

# SNOWY RIVER REHABILITATION PROJECT

## overview of the project

This project completed restoration and habitat improvement works along 186 kilometres of the Snowy River between Jindabyne and the Victorian border. This work significantly enhanced riparian and aquatic habitats and created the foundations for releasing environmental flows in the future.

The project built upon initial willow control and revegetation work carried out by the Southern Rivers Catchment Management Authority and has delivered river rehabilitation, community engagement and restoration of native fish populations. The project had a focused approach and provided opportunities for riverside landholders, Aboriginal people and river communities to be directly involved in the ongoing rehabilitation of the river.



Snowy River near Bungarby

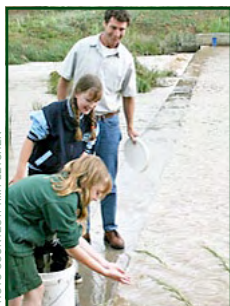
## how the project was carried out

The condition of riparian land will continue to be critical to the future health of the Snowy River. Weeds and livestock grazing on river banks impacts on the development of juvenile native vegetation, creates bank instability and impacts on the health of the stream. To combat these, Southern Rivers Catchment Management Authority negotiated contracts with 26 landholders to protect 368 hectares of riverbank/riparian habitat, including 32.3 kilometres of river frontage.

Landholders agreed to carry out all or some of the following:

- Fencing along the river for livestock control
- Improving the condition of native riparian vegetation
- Providing alternative livestock watering points
- Weed control.

In addition to on-ground works, 20 landholders participated in a 'landholder mentoring' program that provided absentee landholders the opportunity to 'learn by doing'. Natural resource management skills were garnered working alongside a local contractor or landholder, who assisted with fencing, weed control, native revegetation and erosion control.



Community bass release

To determine fish species present, a survey was conducted at 58 sites along the Snowy, Delegate, Jacob and Pinch rivers. As a result of the findings, a highly successful breeding program was undertaken for Australian bass, reintroducing them to large stretches of the Snowy River.

To maintain healthy fish populations, erosion, sediment build-up and flow issues needed to be addressed within the river. Willow debris was used to build in-channel log structures and groynes over eight kilometres of the river. These were designed to redirect flow into one main channel, increase stream power and create waterholes suitable for fish habitat.

## outcomes now and in the future

This project is important at two levels: as one of the very few international rehabilitations of a river system whose headwaters have been diverted; and, secondly, as one established to achieve integrated ecological, community and economic outcomes.

Over a two-year period, 190,000 young bass were introduced to the river through targeted releases. The first fish release occurred in 2007 and was highly successful, with fish growing from 2 centimetres to 12 centimetres in two years.

A series of six community events were held and a wide range of promotional materials were produced, including three posters detailing native fish species and signage at Jindabyne Dam detailing the river's rehabilitation. These were produced to increase awareness of the importance of river health and native fish.

## benefits, challenges & lessons learned

This project enabled the river's riparian margins to establish foundations for continuous improvement of habitat conditions.

Whilst normal in-stream flow redirection structures are expensive, create considerable disturbance to the river during construction and are prone to damage during flood events, the use of willow timber as an alternate in-stream structure has been very successful, as well as cheaper to install and maintain. This technique is now being used in other river systems throughout Australia.

It was originally proposed that this project would breed and release river blackfish. Three attempts were made to breed the fish, unfortunately none were successful. Disease and stress from captivity contributed to the lack of success. Other programs within Australia have also attempted captive breeding of this species without success to date.