Department of Sustainability and Environment

# **Cane Grass Wetlands**

Threatened in the Goulburn Broken Catchment

100% of Cane Grass Wetlands have been cleared in the Goulburn Broken Catchment.



Figure 1. A healthy example of a reconstructed Cane Grass Wetlands on private property with important diagnostic and habitat features highlighted.



Figure 2. An example of a Cane Grass Wetland at Tomlinsons Swamp.



hoto: Tony Kubeil

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## Description

These shallow wetlands (~1m in depth) remain inundated for approximately 4-6 months and occur on the alluvial plain in depressions with a clay soil base. These are open swamps or shallow freshwater marshes dominated by Cane Grass, and typically have low plant diversity and are dry for extended periods.

A woodland of River Red Gum and occasionally Grey Box, may occur on the perimeter of these wetlands, which may then grade into the more diverse Plains Grassy Woodland or Plains Woodland.

Cane Grass forms a dominant sward with sedges such as Spiny Flat-sedge and Common Spike-sedge.

Common aquatic plants include Upright Milfoil, Red Milfoil and Floating Pondweed.

# **Species To Look Out For**

Flora: Cane Grass (v), Dookie Daisy (v).

Fauna: Brolga (v) and Egrets (v), Hardhead (v), Whistling Kite, Swamp Harrier, Black Swan.



Figure 3. Brolga Photo: DSE/McCann

Figure 4. Hardhead Photo: DSE/McCann

Figure 5. Black Swan Photo: DSE/McCann



Figures 6-9. Cane Grass, Cane Grass, Common Spike-sedge and Upright Watermilfoil.

## Why Cane Grass Wetlands are Threatened

Cane Grass Wetlands are listed as extinct, however observation suggests that this may be due to inadequate mapping, and those that remain are highly modified. They are certainly rare, and any that are intact are precious. Many of the plants and animals that rely on this habitat are now also threatened, and some are extinct. The support of private landholders is essential for the ongoing conservation and restoration of Cane Grass Wetlands.

Current threats include, **poor timing of stock grazing and overgrazing (**causes loss of native species through selective grazing and trampling, hinders native plant regeneration, disturbs the soil and ncreases nutrient levels), **increases in nutrients** (favours weeds, causes excessive plant growth which restricts water movement and reduces dissolved oxygen), **alteration of natural flooding, flow and temperature regimes** (changes floodplain functions, and can result in loss of native species, it disrupts the delicate balance of the system, threatening the viability of the remnant), **difficulty in identifying wetlands** (often results in inappropriate management such as tree planting and grazing at inappropriate times of the year), **isolation** (restricted movement of fauna, difficult to maintain healthy gene pool), lack of natural **regeneration**, **soil disturbance** (eg. ploughing and pugging, favouring weed species), **weed invasion**, **pest animals** and loss of **tree** and **ground habitat** (through timber harvesting, tidying-up of fallen timber and firewood collection).

Photos: 6-8 Mary Titcumb; 9 Keith Ward

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## **Management Tips**

Revegetate around remnants to buffer from Spot spray using species specific herbicide suitable for waterways to prevent seed set of target weeds (commonly Phalaris and Preclude chemical residue entering any Restore native understorey in appropriate places around the wetland by direct seeding waterbodies. and / or replanting Leave fallen timber for habitat #Mosaic or patch burning weedy, open areas in early summer immediately following exotic grass seed set (many are too green to burn in spring), could be an option. Restore natural drainage and wetting/drying regimes Soon after fire spot spray weedy grasses Avoid driving vehicles through remnant to (commonly Phalaris) with a grass-specific minimise disturbance herbicide, avoiding native plants.

Tony Kube

Figure 10. An example of Cane Grass Wetland at Moodies Swamp, heavily infested with thistles, Phalaris and other weeds. May require expert input in decision making and planning. See your local DSE or CMA representative for further advice.

Figure 11. Another example of Cane Grass Wetland in poor condition in parts of Moodies Swamp.





### **Conservation Status**

Cane Grass Wetlands is threatened in the Goulburn Broken Catchment Victorian Riverina bioregion : Extinct Northern Inland Slopes bioregion : Extinct

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Figure 12. A representation of the pre-1750 and present day distribution of Cane Grass Wetlands and its mosaics and complexes in the Goulburn Broken Catchment. The boundaries of the vegetation have been exaggerated to allow for the small scale of the map. The map was produced from Base Data from DSE Corporate Library. The State of Victoria does not warrant the accuracy or completeness of information on this map. Any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

#### **References:**

Berwick, S. (unpublished) Pre-1750 EVC mapping, Goulburn Broken CMA, Department of Natural Resources and Environment, Benalla

Department of Conservation and Natural Resources (1996) Manual of Wetlands Management, National Parks Service and Department of Natural Resources and Environment, East Melbourne.

Department of Natural Resources and Environment (2001) Freshwater Ecosystems 3 Biodiversity Management Issues, Department of Natural Resources and Environment, Melbourne.

Department of Sustainability and Environment (2004) EVC Bioregional Conservation Status Table, a support document to: Department of Natural Resources and Environment (2002) Victoria's Native Vegetation Management - A Framework for Action Support Data, NRE.

Land & Water Australia (2002) River Landscapes Fact Sheets 1-13, Land & Water Australia, Canberra.

Martin, D. and Robinson, J. (2001) Chapter 10 Enhancing streams by revegetating & erosion control from: Earl, G. et al. (2001) *Revegetation Guide* for the Goulburn Broken Catchment, Department of Natural Resources and Environment, Benalla.

Platt, S.J. (2002) How to Plan Wildlife Landscapes: a guide for community organisations, Department of Natural Resources and Environment, Melbourne.

Viridans Pty Ltd. (2004) Victorian Fauna Display, Viridans Pty Ltd., Melbourne.

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