

The Native Fish Recovery Plan – Gunbower and Lower Loddon

A plan to restore ecosystems, fisheries and tourism in the Gunbower and lower Loddon system.



Making
every drop
count...twice!



NORTH CENTRAL
Catchment Management Authority
Connecting Rivers, Landscapes, People

**Representing
Victorian
Recreational
Fishers**





With increasing competition for water and a recognition that many of our waterways and inland fisheries are in a degraded state, governments are encouraging irrigators, communities and industries to do more with less. Restoring flow is an important component of rehabilitating river health, however the traditional approach has always involved arm-wrestling over whether water should be delivered to meet environmental requirements, or for irrigation.

This plan asks the question: why can't it do both?

THE PLAN

This plan involves the large-scale, long-term and holistic rehabilitation of the network of creeks, lagoons, Ramsar wetlands and floodplain habitats in the Gunbower and lower Loddon system in Victoria (see map). This area encompasses most of the Torrumbarry Irrigation District, which grows over \$130 million of produce a year, using some of the most modern irrigation systems in the Murray-Darling Basin. The socially and economically important agriculture industries in the region are supplied by 190 km of streams that are wholly managed for water delivery through a system of weirs and channels. This network of streams, lagoons, wetlands and floodplain could potentially offer ideal habitat for a variety of native fish species including the iconic Murray Cod; however, at present they have little or no flow in winter when there is no irrigation demand.



There are also a number of other factors that are impacting on native fish populations:

Connectivity

- Five weirs in the region do not have fishways, and so prevent fish from migrating to colonise new areas or complete spawning migrations. Certain weir designs also injure/kill large numbers of native fish larvae.
- Diversions for irrigation lure fish into channels, removing them from the river and creeks.

Flow

- The network of streams that were once a complex of fast and slow-flowing habitats (ideal conditions for species such as Murray Cod) are now reduced to a series of slow moving weirpools, with little flow at all in winter.

Habitat

- Once abundant with snags, large areas of the system have been cleared, removing important fish habitat.
- Cattle graze the river bank, causing erosion and reducing water quality.

Pests

- A variety of non-native species are present in the system which compete with native fish species.

Because of these factors native fish populations in the area are in extremely low numbers. Of 22 native fish species predicted to occur in the area, 18 have declined or become locally extinct, and of these, six are threatened species.

If these issues were resolved the Gunbower and lower Loddon region could be the “jewel in the fishing crown” of the Murray-Darling Basin. Fishers throughout the Basin spend in excess of \$1.3 Billion each year, supporting over 10,950 jobs. The lure of the iconic Murray Cod is particularly compelling: over 44% of all inland fishers target this iconic species. Imagine what this could do for local businesses!

*Water doesn't
have to be just for
human use or the
environment.
It can be for both.*

THE SOLUTION

The good news is that all of these major issues impacting on fish, riverine ecosystems and local tourism can be fixed using existing knowledge and technology. We have effective fishway designs that can restore fish migration. We have low maintenance, self-cleaning screens that can prevent fish being diverted into irrigation channels. We can efficiently and effectively restore habitat in and along the river, reintroducing snags, re-establishing deep holes, re-vegetating riverbanks and providing livestock with off-stream watering points. And of course, we can restore the all-important flow.

This is where the Gunbower and lower Loddon system - and this plan - provide a unique opportunity. Because the 190km network of waterways proposed for rehabilitation is an anabranch system, water is able to be delivered in such a way as to restore river health and fishery productivity, and then be returned to the River Murray, to be delivered to downstream water users.

WHAT WILL BE DONE:

- Build fishways on the last five of eleven weirs in the area, reconnecting passage for fish.
- Optimise existing fishways to maximise effectiveness.
- Assess level of fish entrainment into four main irrigation channels, and install irrigation screens to prevent fish extraction.
- Provide flows that are more suitable for fish, while meeting irrigation requirements.
- Assess populations of pest species such as Carp. Implement control measures to reduce population.
- Provide flow to forest wetlands and swamps not already receiving environmental flows.
- Re-plant indigenous plant species.
- Determine the ideal snag density and install snags to improve habitat.
- Investigate options to recreate deep holes.
- Fence off riverbanks and install off-stream watering points for livestock.
- Undertake robust monitoring to inform actions required, and track recovery.
- Undertake extensive communication and engagement activities to communicate progress to the broader community.
- Significant funding is being sought to implement this ambitious plan; providing a letter of support from your association or community group will assist with this.



EVERYONE WINS

Everyone wins from this plan. Water allocation to the region's valuable and innovative agriculture industries will remain practically unchanged. The recreational fishing community will benefit through establishment of a trophy Murray Cod fishery. Populations of locally extinct species will be re-established along the 200km network of creeks, lagoons, wetlands and floodplains. Ecosystems will thrive, and this, in turn, will help generate increased eco-tourism to the area, and so the local economy will thrive too.

WHAT WE NEED

We need your help!

This project won't happen without the help of the local irrigating community. You can help by:

- Asking your association to write a letter of support;
- Telling your local member how important this plan is to you;
- Registering your interest in keeping up to date with new developments, and getting involved with on-ground project activities, for example:
- Volunteer your land for off-stream livestock watering (if you are on the river and have livestock that currently access the river);
- Nominate your irrigation infrastructure to be included in pump screening, fish passage and carp control activities
- Sharing this information with as many people as you can!





FOR MORE INFORMATION:

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Images courtesy of Jamin Forbes, Dean Norbiato, Aaron Hill and Rory Benn-Clibborn



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