

# Water for the environment

Managing flows for healthy, productive and sustainable river systems



S. Bowen/DPIE

Rivers, creeks and wetlands play a vital role in sustaining healthy communities and economies. They provide connections across the landscape for people, plants and animals with benefits that extend well beyond the river bank.

Healthy rivers are the lifeblood of inland NSW, energising the landscape and supporting both economic and environmental outcomes.

Over the past 200 years, many creeks and wetlands in NSW have had their natural flow cycles disrupted as a result of dams and weirs. The NSW Department of Planning, Industry and Environment (DPIE) is working with communities to return a more natural cycle of flows to key rivers and wetlands across the state.

## Why is water for the environment important?

Healthy rivers and wetlands support native wildlife alongside a range of industries, including irrigation, dryland agriculture, fishing, tourism, timber production and bee-keeping.

Rivers and wetlands also have great cultural and spiritual significance to Aboriginal people. These landscapes provide a link to traditional storytelling, beliefs and practices. They are also a rich source of food, medicine and materials for shelter, clothing and tools as part of their living culture.



## What does water for the environment do?

Water for the environment has helped to restore, maintain and improve river and wetland sites across NSW over the past 20 years.

Water releases trigger a surge in the number of insects and micro-organisms within a wetland. Frogs emerge to feed and become food for waterbirds, fish, turtles and other reptiles.

Plants reproduce and set seed, providing food, shelter and nesting materials for animals. Wetland plants also filter the water, capturing sediment and returning it to the floodplain floor ready to feed the next generation of wetland plants.

Native fish respond to the conditions and begin to breed. Fish are an essential part of a healthy river. Supporting native fish supports the recreational fishing and tourism industries.

Specific sites are targeted to support waterbird and woodland bird breeding events. Birds play an important role in the riverine environment, controlling pest insects and helping pollination. Bird-watching and bushwalking support tourism in local communities.

During dry times, water for the environment is used strategically to provide refuge sites for key plant and animal species ensuring their survival in the longer term.

Environmental flows help to recharge ground water systems. Rivers and wetlands also cool the land around them. They help to slow fast-flowing flood waters and filter the water running through them. Flows spread out onto the floodplain, depositing sediments which in turn enrich the soil and increase productivity for agriculture.

## Who decides where the water is used?

DPIE manages the delivery of water for the environment to five main valleys in NSW: the

Gwydir, Macquarie, Lachlan, Murrumbidgee and Murray-Lower Darling.

We consult stakeholders including community groups, recreational fishers, local landholders, scientists, Aboriginal organisations and government agencies to decide where and when water for the environment is used. They form part of an environmental water advisory group which meets regularly to discuss upcoming events, any issues or concerns, event outcomes and future opportunities.

In consultation with this advisory group, DPIE develops annual and longer term watering plans that consider water availability, climatic conditions, scientific research, ecological outcomes and stakeholder perspectives.

DPIE also works closely with other government agencies including the Murray-Darling Basin Authority, DPIE Water, Local Land Services and the Commonwealth Environmental Water Office to deliver water for the environment.

The Department of Planning, Industry and Environment:

- manages the delivery of water for the environment in NSW
- collaborates with community stakeholders and other agencies
- undertakes and co-ordinates scientific research and evaluation of projects
- manages a portfolio of water held by the NSW Government
- manages water on behalf of the Commonwealth Environmental Water Holder
- reports on water management activities

Find out more at [www.environment.nsw.gov.au/topics/water/water-for-the-environment](http://www.environment.nsw.gov.au/topics/water/water-for-the-environment)

Photos, left to right: D Albertson/DPIE, D Love/DPIE; N Childs/DPIE

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