

# *Fish habitat rehabilitation and management in South Australia*

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## *Key organisations with natural resources management responsibilities in the South Australia (SA) Murray-Darling Basin*

- Department of Water, Land and Biodiversity Conservation (DWLBC)
- Department for Environment & Heritage (SA) (DEH)
- Environment Protection Authority (SA)
- Primary Industries & Resources SA (PIRSA)

PIRSA Fisheries is responsible for the management of the State's fish and aquatic habitat resources

## *State policy/framework on habitat rehabilitation*

*Fisheries Act 1982* — Aquatic Protected Areas

- Declaration of an aquatic reserve under Section 47.
- R&D funding collected under the Act can be used for habitat rehabilitation.

*Water Resources Act 1997*

- River Murray Water Allocation Plan
- Catchment Water Management Plan

In general, these plans describe the need to allocate a specific amount of water for environmental outcomes.

*SA River Murray Act 2003*

- The ACT, which has been implemented, provides overriding powers for water use and protection in SA.
- Key habitat features in the River Murray system are to be maintained, protected and restored in order to enhance ecological processes.

- The extinction of native species of animal and vegetation associated with the River Murray system is to be prevented.

There is no specific policy framework to deal with habitat issues.

## **Recent or ongoing research projects**

- There is little dedicated research to freshwater fish habitat rehabilitation, particularly for the in-stream system in SA.
- Native Fish Australia (SA) / RMCWMB recently have developed the Recovery Outline for the southern pygmy perch (phase 2). It is helping to direct strategic on-ground habitat improvements through regional community groups and the Local Action Planning group in the Mount Lofty Ranges (tributaries to the Lower Murray / Lake Alexandrina).
- Most research/monitoring loosely linking to habitat rehabilitation is on modification of flow regulation practices, fish passage and wetland rehabilitation.

For example,

- DWLBC/DEH funded 'Barrage outflow effect to the ecological communities in the Coorong' — SARDI Aquatic Sciences;
- DWLBC/MDBC funded 'Weir pool drawn down monitoring in the lower Murray: fish monitoring' — SARDI Aquatic Sciences;
- MDBC funded 'Murray River and Barrage Fishway Monitoring' — SARDI Aquatic Sciences, Arthur Rylah Institute and NSW Fisheries;
- NHT-funded through National Fisheries Program: Monitoring fish movement at eight wetlands over a range of flows & structure types — Australian Landscape Trust;
- NAP/NHT/RMCWMB-funded: a range of wetland rehabilitation projects — DWLBC, RMCWMB, Local Action Planning associations, Wetland Care and Australian Landscape Trust.

### **Recent projects or management initiatives on habitat**

- DWLBC is currently developing a management plan for the barrage flow release.
- 'Fish Passage In Off-Channel Habitats Of The Lower River Murray' – a report to Wetland Care Australia by Martin Mallen-cooper, Fishway Consulting Services, October 2001.
- On-ground works at numerous River Murray wetlands to install flow control structures or lower sills on flow paths.

### **The general thrust and mechanisms/ programs for habitat management in SA initiatives on habitat**

There is no overriding framework for improvements or dedicated efforts towards freshwater species. Currently, habitat rehabilitation relies on incidental improvements through river restoration. Most are community driven with assistance from Local Action Planning Associations and wetland project officers employed by the RMCWMB and DWLBC.

