

# Coorong, Lower Lakes and Murray Mouth Recovery

## Community update April 2015

This email newsletter is published by the [Department of Environment, Water and Natural Resources](#) (DEWNR) to update the community about work being done to secure the future of the Coorong, Lower Lakes and Murray Mouth (CLLMM) region as a healthy, productive and resilient wetland of international importance.

The CLLMM Recovery Project is part of the South Australian Government's Murray Futures program, funded by the South Australian and Australian Governments.

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### Community Nurseries Network and Meningie Township Awarded

South Australia's Sustainable Communities (formerly known as Tidy Town) Awards is now in its 36<sup>th</sup> year. In 2014 it remained a focus for hundreds of communities to work together to showcase their town, community and region.

The Awards are now South Australia's longest and largest ongoing community environmental initiative. This year there were over 150 entries from rural communities.

In October 2014, the Community Nurseries Network (CNN) was the proud recipient of the Community Actions and Partnerships Award, with Meningie township winning the Sustainable Communities Awards overall.

"The Community Nurseries Network supports the activities of the Recovery Project's partners, the Goolwa Wellington Local Action Planning group, and plantings under the huge Vegetation Program. The model of the Community Nursery Network brings together regional nurseries to improve collaboration, support and delivery capability."



Meningie's win placed it in the national running for the Keep Australia Beautiful Awards. Coordinated by Andrew Dawes of the Lakes Hub in Meningie, a huge town effort demonstrated the resilience and innovation of the Meningie community since the 2006 - 2010 drought.

As a result of this collaborative effort, Meningie took home the national Community Action Partnerships and Water Conservation awards at the national KAB Awards on 27 February 2015. A contingent of around 10 Meningie locals made the trip to Sheffield in Tasmania to accept the award.



*Image Source: KAB.org*

Coorong, Lower Lakes and Murray Mouth (CLLMM) Recovery Project spokesperson Janice Goodwins explains, "We are proud to support the awards and the Meningie Foreshore Restoration Project which works to restore the habitat along the Lake Albert foreshore, as well as providing a more attractive lakefront area for local residents and visitors to enjoy.

"It's wonderful to showcase the efforts of Meningie in supporting sustainability – particularly since the drought and we are pleased to see the difference that has been made in the local community," Ms Goodwins says.

## Community bird monitoring

Birds are an important indicator of biodiversity health and monitoring them can give good information about the health of native vegetation. In August 2014 a bird monitoring portal attached to the Atlas of Living Australia website was placed on the Natural Resources SA Murray-Darling Basin (SAMDB) website to encourage community members to record bird sightings. Many people like to record the birds they see in their garden or on a walk and all this data is a valuable contribution to the Atlas of living Australia. The Atlas of Living Australia is accessible to anyone and allows data to be viewed and shared readily. To help people brush up on their bird monitoring skills, workshops on bird identification have been conducted with field trips to various habitats. Natural Resources SAMDB provided binoculars,



identification guides and short homework assignments each week to test participants new skills.

Workshop participant Helen Kennedy said the course stirred her senses to learn all she could about our diverse bird life in SA. Another participant, Erika Davey, said the workshops were excellent, informative and fun, and the presenters were expert, highly knowledgeable, friendly and extremely helpful.

The SAMDB Natural Resources Management Board hopes the participants will use their new knowledge and skills to become involved in collecting important data for the community bird-monitoring program they manage. Several of the workshop participants have already contributed to the online data entry system, with one person logging over 800 records and another one recording their sighting of a rare white-bellied sea-eagle.



Based upon the success of previous workshops, further training sessions are being planned. For more information on workshops or the bird monitoring program contact Renata Rix at the Natural Resources office in Mount Barker on phone 8391 7500, or email: [Renata.rix@sa.gov.au](mailto:Renata.rix@sa.gov.au)

Information about the bird monitoring program can also be found on the Natural Resources SAMDB website at: <http://www.naturalresources.sa.gov.au/samurraydarlingbasin/get-involved/community-monitoring/bird-monitoring>

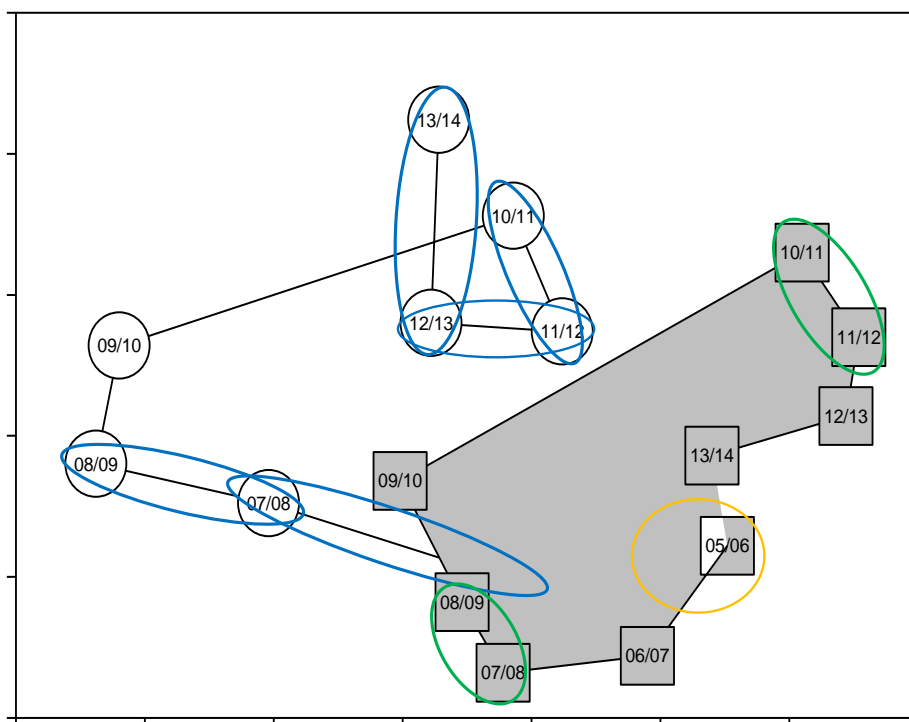
The bird monitoring portal can be found at <http://root.ala.org.au/bdrs-core/mdnrm/home.htm>

## 2013-14 CLLMM Water Quality Monitoring

### Lower Lakes

Monitoring of water quality, microalgae and zooplankton was undertaken by the South Australian Environment Protection Authority (SA EPA) right across the CLLMM region during 2013-14. The data was analysed by CSIRO and findings have indicated that in general, water quality in Lake Alexandrina and the Goolwa Channel has returned to pre-drought levels while water quality in Lake Albert has not.





**A time sequence of changes in water quality in Lake Alexandrina (grey squares) and Lake Albert (circles). Each circle or square represents an entire financial year of water quality data for each site. Circles or squares closer together on the plot indicate conditions which are similar. You can see Lake Alexandrina's water quality in 2013-14 has returned to 2005-06 water quality characteristics (circled by a yellow line), but not for Lake Albert (see blue lines) (Source: CSIRO 2014).**

Average salinity in Lake Alexandrina remained between 400 and 800 electrical conductivity (EC); anything below 1000 EC is the target. Short-term salinity spikes occur occasionally at the barrages due to reverse head events (where marine water infiltrates through the barrages naturally due to tides). Lake Albert salinity continued to improve, with the average salinity of 3000 EC in June 2013 rapidly reducing to 2700 EC in early July 2013; below 1500 EC is the target. From July 2013 to June 2014 salinity remained between 2700 and 2400 EC. This exceeds pre-drought conditions, which typically averaged around 1500 EC.



**A salinity transect, which represents surface water salinity in Lake Albert during June 2014 (Source: EPA 2014). Green indicates fresher water and red represents more saline water. Water quality readings and a GPS location are taken every ten seconds on board a vessel. Freshwater coming from Lake Alexandrina through the Narrung Narrows is visible.**

Alkalinity and acidity remained stable and within Australian & New Zealand Environmental Conservation Council (ANZECC) guidelines across the lakes and tributaries. Four years after the drought ended and significant freshwater returned to the CLLMM region, shallow groundwater below lake margins still shows the presence of acidity and metals (including aluminium, manganese and iron). Although acidity and metals remain above ANZECC guidelines, groundwater is slowly naturally recovering.

### **Coorong**

In the Coorong South Lagoon, salinity ranged from approximately 55 parts per thousand (ppt) in October 2013 to a maximum of 96 ppt in March 2014, remaining below the target 100 ppt threshold for the year\*. Barrage discharge, turbidity and salinity were the main reasons for the differences in lower trophic communities between sites – that is, organisms lower down the food chain.

Monitoring and analyses are continuing in 2014-15 to improve our understanding of water quality variability, as well as the interaction and relationships with lower trophic order organisms such as microalgae and zooplankton.



*EPA undertaking water quality monitoring in the Coorong (EPA).*





This information will be used to update the site's Ecological Character Description since its Ramsar designation in 1985, and to help manage the site into the future.

\*Different measures of salinity are used in different bodies of water in CLLMM because of the strong range in salinities across the site.

For more information and the other types of monitoring occurring in the CLLMM region please visit

<http://www.environment.sa.gov.au/managing-natural-resources/river-murray/river-restoration-and-environmental-water/monitoring-river-health>.



## Restoration of the Pink Lakes, north of Meningie

You may have noticed a sea of white milk cartons adjacent to the Princes Highway north of Meningie around the Pink Lakes. No this is not a memorial to fallen soldiers, but rather the latest plantings under the [Coorong and Lower Lakes Vegetation Program](#).

This site, where 106,000 trees, shrubs, grasses and ground covers have been planted, forms part of a broader program in which more than a million plants have gone into the region last winter.

At the Pink Lakes site 63 indigenous species were planted over an eight week period across a 27 hectare, 2.5 kilometre stretch alongside the Princes Highway.

Department of Environment, Water and Natural Resources Vegetation Program manager Hafiz Stewart said the revegetated Pink Lakes site includes a combination of road reserve, private property and council-maintained Crown land.

"An important part of the project, which aims to restore the ecological diversity of the site, included first controlling and suppressing invasive pyp grass and suckering poplar trees," he said.

"We also needed to be aware of the potential for erosion on the site's sandy rises. To minimise this risk we strip sprayed the weedy grasses and left woody weeds in place to help maintain soil structure.

"The project aims to reinstate a complex, structured, natural habitat and plantings have included coastal white-mallee, drooping sheoak, cypress pine, knobby club rush, coastal daisy-bush and striped hakea.

"A range of tree guards have been used including the biodegradable milk carton type and an open plastic mesh weave guard for the particularly sandy areas, to help reduce wind



disturbance, protect the plants from grazing animals and provide a favourable growing environment.

"The site will initially require intensive maintenance to stop weeds re-emerging, but in the longer term, the dense revegetation will out-perform the weeds.

"Ongoing rabbit control efforts will also be required to reduce grazing pressure on the plants."

The planting has been carried out by a commercial contractor, who employed mainly local people from the South East for the project.

The commercial revegetation program is funded by the Coorong, Lower Lakes and Murray Mouth (CLLMM) Recovery Project, part of the South Australian Government's Murray Futures program which is funded by the Australian Government. As part of the revegetation effort, the Coorong and Tatiara and the Goolwa to Wellington Local Action Planning groups' Community Revegetation Programs have also undertaken plantings around the edges of the Lower Lakes and Coorong this winter.

### **Thank you to Colin Grundy from the CLLMM Recovery Project**

Colin Grundy announced his retirement from the CLLMM Community Advisory Panel in late 2014. Colin's passion for the wise use of the region and devotion to environmental stewardship has made a valuable contribution to the CLLMM Community Advisory Panel and more broadly to DEWNR's implementation of the CLLMM Recovery Project.

His dedication to getting the river, wetlands and Coorong back into a working resilient ecosystem for future generations to enjoy is to be commended and will continue under the CLLMM Recovery Project's restoration activities.



We wish Colin every success for his continuing vital work supporting the community.

*Clem Mason & Colin Grundy at a Community Advisory Panel meeting (DEWNR).*



## Women hold up the sky

The "Women Hold Up Half The Sky Award" acknowledges the outstanding contribution of women in the community.

The award, which recognises an outstanding woman who has made a great contribution to the community, is part of the Australia Day awards and honours and is jointly coordinated by the Office for Women.

Minister for the Status of Women, Gail Gago, says the award is important in ensuring that the valued contribution women make to our community does not go unnoticed.

"The Women Hold Up Half the Sky award recognises a South Australian woman who acts as role model and has inspired us through her accomplishments," the Minister said.

"This award is an excellent opportunity to celebrate these achievements".

Karyn is a fifth generation Milang resident and a relentless advocate for the environment and the local community in and around Milang as well as the wider Coorong and Lower Lakes region. Currently the Executive Officer of the Milang and District Community Association and coordinator of Milang Old School House Community Centre. She has initiated and conducted many highly regarded and award winning initiatives and programs including the Milang Old School House Community Centre which is delivering accredited training programs for local residents in skills such as aged care, community development and conservation.

The CLLMM Recovery Project would like to congratulate Karyn for this recognition and the great contribution of her work to the project.



*Karyn Bradford receives her award from the Gail Gago MLC (source: australiaday.org).*





## Coorong Mullet Program on ABC Landline

Did you see this story on the ABC? The first half of the Landline story deals with current conditions in the Coorong and some good news.



*Glen on his boat fishing for Coorong Mullet.*

Pip Courtney, Presenter: A few years ago, South Australia's Coorong Fishery was on a knife edge, as a decade-long drought took a dramatic toll on the lakes and narrow lagoon at the end of the River Murray. But through it all, one particular species, the yellow-eye mullet, held on. And as the ecosystem bounces back, one couple's faith in the resilient, but often underrated fish is also being rewarded. Kerry Staight, Reporter, interviewed Glen and Tracy Hill, Coorong Wild Seafood, about the drought and the fishable area of the Coorong.

You can view the clip at:

<http://www.abc.net.au/landline/content/2014/s4096017.htm>

## Mo's aren't the only thing we grow!

November was a double opportunity for DEWNR staff to contribute to important issues: men's health as part of Movember, and lakes' health through the Coorong and Lower Lakes Recovery Vegetation Program.

The program's summer sedge planting started in November in a bid to restore native sedge populations on the shore beds of lakes Alexandrina and Albert.

And it was quite a sight. The planting officers also participated in Movember, with the Coorong and Lower Lakes Recovery team collectively raising more than \$4000 for men's health. Things were definitely getting bushier around the Lower Lakes.

The sedge planting program will see more than 30 km of lake beds



*Andrew Rettig, DEWNR Vegetation Program project officer.*



vegetated with sedges over the next two years.

James Thiessen, DEWNR planting coordinator, explains "We begin planting sedges in November each year because they love hot weather.

It's quite a coordinated effort. The sedges are grown by State Flora. When they are ready for planting, there are several steps to take to transport, plant and then, over the long term, monitor them.

"But if done correctly, the new plants will minimise erosion of the lake beds and increase habitat for native fish."

The planting is part of the Coorong and Lower Lakes Recovery's [Vegetation Program](#), which is co-funded by the federal and state governments.

## Coorong and Lakes Environment Forum Wrap-up

**by Karen Lane of Growing Bush**

*Karen Lane of Growing Bush has been kind enough to provide her own insights into the Environment Forum held on 30 January 2015 at the Alexandrina Council Chambers to celebrate World Wetlands Day. The event theme was 'Wetlands for our Future' and was well attended by a good cross-section of community, science, non-government and government.*

I would like to thank the Lakes Hub for organising yet another informative and inspirational forum giving us all a snapshot of 'the big picture' and scientific monitoring programmes in the Coorong, Lower Lakes and Murray Mouth area.

I also attended the previous forum which was held at Signal Point in 2013 and was quite interested to learn that many monitoring programmes in the local area have been established only in the last few years mostly as a result to a crisis situation (due to the extraction of too much water in the top of the Murray Darling Catchment Basin) to identify impacts such as the loss of fish species, acid sulphate soils, salinity levels and the list goes on.

Many monitoring programmes have gaps in them due to funding availability. As a consequence, policy decisions are often based on the results of short term monitoring programmes from an environment in severe decline. How do you then, if it is actually possible, return the environment to some sort of semblance of its original state?

The other thing I got strongly from both forums is how dynamic the Coorong, River and Lower Lakes system really is. Opinions between scientists vary considerably, as do opinions between concerned local residents, land carers and scientists, so it was good to see some strong debate on what and how the River environment and Coorong should be returned to.

The importance of citizen science was mentioned often. If you are involved in any type of land management in this area you can have a really important role to play and the message I got from both forums and other workshops I have attended was the more monitoring and



collation of data you can do the more informed and effective management decisions can be made, at all levels from Government policy makers to on-ground land carers.

I attended a workshop on Samphire Wetlands run by Faith Coleman on Hindmarsh Island in 2011, also organised by the Lakes Hub.

As a result of that connection, Faith was able to help me identify the type of wetland on our property on Hindmarsh Island and I was then able to successfully apply for a six year Federal biodiversity grant to support my revegetation efforts.

Since 2011, I have established fixed point photo monitoring, bird monitoring, frog monitoring and ecological site monitoring on all my revegetation sites on our property. All this information is being recorded online with the new federal MERIT (monitoring, evaluation, reporting and improvement tool) program and is linked into Atlas of Australia. I write a report every six months and this is providing a valuable record which helps me make better decisions to keep improving my own revegetation efforts, whilst also measuring success and outputs of the work I do.

Through these types of workshops and forums and getting involved with monitoring programmes I have established some valuable local networks and greatly increased my knowledge of the local area. I strongly recommend attending these types of forums and workshops and congratulate the Lakes Hub, Alexandrina Council, Goolwa to Wellington LAP and others for running these programmes locally.

It would be great to see more local people - especially Land carers - at the next World Wetland Forum and that the scientific information is delivered in a more 'digestible' and perhaps more relevant way, it was a bit hard going at times.

I would also really like to hear some local stories from land carers in this area - maybe some of the citizen science stories. The forum was also very much focused on water but terrestrial areas have a very important role in this system as well and it only briefly made mention of this with a short presentation on local planting programmes.

However it was an excellent day and the lunch as usual was very good.

- Karen Lane

## **Want to get involved in activities in the Lakes and Coorong? Have any questions?**

We always welcome your input! Get in touch with us at [DEWNRCLMM@sa.gov.au](mailto:DEWNRCLMM@sa.gov.au) or [info@lakeshub.com](mailto:info@lakeshub.com).

