

Northern and Yorke Landscape Board

Achievements 2021–2022

Working towards a resilient and productive landscape that sustains a thriving community, environment and economy.



A horizontal scale bar with major tick marks at 0, 25, 50, and 100 km. The background of the bar is a textured, light brown color.



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Acknowledgement of Country

The Kaurna, Narungga, Ngadjuri, Nukunu and Peramangk people are the Traditional Custodians of the Northern and Yorke region. We pay our respects to their Elders past, present and emerging. We acknowledge the deep spiritual relationship that Aboriginal people have to Country and the ongoing contribution they make to this region.

Introduction

From the hills and plains to the sea, we are committed to the protection and productivity of our natural resources to ensure resilient ecosystems, vibrant communities and a healthy economy into the future.

Our region's natural resources underpin nearly every aspect of our lives. From the water we rely on, to the sustainability of our agricultural industries and the simple enjoyment of outdoor pursuits. Protecting the health of our soils, water, flora and fauna is important to everyone and is becoming increasingly vital due to a changing climate.

The Northern and Yorke Landscape Board's vision is a resilient and productive landscape that sustains a thriving community, environment and economy.

We work collaboratively with First Nations people, the community and partner organisations to ensure our precious landscapes are valued and protected into the future. Our work is funded by the Landscape Levy, the Australian Government and conservation organisations.

We're proud to feature some of the achievements of the Northern and Yorke Landscape Board during 2021-2022.

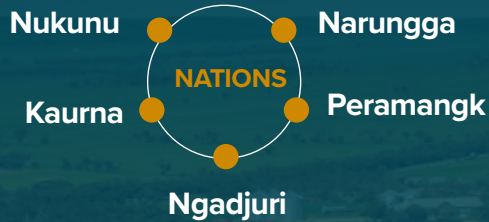




About **150,000 people** live in the **Northern and Yorke region**

Total region spans **38,500km²**

Traditional Custodians:



Major centres: Balaklava, Burra, Clare, Gawler, Kadina, Nuriootpa, Orroroo, Peterborough, Port Pirie



About **80% of the region** is under **agricultural cropping** and grazing production, contributing a quarter of South Australia's agricultural earnings.

Other industries:

Wine production in the Clare Valley and Barossa Valley, mining and mineral processing, fishing, aquaculture, forestry, horticulture and tourism.

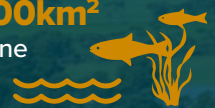


1,000km of coastline

Average annual **rainfall of 250-600mm**



15,500km² of marine areas





Communities

Active. Informed. Knowledgeable.

Engaging with volunteers, community, schools, landholders, industries, Aboriginal groups, and local government.

Cultural burns reignite restorative practice

Timeless cultural burning practices returned to Narungga and Nukunu Country in May 2022 with low-intensity burns conducted at five sites on Yorke Peninsula and in the southern Flinders.

The Northern and Yorke Landscape Board collaborated with First Nations people, Firesticks Alliance Indigenous Corporation and National Parks and Wildlife Service (NPWS) to undertake cultural burning on Country, with funding from WWF-Australia's Regenerate Australia program.

Nukunu man Travis Thomas said it was one of the most significant projects for the Nukunu people in the Aboriginal land management space in recent times.

“This project marks a return of cultural burning to our people, which was taken from us following colonisation. The use of fire is about looking after Country, connecting with Country and it’s an expression of our culture,” said Mr. Thomas. “This cultural burning project also has broader benefits to the landscape and all people. With an increase in cultural burning comes a reduction of fuel loads and a reduced risk of wildfires.”

The project’s five burns were held at Dhillba Guuranda-Innes National Park, on private land near Warooka, at a grasslands site in Ardrossan, at Beetaloo Reservoir and at a property near Wilmington.



Yorke Peninsula delivers spike in hooded plover survivors

The odds are stacked against hooded plovers, vulnerable beach-nesting birds that face threats from dogs, beach goers, vehicles and feral predators.

In the Northern and Yorke region, they're lucky to have a community of people dedicated to monitoring, protecting and raising awareness of their plight. This concerted effort led to a record number of 'hoodie' fledglings in the 2021/2022 Yorke Peninsula breeding season. Forty-three chicks took to the skies, which is 26 more than the previous season when 17 hooded plover fledglings were recorded.

But it wasn't all smooth sailing for our hoodies, with not one but two emergencies requiring rescue operations.

High-stakes rescue saves doomed hooded plover

The first rescue team sprang into action on the eve of the October 2021 long weekend when Friends of the Hooded Plover Yorke Peninsula volunteer Annie Hopkins and her daughter Grace Disher spotted an injured hooded plover at Port Victoria on Rifle Butts Beach. A tangle of blue twine was wrapped around the bird's foot.

Annie's quick thinking set a crisis response into action, with BirdLife Australia's Emma Stephens, Dr Veronica Bhakti of Wallaroo's Seaside Vet and Northern and Yorke Landscape Board's Fabienne Dee all coming to the bird's aid. It was just in the nick of time, according to Dr Bhakti.

"If the fibres were left wrapped around the toes, eventually blood supply would be cut off and the toes would die...which would greatly decrease its ability to forage and escape predators - both critical for its survival," she said.

Lucky hoodie chicks survive risky move

Two hoodie chicks were very lucky to start 2022 in one piece, thanks to a New Years' Eve rescue at Port Hughes.

Early on 31 December 2021, a resident pair of hooded plover parents and their three-day-old chicks, attempted a perilous trek across the busy boat ramp car park. It didn't go according to plan, with the chicks falling into in a large drain below a locked metal grate.

It took a combined effort from hoodie volunteers Steve and Rosina Jantke, Landscape Officer Janet Moore, passer-by Scott Francis and Copper Coast Council's Simon Neumann, Matt Rose and Neale Moss to reunite the chicks with their relieved parents.

The cultural burning project and caring for hooded plovers are part of Marna Banggara, an ambitious project to restore lost species to the landscape. Marna Banggara is jointly funded through the the Australian Government's National Landcare Program, the Northern and Yorke Landscape Board, the South Australian Department for Environment and Water, WWF-Australia and Foundation for National Parks & Wildlife, in partnership with the Narungga Nation Aboriginal Corporation.

Beach walks and boxthorn control all in a day's work

They've dubbed themselves African Boxthorn Assassins and they certainly mean business when it comes to targeting this spiny menace that's known to injure livestock, dominate native plants and harbour feral animals.

In July 2021, the Friends of Walk the Yorke group culled more than 100 African boxthorn bushes on the sand dunes at Port Minlacowie and planned to finish them all off at their next 'Walking Bee'. Led by Celia Manning and Pam Bennett, it's a monthly activity during cooler months that sees group members make the most of the great outdoors and tackle the fast-growing declared weed.

But it's not all about weed destruction for the group. "We combine weed control into our beach walks and finish off with some coffee and cake," said Alan Anderson, a Friends of Walk the Yorke member.

Recognising Peramangk connection to Herbig Tree

The story of German emigrant Friedrich Herbig who lived in a hollowed out river redgum in Springton is famous in the Barossa Valley. In 1855, the 27-year-old dairy worker set up his home within the six-metre wide tree that later also housed his bride Caroline and their first two children.

What is less well-known is the story of the indigenous connection to the ancient tree, which is estimated to be about 500 years old.

In September 2021, our Aboriginal Engagement Committee (AEC) began discussions to recognise the gum's cultural significance to the area's Traditional Custodians, the Peramangk people.

They met with some of Friedrich and Caroline's descendants, Peramangk leader Isobelle Campbell, Barossa Council representatives and a team from the Board. It was an emotional gathering for all present who heard about the tree's coolamon scars; evidence of First Nations people carving wooden dishes out of the tree's bark.

AEC meetings occur four times a year, with every meeting held on one of the five Nations within the region, which include Kurna, Narungga, Ngadjuri, Nukunu and Peramangk. One representative from each Nation is part of the committee, together with three Northern and Yorke Landscape Board members, and a representative from Legatus Group, Regional Development Australia Yorke and Mid North and Regional Development Australia Barossa Gawler Light Adelaide Plains.

For more information about the AEC, contact Matthew Turner via matthew.turner@sa.gov.au

Healthy Country Planning

The Healthy Country Planning (HCP) process is an important way the Board collaborates with First Nations communities to care for Country. During the past three years, the Board has worked with the Narungga and Nukunu Nations to identify their aspirations, goals and values for healthy Country and a better future. Through a series of community workshops, plans that encompass the cultural, environmental and social values are developed. Workshops for the Narungga HCP were completed in 2020, while the final workshop for the Nukunu HCP occurred in first half of 2022.

"Healthy Country Planning provides genuine and practical opportunities to listen to a range of voices from First Nations communities," said Aboriginal Partnerships Officer Matthew Turner. "The rich information generated through this process is fundamental in setting the Board's priorities and the development of on-ground programs."



871 volunteers
generously provided
50,116 volunteer hours
in our region

26 community groups
received free insurance
through the Board

6 schools received support
via our grant funding



Funded **32** Grassroots
Grants, totalling **\$216,000**

26 Bite-sized Grants funded,
totalling **\$23,098**



On Facebook, we reached
250,261 people and
engaged **43,790**



\$92,000 spent on
Aboriginal employment,
services or products

100 people in total involved
across a **week-long cultural
burning tour** of the region,
including **50** First Nations
participants

9 First Nations projects
funded by Grassroots or
Bite-sized grants

4 Aboriginal Engagement
Committee meetings held
on Country





Biodiversity

Protected. Improved. Restored.

Protecting ecosystems, native vegetation, threatened and listed species, Aboriginal significant sites, rivers and creeks, coasts and marine areas.

Bite-sized grant boosts biodiversity at Parrot Hill Creek

- 345 plants
- 21 local species
- 33 metres of creek bed
- Two working bees
- And...one outstanding community group!

The Friends of Parrot Hill Creek is an energetic bunch who put one of our Bite-sized Grants to great use. Determined to restore biodiversity to the riparian zone of Parrot Hill Creek at Moculta in the Barossa, this team began by removing exotic weeds from the area, including phalaris and millet, came back to respray any regrowth and then started planting.

They sourced 190 plants – all native to the Moculta area - from a local nursery and another 155 were locally-propagated by the group's coordinator. The Bite-sized Grant also funded a series of signs installed along the creek area that explain the plants that butterflies and caterpillars like to munch on.

The Friends of Parrot Hill Creek were also supported by The Barossa Council, Moculta & District Historic Society Inc. and Kersbrook Landcare Group, with the project funded by the Northern and Yorke Landscape Board.

Bite-sized Grants are open all year round, with funding between \$200 and \$1000 for community groups and not-for-profit organisations for small, short-term projects.



\$1.29m to fund landscape projects in Northern and Yorke

Two landscape-scale environmental projects designed by the Northern and Yorke Landscape Board will go ahead thanks to nearly \$1.3 million in funding from the State Government's Landscape Priorities Fund.

The Board received \$969,000 towards a \$1.6 million Resilient Coast project and \$328,468 to regenerate river catchments in the Mid North.

This funding boost for the Northern and Yorke region represents nearly half of a total \$2.7 million from the second round of the Landscape Priorities Fund. It is funded from landscape levies collected in the Adelaide metropolitan area for redistribution to South Australia's regional landscape boards.

"This is terrific news for our region and a significant opportunity to work with councils, First Nations communities and other stakeholders to benefit our environment, economy and tourism sector," said Tony Fox, Northern and Yorke Landscape Board's General Manager.

The two-year Resilient Coast project aims to protect the coastline through practical, on-ground land management activities, including 121ha of revegetation, 5km of fencing and 100ha of coastal weed management. It will also continue the work of protecting threatened osprey with the roll-out of artificial nesting sites. The project will employ a Narungga ranger and First Nations contractors for on-ground environmental work.

Regenerating Catchments in the Mid North FarmScape is a three-year project that will bring together landholders, farming groups and stakeholders to improve productivity and land condition along the Mid North's river corridors.

Leasingham vineyard on board with Wildlife for Wine

The Wildlife for Wine project welcomed another eager participant, with Clare Valley property owners Nicki de Preu and Keith Bellchambers set to plant more than 200 native species around their 3ha shiraz vineyard.

"There'll be 4 planting pods around the vineyard to provide habitat and food sources for beneficial native insects such as ladybirds, small parasitic wasps and lacewings," said Nicki, who hosted a site visit for members of the Northern and Yorke Landscape Board in February 2022. "The idea is that the new plants will support these predatory insects to prevent a boom in pest insects during the growing season. The plantings may also support insects that provide pollination services particularly over the winter months when the vines are dormant."

Located in the hills west of Leasingham, Nicki and Keith's 32ha property is already home to abundant birdlife, with more than 80 species recorded over recent years. Birds and microbats are also considered natural pest controllers that can benefit vineyards and help reduce herbicide use. The property's microbat numbers will be surveyed as part of the project.

Launched in the Clare Valley last year, 9 vineyard owners are part of the Wildlife for Wine program, which is about revegetating non-productive areas to bring biodiversity back.

Brush-tailed bettongs back on mainland South Australia

One of Australia's rarest marsupials, the brush-tailed bettong, was reintroduced to mainland South Australia in August 2021 and again in June and July 2022 after being locally extinct for more than a century.

These were milestone moments for Marna Banggara, an ambitious project to restore lost species to the landscape. The project is jointly funded through the Australian Government's National Landcare Program, the Northern and Yorke Landscape Board, the South Australian Department for Environment and Water, WWF-Australia and Foundation for National Parks & Wildlife, in partnership with the Narungga Nation Aboriginal Corporation and with the support of Traditional Custodians, the Narungga people.

The first reintroduction involved releasing 40 of the nationally endangered animals at two sites in Dhillba Guuranda-Innes National Park on Yorke Peninsula, with 28 females and 12 males translocated from nearby Wedge Island.

In 2022, another 80 bettongs were reintroduced to the National Park, with 44 coming from Wedge Island, while 36 completed an epic 2,000km journey from Western Australia. Representatives from the Narungga People travelled to Western Australia to meet the Traditional Custodians, the Noongar People, and to support ecologists and a team from the Western Australian Department of Biodiversity, Conservation and Attractions to capture and translocate the bettongs.

Also known as a woylie, the species was selected as the first to be reintroduced to southern Yorke Peninsula due to the important role it plays in ecosystems as 'nature's gardener'. Brush-tailed bettongs spread native plant seeds and dig up between two to six tonnes of dirt and leaf litter each year, which improves water infiltration,

nutrient cycling and helps native plants grow.

These are the first of several planned reintroductions. Other locally extinct species such as the southern brown bandicoot, red-tailed phascogale and western quoll will also be reintroduced to the landscape to help restore biodiversity.

"What's unique about Marna Banggara is that it is part of a working landscape, where reintroduced native species will make their home next door to farms, popular beaches and towns. This an important step in testing this concept, which we hope will bring flow-on benefits to farm production, tourism and the wider Yorke Peninsula community," said Caroline Schaefer, Northern and Yorke Landscape Board's Chair.

Baby boom for first bettongs on Yorke Peninsula

After more than 6 months settling into their new home on Yorke Peninsula, a health check in March 2022 found that nearly every female caught was carrying pouch young.

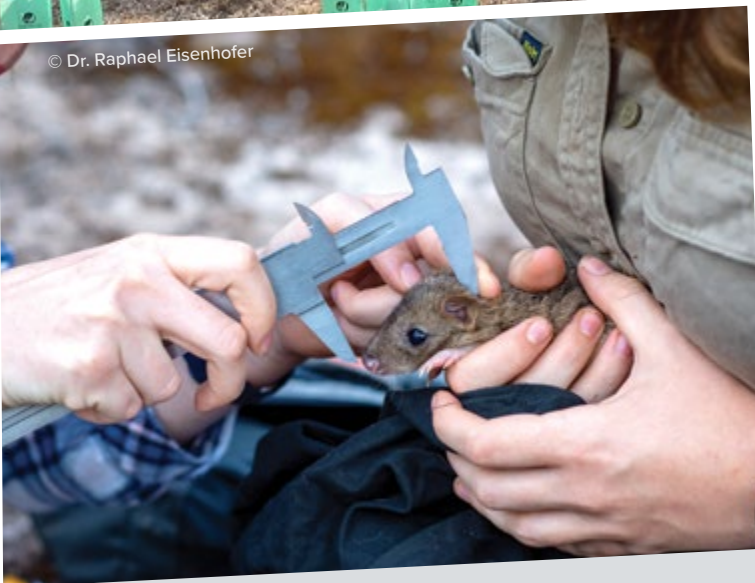
All 16 animals, including 6 males and 10 females, were found in good condition with 8 females carrying babies.

"The most exciting discovery for the team was that we captured the very first bettong born on Yorke Peninsula in over 100 years, and she was carrying her own joey, a tiny jellybean, inside her pouch. This means the population is finding good sources of food and shelter to allow for breeding of the next generation," said Derek Sandow, Northern and Yorke Landscape Board Ecologist.

Honouring the area's Traditional Custodians, the Narungga People, the name Marna Banggara originates from Narungga language, with marna meaning 'healthy or prosperous' and banggara signifying 'Country'.



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Marna Banggara:

120 brush-tailed bettongs released on Yorke Peninsula



19 Aboriginal people involved in releasing bettongs

22,430 feral cat and fox baits laid in the project area

33 barn owls recorded in Yorke Peninsula autumn surveys

Beach-nesting Bird program:

113 Hooded Plover nest sites monitored by **32** volunteers and **14** installed cameras



43 fledglings took flight



Wildlife for Wine:

8 Biodiversity Action Plans



Worked with **8** landholders in Barossa and Clare

Planted **2000** seedlings



Revegetated **6ha**

10 bird and microbat surveys





Water management

Efficient. Sustainable. Monitored.

Protecting watercourses, permanent pools, water use, groundwater, cultural water, environmental flows, water-dependent ecosystems, river red gums, and saline wetlands and lakes.

Citizen science: Community members on water watch

Tanypodinae, Notonectidae and Dytiscidae. These are some of the big names for the tiny bugs we found in watercourses in the Clare Valley in November 2021.

A group of community members and water experts waded through creeks and rivers to measure the health of the area's aquatic ecosystems. The team visited 9 sites from Undalya to Barinia, including the Hutt, Hill and Wakefield Rivers, and then analysed the samples at The Vale Community Hub in Watervale. Their job was to identify the variety and number of tiny waterbugs (macro-invertebrates) collected, to be examined further under microscope.

This information will provide a picture of the health and condition of the Clare Valley's watercourses and a baseline to measure against in the future.

If you're interested in participating in future surveys, please register your interest with Annie Bond via email: anthelia.bond@sa.gov.au.

This project is jointly funded through Landscape Levy funding from the Northern and Yorke Landscape Board and the Australian Government.

Monitoring action to flow from Clare's water forum

An engaged group of landholders, grape and wine growers and community representatives attended our 'Working together for water sustainability' forum in September 2021 to learn about the latest water trends and what these mean for future demands on this vital resource.

Held in Clare, the event began with a heartfelt Welcome to Country by Ngadjuri Elder Quenten Agius that highlighted the urgent need for action to restore Country to the healthy conditions of the past.

A series of experts then shared information about the historical trends of the Clare Valley's surface water and groundwater resources, and how to access this data online via the WaterConnect website. There were also detailed summaries of current water security planning in South Australia, including the pilot study in progress in the Barossa. Attendees also had the chance to look at the status of water planning within the Northern and Yorke region and look back at the 2019 review of the Clare Valley Water Allocation Plan instigated by the Clare Valley Wine & Grape Association.

The day ended on a positive note highlighting the importance of permanent pools and the plants and animals found in water environments.



Northern and Yorke's water allocation plans

There are 3 water allocation plans (WAP) that are wholly within the Northern and Yorke region – Clare Valley, Baroota and Barossa - which provide responsible, fair and equitable water allocations for users of surface and ground water, while maintaining the health of our landscapes and ecosystems.

With the transition to the *Landscape South Australia Act 2019* (the Act), the Barossa Prescribed Water Resources Area (PWRA) joined the Northern and Yorke region. Together with Green Adelaide and the Department for Environment and Water (DEW), the Board has continued work on amending the WAP for the Barossa PWRA, which began in 2016.

This work is influenced by another significant project, the Barossa Water Security Strategy. A pilot project led by DEW, it began in mid-2020 in response to increasing water security stress identified by industry and water users in the Barossa and Eden Valleys.

Water resources are precious and need to be managed sustainably. Some activities in a watercourse can have adverse impacts on the health and condition of water resources and the ecosystems that depend on them, as well as on other water users. With the new Act, these water affecting activities (WAAs) were renewed and Board staff provided an update to councils in the region regarding the changes in WAA legislation. The Board also worked with 9 councils and agencies to update and renew existing WAA Best Practice Operating Procedure (BPOP) agreements.

Cultural water

As part of the Board's WAP stakeholder engagement, it is working with Nukunu people to ensure that their cultural water values and objectives are included in the first WAP for the Baroota Prescribed Water Resources Area.

Nukunu man Travis Thomas presented at a Baroota water stakeholder's meeting in Port Pirie in September 2021 where he shared what kawi (water) means to the Nukunu people. He covered the cultural significance of Baroota Creek, how water flows give life and the Nukunu people's hopes for the future. (View it on the Board's YouTube channel)

Riparian restoration along Gawler River

With the November 2021 Board meeting held in Gawler, our Board members welcomed the opportunity to see the results of a \$10,000 Grassroots Grant, which was awarded to the Gawler River Riparian Restoration Group (GRRR).

The funds have allowed GRRR to plant about 2500 locally-indigenous tube stock as a new understorey for the red gum forest along a section of the Gawler River, near the Gawler Bypass. Work on the 20-21 Eastern Floodway Project started in 2020 with follow-up weed control on sites that had been cleared of major pest plants in nearly a decade of work by GRRR, Gawler Environment Centre (GEC), Department for Environment and Water, Department for Infrastructure and Transport, Town of Gawler Council and Light Regional Council.

Species were carefully selected for the challenging site, which includes a deep river channel, slopes, clifftops and floodways. After a late start to the season and good site

preparation by volunteers, the plants went in the ground with mulch mats and tree guards at planting days in August to September and almost all have thrived. Significant biodiversity improvements should occur within 12 months.

Thanks to Annemarie and Graham Brookman from The Food Forest for hosting the tour, together with Kathy Whitta from GEC. Another Grassroots Grants round will open in March 2023.

Lessons to flow from trial environmental water release in the Mid North

A trial environmental water release from Beetaloo Reservoir in the Mid North in spring 2021 aimed to support downstream watercourse ecosystems and offer hope to local ancient river red gums.

The e-flow into Crystal Brook Creek, which ran from the end of September until mid-November, was delivered primarily in response to community feedback on the health of centuries-old river red gums growing along the creek line.

It was delivered as a collaborative project between the Northern and Yorke Landscape Board, SA Water, the Department for Environment and Water and the local community.

After more than 700 megalitres of water was released, the project's partners and local community monitored the health and condition of the gums reached by the flow, as well as the response of other plants and wildlife.

"It's a unique opportunity to use both expert and community observations to analyse how the trees respond to the freshening flows and to better understand water movement," said Northern and Yorke Landscape Board Planning Officer Jennifer Munro.

"This ongoing monitoring will help determine the success of the flow and any future potential releases, with a view to increase the benefits delivered, in particular to the trees further downstream of Crystal Brook."



© Mark Zed



5 Barossa and Baroota **WAP** field trips

34 Water Affecting Activities enquiries, with **13** permits issued



More than **700** **megalitres** of environmental water flow released into Crystal Brook Creek

2 **Water Allocation Plans (WAPs)** for Barossa and Baroota under review, with **35** Aboriginal people engaged in the process



9 **riverine sites** part of aquatic ecosystem monitoring

36 monitoring sites, including **9** aquatic ecosystem, **16** river red gum, and **11** bushland condition sites





Sustainable agriculture

Adaptive. Resilient. Healthy.

Enhancing soil, water and biodiversity value to build resilience in agricultural systems.

Time-lapse snailcam to bust native veg myth

Cameras tracking snail traffic between canola crops and paddock edges on southern Yorke Peninsula are set to disprove a long-held belief that neighbouring native vegetation harbours pest snails.

Applied Invertebrate Ecologist Dr Michael Nash received nearly \$10,000 in Grassroots Grants funding from the Northern and Yorke Landscape Board to test the assumption that pest snails move from native vegetation to feast on crops.

Dr Nash set up 12 time-lapse cameras next to canola crops near Warooka and Marion Bay to monitor snail activity throughout the growing season and anecdotal evidence shows that the quality of native vegetation impacts snail numbers.

“What we’ve seen is that in good quality native vegetation you’re hard pressed to find any snails, whereas if there’s Lincoln weed or other exotic plant species next door there are too many snails to count,” he said.

“We know that many farmers see crop edges as a source of pests, but science suggests that if you leave them ungrazed, control weeds and even enhance the vegetation with native grasses they can be a source of biological control.”

A key outcome of this project is to help farmers limit snails moving into crops prior to harvest and contaminating grain.

Goyder’s Line shade and shelter

It was a busy but satisfying day in June 2022 for the crew involved in the Goyder’s Line project, who delivered 3200 plants, guards and stakes to 20 landholders from Eudunda to Peterborough and everywhere in between.

The Goyder’s Line project, which is supported by the Northern and Yorke Landscape Board, through funding from the Australian Government’s Future Drought Fund, is about helping our region’s most vulnerable farmers adapt to a changing climate.

The plants have been planted to create shelterbelts around 20 of the 30 livestock containment areas funded through the project.

Stock containment areas are small, fenced sections set up to intensively hold, feed and water livestock to protect soil and animal health during adverse times and seasons. Combining the size of the properties with containment areas, it means a total area of 58,839ha can now be protected during dry times.

Drought Resilience Podcast

A series of podcasts proved an effective way of reaching farmers across our region during the busy seeding period. The Drought Resilience Podcast, produced in partnership with Talking Livestock and Voice it, features South Australian sheep producers who have battled consecutive years of drought.

Four farming families in Orroroo, Eudunda and Keyneton shared honest accounts of the drought, with each interview revealing how they navigated their businesses



and families through the financial and mental hardships, including practical coping strategies such as containment feeding.

Listen to this popular podcast on Spotify, Apple or Buzzsprout.

The Drought Resilience Podcast was supported by the Northern and Yorke Landscape Board, through funding from the Australian Government, including the Future Drought Fund.

Easier access to latest soils advice

A dedicated soils officer joined the Northern and Yorke Landscape Board in June 2022, as part of a new state-wide network of soils extension officers designed to give land managers better access to the latest technical information and advice to optimise soil health.

Experienced soils practitioner Geoff Kew will work across three boards - Northern and Yorke, South Australian Arid Lands and Alinytjara Wilurara – helping

land managers better understand their soils and translate soil test results into on-farm actions.

Geoff and the other soils officers are part of a statewide and national community of practice with direct links to the National Soil Monitoring and Incentives Program, part of the National Soil Strategy. They will also have a strong connection with the newly established SA Drought Hub, one of 8 across the nation funded through the Australian Government's Future Drought Fund.

Geoff has dedicated his career to understanding soil and how soil health impacts the environment and the agricultural industry, working in the United Kingdom, the Middle East and across most of Australia. "The only place in Australia I haven't dug holes is Tasmania," said Geoff.

He is set to take a hands-on approach to help land managers understand the deeper soil profile. "I'm looking forward to investigating the subsoil constraints; what's limiting root growth and the water holding capacity of the soils in these regions."



7 weather stations maintained in

Burra, Burra
Mokota, Burra
Sod Hut, Virginia,
Mt Pleasant,
Point Pass and
Neales Flat

3 Grassroots Grants-funded agricultural projects



Goyder's Line project:

1182 attendees at workshops, field days and forums

66 soil samples



3.5ha of shelterbelts planted

\$32,000 in grant funding issued for containment areas

58,839 hectares of land protected through dry times

\$157,500 in grant funding to support activities identified in 15 property plans

40ha of remnant vegetation protected

Living Flinders project:

8 property plans



\$292,500 in grant funding to support property plan activities

87,987ha of land managed through property plans

115 attendees at workshops and field days





Pest plants and animals

Targeted. Coordinated. Collaborative.

Reducing economic and environmental impacts of pests.

Targeting pest plants

Controlling existing pest species while minimising the risk of new pest threats is critical for reducing impacts to agricultural productivity, biodiversity and human health. The *Landscape South Australia Act 2019* sets out the requirements for the control of pest animals and plants, requiring landowners to take the lead in managing declared pests, with support from the Board.

During 2021-22, Landscape Board staff brought attention to the following weeds in our region:

Invasive summer grasses

Staff carried out strategic roadside control, surveyed for new infestations of several declared summer grass species and encouraged land managers to help stop the spread. African lovegrass, buffel grass and coolatai grass can form dense swards if they infest pastures, presenting costly problems for graziers.

Burr weeds

Generous rainfall during spring delivered ideal conditions for burr weeds like caltrop, innocent weed, khaki weed and noogoora burr to repeatedly germinate and set seed throughout the warmer months. Landholders were encouraged to target repeat germinations throughout summer.

Cape tulip

Following autumn rains, the pretty but toxic weed cape tulip emerged in the Clare and Gilbert Valley and Barossa Valley. Containing toxic chemicals called glycosides, it most commonly affects cattle, causing heart problems and even death in extreme cases.

African boxthorn

The Board urged land managers to target African boxthorn, one of Australia's most widespread weeds, between July and September. Controlling boxthorn before it flowers in spring and summer is best practice.

Scale insect plays the devil with declared cactus

The tiny scale insect cochineal is proving a big problem for the declared weed devil's rope cactus in the Southern Flinders region. As part of an integrated weed control program, the Northern and Yorke Landscape Board has used the biological method of releasing host-specific cochineal insects on large cactus infestations.

"We've had great success using this little insect on a weed that was widespread across the southern Flinders," said former Landscape Officer Alexia Catford. "After three years, cochineal has helped to reduce this pest plant's spread by either severely compromising the health of cactus plants, or in some cases, destroying the plant completely."



Devil's rope cactus (*Cylindropuntia imbricata*) is a very thorny species known for its rope-like appearance. When left to form dense infestations, it reduces land use, pastures and stock-carrying capacity and also smothers native species. *Dactylopius tomentosus* (imbricata biotype) is the host-specific cochineal strain for devil's rope cactus.

Cochineal feeds on sap, effectively sucking the cactus dry until it becomes exhausted and dies. The insect has a 55-day breeding cycle, producing 2000 offspring each cycle. It is an effective control method where terrain is difficult to access with traditional spray packs and vehicles or where there are large infestations.

Plume moth caterpillars march into battle against horehound

A crew from the Board collected more than 1000 ravenous plume moth (*Wheeleria spilodactylus*) caterpillars to munch through infestations of the invasive declared weed horehound.

The very hungry caterpillars were delivered to landholders with dense populations of the weed, which is known to taint milk and meat.

A biocontrol agent, horehound plume moths feed on the weed's growing tips and then work their way down the shoot, progressively defoliating the stem. Landholders have reported that previous releases of the caterpillar have decimated the weed, leaving no trace within two years.

One thousand caterpillars were released at 23 horehound sites in the Goyder Council area in August 2021, while 400 caterpillars were also released in Gawler, Wakefield, Orroroo/Carrieton and Peterborough Council areas.

Neighbours join coordinated fox control campaign

Northern and Yorke landholders were encouraged to target foxes with coordinated baiting programs in spring and autumn. The Board provides 1080 fox baits at a discounted rate to registered landholders twice a year to help reduce numbers of this skilled predator.

Foxes are a significant pest that have a large impact on agriculture and the environment through predation and spread of weeds and diseases. The fox bait distribution days aim to maximise the positive benefits of fox control through a coordinated approach across the region's landscape.



311 landholders involved in fox bait distribution in spring and autumn

Engaged with **669** landholders to provide technical advice of pest plant and animal control methods



\$88,000 spent on 1400km of roadside weed control

More than **1000** plume moth caterpillars released at **23** sites in Goyder Council area and **400** released in Gawler, Wakefield, Orroroo/Carrieton and Peterborough Council areas



Achievement snapshot

The Northern and Yorke region has seven dedicated Board members at its helm, including a Chair. The Board works alongside the community, Traditional Owners, councils and other stakeholders to sustainably manage landscapes and maximise the ecological, environmental, economic and social benefits for the region. To get to know our Board members, go to our website.

Here is a snapshot of the key projects and activities delivered in 2021-2022, which are listed in our [business plan](#).


 Communities	\$2m
Healthy Country Planning and Aboriginal Engagement Committee	✓
Support celebrations and education events	✓
Grassroots and Bite-sized grant programs	✓
Insurance support for community land management groups	✓
 Biodiversity	\$1.1m
Collaborate to action the Coastal Management Action Plan 2020	✓
Osprey Nesting Platforms project	✓
Marna Banggara project	✓
Delivery of actions outlined in the Regional Alliance Climate Sector Agreement	✓
Wildlife for Wine project (Clare Valley and Barossa)	✓
 Water Management	\$1.2m
Barossa and Baroota Water Allocation Plan reviews	✓
Riparian Areas Restoration - Wakefield River	✓
Trial environmental water release from Beetaloo Reservoir into Crystal Brook Creek	✓
 Sustainable Agriculture	\$1.1m
Partnership with Ag-Ex to provide a Regional Agricultural Landcare Facilitator	✓
Weather Station and Soil Moisture sensors	✓
Goyder's Line and Living Flinders projects	✓
Soil Health in the Mid North Farming Community project	✓
 Pest Plant and Animal Control	\$2.4m
Fox and rabbit bait sales and distribution	✓
Release biological controls for pest weeds	✓
Rail and road corridor weed management plans	✓

Figures in table represent total investment of levy and external funding.



Keep in touch

Here are some of the ways you can keep up-to-date with the latest news from the Northern and Yorke Landscape Board:

-  landscape.sa.gov.au/ny
-  ny.landscapboard@sa.gov.au
-  [NYLandscapeSA](https://www.facebook.com/NYLandscapeSA)
-  **Yakka News**
landscape.sa.gov.au/ny/subscribe
-  [youtube.com](https://www.youtube.com/NorthernandYorkeLandscapeBoard)
(Northern and Yorke Landscape Board)

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