Case Study No. 2
"Range to Coast" Projects
Maleny Entrance and Walkers Creek revegetation sites

by Marc Russell

Project Background

In 1997, as part of a Natural Heritage Trust Revegetation and Remnant Protection Project, Barung accessed funds through the *Range to Coast* program. This boosted on-ground outcomes and helped to increase community awareness about habitat and water quality throughout the upper Mary River catchment.

Range to Coast was part of Landcare Australia Ltd's *National Landcare for Catchments Program* sponsored by BHP. In the first year, Barung co-ordinated the Queensland component of the program, involving several community groups, government bodies and more than 700 volunteers. Over 20 000 native trees, shrubs and stabilising grasses were planted by the community on several sites including:

Barung Landcare

- Maleny Entrance - 4 567 plants
- Maleny Hospital - 485 plants
- Bridge Creek - 1 572 plants
- Trail Road - 242 plants

Crystal Waters Permaculture Village

- 8 separate sites - 2 500 plants

Noosa Landcare

- Yellowbelly Hole on Six Mile Creek - 1 000 plants
- Cooroora Creek, Pomona - 1 000 plants

Gympie Landcare

- Commissioners Gully - 1 000 plants
- Between Kidd and Normanby Bridges - 2 500 plants

Mary River Catchment Coordinating Committee

- Community Riverbank Project - 5 850 plants

Total - 20 716 trees

The success of these projects led to a further two years sponsorship under the *Olympic Landcare - Range to Coast* program, again through Landcare Australia Ltd.

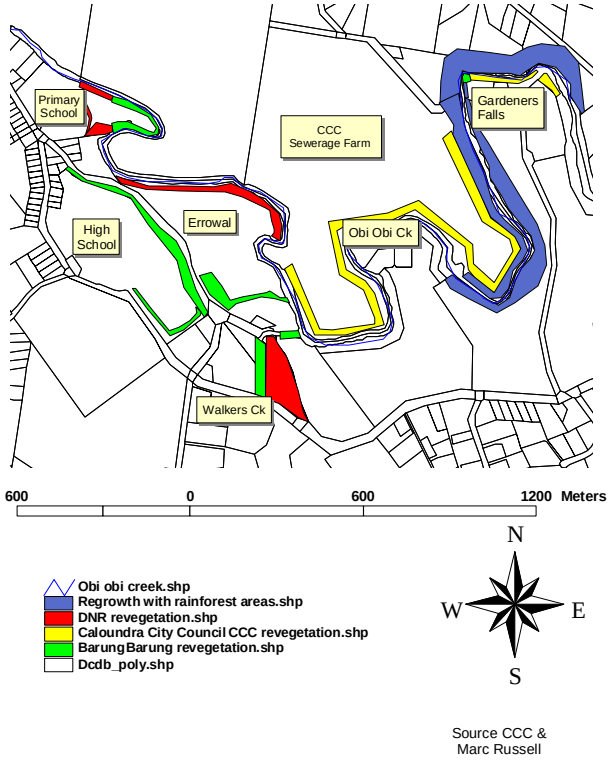
Rehabilitation work was carried out on Walkers Creek in 1999 and on Bridge Creek in 2000, through the Corridors of Green (COG) Consortium Project.

The COG project is covered in other case studies. This study highlights two major sites from previous years - the Maleny Entrance (1998) and Walkers Creek (1999).

Maleny Entrance

This 750m long strip that averaged 20m wide, is adjacent to the Landsborough – Maleny Road below the Maleny State High School. Much of the planting was on Department of Main Roads land, however the school recognised the value of the project and allocated additional space on adjacent land.

Range to Coast Projects (& adjacent revegetation sites)



Source CCC & Marc Russell

The site was mostly bare sub-soil and suffered serious erosion problems, including rilling in some areas. As first impressions go, the entrance to Maleny was not a pretty site.

Our aim was to arrest the soil erosion, reduce sediment entering waterways and increase community awareness, while beautifying the entrance to Maleny township.

In March 1998, Stage 1 of the *Range to Coast* project culminated in a tree plant event at the Maleny Entrance site. Within one hour, over 130 people planted, fertilised, mulched and watered 800 trees and were eager for more. Latecomers missed out on planting a tree at all.

Project Objectives (Maleny Entrance)

To:

- transform an eroded slope on the entrance to Maleny, into a strip of rainforest, highlighting local diversity;
- provide a vegetation buffer between the road and school;
- build on Obi Obi Creek rehabilitation sites to improve water quality, habitat and diversity;
- involve the community in all stages and maximise hands-on educational opportunities; and
- provide a highly visible revegetation model for local landholders and visitors to Maleny.

Project methods (Maleny Entrance Profile)

- After investigating the initial concept, public consultation began with articles in local papers and a public meeting to discuss options for the site. Several issues were raised, including the existing Jacarandas. The final decision was to create a rainforest environment reflecting our unique local vegetation.
- The site was prepared using a glyphosate spray to control weeds and Kikuyu grass on upper edges.
- The site was deep ripped across the slope at 1-1.5m intervals. This helped to break up the sub-soil and improve planting conditions for tree planters.
- Staged planting with a diversity of local plants focussed initially on frost tolerant and fast growing species. Later species were added to build canopy diversity, seal edges and thicken understorey. Green Corps trainees planted most of the trees and the remainder were planted by the community.
- In areas where topsoil was scarce, a dense cover of mulch hay and wood chip was applied to help improve soil structure and build up humus levels.
- Public involvement was encouraged during all stages of the project. Publicity was high on the agenda including articles, radio, pamphlets, etc.
- Workdays, workshops and other educational activities have involved Maleny State High School, TAFE and Sunshine Coast Uni students, Green Corps, Green Reserves and many other volunteers.

Below: *This area was the most degraded on the Entrance site. Thick mulch and the use of tough colonisers (eg Acacia and Alphitonia) have helped to create suitable conditions for establishing rainforest species.*

Above: *Positive community action (eg public tree plant events) is a fantastic way to bring people from all walks of life together, working for a common cause.*

Walkers Creek

Not far from the Entrance site, Walkers Creek flows into Obi Obi Creek on Erowal Aged Care Facility land. Early work on Erowal and nearby school land by the Department of Natural Resources *Treecare Program*, inspired Barung to continue work in the area.

Project Objectives (Walkers Creek)

To:

- revegetate riparian zones with appropriate local species and fence off these areas to improve water quality and stabilise banks in a degraded stream;
- build on a small rainforest patch and nearby revegetation sites to improve habitat and diversity;
- involve the community in all stages of the project and maximise hands-on educational opportunities.

Project methods (Walkers Creek Profile)

- Work began in 1999 following liaison with land managers and project planning,.
- Parts of Walkers Creek were fenced to exclude cattle from banks and revegetation.
- Natural regrowth, particularly evident near the small patch of rainforest, was encouraged by sensitive weeding and cut / spray methods on woody weeds. The remainder of the site was sprayed to control herbaceous weeds, Kikuyu, etc.
- In more open areas naturally regenerating *Acacia melanoxylon* provided fast protection but competed strongly with other species. Some areas required thinning - unfortunately we later found too much thinning can result in further frost damage!
- Tree planting had to be carried out in several stages, due to heavy frost losses in early years. Initially the focus was on frost tolerance and fast growth, then to build canopy diversity, seal edges and thicken understorey. 2 000 trees were planted by over 150 participants at the community tree plant.
- Public involvement was maximised during all stages of the project.

Right & Below: *The aerial photos show changes to a section of Obi Obi Creek downstream of Maleny to Gardeners Falls, over a five year period. Plant growth will accelerate during establishment, so changes will be more marked over time.*

Many stakeholders have invested resources into this stretch of Obi Obi Creek for both on-ground and educational outcomes.

Some of the earliest revegetation was initiated by the DNR *Treecare Program*, which established revegetation projects at both schools and on Erowal (see red areas on map, Page 1).

Barung has since undertaken rehabilitation projects on the Maleny Entrance, and High School and Primary School land, and at Walkers Creek, Gardeners Falls and a spring fed drainage line on Erowal land (see green areas on map).

Caloundra City Council (CCC) has revegetated parts of Gardeners Falls and staged buffer plantings on the Sewerage Farm.

In 1998 no trees show up in Stage 1 plantings, but the area has obviously been fenced.

By 2003, the 40m wide buffer is impressive. More recently planted stages appear as scattered trees.

Lake Baroon Catchment Care Group also carried out projects with schools and have continued on-ground work upstream on Walkers Creek.

All the stakeholders mentioned are involved with projects upstream and downstream of the pictured area. Many private landholders have also carried out projects.

We will not fix all of our environmental issues overnight, but with a focussed community and a staged approach to rehabilitation, we are certainly making a positive impact.

Project Partnerships

Range to Coast was sponsored by BHP. Other support included: Natural Heritage Trust; Landcare Australia Ltd; Greening Australia; Caloundra/Maroochy Water Supply Board; Dept of Main Roads; Dept of Natural Resources; and local councils throughout the region. Community groups included Gympie Landcare, Noosa Landcare, Kenilworth Landcare, Crystal Waters Permaculture Village and Mary River Catchment Coordinating Committee.

What did we learn?

- Community involvement during every stage was essential to the success of the project.
- Timing of planting and species selection are critical if we are to 'beat the frost' in highly susceptible areas. Revegetation must be carried out in several stages to ensure long-term success.
- The value of natural regeneration.
- Annual Ryegrass 'living mulch' trials had many benefits including greatly reduced weed growth (and seed bank), leading to reduced maintenance, soil stabilisation, organic matter build up and temporary habitat.
- Over the three years of *Range to Coast*, Barung developed a more strategic approach to, and Best Management Practices for, rehabilitation projects.

Doing it differently next time

Highly visual sites on public land offer fantastic opportunities for community involvement and awareness, however they also demand higher input from our limited resources. Now that we have established several high profile sites, the focus is moving to partnerships with private landholders in strategic areas to maximise ecological outcomes.

Beyond the project

After the *Range to Coast* projects, Barung received funding for *Olympic Landcare* Projects at Peace Park on Mellum Creek, Landsborough, and on the Mary River at Conondale.

The Department of Main Roads provided funds and equipment to extend revegetation on the Entrance site.

In partnership with Barung, several schools have planted a wide range of local species to improve habitat and water quality, while raising awareness of biodiversity conservation. Planting buffer zones on the creek bank, fig trees for the critically endangered Coxen's Fig Parrot and host vines for the vulnerable Richmond Birdwing Butterfly are some of the activities the kids have been involved in.

"The Maleny Entrance site is, and will remain, a highly visible reminder of the other less visible sites… planted as part of this project. The extent of community involvement is an exciting indication of the increasing commitment that local people in the Upper Mary River Catchment have towards their land and waterways." The Range News, 20/03/1998

Above: SES volunteers carried out valuable traffic control, enabling participants in the Maleny Entrance tree plant to safely cross the busy road.

Below: Involvement of children through school activities and public events is an important aspect of Landcare education. These kids are our future decision-makers and environmental custodians.

Queensland Government
Natural Resources and Mines

Barung Landcare
WORKING FOR OUR FUTURE

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