Horseshoe Lagoon is one of more than 7,000 wetlands along the Murray River between Lake Hume and the mouth of the Murray in South Australia.

The area includes a ‘horseshoe’ shaped lagoon, a billabong, and a small depression that fills during high rivers.

The environment is typical of floodplains along the Murray River. It provides homes for native birds, animals, plants and fish. The area also contains important environmental features.

The reserve is widely used for walking, bird watching, running, bike riding, seed collecting and other low-impact activities. It can also help you to learn about the importance of wetlands and floodplains along the mighty Murray River.

Please enjoy the area. Do not disturb native plants, animals or birds, and please take your rubbish home with you.
HISTORY
This reserve was once part of a large tribal area occupied for thousands of years by Aboriginal people. After white settlement, the reserve became part of Moira Station.

Settlement around the lagoon is strongly linked to the history of Moama. Two of the town’s many hotels and a cordial factory were built next to the lagoon.

A wharf was built in 1879 on the northern bank of the lagoon but was abandoned when it was discovered that riverboats could only access the wharf during high rivers. A new wharf was built in 1891 on the Murray river but by then, the riverboat trade was declining. This second wharf was rarely used but became a platform where generations of Moama children learnt to swim.

Management of the reserve was given to Murray Shire Council in 1976. A new wharf, boardwalk and signs were erected in 1988. In 2003, a management plan for the area was prepared to improve the area’s recreation and environmental value.

THE NATURAL ENVIRONMENT
Horseshoe Lagoon contains some important environmental features of Murray River wetlands and floodplains.

The natural environment is in fairly good condition, with few changes evident since the time of white settlement.

Remnant red gums and Grey box trees represent natural plantings – some are probably over 200 years old.

Dead trees and snags provide homes (habitat) for birds, animals and fish. There are good stands of Silver wattle but they only enjoy a short life span.

Shrubs and grasses under the trees may not look impressive but they are an important part of the environment and provide food and shelter for birds and animals.

Because the reserve is close to homes, weeds will always need careful management to prevent them spreading.

VEGETATION – THE GREEN BITS!
There are three types of plant communities within the reserve

Water plants - The horseshoe-shaped lagoon and billabong have few water plants, due to the murky water and lack of a natural flow. Dead trees in the centre of the billabong suggest that the area has been full of water for long periods.

The fringe dwellers - The horseshoe-shaped lagoon contains little natural fringing vegetation apart from some small clusters of Red gum seedlings. The edges of the billabong are well vegetated with native Moira Grass, as well as sedges and rushes, both native and introduced species.

Open forest - The reserve is basically an open forest, typical of Murray River floodplains. The trees are mainly River red gums, some over 200 years old. The smaller red gums are between 50 and 100 years old.

Shrubs and grasses in the understorey vary according to the soil type. Good stands of Silver wattle grow alongside native and introduced grasses and herbs.

There is a small area of Grey box trees at the eastern end of the reserve where there is a slight rise in the landscape. The understorey is a mixture of native and introduced herbs and grasses.

ABORIGINAL OCCUPATION
The reserve was once part of a tribal area occupied for thousands of years by the Aboriginal people of southern NSW.

The traditional owners lived in harmony with the environment and relied on the changing seasons for food, shelter, burial sites, canoes, clothing and religious ceremonies.

Surveys have been done to determine sites of significance. Surveys are vital to identify and protect sites of significance to Aboriginal people.
RIVER RED GUMS

River red gums (*Eucalyptus camaldulensis*) are the most widely distributed eucalypt tree in mainland Australia. These trees line almost the entire length of the Murray River, contributing to the social, economic and environmental well being of river communities.

The trees provided food, shelter, containers, medicines, transport and fire for Aboriginal people. Through folklore, literature, music and art, River Red Gums have a strong place in Australian culture.

Red gums slow down floodwaters, act as filters, trap debris and sediment. Trees and broken branches that fall into waterways become snags, which are vital for native fish. Hollows provide homes for native birds, animals, insects and reptiles.

River red gums grow where local rainfall is generally too low to support their growth. The trees need floods and underground water to survive. Floods also encourage seed germination but prolonged flooding, fire and droughts can kill red gums. In times of drought, red gums may shed leaves to reduce water use.

The greatest threat to red gums is river regulation. Some trees get too much water, some from too little. Fire management has reduced regeneration and created different growth patterns. We need to improve water management and find a better balance between economic, environmental and community uses.

THE WET BITS! – THE BILLABONG

Billabongs are natural features of floodplains. However, regulation of the Murray River has altered the natural water regime of many billabongs along the river.

Surrounding the billabong is a typical open forest of Murray River floodplain, comprising mainly River Red Gums.

Dead trees in the centre of the billabong indicate that it has been subject to long periods of inundation by water. However, dead trees also provide valuable nesting places for birds, especially the hollows.

THE WET BITS! – THE LAGOON

The large lagoon, a natural feature of floodplains, is now isolated from the river by an earth bank. As with many wetlands, regulation of the Murray River has changed the natural water regime of the lagoon dramatically.

Under natural conditions, flooding occurred in winter & spring. Under regulated conditions, flooding is more likely to occur in late-spring but less frequently.

Because of the link with Moama’s stormwater system and possibly groundwater, the lagoon remains filled with water almost permanently (although levels can vary throughout the year).

The area surrounding the lagoon is a typical open forest of the Murray River floodplain, comprising mainly River Red Gums. There is evidence of several large original trees (over 200 years old) while the smaller trees are probably between 50 and 100 years old.

FUR, FEATHERS AND FINS!

**Animals** – The reserve is home to many animals including brushtail possums, sugar gliders, squirrel gliders and feathertail gliders. Many you won’t see except in the evening … but they are probably watching you!

**Birds** – Up to 90 species of birds may be found around Horseshoe Lagoon at different times of the year. They make their nests in live and dead trees and rely on trees, grasses, wetlands and the river for their food and nesting materials.

Birds commonly seen include ducks, ibis, herons, spur-winged plovers, rock doves, galahs, corellas, crimson & yellow rosellas, kookaburras, white-throated tree creepers, thornbills, friarbirds, honeyeaters and the tawny frogmouth.

**Reptiles** – Snakes, lizards and turtles contribute to the life cycle of this area. Tread carefully in summer as a track is an ideal place for reptiles to warm themselves.

**Fish** – In their natural state, the lagoon and billabong would have contained a lot of native fish but river regulation and fewer floods have reduced their numbers and types. The only native fish left are Carp Gudgeon and Flat Headed Gudgeon but they are outnumbered by introduced species such as goldfish, carp and mosquito fish.
At first glance, wetlands may just seem to be bits of swampy water. However, collectively, wetlands are powerful ecosystems, playing a vital role in maintaining biodiversity and the health of our river systems.

Wetlands are amongst the most important, productive and valuable ecosystems in Australia. They provide very diverse and productive environments and are critical for the health of our rivers and floodplains.

Many of the wetlands along the Murray River were formed over 8,000 years ago but were drained after white settlement. It is only in recent years that we have discovered the value of these ‘kidneys’ of the river system.

Wetlands are essential breeding grounds for native fish and waterbirds. They provide shelter for birds that feed on agricultural pests; absorb floodwaters; provide refuge during droughts; improve water quality and replenish groundwater. They are becoming important for education, research, recreation and tourism. They contain valuable cultural and heritage sites.

River regulation of the Murray River has had a dramatic impact on wetting and drying processes so vital for good wetlands. This has reduced their impact on river systems. Community groups, scientists and governments are now working to rehabilitate and restore wetlands across the Murray-Darling Basin.

You can help by better understanding wetlands and supporting this important work.