Waterbirds, wetlands and rehabilitation

The Green Army Programme

Australian Department of the Environment

The Green Army is the Australian Government's flagship environmental programme.

The programme is a hands-on, practical, grassroots environmental action programme that supports local environment and heritage conservation projects across Australia.

With up to $525 million allocated over five years, projects will be guided by local community needs and involve cleaning up riverbanks and creek beds, revegetating degraded land, sand dunes and mangrove habitat, and restoring and conserving heritage places and landscapes.

The programme will recruit young Australians aged 17–24 who are interested in protecting their local environment, gaining hands-on practical skills and experience that will equip them well for the future in professional or voluntary capacities.

Teams of 10 will be deployed across the country to help communities deliver local conservation outcomes and during the next few years you will see more and more Green Army teams working in your local community.

Weed control, replanting and revegetation activities will help maintain the health of wetlands and local fauna and flora, encourage biodiversity and give local residents better access to wetland environments.

Some activities may also involve constructing picnic amenities and pathways to attract more visitors to the wetland areas as well as constructing fencing to keep cattle out of water bodies.

Projects will aim to increase community awareness and education about wetland environments including the important cultural significance of certain areas.

The Green Army will become Australia's largest-ever team of young Australians supporting environmental action in our history, building to a 15 000 strong 'Green Army' ready to help communities with local level conservation projects.

Local councils, community groups or natural resources management organisations will have the chance to develop and submit project proposals that will make a real difference in their local communities. Projects may be carried out across urban, regional and remote Australia on public land, Indigenous-held lands, or private land where there is a clear community and environmental or heritage benefit.

For more information on the Green Army visit www.environment.gov.au/green-army or subscribe to the Green Army mailing list (greenarmy@environment.gov.au) to keep up-to-date on the programme.

Removing unwanted trees in Bagdad, Tasmania (© Copyright, Nick Rains)

Restoration trial underway in Long Swamp, south-west Victoria

Mark Bachmann, Nature Glenelg Trust

In a previous edition of *Wetlands Australia* (Issue 22, February 2013), readers were introduced to Long Swamp, a nationally recognised wetland of significant public interest in Discovery Bay Coastal Park in south-west Victoria.

Wetland birds are a key attribute of Long Swamp, and are just one of many ecological values underpinning the Nature Glenelg Trust's support for its designation as a Ramsar site. The swamp is home to the western-most known population of the eastern ground parrot *(Pezoporus wallicus)*, which became extinct in nearby South Australia where no confirmed sightings have been recorded since 1945.

Based on the findings of the intitial investigative work, the Trust has been awarded grant funding from the Victorian Department of Environment and Primary Industries (DEPI) to undertake a hydrological restoration trial at Long Swamp, in conjunction with an aquatic ecology monitoring program.

The trial will involve raising the water level in one part of the swamp to increase the water volume and surface area. The location for the trial is at Nobles Rocks, the site where the last remaining artificial outlet drains from Long Swamp. The natural site for discharge from the swamp to the sea is several kilometres away to the west via the Glenelg River mouth and estuary.

The aims of the trial are to address a decline in the wetland values of Long Swamp at the artificial outlet by:

1. increasing wetland habitat diversity in the vicinity of the Nobles Rocks drain outlet
2. increasing the seasonal connectivity of wetland habitats throughout the system
3. re-creating additional habitat for the most sensitive indicator freshwater aquatic species.

The trial will progress in stages over the next 2 years, enabling the Trust to progressively record and measure the impacts of hydrological restoration in real time, and providing the information necessary for determining a future permanent solution.

The first stage of the restoration trial involved 45 willing volunteers from the local community getting together on 9 May 2014 to construct a low-level temporary sandbag structure at Nobles Rocks, initially at the most accessible and technically feasible section of drain in this rugged coastal environment. A few hours and 600 sandbags later, the trial structure was in place and operating as planned, with water spilling down the drain at the new trial retention height. The initial upstream effects on the drain and swamp will now be assessed, before progressing with the next stages of the trial which are likely to involve further incremental increases in the operating height of the trial structure over the next 12 months, and full implementation of the hydrological and ecological monitoring program for the project.

A big thanks to DEPI, the Glenelg Hopkins Catchment Management Authority, Parks Victoria, Nelson Coastcare and the wide range of the other community groups that helped us get the trial and this important restoration project underway.

Nature Glenelg Trust will keep you up to date on the progress of the restoration trial and our upcoming ecological monitoring of Long Swamp through its website (natureglenelg.org.au) and future editions of *Wetlands Australia*.

Forty five local volunteers help to construct the first stage of a hydrological restoration trial at Long Swamp, south-west Victoria
(© Copyright, Mark Bachmann)

When mermaids return... so do egrets!!

Malcolm Fisher

Mermaid Pool is a hauntingly beautiful natural area, nestled discreetly within Sydney's expansive sprawl.

It sits on Manly Creek, hidden upstream from Manly's surfing beaches, and comes complete with waterfall, rainforest fragments and surrounding bushland. The site's rich Indigenous history goes back many thousands of years. Captain Arthur Phillip explored these then almost impenetrable marshy reaches in 1788. It was named 'Mermaid Pool' after local residents who used to live in a nearby Squatters Camp during the Great Depression reportedly swam here naked.

As suburbia encroached in the 1930's, Mermaid Pool sadly went the way of many urban waterways. It was used as a dumpsite, sewage overflowed here and invasive weeds choked the fragile bushland. This magical jewel became a tarnished gem.

In 2002, the local community became tired of seeing dumped shopping trolleys and floating debris in their treasured waterway. They organised a huge 'Clean Up Australia Day' working session which removed two large truck loads of rubbish from the area. But that was just the start. Next came monthly bush regeneration activities to peel back smothering weeds such as morning glory and privet. People in waders removed exotic water plants which were clogging the creek and many new endemic seedlings were planted in degraded areas. The rehabilitation activities became known as the 'Return of the Mermaids' project.

Andrew Lo, a native fish expert, advised that the 'real' mermaids were the native fish that had migrated up the creek to spawn for millions of years. Surveys were subsequently conducted and measures carried out to improve water quality and fish access. The results confirm there are still a number of iconic fish species in the waterway including Australian bass *(Macquaria novemaculeata)*. Amazingly, the area still provides habitat for water dragons, lace monitors *(Varanus varius)*, echidnas, tree snakes and the occasional wallaby. Bandicoots have also returned to the area after a 40 year absence.

When a great egret *(Ardea modesta)* was seen delicately wading through Mermaid Pool, framed by majestic rocky outcrops, the rehabilitation of this sacred place somehow seemed endorsed by nature.

The restoration continues with 'Bushcare' every month, a programme to install a range of wildlife nesting boxes in the locality and a campaign to get Manly Creek formally recognised as a wildlife corridor with associated protective zoning.

Our volunteers used to say, "conservation is a tough job but they have no egrets". Now, even that issue has been fixed!

More information on the rehabilitation of Mermaid Pool, including a short video, can be found at the following links:

Clean Up Australia page: www.cleanup.org.au/au/Whatelsewesupport/mermaid--s-pool-fix-up-project.html

Blog article: thegreenmanly.blogspot.com.au/2013/09/how-to-revive-mermaid.html

Short film: www.youtube.com/watch?v=vXwO-oLW__U

A great egret (Ardea modesta) enjoys Mermaid Pool which is being restored thanks to the efforts of the local community in Manly Vale, New South Wales (© Copyright, Malcolm Fisher)

Mermaid Pool contains a variety of environments that support local wildlife, including rainforest habitat
(© Copyright, Malcolm Fisher)

Working together to restore Grassdale Lagoon on Kangaroo Island

Natural Resources Kangaroo Island

Grassdale Lagoon in Kelly Hill Conservation Park on Kangaroo Island, South Australia, now teems with wildlife.

Historic clearing for farming around the lagoon not only destroyed habitat, but allowed Kangaroo Island kangaroos *(Macropus fuliginosus fuliginosus)*, Tammar wallabies *(Macropus eugenii)* and common brushtail possums *(Trichosurus vulpecular)* to flourish.
Their over-browsing had further impact on the quality of habitat available to other native species, including threatened water birds such as the musk duck *(Biziura lobata)* and freckled duck *(Stictonetta naevosa)*, Latham's snipe *(Gallinago hardwickii)* and the Australasian shoveler *(Anas rhynchotis)*. But in 2012, Natural Resources Kangaroo Island (the agency responsible for delivering projects and programmes on Kangaroo Island on behalf of the regional Natural Resources Management Board and the South Australian Department of Environment, Water and Natural Resources) developed a project to improve the quality of Grassdale Lagoon and the surrounding habitat.

The project aims to control weeds and feral animals, and restore habitat through biodiverse plantings.
A recent partnership between Nature Resources Kangaroo Island, neighbouring farmers and tourist operators has successfully reduced feral pig numbers. The removal of more than 60 feral pigs has significantly reduced their erosive diggings.
Regular monitoring using remote cameras and tracks recently detected just four feral pigs near the lagoon.

The exclusion fence is preventing native wildlife and feral pigs from grazing on and digging up seedlings that are an important part of restoring vegetation in the area

An isolated, but expanding population of the invasive bridal creeper (Asparagus asparagoides) has been tackled by the project and local volunteers, decreasing the area of the weed's distribution and therefore its pressure on native groundcovers and understorey plants. To manage the spread of the deadly water mould (Phytophthora cinnamomi), bridal creeper corms have been wrapped in black plastic and left to bake in the sun on-site.

Native habitat has been planted to restore and connect 26 hectares of remnant vegetation with over 30 plant species, including a significant number of understorey species. All plants have been protected from voracious native browsers, such as kangaroo's, wallabies and possums. New seedlings were planted near existing understorey plants and then protected by tree guards. Larger areas were fenced off temporarily to exclude native herbivores and feral pigs from damaging the newly establishing plants.

Quarterly water monitoring is recording water quality and aquatic invertebrates within the lagoon to detect any changes as the quality of habitat around the lagoon improves.

The project was made possible with funding from the Australian Government.

For more information about the project: www.naturalresources.sa.gov.au/kangarooisland/land-and-water/water-management/wetlands-project

All seedlings have to be guarded, either by an individual tree guard, or the exclusion fence, to prevent prolific populations of Kangaroo Island kangaroos (Macropus fuliginosus fuliginosus)) browsing on them (© Copyright, Andrew Schofield)

The exclusion fence is preventing native wildlife and feral pigs from grazing on and digging up seedlings that are an important part of restoring vegetation in the area (© Copyright, South Australian Department of Environment, Water and Natural Resources)

Revegetation connects remnant vegetation creating larger forests for animal communities to live in (© Copyright, South Australian Department of Environment, Water and Natural Resources)

Grassdale Lagoon, Kangaroo Island is being restored through the control of invasive pests and habitat restoration activities
(© Copyright, Bernd Stoecker)

Farm Dam Blitz!

Matthew Herring, Murray Wildlife Pty Ltd, Marion Benjamin, Murrumbidgee Landcare Inc. and Nathan Smith, NJ Productions

Farm dams have enormous potential to support more waterbirds.

There are hundreds of thousands of farms dams across Australia, but most of them lack the habitats that many waterbirds require. *Farm Dam Blitz* is a new short film that aims to help unleash that potential.

It's not unusual to see common duck, heron, ibis and cormorant species using farm dams, or perhaps some black-fronted plovers *(Elseyornis melanops)* or masked lapwings *(Vanellus miles)*, but there are dozens of waterbird species that haven't yet taken advantage of the proliferation of these agricultural wetlands.

Farm Dam Blitz showcases some of the inspiring Landcare projects in New South Wales and Victoria that enhance farm dam habitat. Landholders from a range of agricultural systems talk about the simple changes they've made and how easy it is to have multi-functional farm dams. This work is enabling a wide variety of waterbird species to also make farm dams their home. From migratory sharp-tailed sandpipers *(Calidris acuminate)* to Baillon's crakes *(Porzana pusilla)*, farm dams can play a huge role in waterbird conservation, complementing natural wetlands.

When considering establishing farm dam habitat to attract waterbirds, some key elements are necessary: waterplants, ephemeral (short-lived) shallows and mudflats. The impacts of concentrated grazing and the typically steep sides of farm dams usually prevent such habitats from forming. The encouraging news is that many of the methods being used to benefit waterbirds and other wildlife in farm dams are also good for the farm anyway. For example, stock on the farm also have access to cleaner drinking water—and are healthier for it.

Farm Dam Blitz contains aerial footage taken by a drone of the habitat enhancement sites. It features more than 20 waterbird and frog species, including the endangered Australasian bittern *(Botaurus poiciloptilus)* and Australian painted snipe *(Rostratula australis)*. Among the different habitat enhancement ideas highlighted in the 12 minute film are earthworks to create shallows, mudflats and reed beds, fencing to exclude stock from all (or part) of the dam, adding logs and planting natives around the dam.

Farm Dam Blitz was created with the intention of being as engaging as possible, presented with the use of visual metaphors. It was a joint production between Murrumbidgee Landcare, Murray Wildlife and NJ Productions with funding from the Australian Government. It can be viewed on YouTube (www.youtube.com/watch?v=clxfkq_NjTY) and the Murrumbidgee Landcare website (www.murrumbidgeelandcare.asn.au/farmdamblitz).

Earthworks to create shallow waters and promote waterplants in farm dams is welcome news for waterbirds
(© Copyright, Allan Perkins)

Waterbirds like the purple swamphen (Porphyrio porphyrio) are quick to benefit from new waterplant habitat in farm dams
(© Copyright, Matthew Herring)

The mobility of waterbirds like the yellow-billed spoonbill (Platalea flavipes) mean they can respond rapidly to the creation of new habitat in farm dams
(© Copyright, Matthew Herring)

Shorebirds flock to the Samphire Coast

Jean Turner and Aleisa Lamanna, BirdLife Australia

Dubbed the 'Samphire Coast' for its extensive samphire saltmarshes and shrublands, the low energy coast of Upper Gulf St Vincent in South Australia is a significant remnant coastal corridor north of Adelaide and is amongst the most important areas in Australia for migratory and resident shorebirds.

Of the 52 shorebird species recorded on the Samphire Coast, 11 are resident species and 26 are migratory. Thirteen species, including the red knot *(Calidris canutus)*, red-necked stint *(Calidris ruficollis)*, and sharp-tailed sandpiper *(Calidris acuminate)* occur in internationally significant numbers, and a further five in nationally significant numbers, reinforcing the significance of this area as valuable feeding habitat for shorebirds.

The diversity and abundance of birds results from the extent and variety of saline and freshwater habitats, both natural and artificial throughout the Samphire Coast. Tidal mudflats, mangrove forests, samphire saltmarshes, sabkha claypans and river estuaries, are complemented by artificial freshwater wetlands, effluent treatment ponds and salt production systems. Each supports a different mix of birds.

These Samphire Coast habitats are significant for other reasons as well. The tidal saltmarshes and sabkah claypans are part of the nationally threatened Sub-tropical and Temperate Coastal Saltmarsh ecological community. Sabkah claypans are also the stronghold of the nationally threatened bead samphire *(Tecticornia flabelliformis)*. In adjoining shrublands on low sand dunes, other significant fauna, including the painted dragon *(Ctenophorus pictus)*, elegant parrot *(Neophema elegans)* and samphire thornbill *(Acanthiza iredalei)*, find refuge.

The nationally vulnerable bead samphire (Tecticornia flabelliformis) on a sabkha clay pan at Thompson Beach, South Australia (© Copyright, Jean Turner)

Samphire at St Kilda, South Australia (© Copyright, David Potter)

While only a small proportion of the Samphire Coast is formally protected in reserves, much of it has been protected by default, due to natural restrictions to public access. Even so, these remnant habitats are subject to a variety of threats including invasive species and human impacts, particularly from off-road vehicles and urban development. Climate change and sea level rise also threaten the nature of the Samphire Coast, with increased risk of inundation and habitat squeeze. Recently, the South Australia State Government committed to the establishment of an Adelaide International Bird Sanctuary which will create an internationally important conservation area on the fringes of Adelaide for migratory shorebirds.

The Adelaide and Mount Lofty Ranges Natural Resources Management Board (the Board) is managing the Samphire Coast Icon Project, with funding from the Australian Government, to tackle key threats to the nationally listed saltmarsh community and other conservation priorities in the area from Port Adelaide to Port Parham.

BirdLife Australia staff coordinate the project on behalf of the Board, liaising with project partners, and oversee monitoring in the project area. Staff also run free community events to increase awareness and appreciation of the area's value for shorebirds.

For more information on the Samphire Coast Icon Project, please visit www.birdlife.org.au/projects/samphire-coast-icon-project

Black-winged stilts (Himantopus himantopus) roosting at St Kilda, South Australia (© Copyright,David Potter)

Sabkha clay pan with samphire shrubs at Port Prime, South Australia (© Copyright, Jean Turner)

The first season at a newly restored wetland — Gooseneck Swamp, Victoria

Lachlan Farrington, Nature Glenelg Trust

As the smoke haze from a bushfire wafted along the eastern flank of the Grampians National Park in Victoria's south-west this summer, there was an unfamiliar croaking and squabbling of waterbirds and frogs.

For the first time in several decades during a dry summer, a pool of water still rippled against the green sedges of Gooseneck Swamp.

In 2013, the Nature Glenelg Trust in partnership with the Hamilton Field Naturalists Club, Glenelg Hopkins Catchment Management Authority, Parks Victoria and neighbours of the site began a staged process of restoration at Gooseneck Swamp in the far south-eastern corner of the Grampians National Park. Initial works, including the installation of a temporary sandbag weir at the site of an artificial drainage cutting, kicked off in August 2013 and were funded through a Victorian Department of Environment and Primary Industries' Communities for Nature Grant.

By the time summer came, and on the back of a rapidly drying spring, the water was still holding at a level 45 centimetres higher than it would have been without intervention. Despite it being an especially hot and dry summer, the wetland still managed to hold water until March and the concentration of wetland birds up to this point was a remarkable demonstration of the merits of restoring wetland hydrology.

While these casual on-ground observations were rewarding, it is robust, repeatable datasets that can tell a more powerful story. Bird monitoring at Gooseneck Swamp has been undertaken monthly by local Hamilton Field Naturalist Club members Dr. Rod Bird and Steve Clarke, both of whom have a long-term affiliation with the site. Their observations have provided preliminary indicators of the success of the restoration.

Based on opportunistic surveys undertaken since 2011, a total of 14 wetland dependent bird species have been recorded. This list has grown to 25 since the installation of the weir and the shift to regular monthly monitoring. Notable additions include the Australasian shoveler *(Anas rhynchotis)*, black-winged stilt *(Himantopus himantopus)*, Latham's snipe *(Gallinago hardwickii)* and musk duck *(Biziura lobata)*. Aside from new species observations, the most dramatic result was the observation of significant numbers of spoonbill, swans, teal, heron and duck species in February, a month when, in similar dry summers past, the wetland would have long before dried out.

In addition to these observations, we also trialled the use of a field camera to record changes in water levels and, quite coincidentally, have managed to compile a stunning visual appraisal of the increase in bird abundance as the wetland dried over February (see vimeo.com/79938328). Beyond sharing the evolving story of the site with neighbours and community groups through involvement in restoration activities, flora and fauna monitoring and field days, we now have a great collection of sights and sounds from this first year of biological monitoring and we will continue to track progress into the future.

Gooseneck Swamp information day participants atop the trial restoration structure (© Copyright, Lachlan Farrington)

Water persisting in Gooseneck Swamp, February 2014, and growth of reeds (© Copyright, Rod Bird)

The value of commercial saltfields for shorebird conservation in Australia

Chris Purnell, BirdLife Australia

Although an artificial construct, the conditions created by the predictable manipulation of water depth and salinity involved in commercial salt production regularly support internationally significant populations of shorebirds and waterbirds across the world.

In Australia, the habitats created often provide greater ecosystem services than natural sites and have some of the highest abundances and diversities of shorebirds in the nation, with 52 species recorded at one site in South Australia.

Beginning with marine salinity ponds and ending with highly hypersaline solution, the salt production process not only creates variations in salinity but also hydrology, sedimentation and habitat structure. These variations in abiotic features result in distinct invertebrate, algal and vegetation communities that represent reliable yet diverse feeding areas and roosting habitats for birds.

Red-capped plovers (Charadrius ruficapillus) utilise undisturbed levees to raise their precocial young

Saltfields are regularly constructed in low energy coastal areas which already support large intertidal and near coastal bird communities. Studies into several populations associated with saltfields have identified an increase in the number of birds that a region can sustain and a reduction in the detrimental impacts of the loss of intertidal habitats. This can be attributed to the following features:

- Saltfields successfully mimic a wide variety of natural wetlands over a small area, thereby providing suitable feeding sites within proximity to numerous roosting sites.
- Ponds in active saltfields provide large areas of shallow water (less than 25 centimetres deep) for foraging shorebirds to wade in.
- They are tide independent, therefore providing stable feeding, roosting and breeding sites throughout the tide cycle and in the case of sea level rise. Stable water depths and levees also preclude colonisation by vegetation that may otherwise deter shorebirds.
- Saltfields typically abut natural shorebird habitat. The proximity provides secure roosting and supplementary feeding for birds foraging in these areas.
- They provide open, treeless habitats, decreasing the chance of ambush by predators.
- An active operation has little to no human disturbance.

The suitability of saltfields for shorebirds can deteriorate quickly without active management, as ponds with insufficient water flow become hypersaline or dry out, with a risk that acid sulphate soils will be oxidised.

Operations in Australia include five saltfields currently listed as:

- Important Bird Areas (IBA) by BirdLife International
- Wetlands of international significance for shorebirds by Wetlands International
- Wetlands of National Importance by the Australian Government.

Three of these are active operations (Price Saltfields in South Australia, and Dampier Saltworks and Port Headland Saltworks in Western Australia), one is a decommissioned site managed for conservation (Cheetham Wetlands at Point Cook in Victoria) and the final (Dry Creek in South Australia) is newly decommissioned, with its future the subject of a cross-departmental state taskforce.

With an increase in the detrimental impacts to natural intertidal habitats and a decrease in the commercial demand for Australian salt, land managers must begin to devise contingencies for significant shorebird populations in the case of decommissioning.

For further information, please contact chris.purnell@birdlife.org.au or visit www.birdlife.org.au/projects/samphire-coast-icon-project

Eruptive populations of up to 30 000 banded stilts (Cladorhynchus leucocephalus) feed on brine shrimp which occur in the hypersaline ponds of saltfields, like the Dry Creek Saltfields in South Australia (© Copyright, Chris Purnell)

Constructed wetlands offer opportunities for biodiversity to thrive

Orange City Council

Although the impacts of drought are most often seen as devastating and soul destroying, climatic conditions like this can sometimes provide a window of opportunity by forcing current land management practices to be revised and closer consideration given to how we use available natural resources.

In 2010 after experiencing prolonged dry periods, Orange City Council took the initiative to change its water management practices and developed four wetlands that harvested stormwater from the local urban areas.

Four years on, these wetlands have evolved into biodiversity hubs, enhanced by native plantings of both terrestrial and aquatic species which provide habitat and food sources for a wide range of native waterbirds and migrating species like the Latham's snipe (Gallinago hardwickii).

Dense plantings of aquatic species like jointed twig rush (Baumea articulata) offer a platform for waterbird species to move around the wetland and establish breeding sites protected from predators, while simultaneously filtering sediments and nutrients out of the water and improving the overall local catchment's water quality.

This project has resulted in a strong sense of community pride as bird watchers enthusiastically monitor these sites on a regular basis and report back about new sightings. Schools and other local groups attend field days and educational events to learn more about improving these important ecosystems.

We look forward to every seasonal change that takes place knowing that with it comes new species either visiting or making a home at our wetlands. We hope our experience encourages other councils in Australia to develop constructed wetlands to help increase biodiversity and improve our overall environment.

For further information on the Orange City Council's constructed wetlands, please visit our facebook page 'Orange Wetlands, Weeds & Wildlife'.

Family of black swans (Cygnus atratus) at Somerset wetlands (© Copyright, Maryanne Smith)

Australasian grebe (Tachybaptus novaehollandiae) at Somerset wetlands (© Copyright, Maryanne Smith)

Funding available for conservation works in the Lower Blackwood, Western Australia

South West Catchments Council

Private landholders in the McLeod and Rushy Creek catchment of Western Australia are encouraged to apply for funding for conservation and restoration works through the Lower Blackwood Land Conservation District Committee (LCDC).

The call for expressions of interest follows the development of the McLeod and Rushy Creek River Action Plan (RAP) in 2013, developed thanks to the help and valuable contribution of local landowners.

Lower Blackwood LCDC Project Officer, Yasaman Mohammadi, explains the benefits of a River Action Plan.

"The purpose of the River Action Plans is to provide ideas to landholders interested in improving the condition of the creek on their property, and the health of the catchment overall," Ms Mohammadi said.

"The funding for the project here in the Lower Blackwood has been secured because of the nationally recognised biodiversity values of the catchment, including several rare and threatened plants and animals in the area."

Since 2011, the Lower Blackwood LCDC has helped more than 75 landowners in the Lower Blackwood region with planting over 210 000 native seedlings on over 100 hectares of land, 49 kilometres of fencing to protect over 850 hectares of native vegetation, as well as promoting soil testing, fertiliser management and improving soil health.

"The role of the Lower Blackwood LCDC is to work with landholders, including farmers and agribusiness owners, not only on projects to protect and enhance biodiversity, but to encourage farm productivity and economic viability through the promotion of sustainable farming practices," Ms Mohammadi said.

Funded works could include fencing, revegetation, weed control, stock crossings or off-stream watering points. River Action Plans are not legally binding.

This project is supported by the South West Catchments Council, through funding from the Australian Government and the Government of Western Australia.

Further information on the Lower Blackwood River Action Plan is available here: swccnrm.org.au/work/biodiversity/lower-blackwood

For more information, please contact Yasaman Mohammadi at the Lower Blackwood LCDC on (08) 9758 4021 or lowerblackwood@bigpond.com

As nature intended: Discovering Albury's hidden secret

Albury City Council

From a reclaimed water system to an environmental haven, home to 154 bird species, Wonga Wetlands has established itself as one of Australia's premier birdwatching sites and Albury City Council has a long term vision to make it even better.

Wonga Wetlands is located a short distance from the cities of Albury/Wodonga, sitting on the border between north-east Victoria and southern New South Wales.

Since the late 1990s Wonga Wetlands has operated as a reclaimed water wetland, serviced by the council's nearby wastewater treatment plants. But the intricate network of lagoons and waterways has since become its own unique ecology, attracting birdlife and eventually tourists.

In summer the reclaimed water irrigates 150 hectares of pine and hardwood plantations and nearby pasture. In winter however, the wetlands are flooded, attracting vast birdlife.

It's this unique approach that site supervisor John Hawkins says has helped Wonga Wetlands become such a popular tourist destination.

"It's an ephemeral wetland and we operate it in the way mother nature intended," he says. "In the summer it's dry, but in the winter it's flooded which attracts all kinds of migratory birds looking for wetlands."

Today the wetlands are visited by more than 8000 people annually, including school groups and tertiary students, keen to learn more about birdlife and wetland ecology. Meanwhile six bird hides cater to birdwatching enthusiasts who are given access to approximately one-third of the entire wetlands, ensuring a great view of the wildlife in its natural environment.

On any given day a keen birdwatcher can spot pelicans *(Pelecanus conspicillatus)*, black swans *(Cygnus atratus)*, freckled ducks *(Stictonetta naevosa)*, cormorants of all varieties, whistling kites *(Haliastur sphenurus)* and the white-bellied sea eagles *(Haliaeetus leucogaster)* which all call the wetlands home.

Wonga Wetlands has become an unexpected tourist destination in Albury, and council has plans to capitalise even further.

Community consultation has recently finished on the Draft Wonga Wetlands Tourism Product Development Masterplan. The ambitious plan identifies nine strategies aimed at enhancing one of Albury's great assets.

They include:

- development of an interpretive centre and functions/events space
- improved trails and viewing platforms
- a themed mountain bike course
- ropes and flying fox course
- better access points for canoeing
- other water based activities and improvements to the lagoon ecology.

With careful management and a continued focus on conservation, Wonga Wetlands is set to continue its transformation from one of Albury's great assets to a regional tourism and birdwatching treasure.

For further information on the Wonga Wetlands, please visit www.alburycity.nsw.gov.au/leisure-and-culture/wonga-wetlands

As nature intended: Wonga Wetlands is wet in winter, dry in summer (© Copyright, Albury City Council)

A black swan (Cygnus atratus) and cygnets glides through the intricate Wonga Wetlands network (© Copyright, Albury City Council)

Wonga Wetlands has become one of Albury's most spectacular tourist destinations (© Copyright, Albury City Council)

A white plumed honeyeater (Ptilotula penicillata) is one of the 154 bird species found at Wonga Wetlands (© Copyright, Albury City Council)