

Kangaroo Island Landscape Board Progress Report

October — December 2022



Nurturing Kangaroo Island's landscapes together to create a thriving sustainable future

This is the vision of the Kangaroo Island Landscape Board (the Board). This report captures the work undertaken through Board projects from 1 October to 31 December 2022 to deliver this vision.

Formed in 2020, the Board aims to deliver practical, on-ground programs to help manage the island's water, land and soil, pests, and biodiversity in partnership with farming groups, environmental non-government organisations, local councils and community groups. The Board consists of seven members, including a Chair, Andrew Heinrich. They have developed a *Kangaroo Island Landscape Plan 2021-2026* (the Plan), which combines community values, local knowledge and scientific evidence into a strategic road map to guide how the Board will work in partnership with the community and investors to support the recovery and management of Kangaroo Island's landscapes into the future. The Plan aims to strike a balance between productivity and profitability, and looking after the environment to maintain biodiversity. The plan contains five regional priorities, each with a suite of focus areas to guide the actions for the Board and the wider regional community over the next five years.



COMMUNITY

Priority: A connected community at the centre of decision making

Focus areas:

- Working with all sectors of the community to improve the island's landscapes
- Making decisions based on the best available scientific, local and traditional knowledge
- Understanding, valuing and taking care of the natural environment and cultural heritage



BIODIVERSITY

Priority: Healthy terrestrial and marine ecosystems and biodiversity

Focus areas:

- Safeguarding the structure and function of habitats and ecosystems
- Protecting biodiversity to minimise species loss
- Improving our understanding of the environment and the beneficial role it plays



ECONOMY

Priority: Sustainable primary production and the island's economy

Focus areas:

- Improving the health of the soil, water and biodiversity that supports our economy
- Strengthening the viability of primary production through sustainable practices
- Working in partnership with industry to ensure the island's economy continues to prosper



WATER

Priority: Effective water management

Focus areas:

- Managing water resources sustainably and equitably for all users
- Improving water quality in the island's catchments and wetlands
- Protecting aquatic biodiversity and ecosystems



PESTS

Priority: Effective terrestrial and marine pest management

Focus areas:

- Controlling and, where possible, eradicating weeds, pests and diseases
- Strengthening KI's biosecurity arrangements
- Managing the impact of overabundant native species

Contents

Water Resources Management	3	Sustainable Agriculture Program	10	Community Grants programs	17
Invasive Species Control Program	4	KI Narrow-leaved Mallee Program	12	Oyster Reef Construction	18
Feral Cat Eradication Program	6	KI Glossy Black-cockatoo Recovery	13	Communications and media	20
Feral Pig Eradication Program	8	KI Dunnart Recovery	14	Planning & Evaluation Team	21
KI Native Plant Nursery	9	Australian Sea Lion Recovery	16	How we can help	22

Cover image: Participants at the KI Landscape Board Nature Festival event learning about the KI dunnart project and feral cat trapping within the bushfire zone on western KI with Paul Rogers, Biodiversity Unit Manager.

Water Resources Management

Overview:

This program supports the Kangaroo Island (KI) community to manage their water resources in line with the *Landscape South Australia Act 2019*.

Key achievements October–December 2022:

- Completed the 2022 spring macroinvertebrate (water bugs*) surveys to monitor the health of watercourses at 15 sites across KI.
- The seven-year long Department for Environment and Water (DEW) and KI Landscape Board partnership to deliver the project 'Environmental Assessment of Water Management Options for KI' is awaiting publishing. The project used machine learning modelling to analyse a rich monitoring dataset including water bugs, streamflow, vegetation, salinity and geomorphology. The project found the key drivers of KI aquatic ecosystem health are water taken by forestry and dams, streamflow, vegetation and salinity.

Community engagement:

- Maps and other information were given to interested landholders for use in water security planning.
- Four Water Affecting Activities (WAA) permit applications were assessed, including to replace numerous flood damaged crossings in national parks.
- Advised 10 people about water resources management, the requirement for WAA permits and development applications. Queries included constructing dams in exchange for removing plantations.

Future directions and upcoming events:

- Complete two water security demonstration sites.
- Provide detailed water security plans to interested landholders.
- Continue to test the water administration platform 'mywater'. This is a new on-line system and customer portal for managing water.
- Communicate the key findings of the *Environmental Assessment of Water Management Options for KI* project to the community and update the KI WAA policy.
- Test the functions of the new, corporate database 'Water Data SA' for securely storing, processing, modelling, and publishing water information.



15 sites surveyed to monitor KI water bugs

14 people assisted to manage water resources

- Links to KI Landscape Plan
- Effective water management
 - A connected community at the centre of decision making
 - Healthy terrestrial and marine ecosystems and biodiversity
 - Sustainable primary production and the island's economy

- Funded by:
- Government of South Australia:
 - » State Appropriations
 - Australian Government:
 - » Future Drought Fund – NRM Drought Resilience Grant

* Water bugs are small creatures that have no backbone, can be seen with the naked eye and live all or part of their life in water.

Image below: High flows on 5 October widened and deepened the mouth of Deep Creek for the first time in a number of years and facilitated fish migration past the sand bar and upstream. A significant increase in fish were observed just upstream of the estuary in November.

Invasive Species Control Program

Overview:

This program manages declared weed and pest animal species in accordance with risk assessment priorities and regional management plans.

Key achievements October–December 2022:

Declared weeds:

- The Animal and Plant Control Officer continued with seasonal control of priority declared weeds along KI roadsides, including one-leaf Cape tulip, salvation Jane, horehound, bridal creeper and African boxthorn.
- Two outlier infestations of salvation Jane were controlled on private land at Duncan.
- Potential sites for a proposed release of a new CSIRO biocontrol to manage African boxthorn infestations were identified.
- Extensive roadside monitoring was undertaken to find and destroy Montpellier broom infestations. Around 200 plants were destroyed, including 15 plants that had set seed. Two new roadside infestations were found, with a third infestation found on private property.
- Gorse infestations previously controlled at Cassini were re-surveyed and destroyed. Only around 100 plants were found, and only eight plants had produced seed.
- Caltrop infestations previously controlled at Penneshaw were monitored to confirm no new plants had emerged.
- Rat tail grass infestations were controlled along Hog Bay Road.
- A common broomrape (*Orobanche minor*) infestation was detected and destroyed at D’Estrees Bay. This was the first recorded sighting of this species on KI.
- A project to evaluate the suitability and cost effectiveness of drones to detect, map and potentially control one-leaf Cape tulip in waterlogged or hard to access areas was completed. Findings indicate that this approach is not currently feasible or cost-effective, with more expensive, finer-scale camera resolution required to accurately and reliably distinguish Cape tulip from other weeds or vegetation.
- Liaised with landholders and Department of Primary Industries and Regions (PIRSA) regarding management of Tasmanian Blue Gum wildlings.
- The Animal and Plant Control Officer and the State Herbarium Weed Botanist surveyed for new weeds on KI.

Image below left: A view of a gorse infestation in 2015.

Image below right: The same view taken in 2022 showing the success of the gorse removal after several years of treatment.



2
salvation Jane outlier
infestations controlled

3
new infestations of
Montpellier broom found

- Links to KI Landscape Plan
- A connected community at the centre of decision making
 - Healthy terrestrial and marine ecosystems and biodiversity
 - Sustainable primary production and the island’s economy
 - Effective terrestrial and marine pest management

Declared animal management:

- Board staff contacted and visited 14 owners of domestic pigs to discuss the new declared animal policy for pigs on Kangaroo Island. Due to the wet winter/spring, the new permit system for domestic pigs will continue to be transitioned in over coming months and will now take effect by 28 February 2023 to allow pig owners more time to ensure pigs are securely confined.
- The declared animal policy for domestic goats on KI was reviewed and updated to ensure consistency with the new domestic pig policy.
- A domestic ferret was self-reported by the owners who were visiting family on KI for four days and a temporary declared animal permit was issued. PIRSA biosecurity staff at Cape Jervis confirmed that the ferret had left KI at the end of the four days.
- Work on the eradication programs for feral cats and feral pigs continued (see reports on pages 6, 7 and 8).

Community engagement:

- Information about the new domestic pig permit system was communicated to landholders through three Facebook posts as well as articles in the local newspaper, the AgKI e-newsletter and the *Stock Journal*.
- The Animal and Plant Control Officer responded to 33 public enquiries about weed identification, advice on control methods, and the presence of sea lavender encroaching on saltmarshes.

Future directions and upcoming events:

- Continue seasonal monitoring and control of blackberry, caltrop, bluebell creeper, horehound, fountain grass, Cape Leeuwin wattle and khaki weed.
- Investigate options for use of drones to detect and map African boxthorn infestations.
- Potential trial release of new biocontrol agent to control African boxthorn.
- Continue to support PIRSA in prioritising post-bushfire weed control.
- Review and update declared animal policies for ferrets and deer on KI.
- Undertake property inspections and risk assessments to finalise implementation of the new domestic pig permit system by 28 February.
- Undertake two-yearly property inspections for owners of domestic goats.

Image right: Feral Animal Control Officer Brenton Florence discussing the new domestic pig fencing requirement with a KI pig owner.

33
people assisted with
weed management

14
domestic pig owners
assisted

- Funded by:
- Kangaroo Island Landscape Levy



Feral Cat Eradication Program

Overview:

The aim of the KI Feral Cat Eradication Program is to eradicate feral cats from KI, beginning on the Dudley Peninsula and then moving west across KI. The program is being led by the KI Landscape Board in partnership with the Kangaroo Island Council, Nature Foundation and many other partners.

Key achievements October–December 2022:

- Eradication work continued over the Dudley Peninsula. 12 feral cats were culled by KI Landscape Board staff over 1,992 trap nights (nine in cage traps and three in soft jaw foot-hold traps).
 - » The number of feral cats captured is lower than in previous quarters as the team has shifted the focus of their trapping to targeting specific cats based on 4G camera detections.
 - » Warmer months have also made trapping more difficult, as per every year. However, this was anticipated and some staff time was spent assisting other projects such as deploying remote trap checking devices and with community engagement initiatives.
- During this quarter the feral cat traps being used across the Dudley Peninsula have been retro-fitted with automated trap checking devices.
 - » The system uses sensors to monitor feral cat traps (whether triggered or open) from the office or remotely in the field, all in real time.
 - » This will significantly reduce the number of trap visits needed, as the team will know which traps have been triggered and therefore need to be checked.
 - » This will vastly decrease the effort required to trap large areas of the Dudley Peninsula in the future.

12
feral cats culled across the
Dudley Peninsula

80
people attended the KI
Feral Cat Eradication
Showcase

- Links to KI Landscape Plan
- A connected community at the centre of decision making
 - Healthy terrestrial and marine ecosystems and biodiversity
 - Sustainable primary production and the island's economy
 - Effective terrestrial and marine pest management

 Visit the
[Feral Free Kangaroo
Island](#) Facebook page
to learn more

- The feral cat capture and monitoring databases are now very large, so to help streamline data analyses and reporting into the future the Project Leader, in conjunction with an external contractor, have been developing coding scripts which allow for instant summaries and interrogation of data via graphs and statistics. To date codes that have been generated include the ability to:
 - » merge disparate datasets into a uniform template
 - » interrogate trapping data by various subsets (scent use, trap type, season, etc.)
 - » examine the data from millions of 4G camera images to develop population metrics such as occupancy, encounters over time etc.
- 32 4G connected remote cameras have been deployed across the Dudley Peninsula, extending the network to 210 cameras, to record the presence of feral cats and KI echidnas (as well as other species of interest such as bush stone curlew and southern brown bandicoot).
 - » These images are automatically sent to eVorta, processed by their image recognition software, and the results are then available in near real-time via a web interface.
 - » This camera network is also enabling the feral cat team to respond to feral cat detections very quickly.
 - » During this quarter 346 images of KI echidnas were recorded from 56 cameras. The number of images recorded represents the number of passes of that species in front of the camera, rather than the number of individuals.

32
4G cameras deployed
across the Dudley
Peninsula

346
echidna detections on
56 cameras

- Funded by:
- Government of South Australia:
 - » Landscape Priorities Fund
 - Australian Government:
 - » Regional Land Partnerships
 - » Smart Farms Small Grants
 - Foundation for Rural and Regional Renewal
 - Members of the public

Community engagement:

A Feral Cat Eradication Showcase was hosted by the Kangaroo Island Landscape Board with its partner Nature Foundation at the Adelaide Pavilion on 11 October 2022.

The *Kangaroo Island — Towards A Living Ark* fundraising and showcase event demonstrated the incredible work that has been achieved, and is continually being achieved, by the Kangaroo Island Landscape Board, towards the ambitious goal of eradicating feral cats from the Dudley Peninsula by 2025.

The event included presentations from:

- the Honourable Leon Bignell MP, State Member for Mawson
- Threatened Species Commissioner, Dr Fiona Fraser
- Professor Chris Daniels
- Alex Nankivell, Chief Executive Officer, Nature Foundation
- Dr James Smith, Project Leader.

Over 80 people attended the event either in person, or on-line.

For more information about the event, including links to the presentations, please go to: www.landscape.sa.gov.au/ki/news/towards-a-living-ark-ki-landscape-boards-adelaide-showcase-on-feral-cat-eradication

Future directions and upcoming events:

- Purchase another 40 4G cameras to fill in gaps in the network.
- Continued research into keeping feral cats from re-entering the eradication zone via gaps in the feral cat fence.
- Further community engagement via local forums.

Image below: Dr Fiona Fraser, Threatened Species Commissioner, speaking at the Feral Cat Eradication Showcase.



Feral Pig Eradication Program

Overview:

The program aims to eradicate feral pigs from KI across private and public land, parks, reserves, forestry and agricultural farmland using a coordinated landscape approach. This program is led by the Department of Primary Industries and Regions (PIRSA) in close collaboration with the Landscape Board and KI National Parks and Wildlife Service (NPWS). The achievements below are a record of the direct contributions made by Landscape Board staff.

Key achievements October–December 2022:

- The Feral Pig Control Officer and Feral Animal Control Officer continued to track, monitor and pursue feral pigs on foot. Ten feral pigs were tracked and destroyed by Board staff during the period.
- Both Control Officers continued to assist with the deployment and maintenance of the feral pig camera monitoring network. Staff continued to monitor camera sites and place feed at them as a lure in areas where feral pig activity was observed.
- Both Control Officers continued to search for sign of feral pig activity across western KI. A decision support tool was used to determine the appropriate control method.

Community engagement:

- During the reporting period, the Control Officers engaged with five landholders to undertake control, monitor for feral pig sign and discuss different aspects of the Feral Pig Eradication Program.

Future directions and upcoming events:

- On-ground control work will continue, focussing on searching for signs of feral pigs, establishing and monitoring free-feed stations, maintaining the 4G and remote camera networks and responding to feral pig detections with targeted baiting and ground shooting.
- Board staff will assist with planning the upcoming Thermal Assisted Aerial Cull planned to commence in April.

Image right: Feral Pig Control Officer David Jirman placing feed at a feral pig monitoring camera site to lure feral pigs.



10
feral pigs destroyed
by Board staff

5
landholders assisted with
feral pig control

Links to KI Landscape Plan

- A connected community at the centre of decision making
- Healthy terrestrial and marine ecosystems and biodiversity
- Sustainable primary production and the island's economy
- Effective terrestrial and marine pest management

Funded by:

- Government of South Australia
 - » National Disaster Recovery Funding Arrangements through the Minister of Primary Industries and Regional Development

Kangaroo Island Native Plant Nursery

Overview:

The Kangaroo Island Native Plant Nursery grows over 150 different species of KI native plants, which can be used for revegetating land, windbreaks, coastal plantings and home garden use. The Nursery Manager is available for native vegetation management advice to assist landholders with their projects.

Key achievements October–December 2022:

- Seedling propagation for the 2023 planting season is well underway.
 - » 30,000 plants have been propagated so far with 20,000 to go.
 - » Over 147 species have been propagated from seeds or cuttings, including 90 that are found in or adjacent to KI Narrow-leaved Mallee Woodland.
 - » Both seed and cutting material have also been collected.
- Orders have been collated and species lists developed for the 2023 planting season.
- The growing benches were repaired and a new sign installed at the Nursery.

Community engagement:

- The KI Nursery Manager visited a year 2 class at KI Community Education (KICE) Kingscote Campus to talk about bush foods.
- Three year 11 special education students visited the Nursery to learn about nursery operations, seed collection and propagation.
- Nursery staff visited several sites to give advice about weed management, revegetation and planting garden beds.
- Julie Quinn, Assistant Director from the Office of the Threatened Species Commissioner and Sandy Eager, Bushfire and Flood Recovery Project Manager, Foundation for National Parks and Wildlife, both visited the Nursery to gain a understanding of the services offered by the Nursery.
- The KI Nursery Manager attended a field trip with staff from the Seed Conservation Centre to locate threatened plant species.
- Conducted a radio interview with Bathurst Radio.
- Worked with four volunteers who donated 26 hours to assisting with weeding and plant propagation.

Future directions and upcoming events:

- Continue transplanting and sowing seed and collect seed from species that seed ripens over summer.
- Collate nursery orders.
- Seek volunteers to assist at the KI Native Plant Nursery.

Image right: The KI Nursery Manager talking about bush foods to a year 2 KICE class.



30,000
native plants sown
for the 2022-2023
planting season

147
species currently
growing in the
KI Native Plant Nursery

Links to KI Landscape Plan

- A connected community at the centre of decision making
- Healthy terrestrial and marine ecosystems and biodiversity
- Sustainable primary production and the island's economy

Funded by:

- Australian Government:
 - » National Landcare Program
 - Regional Land Partnerships
- Prince Albert II of Monaco Foundation
- Collette Travel

Sustainable Agriculture Program

Overview:

This program uses a holistic, systems approach to assist primary producers to improve soil health and increase on-farm diversity as the basis for resilient grazing and cropping systems.

Key achievements October–December 2022:

- Soil and pasture samples were collected at 12 sites across the four sustainable agriculture demonstration farms with five farmers. Visual soil assessments were undertaken and soil samples were sent for microbial analysis so they can be compared with baselines samples taken in spring 2020.

Community engagement:

- The Sustainable Landscapes Team hosted a field trip for 15 local farmers/land managers to attend the 'Where food begins' World Soil Day event at Meadows in December. This field day promoted tools and technologies supporting farming resilience through improving soil health. A range of soil experts presented information sessions on land management, soil biology and soil health.
- Expressions of interest were sought from all property managers across KI to participate in the development of comprehensive property management plans (PMPs).
 - » The PMPs will assist farmers with the tools and capacity to adapt, reorganise, transition, and transform their properties in preparation for less reliable and more variable seasons.
 - » The project was promoted through *The Islander* and social media, targeted emails, the Kingscote and Parndana shows and a presentation at the PIRSA Farm Business Planning course.
 - » 50 participants from more than 35 properties registered their interest, including over 20 properties where a significant proportion of their income is obtained through farming.
 - » 38 landholders formally submitted an EOI and will participate in the project.
 - » A project working group has been established with representatives from the KI Landscape Board, PIRSA and AgKI. They have met twice to oversee the delivery of the project and to provide high level advice and guidance.
 - » A lead Project Facilitator has been contracted to provide strategic advice, assist in PMP design, and guide the project.
- Connected farmers with industry leaders in soil amendments including biochar, compost, vermicaste extract and teas, and CropBiolife.
 - » Assisted a network of farmers and industry to turn waste products into soil amendments.
 - » Baseline data was collected for monitoring interventions. Sites will continue to be monitored.
- Members of the KI Landscape Board Sustainable Landscapes Team presented a stall at the Kingscote and Parndana Agricultural Shows in October and November.
 - » Information provided included the regenerative agriculture and Integrated Pest Management (IPM) demonstration farms, property management planning and soil testing available, and climate change and seasonal forecasting for KI.
 - » In Kingscote soil samples were available for people to test soil pH, dispersion, slacking, and see quality compost under a magnifying lens that fits on the mobile phone.
- Provided advice to 14 landholders about biodiversity, pastures, IPM, and soil sampling and health.

38
landholders to undertake
property management
planning

12
sites sampled across
4 demonstration farms

Links to KI Landscape Plan

- A connected community at the centre of decision making
- Sustainable primary production and the island's economy

Funded by:

- Australian Government:
 - » National Landcare Program Regional Land Partnerships
 - » Smart Farms Small Grants Program
 - » Future Drought Fund

- 10 Visual Soil Assessment undertaken for vineyards, grazing and cropping properties. Soil chemistry and biology samples were taken and analysed. Soil farm plans were developed and worms counted.
- Supported a farmer to seed 110 acres with spring cover crops without spraying out perennial species and continued to assist them and others to explore cover crops, mixed species and their applications, benefits and limitations.
- A Growing KI e-newsletter was published in December 2022 to promote sustainable agriculture on KI and connect KI landholders with latest information, trials, tools and technologies. See <https://createsend.com/t/r-D9AEAAECD33854E42540EF23F30FEDED>
- Two new web pages about carbon farming and soil testing were published on the Kangaroo Island Landscape Board website. The IPM web-page was revised and updated with new information, case studies and links. See links:
 - » www.landscape.sa.gov.au/ki/land-and-farming/land-management-support/get-down-and-dirty-and-test-your-soil
 - » www.landscape.sa.gov.au/ki/land-and-farming/managing-soil-pasture-livestock/3-simple-concepts-to-help-you-understand-carbon-farming
 - » www.landscape.sa.gov.au/ki/land-and-farming/integrated-pest-management
- Distributed several pairs of large white cotton underpants for landholders to bury for two months to demonstrate the level of microbial activity within their soil.

15
landholders attended
World Soil Day event

10
visual soil assessments
undertaken

Future directions and upcoming events:

- The first PMP development day will be held on 7 February 2023 in Kingscote. To prepare for this workshop property management maps will be developed for all participants. They will also be assisted to establish a property vision and PMP project goals for their properties.
- Jointly host a farmers Tools and Tech Field Day on 2 March 2023 with PIRSA.
- Host a Viticulture day on KI in collaboration with Landscape Boards SA Soils network in April or May.
- Assist two vineyards to plant specially selected native plants to encourage the biodiversity of beneficial invertebrates, undertake plant management that promotes vine health and pest resilience.



Image above: Participants travelling to the 'Where food begins' World Soil Day event at Meadows in December.

KI Narrow-leaved Mallee Woodland Threatened Ecological Community Recovery Program

Overview:

This project will improve the condition, extent and connectivity of remnant KI Narrow-leaved Mallee woodland community patches through direct investment in threat mitigation actions and empowering landholders to undertake best practice management of narrow-leaved mallee on their properties.

Key achievements October–December 2022:

- Two landholders protected 24.9 ha of remnant KI narrow-leaved mallee woodland from stock grazing and trampling with 3.91 km of fencing.
- Five landholders revegetated 3.86 ha of KI narrow-leaved mallee woodland to strengthen corridors between remnant vegetation patches. The revegetation was protected with 1.3 km of new fences, as well as existing fencing and individual tree guards. Tubestock was used for the revegetation.

Community engagement:

- There was significant interest in the On-ground Works funding round offered for 2022-23.
 - Over 30 applications were received for projects valued at three times the funding available.
 - After comprehensive project assessment and prioritisation to determine the best distribution of funds to return the best outcomes, 22 projects were selected for funding.
 - This high level of interest demonstrates how valued the On-ground Works funding scheme is for the Kangaroo Island community, and how important it is to continue providing this type of funding in future years.
- Technical advice was given to landholders about revegetation planting and protection fencing, the ecological restoration of KI Narrow-leaved Mallee using pollarding and burning, weed control, vegetation clearance and management advice for vegetation under Heritage Agreement.

Future directions and upcoming events:

- Results from the recent bridal veil control within 1000 ha of critical nationally threatened plant habitat will be analysed and reported.
- A presentation about the Narrow-leaved Mallee Recovery Project will be given at the KI Wildlife Network Annual General Meeting in February.

Image right: Protecting KI Narrow-leaved Mallee woodland in Menzies.



24.9 ha
KI narrow-leaved mallee woodland protected

3.86 ha
KI narrow-leaved mallee woodland revegetated

- Links to KI Landscape Plan
- A connected community at the centre of decision making
 - Healthy terrestrial and marine ecosystems and biodiversity

- Funded by:
- Australian Government: National Landcare Program Regional Land Partnerships

Glossy black-cockatoo Recovery Program

Overview:

This project will deliver emergency interventions for SA glossy black-cockatoos (*Calyptorhynchus lathami halmaturinus*) affected by bushfires to assist with their recovery, including protecting glossy black-cockatoo (glossy) nests from predators to improve nesting success.

Key achievements October–December 2022:

- Nest boxes were maintained at 12 nesting sites across KI including:
 - spraying nest boxes to prevent feral European honey bee hive invasions
 - removing rotten duck eggs and the mess from other spring nesting bird species
 - replacing tree collars and pruning nest trees to keep them isolated to prevent possum access and nest predation.
- Nest boxes at American River were re-opened. They were closed during spring to prevent galahs and little corellas nesting in them.
- A funding prospectus was created and sent to World Wide Fund for Nature Australia and various Australian Government contacts.
- A report on the 2022 Glossy black-cockatoo census was completed and is available online. See <https://cdn.environment.sa.gov.au/landscape/docs/ki/native-glossy-census-rpt-22.pdf>
- A report is being produced about how glossies have responded to the widespread loss of hollow bearing trees in the 2019-20 bushfires by increasing their use of nest boxes post-fire. Although hollows will be created again over time, large deep hollows often take decades to form after branch fall, due to the slow fungal processes that create hollows. Therefore frequent, repeated fires are a real risk to the availability of hollows, and hence hollow nesting birds on Kangaroo Island.

Community engagement:

- The project team has begun engaging with KI landholders to find sites to plant glossy feeding habitat in 2023.

Future directions and upcoming events:

- Send the funding prospectus to other organisations to try and secure support for continued funding.
- Analyse data and prepare reports on the impact of the 2019-20 bushfires on the glossy population.
- Continue long-term glossy nest monitoring and nestling banding programs in 2023.

Image right: Torran Welz, Glossy black-cockatoo Officer, pruning sugar gum canopy to keep brushtail possums from accessing a glossy nest box.



Glossy nest boxes maintained at **12** sites

1 glossy funding prospectus developed

- Links to KI Landscape Plan
- A connected community at the centre of decision making
 - Healthy terrestrial and marine ecosystems and biodiversity
 - Effective terrestrial and marine pest management

Kangaroo Island Dunnart Recovery Program

Overview:

This project will support the recovery of the Kangaroo Island dunnart following the 2019–20 bushfires by implementing key priorities of the *2011 Recovery Plan for the Kangaroo Island dunnart* and the 2019 draft *Conservation Advice for the Kangaroo Island dunnart*.

Key achievements October–December 2022

- A spring fauna survey continued as part of a long-term monitoring strategy for the KI dunnart to monitor trends in recovery.
 - » These surveys detected the Kangaroo Island dunnart at six sites on 331 individual occasions.
 - » 47 sites were re-surveyed and two sites were surveyed for the first time. All sites were within the known range of the KI dunnart.
 - » In recent months other species have also been observed moving back into the burnt areas, most noticeably the southern brown bandicoot, which until now has only been detected in the few remaining unburnt refuges since the fire.
- The project team continues to collaborate with the World Wide Fund for Nature (WWF) and they have detected KI dunnarts at 23 of their 25 long-term monitoring sites.
 - » Images from these sites have been used to train a cloud-based artificial intelligence platform currently being developed by Google.Org called Wildlife Insights.
 - » This will help solve a major efficiency problem for the team, who have to manually sort through the hundreds of thousands of camera trap images generated to identify species of interest.
 - » With this new software images will be sorted instantly as they are uploaded, allowing the team to spend more time on the ground and information to be more readily accessible to inform recovery actions.
- The threatened species team continued to control feral cats across areas impacted by 2019–20 bushfires to support wildlife recovery. The team removed 62 feral cats from over 7,870 trap nights.



331
KI dunnart detections
at 6 sites

62
feral cats removed from
KI dunnart habitat

Links to KI Landscape Plan

- A connected community at the centre of decision making
- Healthy terrestrial and marine ecosystems and biodiversity
- Effective terrestrial and marine pest management

Funded by:

- Australian Government:
 - » Environmental Restoration Fund
- Landcare Australia and National Landcare Network
 - » Landcare Led Bushfire Recovery Grants Program

- The team continued to expand the Celium trap alert network in partnership with Encounter Solutions from New Zealand. This landscape-scale, wireless, sensor network automatically sends alerts to the team when feral cat traps are triggered.
 - » 300 cage feral cat traps and over 40 soft-jaw foothold traps are now connected via Celium technology.
 - » Using this technology has reduced the time taken for the team to check feral cat traps by 70% and reduced the number of kilometres travelled daily by the team by 43%.
 - » Additional benefits from the technology include:
 - Improved animal welfare outcomes as triggered traps are prioritised and checked earlier.
 - Improvement in staff health and safety, with issues such as fatigue being managed more effectively.
 - Giving staff more time to focus on using other control tools to target feral cats more effectively.
 - Increasing the cost-effectiveness of the feral cat trapping program, with the small outlay of initial cost translating into longer term savings.

Community engagement:

- A KI dunnart recovery project update was circulated to project partners and the local community in November. A social media post was placed on the KI Landscape Board Facebook page to promote the update which was then shared by the Threatened Species Commissioner and Zoos SA. As a result of this coverage the KI Dunnart Project Manager was interviewed by ABC radio. See <https://cdn.environment.sa.gov.au/landscape/docs/ki/kilb-dunnart-update-25-11-22.pdf>
- The project team have been working with Trees for Life (TFL) volunteers who have been helping with drift line and camera trap installations and gaining an understanding about what the project is all about.

Future directions and upcoming events:

- Continue the long-term KI dunnart monitoring program to gain a clearer picture on how this species is fairing into the future, as well as more dunnart trapping and radio-tracking supporting Zoos SA.
- Continue strategic feral cat control within KI dunnart habitat.
- Deliver a landholder-led, trapping program using Celium technology in the Stokes Bay area in partnership with AgKI. This aims to protect biodiversity and look at methods that may reduce the risk of disease transmission from feral cats to sheep. Using this technology will make trapping easier and more time efficient for landholders, enabling more coordinated control across the island.

1/5 of KI
covered by feral cat
traps fitted with Celium
technology

70%
reduction in time taken
to check feral cat traps
connected by Celium



Image far left: KI dunnart (Martin Stokes).

Image left: Feral cat caught in a trap fitted with Celium technology.

Image right: Building a hub for the remote wireless trap monitoring system.

Australian Sea Lion Recovery Program

Overview:

This project will conduct a comprehensive risk assessment across the 80 known breeding sites of the Australian sea lion to conduct a risk assessment that identifies key threats and prioritises the future actions to be implemented to recover the species. This assessment will be produced to inform a review of the Australian Sea Lion Recovery Plan, and two national scale workshops will provide a clear strategic opportunity to discuss priorities under-pinning a proposed National Australian Sea Lion Recovery Team.

Key achievements October–December 2022:

- Planning was undertaken for a workshop to be held on 22 February 2023 for experts working on Australian sea lions. 43 participants, including the investigators, have indicated their interest in taking part in the first workshop to date. The program will include:
 - » an overview of the project
 - » a detailed update on the recovery trajectory of the species that integrates the latest scientific information
 - » regional identification and discussion focusing on risks and information gaps
 - » speakers from a range of regions will provide their perspectives on the key risks, threats and priority knowledge gaps for Australian sea lion populations.
- Preparation for feral cat trapping within Seal Bay Conservation Park was undertaken.
 - » Feral cat trapping sites at Seal Bay Conservation Park have been planned and mapped, including the Celium trap alert network. Trapping equipment has been prepared and transported from other sites.
 - » Proposed trap locations were ground-truthed for their proximity to the Australian sea lion breeding colony and areas the regularly used by them to ensure there is no risk of Australian sea lion pups becoming trapped.
 - » Communications occurred with SA National Parks and Wildlife Service staff regarding the field component of the toxoplasmosis work.

Community engagement:

- Photos of Australian sea lions were sourced from co-investigators for promotional and media purposes.

Future directions and upcoming events:

- Host the first Australia sea lion workshop on 22 February 2023.
- Conduct a feral cat trapping program in Seal Bay Conservation Park, testing for the presence of toxoplasmosis and tuberculosis in feral cats caught adjacent to the Australian sea lion colony.

Image right: Australian sea lion (National Parks and Wildlife Service SA).

43
participants indicated
interest in attending
workshop

1
feral cat trapping
program planned for Seal
Bay Conservation Park

Links to KI Landscape Plan

- A connected community at the centre of decision making
- Healthy terrestrial and marine ecosystems and biodiversity
- Sustainable primary production and the island's economy

Funded by:

- Australian Government:
 - » National Heritage Trust
- Emerging Priorities



Community grants programs

Overview:

These grant programs support the KI community to undertake on-ground actions to benefit the natural resources of Kangaroo Island. Grants reported here include the KI Landscape Board Grassroots Grants and Bushfire Recovery Fencing Grants.

Key achievements October–December 2022:

Kangaroo Island Bushfire Recovery Fencing Grants

- 86 km of fencing has been installed by 11 landholders to protect 718 ha of burnt and regenerating native vegetation, some of which contains threatened species.
- The KI Landscape Board worked with the Government of SA to secure an extension for the Bushfire Recovery Fencing Grant. Landholders now have until the end of May 2023 to complete their fencing.

Kangaroo Island Grassroots Grants

- One project from the 2021–22 KI Grassroots Grants round was completed by the Friends of Cape Gantheuame Conservation Park. 12 volunteers from this group planted 551 native plants at five locations (Tadpole Cove, Wreckers Beach, Wreckers Beach Lookout, Osmanli Reef Lookout and Second Boat Ramp) in Cape Gantheuame Conservation Park and one location (main entrance) in Beyeria Conservation Park to improve biodiversity and reduce erosion.



718 ha
regenerating burnt native
vegetation protected

Friends of Cape
Gantheuame supported to
plant **551** plants

Links to KI Landscape Plan

- A connected community at the centre of decision making
- Healthy terrestrial and marine ecosystems and biodiversity
- Sustainable primary production and the island's economy
- Effective water management
- Effective terrestrial and marine pest management

Funded by:

- Kangaroo Island Landscape Levy
- Government of South Australia:
 - » State Appropriations
 - » Minister for Environment and Water

Community engagement:

- Round 2 of the Bushfire Recovery Fencing Grants closed at the end of October, with 32 grants offered to 25 landholders.

Future directions and upcoming events:

- The KI Bushfire Recovery Fencing Grants will continue to run until 31 May 2023.

Image left: Bushfire Recovery Fencing Grant recipient Simon Kelly with newly completed fencing to protect regenerating native vegetation.

Oyster Reef Construction Program

Overview:

This project will build a series of 20 small, native oyster shellfish reefs close to Kingscote and American River to provide important habitat for premium recreational fishing species and to contribute to the national shellfish reef restoration initiative. The reefs, once placed on the seabed, will be initially seeded with wild caught native oyster larvae (spat) and will also provide a substrate for natural spat settlement.

Key achievements October–December 2022:

- A series of 20 native oyster shellfish reefs have been built close to the Kangaroo Island towns of Kingscote and American River to provide important habitat for premium recreational fishing species such as King George whiting and southern calamari, for threatened species such as pipefish and sea dragons, and to contribute to the national shellfish reef restoration initiative.
- The 20 reefs (10 near Kingscote and 10 near American River) were constructed with 200 tonnes of limestone (100 mm–400 mm pieces) across two one hectare sites. Each of the 20 reefs cover an area of approximately 10 x 10 metres and are made up of approximately 8–12 tonnes of locally sourced and washed limestone.
- Goolwa Papi Harvesting Company used their barge to load and transport the limestone from the Bay of Shoals and American River boat ramps to the reef sites at the beginning of December 2022.

20
native oyster reefs
constructed

200
tonnes of limestone used
to construct the reefs

Links to KI Landscape Plan

- A connected community at the centre of decision making
- Healthy terrestrial and marine ecosystems and biodiversity
- Sustainable primary production and the island's economy

Image below: Loading limestone at the American River Boat Ramp before transportation to the new reefs.



- Loading plans were prepared with input from Kangaroo Island Council, local oyster growers and community members. A Notice of Works was shared with the public by the Board and the KI Council, and signage at the boat ramps during deployment included maps and coordinates of in-water activities, and future reef sites.
- Despite some poor weather during the deployment period, the reef construction went smoothly.
- Oyster spat collectors were installed at six locations in Nepean Bay.

Community engagement:

- Time spent at Bay of Shoals and American River boat ramps during construction provided lots of opportunities to talk to members of the public who were using or visiting the ramps about the project.

Future directions and upcoming events:

- Add the modules designed to attract and protect native oyster spat to the new reefs.
- Conduct hydrographic surveys of the new reefs on the sea bed.
- Translocate collected spat to the new reef sites and sprinkle over the reef materials.
- Monitor the marine life using the reefs as habitat in late summer and again in late autumn. This will include Baited Remote Underwater Video surveys (to measure mobile fish abundance and diversity) and oyster metric surveys to measure the growth and abundance of target shellfish species.

Image below: The new reefs (visible underwater in this photograph) were used as a fishing spot within days of them being built.



Communications and media

Overview:

This project provides professional communication services, processes, advice and support to the Board, General Manager and project staff. All work is in line with the Board's priorities and direction and tailored to the community and national/international audiences through targeted messaging and communication methods.

Key achievements October–December 2022:

- Supported the successful Feral Cat Eradication Showcase *Towards a Living Ark*. This was jointly hosted by the Board and its partner Nature Foundation at Adelaide Pavilion on 11th of October 2022. See <https://www.landscape.sa.gov.au/ki/news/towards-a-living-ark-ki-landscape-boards-adelaide-showcase-on-feral-cat-eradication>.

Community engagement:

1. Media

- 9-11-2022 [Domestic pig permit introduced on Kangaroo Island](#) (*The Islander*)
- 18-11-2022 [‘Towards A Living Ark’ - Kangaroo Island Landscape Board's Adelaide showcase on feral cat eradication program](#) (*The Islander*)
- 23-11-2022 [Kangaroo Island's native oyster reefs built in time to catch wild spat](#) (*The Islander*)
- 28-11-2022 [Annual census reveals KI glossy black-cockatoo breeding success: Kangaroo Island Landscape Board](#) (*The Islander*)
- 13-12-2022 [Detector dogs trained to help eradicate feral cats: Kangaroo Island Landscape Board](#) (*The Islander*)

2. Facebook

- 17 posts covering the oyster reef construction, sustainable agriculture and Nature Festival events, KI dunnart project work, domestic pig management and glossy black-cockatoo census.
- Following a Board post about new KI dunnart discoveries and a project update, the Threatened Species Commissioner re-posted our post. This was liked nearly 500 times and shared more than 50 times within one day, which really helped the promotion of the Dunnart crew's on-ground work and our collaboration with project partners. See [Threatened Species Commissioner post](#)

3. Community engagement events

- A Nature Festival event was held on 14 October at Michael and Michele Lane's American River property to showcase the Board's work and Michele Lane's artwork. 27 people joined the two hour guided walk to learn about the KI Native Plant Nursery, glossy black-cockatoo's habitat, oyster reef construction, KI dunnart, feral cat control on western KI and Integrated Pest Management.



Image below: Alex Comino, Coasts Project Officer, talking about oyster reefs with Nature Event participants.

27
people attended the KI
Nature Festival event

KI dunnart Facebook post
liked by around
500
people

- Links to KI Landscape Plan
- A connected community at the centre of decision making
 - Healthy terrestrial and marine ecosystems and biodiversity
 - Sustainable primary production and the island's economy
 - Effective water management
 - Effective terrestrial and marine pest management

- Funded by:
- Australian Government:
 - » National Landcare Program
 - » Regional Land Partnerships
 - Government of South Australia:
 - » State Appropriations

Planning and Evaluation Team

Overview:

This team works with all KI Landscape Board projects to support their effective and efficient delivery and to assist them to meet their reporting responsibilities. The team also coordinates the KI Landscape Board's strategic planning, including evaluating performance towards implementing the KI Landscape Plan.

Key achievements October–December 2022:

- Submitted output reports for the following projects to the Australian Government through their on-line reporting tool (MERIT):
 - » Core Services
 - » Recovering the KI Narrow Leaved Mallee Woodland Threatened Ecological Community through local landscape action
 - » Creating a safe haven for the KI dunnart and other priority threatened species by eradicating feral cats from the Dudley Peninsula
 - » Building resilient agricultural systems on Kangaroo Island
 - » Supporting the recovery of the KI dunnart through conservation and management actions
 - » Building native oyster shellfish reefs to improve fish habitat on KI
 - » Prioritising on-ground actions for the Endangered Australian sea lion
 - » KI Echidna monitoring, protection and recovery network.
- Developed the KI Landscape Board Annual Report for 2021-22 and submitted this to the Minister for Environment and Water. This is laid before both South Australian Houses of Parliament and following this will be available on the Board website.

Community engagement:

- Promoted the Board's achievements for 2021-22 on the website. See <https://www.landscape.sa.gov.au/ki/about-us/our-regions-progress/our-achievements-2021-2022>
- Hosted a Resilient Hills and Coasts meeting on 14 October. This group is a collaborative, cross-sector partnership between councils, Landscape Boards, Regional Development Australia and the South Australian Government, working to strengthen the resilience of our communities, economies and natural and built environments to a changing climate.
- Assisted the Communications and Media team and project staff to develop posters, web pages, media articles, factsheets, newsletters and flyers for KI Landscape Board projects.

Future directions and upcoming events:

- Assist projects with reporting and monitoring requirements and liaise with the Australian Government and project staff to meet contracted requirements for projects.
- Seek funding to continue KI Landscape Board project work past July 2023.



Image below: Jo McPhee, KI Native Plant Nursery Manager talking with Nature Event participants.

8
reports submitted to
project funders

1
KI Landscape Board
Annual Report developed

- Links to KI Landscape Plan
- A connected community at the centre of decision making
 - Healthy terrestrial and marine ecosystems and biodiversity
 - Sustainable primary production and the island's economy
 - Effective water management
 - Effective terrestrial and marine pest management

- Funded by:
- Australian Government:
 - » National Landcare Program
 - » Regional Land Partnerships

How we can help you



KI Native Plant Nursery

- » local native plants
- » growing, planting and revegetation advice suited to KI soils and climate
- » plant identification

Contact Jo McPhee
0437 322 692
jo.mcphee@sa.gov.au



KI Narrow-leaved mallee

- » advice on how to manage KI narrow-leaved mallee
- » grants available to protect and revegetate KI narrow-leaved mallee woodland

Contact Kym Lashmar
8553 2476
kym.lashmar@sa.gov.au



Regional Agricultural Landcare Facilitator

- » assist with sustainable agriculture activities, e.g. workshops, demonstrations and peer learning sessions

Contact Venetia Bolwell
0437 172 877
venetia.bolwell@sa.gov.au



Water management

- » advice on water affecting activities and permits e.g. dams and earth works in or near a water body
- » advice on water resources e.g. salinity, wells

Contact Mark Agnew
8553 2476
mark.agnew@sa.gov.au



Weed control

- » weed management advice
- » weed identification
- » reports of new weeds
- » hire of cape tulip weed wiper

Contact Jason Walter
0418 708 557
jason.walter@sa.gov.au



Pest animal control

- » domestic goat and pig permits
- » feral goat and deer reports

Contact Bronwyn Fancourt
8553 2476
bronwyn.fancourt@sa.gov.au



Feral pig control

- » control of feral pigs
- » feral pig trap hire
- » feral pig reports on eastern KI

Contact Brenton Florance
0427 618 304
brenton.florance@sa.gov.au



Feral cat control

- » control of feral cats
- » feral cat trap hire

Contact James Smith
0447 155 115
james.smith5@sa.gov.au