



Government of South Australia

Northern and Yorke Natural
Resources Management Board

DRAFT

OUR STORIES

Preserving water, earth, oceans, plants and animals in the Mid-North of South Australia





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Northern and Yorke Natural Resources Management Board
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OUR STORIES

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Acknowledgements

The Northern and Yorke NRM Board's achievements rely on the strength of its partnerships with organisations such as Commonwealth, State and Local Governments, Greening Australia, the Australian Wildlife Conservancy, Rural Solutions of South Australia, the Wilderness Society, Bedord Industries, Nature Conservation Society of South Australia, Aboriginal communities, tertiary institutions, schools, landholders, not-for-profit groups, environment and local community groups.

The Board thanks them for their commitment to the regional NRM Plan and our regional natural resources.

LEGEND



WATER



SOIL AND FARMING



ANIMAL PLANT CONTROL



COMMUNITY ENGAGEMENT



COASTS AND MARINE



BIODIVERSITY





INTRODUCTION

Adding value to valuable assets

The Yorke Peninsula and the Mid-North region contributes about a quarter of South Australia's annual income.

Not only does the region contain some of the best beaches, wineries, landscapes, native habitats and wildlife in Australia, its people are turning out to be national leaders as well.

That's because so many of them are involved in looking after their region's natural assets.

Everywhere you go you'll find local volunteers putting something back; looking after their natural environment; eliminating feral plants and animals, propagating, planting and maintaining native habitats that are attracting native fauna back to the region.

Turning wasteland into more valuable, attractive, enjoyable assets. From Tiddy Widdy Beach to Orroroo and from Clare to Kadina our fabulous farmers, our army of retirees, volunteers and committed townfolk are working on more than 100 projects to make the region an even better place to work, rest and play.

The underlying force that funds, supports, plans, directs and encourages this natural resources engagement activity is the Northern and Yorke Natural Resources Management Board.

This booklet is a snapshot of our community, our partners and NRM at work. What we are doing, how we're doing it, where we're doing it and who's doing it.

Community wide we're working across the whole range of natural assets:

On water resources - including watercourses, lakes, dams, floodplains, groundwater, springs, wetlands, waterholes and catchment landscapes.

On our 1400 kilometres of spectacular coastline – beaches, cliffs, islands, sea meadows, surf beaches, sandhills, mangroves, tidal mudflats, estuaries, samphire and saltmarsh.

All attracting a rich assortment of birdlife, native animals, and fish, and people.

Protecting coastal assets has become a focus for community groups. The community is working on native vegetation, which covers a third of the region with almost 1300 plant species in forests, woodland, mallee, wetlands, sedges and grasslands.

They're rebuilding numbers of our 450 species of native birds and animals - from yellow footed rock wallabies in the Flinders, to pygmy bluetongue lizards in the middle, and western whipbirds on YP's south coast.

And they're at work in the region's two National Parks, 16 conservation parks and three forest reserves.

The Board is engaged across the region with local communities and partners, adding value to natural resources. Northern and Yorke people are not asking what they can do for their region – they're out there doing it!



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Southern Flinders Conservation Action Plan (CAP) zone

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Southern Flinders Ranges Landscape Project

The project, known as Living Flinders, covers 1.3 million hectares of internationally significant landscape from the coast at Port Pirie to the edge of the majestic Wilpena Pound. It addresses critical conservation issues bringing together landholders, government and non-government organisations.

Together they are working to identify conservation assets, protect native flora and fauna, and address high priority threats. The conservation challenge across this iconic landscape is too big for one organisation. The success of Living Flinders depends on strong organisational partnerships, community support, visionary business leaders and large-scale investment.

Several demonstration sites have been established to highlight threat mitigation as part of a continuing conservation action across the region.

New engagement strategies being developed include a tour for potential investors and a fund-raising prospectus.

Period: 2009 - ongoing

Partners: Northern and Yorke NRM Board, Department of Environment and Natural Resources, Greening Australia, Wilderness Society, Nature Conservation Society of SA.





Aboriginal Bush Tucker and Bush Medicine Arboretum

The project, completed in 2010, showcases the benefits of hands-on involvement by staff and students at the Port Pirie TAFE Aboriginal Access Centre and financial support from the NRM Board. It embraces Indigenous culture and heritage while demonstrating to the broader public defining features of traditional bush tucker and medicine.

Developed adjacent to the Aboriginal Access Centre, the arboretum involved students and staff preparing the ground, meeting Aboriginal elders, sourcing traditional plant species, establishing watering and weed control programs and a traditional storytelling area.

This sustainable project has been a traditional learning journey for the participants who have worked together to fulfil social, cultural and economic aspirations through natural resource management.

Period: 2009 - 2011

Partners: Northern and Yorke NRM Board, Nukuna people and Port Pirie TAFE.





Whole-of-landscape grazing business models

This project aims to explore and develop new stubble grazing management practices and models leading to improved feed and plant soil cover at the whole-of-landscape scale.

Current farm management and operating structures currently restrict the effective utilisation of feed and soil cover reserves on the broad scale. For example, no-till farming practices often result in high amounts of stubble being left in paddocks.

Reduction in sheep numbers across the region means that stubble is also often not utilised for grazing. The combination of these factors can result in machinery problems when sowing. Improved stubble grazing management would maintain adequate soil cover to prevent erosion, provide additional income to farmers from livestock grazing and improve no-till machinery operation.

There is also the opportunity to reduce grazing pressure on improved and native pastures during adverse

conditions and seasonal feed shortages improving soil cover biodiversity condition. The project involved benchmarking stubble feed value against livestock performance four times between December 2010 and March 2011. Data was collected on stubble surface cover, feed quality and weight of lambs. Project outcomes to date include enhanced knowledge and skills in NRM among participating farmers, reports of reduced risk of soil loss and acidification, and improved carbon content of soils.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and South Australian No Till Farmers Association.

Funding: Caring for our Country





Improved snail control in cropping land

Achieving adequate snail control in no-till stubble retention systems with high snail populations is challenging.

Early burning of stubbles to reduce snail populations before they mate and lay eggs is still practised by some farmers due to the difficulty of controlling juvenile snails and high numbers of adult snails.

The project involves investigation of new spray formulations. In a laboratory environment, certain sprays have been effective in controlling adult and juvenile snails when applied directly onto the pests. Several farmers have assisted with a series of field experiments to evaluate more effective snail control in stubble retention systems.

The initial treatments have shown some promising outcomes. There will be multiple NRM benefits if effective methods are developed to improve snail control without removal of stubble. These will include greater protection

from erosion, increased soil organic matter, improved carbon content of soils and increased protection from biodiversity.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and South Australian No Till Farmers Association.

Funding: Caring for our Country





Improving productivity through pasture budgeting

Better management of livestock feed resources can generate improved farm productivity and income while protecting natural biodiversity assets.

Whole-of-property feed budgeting is a management tool for a range of feed sources including native pastures, introduced species pastures, sown legumes and cereals, perennial species, hay and grain. Better understanding of growth, production and persistence characteristics of species and how they should be grazed can improve the value of livestock production, help prevent soil erosion and encourage growth of native plants. This project showcases properties where improved grazing management practices have generated positive outcomes.

Workshops, field days and farm walks are helping to generate awareness and engagement in pasture budgeting to identify and assess feed value and implement new grazing management systems on properties.

The Upper North Farming Systems Group has also launched perennial shrub evaluation trials at various sites with monitoring of grazing management outcomes.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Upper North Farming Systems Group and Department of Environment and Natural Resources

Funding: Caring for our Country





Pearl oyster impact on marine environment

Pearl oysters are an Australian native species that thrives in warmer waters north of Shark Bay in Western Australia and the north east coast of the continent. However, the species has been found in waters of upper Spencer Gulf with dense infestations in patches.

It is not known how the pearl oysters were brought to the area. It is speculated that they arrived in ballast water of ships, while some believe they spread from scraping the hulls of wooden sailing boats that regularly visited Port Augusta more than a century ago.

Pearl oysters pose a particular threat to razor fish because they attach to the shell of that species. This smothering effect prevents the razor fish from closing its shell exposing the host to crabs and other predators.

There are further fears that people collecting razor fish from the Upper Spencer Gulf to use as bait on fishing expeditions to Eyre Peninsula and the West Coast may spread the pearl oyster threat.

Efforts have been mounted to determine the extent of the pearl oyster infestation in upper Spencer Gulf and its impact on the marine environment. This has involved under water geo-referenced video footage along a series of transects between the Port Augusta bridge and Blanch Harbour.

Detailed maps of the infestation are being developed. The focus will be on containment of the threat and may involve some physical removal of pearl oysters by community group volunteers.

Period: 2011

Partners: Northern and Yorke NRM Board, Department of Environment and Natural Resources, Marine Advisory Committee in Port Augusta and the Coastal Homes Association.





Wheel cactus control at Parnaroo

Wheel cactus is a fast spreading, high impact weed that invades natural ecosystems. A relative of the highly invasive prickly pear, wheel cactus grows densely to form an impenetrable barrier that can reduce native plant growth, particularly small shrubs. Spikes from the plant can injure domestic livestock and people handling wool.

Wheel cactus has no natural enemies and established populations are physically difficult and expensive to eradicate. Infestations have occurred in natural shrub land, grasslands and mallee scrub near Parnaroo in the District Council of Peterborough.

The NRM Board has engaged a contractor to mechanically remove cactus plants from this infestation to reduce the impact on the natural environment and broader threats to primary production in the region. Smaller cactus plants not capable of being extracted mechanically have been injected with herbicide.

This combined effort has achieved a 90 per cent reduction in the area of wheel cactus leaving a core infestation of 85 square kilometres.

Period: 2011

Partners: Northern and Yorke NRM Board and landholders





Controlling pest plants on Upper North road reserves

A major focus of the Northern and Yorke NRM Plan is to protect biodiversity, agricultural production and communities from the impact of declared species on road reserves.

Along roadsides, pest plants can be a problem through their impact on native vegetation and capacity to spread into neighbouring properties and beyond. Roadsides are also pathways for pest plants through the movement of stock or soil. Pest plant control measures are careful and selective, usually by chemical treatment, to minimise any damage to surrounding vegetation.

In the Southern Flinders Conservation Action Planning (CAP) area, a major project has been mounted to inspect about 6,000km of road reserves for the presence of pest plants and feral animals to identify if and where control programs may be required.

The project covers the Local Government areas of Mount Remarkable, Orroroo/Peterborough, Port Augusta and Flinders Ranges to locate some of the pest plants that occur in the Northern and Yorke region.

Areas of rabbit infestations have also been identified and warrens are fumigated using phostoxin. Costs incurred for the control of declared plant and animal species on road reserves is recovered from adjacent landowners.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and landholders





Supporting landowners in Bathurst burr control

The Northern and Yorke NRM Board encourages individuals and community groups to become engaged in programs to improve awareness and control of pest threats.

In the Johnburg and Oladdie district north of Orroroo, members of the local Landcare Group expressed concerns in 2010 about the “out of control” spread of Bathurst burr, a pest plant introduced from South Africa.

An annual herb with a straw coloured burr, Bathurst burr is a problem in pasture and crops. The seedlings are poisonous to livestock and the burrs easily attach to sheep resulting in degradation of wool.

Sixteen landowners in the region reported to the NRM Board landscape scale control was necessary to prevent the spread of Bathurst burr, particularly along watercourses.

As a result, the Board is providing financial support to members of the Johnburg Landcare Group to cover the cost of chemicals being applied to the Bathurst burr over an area of about 15,000 hectares.

The objective is to reduce the incidence of the pest plant by 30 per cent in 2011 extending to 75 per cent by 2013.

Period: 2010 - 2013

Partners: Northern and Yorke NRM Board, Johnburg Landcare Group





Protecting critically endangered woodlands

A number of local landholders have been supported in their commitment to help preserve a showpiece of native woodland on a 50-hectare site north-west of Saddleworth.

This site features outstanding examples of Peppermint box grassy woodlands, which are listed as critically endangered under the Environment Protection and Biodiversity Conservation Act. Peppermint Box grassy woodland is only found within South Australia and it has experienced a 98 percent reduction in distribution since European settlement.

The native asset near Saddleworth has been under increasing threat from feral olives that compete with native plants for water and nutrients.

Olives have been present on road reserves close to the site for many years, and the density of this pest has been increasing through seed dispersal. Work has been done by some of the landholders to control olives within the site.

Funding from the NYNRMB has been provided to complement their efforts with mechanical removal and chemical treatment of any remaining stumps along the roadsides. The aim is to create a 2 km control buffer around the asset.

Period: 2011

Partners: Northern and Yorke NRM Board, landholders





Rising to the locust challenge

On a relatively regular basis, Australian plague locusts pose a major threat to agricultural crops and pastures. In 2010, South Australian farmers were on high locust alert with notifications in the Mid North, Mallee, southern Flinders Ranges, Riverland, Far North and Eyre Peninsula.

The Northern and Yorke NRM Board was engaged by Primary Industries Resources South Australia (PIRSA) to carry out ground spraying operations for the control of locusts in the Flinders Ranges, Mount Remarkable, Orroroo/Carrieton, Port Augusta and Peterborough district council areas. The Board assisted PIRSA to gain an accurate picture of locust hot spots by preparing locust location reports.

Board representatives also participated in community reference group meetings and training activities to help manage the threat. Community reference groups played an essential role in providing feedback on previous locust control strategies and shaping new plans of attack.

Suitably qualified contractors were engaged by the Board for ground spraying using Chlorpyrifos 500 EC insecticide with a focus on targeting the pests at the nymph stage.

The Board's action significantly reduced the potential of devastating impact by locusts on agriculture and biodiversity.

Period: 2010

Partners: Northern and Yorke NRM Board, PIRSA and landholders.





Project demonstrates rabbit proof properties are possible

It takes less than one rabbit per hectare to prevent the successful regeneration of many of our common native trees and shrubs. Therefore, many rabbit infested patches of native vegetation are in decline. Last summer, about nine landowners participated in a major rabbit control program in which a Board funded bulldozer ripped more than 3,005 warrens over an area of about 60,500 hectares around Hawker, Cradock and Quorn. Landowners assisted by locating warrens on natural semi-arid landscapes, grasslands and tree covered hills.

They also committed to land management agreements for on-going rabbit control measures on their properties. The objective was to suppress rabbit numbers to allow regeneration and recovery of native plants, including the threatened plains wanderer, Olearie daisy and Flinders Ranges white caladenia.

The warren destruction was almost 100 per cent effective in the control area with landholders now believing that rabbit free properties are possible.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and landholders.

Funding: Caring For Our Country





Working with landowners to ease pain of wheel cactus

In recent years, wheel cactus has spread at an alarming rate in the Peterborough District Council area. A relative of the highly invasive prickly pear, wheel cactus grows densely and smothers native plant growth. Spikes from the plant can injure domestic livestock and people handling wool.

The NRM Board has engaged a contractor to mechanically remove the pest plant in natural shrub land, grasslands and mallee scrub near Parnaroo to help confine the spread to a core infestation. Separately, the Board has part-funded a program to control wheel cactus on more than 20 properties through injection of herbicide. More than 26,000 plants have been injected with landholders required to cover 50 per cent of the cost by payment or labour.

The project has been highly successful through the cooperative effort of landholders. It has significantly reduced the spread of this pest plant to help protect fragile natural systems.

Period: 2010

Partners: Northern and Yorke NRM Board and landholders





Appila Springs Field Day

A Northern and Yorke Natural Resources Management Board grant and staff expertise support an annual education day for local school students at Appila Springs, 30 km north of Laura.

Caltowie Corridors of Green has successfully hosted this annual environmental field day for junior primary school children for several years.

At the outdoor education day, students from Years three and four from eight regional schools experience entertaining and informative presentations by local experts about natural environment subjects. Appila Springs is a popular community spot, known for its beautiful setting in a natural spring surrounded by rock formations.

Period: 2011

Partners: Northern and Yorke NRM Board; Caltowie Corridors of Green, local schools





Preserving the unique values of Aboriginal lands

The NRM Board and Greening Australia coordinate the globally recognised Conservation Action Planning (CAP) framework for integrated landscape conservation programs throughout the Northern and Yorke region. This includes engaging with Indigenous communities through the Aboriginal Lands Trust to manage NRM projects on their own lands.

The significance of what Aboriginal people call “country” – embracing its land and waters – is central to all aspects of their lives and those of their forebears. Natural bushland restoration helps to protect the unique cultural value and significance of their country.

Baseline funding has been provided to assist the Yappala community to prepare a management plan embracing NRM principles and cultural values and to implement bushland restoration

projects in line with the CAP framework. This support will also assist the community in funding applications for future NRM work.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia and Aboriginal Lands Trust

Funding: Caring For Our Country





CAP action in the Southern Flinders Ranges

Native vegetation covers around 75 percent of the Southern Flinders Ranges and 58 fauna species of conservation significance have been recorded in the region. The Southern Flinders Ranges covers 1.3 million hectares from Port Pirie in the south, Hawker in the north, Spencer Gulf to the west and the Flinders-Olary Plains in the east.

The globally recognised Conservation Action Planning (CAP) framework for the Southern Flinders Ranges will ensure that threatened native animal and plant species will benefit from a strategic, systematic and collaborative approach to conserving biodiversity.

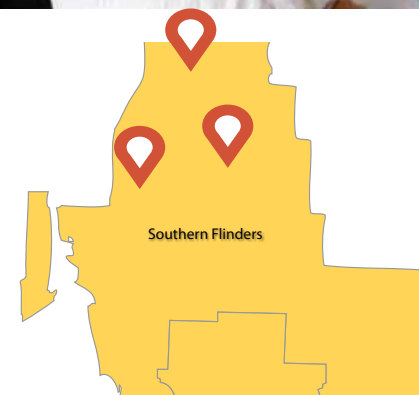
This landscape scale approach is a showpiece of how the NRM Board and Greening Australia are working with multiple partner organisations to identify and act on priority conservation projects.

The program is now moving out of the planning stages to focus on large-scale investment in on-ground conservation. Following a series of workshops to develop a Southern Flinders conservation plan, a detailed fund-raising prospectus has been developed to support priority projects. This is complemented by a DVD on the need for collaborative protection of unique conservation assets of the region.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia

Funding: Caring For Our Country





Landholders to the fore in conservation action

As part of the NRM Board’s Conservation Action Planning (CAP) process in the Southern Flinders Ranges, a major landholder engagement and on-ground works support program has been initiated. Forty of the region’s largest landholders have been recruited into the project with a focus on biodiversity conservation and sustainable production.

These landholders manage almost half of the land area and associated wildlife habitat in the region. Nationally endangered plant communities exist on some of this land. The engagement program includes site visits, landholder surveys, preparation of site reports and assistance with technical support and landscape conservation project development.

On-ground works to be undertaken include protecting yellow footed rock wallaby habitat in the area between Quorn and Hawker and cooperative action in national parks, conservation parks and adjacent privately-owned

land between Crystal Brook and Mount Brown to manage threats including feral animals and bridal creeper.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia

Funding: Caring For Our Country





Pastoralists are role models for conservation action

Pastoral landholders on six properties between Hawker and Cavenagh West have formed a strong alliance to support sustainable production and improve their businesses.

Group members work together to eradicate weeds and other pests, and revegetate where required, to help enhance natural biodiversity in the Southern Flinders Ranges. Their organisation, Flinders Merino Pty Ltd, succeeded in gaining NRM Board community grant funding to help restore areas of native grassland and grassy woodland degraded over time by previous farming practices.

About 1,900 hectares of hard-packed ground will be ripped and revegetated with native seeds. The project will improve the health and diversity of native vegetation, provide food and shelter for local birds and reptiles, improve soil fertility, reduce erosion, and help the pastoralists to maintain and improve sustainable grazing practices.

This project, in an area that contains many threatened flora and fauna species, will serve as a blueprint for other landholders to implement similar conservation action measures.

Period: 2010 – 2011

Partners: Northern and Yorke NRM Board and Flinders Merino Pty Ltd (sponsored by Upper North Farming Systems)





Hawker: A powerful model of community driven NRM

Hawker, the picturesque township that plays a key gateway role in tourism in the Flinders Ranges, is also becoming a powerful model of integrated natural resource management in a populated setting. The Hawker revegetation, waterway rehabilitation and interpretive signage project has gained NRM Board community grant funding that will help showcase various dimensions in environmental care and community engagement with some fascinating cultural and educational aspects.

The project will revegetate selected areas around the township with local native plant species featuring interpretive signage to identify plants and the habitat they support by their Aboriginal and European names. It will create a sustainable wildlife corridor and refuge around the township to connect with the greater Flinders Ranges, mitigate noxious weed infestations, particularly in the creek leading to and from the town water supply at Railway Dam, and help prevent dust storms that result in soil erosion.

The Adnymanthanha Land Council and its Aboriginal Youth Program will contribute to the project around the Aboriginal land known as Yudlya Vambata Police Hill. The project is a credit to The Flinders Ranges Council and its community, including dedicated volunteers.

Period: 2010 –2011

Partners: Northern and Yorke NRM Board, The Flinders Ranges Council and community





Discovery and fun in a school nature garden

A major commitment of the Northern and Yorke NRM Board is to connect children to the natural environment through play and discovery. Across the region, there are many funded projects that develop skills and capacity for young people to participate in conservation action.

For example, the Peterborough Primary School has received community grant funding to develop a discovery nature garden as an outdoor learning centre for pre-school and primary students and the broader community. It involves revegetation of a grassed area with native plants to provide educational and sensory experiences supported by a curriculum-based school program generating knowledge about biodiversity and the value of various species in attracting and providing habitat.

It will include propagation and species identification learning, on-going care of plants through mulching and pruning, and observation of local wildlife interacting seasonally with the native garden.

Period: 2010 –2011

Partners: Northern and Yorke NRM Board, Peterborough Primary School





Vital conservation care data from sanctuary survey

Buckaringa Wildlife Sanctuary, 35km north of Quorn, conserves a precious diversity of native plant and animal species in the spectacular Southern Flinders Ranges. Bounded by country supporting agricultural and tourism enterprises, the sanctuary sits within the catchment of the Willochra Creek drainage system that feeds into Lake Torrens.

In 2009, the NRM Board funded a biological survey within the sanctuary by the Australian Wildlife Conservancy and volunteer supporters. The key objective was to develop an inventory of vertebrate fauna and information on flora, particularly the recovery of native species following feral animal controls.

Australian Wildlife Conservancy staff and volunteers surveyed 18 sites for birds, mammals, reptiles and frogs as well as vegetation composition and structure. A total of 121 vertebrate species were recorded, including 12 with either national or state conservation significance.

The survey confirmed flora and fauna in the sanctuary's ranges are largely intact. However, valley floors that have been historically farmed revealed a significant number of introduced species that require management to reduce impacts on natural biodiversity.

Information gathered from on-going surveys will influence land management and conservation programs in and beyond the sanctuary.

Period: 2009 – 2010

Partners: Northern and Yorke NRM Board, Australian Wildlife Conservancy





Success story of planning, planting and monitoring

Orroroo Area School students have had more than a hands-on involvement in a project to revegetate a Pekina Creek hillside. With NRM Board support Year 11 students last year prepared a biodiversity management plan.

Period: 2010 – 2011

Partners: Northern and Yorke NRM Board, Orroroo Area School



Year 10 and 11 students then fenced the area to manage grazing as part of their agricultural studies. More recently, Year 10 students have been implementing the management plan through strategic planting of trees to create habitat for native plants and birds. The students have also organised the local Council to assist with earthworks to help prevent erosion at the site.

The project has international dimensions through the involvement of American students on exchange at the Orroroo Area School. The revegetated hillside, located near the Orroroo duck pond, will be the focus on on-going monitoring and natural resource management studies for current and future students.





Students discover wonders of the marine environment

Port Augusta school children celebrated World Environment Day in 2010 with a Marine Environment Day organised by the NRM Board. The event created a living classroom providing students with insights into the importance of aquatic biodiversity, tides and water movement, and threats posed by coast and marine pests.

It was an interactive experience for the students with highlights including camera vision of underwater life around wharves and pontoons, a mangrove forest walk, a guided tour of the Port Augusta Aquatic Centre and an inspection of the Coast Guard shed, boat and equipment. It was an enjoyable and informative day with a focus on caring for coastal and marine environments.

Period: 2010

Partners: Northern and Yorke NRM Board, Port Augusta Marine Advisory Committee, Port Augusta Council and the State Government





Arboretum, walking trail for Wirrabara

A project to establish an arboretum of native trees and a walking trail along the Rocky River has been established by the Wirrabara Progress Association with the assistance of the Northern and Yorke NRM Board.

Period: 2010

Partners: Northern and Yorke NRM Board and Wirrabara Progress Association



The arboretum, which will be a valuable complement to the old Wirrabara Forest Nursery established in 1878, will concentrate on native trees to attract more birds and animals.

The project will improve the health of Rocky River by removing exotic trees and weeds, which shed leaves and choke the river in flood times and contaminate the rest of the river system. Short periods of extensive stock grazing will cut bushfire risk.





Port Augusta beach upgrade

West Side Beach at Port Augusta West has been upgraded with the help of the Northern and Yorke NRM Board, Port Augusta Council and Friends of West Side.

Period: 2010

Partners: Northern and Yorke NRM Board, Port Augusta Council and Friends of West Side Port Augusta.

The project involves replacing and upgrading fencing to manage walkers and cyclists accessing the beach, improved signage and upgrading the staircase to the beach.



Controlling the flow of traffic to the beach will allow the regeneration of native plantings and maintain biodiversity.

The project is part of stage three of the Friends' West Side master plan and beach management plan.





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SECTION 2

Southern Yorke Peninsula Conservation Action Plan (CAP) Zone

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Managing hairy-nosed wombat populations

The Point Pearce Aboriginal Land on Yorke Peninsula has a rich cultural history for the Narungga people. It is bounded by beautiful coastline with lightly vegetated sand hills and low-lying salt flats. Behind the sand hills are cleared paddocks that are cropped under a lease agreement.

The land has a large southern hairy-nosed wombat population that poses a threat to crops, soil stability, farming equipment and road safety. However, wombats also have cultural and conservation significance in the region, particularly to the traditional landholders.

A management plan was developed to support the viability of wombats while reducing their impact on sustainable agricultural production. The project involved engagement with the Narungga people and other stakeholders, and development of strategies that support social, economic and environmental aspirations.

Five management models and actions were agreed in zones set aside covering heritage, conservation, co-habitation, wombat exclusion and transport safety. One of the actions within the exclusion and co-habitation zones was destruction of burrows using a technique that minimises risks to people and plants while ensuring wombat safety.

The plan is evolving with regular monitoring, continuous improvement and best practice structures in place to allow the co-existence of wombats with viable farming.

Period: 2011 - ongoing

Partners: Northern and Yorke NRM Board, Narungga Nations Aboriginal Corporation, Port Pearce Aboriginal Council, Regional Development Australia, Department of Environment and Natural Resources.





Boneseed battle lines at Innes National Park

A ten-year battle has been mounted against boneseed infestation in the beautiful Innes National Park and surrounds on Yorke Peninsula.

Boneseed was originally introduced from South Africa as an ornamental plant, but like a number of other species, it has escaped from garden confines to invade native vegetation sites. It grows rapidly and each plant produces large amounts of seed that is readily dispersed by animals such as foxes, emus and other birds. The seeds can remain viable in the soil for up to a decade with densities known to reach 2,500 seeds per square metre.

If allowed to establish, boneseed can form dense monocultures, excluding the growth of native species and the ecosystems they support.

The challenges of the containment program in Innes National Park include the fragility of the natural environment. However, through physical removal and selective herbicide treatment, boneseed infestation has been reduced to

manageable levels in an area of about 300 hectares. The project has also involved community awareness and engagement with local landholders to identify, report and assist in the removal of the pest plant.

Period: 2011- ongoing

Partners: Department of Environment and Natural Resources, Friends of the Park





Controlling pest plants on Lower North and Yorke Peninsula road reserves

Along road reserves, pest plants can be a problem through their impact on native vegetation and capacity to spread into neighbouring properties. Roadsides are also pathways for pest plants through the movement of stock, machinery and soil. Declared plants can have a serious negative impact on natural biodiversity, agricultural production and communities.

In the Lower North, contracted herbicide control measures have been implemented to control isolated infestations of declared plants with a particular focus on African boxthorn, horehound and wild artichoke thistle. On Yorke Peninsula, innocent weed is as a problem on roadsides, particularly in sandy soils.

An annual grass, innocent weed is so called because it looks innocent until it forms burrs that easily attach to the hides of stock.

Lincoln weed is another problem on many of the peninsula roadsides. A perennial herb that prefers sandy soils, Lincoln weed is often found in crops and its seeds are sometimes spread by spillage from grain trucks after harvesting.

African boxthorn is also the subject of a long-term roadside control strategy usually with herbicide treatment. There are areas of heavy boxthorn infestation, particularly on southern Yorke Peninsula.

Period: 2011

Partners: Northern and Yorke NRM Board and landholders





Fox baiting protects Yorke Peninsula’s native wildlife

A major fox-baiting program in and around Innes National Park on southern Yorke Peninsula has been highly effective in protecting threatened native animals. Foxes are common in the area and they prey on key wildlife species including mallee fowl, western whipbird, hooded plover, little penguin, sand goanna, western pygmy possum and tammar wallaby.

The NRM Board is working with landholders and the Department of Environment and Natural Resources on this important biodiversity project, which began in 2008.

The Department has baited within Innes National Park and Warrenben Conservation Park and the NRM Board has engaged surrounding landowners to place and maintain bait stations.

To date, the Board has placed 370 bait stations on 24 properties covering an area of about 24,000 hectares primarily comprising native vegetation with some cropping and grazing land.

An extensive publicity program has heightened community awareness of the fox control measures to help prevent “off target” damage to domestic pets. Apart from significantly reducing fox predation on native animals, there have been positive outcomes in agricultural production. For example, one landowner reported an increase in lambing percentage from 50 percent to 90 per cent.

Period: 2009 - 2011

Partners: Northern and Yorke NRM Board, Department of Environment and Natural Resources and landholders.

Funding: Caring For Our Country





No 'bunnies' when it comes to rabbit control

Since their introduction from Europe in the 19th century, the effect of rabbits on the ecology of Australia has been devastating. Little wonder! A single pair of rabbits can multiply in 18 months to 184 individuals. Rabbits today are Australia's most widespread and destructive pest despite the introduction of various successful biological control agents.

The Northern and Yorke NRM Board helps the community to manage the threat of pest plants and animals in a timely and strategic manner. With rabbits, baiting is most effective in the warmer months when there is less available feed and warrens are more inclined to collapse in dry soil.

In 2010 and 2011, the Board funded a rabbit control program on Yorke Peninsula supplying baited feed and rabbit proof fencing in some circumstances.

About 65 landholders and 15 community groups were contacted to participate in the program with Board advice about achieving the best results from control measures. As a result, rabbit numbers were significantly reduced helping the regeneration of native plants, including some threatened species.

Period: 2009 - 2011

Partners: Northern and Yorke NRM Board, landholders and community groups.





High conservation value projects on Aboriginal lands

Aboriginal people have deep spiritual links with their land and waters. There are places that are meaningful and treasured for their association with birth, social interaction, ceremonies, hunting, gathering, travelling and death. The conservation of the natural environment on Aboriginal managed lands is a vital aspect of natural resource management in the Northern and Yorke region.

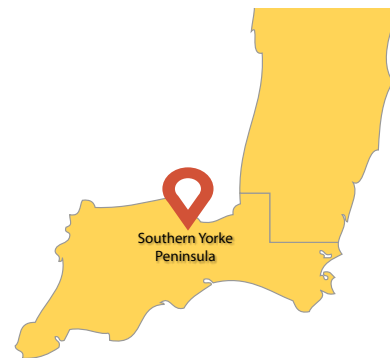
Indigenous owners describe it as reviving the country to a state that resembled the way it was in the days of their forebears. They say healthy country means healthy people, plants and animals. A showcase project has been boxthorn removal, fencing and coastal land restoration at the Point Pearce Aboriginal community.

Planning and implementation of such projects also assists the Aboriginal land managers to prepare new funding applications for further natural resource management projects.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and Aboriginal Lands Trust

Funding: Caring For Our Country





Supporting bushland restoration on Aboriginal lands

The NRM Board and Greening Australia coordinate the globally recognised Conservation Action Planning (CAP) framework for integrated landscape conservation programs throughout the Northern and Yorke region. This includes engaging with Indigenous communities through the Aboriginal Lands Trust to manage NRM projects on their own lands.

The significance of what Aboriginal people call “country” – embracing its land and waters – is central to all aspects of their lives and those of their forebears. Natural bushland restoration helps to protect the unique cultural value and significance of their country.

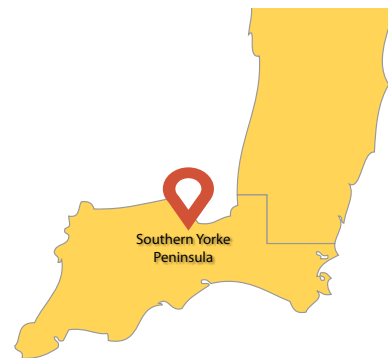
Baseline funding has been provided to assist the Aboriginal community of Yorke Peninsula to implement bushland restoration projects at Point Pearce in line with the CAP framework and cultural values.

This support will also assist the Aboriginal community in funding applications for future NRM work.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia and Aboriginal Lands Trust

Funding: Caring For Our Country





CAP action on Yorke Peninsula

The Northern and Yorke NRM Board has embraced the Conservation Action Planning (CAP) framework as a globally recognised process for developing and implementing landscape conservation programs involving multiple partners.

As a foundation for on-going CAP action on Southern Yorke Peninsula, four workshops have been held to develop a process of identifying NRM assets in the region, determining and prioritising threats to those assets, and developing projects that require further research or specific action.

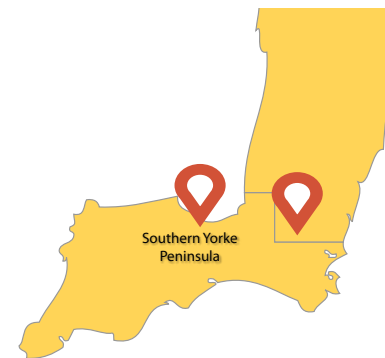
The workshops at Minlaton, Stenhouse Bay and Port Vincent attracted representatives of State and Local Government, farmers and community members along with environmental experts, researchers and key people from tertiary institutions.

They brought together diverse groups of people who shared a common commitment to productivity and prosperity by working in harmony with the conservation and protection of Yorke Peninsula's unique natural assets. As a result, the scene is now set to seek and apply funding to advance vital elements of the CAP process in the region.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia

Funding: Caring For Our Country





Attacking road verge weeds on Yorke Peninsula

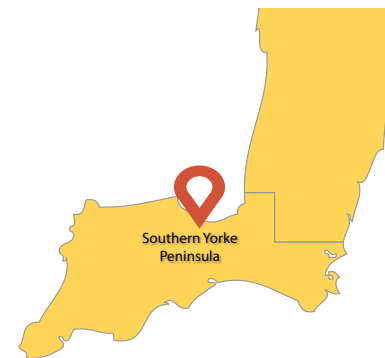
Pest plants can spread aggressively to compete with and replace native species. In doing so, introduced plant species reduce the functional resilience of the natural environment and potentially increase the cost of agricultural production. Along road verges, pest plants are easily spread through the movement of stock, soil, trucks and machinery. Targeted control measures are required, usually by chemical treatment, to minimise spread and damage to surrounding vegetation and neighbouring properties.

The road verge control program on Yorke Peninsula targets pest species that may be in relatively small areas of a few hundred metres up to staggered infestations on main arterial roads. The program engages local landholders who are encouraged to report infestations and assist with control measures on their properties.

Targeted plants include Silver Leaf Nightshade, Lincoln Weed, Bathurst Burr, Innocent Weed, Caltrop, Boneseed, African Boxthorn and Horehound. Controls are in areas around Moorowie, Minlacowie, Wokurna, Koolywurtie, Maitland, Melville, Kulpara, Curramulka, Minlaton and Yorketown.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and landholders.





Responding to threats from sea level rise

Sea level rise, in concert with tidal and storm surge events, pose significant risks to coastal settlements and their environs. Areas of Yorke Peninsula, which relies heavily on the economic and social aspects of coastal lifestyle and amenity, are particularly vulnerable to the climate change impact of sea level rise. For example, foreshore areas around Point Turton are being slowly eroded with adverse impacts on the ecology, especially habitat for native fauna.

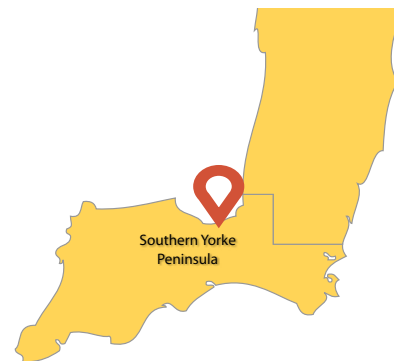
The District Council of Yorke Peninsula has gained NRM Board community grant funding to plant suitable native species to help stabilise the soil and minimise the erosion process. The project will also include erection of log fencing to restrict vehicle access to environmentally sensitive areas.

Further community grant funding has been allocated to the Council on behalf of the Black Point Progress Association to remove woody weed pests from coastal reserve areas.

Acacia cyclops and African Boxthorn have been particularly targeted around Black Point to allow the spread and establishment of native plant species.

Period: 2010 –2011

Partners: Northern and Yorke NRM Board, District Council of Yorke Peninsula





Protecting biodiversity in iconic coastal sand dunes

The Formby Bay sand dunes are a landmark feature on Southern Yorke Peninsula and an important area for biodiversity and natural habitat. The Hooded Plover, which is listed vulnerable to extinction, is among the species of shorebirds that seek food and shelter in the dunes and along the beaches.

Historically, human disturbance of migratory and beach nesting shorebirds has been relatively low in the region. But this pressure has increased with population growth and people spending more recreational time on remote beaches. Increased recreational activity at Formby Bay has resulted in some disturbing degradation of dunes and weed invasion.

The District Council of Yorke Peninsula in partnership with the West of the Peesey Biodiversity Restoration Group has gained NRM Board community grants funding to restore the threatened dune areas.

The project involves removal of invasive weeds, ripping and revegetation of tracks to stop vehicle access through the dunes, repair work on existing fencing, and erection of new fence lines covering a distance of almost 2,000 metres.

New signage will help educate people about the value of this coastal environment and the biodiversity it supports. The project has strengthened the relationship between the Council and the community group devoted to the protection and enhancement of native flora and fauna at Formby Bay for the benefit of all.

Period: 2010 –2011

Partners: Northern and Yorke NRM Board, District Council of Yorke Peninsula, West of the Peesey Biodiversity Restoration Group





Riding a wave of concern about woody weed impact

Landowners, community volunteers and surfing enthusiasts are making a combined commitment to protecting picturesque native bushland over a 25km coastal stretch from Foul Bay to Marion Bay.

The South Coast Road Environment Group, a sub-committee of the Foul Bay Progress Association, gained NRM Board community grants funding to help control infestations of woody weeds. Target plants include African Boxthorn, Western Coastal Wattle, Diosma, and Myrtle-leaf Milkwort growing in native vegetation on private and public land.

Participants in the project include members of Conservation Volunteers Australia and Marion Bay surfers. The control measures involve cutting pest plants at the base and applying herbicide to the stumps to penetrate root systems.

The project will help to restore scrubland to its natural state to protect biodiversity and habitat for native animals including pygmy possums.

Period: 2011

Partners: Northern and Yorke NRM Board, South Coast Road Environment Group, a sub-committee of the Foul Bay Progress Association





Supporting the growth of a very special group

Living with disability has not diminished the desire of Yorke Peninsula Leisure Options group members to contribute to natural resource management. This volunteer organisation dedicated to supporting the frail aged and people with disability has in recent years sourced and propagated local seeds and planted hundreds of native species on properties around Yorketown.

With its growing popularity and purpose among people with special needs, the group outgrew its base at Clem's Shed in Yorketown and looked to relocate to larger premises. With community grants funding support from the NRM Board, the group moved to a much bigger site at Weaner's Reserve in Yorketown. The funding has assisted members to fence and secure the property and erect a large, steel-framed shade house.

Each week, members and volunteers carers gather to nurture their native plants and participate in activities that will expand its revegetation program. The relocation will support future growth of the group and its efforts to build community awareness of the value of natural biodiversity.

Period: 2011

Partners: Northern and Yorke NRM Board, Yorke Peninsula Leisure Options





Protecting Hooded Plovers

The vulnerable Hooded Plover bird at will be protected from disturbance by beachgoers at Port Rickaby, with a pair of wooden stairs.

An investment by the NYNRM Board has allowed the YP Council to carry out the construction of two sets of perma-pine steps and a boardwalk for pedestrian access to the sand dunes from Coringle Drive in Port Rickaby on the western shore of Yorke Peninsula. Plantings of endemic coastal shrub species propagated from locally sourced seeds and cuttings have also been carried out.

The works will provide beach protection for the birds, particularly during nesting season.

Period: 2009

Partners: Northern and Yorke NRM Board, District Council of Yorke Peninsula, community members





Upgrade at Magazine Bay

The District Council of Yorke Peninsula has revegetated land adjoining the beach at Magazine Bay, a short walk south of the Point Turton Caravan Park where the “foot meets the leg” on the western side of Yorke Peninsula. With the help of the Northern and Yorke NRM Board, the Council has revegetated nearby beach areas with native plantings and upgraded the headland - backfilling vehicle tracks and replanting them and fencing off further vehicle access.

Magazine Bay, a sheltered cove, offers the only sandy beach close to Port Turton and its quiet waters, boat-launching facilities and picturesque coastal views make it a popular summer location.

Period: 2010

Partners: Northern and Yorke NRM Board and District Council of Yorke Peninsula





Reducing Minlaton Soil Erosion

Soil loss and damage to native vegetation is being tackled by reducing wind and water erosion in the Ramsay Catchment east of Minlaton.

Period: 2010

Partners: Northern and Yorke NRM Board, YP Alkaline Soils Group, farmers

The work is being carried by the YP Alkaline Soils Group with the assistance of the NYNRM Board.



The YP soils group used project funding to work with farmers on the development, demonstration and adoption of better soil practices by improving soil depth and structure. New technologies and methods have been used to better tailor soil treatment to paddock variation. Thick clays are the main problem; mapping layer thickness will optimise improved delving, spading and clay incorporation.





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SECTION 3

Central Agricultural Area Conservation Action Plan (CAP) zone

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Flaming end to boxthorns in River Gilbert

African boxthorn is a prime example of a plant innocently introduced to Australia, particularly in regional areas, with potentially devastating long-term effects on agriculture and natural biodiversity.

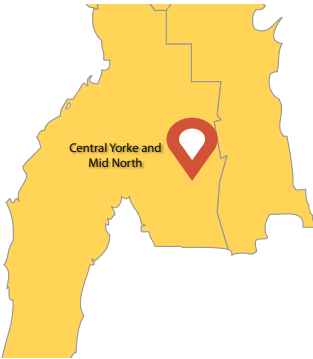
The project involved engagement and cooperation with landholders to help clear the riverine environment of the pest and improve biodiversity in the area.

Originally from southern Africa, boxthorn was often used by early settlers in this country for hedges and barriers for stock movement. It has invaded all landscapes in the Northern and Yorke region, providing habitat for pest animals including foxes and rabbits, and often preventing livestock access to feed and water.

Period: 2011
Partners: Northern and Yorke NRM Board and landholders.



This declared weed has been present in varying levels within the riparian zone of the River Gilbert, which feeds into the River Light with potential for further spread of the pest species.



The NRM Board contracted mechanical removal of African boxthorn upstream from the township of Stockport piling the grubbed plants for burning.





Reducing rabbit impact on threatened ecosystems and fragile landscapes.

Rabbits today are Australia’s most widespread and destructive pest animal. It takes less than one rabbit per hectare to prevent the successful regeneration of many native trees and shrubs, many of which are endangered. Therefore, many rabbit infested patches of native vegetation have been in slow decline.

The NRM Board has mounted a major offensive against rabbits in the Lower North region by applying best practice management to mapping, baiting, fumigating and ripping warrens mostly on private properties and on some Government-owned land.

NRM staff members were required to locate warrens and direct contractors to the affected areas. Land management agreements were entered into with those landholders to ensure rabbits would be controlled into the future.

Rabbits are now controlled over an area of approximately 70,000 hectares in districts ranging from Balaklava to Port Wakefield and south to Long Plains.

Period: 2009 - 2011

Partners: Northern and Yorke NRM Board and landholders.

Funding: Caring For Our Country





Engaging farm partners in NRM priorities

As female partners in farm businesses are often less involved in day-to-day paddock operations, they tend to have a more objective and holistic view of their farming business. Farm partners have a strong influence on the farm business and adoption of new farm practices.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Partners in Grain

Funding: Caring For Our Country



Partners in Grain groups in Clare and Bute saw an opportunity to engage women in building awareness of NRM issues with dual benefits for farming outcomes and the health of natural resources. Two workshops were held in both locations with a focus on understanding how NRM priorities can be addressed through better farm management.

A detailed evaluation of workshop outcomes showed farmers had improved their knowledge and skills in NRM by adopting activities that contribute to conservation and protection of biodiversity and improving soil management practices.





The gorse force steps out!

Around the Clare Valley a “gorse force” has launched a major offensive against one of the worst weeds in Australia. Gorse is a weed of national significance that infests pasture, cropping land, roadsides and native vegetation, and provides habitat for pest animals such as foxes and rabbits.

Gorse produces copious amounts of seed that is very resilient and easily transported in soil and water, on machinery and by birds and ants. Because of large and persistent seed banks in the soil, long-term control is a priority.

This project on public and private land involves chemically treating infestations and, in some instances, clearing the gorse to ground level before spraying the regrowth. The project has involved engagement with about 70 landowners who have gorse on their properties.

Once treated, gorse management on private property becomes the responsibility of the landholders. Longer-term outcomes will include improved stocking rates for graziers, reduction in threats to native plants and shelter for pest animals, as well as reducing threats from bushfire.

Period: 2009 - 2011

Partners: Northern and Yorke NRM Board and landholders.

Funding: Lower North





Better management of fragile landscapes

Achieving at least 40 per cent ground cover in paddocks over summer can significantly reduce erosion and dust storms. Maintaining this level of cover also increases the amount of organic matter that is returned to the soil. This, in turn, builds carbon percentage and improves water infiltration and storage.

These actions are particularly important in fragile dune or swale soils, which are common across the Northern and Yorke region. The Northern Sustainable Soils (NSS) Group managed a project to help farmers develop better fragile landscape management practices. This involved farmer workshops, field trials, on-farm demonstrations and crop walks around Port Broughton. Various crops were compared for ground cover and biomass.

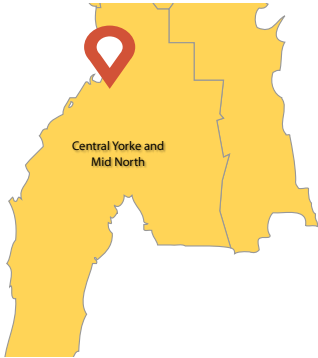
Heavy stubble loads like beans, vetch and cereals all maintained good surface cover. More than 100 farmers participated in the project with the vast majority indicating their intention to adopt improved sowing for ground cover and grazing practices.

The project also enhanced the farmers' knowledge and skills in natural resource management.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Northern Sustainable Soils (NSS)

Funding: Caring For Our Country





Yielding the benefits of treat soil acidity

Soil acidification is a degradation problem that can greatly affect potential production of crops and pastures. Sandy and loamy soils are particularly susceptible to soil acidification, which can be accelerated by farming practices.

More than 270,000 hectares in the Northern and Yorke region are vulnerable to this problem. As soils acidify, plant growth and yields decline, soil health and microbial activity also declines, and nutrient imbalances become evident.

A presentation on improved management of soil acidity was a major feature of the 2010 Hart Field Day, which attracted around 600 farmers. The poster display and supporting information distributed at the field day significantly improved awareness of the issue and encouraged farmers to monitor and lime their soils to overcome or prevent soil acidity.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Hart Field Day Site Group

Funding: Caring For Our Country





Halting erosion on high rainfall hill slopes

The loss of soil, particularly nutrient rich topsoil, can result in degradation of valuable farming land and the environment. Soil erosion is a particular problem on high rainfall hill slopes, particularly in areas with low plant cover.

The Mid North High Rainfall Zone Group has worked with the Tarlee Ag Bureau and local growers to demonstrate and evaluate the benefits of improved grazing management practices on high rainfall hill slopes. As part of the project, there has been particular attention on pea stubbles and sowing field peas with low rates of canola. Growers participated in a series of farm visits and workshops with presentations by livestock and soil cover specialists.

As a result, about 100 farmers are implementing improved soil management and intercropping practices and grazing methods. They have also embraced information and skills in natural resource management.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and Mid North High Rainfall Zone Group

Funding: Caring For Our Country





Master planning for Clare Valley water security

The Clare Valley Water Security Plan brings together knowledge about current, future known and predicted water demand in the Clare Valley Prescribed Water Resource Area. One of the peculiarities of the area is a fractured rock aquifer that presents high-risk prospects for aquifer storage and recovery, or ASR.

As such, a master plan was required that would not only gather information on current and future water needs, but also provide innovative management solutions to water conservation, stormwater harvesting and ASR.

The Water Security Plan is a supporting document to the Clare Valley Water Allocation Plan that affects groundwater irrigators and imposes restrictions on the harvesting of rainwater on commercial premises. It provides comprehensive and informed analysis

for integration of current and future water resources in the prescribed area. The master planning process in the Clare Valley will also assist in improved water capture, storage and re-use strategies and water efficiency measures in other areas across the Mid North.

Period: 2009 – 2010

Partners: Northern and Yorke NRM Board, Department of Trade and Economic Development, Clare & Gilbert Valley Councils and the Regional Development Yorke and Mid North





Restoring the Broughton River landscape

A management plan for the Broughton catchment is designed to address a range of threats to natural resources in the watercourse area between Spalding and Yacka. Surveys along the watercourse have revealed negative impacts from weeds including African rue and wild artichoke, grazing pressure and feral animal impacts from foxes and deer.

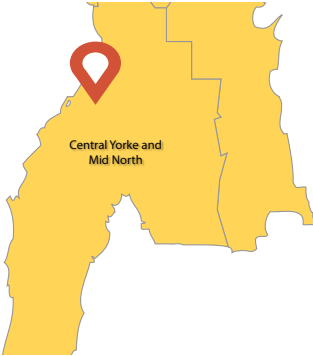
Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and Greening Australia



The catchment features a number of permanent pools that in dry periods of no-flow help to sustain various aquatic organisms and plant and animal life. Property management plans have been designed to address threats to natural ecosystems through actions such as weed control, grazing management and revegetation.

An important focus of the plan has been community engagement promoting integrated natural resource management initiatives. A demonstration site is proposed to showcase best practice in watercourse protection and riverine habitat management.





Guidelines for sustainable coastal gardens

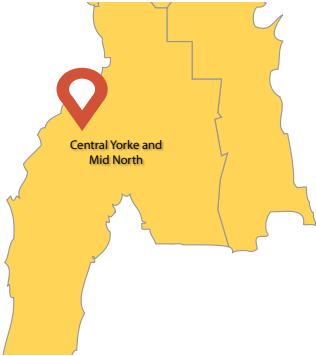
The coastal areas of the Northern and Yorke region face many challenges and threats including population shift, sea level rise from climate change, pollution, impacts from pest plants and animals, and habitat decline. Healthy coastal, estuarine and marine ecosystems are a key target of the regional NRM Plan.

Appropriate vegetation supports stable coastal landscapes and it provides food and habitat for native animals. Native local plants are low maintenance, drought tolerant and do not require fertiliser or pesticides. The NRM Board through Rural Solutions SA has produced a Coastal Gardens Planting Guide with simple, illustrated advice for coastal residents and businesses. It provides information about garden design, sources of water wise plants and introduced plants that can “escape” from home gardens and threaten natural biodiversity.

The NRM Board is also assisting in the development of coastal demonstration gardens, including a picturesque area of Wallaroo’s North Beach, to showcase the beauty and diversity of native plants that are ideal for home gardens. Community workshops also assist coastal residents to make informed native plant choices.

Period: 2010 – 2011

Partners: Northern and Yorke NRM Board and Local Government (District Councils of Barunga West, Copper Coast and Yorke Peninsula





Working behind weed containment lines

The NRM Board’s ability to survey and target weeds of national significance within large scale containment lines around main infestations has been effective against the spread of gorse, blackberry and boneseed in the Clare, Armagh and Sevenhill districts.

At least 37 landholders have had contracted with weed control work carried out on their properties along with about 25km of roadside infestations. Mechanical removal was conducted in watercourses followed by chemical application to regrowth. Chemical control was the sole method along roadsides and on private property away from watercourses.

This work has generated very positive feedback. The NRM Board received 27 agreement forms from landholders indicating their understanding that follow-up control work will be at their own cost. A further 15 landholders have indicated their intention to participate in the on-going program.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and landholders

Funding: Caring For Our Country





Supporting a new generation of environmental carers

The Caltowie Corridors of Green community group was formed in 1997 to collect and propagate local seeds resulting in plantings of native species along about 120km of roadsides in the region. The group has also been busy over the years motivating a new generation of environmental carers.

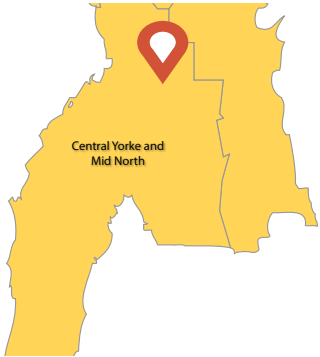
For the past decade the group has hosted an environmental field day at Appila Springs involving primary schoolchildren in the region. NRM Board community grant funding supported the 2011 field day in early September, which was attended by students from Booleroo, Gladstone, Jamestown, Laura, Orroroo, Wirrabara St. James and St Josephs. It involved interactive and fun workshops to help students understand the inter-connected elements of natural resource management and protection of ecosystems.

On another front, the Vineyard Lutheran School is one of four schools in Clare and Spalding that have worked with the Hill River Hilltown Landcare Group to plant thousands of native trees in the area. The Vineyard Lutheran School of 95 students has also received community grant funding for reparation of the Hutt River that flows through the school property.

The project, involving weed removal and revegetation with local native species, will enhance biodiversity and assist in erosion control.

Period: 2011

Partners: Northern and Yorke NRM Board, Caltowie Corridors of Green and Vineyard Lutheran School.





Showcasing the natural diversity of a local beach

Port Vincent has been widely recognised as a KESAB tidiest town winner. Local pride in maintaining the picturesque coastal town on Yorke Peninsula extends beyond the cleanliness and appeal of streetscapes to the protection of foreshore areas.

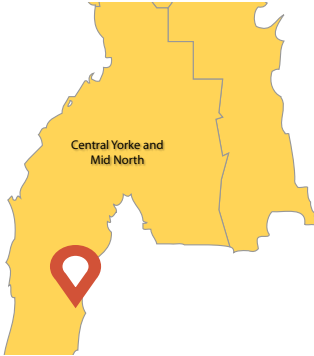
Period: 2010 – 2011

Partners: Northern and Yorke NRM Board, Port Vincent Progress Association and Tidy Town Group



The Tidy Town Group and the Port Vincent Progress Association have been very active in ridding the local beach environment of introduced plants and replacing them with species that are native to the area. With community grant funding from the NRM Board they are managing an on-going coastal rehabilitation project on Port Vincent’s back beach on a strip between the high tide mark and esplanade.

The Board has assisted volunteers to identify feral plants and supplied native tube stock. With hundreds of native plants now flourishing, it is a wonderful example of community involvement and support to maintain the extent and diversity of coastal landscapes.





Green corridor helps preserve scarce bird habitat

The Minlacowie Ramsay Biodiversity Corridor Project is a bold and fascinating example of landholder collaboration and volunteer commitment to halt a decline in local woodland bird species. The project creates a biodiversity corridor to reconnect about 250 hectares of remnant vegetation spread across six isolated, privately-owned farming properties.

The fenced corridor has been revegetated to promote strata levels of native plants including groundcovers, grasses, herbs, shrubs and trees. Landowners and community members will assist in on-going plant identification, seed collection and planting programs. The region has less than five per cent coverage of remnant vegetation. The corridor will provide natural connectivity and habitat for two scarce bird species – the Southern Scrubrobin and Shy Heathwren – along with other feathered friends under pressure, including Varied Sittella, Red-capped Robin and Crested Bellbird.

The NRM Board has provided community grant funding for the project that will also provide food, shelter and natural habitat for a wide range of other native animals and insects and improve genetic biodiversity in the area.

Period: 2010 – 2011

Partners: Northern and Yorke NRM Board and Southern Yorke Peninsula Landcare Group





Enhancing native habitat at historic Bowman Park

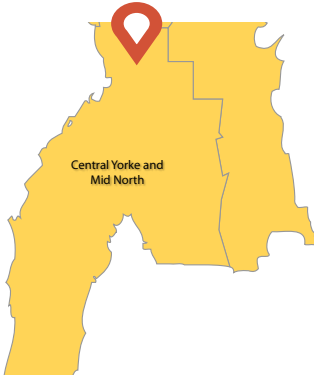
The old Bowman Park homestead is set in a natural amphitheatre adjacent to a permanent spring in the Crystal Brook creek. The Heysen Trail runs through the area attracting hundreds of visitors each year to enjoy the beauty and historic surrounds. However, the natural habitat has suffered over the years from grazing.

The Bowman Park Management Committee received NRM Board community grant funding to improve the condition of native habitat in the area and to promote the benefits of healthy and functioning ecosystems. The project involved removing invasive weed species, planting native shrubs and understorey plants and establishing native bee nest sites. Interpretive signage and educational activities assist in building awareness of the benefits of natural resource management among growing numbers of visitors to Bowman Park.

Educational activities have included sessions on native bees involving students from Crystal Brook and Curramulka and an insect management workshop for farmers and advisors in the Crystal Brook region.

Period: 2011

Partners: Northern and Yorke NRM Board and Bowman Park Management Committee





Shining the light on a successful dune project

Rehabilitation of the dune area at the entrance to South Beach, Port Hughes is a prime example of positive environmental outcomes from collaboration between the community and its Council and the NRM Board.

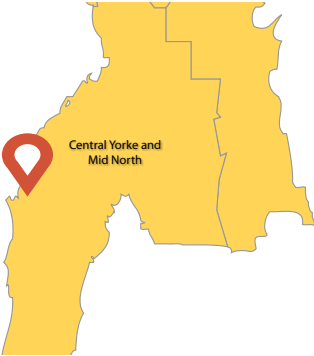
The site of the old lighthouse at this popular location had become degraded. The Friends of Port Hughes succeeded in gaining community grant funding from the NRM Board to assist in weed control and revegetation to prevent erosion and restore habitat for native wildlife.

The Copper Coast District Council assisted in weed eradication before the Friends group mounted the native revegetation effort with more than 800 plants and protective guards inserted into the dune site. Good rains helped to establish the plants and the group is now working on interpretive signage and on-going weed management.

The Council, as the landowner, is establishing a picnic area and upgrading an existing walkway to enhance amenity.

Period: 2011

Partners: Northern and Yorke NRM Board and Friends of Port Hughes





Restoring the natural beauty of Polish Hill River

The Hill River Natural Resources Management Group is committed to protecting and enhancing the natural environment of the Polish Hill River sub-region of the Clare Valley. In 2009, it received NRM Board funding to help remove pest plants, establish a wetland and revegetate a degraded vineyard on the Annie’s Lane site near the Polish Hill River.

More recently, the Board has contributed to the next phase of the project to establish a public walking and cycling track as part of the well-known Riesling Trail of the Clare Valley. This work involves extensive clearing of feral plants to restore and protect natural vegetation in an area to be known as the Father Rogalski Loop.

The project also involves planting of native vegetation tube stock, installation of interpretive signage and on-going monitoring of biodiversity and water quality in the Polish Hill River catchment.

Period: 2011

Partners: Northern and Yorke NRM Board, Hill River Natural Resources Management Group





Showcase restoration of the Hutt River in Clare

The Hutt River flows through central Clare forming an important link in the regional water management system. It also provides an outstanding opportunity to showcase sustainable environmental management of a natural watercourse in an urban environment.

Period: 2011

Partners: Northern and Yorke NRM Board, Clare & Gilbert Valleys Council, PIRSA



The NRM Board supported a funding application from the Clare & Gilbert Valleys Council to restore the natural environment of the Hutt River in the area between Essington Avenue and Gleeson Street. The project includes site assessment and mapping, preparation of a technical report and management plan, weed control, destruction and removal of feral trees, revegetation and strategic placement of nesting boxes for native birds.

With the support of landholders and community volunteers, the restoration site will be subject to on-going environmental monitoring, evaluation and maintenance to contribute to healthy terrestrial ecosystems in the upper reaches of the Hutt River.





Waterwise Watervale students on a ‘growth spurt’

Students and teachers at Watervale Primary School are firm believers in the old saying that from little things big things grow. The school of just 44 children is embarking on a natural resources management project that aims to inspire and motivate future generations of students, their families and the broader community. With NRM Board community grant funding, the school is establishing a seed propagation area and prominent native garden on its grounds that will be irrigated with captured rainwater.

An existing reed bed system at the school that purifies and treats grey water will be refurbished to expand the water capacity and efficiency for broader irrigation. Principal Wendy Burge said the garden beds planted with identified native species and seasonal fruit would promote the benefits of sustainable resource management and healthy eating.

The school will be working with local organisations including the Mistletoe Action Group and Declining Woodlands Bird Recovery Team to ensure the seed propagation and planting program will support habitats for native birds.

Current and future students will be involved in maintaining the native garden while monitoring the success of the water management system and the species it helps to sustain.

Period: 2011

Partners: Northern and Yorke NRM Board and Watervale Primary School





Halting environmental vandalism at Fishermans Bay

Environmental vandalism resulted in serious degradation of about 100 hectares of sand dunes on coastal reserves north of Fishermans Bay. The cost of intruding motor bikes, quad bikes and four-wheel drives on the fragile dunes can be counted in the loss of native vegetation and wildlife habitat.

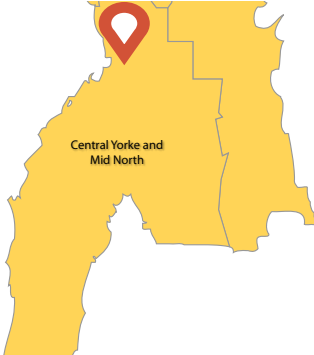
However, adjoining landholders, nearby shack owners and the District Council of Barunga West have joined forces to combat the negative environmental behaviour. Police have also been on the look-out for unregistered bikes in the dunes.

NRM Board community grants funding helped the various parties to erect fences and gates restricting access to the dunes and the placement of educational signage. The objective is to allow native flora and fauna to re-establish in the sand dunes with on-going monitoring of regeneration of indigenous grasses and coastal ecosystems.

This project is a wonderful example of cooperative effort to protect the environment from senseless intrusion.

Period: 2010 –2011

Partners: Northern and Yorke NRM Board, District Council of Barunga West





Probing impacts on the survival of woodland birds

A fascinating project has been mounted in the Clare Valley to assess the extent to which native habitat enhancement supports the diversity and abundance of woodland birds.

It is hoped the information will provide valuable insights into measures required to ensure the long-term survival of woodland birds in the region.

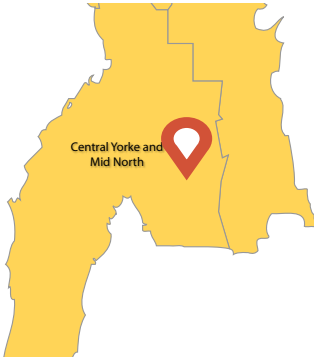
The Declining Woodland Birds Recovery Team received NRM community grants funding to collect data that will contribute to the knowledge base about the conservation of woodland birds in the Mid North. Key impacts on these important birds include habitat fragmentation, overgrazing, weed invasion, loss of tree hollows, predation by foxes and feral cats and competition from introduced birds.

Period: 2010 – 2011

Partners: Northern and Yorke NRM Board, Declining Woodland Birds Recovery Team



Nine Clare Valley landholders are supporting the program by allowing bird monitoring on their properties, which feature differing grazing and native vegetation management systems. The data, collected by ornithologists at sites of grassy woodland on the properties, is yet to be analysed.





Helping in the survival of a rare Mid North grass

Spalding Blown Grass is an endangered species that is endemic to the Mid North. Only three populations are known – one of about 4,000 plants at Yakkalo, another of around 50 plants at Tarlee and a third of less than 20 plants at Riverton.

Period: 2011

Partners: Northern and Yorke NRM Board, Spalding Blown Grass Recovery



Over the past decade, the Department for Environment and Natural resources has worked with the Threatened Plant Action Group and other community groups on recovery actions for this rare grass. More recently, the Spalding Blown Grass Recovery Team has received community grants funding to assess the condition of the species and undertake management activities, including weed management at the three sites.

On-going monitoring will provide valuable information on outcomes of habitat enhancement, particularly evidence of new recruits that may contribute to the long-term survival of this unique species.





Recovery action for one of the world’s rarest plants

The Spiny Daisy (*Acanthocladium dockerii*) is unique in that there is no sexual reproduction between individual plants. Rather, each new individual is derived from root suckering of existing plants. Therefore, each population of Spiny Daisy represents a single clonal, genetic individual making it one of the rarest and most threatened plants in the world.

Another rare feature of the Spiny Daisy is that it is endemic to the Upper and Lower North with only five wild populations and four translocated populations known to exist. These fascinating plants feature in remnant grassland areas, predominantly roadsides.

The NRM Board has provided community grants funding to the Spiny Daisy Recovery Team recognising the priority conservation action status of the species. It will assist the team in its on-going evaluation of the wild and translocated plants, and in work to establish three new populations.

This project will help to recover a species of world interest as part of overall efforts to protect and preserve remnant native vegetation and natural habitat across the region.

Period: 2011

Partners: Northern and Yorke NRM Board, Spiny Daisy Recovery Team





Helping possums play their role in ecosystem balance

Many animals, including birds and possums, along with butterflies and ants, rely on Box Mistletoe as a source of food, particularly when few other plants are flowering or fruiting. An over-abundance of mistletoe in the Mid North was an indicator of an ecosystem out of balance.

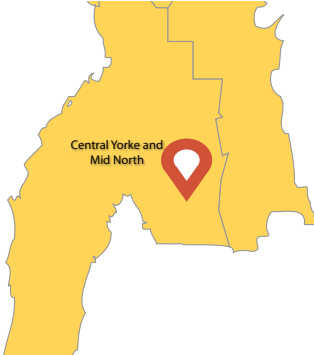
In areas around Spring Gully, the Tothill Ranges, Auburn, Saddleworth, Jamestown and Bundaleer, concerns were raised about mistletoe invading local woodlands. It also became apparent that the breeding habits of Common Brushtail Possums in particular were being affected due to the lack of naturally occurring hollows in remnant grassy woodlands.

The Common Brushtail Possum Recovery Team received funding to install and monitor 50 nesting boxes in native vegetation with the support of landholders and volunteers. Latest monitoring indicates possums are using the nesting boxes and it is hoped their numbers will increase to help control the over-abundance of mistletoe.

This relatively inexpensive experiment is helping to restore ecosystem balance and create public awareness about the importance of preserving grassy woodlands for native habitat.

Period: 2009 – 2011

Partners: Northern and Yorke NRM Board, Common Brushtail Possum Recovery Team





A popular and affordable guide on our native plants

Each year hundreds of thousands of walkers, cyclists and vehicle travellers notice, but do not recognise the importance of various plants in maintaining ecosystem balance in the region. On roadsides, farms and in parks and reserves, these native plants play a key role in biodiversity health, particularly in areas of endangered grasslands and grassy woodlands.

Period: 2009 – 2010

Partners: Northern and Yorke NRM Board, Mid North Grasslands Working Group



To help landholders and other members of the public understand the beauty and diversity of these native plants, the Mid North Grasslands Working Group produced an attractive and affordable book entitled Grasses, Gums and Groundcovers.

The enjoyment of this popular book requires no botanical expertise, and with the NRM Board helping to fund a reprint, it is available from the Board’s offices, local bookshops and tourist centres throughout the region.





Revegetation is no hurdle for pony club members

When it came to revegetating an area of their land to support native habitat and help stop soil erosion, members of the Crystal Brook Pony Club were quick to saddle up with their support. With funding support from the NRM Board, members and their families participated in working bees to plant native species that will attract birds and insects and provide an educational dimension in biodiversity for young pony club participants.

Period: 2009 – 2011

Partners: Northern and Yorke NRM Board, Crystal Brook Pony Club



With mulching and weed control, it is project of growing proportions that will allow members to enjoy riding in a thriving, natural environment and encourage horse owners to engage in natural resource management on their properties.





Mid North information day a “double hit”

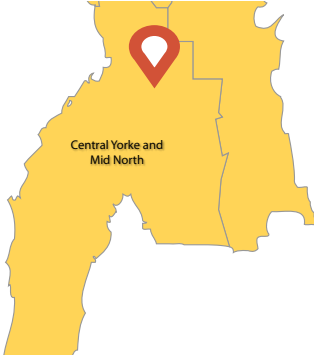
Silverleaf nightshade is a worldwide pest plant, and it has been a growing problem in the Northern and Yorke region since the 1940s.

Otherwise known as tomato weed, it is a deep-rooted perennial that can reduce crop yield by up to 30 percent by soaking up soil moisture and nutrients. This pest species was the headline subject of an inaugural information day hosted by the Lower North NRM Group at Spalding in March 2011.

Around 100 participants gained expert insights into latest “double hit” management practices to control Silverleaf nightshade along with updated information on control measures for foxes, rabbits, locusts and mice.

Period: 2011

Partners: Northern and Yorke NRM Board, landholders





Connecting students with their natural environment

In April 2011, the NRM Board supported the first environmental field day at Alford on Northern Yorke Peninsula. Run in a similar format to education days in the Mid North at Appila Springs and Yacka Moorundie, the Alford event was attended by over 200 Year 3 to 5 students from Wallaroo, Kadina, Bute and Port Broughton.

They participated in a series of interactive presentations about soils, plant and animal life, habitat and ecosystem health, and threats to the natural environment. One of the truly inspiring presentations at Alford was by students from Kadina Primary School, who have been interacting via the Internet with school children in Indonesia about natural resource management.

Scott Perry a teacher at Saint Mary McKillop School in Wallaroo, said: "There was something in the Alford day for everyone. It is so important for children to learn about the environment from a young age, and I hope we have more days like the one at Alford."

Period: 2011

Partners: Northern and Yorke NRM Board, Schools





Preserving an area not grazed for 150 years

The South Hummocks Agricultural Bureau is one of South Australia's oldest farming organisations. While deeply rooted in supporting local farmers, it is also visionary and progressive in its efforts to protect and nurture some of the area's remnant native vegetation.

A showpiece of this commitment is the Nantawarra Parklands north east of Port Wakefield. It is one of the only remnant native vegetation areas of the Nantawarra Valley where stock are restricted from livestock grazing. The agricultural bureau was successful in securing community grant funding from the NRM Board to fence the parklands from wandering livestock to encourage prosperity of the natural habitat that has not been grazed since European settlement in the 1860s.

The parklands support many native animals including kangaroos, euros, lizards, possums and echidnas. The fencing will ensure the native vegetation and the ecosystems it support remains robust and healthy into the future while being a monument to environmental awareness from past generations.

Period: 2010 – 2011

Partners: Northern and Yorke NRM Board and South Hummocks Agriculture Bureau





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Northern and Yorke – whole region

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New ecological monitoring and evaluation framework

Over the years considerable data has been collected on ecological health and biodiversity across the Northern and Yorke region.

More recently, it was recognised that a better structured monitoring and evaluation framework embracing old and current data would lead to improved state-of-the-environment reporting on a regional scale. The Northern and Yorke NRM Board in partnership with the Nature Conservation Society of SA and Greening Australia has reviewed all historic and current ecological information in the region.

A new methodology and rationale for future monitoring activities have been developed with recommendations for data storage, display tools and key performance indicators.

This process will lead to a more robust and reliable biodiversity picture of the Northern and Yorke region and inform NRM projects and priorities into the future.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia, Nature Conservation Society of SA.

Funding: Caring For Our Country





Supporting red gum health and survival

A 2008 investigation of die back in river red gums in key Northern and Yorke catchments has created baseline information and actions to support the survival of this majestic species in the region.

The survey showed significant signs of stress and death in red gums primarily due to reduced surface flows and recharge of groundwater. Problems associated with lack of rainfall were compounded by secondary factors including local water extraction, loss of riparian vegetation, grazing, defoliation due to the use of fertilisers and herbicides on adjacent land, along with bird and insect attack on stressed trees.

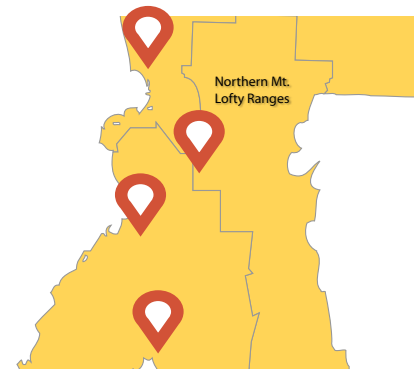
A new monitoring program has been mounted at 66 sites across the Broughton, Mambray Coast, Wakefield and Willochra catchments as part of the NRM Board's commitment to create an annual state-of-the-environment report for the region. Monitoring in March 2009 and June 2010 showed

continued decline, but the latest monitoring in November 2010 found significant recovery in the health of the gums associated with improved rainfall conditions. However, underlying water stress persists with water tables still below levels that intersect the root zones of river red gums. On-going monitoring of red gum health will focus on increased community engagement and involvement to help inform NRM management options to support red gum health and survival.

Period: 2010 - ongoing

Partners: Northern and Yorke NRM Board and Dr Anne Jensen, Environmental Consultant.

Funding: Caring For Our Country





Reaping the benefits of biodiversity

The NRM Board strives to engage landholders and community groups to help make a difference in the future management of native species and natural ecosystems across the region. Public education and awareness activities are key aspects of this effort to highlight biodiversity issues, management skills and practical tasks that can be undertaken.

A series of school environment days and community workshops and presentations involved more than 550 people in issues such as plant identification, environmental weed control and implications of the Australian Government’s Environment Protection and Biodiversity Conservation Act, which provides a framework to protect and manage important flora, fauna and ecological communities.

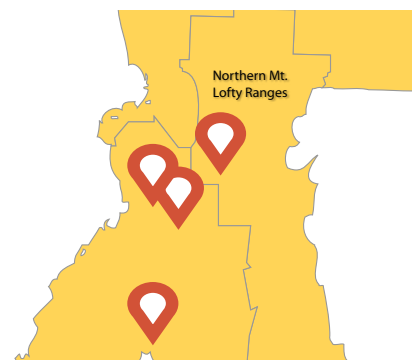
Workshops and presentations were held at Nantawarra, Bangor, Morchard, Murray Town, Spalding and Brinkworth. Eager schoolchildren participated in fun learning experiences at environmental field days at Appila Springs, Spalding and Alford.

After the Alford field day, Wallaroo school teacher, Scott Berry, said: “It is so important for children to learn about the environment from a young age and how species rely on each other. I hope we have more days like the one at Alford.”

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia

Funding: Caring For Our Country





Understanding the benefits of native pollinators

Native bee species can be more efficient than introduced European honey bees in pollinating certain crops. Leading United Kingdom entomologist, Dr Mike Edwards, visited the region to help build knowledge among farmers, researchers and advisors about native pollination, relevant floral resources, habitat and nesting requirements.

It was enlightening for many to hear Dr Edwards explain that the host plant area for native bees was one to two percent of the total paddock area targeted for pollination. Through a series of field trips and workshops, Dr Edwards visited wide areas of the Northern and Yorke region including Crystal Brook, Mount Remarkable, Port Vincent and Ardrossan.

The project was aimed at improving pollination of crops and increasing on-farm biodiversity. Thirty four native bee species from three family groups were identified through project activities. There are over 1,500 species of native bees in Australia.

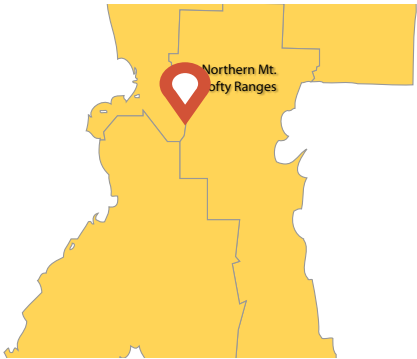
In crops, farmers were informed that actions to enhance the presence of native bees include reducing tillage, sowing uncropped paddock margins with mixes of native wildflower seed and introduced species, and improving pest control practices.

Small areas of bare ground exposed to the northern sun provide ideal nest areas for native bees. Increasing diversity of native flowering plants can also be effective in attracting native bees to revegetation areas.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, YP Alkaline Soils Group.

Funding: Caring For Our Country





Quiet achievers in conservation action

Over the years, many private landowners have set aside portions of their properties as sanctuaries to protect native plants and animals. This has contributed significantly to overall efforts to conserve biodiversity, build resilience and maintain ecological connections across landscapes.

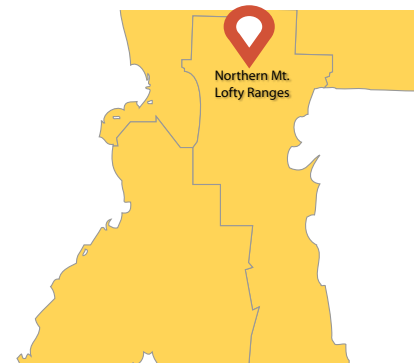
In the Northern and Yorke region, private landowners who have dedicated sections of their land for conservation outcomes are involved in the Southern Flinders Ranges Biodiversity Hotspots Program, State Government heritage agreements, privately run conservation sanctuaries, ecotourism, NRM on-ground works and the Mid North Grasslands Working Group. Additionally, Indigenous members of the community are involved in NRM projects on traditional lands.

In the past, many of these landowners have worked in isolation of broader landscape conservation programs. This project has engaged 50 of the region's most active private land managers to ensure they are well-supported through site visits, training workshops, technical assistance and project development. Outstanding case studies and an annual report on private lands conservation action will be produced.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia

Funding: Caring For Our Country





Engaging communities in bushland monitoring

The Bushland Condition Monitoring (BCM) methodology has been created by the Nature Conservation Society of South Australia to accurately measure change. It brings together a range of assessment methods to assist bushland owners and managers, landholders, technical officers and volunteers in developing technical and observational skills.

The system has been used extensively throughout the Northern and Yorke region in recent years to support community engagement in bushland monitoring and evaluation outcomes.

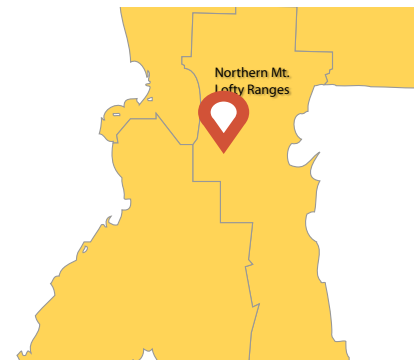
In 2010-11 the BCM methodology was extended to an additional 40 sites including high priority landholder clusters around Hawker and The Dutchman's Stern in the Southern Flinders Ranges, the Mid North Grassy Ecosystems area and Southern Yorke Peninsula.

This latest bushland monitoring covered a total area of about 20,000 hectares with a major focus on landholder engagement in before, after control and impact assessments of land management and conservation measures. The BCM data will feature in an annual state of the Northern and Yorke environment report.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board, Greening Australia

Funding: Caring For Our Country





Harnessing the history of our water resources

Latin is hardly a language of choice in modern society. But two Latin words that continue to resonate are *tempus fugit*, which loosely translated means time flies. And with that flight go many memories. Much of our natural history is entangled in the adventures and achievements of pioneering farming families and their descendents. With each passing year, golden recollections and factual insights into our past are lost.

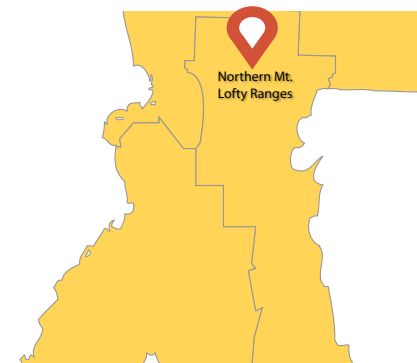
The NRM Board is seeking to tap into our natural heritage with a particular focus on water to gain an understanding of how this precious resource has changed and been affected over generations. This project is gathering rainfall records, old sources and influences on water, including floods and dams, maps of springs and water holes, newspaper clippings and verbal histories.

Already, it has been discovered that a paddle steamer once operated on the Rocky River! Family memories and archives in particular will provide valuable insights into how water resources and the use of water has changed since the days of the earliest settlers.

Accurate details from the past will provide important reference information against which current data on water resources can be compared to track influences and changes over time. It is a fascinating and important project that relies heavily on community engagement.

Period: 2011

Partners: Community





Water: A precious cultural resource

The Northern and Yorke region features six traditional owner groups – the Pangkala, Jadliaura, Nukunu, Ngadjuri, Kurna and Narangga people. Within the region are three main river catchments – the Broughton, Wakefield and Willochra, plus the upper section of the Light catchment.

Combined with these catchments, about 30,000 hectares of the region is permanently or intermittently covered by surface water. Our understanding of the significance of these water assets is limited to a European perspective from the past two centuries.

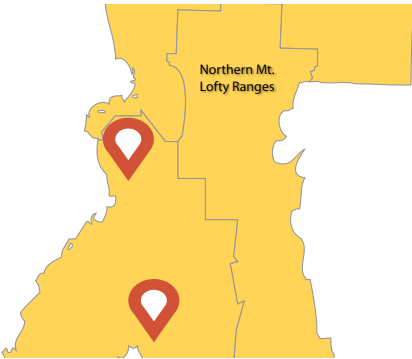
To broaden that perspective, it is important to understand the social and cultural associations of the traditional owners with water. Very little of this information is written down. Rather, it has been passed from one generation to another by word, song and dance.

This is central to all aspects of their lives and those of their forebears. In reviewing old water allocation plans and preparing new plans, the Board is seeking to engage with the Aboriginal communities about their traditional knowledge of water and its role and meaning in their lives.

This pilot study will help frame a bigger picture of tribe localities, land use agreements, cultural issues and legal obligations.

Period: 2010 – 2011

Partners: Community





Better management of acid soils

When it comes to falling productivity on agricultural land, farmers often have many questions. Soil acidity is a particular problem in wide areas of the Northern and Yorke region and, if left untreated, it can worsen until virtually nothing will grow.

When crops are harvested or animals taken from paddocks, there is removal of alkaline elements from the soil such as calcium, phosphorous and potassium. The higher the level of agricultural production, the greater the removal of alkaline elements resulting in increased acidification. Losing nitrogen from the soil by leaching also increases acidity.

The only real way of dealing with soil acidity is to lift the pH level by applying lime in combination with a range of soil management strategies.

The Mid North High Rainfall Zone Group has worked with Ag Bureaus, Rural Solutions SA and growers to increase acidity management skills. This project included an acid soils workshop in Clare and a presentation at the MNHRZ field day at Navan, near Tarlee. As a result, more than 130 farmers have improved their soil management methods and increased their knowledge and skills in natural resource management.

Period: 2010 - 2011

Partners: Northern and Yorke NRM Board and Mid North High Rainfall Zone Group

Funding: Caring For Our Country





Engaging best practice in water affecting activities

Water affecting activities are actions that potentially impact on the health and condition of water resources, other water users and water-dependent ecosystems.

Water resources include rivers and creeks, lakes, dams, floodplains, groundwater, springs, wetlands, waterholes and catchment landscapes. Certain water affecting activities in the region require a permit as a requirement of the Natural Resources Management Act.

The NRM Board mounted a regional communications program to increase awareness of responsibilities regarding water affecting activities. This included mail-outs, media relations, newsletters, poster displays and liaison with Local Government.

The objective was to ensure people know specific locations of priority water areas where permit apply, and where to obtain those permits.

Period: 2009 – 2010

Funding: Levy funds





Better perspectives on permanent pools

Most of the rivers of the Northern and Yorke region are ephemeral, which means they carry water immediately after rainfall, but are dry for much of the year. Even when water does not flow, ephemeral streams often feature permanent pools that may be recharged by groundwater discharged from surrounding aquifers.

These pools are ecologically vital as they can sustain various aquatic organisms and plant and animal life through long periods without rainfall. Therefore, they provide important insights into biodiversity, water quality and the riparian ecosystem health.

An assessment program across the region is providing baseline data about the condition of permanent pools that, with return monitoring, will track changes and pressures over time.

Assessments have already been made in the Willochra catchment with sites to be revisited over Spring 2011. The program will then move on to the Broughton and Wakefield catchments.

Period: 2010 – 2011

Funding: Levy funds





Declining woodland bird survey

The Declining Woodlands Bird Recovery Team is monitoring bird numbers and vegetation across nine properties in the Clare Valley.

Period: 2010

Partners: Department of Environment and Natural Resources, Northern and Yorke NRM Board; Declining Woodland Bird Recovery Team

The group is ascertaining vegetation type and habitat quality, to determine whether habitat restoration activities contribute significantly to the conservation of woodland birds. The study compares bird activity in areas under different stock grazing regimes, including historical district practice, cell grazing and stock exclusion.



Survey sites are remnant patches of Eucalyptus grassy woodlands of at least two hectares in the Clare Valley. The project, supported by Department of Environment and Natural Resources and Northern and Yorke NRM Board, also aims to increase the capacity of landholders to manage for bird species more effectively.





Clare showgrounds a showcase

Clare Showgrounds is being restored under a Community Grant from the Northern and York Natural Resources Management Board.

Period: 2011

Partners: Northern and Yorke NRM Board; Clare A&H Society Inc.

The Clare Agriculture and Horticultural Society is using the funds to remove dangerous old pine trees and revegetate its five hectare site at the entrance to the Clare township. Blackberry and hawthorn weeds are being eradicated and the area revegetated with trees and understory plants indigenous to the area.



The project, which includes a new 22,000 litre water tank and irrigation system, will become a haven for native flora and a habitat for native fauna.





Peeping Tom helps bird recovery

A 'Peeping Tom' device is being used to monitor woodland birds occupying bird boxes in parts of the Mid North.

The device has been introduced by Department of Environment and Natural Resources with support by Northern and Yorke NRM Board.

Using a six metre extendable pole with a non-invasive light and camera with a ground level viewing device, DENR's Biodiversity and Endangered Species Team can now check nesting boxes quickly and safely.

Many regional birds are dependent on hollows in trees for nesting, and the nesting boxes now supplement declining tree numbers.

Period: 2010

Partners: Environment and Natural Resources, Northern and Yorke NRM Board and Declining Woodland Bird Recovery Team





Mistletoe action in Clare/Gilbert Valleys

Box Mistletoe in the Clare region is being managed by the Clare and Gilbert Valley Council and the Mistletoe Action Group.

With funding from Northern and Yorke NRM Board, the project involves planting 10,000 native plants propagated from local provenance seeds and cuttings.

The project will help reverse the decline of woodland remnants suffering from ecological stresses and imbalance, including overabundant mistletoe. It will also restore habitat for rare and threatened woodland species including Bushtail Possums and declining woodland birds.

Period: 2010

Partners: Northern and Yorke NRM Board and Clare and Gilbert Valleys Council, Mistletoe Action Group (MAG); landholders and community groups





Greening Rhynie Railway track

The beautification of the walking and cycling trail at the site of the old Rhynie railway station has been kick-started by a community grant by the Northern and York Natural Resources Management Board.

Period: 2011

Partners: Northern and Yorke NRM Board; Rattler Rail Trail Committee.



The project, to be carried out by the Rattler Rail Trail Committee at Rhynie, will fence off the trail from sheep and cows, eradicate pest weeds and plant native trees and grasses.

The aim of the project is to encourage more people to use the track and give them a more welcoming country experience. It will also improve the habitats for native insects, birds and animals.

