

## Community update – Spring Edition October 2013

This email newsletter is published by the <u>Department of Environment</u>, <u>Water and Natural Resources</u> (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.

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### Minister visits the Coorong

Sustainability, Environment and Conservation Minister Ian Hunter visited the Coorong recently to see first-hand the early results of the Ruppia Translocation Project.

The translocation project involves restoring the seagrass, Ruppia tuberosa.

Aquatic seeds transplanted earlier this year as part of a project funded by the Australian and South Australian Governments have now germinated, producing an estimated 12 million shoots.

A copy of the media release and more information is available here:

http://www.environment.sa.gov.au/Home/Full newsevents listing/News Events Listing/131008-ruppia-success



Minister Ian Hunter, A/Professor David Paton and CLLMM Project Officer Kat Ryan at Policeman's Point in the Coorong South Lagoon, October 2013.



### A CLLMM Stalwart moves on

Gemma Cunningham has been involved in Community Engagement with the CLLMM Recovery Project since late 2008, and is well known across the community.

Gemma has played a pivotal role in helping to shape the program over the past five years. She witnessed first-hand the significant impact caused by low flows to the Lower Lakes and the effect it had on the community.

Gemma was a key member of the team working on the development of the Long Term Plan and was actively involved in the setting up of the Lakes Hubs at Milang and Meningie. Gemma was a driver in the creation of the Community Advisory Panel (CAP) for which she was the Executive Officer.

This group of key community representatives plays an important role as the CLLMM Recovery Project continues to evolve.

Gemma has recently accepted a job as the Senior Engagement Planning Advisor for DEWNR which means she will broaden her horizon across the agency.

Gemma will be missed by her work colleagues and across the CLLMM community. We wish Gemma well in her new role. The CAP members gave her a special send-off at their October meeting at Langhorne Creek.

Enquiries about the CLLMM Recovery Project can be made to Nerida Buckley on (08) 8204 9453 or at DEWNRCLLMM@sa.gov.au. Nerida has worked with the CLLMM Recovery Project since 2009 and has broad knowledge across the program.



CAP members at the October meeting farewelling Gemma

(L-R): Clyde Rigney; Neil Shillabeer; Gemma Cunningham; Paul Harvey; Karyn Bradford; Chris Bagley; Bill Patterson; Emily Jenke; Colin Grundy; and Anne Hartnett.





### Creative lake design wins landscape architect awards

An inventive effort involving governments, local community and traditional owners to beautify an iconic lakefront has been applauded in a state-wide landscape architect award ceremony.

The work on the Lake Albert foreshore, Meningie, was part of the Meningie Lakefront Habitat Restoration Project, in response to the devastating recent drought.

The Project involves restoring habitat along the foreshore, as well as providing a more attractive lakefront area for local residents and visitors.

Project Manager Theresa Myburgh has paid tribute to design company ASPECT Studios which helped turn a community vision for its foreshore into an award-winning, environmentally-sensitive infrastructure reality.

Ms Myburgh says the great result also reflects the solid working partnership between all parties involved.

"The design phase of this project has been celebrated for its approach to the award-winning works which incorporate viewing platforms, a bird-viewing platform, and innovative bank stabilization seating," she said.

"The site's qualities were considered in the project's design phase including incorporating the water's edge, meandering walks and marginal habitat.

"The quality design has been recognised as one 'rarely found beyond urban centres'. This is something everyone involved can be extremely proud of."

Ms Myburgh says the community has proudly taken ownership of the project.

"The local community, council, schools and traditional owners, the Ngarrindjeri, have been closely involved in the project, and continue to play an important role in restoring and maintaining the lakefront habitat," she said.

"The wider project has included the planting of about 40,000 native plants, the creation of an interpretative trail and culvert naturalisation work."

Ms Myburgh said while the project was driven by practical outcomes, it also served to lift community spirit during a challenging time.

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



Locals utilising the Pelican Path at Meningie





### Sedging our bets! Sedge Restoration in the Lower Lakes

The River Club Rush (*Schoenoplectus validus*) is a native aquatic species of sedge that occurs naturally around the Lower Lakes, along the River Murray and the various tributaries that feed into the Lakes system. Community feedback is currently being sought to guide planned restoration of this sedge species in the region.

In the past the River Club Rush was common in the region. As a result of water level regulation, recent drought, and inappropriate livestock grazing, this species has diminished, and more invasive species such as such as the Common reed (*Phragmites australis*) have become more widespread. The Common reed is a flat-leafed reed that can dominate an area and prevent the establishment of native aquatic species.

River Club Rush provides multiple benefits – it acts as a natural buffer against lakeshore erosion, reduces risks associated with acid sulfate soils by contributing carbon to soil, and provides habitat for a large proportion of local flora and fauna.

To combat the loss of River Club Rush in the region, the Vegetation Program under the Coorong, Lower Lakes and Murray Mouth Recovery Project will be aiming to replant the species at sites that are susceptible to erosion around the Lower Lakes. The planned planting will build upon sedge replanting that has occurred around the Lower Lakes for at least 15 years, largely undertaken by the community and individual landowners.

Ken Strother, along with other community members, has been instrumental in developing successful methods to propagate and plant River Club Rush. The propagation procedure includes collecting existing rootstock of the species, growing the rootstock out in tanks and then dividing them into small (6 - 8 stems) clumps contained by a hessian 'pot'. Once these 'pots' are old enough they can be planted around the lakes (see below right).

This method was utilised during a small trial of River Club Rush planting along Lake Albert Road earlier this year. Due to the success of this trial, further plantings are being planned for this summer at the site.

The Vegetation Program has identified some sites that would benefit from planting of River Club Rush, however we would like to find out where you would like the River Club Rush planted to reduce bank erosion and increase habitat for native plants and animals to plan for the next two years of the Program.

The Program is also interested to know of sites that may not be appropriate for planting such as sensitive areas, swimming areas, pumping sites and boat launches.

Feedback can be provided at the Meningie and Milang Lakes Hubs, where maps have been provided of potential planting sites for marking and comments. These maps will be in the Lakes Hubs until the end of November. For further information please contact Sacha Jellinek (08 8204 9468) or Emma Eichler (08 8463 3919).

The CLLMM Recovery Project is part of the South Australian Government's *Murray Futures* program, funded by the Australian Government's *Water for the Future* initiative.



**Sedge Propagation** 

**River Club Rush planting at Meningie** 



### 2012-13 Key ecological and acid sulfate soil monitoring findings

The CLLMM Recovery Project commissioned comprehensive monitoring throughout 2012-2013 to continue to see how the CLLMM region is responding to flow conditions and recovering from the impacts of the recent drought (2006 -2010).

The results of the monitoring found that there has been ecological recovery since the return of flows in 2010 including:

- Coorong fish assemblages and macroinvertebrate communities continuing to expand their distribution and recruitment
- The CLLMM site is supporting a number of important cryptic bird species
- Colonial-nesting waterbirds are responding to hydrological conditions and their breeding activity can be used as a key indicator of wetland status
- Waterbird species numbers are continuing to increase or stabilise since the return of the flows.

Although significant recovery has been observed, the abundance and diversity of some species is still below pre-drought levels and some species have not yet been rediscovered.



SARDI scientists undertaking fish monitoring in the Coorong (Source DEWNR).

Acid sulfate soil-related water quality monitoring showed that water quality in Lake Alexandrina remains stable within ANZECC guidelines (>pH 6.5) and above limestone dosing triggers. Even so, there continues to be low levels of persistent acidity in the surface water at Boggy and Hunters Creeks on Hindmarsh Island despite the presence of neutral pH and alkalinity.

While water quality indicated it is now similar to pre-drought conditions, microalgae are still similar to drought conditions in the lakes and immediate post-drought conditions in the Coorong. This likely infers that water quality recovery is first required to support the recovery of microalgae communities.

The Lower Lakes groundwater has been slowly recovering although acidity remains in the groundwater monitoring sites at Point Sturt and Currency Creek, Lake Alexandrina and Campbell Park, Lake Albert.







EPA scientist conducts groundwater sampling (Source EPA).

Monitoring of acid sulfate soils found soil material at many of the study sites continues to pose a high acidification hazard on drying and is therefore likely to further acidify or rapidly re-acidify if low water levels return.

Overall, the findings indicate:

- The CLLMM site is continuing to improve, however the legacy of the 2006-2010 drought still remains.
- Appropriate water delivery regimes and continued environmental flows to the lakes and Coorong are key to ensure life cycles of flora and fauna can be completed.
- Water quality is kept within acceptable ANZECC guideline levels, and that acid sulfate soil management trigger levels are not exceeded.
- To facilitate the recovery of higher trophic order species, the recovery of water quality parameters and lower trophic order species is required.

Ecological and acid sulfate soil monitoring will continue in 2013-14 to assess ongoing recovery of the CLLMM site.

For further information go to http://www.environment.sa.gov.au/managing-natural-resources/river-murray/river-restoration-and-environmental-water/Coorong\_Lower\_Lakes\_Murray\_Mouth/The\_environment/monitoring





# National Parks office targeted by Vegetation Team

Stage 1 of an exciting plan to restore native vegetation in the surrounds of the Coorong National Park Office has been completed.

The aim is to restore the surrounds, which have become dominated by woody weeds, back into an area of local native plants that reflect the cultural and environmental values of the Coorong.

As well as being the public front to park visitors, the site is also significant to the Ngarrindjeri and the plantings are being conducted in partnership with the Ngarrindjeri and DEWNR regional staff.

Weeds that were planted several decades ago, when awareness about the value of local native plants was low, are being removed. Victorian coastal tea tree (*Leptospermum laevigatum*) and swamp oak (*Casuarina glauca*) are plants native to other parts of Australia but are weeds in the Coorong.

The species being removed are known to invade and compete with the local native vegetation.

To complement the removal of weeds, native plants are being planted to help stabilise erosion areas. So far, 2219 local native plants have been planted. Over the next few years these restoration works will continue.

The CLLMM Recovery Project is part of the South Australian Government's *Murray Futures* program, funded by the Australian Government's *Water for the Future* initiative.





Laying the jute netting after the clearance work at Noonameena and the planting commenced





The Hill being planted to stabilise with native plants and the planting completed on the section of woody weeds removed

#### **Financial report**

As outlined in Schedule 4 – Financial Statements





### Celebrating our winter planting program

The final plantings planned as part of CLLMM Vegetation Team's winter planting program are likely to go into the ground late this week.

This includes Stage 1 plantings of about 5000 plants in areas where Aleppo Pines were removed at

Meningie and Narrung in 2012. Following this, 13,000 plants will be planted at Waltowa in low-lying areas which have now dried out enough to access.

In other news, those of you familiar with the CLLMM region might remember the large stand of poplars suckering on sand hills adjacent to the Pink Lake near Waltowa, covering about 4 hectares.

These have now been mulched by Kym Denver, of Clear Path Vegetation Management, in preparation for Stage 1 revegetation in 2014. The area to be targeted is directly opposite a recently revegetated area along the highway this year.





It is part of a plan to revegetate from the corner of Lake Albert Road for approximately 2km along the highway. This year's revegetation effort will be extended on the eastern side, to the Pink Lake.

These activities are in a very prominent location and will be a reminder of the achievements of the Vegetation Program into the future.

These works create a highly visible change to the landscape, covering both private and public land and reflecting a collaborative effort between DEWNR, the Department of Planning, Transport and Infrastructure (DPTI), local government and traditional owners, the Ngarrindjeri.

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Credit goes to Scott Butler for having a camera handy.







# Help define the community value of the Coorong, Lake Alexandrina and Albert Ramsar wetland

The *Ecosystem Benefits and Community Values Survey* has been put together by the CSIRO on behalf of the DEWNR and will remain open until Wednesday 30 October.

The survey aims to capture the community's perspective on the ecological character of the Coorong, Lake Alexandrina and Albert Ramsar wetland, to contribute to an update of the site's ecological character description in accordance with national guidelines.

To comply with international obligations, under the Ramsar Convention on wetlands, the site must be managed to maintain this ecological character. The survey, therefore, is fundamental in setting future management directions.

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### Coorong waterbirds part of nationwide air count

A long-running aerial survey to monitor changes in the abundance and distribution of waterbird species in eastern Australia will focus on the Coorong region this month. It is one of the nation's largest wildlife surveys, covering up to 2000 wetlands, and will be held for the 31st time this year.

Changes in the distribution and abundance of 50 waterbird species, including threatened species, and the health of rivers and wetlands are monitored in the federally-funded surveys.

Restoring the iconic Coorong, Lower Lakes and Murray Mouth (CLLMM) region has been a focus of state and federal governments since the devastating Millennium drought. The importance of the survey work, conducted by the University of New South Wales, is acknowledged by the Department of Environment, Water and Natural Resources (DEWNR). DEWNR facilitates the CLLMM Recovery Project, aimed at boosting resilience and health across the Coorong region.

CLLMM Manager Janice Goodwins says the aerial surveys provide an important snapshot, complementing the work done by DEWNR, "The information provided on waterbirds, wetlands and rivers is invaluable to agencies and programs such as ours," she said.

"Changes in waterbird numbers provide a tangible way of indicating and measuring changes in the ecological health of river and wetland systems.

"Importantly, the long-term data provides essential baseline information to help us assess changes and impacts on the environment, particularly our wetlands and rivers."

The surveys, in which waterbirds are counted across eastern Australia, are conducted from a low-flying plane each October.

"The survey can be a little noisy with the plane flying about 40m above the ground, however it occurs quickly and shouldn't cause anyone any major inconvenience," Ms Goodwins said.

The University of New South Wales plans to survey the Coorong on the afternoon of Tuesday 29, all day Wednesday 30 and during the morning on Thursday 31. A national wetland assessment published in 2012 ranked the Coorong and Lower Lakes wetland complex as in the top five wetlands in Australia, in terms of waterbird abundance.

"The ongoing and up-to-date information provided as a result of the surveys has been vital in identifying inland wetlands of national importance, protecting waterways and driving major changes or contributions to water management policies, such as the Menindee Lakes," Ms Goodwins said.







### Finding out more

To learn more about the Department of Environment, Water and Natural Resources' work in the Coorong and Lower Lakes region, visit <u>www.environment.sa.gov.au/cllmm</u> or contact us at: Coorong, Lower Lakes and Murray Mouth Program Department of Environment, Water and Natural Resources Email: <u>dewnrcllmm@sa.gov.au</u> Phone: (08) 8204 1910 Post: Reply Paid 1047 ADELAIDE SA 5001

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