

The Lakes Hub is an initiative of the Milang and District Community Association Inc. funded by the Australian Government and the South Australian Government's Murray Futures program.

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Spring has sprung

Hello!

Spring is definitely in the air. There are flowers everywhere, including heaps of beautiful wattles, just in time for National Wattle Day (1st September) and Biodiversity month.

Spring also seems to have had an impact on the volume of articles that have either been requested or sent in, so this edition is somewhat hefty...

This month, the Lakes Hub has two events planned—An Orchid Walk in conjunction with the Coorong—Tatiara LAP at Meningie and a Native Bee Habitat construction workshop in conjunction with the Milang Community Garden.

We are still collecting Long-nosed Fur Seal observations. We continuously collate and provide this data to anyone that is working on the issue, including community members, that might have a use for this data.

With the start of September, the faces in the Hubs will change. Andrew (Meningie) is on leave for all of September, so Jill and I will be filling in for the three days he is usually in the Hub.

On the Milang side, Karyn is taking six months of long-service leave. We will miss her, but hope she has some much deserved rest and relaxation.

Megan is returning from maternity leave at the start of September, taking back the reigns of Regional Coordinator.



I was expecting to head off to another organisation or project on Megan's return, but it looks like I will be continue 2-3 days a week, to starting the Drought Ready Communities planning (finally) and developing new opportunities for the wonderful Lakes Hub.

Have a lovely start to Spring and I look forward to seeing you around.

Faith Coleman

Working Group: Long-nosed fur seals in the Coorong and Lower Lakes

Communiqué No. 1

The first meeting of the working group was held on Friday, 21 August 2015 in Adelaide with representatives from the

Department of Environment, Water and Natural Resources (DEWNR): Sandy Pitcher as Chair, Brenton Grear, Denise Fowles, Mike Greig, Renate Velzeboer
Primary Industries and Regions SA (PIRSA): Alice Fistr, proxy for Sean Sloan
South Australian Research and Development Institute (SARDI): Gavin Begg
Southern Fishermen's Association (SFA): Marilyn Nobes, proxy for Neil MacDonald
SA Water: Garry Fyfe
South Australian Tourism Commission (SATC): David Lake
Coorong District Council (CDC): Mayor Neville Jaensch,
Alexandrina Council (AC): Barry Featherston, proxy for Mayor Keith Parkes
Conservation Council of SA (CCSA): James Brook, proxy for Craig Wilkins; and
SA Museum (SAM): Peter Shaughnessy.

The Ngarrindjeri Regional Authority (NRA) and DEWNR's Natural Resources South-East (NR S-E) sent their apologies for this meeting but are expected to attend future meetings.

The working group agreed to terms of reference that will enable it to investigate and explore all the issues surrounding long-nosed fur seals (LNFS) in the Coorong and Lower Lakes area and to identify and implement appropriate short term and long term actions.

Group members were able to clearly outline their experience, their social, economic and ecological concerns and the impacts being felt by them and the people they represented.

The group identified that the following activities are underway:

A Fisheries Research and Development Corporation (FRDC) and SA Government funded project is soon to commence on

trialing alternative types of gear, including fishing nets, and
different types of non-lethal seal deterrents.

LNFS scats (droppings) are being collected from the Coorong area and analysed to get more information on what they are eating. This is part of a broader FRDC funded project on the "Assessment of the impacts of seal populations on the seafood industry in South Australia"

The fishery is recording all interactions with LNFS in line with their Threatened, Endangered and Protected Species interaction reporting requirements.

Minister Hunter is meeting with the Ngarrindjeri Regional Authority to hear their cultural, economic, social and environmental concerns and to discuss issues surrounding LNFS in the Coorong and the Lower.



Government agencies are meeting with different local community interest groups to hear concerns and to discuss issues surrounding LNFS in the Coorong and Lower Lakes.

Government has published frequently asked questions from the community and their answers on the DEWNR website: http://www.environment.sa.gov.au/managing-natural-resources/plants-and-animals/Living_with_wildlife/seals. More questions and answers will be added in the near future.

The working group identified several short term actions that are planned to start in the near future:

PIRSA has been working closely with fishing industry representatives and it is expected that temporary changes will be introduced to management arrangements, including changes to gear that will provide further flexibility to operators in the Lakes and Coorong fishery. PIRSA is investigating fee relief as a source of immediate support, to assist fishers in mitigating the financial impacts of LNFS interactions.

Setting up cameras to monitor LNFS and pelican interactions at
the barrages, and
key pelican breeding sites.

Surveying and tracking of LNFS in the Coorong and Lower Lakes area.

Seeking support from Rural Business Support for counselling to assist those local rural businesses that are affected.

SA Water staff, who are on site in the Coorong and Lower Lakes will begin keeping a log of LNFS numbers and interactions.

The working group will meet monthly with the next meeting planned for September 24.



How soon we forget...

It is funny how things that were once so precious are so easily forgotten.

While working with Indigenous Landholders, I am often honoured to hear verbal histories of the country I am working on.

Around the South Australian coastline, it has always surprised me how often oysters feature in these accounts.

The prominence of Oysters has always puzzled me, as most the oysters I've found along our coastline are the introduced Pacific oysters. The few native 'flat' oysters I come across are definitely not in the thick mounds of sharp shells described in oral histories.

This changed in May, when I read Heidi Alaway's paper, documenting her reading of historic archives, documenting the prevalence of native Oyster reefs around our state, during the early years of colonisation.

It turns out that around 150 years ago, oyster reefs lined our coastline, improving water quality, clarity and fish life. Unfortunately, due to the reefs being harvested to extinction, we now have a much less healthy ecosystem.

For her PhD in the University's School of Biological Sciences, Heidi Alaway and supervisor Professor Sean Connell found evidence of the loss of oyster reefs, formed by the native flat oyster *Ostrea angasi*, from along more than 1500km of the South Australia's coastline.

With a total coastline length of approximately 5,000km, this equates to the loss of habitat along a third of our coast. What's more, this is likely to be an underestimation.

"The implications of this loss are huge," Ms Alaway says.

"Ecologically these reefs would have supported diverse species of marine life, including commercial and recreational fish species, as well as provided stabilisation for soft sediments.

These reefs have also deteriorated in Western Australia, Victoria and Tasmania, reflecting an issue that has been widespread," she says.

Oyster reefs would have not only cleaned the water and provided habitat for fish, but they would have provided a abundant food source for middle to top order predators, such as seals and sharks.

Professor Sean Connell suggests it is possible the loss of oyster reefs from South Australia's coastline has compounded issues associated with coastal water quality.

"Oyster reefs are the kidneys of coastal ecosystems," Professor Connell says. "These reefs played an extremely large role in filtering and maintaining good clean water."



An oyster reef similar to those that would have existed in South Australia 70 years ago.
E. Woodward/Flickr CC BY_NC-SA

The once abundant oyster reefs were overexploited in South Australia by commercial dredge fishing from the 1800s to the early 1900s. Despite efforts to manage the fishery, no living native reefs are known to exist in South Australia today.

Professor Connell says the lack of consideration for this species today is in striking contrast to the attention it was paid historically. "We attribute this to 'collective amnesia', whereby the past distribution and abundance of oyster reefs has been forgotten," he says.

How soon we forget... (Cont)

Now we know not only what we have lost, but what supported the cornucopia of aquatic life prior to European colonisation. With that knowledge, we have the opportunity to rethink our marine and estuarine conservation efforts, bringing a whole new approach and perspective to the issues of restoration.

"The restoration of oyster reefs across South Australia is the next step," Heidi says. "By recovering the historical baseline of oyster reef abundance we now have the opportunity to recover the ecological baseline."

We have had some fairly rapid progress on this issue. A collaborative venture between the University of Adelaide and SA Water is already being scoped and will soon start the first on-ground trials in this state, restore the lost oyster reefs. In Victoria, trials are already well underway.

The added bonus? Southern Australian flat

oysters are tastier than their pacific cousins! Extra information is available from:

- * [E-Science article](#)
- * [Radio Adelaide Interview](#)
- * [Rec Fish SA Artificial Reef information](#)

WANTED

Any observations you might have of Long-Nosed Fur Seals in the Lakes and Coorong.

Photos, locations, dates and verbal descriptions of what they were up to.

The Lakes Hub team are trying to collate as much information as they can about Seal activity within the Ramsar site, to provide to anyone interested in studying the issue.

There is a record sheet on the next page, or check with your local cafe owner, to see if they are keeping a record —There are already fifteen businesses helping the Lakes Hub collect seal related observations.

FACT: Oyster reefs provide habitat

As a population, oysters can have fifty times the surface area of an equally extensive flat bottom! Nooks and crannies between all the shells provide habitat for an enormous range of other animals, such as worms, snails, sea squirts, sponges, small crabs and fishes. Even young oysters (spat) hide inside empty shells to escape predators!

FACT: Oysters provide an ecosystem service

Oysters are filter feeders. They consume microscopic plankton, bacteria and suspended particles by filtering water at a rate of up to 4 to 5 litres per hour! (that's over 50 x 2ltr coke bottles every day!). An excess of algae in the water blocks sunlight from reaching underwater grasses (called seagrass). These underwater plants need sunlight to grow. When oysters consume the excess algae, this allows more sunlight to penetrate the water and promotes seagrass growth.

Record of Fur Seal Sightings



Telephone: 08 85370808

Faith Coleman: 0419823286

Email: Info@lakeshub.com

Date	Location	Time	How many?	Details	Comments



NATIVE ORCHID WALK

With Coorong-Tatiara Lap Officer

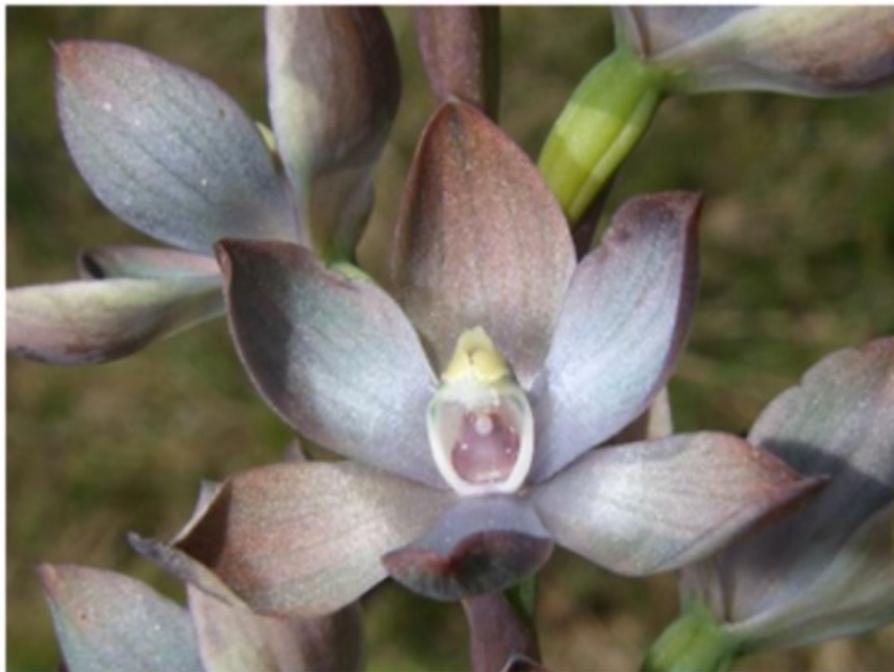
Sam Blight

Lions Parking Walking Trail, Meningie

22nd September 2015

10 am

Meet at Meningie Hub 10am



Thelymitra epipactoides

Bookings and RSVP by 21st September 2015

Lakes Hub Milang

Ph: 08 85 370808

Email: info@lakeshub.com

Lakes Hub Meningie

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South East Flows Restoration Project

Project update August 2015

This update provides an overview of activities that are underway to deliver the South East Flows Restoration Project (SEFRP).

Design and Survey

The SEFRP is currently in design stage and this involves a series of onground engineering surveys and water modelling investigations to identify the infrastructure that will be needed to move water along the flow path.

To do this, design for the SEFRP will be developed in three phases of concept design, design development and design documentation:

Concept Design: In this phase an initial “sketch” of the design is developed. It will be refined through site surveys, landholder consultation and advice from operational staff and the SEFRP Steering Committee.

Design Development: In this phase, detailed information is prepared for all design parameters. When the progress point of “70% design” is reached, the design will again be reviewed and refined.

Design Documentation: In this phase the design is finalised. It provides all documents that meet required construction, operational and safety standards.

In July 2015, the concept design was confirmed for the alignment section of Blackford Drain off take to Henry Creek Road. The next design phase (design development) has commenced and will involve landholder consultation to confirm site details, including the location of crossings, fencing and drainage infrastructure. Detailed water and engineering modelling will continue. This phase of design is scheduled for completion in December 2015.

The alignment from Henry Creek Road to the Salt Creek outlet continues to be investigated. The investigation aims to identify the feasibility of inundating the Tilley Swamp Watercourse *en route* to the Coorong South Lagoon and is scheduled for completion in late August 2015. This will inform the concept design for this alignment section.

Environmental Management Program

The Environmental Management Program of the SEFRP involves a number of activities.

Flora, fauna and native vegetation surveys were conducted from 2-11 June 2015. Data collected is currently being analysed and will inform the project approvals, which include the *Environment, Protection and Biodiversity Conservation Act (1999)* (Commonwealth) referral regarding matters of national environmental significance and the *Native Vegetation Act (1991)* (State) assessment regarding native vegetation clearance.

Wetland condition monitoring at representative wetland locations *en route* to the Coorong is planned for spring 2015. It will include the Taratap and Tilley Swamp flats and Morella Basin. A baseline of information describing the condition of *en route* wetlands will inform future monitoring activities and operation of the SEFRP infrastructure.



Water quality monitoring in the Coorong and the South East Drainage Network will improve understanding of how the Coorong responds to water from the South East (quantity and quality including salinity). A complimentary water quality risk assessment is underway and will inform project approvals and the operation of SEFRP infrastructure once constructed.

Community Engagement

The SEFRP Steering Committee continues to meet every six weeks to review project progress and provide advice and recommendations to the Department of Environment, Water and Natural Resources on project delivery. The SEFRP Steering Committee is supported by two advisory groups including the SEFRP Design and Environment Advisory Group.

The Design and Environment Advisory Group met on 17 July 2015 and reviewed the concept design for the alignment from Blackford Drain off take to Henry Creek Road. General consensus support of the concept design was reached and all advice and recommendations will be submitted to the SEFRP Steering Committee's next meeting in August 2015. Community members of the Advisory Group include landholder representatives, Traditional Owners, Nature Glenelg Trust, Wetlands & Wildlife, Coorong Lower Lakes and Murray Mouth Community Advisory Panel, and the South Eastern Water Conservation and Drainage Board.

Cultural Heritage Program

The Cultural Heritage Program involves conducting a cultural heritage survey as part of the design process to identify Aboriginal cultural heritage sites (sites, objects or burials) along and adjacent to the proposed construction works. The survey will be conducted within the proposed construction area.

Cultural heritage monitoring will complement the construction phase of the SEFRP to ensure that heritage sites identified are managed in a culturally appropriate manner.

Aboriginal cultural heritage cannot be disturbed without authorisation under section 23 of the *Aboriginal Heritage Act 1988*. The Ngarrindjeri Regional Authority and the South East Aboriginal Focus Group (through a partnership with Burrendies Aboriginal Corporation) will conduct the cultural heritage survey of the alignment.

Land Acquisition

Land for the project will be acquired by agreement or by compulsory acquisition in accordance with the *Land Acquisition Act 1969*. It is preferred to acquire land by agreement and this process will commence once design development of the alignment has progressed.

Construction Delivery

A construction contract will be awarded on completion of design documentation for the SEFRP alignment.

The Project is part of the Murray Futures Coorong, Lower Lakes and Murray Mouth Recovery Project. Funding is jointly provided by the Australian Government the South Australian Government.



Australian Government

For more information

Natural Resources South East
South East Flows Restoration Project

P (08) 8755 1630
E louise.mcintosh@sa.gov.au

<http://www.naturalresources.sa.gov.au/southeast/projects/se-flows>



Government of
South Australia



Natural Resources
South East

National Wattle Day

National Wattle Day is the 1st of September. In Tasmania (approx. 1838), the wearing of Silver Wattle sprigs was encouraged as a way of celebrating European discovery of the island.

The Aboriginal people used the wattle in the making of their tools, the best known of which is the Boomerang, the name and device itself being uniquely Australian. It was often made of Blackwood. Wattle gum was used as a chewing gum and glue.

As European settlement progressed on the island, the wattle plant and images of other Australian flora and fauna found their way into and on our furniture and other household items.

In October 1889 the short lived 'Wattle Blossom League' was formed in Adelaide, SA. By 1891, the league had foundered. However, the League's activities had been the spark which led in turn to the founding of a Wattle Club in Melbourne, Victoria in 1899, by a Mr A J Campbell, who was a field naturalist.

In 1908 Mr Campbell made the suggestion that a National Wattle Day be established. At first

Fat leaved-wattle, *Acacia pinguifolia*

Description: Low spreading shrub, 1 - 2 m high and 2 -3 m wide with erect branches from just above the ground and globular golden yellow flower-heads

Leaves: Pale green, fleshy, cylindrical, rounded, thick 1 -3.5cm long by 3mm wide

Flowering time: July to October

Distribution and Population : Known from two geographically separate populations: southern Eyre Peninsula and near Finniss on the Fleurieu Peninsula. The species is associated with *Eucalyptus odorata*, *E. incrassata* and *Melaleuca uncinata* in woodland or open scrub. Soils; mainly sandy or hard alkaline yellow duplex. Rainfall 400-500 mm.

Cultivation: This endangered species is being propagated by both Clayton Bay and Milang

there was a bit of a debate on which flower should be our national flower; either the Waratah or the Wattle, eventually it was decided that the wattle should be the national flower as that was more widespread than the Waratah.

The first National Wattle day was held in Adelaide, Melbourne & Sydney on 1st September 1910. Early wattle day activities included planting wattles on school grounds, lessons to school children on botany; street decorations of Wattle blossom and wearing of sprigs of wattle, often sold for charity.

In 1984, green and gold became the national colours of Australia, representing the green leaves and golden flowers of the Wattle tree. In 1988 Golden Wattle (*Acacia pycnantha*) was the wattle chosen to represent Australia.

In 1992 all states & territories in Australia agreed to recognise 1st September as National Wattle Day.

Australia is home to approximately 1,000 different varieties of Wattle; with 198 being found in South Australia.

nurseries as part of the threatened species recovery project. Plants grown have been planted back into Finniss properties to hopefully increase the numbers and genetic diversity.



Frog Monitoring Workshops

We are looking for community members and groups to once again Adopt a Frog Monitoring site/s for this year's Frog monitoring season in the Lower Lakes region. All it takes is a 5 minute recording of the frog species calling and completing a datasheet once a month from September through to January at your adopted site/s.

Given that lake levels are anticipated to be managed at higher levels this season we are hoping to get a good response from the EPBC Vulnerable listed Southern Bell frog which is known to breed in response to flooding. Last season's frog monitoring only resulted in one male Southern Bell frog being recorded for the entire region.

Come along to one of these free workshops in the region to learn all about our local frog species and how you can help to monitor our frog populations. Participants will receive a Lower Murray Frogs Field Guide and Frog call CD and monitoring information pack. All ages welcome!

Milang Institute, Corner Ameroo and Coxe street, MILANG

Tuesday 1st September 2015

4:00pm to 5:30pm

Lakes Hub, Meningie, 79 Princes Highway, MENINGIE

Thursday 3rd September 2015

4:30pm to 6:00pm

Ibis Siding Garden Centre, Corner of Kessell and Cadell Street, GOOLWA

Saturday 5th September 2015

6:00pm to 7:30pm

To register your interest for one of the workshops, Please contact

Regina Durbridge

0427 364 551 or email

regina.durbridge@gwlap.org.au



Government of South Australia

Department of Environment,
Water and Natural Resources



© Southern Bell frog — Photo courtesy Tracey Reeves

Rare lampreys found in Lower Murray

(Source: [ABC](#), Vassil Malandris, 24/08/15)

Our link to the following article has caused our largest ever number of views on FaceBook— 2,780 views in a day.

To ensure that everyone gets to see it, we have reproduced some of the key facts here.

Only 11 pouched lampreys were documented by DEWNR between 2007 and 2014.

Possible causes of the decline were thought to be the closed barrages during the drought, preventing the lamprey from migrating from the ocean to freshwater upriver to spawn.

A survey between July and August this year caught 57 adults, according to Lower Lakes, Coorong and Murray Mouth icon site coordinator Adrienne Rumbelow.

"This is a welcome sign," she said.

"Environmental water has facilitated barrage releases this winter and these flows have created a freshwater signal out of the Murray Mouth, helping to attract lampreys to the area."

Brenton Zampatti, from South Australia's Research and Development Institute (SARDI), said the 57 fish had also been implanted with a microchip to monitor their movements.

The aim is to discover where they spawn, which might occur as far upstream as Yarrowonga in the Victorian tributaries.

What are they?

Lampreys are primitive 'eel-like' fish with a fossil record dating back 500 million years.

Instead of a jaw, they have a suction disk lined with tiny teeth surrounding a mouth.

Lampreys feed by sucking onto fish and sucking or rasping away blood and flesh.

The pouched lamprey grows up to 60 centimetres long and has two low dorsal fins.

In marine waters, adults are brilliant cobalt blue in colour with bright greenish lateral stripes. In fresh water, they are drab brown. Males develop a large sac or pouch, which hangs down just behind the mouth. Young larval lampreys range in length from 30-80 mm, have no eyes and are dull brown or black in colour.

While the function of the pouch is unknown, some believe the fish stores stones in it during breeding season. The word lamprey is derived from the Latin *lampetra* meaning stone licker.

The pouched lamprey spends most of its adult life at sea, re-entering the river during winter and spring to migrate upstream to permanent fresh head water creeks where it spawns and dies.

Larval lampreys spend a number of years filter feeding from burrows in soft sediments before metamorphosing into their adult form and moving to the ocean in winter. The adults lack paired fins and jaws but possess a suction disk lined with teeth that is used to attach and feed on the flesh of fish.



Regular DEWNR Flow Reports

The Department of Environment, Water and Natural Resources issues a weekly River Murray Flow Report. This will be accompanied by a River Murray High Flow Advice when flows at the South Australian border are in excess of 40,000 ML/day.

On a monthly basis, this report contains additional information on the state of the water resource.

The River Murray Flow Report contains information about water levels, flow rates and barrage operations as well as any navigation issues or construction activities.

These reports are produced This information is greatly valued by commercial and recreational users of the River Murray, and by residents and communities in close proximity to the River and floodplains.



RIVER MURRAY FLOW REPORT and WATER RESOURCES UPDATE

Public I2 A2

Report #33/2015
Issued 10:00 am 21 August 2015

This supersedes the previous flow report issued by the Department of Environment, Water and Natural Resources (DEWNR) on 14 August 2015. The next flow report will be provided on Friday, 28 August 2015.

In this report, for ease of representation, large volumes of water are expressed in gigalitres (GL), while smaller volumes are expressed in megalitres (ML). One GL is equal to 1000 ML.

WATER RESOURCES UPDATE
 During July 2015, the total River Murray System inflow was approximately 430 GL, which is around a third of the July long-term average of 1 240 GL. Inflow to Menindee Lakes (from the Darling System) during July 2015 was 0 GL, which is well below the July long-term average of 150 GL.

The flow to South Australia during July 2015 was approximately 230 GL (compared to 260 GL in July 2014 and the July long-term average of 625 GL). The flow comprised:

- 98.5 GL (108.5 GL of July Entitlement Flow less 10 GL of deferred Entitlement Flow); and
- approximately 132 GL of environmental water from the Commonwealth Environmental Water Holder.

STORAGE VOLUMES
 Murray-Darling Basin storage volumes at 19 August 2015 and 19 August 2014

Storage	Full Supply Volume (GL)	19/08/2015 (GL)	19/08/2014 (GL)	Long-term average (end of Aug)
Dartmouth	3 856	2 706 (70%)	3 576 (92%)	
Hume	3 003	1 315 (44%)	1 896 (60%)	
Lake Victoria	677	445 (66%)	520 (73%)	
Menindee Lakes	1 731*	**99 (6%)	372 (21%)	
TOTAL	9 267	4 565 (49%)	6 364 (69%)	

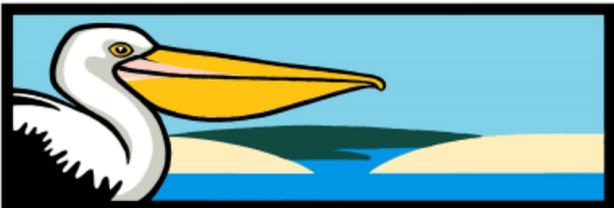
*Menindee Lakes can be surcharged to 2 015 GL.
 **Menindee Lakes are under New South Wales control

It is important to note that the volume of water held in storage includes water set aside for carryover for New South Wales, Victoria and South Australia, environmental water and other reserves. The volume held in storage has started to increase as a result of recent rainfall and reduction in downstream deliveries from Hume.

MENINDEE LAKES
 Under the Murray-Darling Basin Agreement, the Murray-Darling Basin Authority controls the Menindee Lakes until the stored water volume decreases to 480 GL. The New South Wales Government assumes control of the storage at 480 GL and maintains control until the volume in storage exceeds 640 GL. On 18 February 2014, the volume in the Menindee Lakes dropped to below 480 GL and control switched to the New South Wales Government.


 Government of South Australia
 Department of Environment,
 Water and Natural Resources





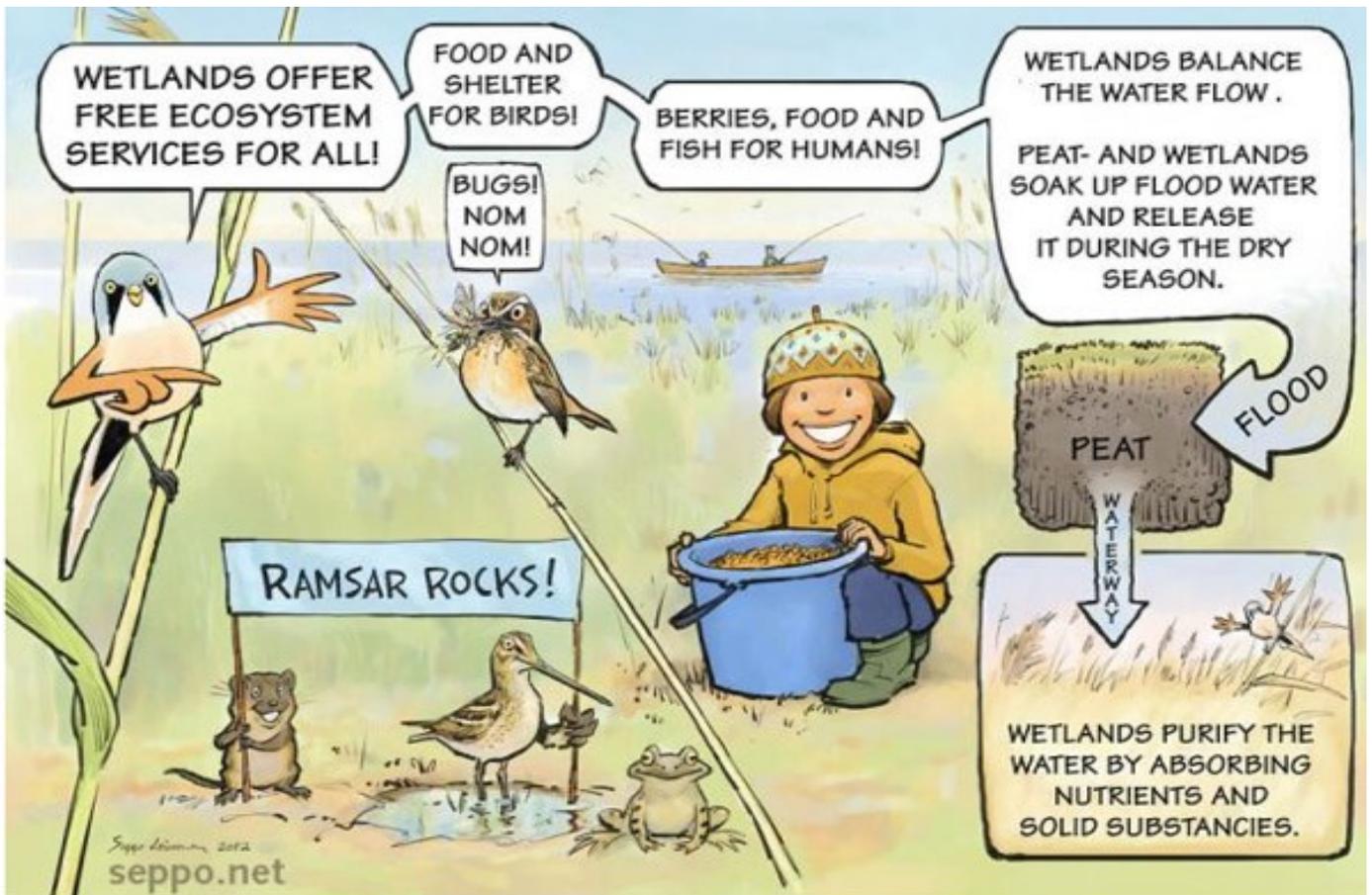
HINDMARSH ISLAND LANDCARE



A highlight of my week was when Hindmarsh Island Landcare popped two photos up on their Facebook Page. The photo above is of it when it was planted, in 2005 and the photo to the left is it now.

A perfect demonstration that worthwhile change takes time.





You can dodge your responsibilities, but you can't dodge the consequences of dodging your responsibilities.

Aboriginal Language Map

The [Aboriginal Language Map](#) attempts to represent all of the language or tribal or nation groups of Indigenous people of Australia. It indicates general locations of larger groupings of people which may include smaller groups such as clans, dialects or individual languages in a group.

David R Horton is the creator of the Indigenous Language Map. This map is based on language data gathered by Aboriginal Studies Press, AIATSIS and Auslig/Sinclair, Knight, Merz, (1996).

For more information about the groups of people in a particular region contact the relevant Land Councils.



ALA Citizen Science Central

(source: [ALA Website](#))

Citizen Science is the systematic collection and analysis of data, determination of technology, testing of natural phenomena, and the dissemination of these activities by researchers on a primarily vocational basis.

In natural sciences, citizen science has and always will have a major role to play in documenting and understanding the world around us. Many major discoveries were made by amateurs.

For Australia's biodiversity, it is the participation of anyone who is not a practising ecologist, taxonomist, or biological scientist, in the collection of biodiversity related data.

Of late, 'citizen'-based contributions are making a strong come-back.

Technology is helping to facilitate this by enabling projects to be more accessible, providing greater effectiveness of communications between scientific practitioners and citizen scientists, providing accessible data collection and useful management tools to improve the flow or quality of data.

For the Atlas of living Australia, data and

insights gained through the efforts of citizen scientists can be as valuable as those obtained by scientists working in academia, natural history collections, government agencies and business.

Harnessing the enthusiasm, interest and efforts of the thousands of people participating in citizen science will continue to enhance the range and depth of data available for analysis and research.

How to get involved...

Sometimes citizen science projects are run as short campaigns, such as bio-blitzes, and sometimes they are ongoing data collection projects.

You can get as involved as much or as little as you like, but in all cases your sightings are valued contributions to the scientific knowledge and the national biodiversity database.

Start recording the organisms in your own area and on your travels, and join thousands of other people in building Australia's biodiversity knowledge.

Get yourself on the ALA Citizen Science Leader Board by recording more different species as you can. Click on the image below for more details.



Discovery Circle's Oaklands Wetlands Bioblitz 2014 (Oaklands, South Australia)



Paiwalla Wetlands

While outside of the CLLMM area, the Paiwalla Wetlands provide an interesting glimpse into another community managed site, upstream of the sites we are locally involved in.

Prior to 1967 the Paiwalla swamp covered an area of 116 hectares and adjoined Sunnyside swamp (34 hectares). Together they formed the largest wetland area, on the river Murray below Mannum.

In 1967, 60 ha were reclaimed for dairy farming and other agriculture purposes. Levee banks and irrigation channels were constructed and fenced paddocks were constructed. With sluice gates and regulators on the river's edge controlling the flow of water in the paddocks.

By 1996, farming on the reclaimed area had ceased. In 1998 the water license had been sold and the Wetlands Habitat Trust was formed to restore the area. After management plans were drawn up, an initial grant was obtained from the Natural Heritage Trust for rehabilitation of the area into wetlands.

Between 1998 & 2002 volunteers removed fencing and the irrigation channels were filled in to create Islands and basins. Exclusion screens were placed over the mouths of the 2 inlet regulators to prevent European carp from entering into the wetlands area from the river.

Permission was granted to inundate the area, with regulator valves opened on the

22nd of September 2003.

Since then the Wetlands Habitat Trust in conjunction with the South Australian Murray- Darling Basin Natural Resource Management Board monitor water quality, ground water, photo points, vegetation, frogs and fish. There is also monitoring of birds, bats and other biota

Good water quality promotes a healthy environment for frogs, turtles, native fish and other invertebrates. A wetting and drying cycle has been established to imitate the river flows as they were prior to building of the barrages and weirs.

With the aid of a local Green Corps team they removed willow trees from the river's edge and continue removing boxthorn as well.

While the work the Wetlands Habitat Trust has undertaken is primarily for the Paiwalla wetlands it will have an ongoing effect on the whole river system and is well worth a visit. For further information or visiting details please click [here](#) or go to

www.paiwalla.org.au



Native Bee Habitat Workshop

Did you know that Bees are probably the most important pollinators of crops and other plants? Worryingly, many bee species are on the decline, largely because of the loss of feeding and nesting habitats. Bee hotels are a great way to boost the population of our local pollinators. There are more than 1500 species of Native solitary Bees who do not live in hives, but nest and lay their young in hollow logs or twigs. They are non aggressive and virtually stingless. Native bees find it difficult to survive in most modern gardens but you can help to repopulate their numbers by building a bee hotel in which they can safely nest and lay their young.

The Lakes Hub in conjunction with the Milang Community gardens invite you to two workshops where we can celebrate spring and our insect friends with Bee hotel making workshops.

Tuesday the 29th September:9am at the Milang Community gardens, Coxe St. Milang, and another at 7pm at The Milang Community Centre, Daranda Tce. Milang.

This is a free event and all ages welcome.

All bookings and enquiries The Lakes Hub 8537 0808



Proposed new legislation: Local Nuisance and Litter Control Bill, 2015

(Source: Gerry Thompson)

The EPA responds to an average of 708 complaints per year from non-licensed premises. Over 65% of these relate to noise.

Nuisance refers to minor complaints that impact primarily on amenity at a local level from such things as dust, noise, smoke and other minor issues.

Many nuisance issues emanate from planning decisions that give no consideration to potential for nuisance once a new dwelling is inhabited.

Up to 72% of surveyed respondents expected that local government should manage these minor types of complaints.

The Bill aims to reduce the prevalence of complaints through a greater understanding of nuisance, better consideration of nuisance by Councils in development assessment and improved methods of resolution.

There would be a standard offence with no requirement to determine the state of mind when committing a nuisance offence. This will allow an expiation fee. Where the offence included an intention or reckless mind, the offence would be "aggravated" and subject to prosecution.

If an activity resulting in local nuisance is performed in, at or from a vehicle, the owner of the vehicle would be taken to have committed the offence.

The Bill will address littering and illegal dumping by introducing tiered offences depending on the type and quantity of litter.

There would be four categories of litter, depending on the absence or presence of hazardous materials such as asbestos, and the quantity of litter.

Except where a Class A hazardous waste has been dumped, the offence may be expiated by payment of a fee of up to \$1000.

Councils will be clearly the primary authority for dealing with local nuisance and littering. However other agencies such as KESAB will be able to undertake compliance activities. This will be subject to a formal agreement with the relevant Council and to conditions that may limit the authority of the agency.

Bodies other than Councils may be declared by regulation to administer all or parts of the Act.

Littering is often associated with vehicle use. Either litter is discarded from a moving or stationary vehicle, or rubbish is illegally dumped from a vehicle. The Bill seeks to place the onus on the owner of the vehicle for an offence committed in association with or from a vehicle. This will allow for the issue of an expiation notice to the owner of a vehicle.

Councils would have the ability to grant exemptions from a nuisance offence upon application to the Council and payment of a fee. Such applications would have to be advertised locally.

The Bill will allow the public reporting of litter by formalising a citizen's notification of littering. Notification by registered citizens would be either via the internet, an "app", or a written declaration. Such reports will constitute evidence of an offence and enable the issue of expiations.

There will be legal tools to ensure that Councils are meeting their responsibilities under this legislation.

The EPA are consulting on this proposal, with more information available via [this website](#).

**Comments are sought until the 31st of August,
2015.**

South Australian Government buys coastal land to protect critically-endangered orange-bellied parrot

Source: [ABC News Article](#)

About 40 hectares of coastal land in South Australia's lower south-east has been bought by the State Government in a bid to protect the habitat of the critically-endangered orange-bellied parrot.

Environment and Conservation Minister Ian



Hunter has announced two properties between Carpenter Rocks and South End have been bought to add to the protection of 50 kilometres of coastal habitat.

Mr Hunter said the land purchases would provide an important corridor of remnant native vegetation which would benefit the parrots, which are known to migrate along the coast.

"Some of them are the thatch and grass sedgeland — it's a wetland community — that's considerably vulnerable due to clearance and drainage, swamp habitats and also the antechinus, the swamp antechinus, the olive whistler bird and of course the very famous orange-bellied

parrot," he said.

"It's been long known to be a vulnerable population and linking up areas of habitat give it the best possibility of maintaining its nesting sites.

"It's very important that we can actually consolidate these areas of protected reserves so we actually increase its range and increase its ability to produce young in the wild."

He said one property — about 30 hectares

adjacent to Carpenter Rocks Conservation Park — held high biodiversity value and would provide protection for the Carpenter Rocks Gum, a species listed as vulnerable in the state.

The second property is about 10 hectares in size and

adjacent to Bucks Lake Game Reserve.

Mr Hunter said conservation and parks organisations assisted in the process with the Foundation for National Parks and Wildlife New South Wales, the Nature Foundation SA and Friends of Naracoorte Caves National Park giving "significant funding assistance" for the land adjacent to Carpenter Rocks Conservation Park.

The Friends of Mount Gambier Area Parks, the Friends of Shorebirds South East, the Friends of Beachport and Canunda Parks, and the Millicent Field Naturalists contributed to buy the property adjacent to Bucks Lake Game Reserve.

Field Day

On-Farm Production of Biochar

Hosted by
Murray Mallee Local Action Planning Association

September 10th 2015, Karoonda South Australia
10:30am - 1:30pm

On-site production of biochar using sustainably grown and harvested Oil Mallee Plantations

SEE mobile pyrolysis machine process timber to produce biochar.

LEARN how to keep carbon on your farm using sustainable mallee plantations.

- Free Sausage Sizzle -



For directions to the site and to register your attendance contact us
Ph; 8531 2066
E; feofficer@internode.on.net
By September 3 2015



Government of South Australia
South Australian Murray-Darling Basin
Natural Resources Management Board

This project is supported by funding from the South Australian Murray Darling Basin Natural Resources Management Board and the Australian Government





Goolwa Beach Car Park & Surrounds Master Plan

Find Out More & Have Your Say

Alexandrina Council is seeking community input to help develop a Master Plan for the Goolwa Beach car park and surrounds. The Master Plan will guide Council's management of the area over the next 20 years.

More information about the project is available at <http://www.alexandrina.sa.gov.au/goolwabeachplan>

Come along and learn more, or give us your comments on the spot. Representatives from Alexandrina Council and Jensen Planning + Design will be on hand to answer questions.

The Goolwa Surf Life Saving Club and Goolwa Coastcare will host a *sausage sizzle*, and Bombora will be open for business as usual.

Drop in to the Goolwa Beach Car Park on Sunday
30th August 2015 between 8am - 12 noon

Tell us about:

- your experience of using Goolwa Beach Car Park?
- what works well now?
- what would you like to see in the future?

...and enjoy the
sausage sizzle!

Other ways to get involved between 30th August and 16th October 2015:

- visit our consultation website 'My Say Alexandrina' at <http://mysay.alexandrina.sa.gov.au>
- email your comments to alex@alexandrina.sa.gov.au
- post your comments to PO Box 21 Goolwa SA 5214



3A Fiebig Road
(PO Box 272)
Meningie, SA 5264

Meningie Cheese Factory Museum seeking donations to buy new land.

Why is it needed?

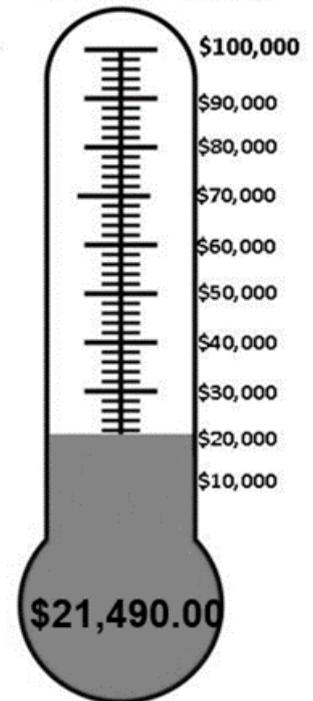
- * The existing sheds are full.
- * We could jam exhibits up more and hang more things from the roof, but that makes the display more 'crowded' or able to be seen properly
- * More room will allow us to place larger articles on the extra land and free up existing space.
- * There is much machinery, vehicles, tractors still on farms etc; that can come into the museum.
- * It is a once only opportunity and the price is fair.
- * The Museum volunteers believe that this purchase will ensure a continuing future for an important community facility.
- * The Museum is a definite tourist drawcard, people are drawn to it from all over Australia.
- * The extra land is not just for tomorrow – but always.
- * It will give future generation the space they will undoubtedly need.

We need all the help we can get, to raise the funds. Please give as you can afford.

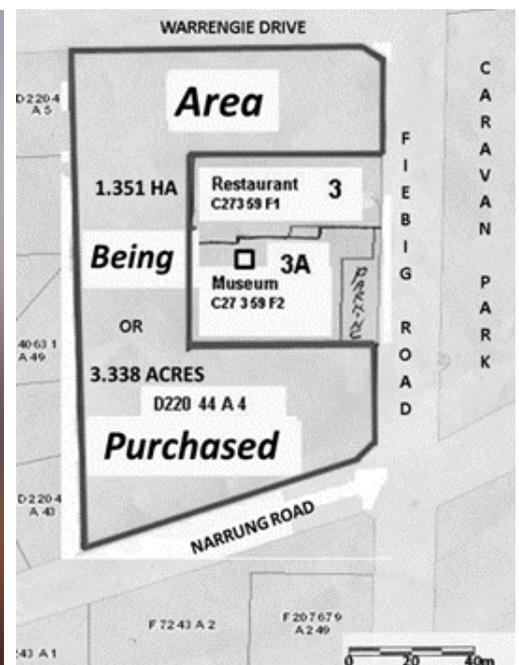
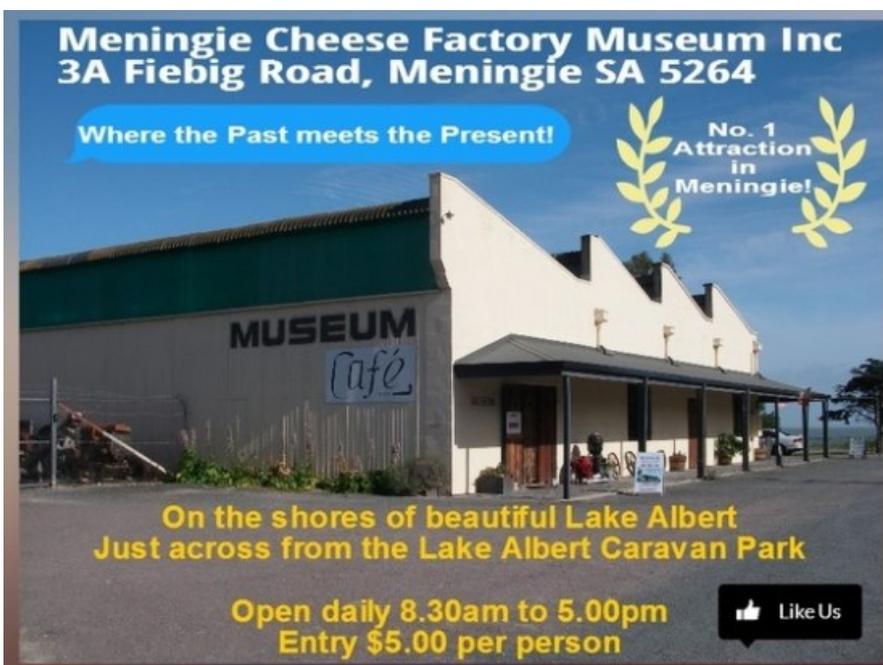
The Museum is registered as a Charity with the Australian Charities and Not-For-Profits Commission (ACNC), and as a Deductible Gift Recipient with the Australian Tax Office. Donations of \$2.00 and above are tax deductible.

Please send cheques to PO Box 272, Meningie SA 5264 or contact a member off [this list](#).

Meningie Cheese Factory Museum Inc
Land Purchase Donations



As at 31 July 2015





**Sat 26 & Sun 27
September 2015
Murray Bridge and
Ferries McDonald
Park**



Malleefowl Monitor Training

Monitoring Malleefowl will not in itself save them, but it is an extremely important tool in understanding how the species is going. If there was a sudden crash in any population, we need to be aware of the situation ASAP. Annual monitoring is also essential if we are to understand long term trends that may vary due to many factors including climate change.

Malleefowl exist right across Australia so we need to ensure everyone is monitoring in the same way. Over many years we have developed a method of monitoring Malleefowl that doesn't upset the birds, doesn't place more demands on the people doing the work than necessary and is scientifically robust.

We have developed a system that uses modern technology and is easy to use. Volunteers are supplied with smartphones with our own monitoring app installed.

At the training we will show you how to use the equipment and on the second day we will visit several mounds and go through the real thing!

Apart from learning how to take part in this important Citizen Science project, you will be mixing with lots of very knowledgeable Malleefowl people.

RSVP & information; Dave Setchell 0428 873090 dhsetchell@gmail.com

**Saturday 26th
1.30pm - 4.00pm**
at the MDB NRM
offices, 670
Mannum Rd,
Murray Bridge

- We will look at the National database and talk about where all the data goes
- everyone gets to play with smartphones and learn how we use them in the field

**Sunday 27th
9.00am - 12.30pm**
at FerriesMcDonald
Park (exact location
given on Sat)

- We will use GPS to navigate to Malleefowl mounds
- At the mound we will practice the best monitoring methods and how to use the smartphones to record data

On Sunday we will be walking through sometimes heavy bush. Ensure that you have good walking shoes and clothing to protect yourself from scratching and sun....sounds fun doesn't it?



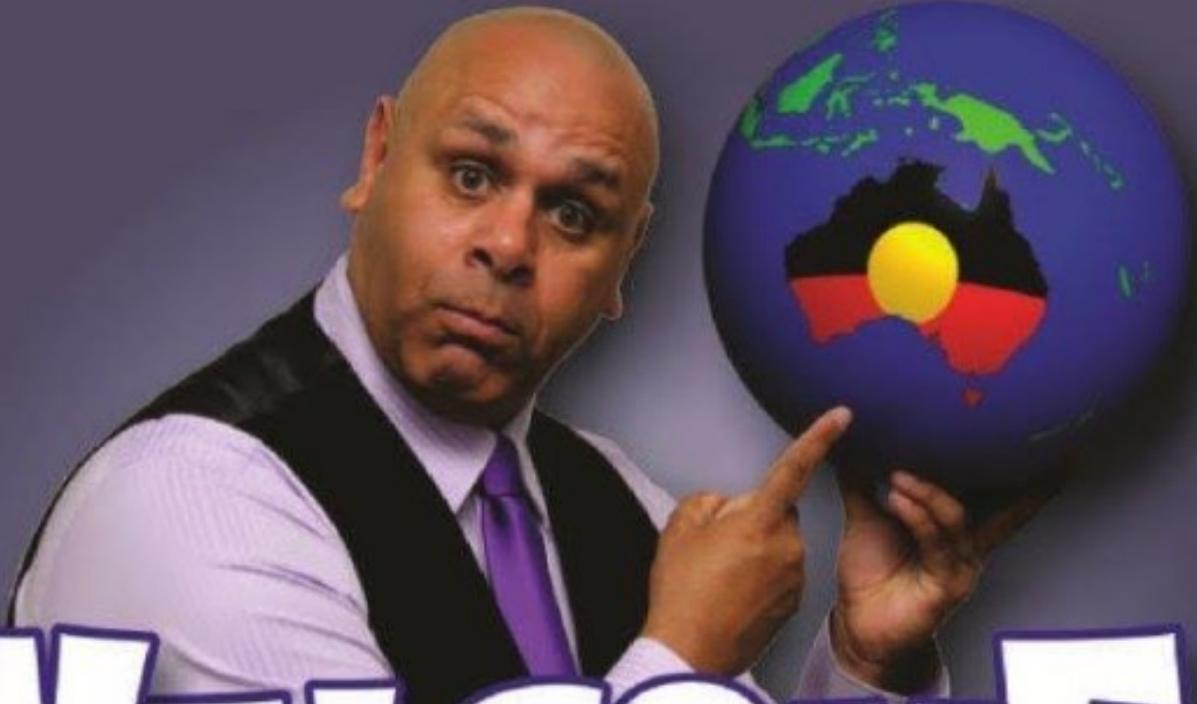
birdlife
AUSTRALIA



Government
of South Australia
South Australian
Murray-Darling Basin
Natural Resources
Management Board



Government
of South Australia
South East
Natural Resources
Management Board



WELCOME to my WORLD

Kevin Kropinyeri

Centenary Hall, Goolwa

Friday 4 September 2015 at 7.30pm

Tickets: \$25

Duration: 75 minutes, no interval

Things to know: Mature audiences 15+

A show not to be missed, Welcome To My World will tickle the funny bone and touch the heartstrings as Kev mixes keen observational stand-up with joyfully ridiculous physical comedy.



Bookings and enquiries:
Goolwa Visitor Information Centre phone 1300 466 592
Transaction fees apply
www.visitalexandrina.com



Milang Community Garden

8.30am-10.30am

Group gardening days 1st & 3rd Tuesday of the month.

Where: Milang Community Garden, cnr Coxe & Rivers St, Milang



Join a small group of keen gardeners who work together in our beautiful community garden. A chance to share skills, learn together and enjoy the garden. Whether you know a little or a lot, we'd love to see you there! If you can't make it to the group gardening days, talk to us at MOSHCC about how you can be involved.

Mannum River Women's Stories Told

(Source: Murray Valley Standard)

The Murray-Darling Basin holds many stories and secrets, and just some of them have been brought to life through the women of the river country exhibition currently on display at the Mannum Dock Museum. Developed by the Museum's staff and volunteers, The Women of the River Country Exhibition highlights the important roles 19 women played in shaping the river country—Murray, Darling & Murrumbidgee rivers pass through.

Women profiled in the exhibition, on display in the museum's Arnold Gallery, include Mary Ann & Elizabeth "Bessie" Randell, Mary Ann Edwards, Ella Chaffey, Ivy Carr, & Ruby Hunter; all ladies with a unique story to tell.

Mannum Dock Museum executive officer, Deb Alexander said those involved with the exhibition had learned some special tales. We have certainly made a personal connection with these women through the many hours of research, talking with family members, contemplation, astonishment as we delved deeper into the intriguing lives of these remarkable women from Goolwa to the Snowy Mountains.

The exhibition also includes the profiles of 11 women who have shaped Mannum.

This includes (among others) Joan Kreiser, Brigitte Schache, Isobelle Campbell and Carol Greening. These women's profiles will be on display until the end of January next year.

Entry to the Arnold Gallery is free. And doors are open Mon—Fri from 9am to 5pm and also Sat—Sun from 10am to 4pm. Entry into the rest of the Museum is:

Family: \$20.00

Adult: \$7.50

Child: \$4.00

Standard concession: \$5.00

For further information click [here](#) or contact Athalie Verrall on 8569 1303 or email at museum@psmarion.com



Vanishing of the Bees—Thursday August 27th. Victa Cinema. 7PM.

Free community screening of the documentary Vanishing of the Bees, followed by a Talk urban Beekeeper Mark Rose on backyard bees.

The film documents the disappearance of honeybees across the planet. The movie examines the potential reasons for this disappearance and the greater meaning it holds about the relationship between humans and earth.

The screening is presented by the South Coast environment Centre and the Normanville Natural Resource Centre.

For more information: 85529423 or
info@sthcoastenvirocentre.org



The scariest part of climate change isn't what we know, but what we don't...

Source: [The Conversation. August 3, 2015](#)

The following is an extract from The Conversation article. Click on the cartoon or source link, to read the full article.

"It's tough to make predictions, especially about the future": so goes a Danish proverb attributed variously to baseball coach Yogi Berra and physicist Niels Bohr. Yet some things are so important — such as projecting the future impacts of climate change on the environment — that we obviously must try.

An Australian study published last week predicts that some rainforest plants could see their ranges reduced 95% by 2080. How can we make sense of that given the plethora of climate predictions?

In a 2002 press briefing, Donald Rumsfeld, President

George W. Bush's Secretary of Defence, distinguished among different kinds of uncertainty: things we know, things we know we don't know, and things we don't know we don't know. Though derided at the time for playing word games, Rumsfeld was actually making a good point: it's vital to be clear about what we're unclear about.

So here's my attempt to summarise what we think we know, don't know, and things that could surprise us about climate change and the environment...





AT THE PARK
SATURDAY THE 3rd OF OCTOBER 2015

10AM TO 4PM

FEATURING FINE WINES, GOURMET DELIGHTS AND MUCH MORE FROM THE MURRAYLANDS REGION & LIVE MUSIC BY GROOVE BROTHERS AND SOUL SISTER PLAYING FROM 11AM - 3PM.

LAKE ALBERT CARAVAN PARK, MENINGIE S.A.

PHONE: 08 85751411

FOR MORE INFORMATION OR TO MAKE A ACCOMMODATION RESERVATION.

www.lakealbertcaravanpark.com.au

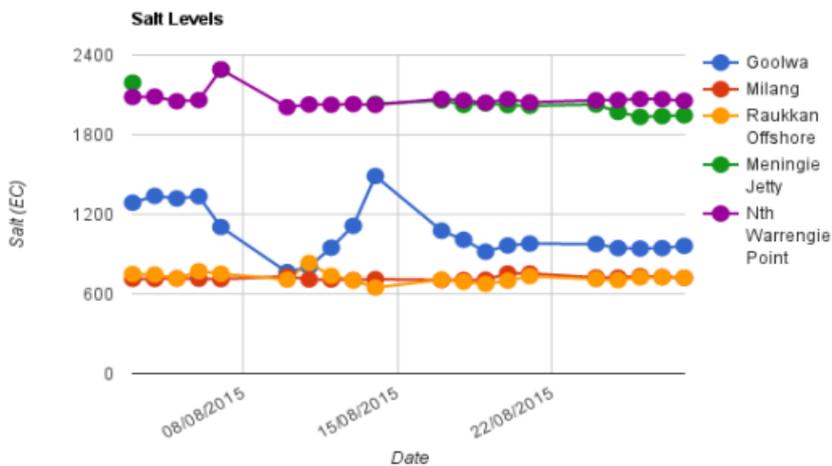
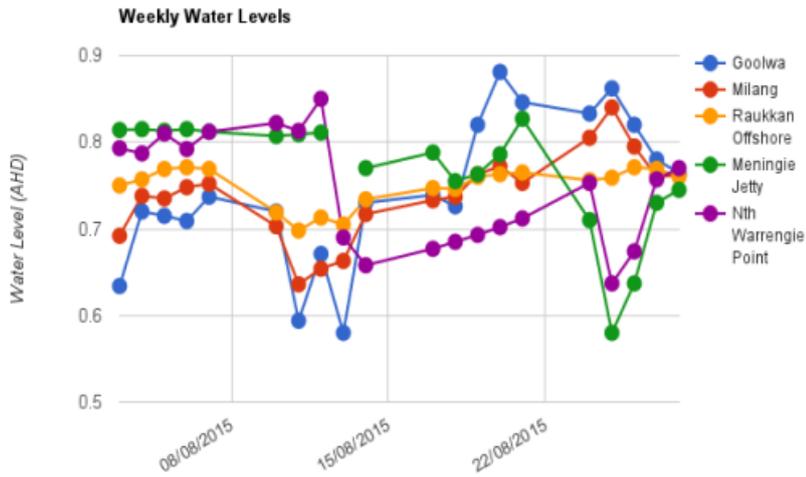
3 night minimum stays apply over long weekends.

Public Welcome during Event. Free of Charge.

Kimbolton
WINES



On the Level



Some electrical conductivity ranges	
Water type	Electrical conductivity ($\mu\text{S}/\text{cm}$)
Deionised water	0.5-3
Pure rainwater	<15
Freshwater rivers	0 - 800
Marginal river water	800 - 1600
Brackish water	1600 - 4800
Saline water	> 4800
Seawater	51 500
Industrial waters	100 - 10000

Source: Suttar S., *Ribbons of Blue Handbook*. Scitech, Victoria, 1990.

Electronic versions of these charts are available from the Lakes Hub [website](#).

A spreadsheet of data is available on request from the Lakes Hub Coordinator.

Data received from [Water Connect](#)

Please note: salinity levels in the Goolwa Channel can be influenced by tidal ingress.

River Murray – Weekly Flow Advice

For weekly flow / level reports on the River Murray and Lakes go to the following website: www.waterforgood.sa.gov.au

Up-to-date River Murray flow and water level information can be accessed at the Department for Water, SA Water and Murray-Darling Basin Authority websites: [Water Connect](#), [Daily Flow Report](#), [River Murray Storage Data](#)

Details of river height and rainfall information in the River Murray within Victoria and New South Wales are available at the Bureau of Meteorology website: <http://www.bom.gov.au/vic/flood>

Information on the discharge of acid drainage water into the Lower River Murray can be accessed online at: www.waterforgood.sa.gov.au

For the latest River Murray Flow Report and Water Resources Update - [Click here](#).

Contributions to the Bulletin

The Bulletin comes out in the last week of each month. We are always looking for Coorong and Lower Lakes events and articles of interest. Contributions must reach the Lakes Hub Coordinator (info@lakeshub.com) by the start of business, the Tuesday prior to release.

Disclaimer

All the links and articles in this Bulletin are provided as a courtesy to recipients. While we try and keep these links and articles as up-to-date as possible, We can't guarantee their accuracy, adequacy, timeliness, or completeness. In addition, the existence of a link to another site or resource does not constitute a recommendation or endorsement of that site or resource. The Lakes Hub does not accept responsibility or liability for any information at any of the sites linked to from this Bulletin.

If you feel a link description, site, piece of advice or anything else mentioned here is inappropriate, do [let us know](#) and we will endeavour to correct it where necessary.

CALENDAR OF EVENTS *for more info contact the Lakes Hub*

If you have any relevant community event or courses that you would like added to the Calendar of Events please contact the Lakes Hub.

	September
1	National Wattle day. Frog Monitoring workshop Milang Institute. Milang Community Garden.
2	Tolderol Open day.
3	Frog monitoring workshop, Meningie. Climate change Strategy Workshop, Adelaide.
4	Kevin Kropinyeri. Goolwa Centenary hall.
5	Frog monitoring workshop, Goolwa.
6	
7	
8	Milang Community Garden open.
9	Frog monitoring workshop, Wellington.
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15	Milang Community Garden.
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22	Native Orchid walk. Milang Community Garden.
23	
24	
25	
26	Malleefowl monitor training, Murray Bridge.
27	Malleefowl monitor training. Ferries McDonald Park.
28	
29	Bee hotel workshop. Morning session at Milang community garden. Evening session at MOSH Garage.
30	