



# Fish Connections

**Native Fish in the Murray-Darling Basin have drastically declined and are now at 10% of pre-European levels.**

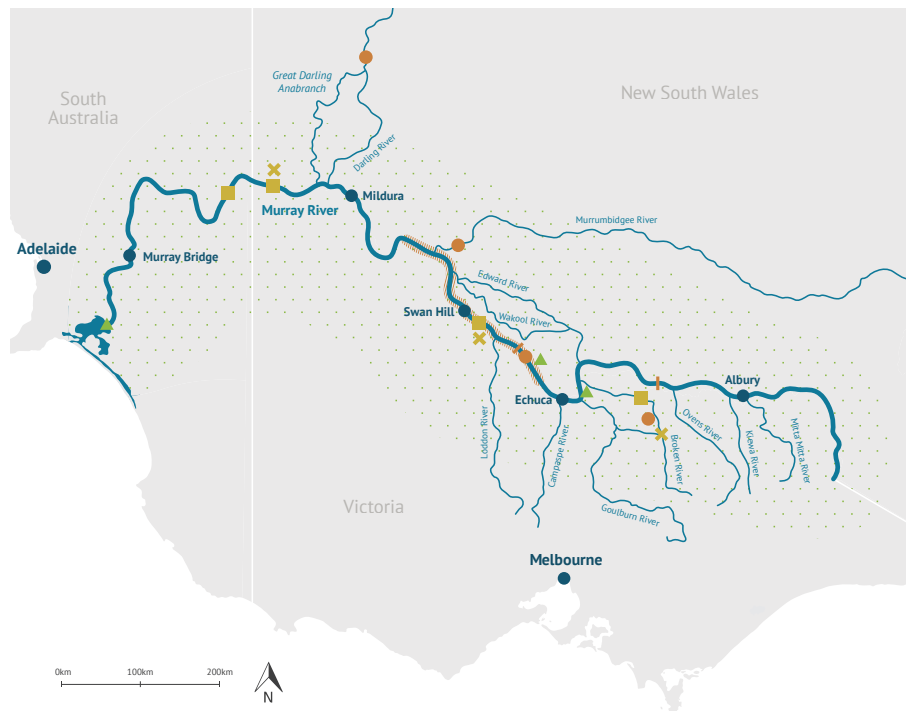
More than half of the Basin's fish are now listed as threatened under state or federal legislation. Without coordinated and large-scale actions, we can expect further declines in fish populations and species extinctions.

Scientists, on-ground staff and community have identified the following critical works that are needed to secure the future of the three major fish groups that are at risk:

**Riverine specialists** – Require 1-10s of kilometers of fast and slow flowing areas eg Murray and Trout Cod

**Flow Pulse specialists** – Require 100s of kilometers of linked flowing habitat eg Golden and Silver Perch

**Floodplain specialists** – Permanent slow water habitat eg 'The Magnificent Six' inc Olive Perchlet



## Indicative on-ground works locations for the three fish projects

### FLOW PULSE SPECIALISTS PROJECT

- Fishways
- Irrigation screens
- Re-snagging

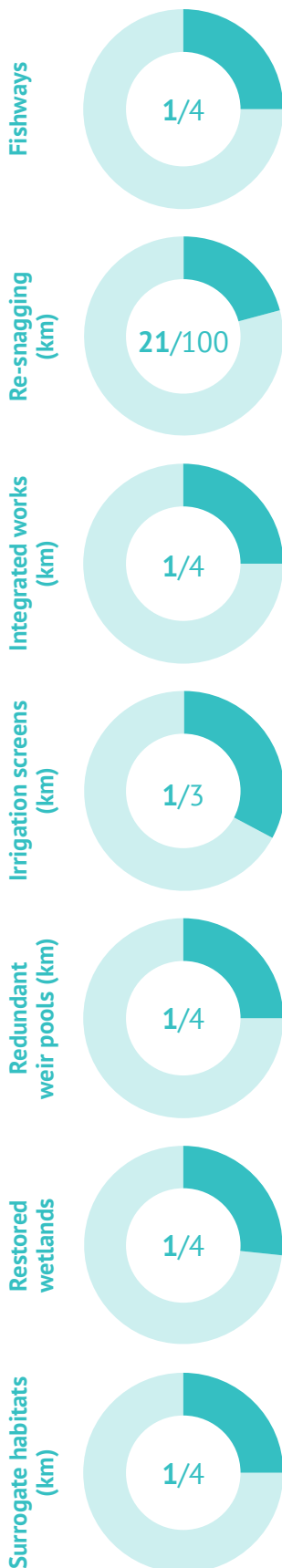
### RIVERINE SPECIALISTS PROJECT

- Re-snagging, rock habitat and re-stocking native fish
- ✕ Removal or lowering of redundant weirs

### FLOODPLAIN SPECIALISTS PROJECT

- ▲ Restored wetlands and re-stocking native fish
- Surrogate habitats (Farm dams scattered throughout the Murray Corridor)

## Report Card



## What does the Murray Corridor need?

### Fishways

The construction of new fishways or upgrade of existing fishways to ensure they are functioning properly.

**Why?** – Enables adult fish to move to spawning areas and young fish to move to food and habitat that enables them to grow into adults.

**Critical for** – Flow pulse specialists.

**Minimum Target** – 4

### Re-snagging

Involves placement of re-cycled large logs and root masses.

**Why?** – Creates resting, breeding and feeding areas for recreationally important fish species.

**Critical for** – Riverine and Flow pulse specialists.

**Minimum Target** – 100 km

### Integrated works

Re-snagging, rock habitat and re-stocking native fish at re-created flowing water sites.

**Why?** – Creates food and habitat hotspots required for recruitment and survival of threatened species such as Trout cod, Murray cod and Murray crayfish.

**Critical for** – Flow pulse specialists.

**Minimum Target** – 40km x 4 sites

### Irrigation screens

Involves installing specialist self-cleaning screens on major irrigation channels.

**Why?** – Prevents adult fish, larvae and eggs moving with the flows into irrigation channels – ‘fish deserts’ – where they are effectively lost from the breeding population.

**Critical for** – Flow pulse and Riverine specialists.

**Minimum target** – 3 channel screens

### Redundant weir pool lowering, or removal

Includes reconfiguring pumps to operate at the lower level. Does not require any additional flows.

**Why?** – Increases the riverine flowing water habitat.

**Critical for** – Riverine specialists.

**Minimum target** – Creation 40 km of flowing water habitat at four sites

### Restored wetlands and re-stocking native fish

To protect and enhance floodplain habitat at key sites and translocate fish according to agreed protocols.

**Why?** – Provides suitable habitat and reduce threats for six imperilled floodplain specialist fish species – ‘The Magnificent Six’.

**Critical for** – Floodplain specialists.

**Minimum target** – 15 restored wetlands containing populations of threatened wetland specialist fish

### Surrogate habitats

Involves improving the habitat of dams on private land

**Why?** – provides more diverse quality habitat that supports population growth and resilience.

**Critical for** – Floodplain specialists.

**Minimum target** – 30 ‘backup’ populations in surrogate habitats such as farm dams.