WARREGO FLOWS

Welcome to Issue 1 of Warrego flows, a newsletter in which we will bring you updates of work we are doing to monitor the outcomes of environmental water management in the Warrego-Darling Selected Area. In this issue, we'd like to introduce you to the program and share the news from the first year of environmental watering in 2014/15.

NEWSLETTER

ISSUE 1
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Shingleback lizard

THE MURRAY-DARLING BASIN

The Murray-Darling Basin Plan outlines the Australian government's commitment to make the Murray-Darling a 'healthy working river'. This means managing water in a way that supports the economic, cultural and environmental needs of the Basin and its communities.

To do this, the Australian government in association with the Murray-Darling Basin Authority and the Commonwealth Environmental Water Holder, have implemented a strategy to deliver Commonwealth environmental water throughout the Basin.

The success of this program is measured by monitoring environmental outcomes across the basin over the long term, as part of the Commonwealth Environmental Water Holder's $30 million long term intervention monitoring project.

OUR TEAM

Eco Logical Australia and the University of New England lead a team that works closely with NSW Office of Environment and Heritage and DPI Fisheries staff to collect and interpret information on the ground in two sites in the northern Basin.

Each year, this information is published in a report covering the whole Basin but we will bring you regular updates of the work being done in the Warrego-Darling Selected Area.

The first year of monitoring has seen some great outcomes already, and we look forward to keeping you updated.

Emily and Ben - bird spotters

The Western Floodplain

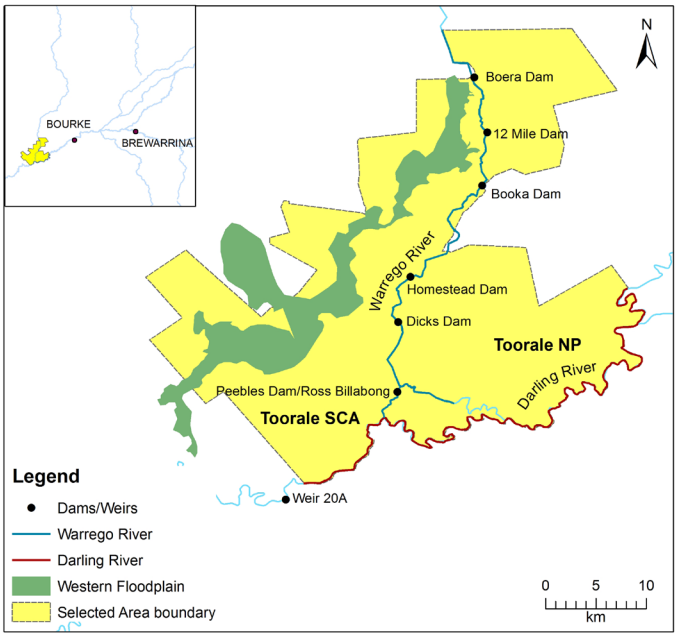
WHERE ARE WE WORKING?

Our monitoring focuses on the junction of the Warrego and Darling Rivers in Toorale National Park near Bourke.

This area includes seasonal wetlands along the Darling River and a large section of the Western Floodplain adjacent to the Warrego where a number of important vegetation species including coolibah, river cooba and black box grow.

These habitats are important to several threatened waterbird species.

We also look at the health of the river channels and how flows are affecting fish and other animals.




Australian inland crab


New Holland Frog

WHAT DO WE MEASURE?

The program seeks to capture information in the Warrego-Darling Selected Area on key environmental values including:

- *River connectivity*
- *Water quality*
- *Biodiversity*
- *Waterbirds*
- *Fish*

On the ground, this means monitoring flow gauges, taking water samples and conducting surveys on fish, waterbirds, water bugs, vegetation and more.

Team members visit each site several times each year and use remote cameras and other equipment to access real time information whenever we need it.

For further information or to view the complete annual report please visit the Commonwealth Environmental Water Office website.

Commonwealth Environmental Water Office

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WHAT WE'VE SEEN SO FAR

The first year of monitoring has shown good outcomes in the Warrego-Darling Selected Area:

Floodplain inundation

Commonwealth environmental water management inundated in 70 Ha of the Western floodplain, wetting key vegetation communities, channels and waterholes which provided key habitat for up to 8 months following wetting.

Biodiversity

Inundation of the Western Floodplain and its channels and waterholes had a positive influence on water bugs, frogs, birds and vegetation; improving biodiversity in the region.

Waterbirds

Environmental water not only provided connectivity along the river, but ensured that important refuges remained in dams, pools and billabongs in the Warrego River and Western Floodplain. This provided opportunity for breeding in four species of waterbirds.

River Connectivity

Delivery of environmental water into the Darling River ensured several periods of connected flows through to Louth and water flowed through the Darling River within the monitoring area for 60% of the 2014/15 year.

Water Quality

Water quality measures including salinity were all within normal ranges throughout the year and inundation of certain sections of river with environmental water increased nutrient availability which stimulates food webs.

WHAT'S NEXT?

Outcomes from the first year of monitoring indicate that the watering strategy in place for the Warrego-Darling system is effective, with good outcomes for regional biodiversity and river health.

It looks like the inundation of the Western Floodplain is a key element in achieving these outcomes and the proposed 5 year watering strategy caters for this.

Water management is tricky in the Warrego-Darling as so much depends on the availability of natural flows but so far management decisions are getting the desired outcomes.

We will continue to monitor all of these important environmental outcomes in coming years to develop a fuller picture of the benefits of environmental watering.


Boera Dam

MEET THE TEAM

Over the coming issues we will introduce you to our team and their role in the project

Ben Martin

Ecologist
Eco Logical Australia

Describe your role:

My role in the Warrego-Darling is to do vegetation surveys along the Western Floodplain. This means doing full floristic surveys, vegetation health surveys, tree counts and gathering site flooding information and general observations on floodplain condition.

What does a regular day on the monitoring project look like?

Rising early to beat the heat and a long day surveying vegetation sites. On a good day we can do 9 sites but this depends on good access. A wet floodplain can send us the long way around to our northern sites.

There are plenty of interesting things to see out on the floodplain. If you're near the water around lunchtime, a quick bite to eat and then off bird-watching it is!

What's your most memorable moment so far?

My second trip to Toorale National Park. It was mid-afternoon and we were onto our last site for the trip when we saw clouds building to the west. The sky turned purple, the wind picked up and the temperature dropped around 8°C almost instantly. We watched the storm come and go, all without getting wet, with it missing us by a few kilometres to the south. The drive back to the accommodation across the floodplain was one to remember!

What do you wish other people knew about the monitoring project?

I wish more people saw the result of commonwealth environmental water releases. One month the flood-plain may look quite bare, with low bird numbers; and after a release the place comes to life – it's really quite amazing, like something that you only see in a David Attenborough documentary.

Dr Iris Tsoi

Post Doctoral Research Fellow
University of New England

Describe your role:

My role is to monitor things like water quality, stream metabolism and microcrustaceans. I also do macroinvertebrate (water bug) sampling as they can be useful indicators of river health.

What does a regular day on the monitoring project look like?

A regular day in the field is like an adventure. Sometimes we need to paddle canoes, ride on quad bikes or walk a couple of kilometres to reach our sampling sites. I do three five day field trips throughout the year.

In the lab, I identify and count all the bugs. These tiny creatures are an important food source for fish and other animals.

What's your most memorable moment so far?

My first field trip to Toorale National Park. What an eye-opening and spectacular experience, visiting this big inland river in the vast and ancient red outback and seeing the wildlife running around. Definitely a new experience for someone like me who grew up in the city.

What do you wish other people knew about the monitoring project?

We have a great and professional team with lots of different expertise who are passionate about the health of rivers and wetlands in the Murray-Darling Basin.