

Practical Change for Queensland's Wetlands

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ABSTRACT

Wetlands are a key part of healthy coastal catchments. They filter sediment and nutrients, capture flood waters and provide homes, food and breeding grounds for many fish, birds and frogs. They are an integral part of first-class biodiversity and water quality for the river catchments, all the way to the reefs of coastal Queensland. WetlandCare Australia with the support of the Commonwealth and Queensland Governments, Queensland Wetlands Programme, Burdekin Dry Tropics Natural Resource Management (BDTNRM), Burnett Mary Regional Group (BMRG), Bureau of Sugar Experimental Sciences (BSES) and many others, have been working towards practical change in wetland management.

Before change can occur, knowledge is required. WetlandCare Australia and partners have been working toward helping those managing wetlands to 'do the right things' for their wetlands. This information is being delivered to farmers, Councils and extension officers to ensure a wide and growing audience is reached. Knowledge, awareness and action are being driven by the use of some key tools; practical guides, landholder extension officers, planning and by seeking funding for works. This allows wetland managers to have information and support on-hand, over the phone and in the paddock.

This blend of resources has resulted in a change in practical wetland management and broader land practices to the benefit of the environment and often, also for a production benefit. Changes have included; integrated weed and feral animal control, farm planning including wetland outcomes, improved riparian zones and corridors, better on-farm water, nutrient and pesticide management, and many more.

These changes are having a direct result on improved coastal catchment biodiversity and water quality. These benefits can only grow as this information is taken up more broadly throughout the community.

TOOLS

WetlandCare Australia, with funding from the Australian Government and assistance from the Queensland Environmental Protection Agency, through the Coastal Wetland Protection Programme and the Queensland Wetlands Programme, and with the assistance of many contributors, have put together Wetland Rehabilitation Guidelines for Great Barrier Reef Catchments.

The Guidelines walk the user through wetland values and threats, planning for rehabilitation and a wide range of wetland rehabilitation techniques tackling threats including weeds, feral animals, habitat and vegetation loss, hydrological change, acid sulfate soils, erosion, water quality, grazing and fire management.

The Guidelines are practical and on-ground focused, written for natural resource management and industry extension officers as well as landholders with an interest in wetland management. All techniques included within the Guidelines have been trialled in Queensland's wetlands, however not all techniques have been documented before.

The key objective of the Guidelines is to take away the mystery in wetland management and rehabilitation and allow all wetland managers, at any level of knowledge, to do something positive toward wetland health.

WetlandCare Australia, with funding from the Australian Government, through the Coastal Wetlands Protection Programme – Pilot Programme, with the support of the Bureau of Sugar Experimental Sciences (BSES) and Qld Canegrowers, have developed the 'SmartCane' Riparian and Wetland Areas on Cane Farms booklet.

The booklet is part of an industry focused set of six booklets aimed at best management practices for the cane industry. Key wetland management topics for cane farms covered by the booklet include; riparian and aquatic weed control, streambank revegetation, drainage discharge, constructed wetlands, fish habitat and passage and feral animal control.

Both the Guidelines and the booklet also cover the suite of legislative requirements surrounding working with wetlands, where to find technical advice and further reading.

There are also a range of further materials recently produced to assist with wetland management, including the Department of Primary Industries; Wetlands on Farms – Best Management Practices as part of their Farm Management Systems program. There are also many key tools and documents on the Queensland Wetlands Programme's first-stop shop for wetlands – WetlandInfo located at www.epa.gov.au/wetlandinfo.

TRIALS

WetlandCare Australia with the assistance of varying partners and patient landholders have trialled a number of wetland management techniques in Queensland wetlands over the past three years.

In the quest for control of exotic grasses such as para grass, guinea grass and hymenachne WetlandCare Australia, with partners, have undertaken a number of control trials on the Burdekin floodplain.

With funding from Burdekin Dry Tropics Natural Resource Management (BDTNRM) and the Department of Primary Industries and Fisheries (DPI&F), grazing trials in riparian and wetland areas were recently developed and undertaken by WetlandCare Australia, in conjunction with Econcern, the Environmental Protection Agency, Burdekin Shire Council and James Cook University.

Trial and monitoring sites were set up to compare the resulting exotic grass control in grazed and non-grazed wetland and riparian areas within the Burdekin River Irrigation Area (BRIA).

The results were clear: Grazing in the Lower Burdekin, particularly where hydrology had been modified, made a significant, positive difference in the biodiversity and water quality of riparian and wetland areas. The key to the success of using grazing to control exotic grasses was balance and timing. It was important to use the seasons to dictate when to graze and spell the wetland area, allowing native species recovery.

The use of appropriate fire regimes have also been trialed toward the control of exotic grasses, with success on the Burdekin floodplain, particularly in conjunction with appropriate grazing.

WetlandCare Australia, the Australian Centre for Tropical Freshwater Research (ACTFR) and the Burdekin Shire Council have also been trialing effective methods for aquatic weed control. ACTFR recently trialed the use of brine spraying to loosen tightly formed aquatic weed mats, as an alternative to pesticide use, with some success.

Burdekin Shire Council have been utilising landholder cooperation in weed control, where landholders report weed infestations as they occur and collaboratively pay for

the Council weed control team to act upon weed outbreaks as soon as they occur. This has been particularly effective in the larger lagoonal wetlands on the floodplain, with many landholders.

ACTION

WetlandCare Australia has worked with many private landholders over the past three years to begin to make practical changes to their wetland management and on-ground actions to rehabilitate their wetlands.

Through the Coastal Wetlands Protection Programme – Pilot Programme (funded by the Australian Government), in partnership with Conservation Volunteers Australia, ACTFR and Econcern, WetlandCare Australia have begun to make practical change to Queensland's wetlands from Mossman to Bundaberg. Particular issues that are being tackled include; aquatic, grass and woody weed control, fish passage, water quality, hydrology, feral animal control and re-vegetation.

Through on-going partnerships with Burdekin Dry Tropics Natural Resource Management (BDTNRM) and the Burnett Mary Regional Group (BMRG), WetlandCare Australia is currently undertaking practical change to priority wetlands in these two regions.

With the distribution of the, now available, wetland management and rehabilitation tools, WetlandCare Australia aims to continue to assist and provide knowledge to wetland managers to encourage and promote extensive practical and positive change to Queensland's wetlands into the future.

TAKE HOME MESSAGES

Practical changes for Queensland's wetlands have only just begun, there is much more to do, and much more that can be done with the practical tools that are now available to assist landholders, industry, council and the community to better manage their wetlands.

It will be increasingly important, going forward, to continue to refine and develop the most practical of wetland management and rehabilitation solutions.

WetlandCare Australia is dedicated to assisting the community to continue to better manage and improve Queensland's wetlands.