilience
  - Maximises public return on investment
  - Complies with legislation

PRIORITY 1



CLIMATE RESILIENT REGION

**OUR GOAL:** *Resilient landscapes, communities, and enterprises are mitigating and adapting to climate change*

The SA Arid Lands falls within the arid (<200mm/yr) and semi-arid (<350mm/yr) climate zones, with rainfall that is low on average, and highly variable and unpredictable between years and seasons. Sporadic large rain events and floodwaters entering the region from tropical storms to the north bring periods of high landscape productivity. Extended dry periods are common, testing both landscape and community resilience.

While local communities and industries are accustomed to these ‘boom and bust’ conditions, climate change presents additional challenges for the region.

Rising temperatures, more frequent heatwaves and extreme weather, and the projected southern migration of arid conditions pose risks to community well-being, built infrastructure, landscape productivity, livestock health and production, and the health and persistence of native plants and animals, especially those already vulnerable due to other threats. Sea level rise has the potential to impact coastal development, and ocean warming threatens marine ecosystems, including seagrass beds.

Climate change presents a challenge for landscapes and communities in the SA Arid Lands, but also an opportunity to re-imagine its future. A shift to a low carbon economy will require testing of new methods for

sequestering carbon and reducing net emissions from production systems. It offers greater potential for land use diversification into carbon farming, renewable energy and new markets for the provision of ecosystem services.

Improving the resilience of the region’s landscapes, community and enterprises to climate impacts and their capacity to respond to change is a priority for the Board. Climate influences all aspects of landscape management, and managing climate risks is embedded within all the Board’s priorities.

CLIMATE PROJECTIONS FOR SOUTH AUSTRALIA’S RANGELANDS

- By 2050, under a high emissions scenario, the region will experience:
- Higher temperatures – Up to 2.1°C hotter on average; increased maximum and minimum temperatures, more very hot days, and less frost
  - An increase in the intensity of rainfall events
  - Declines in annual average, winter and spring rainfall
  - Natural variability of rainfall will remain the dominant driver of rainfall trends in the short term
  - More information on climate projections for the region and South Australia can be found at [data.environment.sa.gov.au/Climate/Science-and-Knowledge](https://data.environment.sa.gov.au/Climate/Science-and-Knowledge)

FOCUS AREAS – CLIMATE RESILIENT REGION	PLANNED 5-YEAR OUTCOMES
C1 Ensuring climate risk is embedded in all Board business	Program and project planning considers climate impacts on key landscape assets and values, and the effectiveness of management approaches and actions under future climates.
C2 Providing land managers with the knowledge and skills they need to mitigate and adapt to climate change	Land managers have improved access to information on climate, innovative technologies and practices, and diversification options to assist their planning and adaptation.
C3 Exploring adaptation pathways to ensure communities are climate resilient	Industry, research bodies, land managers, government and the Board are working together to explore climate risks and opportunities for regional industries to respond to a low carbon future.







## PRIORITY 2

### WATER MANAGEMENT

**OUR GOAL:** *The region's water resources are managed judiciously*

Water is a critical resource in the SA Arid Lands. Natural springs, rockholes that fill after rain and semi-permanent waterholes that fill during flood have sustained First Nation's people, and the region's cultural and environmental values for many thousands of years. Groundwater supplies, primarily from the Great Artesian Basin aquifer, are the life blood of the region's communities and industries. Over the past 200 years, numerous artesian bores have supported the expansion of pastoralism and mining in the region. Surface water varies in reliability across the region (being mostly unreliable in the north) but is also important for production and town supply in some areas.

Sporadic large rain events and floodwaters from tropical storms to the north of the region bring flushes of growth to waterways, floodplains and wetlands, and life to normally dry lakes, including Lake Eyre. This supports major breeding events for migratory birds, and is a drawcard for tourists. The Lake Eyre Basin, one of four major surface water drainage divisions in the SA Arid Lands, is one of the world's last unregulated, wild river systems, covering almost one sixth of Australia.

Key threats to water resources in the SA Arid Lands include: over-extraction of groundwater and surface water, aging infrastructure, contamination and climate change (hotter temperatures, increased evapotranspiration and long term reduction in rainfall leading to increases in water use, and potential decline in aquifer recharge).

Threats to water quality and ecosystem condition from trampling and contamination by livestock and pest animals, mining and tourism— particularly to springs, waterholes and creek lines – are addressed under Priority 5 – Protecting and enhancing biodiversity.

Judicious use, or careful management, of water resources is required to prevent local impacts on water availability and quality that can result from excessive water extraction, and to balance the economic, social and environmental needs for water.

FOCUS AREAS – WATER MANAGEMENT	PLANNED 5-YEAR OUTCOMES
<b>W1</b> Planning, research & leveraging infrastructure investment to support the judicious use of groundwater	Implementation of the Far North Prescribed Wells Area Water Allocation Plan. Improved understanding of groundwater dynamics to identify influences and limits on the resource. Exploration of co-funding opportunities for bore management and maintenance. Improved capacity to monitor use and condition of groundwater resources.
<b>W2</b> Maintaining hydrogeology to protect Great Artesian Basin springs and groundwater-dependent ecosystems	Localised impacts of water extraction on water pressure are minimised, and the condition of priority natural springs and other water-dependent ecosystems are maintained or improved. Cultural heritage is protected.
<b>W3</b> Understanding and managing surface water systems including the Lake Eyre Basin	The Board participates in the Lake Eyre Basin partnership and supports the strategic adaptive management of the basin. The Board has an improved understanding of the region's surface water systems to guide management decisions. Water Affecting Activities control policy is applied to manage impacts on surface water quality and quantity.



## PRIORITY 3

### SUSTAINABLE LAND MANAGEMENT

**OUR GOAL:** *Land management practices protect soil, vegetation and biodiversity*

The region's landscapes (soils, waters, vegetation, species, human values and uses of the environment) are its 'natural capital'. Landscapes provide a range of ecosystem services, from the provision of food and fibre, to water filtration and storage, flood mitigation, carbon storage and pollination. They support extensive sheep and cattle production on native pastures (including a growing number of organic producers), mining and energy (mineral, gas, petroleum and renewables), biodiversity conservation, cultural values, eco-tourism and small townships.

Native vegetation of the Arid Lands region is for the most part intact (uncleared), though it has been modified by livestock and pest animal grazing since European settlement. Many land systems have naturally low plant cover but are protected from wind erosion by their rocky nature or by living soil crusts (lichens and mosses) where these are intact.

There are a number of issues threatening the condition of landscapes and the sustainability of landscape-dependent enterprises in the SA Arid Lands region. These include:

- Current climate variability, climate change and the capacity of pastoral and farming systems to adapt to change in conditions
- Overgrazing by livestock and other herbivores. Excessive total grazing pressure - from the combined impacts of over-abundant kangaroos,

livestock and feral herbivores – leads to the decline or loss of palatable species, reduced soil cover, increased wind and water erosion risk, reduced landscape hydration, reduced capacity to recover after dry years, and long-term decline in landscape productivity. The effects of severe degradation may last for decades or longer, and affected areas may require active rehabilitation.

- Pest animals (including wild dogs, foxes, cats, rabbits, goats, pigs, donkeys, wild horses and camels), are a landscape-scale issue, threatening production, biodiversity or cultural values, and require coordinated control. Their abundance and extent is influenced by extreme seasonal events, and climate change may result in a shift in distribution and new incursions. It is important to note that wild dogs have an ecological role and value, though are controlled inside the dog fence to protect the sheep industry.
- Pest weed species compete with native pastures and can reduce landscape productivity as well as contaminate animal products. The region contains a number of Weeds of National Significance (WoNS) with potential to impact production
- Inappropriate placement or maintenance of infrastructure, such as roads, tracks and pipelines, can alter surface drainage and lead to gully erosion and sedimentation of waterways.

FOCUS AREAS – SUSTAINABLE LAND MANAGEMENT	PLANNED 5-YEAR OUTCOMES
<b>L1</b> Effective pest plant and animal control protecting production systems	Landholders participate in coordinated control of priority pests and weeds, with a particular focus on: <ul style="list-style-type: none"><li>• wild dogs (south of the dog fence);</li><li>• pigs;</li><li>• feral herbivores (goats, camels, horses, donkeys, rabbits); and</li><li>• priority weeds identified in the regional Pest Management Strategy, including Weeds of National Significance (WoNS)</li></ul>
<b>L2</b> Addressing the threat of excessive total grazing pressure	Land managers, industry partners, government and the Board work together to reduce the impacts of over-grazing, with a focus on over-abundant kangaroos, livestock grazing practices, and feral herbivores.
<b>L3</b> Building land managers' capacity in adaptive agriculture, best practice land management and rehabilitation	Land managers are engaged in contemporary and innovative practices for rangeland management and rehabilitation.





# PRIORITY 4

## PROTECTING AND ENHANCING BIODIVERSITY

**OUR GOAL:** *Intrinsic biodiversity values are protected and enhanced*

The SA Arid Lands region hosts a diversity of rangelands ecosystems, and a wealth of plants and animals adapted to arid environments. It is home to a significant proportion of South Australia’s reptiles (70%), birds (57%), frogs (50%) and mammals (50%); and contains ten major bioregions.

Natural springs of the far north are oases in the desert; unique island ecosystems supporting some species that occur nowhere else. Semi-permanent waterholes also provide refuge for many species, and ephemeral lakes – when in flood – provide important breeding habitat for migratory birds. The Coongie Lakes Ramsar wetland in the north east of the region is a site of international significance. The region also includes the marine and coastal environments of the upper Spencer Gulf, supporting seagrass and mangrove communities of ecological importance.

While the SA Arid Lands has a high level of native vegetation cover (>95% by area), landscape modification since European settlement and the spread of pest species, have impacted many native species, reducing the number and extent of populations and causing local extinctions. Currently, 46 native species (25 animals and 24 plants) and two ecological communities in the SA Arid Lands landscape region are listed nationally as vulnerable or endangered.

There are a number of key threats to biodiversity in the SA Arid Lands region:

- Predator pests (foxes, pigs and cats) that hunt small to medium-size animals
- Herbivore pests (goats, pigs, rabbits, camels, donkeys, horses) and livestock that compete with native species for resources and can degrade habitat, especially in sensitive areas such as springs, rockholes, waterways and wetlands
- Over-abundant kangaroos, leading to over-grazing and land degradation
- Aquatic pests, that compete with native species and degrade habitat and water quality
- Climate change impacts on biodiversity remain uncertain but are likely to be most severe for species that depend on riparian zones and wetland systems, and where populations are small, isolated or already vulnerable because of other threats
- Loss of pressure in GAB springs due to local or regional over-extraction (addressed under Priority 2 – Water Management)
- Knowledge gaps – in a region as vast as the SA Arid Lands there are significant gaps in the knowledge of biodiversity values in many parts of the region. This limits the ability to manage potential threats to these values.

There are close links between the priorities Sustainable Land Management and Protecting and Enhancing Biodiversity. Actions that improve land and pasture condition will also benefit biodiversity, and vice-versa.

It is recognised that best practice land management provides the basis for achieving landscape-scale biodiversity outcomes.

FOCUS AREAS – PROTECTING AND ENHANCING BIODIVERSITY	PLANNED 5-YEAR OUTCOMES
B1 Managing key threats to protect natural values	Reduction in the threat from pests and weeds through landscape-scale control in areas of high conservation value, with a particular focus on: <ul style="list-style-type: none"><li>• predator pests (particularly foxes, pigs and cats) and goats in the region's ranges;</li><li>• pigs and large feral herbivores in the Coongie Lakes Ramsar wetland;</li><li>• goats and pigs in the North East pastoral region; and</li><li>• priority weeds including Weeds of National Significance.</li></ul> Development and implementation of a strategic adaptive management plan for the Coongie Lakes Ramsar wetland, including key thresholds to trigger management actions.
B2 Taking action for threatened species and ecosystem recovery	Improvement in the trajectory of targeted threatened species and threatened ecological communities, through tailored site-specific actions and monitoring. (In accordance with Recovery Plans and Conservation Advices for EPBC-listed species). Improved understanding of biodiversity values in data-poor areas through partnerships and knowledge sharing.
B3 Maintaining and improving the condition of Great Artesian Basin springs and water-dependent ecosystems	Prioritisation of springs according to value and risk using the GAB springs strategic management planvi. For priority springs and water-dependent ecosystems, localised threats to condition addressed, including: <ul style="list-style-type: none"><li>• loss of vegetation and nutrient overload caused by stock and pest animals;</li><li>• weed invasion;</li><li>• physical destruction of cultural or geological features, or excavation; and</li><li>• disturbance due to increased visitor numbers.</li></ul>







## PRIORITY 5

### PEOPLE AND PARTNERSHIPS

**OUR GOAL:** People and community are central to looking after our landscapes

The people of the SA Arid Lands region have a wealth of knowledge, history, tradition and expertise. The deep understanding of the systems and their unique ecology, is held by the First Nations people and their stories.

Families who have been managing the lands and pastoral enterprises for generations are resilient to the challenging lifestyle of the region. They bring histories and legacies fundamental to its sustainability.

The heritage and environmental significance of the SA Arid Lands is valued across Australia. Volunteers, visitors and the conservation sector are invested in, committed to, and passionate about protecting and carefully managing the region.

The region's remoteness presents a number of challenges for its communities and businesses, including maintaining workforce capability, access to skills training, and mental well-being, which influence people's capacity in land management.

People, the country, the landscapes, the communities and the industries are inextricably linked. It is because of this, the Board recognises the immeasurable value that partnering with community brings to managing the region's landscapes.

The long term sustainability of the landscapes that support industries and communities is paramount to the Board's decision making. Collaboration with the First Nations corporate and cultural authorities, industry peak bodies and sectors such as the environment, tourism, pastoral and mining leaders will hold the region and its communities in good stead for a sustainable future.

FOCUS AREAS – PEOPLE AND PARTNERSHIPS	PLANNED 5-YEAR OUTCOMES
P1 First Nations partnerships supporting cross-cultural knowledge sharing and landscape management outcomes	Cultural knowledge and expertise is valued in the planning and implementation of the Board's initiatives. First Nations people and communities are actively engaged in the design and delivery of projects and programs.
P2 Supporting Landscape Groups to lead community action and education	The Board supports seven Landscape Groups across the region: <ul style="list-style-type: none"><li>• Gawler Ranges;</li><li>• Kingoonya;</li><li>• Marla – Oodnadatta;</li><li>• Marree – Innamincka;</li><li>• North East Pastoral;</li><li>• North Flinders; and</li><li>• Port-Augusta – Quorn.</li></ul>
P3 Raising awareness of the region's natural values and connecting people to nature	There is a shared understanding of the importance of the environment, the threats it faces, and how people can take action. The community benefits from connections to nature.
P4 Supporting community action to achieve land, water and coastal management outcomes	Volunteer groups and community are supported with the Board's resources and expertise, including Grassroots Grants.

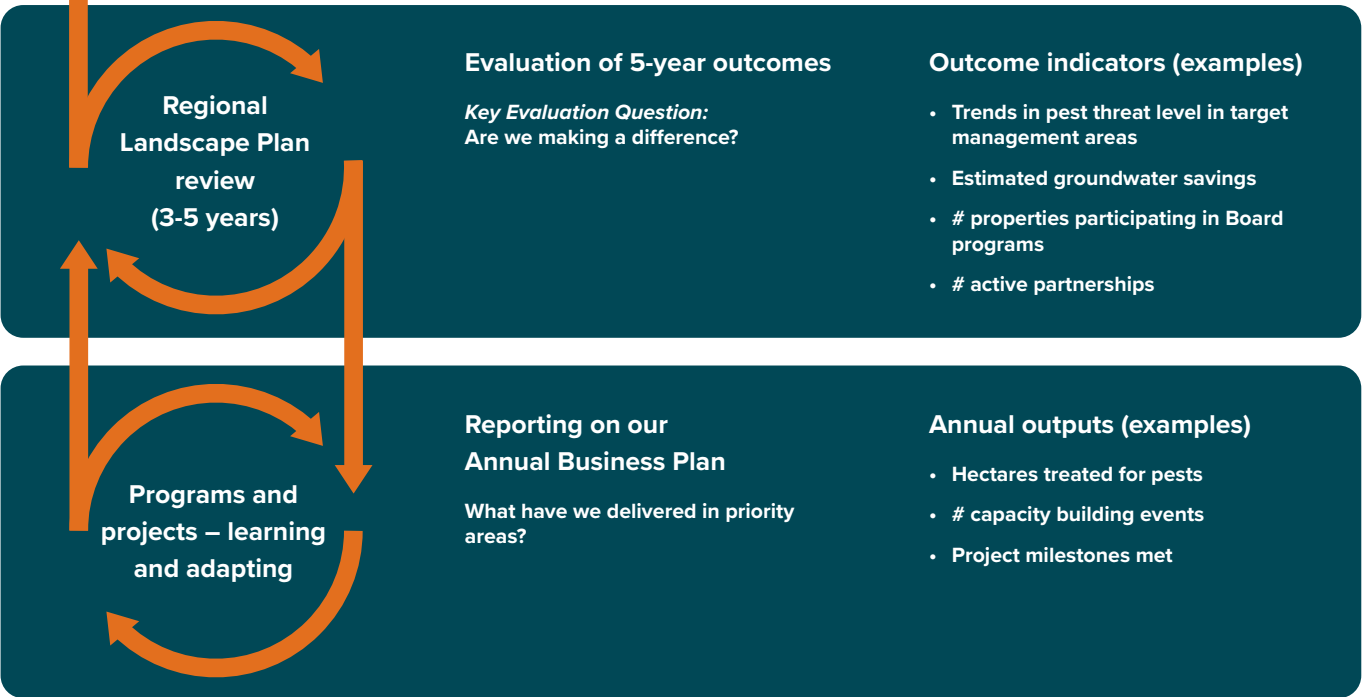


## EVALUATING THE PLAN

### Resource condition trends (10-20 years)

As reported in:

- SA trend and condition report cards
- State of the Environment reports (national)
- Other data sources



### REFERENCES

- SA Arid Lands stakeholder planning workshops – Port Augusta (Sept and Oct 2020)
- Outback Futures Project: Stage 1. Feedback from consultation: What we've heard. August 2020. [oca.sa.gov.au/node/253](http://oca.sa.gov.au/node/253)
- SA Arid Lands Natural Resource Management Board (2017) Regional NRM Plan (Volume 1). It's your place. [www.landscape.sa.gov.au/files/sharedassets/sa\\_arid\\_land/corporate/nrm\\_plan/17072017\\_saalregionalplanv1\\_web-plan.pdf](http://www.landscape.sa.gov.au/files/sharedassets/sa_arid_land/corporate/nrm_plan/17072017_saalregionalplanv1_web-plan.pdf)
- DEH (2009) South Australian Arid Lands Biodiversity Strategy. Volume 1. [www.environment.sa.gov.au/files/4fbedd4-1229-4af9-81f3-9e6100ad07f6/volume-1.pdf](http://www.environment.sa.gov.au/files/4fbedd4-1229-4af9-81f3-9e6100ad07f6/volume-1.pdf)
- SA Arid Lands Natural Resource Management Board SA Arid Lands Bioregional descriptions. [www.landscape.sa.gov.au/saal/about-us/our-regions-plan](http://www.landscape.sa.gov.au/saal/about-us/our-regions-plan)
- Brake, L, Harris, C, Jensen, A, Keppel, M, Lewis, M & Lewis, S (2019). Great Artesian Basin Springs: a Plan for the Future. Evidence-based methodologies for managing risks to spring values. Prepared for the Australian Government Department of Agriculture, South Australian Department for Environment and Water, Queensland Department of Natural Resources, Mines and Energy, New South Wales Department of Planning, Industry and Environment, and the Northern Territory Department of Environment and Natural Resources. [www.landscape.sa.gov.au/files/sharedassets/sa\\_arid\\_land/water/6008\\_gab\\_final\\_jan\\_2020.pdf](http://www.landscape.sa.gov.au/files/sharedassets/sa_arid_land/water/6008_gab_final_jan_2020.pdf)



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