

Creative partnerships

Sea monkeys ... just add water!

Nature Foundation South Australia and Commonwealth Environmental Water Office

A wildlife charity and an irrigation water supply body are working together to deliver Commonwealth environmental water... for sea monkeys!

Commonwealth environmental water is being pumped into Lyrup Forest (near Berri, South Australia). This unique environmental watering partnership with the Nature Foundation South Australia's Water For Nature program and Central Irrigation Trust may be the catalyst for a brine shrimp (also known as sea monkey) breeding event.

This environmental watering event involves the largest irrigation water supply body in South Australia, working in partnership with Nature Foundation South Australia and the Commonwealth. This delivery partnership is using an old Lyrup Irrigation Trust backwashing pipe, originally built for cleaning the Lyrup irrigation pumps, to deliver water to the wetland. The existing irrigation infrastructure

will be used to deliver environmental water to a wetland in the off-peak season, enhancing the values of the local recreational site for the Lyrup community.

Watering at the site is expected to provide benefits for many native birds, frogs and turtles. In particular, the Lyrup Forrest reserve has a history of hatching an abundance of brine shrimp (*Artemia salina* — sold as novelty aquarium pets) biomass when inundated. This environmental watering event is expected to encourage brine shrimp to breed, and in turn draw birds to the site to feed on the shrimp, including musk duck, freckled duck and royal spoonbill. Red-necked avocets have already been recorded at the site following the commencement of the watering event.



Steven Heinicke, Gary Jaensch, Shaun Reilly, Craig Ferber, John Schwarz and David Reilly at the commencement of the watering event (© Copyright, Commonwealth Environmental Water Office)



Brine shrimp (Artemia salina) detected at Lyrup Lagoon during watering event in October 2015

(© Copyright, Michelle Campbell, Commonwealth Environmental Water Office)

NFSA's Water For Nature program partners with private landholders, irrigators, community groups and local government in the South Australian Murray region to deliver community-driven watering projects that achieve environmental benefit to wetlands and floodplains as well as broader reaching economic, cultural and social benefits.

For more information about Nature Foundation South Australia's Water for Nature program, please visit naturefoundation.org.au/what-we-do/water-for-nature

Banrock Station: Environmental water + wetlands + tourists + wine = economic return

Banrock Station and Commonwealth Environmental Water Office

Recognising the economic benefits of environmental water in the tourism and wine sector, Banrock Station sought out and established an important partnership with the Commonwealth Environmental Water Holder.

Banrock Station is a demonstration site for the Ramsar Convention's fundamental principle of 'wise use', combining a wetland wine centre and vineyards (private enterprise) with wetland conservation and rehabilitation in order to raise awareness of the important values and functions of wetlands with around 35,000 visitors to the site each year. Commonwealth Environmental Water Holder David Papps said, 'This is an exciting partnership. We are delighted to be working with Banrock Station and hope other private enterprises will see how the wise use of environmental water in wetlands serves to restore, maintain and enhance the environment as well as provide secondary benefits of increased tourism and sales.'

This ongoing partnership will see Banrock Station deliver up to 2004 megalitres of Commonwealth environmental water annually to a number of sites across the extensive 1000 hectare Ramsar floodplain, located in the Riverland of South Australia. The watering events will be implemented by Banrock Station Wetland staff. The purpose of the watering is to contribute to environmental outcomes such as supporting the establishment of juvenile red gum and black box trees that were germinated during the 2010–11 floods and improve the condition of mature floodplain trees, understorey and submerged plant communities. It will also provide habitat and breeding opportunities for the nationally threatened regent parrot and southern bell frog.



Commonwealth Environmental Water Holder, David Papps, with Banrock Station managers Tim Field and Alison Searle

(© Copyright, Commonwealth Environmental Water Office)

Banrock Station's managers are so convinced of the economic benefits of conserving and enhancing wetlands using environmental water that they are looking to share their experience with other businesses that are interested in restoring or enhancing their wetlands/floodplains. 'We have seen first-hand the way visitors interact with the environment, and how that results in return visits, lingering and wanting to be a part of what we are doing here. We want to share that knowledge with others who are interested in restoring wetlands, and how that can improve economic return,' said Banrock Station Environmental Manager, Dr Christophe Tourenq.

Banrock Station has been helping to protect the environment since 1995. Since that time, the Banrock Station Environmental Trust has re-invested profits from the sale of Banrock Station wines into environmental projects around the world, with a commitment to date exceeding \$6 million to more than 130 projects in thirteen countries.

Banrock Station's ongoing commitment to environmental sponsorship is based on its own experience in restoring and protecting its wetlands and woodlands, which led to its listing as a Ramsar Wetland of International Importance in 2002.

For more information see banrockstation.com.au



Banrock Station (© Copyright, John Baker and Department of Environment)

Nyul Nyul Rangers manage wetlands and spring country through research and on-ground work

Mark Rothery, Nyul Nyul Rangers Coordinator, Kimberley Land Council

Nyul Nyul people of the Dampier Peninsula, 110 kilometres north of Broome in the Kimberley region of Western Australia, have a strong association with fresh water sources on their traditional land.

Wetlands and springs support Nyul Nyul livelihoods and animals, birds, plants and medicines associated with hunting and gathering activities important to Nyul Nyul people.

Caring for wetlands in the 'right way' is one of the major tasks undertaken by the Nyul Nyul Rangers. The Rangers are protecting these wetlands with management of fire, feral animals and weeds under the Working on Country program in association with the Kimberley Land Council and the Kimberley Ranger Network.

The Rangers have initiated and actively participated in several research projects aimed at investigating these freshwater sources and ecosystems. Partners in the projects include the National Environmental Research Programme (NERP), the North Australian Indigenous Land and Sea Management Alliance (NAILSMA), the University of Western Australia and the WA Department of Water.



The Nyul Nyul totemic food source emblem the lily thrives in a myriad of billabongs, springs and lakes

(© Copyright, Nyul Nyul rangers)

One project used scientific water monitoring techniques, in combination with Nyul Nyul knowledge, to better understand the ecology of key freshwater ecosystems. This project has helped the Rangers to set up monitoring programs to measure the health of wetlands and measure the effectiveness of management activities. Baseline data collected represents a starting point for measuring the impact of future activities.

Another research project has used interviews with elders and traditional owners to investigate in more depth the Nyul Nyul knowledge, values and practices associated with freshwater sources. The Nyul Nyul logo has totems representing the freshwater eel and lily as its emblems, both of which represent food sources and signs of healthy country.

The Rangers also undertake other activities to help to monitor and maintain the health of wetlands.

Examples include:

- cleaning out and maintaining freshwater spring sources used for drinking water
- biodiversity surveys around wetlands — identifying priority species eg painted snipe, undescribed frogs
- a fencing project to keep feral donkeys out of a significant spring system
- burning to protect wetlands from late season hot fires
- removal of bullrushes and other weeds
- photo monitoring of riparian zones at significant wetlands
- water bore and riparian sampling on contract to the WA Department of Water
- water sampling of community bores and sewerage impacts
- training other ranger groups in water monitoring methods and techniques.



Nyul Nyul Wetlands have significant migratory bird populations and priority species (© Copyright, Nyul Nyul Rangers)

The cultural story of the Lake Wellington wetlands

Martin Potts, Gippsland Project Manager, Greening Australia

Over 65 per cent of the Gippsland Lakes wetlands on private land located between the Avon and Latrobe Rivers are now being managed for conservation thanks to the recent works being undertaken by Greening Australia.

Working at this landscape scale has provided benefits such as being able to observe migratory bird paths and assessing the connectivity of wetlands and the pathways that frogs and plants follow to disperse through the system. This approach has also provided the opportunity to reveal the Indigenous cultural story that has, in turn, captured the imagination of the local community.

Greening Australia initiated a partnership with Gunaikurnai Land and Waters Aboriginal Corporation and started to look at the landscape through cultural eyes. Working together over the past three years this partnership has seen over 15 new sites being registered as culturally significant, including a now recognised corroboree ground. Old campsites and the pathways that connected them are being identified and some of these are being painted into a story by Indigenous leader Alfie Hudson.

We were looking for an opportunity to create a cultural land map. We have soil layers, flood layers etc, but what would a cultural layer look like? This can tell the story of when people moved through this country, where they camped and what they were doing.

The fringing wetlands of the Gippsland Lakes around Lake Wellington are not only an important filtering system and nursery ground for the Lakes food chain, they also provide essential habitat, in particular for the nationally vulnerable growling grass frog, green and

golden bell frog, Australasian bittern and over seven species of migratory wading birds such as the sharp-tailed sandpiper and Latham's snipe.

Now we can also add to these key features the importance of these wetlands to the Gunaikurnai peoples. We are learning how



Martin Potts with painting (© Copyright, Paula Camenzuli)

these wetlands form part of the old dreamtime stories of Bimba-towera, the fire-tailed finch and Borun and Tuk, whose marriage is a key part of the creation story and is reflected in marriage gatherings today:

‘(In) pre Spring, when the silver wattles are blooming and people from across Gunaikurnai country are gathering for marriage, the water ribbons and wild flower tubers are full, the ducks and swans are laying eggs and the fresh water wetlands would be teeming with life.’ (Words of Gunaikurnai Elder Uncle Wayne Thorpe at a 2015 cultural stories event.)

This is part of the Gunaikurnai story, this is part of the wetlands story, this is now an important part of our story and the work Greening Australia is achieving to help to bring functional connectivity and resilience to Lake Wellington’s fringing wetland system.

For further information please visit greeningaustralia.org.au to see a short clip on our recent cultural celebration event.



Gunaikurnai dance troupe (© Copyright, Paula Camenzuli)



Growling grass frog (© Copyright, Alexander Dudley)

Bridging the waters — South East wetland carers surge ahead

Michael Andrews, Wetland Program Officer, Conservation Volunteers Australia

‘Realising the potential of our wetlands’ is a South East Local Land Services (LLS) project funded by the Australian Government that aims to build on-ground action, community education and a supportive communication network along the south and far south coast of New South Wales.

Commencing in 2014, the program involves three partners: South East LLS provides funding directly to public and private land managers to help them improve wetlands connectivity and condition, WetlandCare brings expertise in monitoring change over time while Conservation Volunteers manages volunteers implementing on-ground work.

Together the partnership provides workshops and forums in strategic locations from Wollongong to the NSW/Victorian border and is building a network of South East wetland carers with the skills and resources to make a real difference.



Adam Woods, wetland workshop, Moruya, NSW

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A snap-shot of achievements at the half-way point of the four year project includes:

- 15 hectares of native revegetation
- 3000 individual plants
- 530 hectares of weed control across priority wetland sites and threatened ecological communities
- 583 invasive rabbits and foxes removed from 5000 hectares
- 4 kilometres of fencing installed to protect 44 hectares of wetland from the impact of stock
- 17 education and awareness events reaching more than 300 people
- over 250 people participating in the South East Wetland Carers Network
- 250 volunteers involved in on-ground works
- 50 private landholders implementing specific project works
- all local government areas in the region implementing projects.

The project has a strong focus on long term protection of mangroves, saltmarsh and seagrasses because these wetland components fix carbon from the atmosphere, the ocean and estuarine waters, and preserve this carbon with remarkable efficiency in deep, organic-rich sediments.

South East LLS's Senior Landscape Services Officer, Kirsti Sampson, says that the real strength of the project lies in its scale. 'To date, we have approved and funded over 50 on-ground projects. Our team of agency and non-government organisation staff allows an exceptionally broad reach along the entire south coast of NSW. The cumulative impact of exciting projects and the exchange of skills and knowledge across over 400 kilometres of coastline will significantly improve carbon sequestration, connectivity throughout the landscape and the resilience of wetland communities into the future.'



Minnamurra River, Kiama, NSW (© Copyright, Conservation Volunteers Australia)