

Coorong, Lower Lakes and Murray Mouth



The Coorong, Lower Lakes and Murray Mouth is an important biodiversity hotspot and is one of 10 major havens for large concentrations of wading birds in Australia. The site contains a unique mosaic of 23 wetland-types ranging from the freshwater Lower Lakes to the Coorong’s hypersaline south lagoon.

Traditional Owners in this area are the Ngarrindjeri and First Nations of the South East.

Black bream recruitment in the Coorong

Black bream are estuarine fish common across southern Australia, however the Coorong population has been in severe decline since the late 1980s.

In October 2017, commercial fishers reported aggregations of black bream below the barrages. The fish were in good condition and ready to spawn. This prompted water managers, scientists and the community to work together to deliver water to the Coorong to support their spawning and recruitment.

Between October 2017 - February 2018, around 500 GL of water for the environment was delivered. The summer flows created a ‘salt wedge’, where freshwater sits above salt water. Salt wedges are needed to keep black bream eggs and larvae buoyant so they can develop and grow. The following autumn, scientists recorded more than 100 tiny black bream in the Coorong, meaning the targeted flow delivery was a success.

A similar flow event was delivered in summer 2021/22, with an even bigger recruitment response recorded the following autumn. The Coorong’s black bream population is possibly in the best condition in 40 years, thanks to water for the environment and targeted fishing restrictions.







Ngarrindjeri Yarning Circles

The Ngarrindjeri Aboriginal Corporation’s Yarning Circles project documented Ngarrindjeri cultural values and priorities, to inform water management on Ngarrindjeri Ruwe (Country). In 2021, six Yarning Circles were held with members of the Ngarrindjeri community and departmental staff.

Key themes that emerged included the importance of conserving Ngartjis (totemic species) including Pondi (Murray cod), Kultawari (yabbies) and Kungari (swans), along with maintaining water quality, the need to practice culture; and looking after Yarluwar-Ruwe (sea-country). The findings have guided The Living Murray program priorities, increasing the monitoring of Ngartjis and community engagement on Ngarrindjeri Ruwe.

“Sitting on the banks of the river, connecting to country and family, yarning and triggering our memories of what the land and river looked like. Brothers, grandchildren, and my great grandson all there participating in our journey from the past. Yarns about the river, the land, food, hunting and how the environment was our food source for our survival.” - Vicki Hartman.

	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23
 Fish	D	D	C	D	B	B	C	C	C	B	C	C	C	B	A	C
 Birds	D	D	D	D	A	A	A	A	D	D	D	D	D	D	D	D
 Vegetation	B	B	B	C	C	B	B	B	C	B	C	C	D	B	B	A
 Other	D	D	D	B	A	A	A	B	A	B	B	B	C	C	B	B

Grades

A

Excellent

Most (75-100%) of ecological objectives have been met

B

Good

More than half (50-74%) of ecological objectives have been met

C

Fair

Fewer than half (25-49%) of ecological objectives have been met

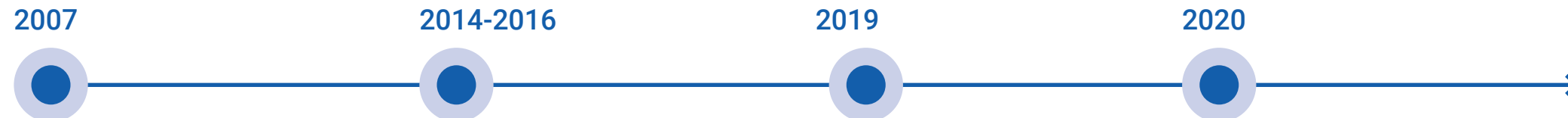
D

Needs attention

Few (0-24%) of ecological objectives have been met

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Data not available



Hunters Creek small vertical slot fishway installed at Hindmarsh Island.

Six new fishways installed providing fish passage to all barrages.

South East Flows Restoration Project completed, increasing the average annual volume of flow to the Coorong south lagoon.

Community, scientists, Ngarrindjeri and government gather to celebrate 10 years of continuous flows from the river to the Coorong.



20 years of The Living Murray
Much achieved, much to do

In winter 2020, water for the environment supported the largest recorded lamprey (ancient eel-like fish) migration event in the region. A total of 101 lamprey were caught and tagged at the barrage fishways. One pouched lamprey swam nearly 900km to Mildura where it was detected moving through a fishway.



Seasonal fluctuations of water levels in the Lower Lakes have led to a steady improvement in the condition of aquatic vegetation communities over the last 13 years. Water for the environment is critical to achieve these fluctuations.

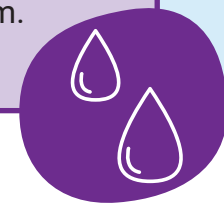


SOUTH AUSTRALIA

For more than 20 years, Coorong waterbirds have been recorded in an annual summer census. Numbers of migratory waders have declined significantly, particularly since dry conditions have reduced end of system flows. With the southern Coorong showing some signs of recovery post-2022 flooding, water managers expect increased waterbird abundances in the future.



Extremely high levels of salt and nutrients in the southern Coorong is causing serious ecological harm. A hypersaline (several times more saline than seawater) and nutrient-enriched state has resulted in the loss of aquatic plant and animal species, and an increase in algae. Solutions are being investigated via the Healthy Coorong, Healthy Basin program.



Freshwater flow to Coorong mudflats is essential in stocking mudflats for migratory birds. Coorong mudflat invertebrates are sensitive to salt so if the water is too salty, many species, like snails, crustaceans, worms and insect larvae, cannot survive.

