

Creek to Coral – Adaptive Reef Rescue John Gunn (Creek to Coral)

INTRODUCTION

Creek to Coral is Townsville City Council's healthy water initiative. Creek to Coral's philosophy is based on catchment management principles with water quality being an important part of activities but not the only part. Creek to Coral is also about increasing community capacity and involvement in natural resource management and has a Community Based Education and Involvement (CBEI) program at its core.

The paper describes the Creek to Coral adaptive reef rescue approach with particular emphasis on the ***“Increasing community engagement in Townsville coastal catchments for Biodiversity”*** CfoC project and reference to the Creek to Coral Community Based Education and Involvement (CBEI) program.

BACKGROUND

Creek to Coral developed a Water Quality Improvement Plan with funding from the previous Australian Government's Coastal Catchments Initiative (CCI). The Water Quality Improvement Plan (WQIP) covers the coastal catchments between Crystal Creek and Cape Cleveland (the Black and Ross River Basins) and Magnetic Island. The Black Ross (Townsville) WQIP is the first 'urban' based WQIP developed in the Great Barrier Reef catchment.

The current Caring for our Country (CfoC) program has the Reef Rescue package which is administered through regional NRM groups in selected Great Barrier Reef catchments principally to address water quality issues associated with grazing, cane farming and horticulture. There was very little scope for a local government working on urban and peri-urban water quality improvement to receive any funding under Reef Rescue. This became apparent after an unsuccessful application for an integrated urban water quality improvement and community biodiversity management project through the first CfoC funding open call in 2009.

DISCUSSION

The take home message from my previous coastal conference paper was that “adaptive management isn't a fad it is a way of incorporating lessons from the small mistakes in a planned way”. Adaptive management is part of a continuous experiential learning cycle.

The Townsville WQIP was developed using an adaptive planning and management approach, which is particularly relevant to natural resource management at the local government and community level. Apart from needing to be adaptive in terms of availability of data, information and expertise to progress the development of the Townsville WQIP without stalling the process an adaptive planning and management approach was also needed to deal with the political environment.

Political influences

During the development of the Townsville WQIP there were a number of major political changes, which impacted the delivery of natural resource management funding nationally and disrupted the 'flow' of local government at the state level. The main events were:

- The election of Kevin O'G

- The subsequent dismantling of the Natural Heritage Trust and its replacement with Caring for our Country (2008);
- The March 2008 local government elections incorporating the amalgamation of Councils across Queensland;
- The announcement of Reef Rescue as the main delivery mechanism for Great Barrier Reef Catchment WQIPs (agriculture based with no allowance for urban areas) (2008);
- 2008-2010 restructuring and transition period for the new Townsville City Council (following the amalgamation of Thuringowa City and Townsville City Councils);
- Introduction of Great Barrier Reef protection measures (2009) to the Queensland Environmental Protection Act (Chapter 4A);
- Amendment of the Environmental Protection (Water) Policy (2009);
- Release of the draft State Planning Policy Healthy Waters (2009);
- Australia Government sustainability programs dramas (2010) and the subsequent change of the environment Minister following the 2010 election.

These events rolled out while the Townsville WQIP was being prepared (2006 to 2010). Adaptation became the norm and when it became obvious that WQIP implementation would not be funded under the Caring for our Country program further adjustments were required to continue to maintain the community capacity base while working on gaining the requisite funding for the WQIP.

Caring for creeks and coral and the WQIP components

The main components of the Townsville WQIP revolved around water quality improvement measures in the urban and peri-urban land uses based on the principle that if we protect our creeks then the 'downstream' coral will also benefit. The principal implementation actions designed for the Townsville WQIP included:

Total water cycle management in the urban context including:

- Urban stormwater quality management planning for existing urban areas;
- Water sensitive urban design (WSUD) for developing areas and redevelopment in existing areas;
- Erosion and sediment control (ESC) and site based stormwater management plans (SBSMP) for developing areas;
- Reef Guardian Council actions implementation.

Total water cycle management across peri-urban and rural areas including:

- Water resource catchment management (Upper Ross River Sub Basin);
- Develop peri-urban catchment management guidelines and implementation activities;
- Promote "Managing for WQ within grazing lands of the Burdekin Catchment" (NQ Dry Tropics);
- Promote management practice ABCD framework for sugar cane and horticulture.

Total water cycle management across all land uses and landscapes including:

- Community based education and involvement (CBEI) (awareness and capacity building) with:
 - Social learning and behaviour change studies for action prioritisation and result monitoring;
- Strategic landscape mapping and habitat prioritisation for environmental infrastructure planning;

- Riparian zone rehabilitation and wetland restoration/construction for aquatic ecosystem health;
- Integrated water quality monitoring and modelling program (physical, biological and social).

The community (people) based behaviour change and capacity building components of the WQIP were seen as particularly relevant implementation actions. They provided a less expensive and more effective alternative for source control compared to expensive infrastructure and retrofit options further along the treatment train.

This also fitted well with the Creek to Coral catchment management philosophy and the fundamentals of the Community Based Education and Involvement (CBEI) program.

Community engagement and capacity building

Following the unsuccessful 2009 CfoC funding application for an integrated urban water quality improvement and community biodiversity management project it seemed like a logical progression for Creek to Coral to adapt to the CfoC funding arrangements and apply for a community based catchment management driven project in the 2010 CfoC open call.

The application was approved and the Creek to Coral proposal for ***“Increasing community engagement in Townsville coastal catchments for Biodiversity”*** became the only successful Queensland local government based open call project outside the southeast corner.

The main components of the Creek to Coral CBEI CfoC project include:

- Collation of maps and reports associated with vegetation, habitat, and ecological communities and associated environmental values for the Townsville region;
- Discussions with community group and other participants to define the priorities and scope for potential projects;
- Identification of priority sites through desktop survey and in consultation with community groups through Expressions of Interest;
- Site assessments and/or consultation to determine habitat condition and management actions required;
- Rating and ranking of sites into those requiring protection, remediation or both;
- Development of concept plans for priority sites;
- Call for Proposals to undertake sub projects;
- Distribution of funding to community groups and organisations to undertake sub projects identified during the prioritisation and planning phase;
- Design and delivery of an awareness, skills and knowledge enhancement program;
- Monitoring, evaluation, reporting and improvement (Creek to Coral’s adaptive planning and management).

The project has become an adapted community-based reef rescue initiative predominantly in urban and peri-urban areas using catchment management and Landcare principles. If we increase the capacity of our communities to look after our land based natural areas then water quality improvements will be a flow on effect.

Community engagement to date

The project has been highly successful in terms of community engagement with 21 projects approved for funding and another three in the negotiation/planning process.

In addition there are another eight supporting projects being implemented by Creek to Coral that will enhance the community projects and lead to increased capacity and opportunities for future actions.

As an added environmental bonus the habitat mapping incorporated in the project has been a strategic initiative, which will be used as an extra 'layer' to inform the new Townsville City planning scheme. This will contribute to the identification of environmental infrastructure and help shape the development assessment process thereby protecting significant habitat and landscape elements across the Townsville local government area

For a full list of the “***Increasing community engagement in Townsville coastal catchments for Biodiversity***” sub projects and more information about Creek to Coral and other activities check out the website (www.creektocoral.org).

TAKE HOME MESSAGES

- Persistence overcomes resistance;
- Don't be disappointed be adaptive;
- You can keep most of the clay as long as you change the shape to suit the situation;
- Be in action while you plan and the vision will stay in sight and remain achievable.

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References Gunn and Manning 2010, Black Ross (Townsville) Water Quality Improvement Plan: Improving Water Quality from Creek to Coral, Townsville City Council, Townsville. Available at www.creektocoral.org