



Government
of South Australia



Australian Government

MURRAY FUTURE

Lower Lakes & Coorong Recovery

Community update

March 2011

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

Highlights

- EC assistance continued for River Murray and Lower Lakes Corridor region
- Closure extended for cockle fishing
- Success for fish refuge programs
- Spotlight on 'black water'
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Passing of Mr George Trevorrow

We are saddened by the loss of Mr George Trevorrow who passed away on 26 February 2011 after a battle with illness. Mr Trevorrow has been an inspirational leader and advocate for Aboriginal people, in particular the Ngarrindjeri community.

Mr Trevorrow was the *Rupelli* (leader) of the Ngarrindjeri *Tendi* (governing body of the Ngarrindjeri community). Throughout much of his life he advocated for the recognition of Ngarrindjeri people's rights and interests in their *ruwe* (Country). He worked closely with other Ngarrindjeri leaders and elders to progress those rights.

His leadership as the Chairperson of the Ngarrindjeri Regional Authority (NRA) has been integral in developing new relationships with the State Government, especially in relation to the conservation of the Coorong, Lower Lakes and Murray Mouth region.

We extend our sincere condolences to Mr Trevorrow's family, the Ngarrindjeri community, and the Aboriginal people of South Australia.

Keeping people and wildlife safe

EC assistance continued for River Murray and Lower Lakes Corridor region

The Federal Government has extended Exceptional Circumstances assistance for the River Murray and Lower Lakes Corridor area of South Australia until 31 March 2012.

Federal Agriculture, Fisheries and Forestry Minister, Senator Joe Ludwig, has announced the end of Exceptional Circumstances assistance in several parts of New South Wales, Victoria and South Australia due to improved seasonal conditions.

The Australian Government has accepted the independent advice of the National Rural Advisory Council on 21 Exceptional Circumstances declarations that are scheduled to expire on 31 March 2011. However, the Government has accepted the Council's advice to extend assistance for the River Murray and Lower Lakes Corridor area in South Australia.

Closure extended for cockle fishing

The temporary closure for recreational Pipi (Goolwa cockle) fishing on Goolwa Beach has been extended due to ongoing concerns over high E. coli levels in the waters and local Pipi stocks. The closure has also been extended to include the entire Goolwa Beach from the Murray Mouth to Middleton Point at Middleton.

The closure will be in place until 4 April 2011 pending further testing. Visit the [PIRSA website](#) for more information.

Native plants and animals

Success for fish refuge programs

The Fish Habitat and Refuge Project reports several successful breeding events for the threatened fish species **river blackfish** (*Gadopsis marmoratus*) and the **southern purple-spotted gudgeon** (*Mogurnda adspersa*).

River blackfish

The River blackfish, whose presence in the region is used as an indicator of stream health, has only a small, localised population in the South Australian Murray-Darling Basin - in the Eastern Mount Lofty Ranges. The river blackfish was rediscovered in Rodwell Creek in 2004 after a 30 year absence.



The recent intense drought, coupled with heavy extraction in the catchment (farm dams) meant the stream flows were poor or non-existent from 2006, and pools began to dry. In 2008, urgent action was required to protect the last refuge pool containing the only population of blackfish. This included installing an aerator to improve water purity and drip feeding freshwater in from gravity feed rainwater tanks.

During the last three years, monitoring has found a very low population base with only limited breeding. However, this year there has been a resurgence with many juvenile fish recorded (more than 80 fish) following much greater flow, habitat availability, and good water quality.

Southern purple-spotted gudgeon

The last remaining population of the southern purple-spotted gudgeon in South Australia was rescued prior to the Jury Swamp site drying out in April 2007.



The rescued population was put into captive maintenance with the Paiwalla Wetland chosen as the wild surrogate site.

In 2010, 200 Southern purple-spotted gudgeon that had been bred in captivity were released into the site. Monitoring has shown that the released fish are now breeding in the wetland.

These first signs of recovery are a positive step for the collaborative efforts to save the river blackfish and southern purple-spotted gudgeon populations.

Spotlight on 'black water'

Recently there have been media reports of 'black water' events causing fish deaths in the River Murray. Black water is a name given to water that is dark in colour (dark brown to black). Beyond the colour change, the real problem with the recent black water event is that the water has little dissolved oxygen in it. This occurs when large amounts of organic matter are broken down, which consumes the oxygen, sometimes at a rate faster than oxygen can be replenished. The dark-coloured water is from the decaying process of the organic matter such as eucalypt leaves and twigs. Low dissolved oxygen water can stress or kill fish and other aquatic animals as they need oxygen to breathe.

The recent low-oxygen events have been caused by upstream floodwaters rewetting dry organic matter that built up on floodplains and in wetlands along the River Murray during the drought.

While immediate impacts of low-oxygen water include fish deaths, there are long-term benefits for native fish due to the large amount of carbon entering the system from the organic matter being washed into the river. Carbon entering the food web increases food sources for fish.

For further information about black water, visit the Murray-Darling Basin Authority's black water page for a fact sheet and regular bulletins: www.mdba.gov.au/water/blackwater.

Monitoring and research

Learning how acid sulfate soils change under high water levels

The CSIRO has finished its final round of soil monitoring on behalf of DENR to find out how the acid sulfate soils are changing now the water has returned. The samples are currently being analysed in the labs.

Researching acidity generation and release from soils

Another soil research project is being planned with CSIRO, to analyse how acid sulfate soils create acidity and release it in to the water of the Lower Lakes. Results will help us prevent, treat and manage acidification from acid sulfate soils.

Plans are progressing for research to:

- examine how effective different limestone dosing techniques are
- use computer modeling to predict water quality risk and learn how acidity moves from sediments into water under different rainfall and water levels.



Research is continuing into how effective the vegetation program and natural plant re-growth are at helping the environment recover from acidification. Early results are confirming the importance of carbon in soils in managing acid sulfate soils.

The latest water quality monitoring

The EPA is continuing to monitor water quality in the Coorong, Lower Lakes, Murray Mouth and Tributaries on behalf of DENR.

Recent results have showed that salinity is continuing to decline in Lake Alexandrina and stabilise in Lake Albert – but still above historical levels.

Low dissolved oxygen levels are occurring at Wellington and where the River Murray flows into Lake Alexandrina.



EPA groundwater sampling (EPA 2011)

Shallow groundwater monitoring is continuing at several locations along the shore of the lakes and tributaries. Recent results show that the groundwater at Campbell Park, Lake Albert, is still highly acidic. Shallow groundwater can flow into the lakes, so there is still a risk of acidity entering the ecosystem.

Get involved

Join the new Friends of Meningie group

Following discussions at a community meeting in Meningie on 25 February 2011, a *Friends of Meningie* group will be set up to give local people a lead role in the Meningie Lakefront Habitat Restoration Project.

The friends group will help manage the habitat restoration project and take part in activities such as planting, monitoring and maintaining the site.

If you are interested in becoming a Friend of Meningie, please contact Gemma Cunningham on (08) 8204 9453, 0427 018 783 or gemma.cunningham@sa.gov.au.



Help reintroduce native fish back into the region

Department of Environment and Natural Resources' wetlands conservation project manager Arkellah Hall made a presentation to the community reference group meeting on Thursday 3 March to discuss the collaborative effort of DENR, the Department For Water, the local community, Native Fish Australia (SA), and the South Australian Research and Development Institute (SARDI) to protect native fish in the South Australian Murray-Darling Basin.

The focus of the talk was to encourage community members and stakeholders to be involved in plans for reintroducing these highly endangered native fish back into the Coorong, Lower Lakes and Murray Mouth region. The reintroduction of these fish has been made possible by successful breeding and surrogate refuge programs.

If you would like to get involved, please contact Arkellah Hall on (08) 8204 1152 or at arkellah.hall@sa.gov.au.

Marine Biosecurity: on the natural history of outbreaks

Come and learn about the invasive aquatic species when Dr Marty Deveny, SARDI, visits the Port Elliot RSL Hall on Wednesday 23 March at 6:45pm. Dr Deveny will talk about the aquatic biosecurity including diseases and pest management in our oceans.

More information

Funding

Developing and implementing the long-term plan is part of the South Australian Government's \$610 million [Murray Futures](#) program, funded by the Australian Government's [Water for the Future](#) program and the South Australian Government.

The \$10 million [Lower Lakes Bioremediation and Revegetation Project](#) is funded by the Australian Government and supported by the [South Australian Department of Environment and Natural Resources](#). The [Lakes Hubs](#) have been funded through the \$220 000 grant made to the Milang and Districts Community Association as part of the Bioremediation and Revegetation Project.

Partners

DENR acknowledges that many projects in the region are delivered in partnership with other organisations. We will do our best to acknowledge our partners in this publication.

Find out more

For more information about Murray Futures, visit www.murrayfutures.sa.gov.au.

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

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Apologies for cross postings.