



# Connecting the catchments

There are many wetlands in the cross border catchment areas. Wetlands usually form in depressions in the landscape in areas subject to permanent or occasional inundation by rain or where ground water is at or near the surface, saturating the soil from below.



In 2009 a Memorandum of Understanding (MOU) called Connecting the Catchments was developed and signed by nine South Australian and Victorian organisations to proactively manage the threats that continue to affect the environment in cross border surface water catchment areas.

The Connecting the Catchments Memorandum of Understanding includes the shared catchment areas of Tatiara Creek, Nalang Creek, Morambro Creek, Naracoorte Creek, Mosquito Creek, Glen Roy/ Doroong Creek, Glenelg River and connected wetlands.

Some key issues that will be addressed as a result of the Connecting the Catchments Memorandum of Understanding include; securing surface water quality and address flows in dry times, land use change, sustaining the Ramsar-listed wetlands of Bool and Hacks Lagoon and ultimately the Coorong, and sustaining threatened species such as the Yarra Pygmy Perch, Dwarf Galaxias and Southern Bell Frog.

# Why do we need to take action?

Our cross border catchments like many other areas are under stress. This may be due to rainfall decline, forestry and groundwater irrigation. The condition of Mosquito Creek is representative of the other cross border creeks. In December/January 2002-03, the baseflow in Mosquito Creek ceased for the first time since flow gauging commenced in 1971. Flow returned to Mosquito Creek this year, however the extended dry period has put the system under strain.

Over natural dry periods, there are refuge pools along the creek that water dependent species can survive in.

In 2009 this dry period has led to refuge pools drying up or becoming stagnant due to the absence of fresh flows of water. Without refuge pools, native species diversity in the wild is under threat.



## Connecting the Catchments

Left to Right:  
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Marc Thompson (Wimmera Catchment Management Authority),  
Kevin Wood (Glenelg Hopkins Catchment Management Authority),  
John Martin (Grampians Wimmera Mallee Water),  
Mick Fennessy (Southern Rural Water)

Our Goal is to work together in good faith to protect and enhance the environmental values linked or within water catchment areas shared between Victoria and South Australia in balance with social, cultural and economic demands.

## Our Purpose

1. Creating stronger and more formal links between Victorian and South Australian government agencies that manage natural resources;
  2. Enhancing community and cultural understanding, capacity and involvement in managing catchment and wetland values;
  3. Avoiding or eliminating so far as reasonably practicable adverse cross border impacts;
  4. Increasing the profile of initiatives and projects relating to the management of cross border catchment and wetland values;
- and*
5. Encouraging and promoting research and monitoring to improve understanding and support informed decision making.



# Mosquito Creek Farmers

Farmers owning land along the Mosquito Creek have found some practical ways to look after the environment within their farming operations.

Bruce Badman, a farmer on the Mosquito Creek, has taken the lead in trialing some of his ideas to help return the creek environment to its natural state.

Consequently, Bruce has played a major role in maintaining the last remaining wild threatened fish populations on his property.

A group of farmers along the Mosquito Creek have taken a keen interest in the health of the creek. Some of the actions they have taken include fencing off the creek, returning the creek to its natural flow path and managing environmental watering.

Bruce said that he has been trying to look after the 3km section of creek on his property for the last 15 years, especially during the recent drought years.

'I grew up on this farm and got a lot of enjoyment mucking around by the creek,' he said.

'Now I've got kids of my own and I don't want them to miss out.'

## Action on Ground

Stock access can erode creek banks, which can significantly contribute to a decline in water quality.

By reducing stock access at ecologically sensitive times, the vegetation along creek banks can regenerate to minimise erosion and provide a natural filter for water entering and flowing down the stream.



Water quality can improve if stock are excluded from the creek line.

By encouraging the regeneration of native species along creek banks and building up natural contour banks, farmers have created a habitat that threatened fish species can survive in.



# Introducing a Border Catchment

The Mosquito Creek Catchment was used to base the development of the Connecting the Catchments MOU for all cross border catchments shared between Victoria and South Australia.

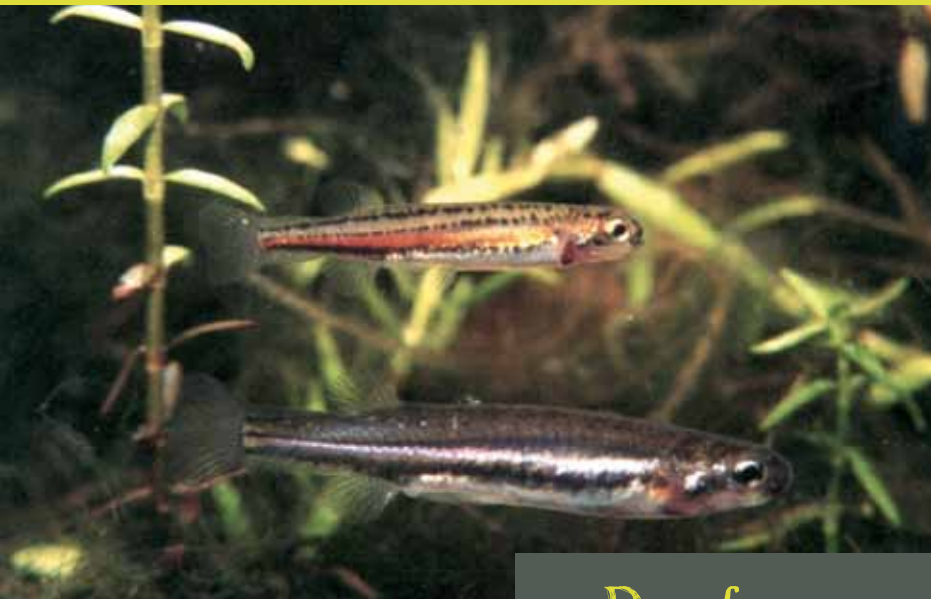
Water from the Mosquito Creek flows from Victoria into South Australia where it provides major fresh water inflows to Bool and Hacks Lagoon, a wetland of international significance under the convention on wetlands (Ramsar, Iran 1971).

The Mosquito Creek is a stronghold for regional native fishes that have a conservation status at a national or state level, this includes the **Yarra Pygmy Perch** and **Dwarf Galaxias**. The Mosquito Creek also supports other threatened species such as the **Southern Bell Frog** and the **Striped Legless Lizard**.

The last years have seen a series of phases to identify steps that can be taken to maximize the health and future of surface water resources of this area. These phases have included; scientific research, communication, on ground work and the development of an action plan.



Stronghold for regional native fishes that have a state and national conservation level.



The **Dwarf Galaxias** is a small fish about 2-3 cm in size. It lives in densely vegetated habitats and can survive dry periods by aestivation in Yabby holes.





The **Yarra Pygmy Perch** is less than 8cm long and prefers slow flowing streams or still lakes with abundant aquatic vegetation.



The **Striped Legless Lizard** is a thin snake like lizard growing up to 300mm in length, it lives in tussocky grass, soil cracks or in crevices under rocks. It eats insects and spiders and breeds in the summer months.



The **Southern Bell Frog** is a large ground dwelling frog approximately 55-104mm in size. Southern Bell Frogs live up to 6 years, but research suggests that few males live more than a year.



## The Connecting the Catchments Committee has taken on the views of its agency staff and the community through the Mosquito Creek Forum and through direct consultation.

Connecting the Catchments is about coming together to solve strategic issues of common interest.

This can include forming linkages to protect sites and species of national and international significance, finding solutions for risks to the hydrology of cross border catchments, ensuring the best available knowledge is accessible to all, identifying and acting towards protecting high priority assets in the landscape.

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The Connecting the Catchments Committee will run initially for a period of three years and will collaborate to ensure that environmental assets are managed on a landscape scale.

The South East Natural Resources Management Board is the lead agency for the first year of operation.

*South East Natural Resources Management Board*

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## Partner agencies

South East Natural Resources Management Board (SA)  
[www.senrm.sa.gov.au](http://www.senrm.sa.gov.au)

Wimmera Catchment Management Authority (VIC)  
[www.wcma.vic.gov.au](http://www.wcma.vic.gov.au)

Glenelg Hopkins Catchment Management Authority (VIC)  
[www.glenelg-hopkins.vic.gov.au](http://www.glenelg-hopkins.vic.gov.au)

Department for Environment and Heritage (SA)  
[www.environment.sa.gov.au](http://www.environment.sa.gov.au)

Department of Sustainability and Environment (VIC)  
[www.dse.vic.gov.au](http://www.dse.vic.gov.au)

Southern Rural Water (VIC)  
[www.srw.com.au](http://www.srw.com.au)

Grampians Wimmera Mallee Water (VIC)  
[www.gwmwater.org.au](http://www.gwmwater.org.au)

Department of Water Land and Biodiversity Conservation (SA)  
[www.dwlbc.sa.gov.au](http://www.dwlbc.sa.gov.au)

South Eastern Water Conservation and Drainage Board (SA)