



ACT
Government

Environment and
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Rehabilitating ACT rivers: highlights from the last three years

Water bodies in the ACT have benefitted from significant activities in the last three years by government, non-government, private and community organisations aiming to improve the condition and the wildlife they support.

A review of the Aquatic Species and Riparian Zone Conservation Strategy (the Strategy) has highlighted activities that should lead to more native fish and plants, less erosion, improved water flow and fewer weeds in the longer-term.

The review noted that the success of many of the activities was due to collaborative effort by many partners, including the ACT and Australian governments, research institutions, ACTEW, landholders and community groups, and cross-border cooperation.

Background

The Strategy is one of 35 action plans developed for the ACT Flora and Fauna Committee under the *Nature Conservation Act 1980* to protect and manage threatened species and ecological communities.

The Strategy aims to conserve wild populations of all aquatic and riparian (river edge) native flora and fauna species in the ACT by maintaining healthy communities and rehabilitating degraded communities and habitats to ensure:

- survival of the different native species, including threatened species such as the Macquarie perch, Murray River crayfish, silver perch, trout cod, two-spined blackfish and Tuggeranong lignum
- the waterway systems are well-connected and support movement of fauna through the region.





When the Strategy was written, the Murrumbidgee River was in poor condition. The riparian floodplains had been affected by land clearing, altered hydrological systems and water quality, major weed invasions, fire and related climatic changes. The Strategy was previously reviewed in 2010.

In general, the review found:

- protection of relevant species has been maintained
- some significant threats have been addressed
- enhanced protection of the river corridors
- surveys and monitoring have collected significant information
- information has guided management activities and, in particular, led to restoration activities in high priority areas
- community/ landholders have participated significantly
- cooperation at a regional and national level has led to improved outcomes.

Major achievements

Some of the many activities that have taken place to improve the river system in the last few years are outlined below.

River rehabilitation helps native fish

Engineered log jams near Tharwa (below and previous page) are a rehabilitation activity in the Upper Murrumbidgee Demonstration Reach – a 100 kilometre stretch of river from Bredbo to Casuarina Sands. The log jams, which are made of interlocking hardwood logs and rock, provide food, shelter and breeding sites for native fish, particularly Murray cod, golden perch, and endangered trout cod, and Murray crayfish. Water swirling past the log jams is scouring away a century of sand build-up from human induced erosion, deepening the channel to enhance fish movement.

The Upper Murrumbidgee Demonstration Reach Tharwa Fish Habitat Project is supported by organisations including the ACT and Australian governments, ACTEW, Southern ACT Catchment Group and Waterwatch ACT.

The river corridor will be further improved and stabilised with tree planting and weed control under the ACT Million Trees Program.





Human interventions help fish recover

Cement cod caves and improved fishways are improving our waterways to help fish survive (above).

Fishways at Vanity's Crossing and ACTEW's Pipeline Crossing help fish navigate past road barriers. They have allowed the endangered Macquarie perch to expand its range along the lower Cotter River in search of food, shelter and breeding sites.

Cod caves are 500 kilogram cement balls with holes and caves in them for fish to hide, live and breed. Fifty cod caves have been placed into five river reaches (a stretch of water between two river bends) on the Molonglo River. Sonar mapping was used to select the most effective sites, which ACT Government ecologists are monitoring to see if they are being used by fish. Cod caves have also been installed in Yerrabi Pond by the Capital Region Fishing Alliance and the ACT Government.

Enlarged Cotter Dam (ECD) is fish friendly

The threatened Macquarie perch and two-spined blackfish have been the main focus of conservation activities at the ECD undertaken by ACTEW in collaboration with the University of Canberra, ACT Government and other organisations.

The area between the old and new dam walls has been sterilised to prevent transfer of the Epizootic Haematopoietic Necrosis (EHN) virus. Pest carp and redfin perch were eradicated between the old and new dam walls prior to water overtopping the old dam wall.

Seven kilometres of rock reef shelter habitat has been constructed to provide native fish with shelter (below).

The University of Canberra and ACTEW are monitoring the numbers of threatened and alien fish in the ECD and upstream to measure the condition of endangered fish populations.

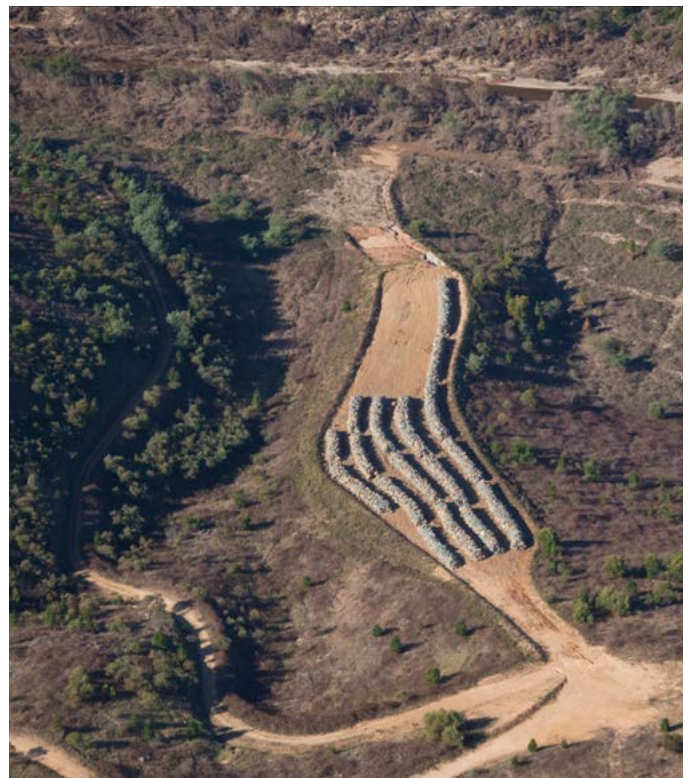


Photo courtesy of ACTEW Water



The community keeps watch

The Waterwatch program has continued to expand, with over 200 sites now being monitored by over 160 enthusiastic volunteers across the ACT region. The information they gather helps ecologists and land managers make management decisions.

Waterwatch monitoring led to the formation of the Actions for Clean Water Alliance (ACWA) in 2010. ACWA includes the Upper Murrumbidgee Catchment Coordinating Committee, Waterwatch, ACT and NSW governments and ACTEW Water. In 2012, ACWA developed an implementation plan to improve water quality, targeting turbidity and erosion. Immediate on-ground works will be complemented by a range of management strategies and activities.

Restoring urban waterways for riverine health

The ACT Parks and Conservation Service Restoration of Waterways Project has been busy rehabilitating some ACT urban rivers in the Molonglo catchment. Achievements include:

- controlling weeds and other invasive species from 24 km of infested waterways
- removing significant flood debris deposits from 51 km of waterways
- revegetating over 20 hectares of riparian zone with suitable native plants species, including a mixture of trees, shrubs and water-edge species
- installing cod caves for fish habitat.

Areas that have been rehabilitated include parts of the Queanbeyan River and Molonglo rivers, Reedy, Woolshed and Jerrabomberra creeks, and a badly degraded area below Scrivener Dam. These activities have also led to improved water quality and flow, improved habitat for native wildlife (aquatic and terrestrial) and improved recreational amenity.

For more information

ACT Action Plan 29: Aquatic species and riparian zone conservation strategy http://www.environment.act.gov.au/cpr/conservation_and_ecological_communities/aquatic_species_and_riparian_zone_conservation_strategy

www.environment.act.gov.au

[Helping our fish navigate the Murrumbidgee](http://upperbidgeereach.org.au/)

Upper Murrumbidgee Demonstration Reach, <http://upperbidgeereach.org.au/>

Murray Darling Basin Authority - Native Fish Strategy

www.mdba.gov.au/what-we-do/mon-eval-reporting/native-fish

Contributing organisations

ACT Government

ACTEW Water

Australian Government - Caring for our Country

Australian National University

Capital Region Fishing Alliance

Conservation Volunteers

Greening Australia

Land Development Agency

Molonglo Catchment Group

Murray Darling Basin Authority - Native Fish Strategy

Murrumbidgee Catchment Management Authority

Oaks Estate Community

Riversmart Australia

Southern ACT Catchment Group

University of Canberra

Upper Murrumbidgee Catchment Coordinating Committee

Upper Murrumbidgee Demonstration Reach

Waterwatch ACT