

## Case Study – Restoration of Native Riparian Vegetation in the Upper Burnett

Implementing the Burnett Catchment Strategy  
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### Organisation Background

Integrated Catchment Management (ICM) is the philosophy that guides the BCCA in encouraging a coordinated approach by natural resource users to the management of natural resources in Queensland.

ICM involves the voluntary actions of stakeholders including government, rural landholders, industry, fisheries and urban dwellers that incorporate the goals of achieving and maintaining a healthy catchment for future generations. The BCCA was initiated in 1994 and operates in conjunction with four subcatchment groups in the southern, central, eastern and northern areas of the catchment; each of these centres around Kingaroy, Gayndah, Bundaberg and Monto, respectively.

### Project Background

The effective management of riparian zones contributes to improving the health of an ecosystem by providing wildlife corridors, acting as nutrient filters, reducing stream bank erosion and slumping, and improving water quality.

The ongoing 'Restoration of Native Riparian Vegetation in the Upper Burnett' project was designed to manage the riparian zone of a significant stretch of the upper Burnett Catchment known as Monal Creek that was seriously degraded by the exotic pest Cats Claw Creeper (*Macfadyena unguis-cati*).

The project had an overall goal of seeing a section of Monal Creek populated only by original native species including eucalyptus, melaleucas, callistemons, and casuarinas.

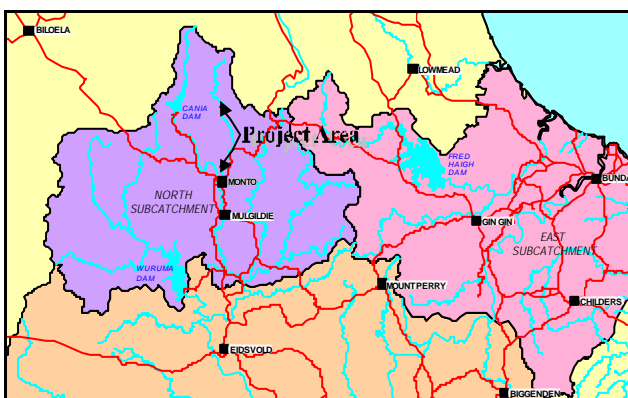


Figure. 1 The area of riparian zone managed.

### Project Objectives



Image 1. Cals Claw Creeper overgrowing the riparian zone along Monal Creek

The project aims to realize the following objectives:

- Demonstrate effective methods of restoring native riparian vegetation in the Burnett watercourses;
- Restoration of a section of Monal Creek to its original vegetation type;
- Establish the most cost effective method of watercourse restoration to address this particular issue;
- Raise the quality of the riparian zone in Monal Creek both as a haven for native plant genetic material and as a corridor for native wildlife movement;
- Disseminate the results to the wider community for application throughout the catchment.

To ensure the long-term survival of this naturally biodiverse vegetation type it is imperative to raise the skill level of landholders to manage the riparian zone. The management of exotic pests that compete with native species for light, space, and resources is a fundamental requirement of any good riparian management process. Removing competition to native species promotes natural regrowth and revegetation, which in turn provides more suitable wildlife habitats. In this integrated fashion, managing the exotic species on site incorporates flow-on effects such as stream bank stabilisation, removing excess nutrients, pest control, and removing threats to ecological communities.



Burnett Catchment Care Association

A joint initiative of the Burnett Catchment Care Association, the Monto Shire Councils, and the Natural Heritage Trust

## Project Methods

This project is managed by the upper Burnett Integrated Catchment Management Group and began in November 1998. It is an ongoing project and is expected to finish in January 2002.

The primary project methods involved traversing thirty-seven kilometres of the upper reaches of the Burnett Catchment (see map) to treat Cats Claw Creeper found in the riparian zone using the cut-stump method and over-all spraying. Treatment was started at the uppermost point where Cats Claw was present.

Manual revegetation has also taken place at the site in order to re-establish treated areas. To date, one area has undergone replanting, and it is envisioned that natural revegetation at the cleared sites will be monitored using trial quadrates by the Project Officer and Landholders.

Another monitoring process will involve gauging the affects of grazing between manually and naturally revegetated areas. Six 50 by 50 meter quadrats, north of Mungungo Weir, will be studied to determine best activities to maximise natural revegetation by comparing levels of regrowth between continuously grazed, rotationally grazed, and stock exclusion areas. This is to be monitored on a six monthly basis through photo-monitoring by the Burnett Bush Care Support Officer and the Project Officer with a view to the wider application of results in the Burnett catchment.

In addition, the monitoring and revegetation aspects will increase the group's capacity to develop activities related to biodiversity maintenance, natural revegetation, erosion control, vegetation corridors, and wildlife ecology.

Sharing the results and lessons learned from this project has been undertaken through a field day (2.12.00), the North Burnett Landcare newsletter, local newspapers, and the Burnett Catchment Care Association newsletter.

## Successful Partnerships

The extensive undertaking of managing such a long stretch of riparian zone required the combined effort of several groups. The project periodically employs three staff, managed by the Project Officer and the Monto Shire Council, who undertook the field activities. Other contributions to the project included:

- Administrative and onground assistance from Monto Shire Council, including equipment (10 people);
- Upper Burnett ICM and BCCA for Project Management (4);
- North Burnett Landcare for general support;
- Department of Natural Resources and Mines, and the Department of Environment for equipment and in-kind support;
- Greening Australia for technical advice;
- Landholders for onground activities (35);
- Allan Fletcher Research for technical advice;
- Greencorps for on-ground activities (6).

## Project Outcomes



Image 2. Dead Cats Claw Creeper after riparian treatment.

To date, the project had been extremely successful in removing cats claw from 37 kilometres of the riparian zone of Monal Creek. The most effective method for treating Cats Claw Creeper was found through applying Glyphosate by the cut-stump method.

It is envisioned that the riparian zone, without the pressure from the exotic pest, will recover through natural revegetation of native species, and that the pest is now at a level where it can be managed by individuals.

At the projects completion, a booklet detailing the project results over three years will be circulated for use by government agencies, landholders, and the wider community. The results will include best treatment rates, reasons for natural regrowth, and any project difficulties that occurred.



Image 3. Dead Cats Claw Creeper in the creek bed.

## Contact Details

For further information on the Burnett Catchment Care Association please contact a Project Officer at (07) 4131 5724. Or visit the BCCA Website at:

<http://www.widebay.net/icm/bcca/>



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