

Community update

February 2013

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.

Highlights

- World Wetlands Day 2013
- Acid Sulfate Soils Research Project
- New CLLMM Team Members
- Water Quality Monitoring
- Next phase of the Meningie lakefront project
- Hooded Plover & Wetland Birds Workshop

World Wetlands Day 2013

Around 100 people from the local community joined research scientists, Ngarrindjeri representatives, and government agency staff at a World Wetlands Day community science forum at Goolwa on Friday 1 February.

The 'Sharing Science, Monitoring and Discovery from the Lakes and Coorong' forum provided a great opportunity for the community to learn from and talk with the researchers about aquatic, ecological, and abiotic (water quality and soil) monitoring and research, and how it's used to manage the Lower Lakes and Coorong region.



Community members were also able to share their knowledge and observations with the scientists.

Senior Ngarrindjeri Elder Uncle Tom Trevorrow opened the forum with a *Welcome to Country*, and our new Minister, the Hon Ian Hunter welcomed everyone and spoke about the State Government's on-going commitment to building resilience in the CLLMM region.

The science showcase involved a series of presentations by speakers from The University of Adelaide, Flinders University, Ngarrindjeri Regional Authority, Environment Protection Authority, DEWNR, SARDI Aquatic Sciences, Goolwa to Wellington Local Action Planning Association, and the CSIRO.

There were interactive panel sessions throughout the day which provided the opportunity to build community knowledge and capacity, and to discuss the monitoring work occurring in the region.

The forum also provided an important networking opportunity for locals, government agency staff, and scientists, with many expressing the view that such forums are valuable and should be held more often.

Acid Sulfate Soils Research Project

Acid Sulfate Soil (ASS) research projects are being undertaken this year to continue filling critical knowledge gaps relating to ASS issues and their ecological impacts.

The research provides a foundation for decision making because it improves our understanding of the site's ecological character. It will also be used to better inform the proactive management of variable lake levels, and protection from ASS impacts if low inflows return.

This will enable continued improvement of the site's ecosystem, and help to deliver a healthy Coorong, Lower Lakes and Murray Mouth Site.

The following projects are being undertaken to fill the critical knowledge gaps relating to acid sulfate soils:

- *The Research of Ecotoxicological Effects of Acidification on Key Aquatic Organisms in the Lower Lakes and Macroinvertebrate Community Composition and Chironomid Deformities* projects to understand the toxicological and synergistic effects of acidification on key aquatic organisms.
- *The Measurement of Sediment Acid Fluxes to Boggy and Hunter's Creek* project to determine the significance of surface and groundwater interactions in reducing *or increasing the risk of acidification*.
- *The Lower Lakes Acid Sulfate Soils Detailed Conceptual Model* project to develop an acid sulfate soils conceptual model for the Lower Lakes system.
- *The Recovery of Acid Sulfate Sediments in the Lower Lakes* project to determine the rates of recovery of acidic sediments and what is driving recovery in different sediment types and locations.



Benthic Chambers (EPA 2013)

New CLLMM Team Members

Ben Shepherd and **Dr Sacha Jellinek** have recently joined the CLLMM Program, and will be working closely with the community on vegetation and pest & weed control projects.

Ben is the team's new Pest Animal and Weed Management Project Officer, and brings a wealth of knowledge and experience to the CLLMM Program's pest and weed activities.

He previously worked for Rural Solutions SA and Greening Australia, and has lectured in conservation and land management.

Ben's major focus will be to implement the CLLMM Program's priority pest and weed control projects, which support the revegetation effort across the region, and help to protect the region's remaining natural scrub.



Sacha has joined the team as a Project Officer responsible for planning, research, and monitoring.



Sacha has a good understanding of the relationship between agriculture and the natural landscape, as he grew up on a cattle farm in Victoria.

He originally studied marine biology in Queensland and then moved to Tasmania to study the effects of habitat loss. Sacha then headed to Melbourne where he completed a PhD in effective habitat restoration for plants and animals, and the attitude of local landholders to revegetation activities.

Sacha has worked with other researchers to develop methods that help landholders and natural resource managers to make strategic and cost-effective conservation decisions in the face of uncertainty.

He brings that knowledge and skill to the CLLMM Program, where he's developing a database that will inform planting decisions and help the team better understand how planted areas can transition from one form of habitat to another over time.

Ben and Sacha are very welcome additions to the CLLMM Program team.

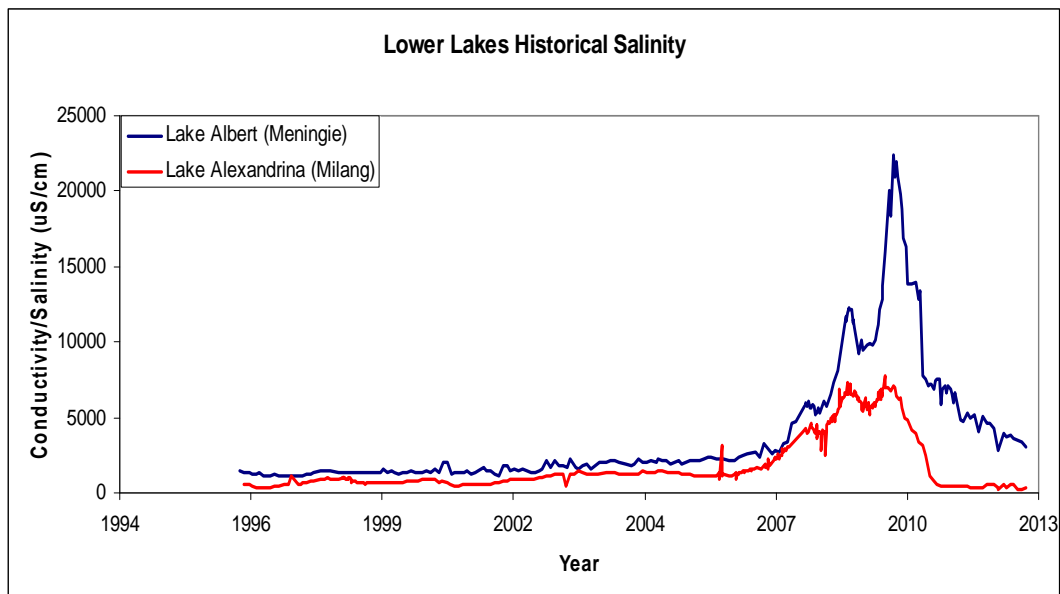
Water Quality Monitoring

Lake wide

Lake wide water quality monitoring undertaken by the Environment Protection Authority (EPA) has indicated the overall water quality in Lake Alexandrina remains stable with the pH and alkalinity levels continuing to be within ANZECC guidelines in both Lakes Alexandrina and Albert. Salinity in Lake Albert is approximately 3,500 to 3,700 EC, still higher than average pre-drought levels of less than 1,600 EC, although slowly improving.



Salinity transect showing the less saline water from Lake Alexandrina flowing into Lake Albert on 14 February 2013 (EPA 2013).



Lakes Albert and Alexandrina salinity levels from 1996 to 2013 (EPA 2013).

Acid Sulfate Soils Hotspots

Event-based monitoring in Lower Lakes has indicated pH and alkalinity levels continue to be above trigger levels. However, continued monitoring of localised ASS hotspots at Boggy and Hunters Creeks, on Hindmarsh Island, shows low levels of persistent acidity despite the presence of neutral pH and alkalinity. Monitoring is continuing to inform management decisions should the need arise.

Groundwater

Regional groundwater monitoring results indicate that the site is continuing to recover from drought, although acidity remains in groundwater monitoring sites at Point Sturt and Currency Creek (Lake Alexandrina) and Campbell Park (Lake Albert). Groundwater acidity and salinity have slightly increased at two of the Point Sturt monitoring sites, and three at Campbell Park, compared to sampling results in May 2012. However overall it has decreased since the return of high water levels in the lakes.



Next phase of Meningie lakefront project

Site preparation will begin soon for the next round of planting under the Meningie Lakefront Habitat Restoration Project.

Up to 10,000 local native species will be planted during autumn in the caravan park and around the naturalised culvert, adding to the thousands of natives already planted along the Meningie foreshore.

The plants along the length of the foreshore are being maintained – including watering and weeding work – by staff from the Orana Melaleuca nursery.

Work to rebuild the bank along the lakefront in the Meningie Caravan Park using “Elcorock” was completed before Christmas.

The sand bag-like product will help to make the area safer for the public, and will help to mitigate against further erosion along the foreshore.

Troy Synnaart and Jacqui Grant from the Caravan Park said they were “over the moon” with the results of the work, and thanked the Council, the Department of Environment, Water and Natural Resources’ CLLMM Program, and the Friends of Meningie group for their continuing efforts to restore and protect the town’s foreshore.

The Meningie Lakefront Habitat Restoration Project is part of the South Australian Government’s *Murray Futures* program, which is funded through the Australian Government’s *Water for the Future* initiative.

Upcoming Hooded Plover & Wetland Birds Workshop

You are invited to come along to the Hooded Plover and Wetland Birds Workshop to learn about the Hooded Plover, a local threatened wetland bird.

When: Saturday 23rd and Sunday 24th of March 2013

Where: Coorong Wilderness Lodge or Camp Coorong (south of Meningie)

Numbers are limited so please RSVP by **15 March** to tanya.pyk@birdlife.org.au

Hooded Plover & Wetland Birds Workshop Saturday 23rd– Sunday 24th March 2013



Come along and learn about a local threatened shorebird, the Hooded Plover and local threatened Wetland birds. This workshop includes information sessions on Saturday with Morning tea, Lunch and Afternoon tea provided, and a field trip on Sunday to local beaches and wetlands (lunch and snacks provided).

When: Saturday 23rd – Sunday 24th March

Where: **Coorong Wilderness Lodge** (25km south of Meningie) **OR** **Camp Coorong** (10km south of Meningie). The location depends on number of attendees. An email will be sent to confirm the venue the week leading up to the workshop.

Program: Saturday: Arrive at 9:30am for 10:00am start. The details of the Sunday field trip will be finalised at the workshop on Saturday.

Accommodation: If you need accommodation a list of options can be found here:
<http://www.meningie.com.au/pages/accommodation.php>



Bring your binoculars and weather appropriate clothing for the field trip. Please advise of any dietary requirements in RSVP).

Numbers are limited so please RSVP by **15th March**: tanya.pyk@birdlife.org.au

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More information

Funding

Implementation of the Long-Term Plan is part of the South Australian Government's *Murray Futures* program, which is funded by the Australian Government's *Water for the Future* initiative.

The Lakes Hubs have been funded through a grant made to the Milang and Districts Community Association as part of the CLLMM Program.

Find out more

To find out about the Department of Environment, Water and Natural Resources' work in the Coorong and Lower Lakes region, visit www.environment.sa.gov.au/cllmm or contact us at:

Coorong, Lower Lakes and Murray Mouth Program

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