

CASE STUDY: Integrated Water Cycle Management

APPENDIX 2: The Value of Wetlands and the Threats to Porters Creek Wetland (extracted from Info Sheet 5-2 of the *Porters Creek Wetland CD-ROM* available to Schools through Gosford and Wyong Councils).

The Value of Wetlands

A wetland is a habitat with plants adapted to waterlogged soils. These wet soils may occur permanently, seasonally, ephemerally or tidally. Vegetation in wetlands may be dominated by sedges, rushes, reeds, herbs, shrubs or trees.

Wetlands are among the world's most productive ecosystems and contribute greatly to the health of downstream river systems and estuaries. Wetlands filter nutrients and sediments from runoff. They reduce downstream flooding by retaining flood waters for a period of time. They are also habitat for many plants and animals (playing a particularly important role in fish and bird breeding).

For many years wetlands were not valued and were filled-in for other uses. Many that remained were degraded by draining, clearing, grazing and by activities in the surrounding catchments which changed water flows and reduced water quality. It is estimated that over half of Wyong Shire's wetlands have been lost since European settlement.

Attitudes towards Wyong's wetlands changed during the 1990s. During this time Wyong Council mapped the significant local wetlands and created special conservation zoning, called 7(g), to protect them. In addition the NSW government gave 29 of Wyong's wetlands protection under the Coastal Wetlands State Environmental Planning Policy 14 (SEPP14).



Pristine wetland (source: Wyong Council)



Degraded wetland

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Threats to Porters Creek Wetland

Porters Creek Wetland has had a long history of human impact. Major impacts on the wetland over the last century have been: clearing, cattle grazing increased burning and the construction of drainage channels, the Main Northern Railway and the Sydney Newcastle Freeway. Invasive weeds and feral animals have been introduced to the wetland and are now a serious threat to the native species. Today, urban development is further reducing the natural bushland of the catchment and increasing the flow of stormwater into the wetland. Due to concern about these threats, Wyong Council has developed a Management Plan for the wetland and is introducing improved stormwater treatment and 'water sensitive urban design' in Warnervale catchment.



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