

Wetland management in agricultural production systems

This project aims to enhance the long-term health of wetlands in the Great Barrier Reef catchments through good agricultural land management.

Wetlands are an important part of our landscape. They provide habitat for a diverse range of animals and plants and their unique ability to trap sediments and filter nutrients is important in improving water quality in our waterways and the Great Barrier Reef.

Many of Queensland's wetlands are located on or adjacent to agricultural lands and management practices on farms can directly influence the health and ecosystem function of wetlands.



On-farm wetland at Mossman, North Queensland
Photo: DAFF

Not only are wetlands important for ecosystem health, they also provide a number of benefits to a farming enterprise such as:

- Erosion management
- flood management
- improved irrigation and stock water
- increased groundwater recharge
- pest management
- shelter belts
- seasonal foraging
- recreational opportunities
- increased land values
- increased farm biodiversity.

To support the uptake of improved wetland management on farms, the Department of Agriculture, Fisheries and Forestry (DAFF) partners with the Queensland Wetlands Program (QWP) to deliver the wetland management in agricultural production systems project funded by the Queensland Government.

The project aims to enhance the long-term health of wetlands in the Great Barrier Reef catchments through good agricultural land management. It will build on the wetland management tools and resources available on [WetlandInfo](#) and training delivered as part of QWP.

This project will provide information and support to the two key intensive agricultural industries in the Great Barrier Reef catchments—sugar cane and horticulture—to enable the long-term sustainable use and management of wetlands.

Activities will include:

- providing training to land managers, extension officers and other stakeholders in the design and construction of artificial wetlands and the rehabilitation and management of natural wetlands
- showcasing examples of good wetland management through the establishment of on-farm wetland demonstration sites
- producing and communicating information outlining cost-effective and practical methods of improving water quality leaving farms
- integrating wetland management principles into Reef Plan¹ programs.

The project will provide rural industry, extension officers, natural resource management (NRM) officers and land managers with streamlined tools and knowledge to manage wetlands and adjoining agricultural land uses for long-term wetland health and improve water quality in streams and the Great Barrier Reef.

¹Reef Plan is a joint Australian and Queensland Government program of coordinated projects and partnerships designed to improve the quality of water in the Great Barrier Reef through improved land management in Reef catchments.



On-farm wetland demonstration sites

Site 1—Wet Tropics



A banana/pawpaw farm adjacent to the South Johnstone River, South Johnstone. Photo: DAFF

Site 2—Burdekin



A cane farm near Sheepstation Creek, Lower Burdekin. Photo: DAFF

Site 3—Mackay



De Moylens lagoon, a large shared land use lagoon at Mirani. Photo: DAFF

Stage 1 rehabilitation activities

DAFF will manage and coordinate each wetland site and collaborate with stakeholders, including land owners, NRM groups, federal, state and local government agencies, researchers and local community groups to complete the projects. The rehabilitation works at each site will be continued and extended in stages as funding, timing and resources allow.

Rehabilitation works to be undertaken by June 2013 as part of this project include:

- engagement of specialist engineer consultants to design the water treatment systems and rehabilitation works required specific to each site
- disposal of rubbish including car bodies, domestic appliances, fuel drums, plastics and glass to council landfill sites
- earthworks to construct areas for capturing and treating farm run-off
- weed removal
- revegetation and regeneration of native endemic species
- development of management plans for long-term maintenance
- implementation of water quality programs to compare water quality before and after works.
- engagement of schools to participate in site activities
- promotion of the activities and outcomes through fact sheets, videos, signage and field trips.

Rehabilitation outcomes

- Improve biodiversity values through weed control, revegetation and establishment of fish passage.
- Enhance knowledge of water quality improvement through wetland systems by implementing monitoring programs.
- Improve knowledge of wetland systems through information exchange of learnings and knowledge with other farmers, industry and community.
- Improve and document knowledge of the rehabilitation and maintenance of on-farm wetlands.
- Demonstrate custodianship and the benefits of industry and urban best management practices.
- Engender ownership and increase landowners' knowledge and capacity to ensure sites are maintained at the conclusion of the project.
- Enhance collaboration and good will between project stakeholders.

The Queensland Wetlands Program supports projects and activities that result in long-term benefits to the sustainable management, wise use and protection of wetlands in Queensland. The tools developed by the Program help wetland landholders, managers and decision makers in government and industry. The Program is a joint initiative of the Australian and Queensland governments.

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or visit www.wetlandinfo.ehp.qld.gov.au

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