

## The Key Issues and Solutions for The Macquarie Marshes

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The key wetlands of the Macquarie Marshes encompassed in the Government owned Nature Reserves are dying. The Southern Nature Reserve is all but gone and the Northern Nature Reserve is in rapid decline. At the same time, wetlands on private land are expanding.

Much of the water destined for the Nature Reserves never reaches them.

Since the construction of Marebone Weir in 1979, water has consistently been diverted from the Macquarie system into the Gum Cowl/Terrigal system that has now created a new wetland complex entirely on private land. Up to 30% of flows destined for the Nature Reserves have been diverted into this system. These redirected flows are in direct competition with the established wetland's ongoing health. Once water enters the Gum Cowl/Terrigal system it is diverted and banked up across the flood plain by no less than 30 banks and channels. This water creates wonderful feed for fattening cattle, but kills the trees that are flooded- not a good environmental outcome. The resulting man-made wetlands are grazed bare.



Photo showing all the dead trees as a result of consistent diversions into the Gum Cowl – away from the Nature Reserves



Photo showing diversions out of the Gum Cowal onto the flood plain to create grazing opportunities

Upstream of both Nature Reserves are large systems of banks that directly rob the Reserves of much of their water particularly in small to medium flows. The Southern Nature Reserve lost 60% of its reed beds prior to the construction of Burrendong Dam. These were lost due to change in flows, overgrazing and consistent burning of the reed beds. The remaining 40% of reed beds were still present in 1981. However, in 1984 a large bank was constructed directly upstream of the Nature Reserve. Today the reed beds are all but gone.



Photo showing the bank upstream of the Southern Nature Reserve

We now find that the Northern Nature Reserve has had large banks constructed upstream of it over the past 7 years. It is not hard to predict the outcome here.



Photo showing banks being constructed upstream of the Northern Nature Reserve

The bottom line is that all this water diverted from the Nature Reserves goes onto private land for the purpose of growing fodder for cattle. The graziers are certainly not investing thousands of dollars on all these structures for the benefit of the environment! The effect of grazing these wetlands can be clearly seen in the following picture that shows private land grazed on the left contrasted with the Northern Nature Reserve on the right.



The solution:

Need to conduct an **independent** audit of all the banks and diversions within the Marshes.

Need to investigate the introduction of successful erosion control structures within the Nature Reserves to bring back their ecological values.

Identify all the key wetlands and those of significant value need to be purchased and managed for conservation.

The rationale for land purchase rather than water entitlement purchase:

- There is approximately 50,000ha of core marsh country (40,000ha of semi-permanent wetland)
- 18,000ha is in current nature reserves
- To purchase the remaining 32,000ha from willing sellers @ \$800/ha = \$26 million
- Land to be managed by an environmental management group
- Alternatively, \$26 million = 10,600ML (@ \$1350/ML (and 55% reliability) = **only 2.7%** of total water the marshes currently receive on an average annual basis.