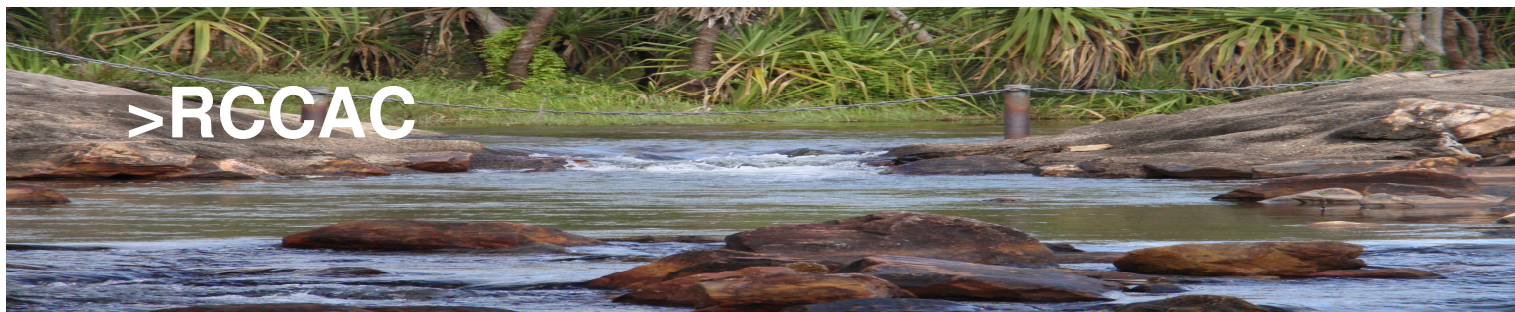




Rapid Creek
Catchment Advisory Committee (RCCAC)

Annual Report 2009



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Department of Natural Resources, Environment, the Arts and Sport
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www.nt.gov.au/nreta/natres/landcare/rapidcreek

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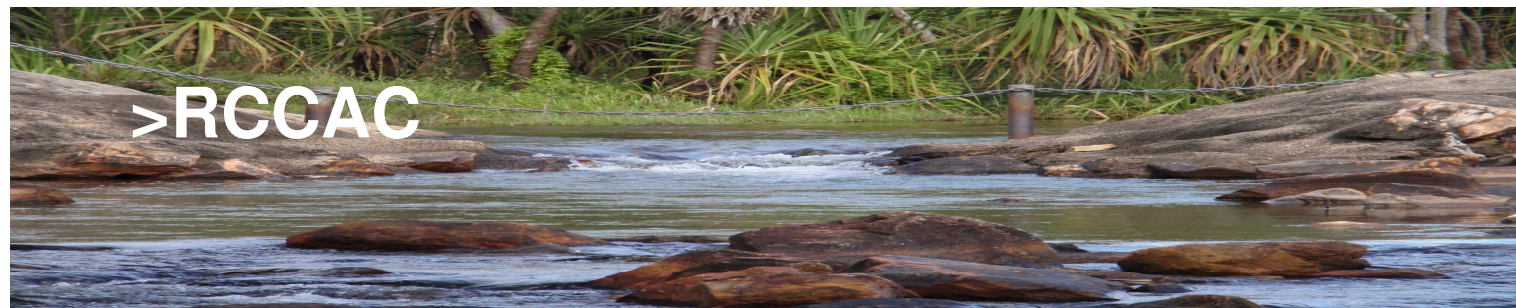


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Background

In 1994, Darwin City Council and Greening Australia NT commissioned the development of the Rapid Creek Management Plan. The plan details Catchment values, threats and management strategies. A key recommendation identified within the plan was to set up a management structure or body to coordinate the implementation of the plan.

The Rapid Creek Catchment Advisory Committee was established in 1996 under the NT *Water Act*. The Committee consists of volunteers who represent industry, the community, NT Government and local council. The Committee oversees the implementation of the management plan and makes recommendations to the Controller of Water Resources, on the management of the Creek and the natural resources of the Catchment. The Controller of Water Resources in turn is accountable to the Minister for Natural Resources, Environment, The Arts and Sport.

Rapid Creek, located in Darwin's northern suburbs is 9.8km in length and has a Catchment area of approximately 30km². The Creek and its Catchment form the only significant freshwater system in Darwin making it a valuable community asset. Increasing development in the Catchment area over the past 20 years has necessitated closer management to ensure the protection of vegetation communities and water quality to ensure community values are maintained.



Rapid Creek Landcare Group
community planting day
Darwin City Council land
Photo courtesy: Peter O'Hagan, RCLG



Message from the Chair



Jane Aagaard, Chair

I was appointed Chair of the Rapid Creek Catchment Advisory Committee in 2009. Since my appointment, I have seen the Committee resolve some major ongoing issues.

Significant achievements for the year include:

- ☐ Repairs to the Rapid Creek Weir, carried out by the Department of Lands and Planning.
- ☐ Trimming of the Black Wattle tree on McMillans Road, carried out by the Darwin City Council.
- ☐ Subdivision of land at Marrara netball courts was successfully undertaken and the transfer of ownership to Darwin City Council.

Stakeholder maintenance programs were regularly carried out to ensure the catchment was well maintained to protect existing remnant bushland and boundaries surrounding the catchment.

On behalf of the Rapid Creek Catchment Advisory Committee, I take pleasure in presenting the Annual report for 2009.

With ongoing support, the Committee will continue to work together to improve the management and protection of the Rapid Creek Catchment.

Yours sincerely

Jane Aagaard
Chair
Rapid Creek Catchment Advisory Committee



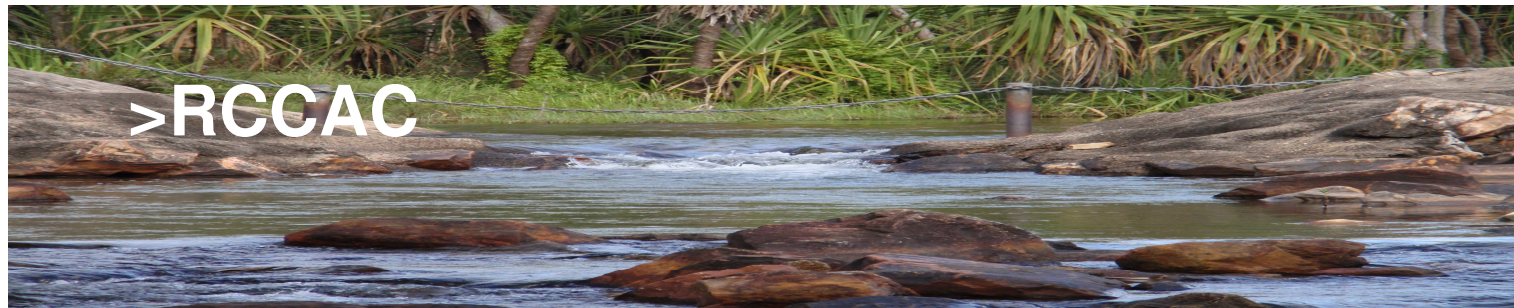
Terms of Reference and Membership

The Purpose of the Committee

The Rapid Creek Catchment Advisory Committee (RCCAC) was formally established under Section 23 of the NT *Water Act*. The Committee members are committed to improving the cooperative management of the Catchment and advising the Minister on policy for management of the natural resources of the Catchment.

Terms of Reference

- 1). To participate in decision making about sustainable land and water resource management by identifying, discussing and making recommendations to the Controller of Water Resources. This shall include:
 - a) Liaising with and providing feedback from other stakeholders as appropriate;
 - b). Progressively reviewing and implementing the Rapid Creek Management Plan, maximising stakeholder involvement (seeking funding and implementing works).
- 2). To advise the Controller of Water Resources on development issues and policy matters that may influence the sustainable use and development of the Rapid Creek Catchment.
- 3). To participate in the operation, progress and adoption of the resource management principles, policies and actions outlined in the Rapid Creek Management Plan.
- 4). To be responsible for delivery each year of an annual assessment of member work plans and achievements for the previous financial year, and proposals for the following year, to the Controller of Water Resources and the Minister for Natural Resources, Environment and Heritage.
- 5). Provide advice, via the Controller of Water Resources, on land use planning and development applications in the Rapid Creek Catchment.
- 6). To collect and review relevant research and surveys carried out or affecting the Catchment.
- 7). To consider and advise the Controller on the effectiveness of the resource, in maximising economic and social benefits within ecological constraints.



Membership

Members of the Rapid Creek Catchment Advisory Committee are appointed by the Minister for Natural Resources, Environment and Heritage. Members are appointed for a period of three years, unless membership is terminated earlier.

1. Department of Defence, Defence Support – Central West
(Australian Government)
2. Chief Executive Officer, Darwin International Airport
(Industry)
3. Lord Mayor, Darwin City Council
(Industry)
4. Department of Infrastructure, Darwin City Council
(Local Government)
5. Larakia Nation Aboriginal Corporation
(Community)
6. Grounds Coordination, Charles Darwin University
(Industry)
7. The President, Greening Australia (NT) Ltd
(Community)
8. The Chairperson, Rapid Creek Landcare Group Inc.
(Community)
9. Representative, Land Administration Division
Department of Lands and Planning
(NT Government)
10. Member of Legislative Assembly
(Community)
11. Controller Water Resources
Department of Natural Resources, Environment, the Arts & Sport
(NT Government)
12. Representative, Aquatic Health Unit
Department of Natural Resources, Environment, the Arts & Sport
(NT Government)
13. Regulator, Departmental Representative
Department of Infrastructure, Transport, Regional Development and Local Government
14. Chief District Ranger, Parks and Wildlife
Department of Natural Resources, Environment, the Arts & Sport



Activities Within The Catchment

Darwin City Council www.darwin.nt.gov.au



Nik Kleine and Jamie Lewis, Darwin City Council

Darwin City Council (DCC) coordinates a maintenance program for the Creek corridor between Trower Road and Yankee Pools. DCC is dedicated to ensuring that the land under Council control is well maintained so that existing remnant bushland areas along the Creek are protected. The organisation is committed to strengthening and enhancing the natural character of the Creek through its maintenance, revegetation and capital upgrade programmes.

Council has the responsibility for coordinating and managing the following programmes within our area.

- ❖ Weed and fire management
- ❖ Storm water and erosion control
- ❖ Maintenance of facilities e.g. fences, walking tracks, signage, irrigation and lighting
- ❖ Litter control
- ❖ Revegetation programmes

Maintenance programmes are undertaken in cooperation with other stakeholders using in-house staff, NT Fire Service, local Landcare groups, Greening Australia, Correctional Services Community Support Program and other contractors as required.

Highlights of activities undertaken by Council within the Creek corridor during 2009 included:

- ❖ Securing \$2,500.00 funding from Parks and Leisure Australia (PLA) to undertake revegetation works within the Catchment through the Rapid Creek Landcare Group. A community planting day will be conducted in May 2010.
- ❖ Construction of a new fence restricting vehicle access to formalised road ways along Charles Eaton Drive (McMillans Road to Henry Wrigley Drive)
- ❖ Construction of underground storm water pipe and end wall, on Rapid Creek Road side of corridor adjacent to Roberts Place. This construction will remove the open swale drain across the reserve. The end wall of the pipe has provision for a gross pollutant trap to be installed in the future.
- ❖ Development of a draft 5 year Fire Management Plan in consultation with landowners and stakeholders. The Plan will be released and implemented in 2010.



Rapid Creek Landcare Group



Lesley Alford, RCLG

The Rapid Creek Landcare Group consolidate and expand healthy remnant bushland areas into areas that are degraded, including enhancing natural re-growth that is occurring in the Catchment area. The RCLG key focus area is the Millner side of the Creek, downstream from McMillans Road behind the rural blocks.

The RCLG were involved in monthly working bees focusing on weed management and revegetation activities. In December 2009 hundreds of monsoon forest trees were planted at their project site at a community planting day. The Darwin City Council provided 250 trees for the project and are committed to providing more in 2010. The group worked together with Greening Australia, DIA and DCC to achieve vegetation management outcomes. Members attended a Rubber Vine training day with DNRETAS Weed Management Branch. With assistance from local MLA's and the DCC, a new plaque was installed at Stella Kirk's memorial. The RCLG have worked with Darwin International Airport on the creation of new signage along the creek corridor. The RCLG ran sites for Clean Up Australia Day and the Great Northern Clean up. In addition to regular working bees the group attends community events and assists to educate and inform the public about the Creek, its values and how people can help.

The group received \$500 through the Landcare Awards for ongoing revegetation work at the Creek. DIA donated \$500 worth of trees and the group received a \$1,500 grant from the Community Benefit Fund and \$2,400 from the DCC Community Grants Program.



Rapid Creek Landcare Group working bee
Photos courtesy: Nicholas Smith and RCLG



Greening Australia www.greeningaustralia.org.au



David Jan, Greening Australia

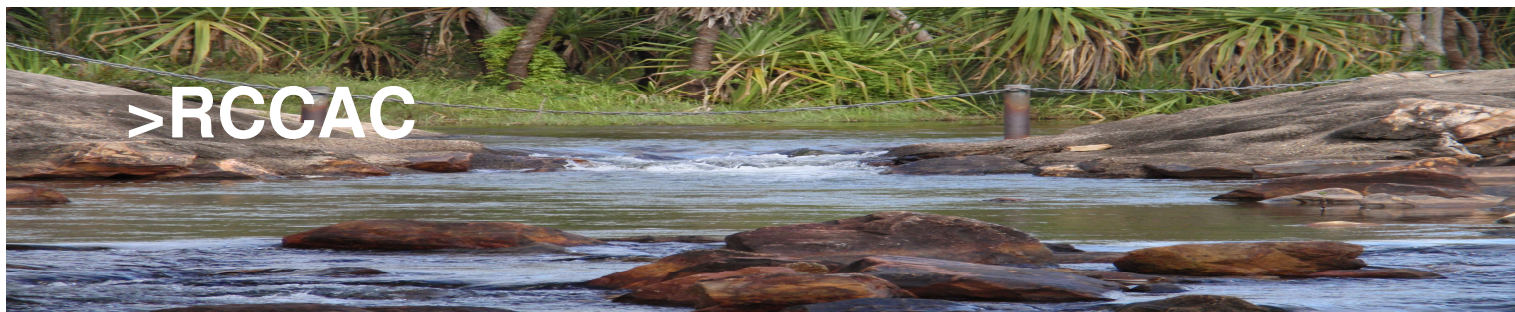
Greening Australia has a long history in vegetation management in the Rapid Creek Catchment. Works are predominantly carried out as contracts for Darwin International Airport (DIA) and the Darwin City Council.

Greening Australia hold a continuation of partnership with DIA towards the protection of habitat and vegetation management on DIA land. Greening Australia will be involved in the DIA corporate and community planting day, planned for February 2010. The target of the day will be to plant a further 2,500 plants in the conservation reserve. Ongoing maintenance and management works have been carried out in the conservation reserve and retention basin.

Greening Australia has provided ongoing weed control services and nursery production services for Darwin City Council.



Greening Australia staff at
DIA Rapid Creek Planting Day
Photo courtesy: David Silva and DIA



Parks and Wildlife www.nt.gov.au/nretas/parks



Paul Cawood, Parks and Wildlife

The Parks and Wildlife staff are committed to ensuring the implementation of the Casuarina Coastal Reserve plan of management, located within the Rapid Creek Catchment.

During 2009, Parks and Wildlife carried out their regular maintenance program and worked together with the Rangers from Larakia Nation in eradicating Coffee Bush growing on the mangrove fringes.

Parks and Wildlife Rangers were involved in developing signage, interpretation panels, directional information and links to other path systems. Rangers worked with grounds staff from Charles Darwin University on the removal of trees and the maintenance of pedestrian paths.



Department of Defence



Robyn Maurer, Defence

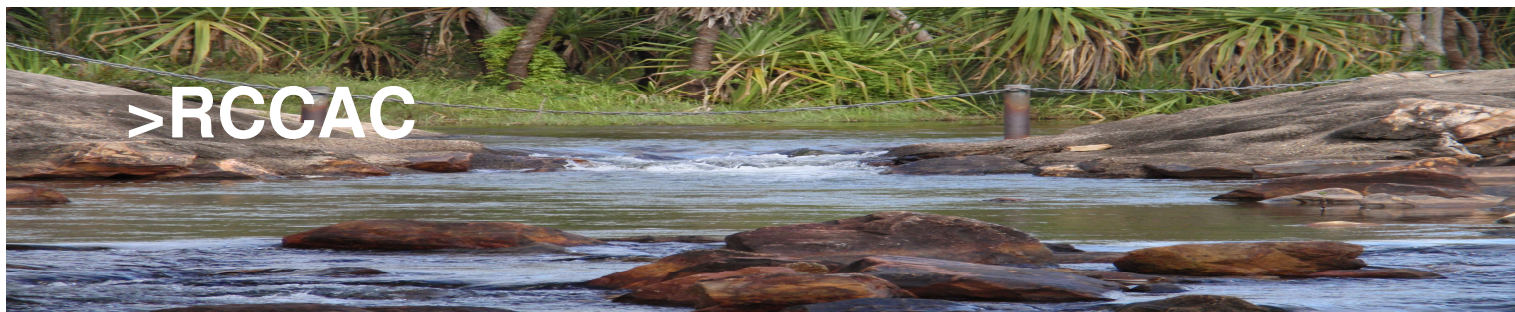
The Department of Defence operate and uphold a maintenance program on their land within the Rapid Creek Catchment.

During 2009, fire management and sediment control monitoring of all development sites was carried out. Bushland was removed to meet the necessary Civil Aviation Safety Authority (CASA) height restrictions. Defence trialed the use of the tree mulcher, removing only the canopy of the trees and leaving the tree trunks and associated root system behind. The trial proved successful and trees remained alive and soil remained stabilised.

Defence worked in conjunction with NRETAS Aquatic Health Unit in coordinating the publication of Stream Health data. The project is underway and ongoing and data will be included in the next Aquatic Health Report Cards.

Defence are currently working on the implementation of the RAAF Darwin annual water quality testing of both surface and groundwater. Development of the Regional Environmental Management System is also underway. Examples of minimising high environmental risks for Rapid Creek on RAAF Darwin are the developments of spill response procedures and standard operating procedures to incorporate rigorous pollution prevention measures. Defence have been working on a project to help develop a base water plan and upgrade of the base irrigation systems.

Signage along fence lines are under review to assess compliance with Defence requirements. Defence personnel participated in various tree planting days together with stakeholders of the Committee within the Catchment.



Darwin International Airport www.darwinairport.com.au



Ian Kew, Chief Executive Officer and Jill Holdsworth, Environment Manager

The Darwin International Airport (DIA) is committed to protecting the local environment, better manage our environmental risks and further embed sustainable environmental management into our business. One of the major highlights for the Darwin International Airport during 2009 was the release of the Airport Master Plan and the Airport Environment Strategy.

We are currently working with relevant stakeholders on the review and implementation of new interpretative signage along the Rapid Creek paths located on Airport land and the Matboerrma gardens. The estimated time of completion is June 2010.

During 2008/09 DIA's Water Management Plan was approved and published. DIA have established a Surface Water Monitoring Program to be published on the website. Both groundwater and surface water plans were prepared in 2009. The Water Efficiency Management Plan is in working progress, and in accordance with the Monash University. DIA are approaching their third year of the Fire Management Plan. Plans are generally for 5 years and are actioned yearly.

Airport staff conducted planting days towards the end of the year, in conjunction with Greening Australia and various stakeholders. The planting days were successful. DIA provided part sponsorship of plants for the Rapid Creek Planting Day on 5 December 2009.

A 20 meter long buffer zone was planted along McMillans Road between Bunnings and Neale Street, Marrara which is a distance of 525 metres. The objective was for future commercial development and works were completed successfully. Activities within the Catchment include water monitoring, weed control and regular rubbish removal. The erosion management program continues to be implemented and monitored.



DIA Planting Day
Photo courtesy: David Silva
and DIA



Department of Lands and Planning www.nt.gov.au/nretas/dpi



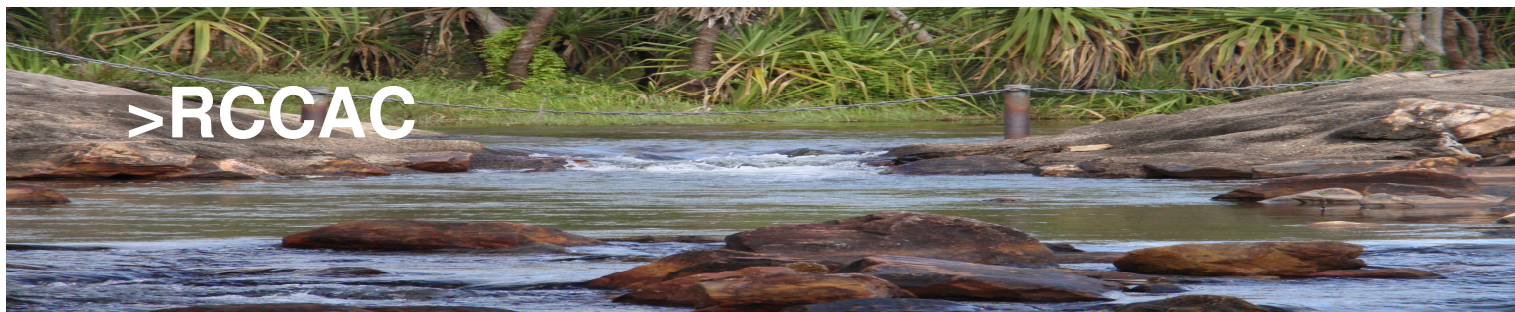
Sharon Hinton, Crown Land Management

The Lands Administration section provides ongoing management of Vacant Crown Land located within the Rapid Creek Catchment. Management activities include, but are not limited to, firebreaks, ground maintenance, weed control, managing dumping and other illegal uses of Crown land, with also providing leases and licences for approved use of Crown land. Blocks that are predominantly bushland are largely left in their natural state. A weed control contract has been awarded to treat weeds on Vacant Crown Lands within the Catchment. Lands and Planning will continue to manage Vacant Crown Land within the Catchment boundary.

In 2009, Section 5249, Hundred of Bagot, the buffer between Rapid Creek and the new Netball Complex in Abala Road, was transferred to Darwin City Council ownership (see Catchment Issues).

In addition The Department of Sports and Recreation have taken over management of the Netball Complex and therefore this section was removed from the weed control contract for Vacant Crown Land.

Fire management on Vacant Crown Land was undertaken by Police, Fire and Emergency Services. Regular rubbish removal is ongoing as part of the routine grounds maintenance contract.



Water Quality and Aquatic Health www.nt.gov.au/nreta/water/aquatic



Julia Schult, Limnologist, Aquatic Health Unit

The Aquatic Health Unit undertakes a range of monitoring activities within the Rapid Creek Catchment. Annual monitoring of water quality includes parameters such as water temperature, pH, dissolved oxygen, nutrients, heavy metals and the amount of algae in the water. Results are compared to local guideline values. Aquatic Health staff have also collected data on macroinvertebrates ("water bugs") and fish to ensure the aquatic life of the Creek is healthy.

Monitoring data has been published on the RCCAC website and incorporated into the 2009 *Darwin Harbour Region Report Cards*. Report cards can be viewed at <http://www.nt.gov.au/nreta/water/reportcards/index.html>. For the past four years (2005-2008) water quality at the monitoring sites in Rapid Creek has been very good; however, it was shown that the water bug community is significantly impaired.

The 2009 monitoring data will be included in the next edition of the report cards. Trial fish sampling using electro-fishing techniques was undertaken this year and is expected to be part of future monitoring efforts.

Darwin International Airport and the Department of Defence also collected stream health data at several sites in the upper parts of the Catchment. Meetings were held in order to coordinate the publication of this data. The Department of Defence have agreed to provide their data to the Department of Natural Resources, Environment, The Arts and Sport for inclusion into the next report card.



Western Rainbow Species
Photo courtesy: Aquatic Health



Water Sampling
Photo courtesy: Aquatic Health



Charles Darwin University www.cdu.edu.au



Nerida Noble, Charles Darwin University

Charles Darwin University (CDU) are committed to the protection and enhancement of the natural resources and community values of Rapid Creek. CDU grounds staff regularly perform weed spraying and rubbish removal along the cycle path adjacent to University Drive, south. The path leads through the bottom of the campus and travels through to the Casuarina Coastal Reserve at the mouth of the Rapid Creek.

CDU employed contractors to perform mowing of lawns and ovals in the Catchment vicinity. Regular maintenance works are ongoing for Charles Darwin University grounds staff. Pruning of plants and weed control are regularly carried out at the bottom end of the University grounds. CDU and Greening Australia performed eradication of coffee bush at the bottom end of the Catchment.

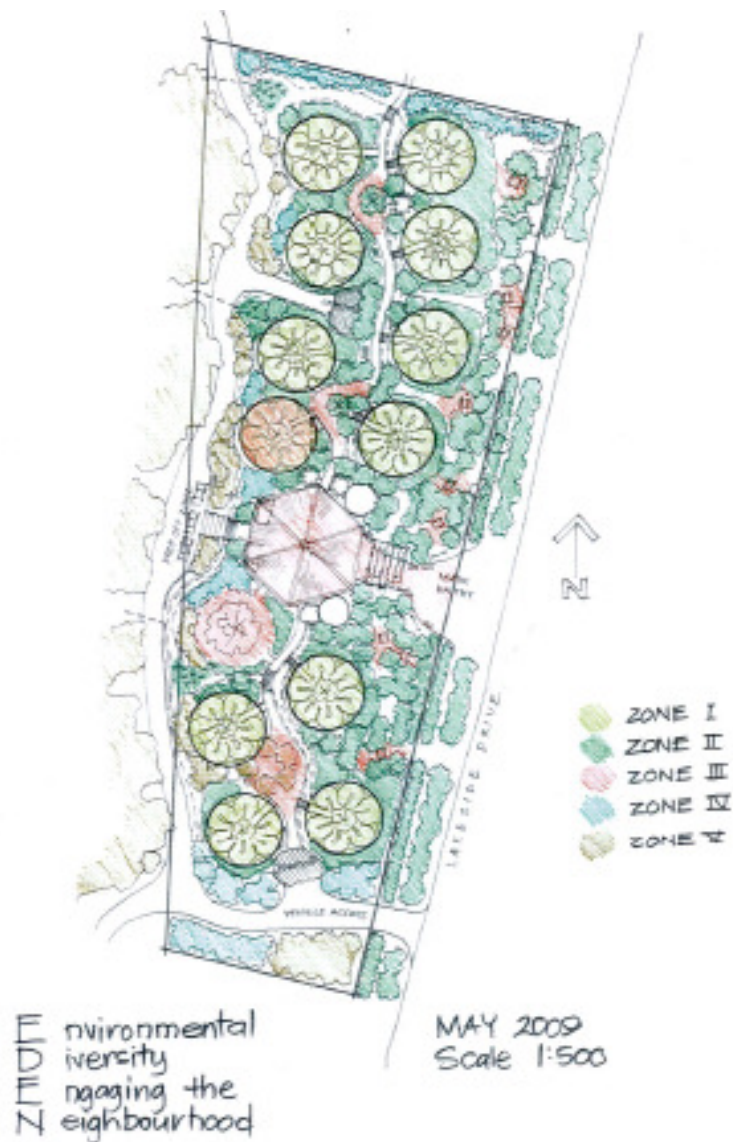
A student body at CDU is driving the concept forward of establishing a Community Garden between Lakeside Drive and the mangrove fringe. Darwin City Council have approved the use of the land for CDU students and community members to establish the garden. Community members expressed a great interest in the project and formed a committee to establish the project. The project will start in February 2010 when the first planting day is held.

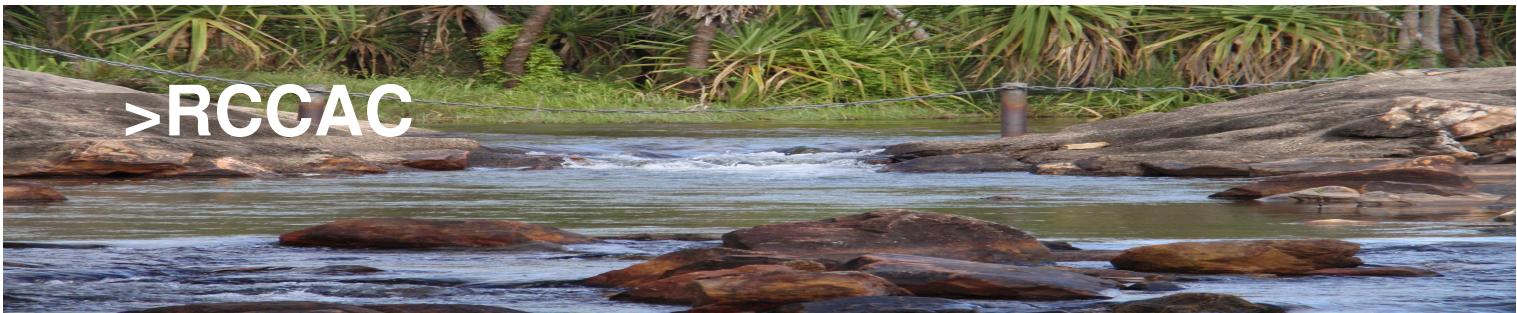


Community Planting Day
Photo courtesy: CDU

OUR LEARNING GARDEN

C.D.U. COMMUNITY GARDEN PROJECT





Catchment Issues

The Netball Court Complex - Section 5936, Abala Road, Hundred of Bagot

Figure 1: The weed control contract was transferred from Department of Planning and Infrastructure to the Department of Natural Resources, Environment, The Arts and Sport for the block highlighted.



Figure 2: Recently subdivided portion of Vacant Crown Land which has been transferred to the Darwin City Council.





The Rapid Creek Weir

The Rapid Creek Weir is located on Defence land in the Rapid Creek Catchment, upstream from Henry Wrigley Drive.

The weir was constructed in the mid 1980's by the then Department of Planning and Infrastructure (DPI), to attenuate flooding. Due to flooding and lack of maintenance over the past 10-15 years, the structure had become damaged and unsafe. The weir structure was deemed unsuitable with the centre of the pit breaking free.

RCCAC met and formed an informal sub committee, DPI were approached to discuss options. . There was no option to remove the weir as it was initially installed to mitigate flooding and prevent road closures at the bridge on McMillans Road. DPI completed works on the weir in October 2009 costing approximately \$50,000. The repairs are a temporary measure and will be monitored over the coming wet season. Depending on whether the temporary measure succeeds through the coming wet seasons, the Department of Planning and Infrastructure will undertake a review for a permanent solution.



Picture of damaged structure.
Photo courtesy: NRETAS

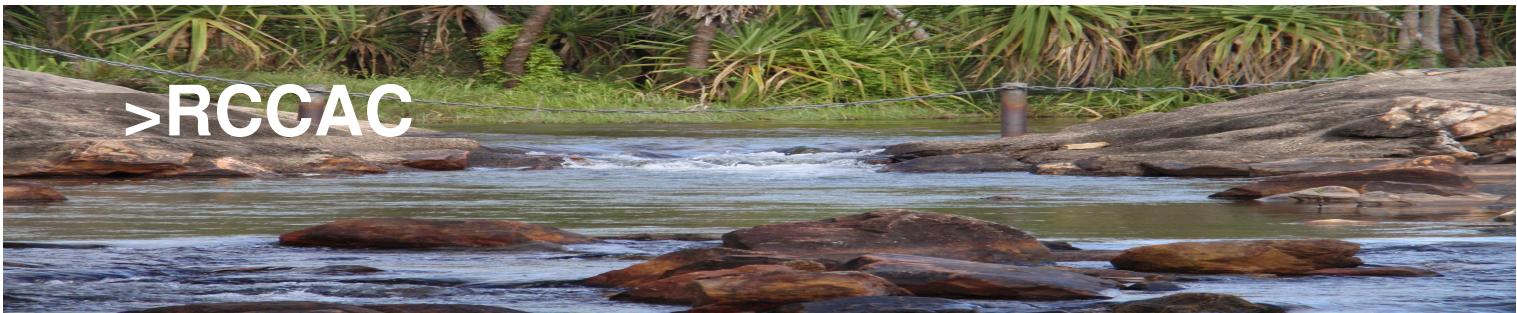


Picture of repairs to structure
carried out by DPI.
Photo courtesy: DPI



**Appendix 1: Aerial Photograph Rapid Creek Catchment
(boundaries are outlined in red)**





**Appendix 2: Aerial Photograph RAAF Base Darwin
showing fire extent and intensity September 2008**

