FACT SHEET 4

Flooding for Life
GUNBOWER FOREST

Restoring environmental flows

Gunbower Forest is a large River Red Gum Forest of international significance that has suffered a serious decline in condition in recent years from lack of water. Through The Living Murray's Gunbower Forest project, works will be undertaken to provide water to protect and improve the forest's health.

For the last 100 years, governments and communities have actively supported the regulation of our rivers to allow the diversion of large amounts of water, typically for agriculture. This has allowed communities to develop and prosper, and has supported urban water supply.

However, regulation has reversed the natural flow patterns with which native species have evolved. The altered ecology, along with prolonged drought conditions, has resulted in a serious decline in the health of our waterways and wetlands. Governments and communities are now demonstrating a commitment to river and floodplain health by restoring balance in the distribution of water entitlements.

Environmental water

Environmental water is an entitlement that is used to protect rivers and wetlands, and the many natural values they support. This water is particularly important in drought conditions like those experienced in recent years, when water scarcity threatens the survival of our natural environment. In wetter years when more water is available, environmental water helps the environment rebuild and prosper.

Environmental water is legally set aside to protect rivers and wetlands – using it does not affect anybody else's water allocations. The amount of environmental water available each year varies depending on water availability and seasonal allocations, as is the case for other water users.

Environmental flows are any managed change in a river's flow pattern through the use of environmental water. They aim to maintain or improve river and floodplain health.

Photo: North Central CMA

Environmental water entering Gunbower Forest

Flooding for life

Gunbower Forest cannot rely on local rainfall alone and depends on regular flooding to survive. Unfortunately, the frequency and duration of floods to the forest have decreased significantly over time.

The forest is now rarely flooded naturally and, as a result, many River Red Gums are highly stressed or dying. The native plants and animals that rely on a healthy forest for survival are also suffering, with recent monitoring results indicating a significant decrease in their numbers.

The Gunbower Forest project is delivered by the North Central Catchment Management Authority (CMA) in partnership with Goulburn–Murray Water, and Parks Victoria, and coordinated at a state level by the Department of Sustainability and Environment. It is part of The Living Murray program, a joint initiative of the New South Wales, Victorian, South Australian, Australian Capital Territory and the Commonwealth governments, coordinated by the Murray–Darling Basin Authority. Together with Koondrook–Perricoota Forest in NSW, Gunbower Forest is one of The Living Murray's six icon sites.

FACT SHEET 4

Without environmental water to protect and improve the forest's health, there is a risk that it will change forever. This is not only unacceptable to the community, but could result in the loss of native plants and animals, and breach our legal responsibility to try to prevent the extinction of threatened and endangered species.

Delivering water

Environmental water is allocated to Gunbower Forest through The Living Murray program and other sources. It is provided to the forest via Gunbower Creek, an anabranch of the Murray River. Water flows to the wetlands and creeks via regulators constructed for environmental purposes. There are also regulators that are used to occasionally create high flows that reach other wetlands in Gunbower Forest.

It is recognised that additional structures are needed for more widespread flooding of Gunbower Forest to maximise the benefits of environmental water and natural flood events. Works are planned through the Gunbower Forest project to increase the frequency of flooding to River Red Gums in the mid-section of the forest by diverting water from Gunbower Creek. Further information about these works is included in other fact sheets in this series.

A project to provide environmental water to nearby Koondrook–Perricoota Forest in NSW is also underway through The Living Murray program.

Efficient and effective

The proposed water management structures will make the most effective and efficient use of environmental water. They have the flexibility to operate under a range of scenarios depending on seasonal conditions and available water. The majority of water will flow through the forest and back into the Murray River after flooding the targeted areas.

Encouraging responses

Gunbower Forest has been receiving some environmental water since 2003. During the drought, the key objective of this water has been to provide refuges for waterbirds and fish in an otherwise parched landscape.

It is important to monitor the effect of environmental watering to determine whether it is achieving the intended results. Recent surveys have recorded positive responses from trees, other vegetation, fish, frogs and birds. The extent and diversity of aquatic vegetation increased in wetlands that received enviornmental water. A range of waterbirds has been observed at flooded sites, including waterfowl, waders, raptors and colony nesting species.

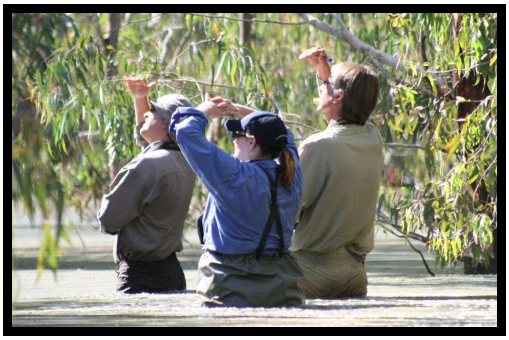

Photo: North Central CMA

Environmental flooding in 2005–06 triggered the first significant breeding of Great Egrets in Gunbower Forest since 1999. Six frog species and 18 native fish species have been recorded at flooded sites, including three species never previously recorded: Freshwater Catfish, Bony Herring and Trout Cod.

Monitoring indicates that the forest is very resilient, but that the health of River Red Gums that have not been flooded recently is in serious decline.

CONTACT

This fact sheet is one of a series providing information on the Gunbower Forest project. Further fact sheets and other project information are available from the North Central CMA on 03 5448 7124 or by visiting www.nccma.vic.gov.au.

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NORTH CENTRAL Catchment Management Authority
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