




Kerang Wetlands Ramsar Site

Citizen Science Project Snapshot
Report 2022



WaterWatch
Victoria

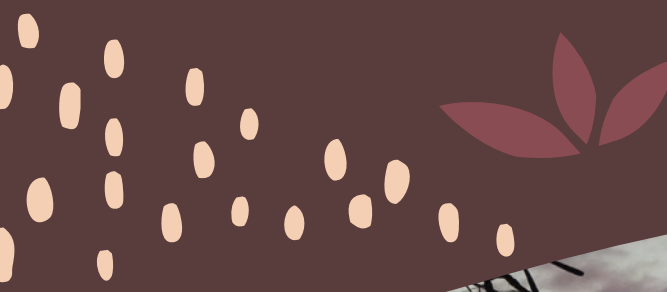


North Central WaterWatch supports people to actively care for their environment by participating in citizen science programs that monitor and report on the health of the region's land, water, and biodiversity resources.

The North Central CMA region is home to the Kerang Wetlands, an extensive system of more than 100 wetlands. Twenty-three of these lakes, marshes and swamps are recognised as internationally significant through their listing under the Ramsar Convention on Wetlands. Wetlands are one of the most threatened habitats in the world; the Convention exists as a framework for international cooperation for their conservation and wise use. The Kerang Wetlands are vital nesting and feeding grounds for waterbirds and other wetland dependant species.

The Kerang Wetlands also hold great significance to the Barapa Barapa and Wamba Wemba Traditional Custodians. With many thousands of years of knowledge handed down through the generations, North Central Waterwatch see First Nations people as best placed to monitor the health of these wetlands. We are providing employment opportunities for Traditional Custodians to spend more time on Country while monitoring the health of these important wetlands.

The information gathered and partnerships formed will help to inform and the North Central CMA how to manage the site through the Kerang Wetlands Ramsar Site monitoring and management project 2021-24.



Works and monitoring activities to date:

The Kerang Wetlands Ramsar Site project undertakes on-ground work and monitoring activities to ensure the ongoing health of the site, while the citizen science project has undertaken water quality and pesticide monitoring as well as engaging local schools through the River Detectives program.

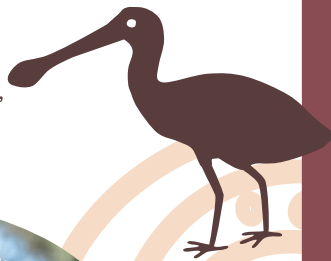
Rabbit control

- 37.5 kilometres of bait lines laid for rabbit control at Lake Tutchewop, Lake Kelly, Little Lake Kelly and Lake William
- Monitoring of pre and post baiting using spotlight counts showed a per cent reduction in rabbit numbers per spotlight kilometre



Waterbird surveys

- 43,000 individual birds were observed in 32 surveys across the Kerang Ramsar site.
- 77 species of wetland birds were observed
- 28 of these species were observed breeding (most abundant was the straw-necked ibis with 1,800 nests, white ibis with 470 nests and royal spoonbill with 200 nests)
- Some other highlights included curlew sandpipers, Pacific golden plover and magpie geese



Water quality monitoring

Traditional Custodians have been employed to monitor water quality eight sites across the Kerang Wetlands. As regular monitoring has only recently commenced again, not enough data has been gathered yet to enable accurate interpretation of results. Results will be included in the 2023 report.

Parameters included in the monthly monitoring program are electrical conductivity (an indication of salinity), dissolved oxygen, pH, turbidity and reactive phosphorous.

North Central CMA has been keen to see regular monitoring being undertaken again and are pleased to have the knowledge and enthusiasm of Traditional Custodians to work alongside us in gathering this important information.

River Detectives

- St Joseph's Primary School Kerang
- Lake Boga Primary School
- Gunbower Primary School
- Koondrook Primary School
- Leitchville Primary School
- Lake Charm Primary School
- Kerang Christian College
- Boort District P-12 College

River Detectives staff delivered two engaging incursions at local schools during May. Students at Lake Boga primary school learned about catchment health, water quality monitoring methods and conducting habitat assessments. Murrabit Primary School had an induction to the River Detectives program as well as an introduction to water science and freshwater ecosystems.

A flagship partnership event Going with the Flow: River Detectives Kids on Country was a major drawcard for more than 100 local primary school students for a day of discovery at Tree Tops Scout Camp in the Gunbower Forest. Students from St Joseph's Kerang, Gunbower, Leitchville and Koondrook primary schools were welcomed to Country in a smoking ceremony by Barapa Barapa Elder Uncle Ron Galway, before being treated to range of hands-on activities to learn more about the Gunbower Forest and cultural traditions. Partners Parks Victoria and Native Fish Australia were also in attendance, delivering hands-on activities to help students learn more about the waterbugs and native fish that call the Gunbower Forest home.

Lake Tutchewop South End
Site Code: TUT001

TUT001

Mystic Park



Graham Kirby Lake Tutchewop



Laura Kirby records water quality data

CUL001

Lake Cullen
Site Code: CUL001

Fairley

Middle Reedy Lake
Site Code: REE003

REE003

REE002

Reedy Lake at Apex Park
Site Code: REE002

Dingwall



Graham Kirby measures turbidity at Reedy Lake

Johnson Swamp
Site Code: JOH001

JOH001

PYR025

PYR018

HIRO01

Hird Swamp
Site Code: HIRO01

Pyramid Creek at Hird Swamp
Site Code: PYR018



Laura Kirby Hird Swamp

Pyramid Creek at Johnson Swamp
Site Code: PYR025

Kerang East

Cullen

Mead



Future monitoring

Staff have been exploring opportunities to involve the community in other monitoring activities and there are some exciting programs planned for future years.

One such technique that is being utilized more frequently is environmental DNA (e-DNA) monitoring. Many species living in or accessing the waterway can be identified from fragments of DNA. This project engaged La Trobe University's Department of Environment and Genetics to determine the presence or absence of 24 native and invasive fish species of interest. Traditional Custodians participated in this e-DNA monitoring at eight sites across the Kerang Ramsar site. Results will be presented in the 2023 report.

North Central citizen science programs have been supporting a study into the presence of pesticides in Australian waterways led by Deakin University. A pilot study for Pesticide Watch was conducted in the region during Spring 2022 and is currently being rolled-out across Australia. Traditional Custodians and River Detectives schools participated in 2023, with findings due later in the year. Results are expected to give an indication of which kinds of pesticides are present in the catchment, as well as noting the legal status of their usage.

Acknowledgement of Country

The North Central Catchment Management Authority (CMA) acknowledges Aboriginal Traditional Custodians within the region, their rich culture and spiritual connection to Country. We also recognise and acknowledge the contribution and interest of Aboriginal people and organisations in land and natural resource management.

We thank and acknowledge Barapa Barapa, Wamba Wamba, and Yorta Yorta Traditional Owners for their interest, involvement and contribution to the program.

Want to get involved?

We are looking for volunteers to help with monitoring our important Ramsar sites.

We're calling on the local community to help keep a watchful eye on the health of our priority waterways.

If you'd like to get involved and become a volunteer citizen scientist, please register your interest with one of our citizen science project officers at:

Email: citizenscienceteam@nccma.vic.gov.au

Ph.: (03) 5448 7124

Office: 628-634 Midland Hwy, Huntly Victoria 3551



Laura and Andre water testing



Barapa Barapa woman Laura Kirby. Photo: Bill Conroy

The Victorian Government is supporting community partnerships over the next four years through WaterWatch and other citizen science initiatives to address local waterway priorities. These priorities are being addressed as part of the Victorian Government's \$222 million Water for Victoria investment over the next four years to improve catchment and waterway health across regional Victoria.