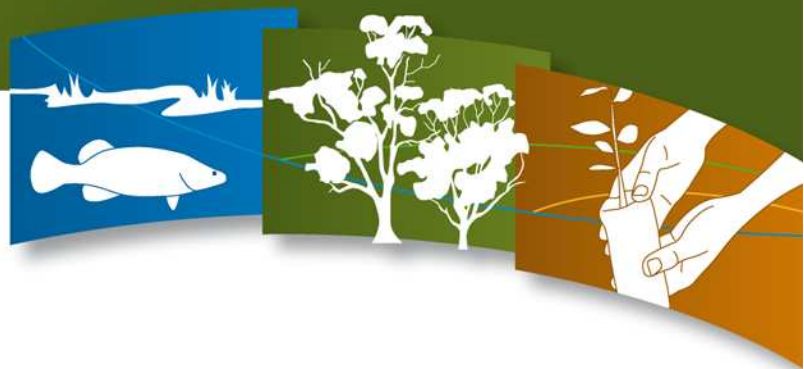


# The role of wetlands



**NORTH CENTRAL**  
Catchment Management Authority  
*Connecting Rivers, Landscapes, People*



A wetland is a habitat or ecosystem affected by water. Wetlands vary according to their origin, geographical location, wetting and drying cycles, dominant plants and soil characteristics.

## Why are wetlands important?

Wetlands occupy the transitional zone between permanently wet and generally dry environments. Therefore, they contain a diversity of both aquatic and terrestrial flora and fauna, and form the most productive and diverse biological systems on earth.

Wetlands fulfil an important role in maintaining the hydrological stability of a region. They act like sponges, storing rainfall, reducing the volume and speed of runoff, and slowly releasing water through drier periods. Wetlands can also act as 'sinks' by removing nutrients and pollutants.

People value wetlands as a resource for recreational activities including sailing, fishing, swimming, nature photography, hunting and birdwatching. Because of their diversity and productivity, wetlands can be used to illustrate many features for students, research scientists and community groups. Their diversity of colour and textures is often a striking visual contrast to the surrounding environment and therefore they have high scenic values.



*Canoeing through flooded Gunbower Forest near Cohuna, a Ramsar-listed wetland. Photo: Sandra Volk, North Central CMA*

Wetlands were visited and settled by people in the past as they provided hunting grounds and were rich in edible plants, fish and shellfish. Evidence of past human settlement, fishing methods and other uses can often be found in and around present and former wetland sites. Evidence includes mounds, scarred trees, middens, burials, cooking hearths, surface scatters and isolated artefacts on the margins of swamps, levees, river banks, and on lunettes around swamps.

Wetland resources can also generate primary production benefits to human society through the use of forests, wildlife, fish, grazing land, crops and salt storage/production.

## Wetlands in the mid to lower Loddon catchment

Information on wetlands linked directly to the Loddon River is patchy, with most information available from the lower northern end, known as the Kerang Lakes.

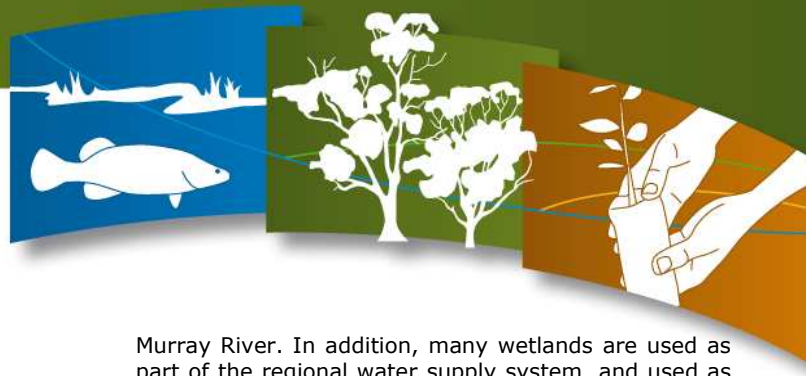
A number of wetlands exist in the middle Loddon River floodplain. These include Lake Murphy, Tragowel Swamp, Lake Leaghur, Lake Meran, Great Spectacle Lake, Round Lake, Tobacco Lake, Two Mile Swamp, Lake Yando, Lake Lyndger, Bora Swamp, Woolshed Swamp, Lake Boort and Little Lake Boort.

It is assumed that all, or most, of these were historically filled by flood flows originating from the Loddon River or its tributaries.

Changes to the floodplain (i.e. construction of levees, alterations to the natural drainage pattern, installation of irrigation controlling structures) means the natural watering conditions of these wetlands are vastly different to their pre European water regime.

Other degrading processes that wetlands throughout the Loddon catchment are subject to include rising ground water, salinisation, changing water quality, effects of stock, weeds and European carp.

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### Kerang Lakes

The Kerang Lakes are nationally and internationally significant wetlands. They are recognised wetlands under the Ramsar Convention. The Ramsar Convention on Wetlands is an inter-governmental treaty that provides the framework for international cooperation for the conservation of wetlands, one of the most threatened habitats in the world.

The key environmental values of the Kerang Lakes for which they were listed are their representiveness of particular wetland types, flora and fauna, and waterbirds. Other values include their natural function, as well as cultural heritage, scenic, economic, education and interpretation, re-creation and tourism, and scientific values.

The Kerang Lakes feature a variety of permanent and temporary wetlands, including permanent freshwater lagoons, permanent open freshwater lakes, deep freshwater marshes, saline lakes and hypersaline lakes.

The wetlands include Lake Tutchewop, Lake William, Lake Kelly, Little Lake Kelly, Kangaroo Lake, Racecourse Lake, Lake Charm, Little Lake Charm, Top (Third) Marsh, Middle (Second) Marsh, Bottom (First) Marsh, Lake Bael Bael, Lake Cullen, Stevenson Swamp, Third Lake, Middle Lake, Reedy Lake, Back Swamp, Town Swamp, Cemetery Swamp, Johnson Swamp and Hird Swamp.



Aerial view of Ramsar-listed Middle (Second) Marsh – Kerang Lakes (1998)  
Photo: North Central CMA

These wetlands support a range of vegetation including Black Box and River Red Gum, Tangled Lignum, Chenopod (saltbush) Shrubland, Grassland, Reedbed and Aquatic plant communities.

Although situated in the Loddon catchment, only some of the Kerang Lakes are directly affected or controlled by the Loddon River. Other influences on the wetlands are inflows due to diversions, local drainage and the

Murray River. In addition, many wetlands are used as part of the regional water supply system, and used as storages, disposals, as well as by ground-water. The range of hydrologic controls and the diversity of uses make ecological management of the wetlands a challenge.

Several local government agencies have management responsibilities for the wetlands. These include Parks Victoria, Goulburn-Murray Water, the Department of Primary Industries, the North Central Catchment Management Authority, the Shire of Gannawarra and Lower Murray Water under the provisions of relevant legislation. A Strategic Management Plan for the Kerang Lakes exists to facilitate conservation and wise use of the area, and where practical, restore the ecological values for which it is internationally recognised.

### Would you like to find out more?

To find out more please contact:

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Information for this fact sheet was sourced from:

- Department of Natural Resources and Environment (DNRE) (undated) *Wetlands – resource materials for teachers*.
- Loddon River Environmental Flows Scientific Panel (LREFSP) (2002) *Environmental Flow Determination of the Loddon River Catchment: Issues Paper*. Unpublished report to the North Central Catchment Management Authority and Department of Natural Resources and Environment.
- Parks Victoria (2002) *Kerang Wetlands Ramsar Site – Draft Strategic Management Plan*. Parks Victoria, Melbourne.

Or visit our website at:

[www.nccma.vic.gov.au](http://www.nccma.vic.gov.au)