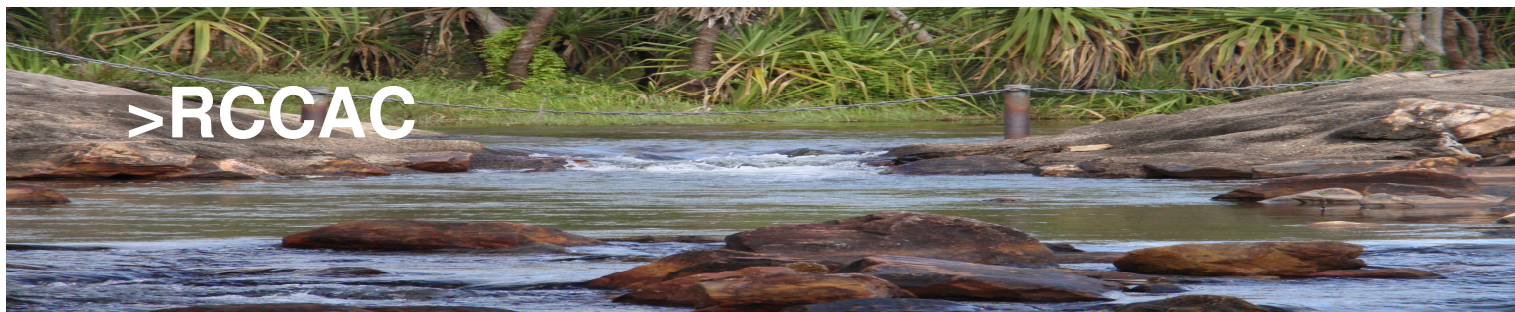




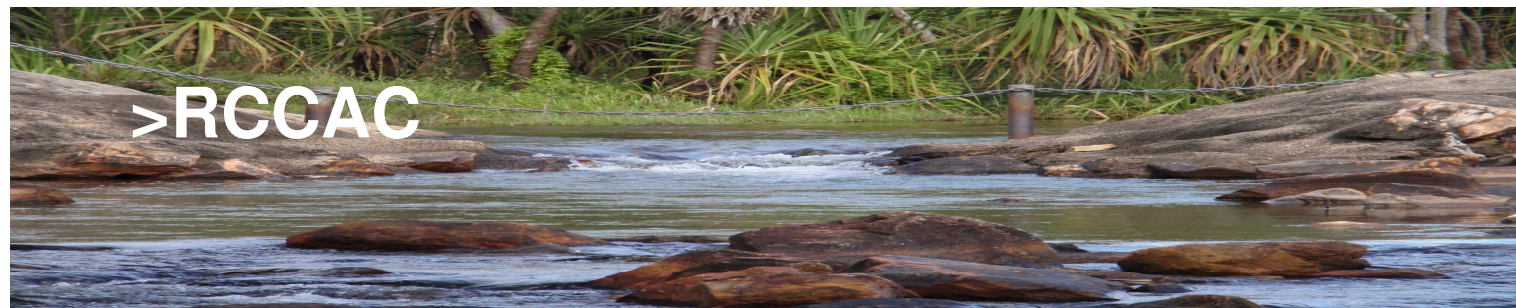
Rapid Creek  
Catchment Advisory Committee (RCCAC)

# **Annual Report 2010**



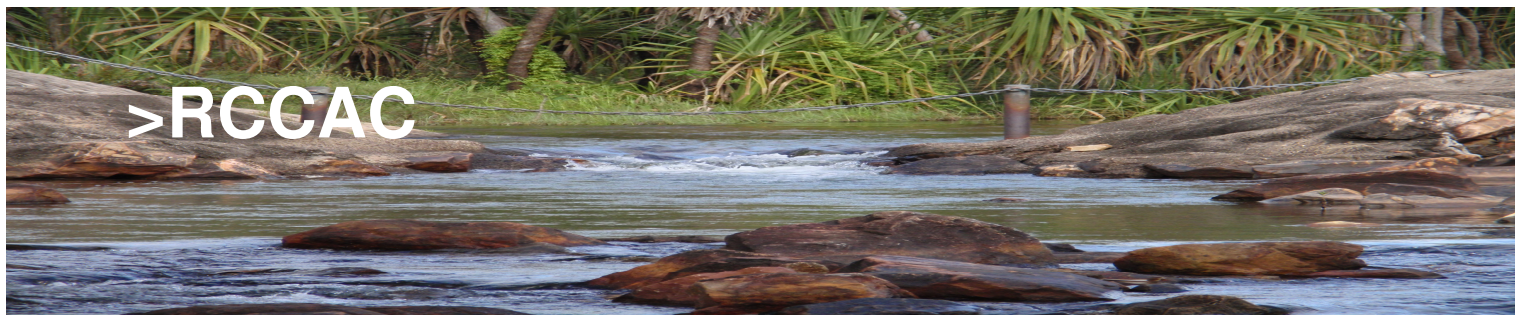
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Department of Natural Resources, Environment, the Arts and Sport  
PO Box 496 Palmerston NT 0831  
[www.nt.gov.au/nreta/natres/landcare/rapidcreek](http://www.nt.gov.au/nreta/natres/landcare/rapidcreek)

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Environment, The Arts and Sport



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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 30km<sup>2</sup>. 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.





## **Message from the Chair**



Jane Aagaard, Chair

I was appointed Chair of the Rapid Creek Catchment Advisory Committee in 2009. During 2010, 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. Works were successful and saw the Weir hold up for the wet season. DLP will continue ongoing management.
- ☐ Trimming of the Black Wattle tree on McMillans Road, carried out by the Darwin City Council.
- ☐ Subdivision of land at Marrara netball courts were successfully undertaken and the transfer of ownership to Darwin City Council.
- ☐ Creation of Rapid Creek walking track map
- ☐ The Committee provided a submission to the Development Proposal for a 30 metre high Telecommunication Tower on a residential block, Town of Nightcliff, on Rapid Creek Road.

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 2010.

With the 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



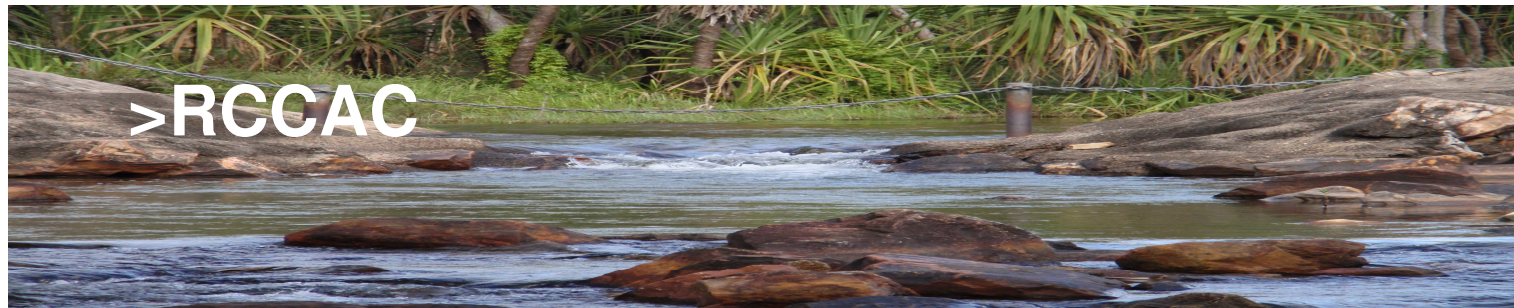
## **Terms of Reference and Membership**

### **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.

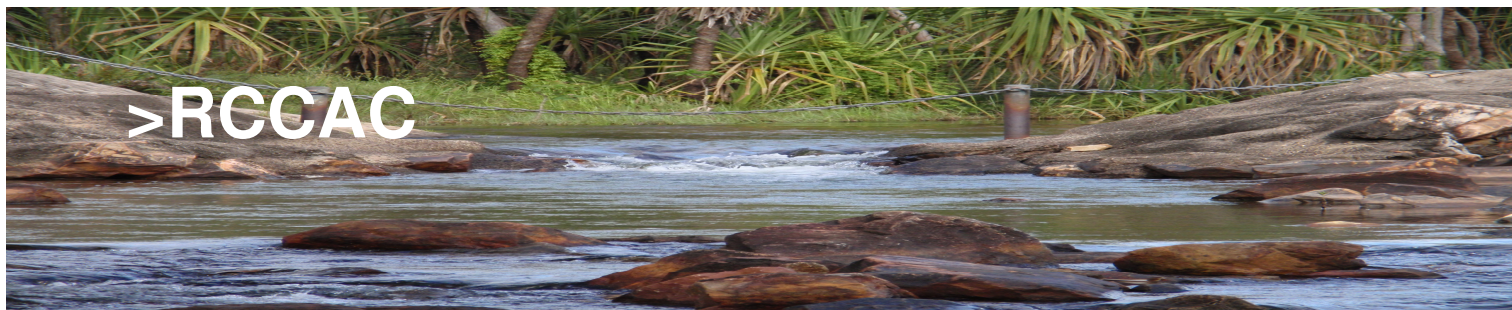


## **Membership**

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. Grounds Coordination, Charles Darwin University  
(Industry)
6. The President, Greening Australia (NT) Ltd  
(Community)
7. The Chairperson, Rapid Creek Landcare Group Inc.  
(Community)
8. Representative, Land Administration Division  
Department of Lands and Planning  
(NT Government)
9. Member of Legislative Assembly  
(Community)
10. Controller Water Resources  
Department of Natural Resources, Environment, the Arts & Sport  
(NT Government)
11. Representative, Aquatic Health Unit  
Department of Natural Resources, Environment, the Arts & Sport  
(NT Government)
12. Representatives, Road Networks  
Department of Lands and Planning
13. 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](http://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 the area.

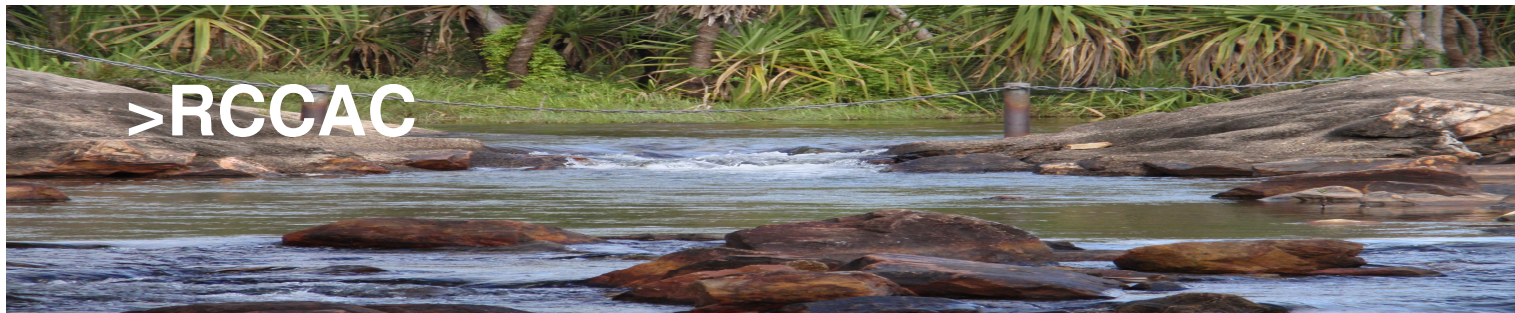
- Weed and fire management
- Storm water and erosion control
- Maintenance of facilities e.g. fences, walking tracks, signage, irrigation and lighting
- Litter control
- Revegetation programmes

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 2010 included:

- Removal of an unauthorised Weir adjacent to Henry Wrigley Road. Works saw the removal of 2.4 ton of concrete.
- Completed and implemented the Fire Management Plan
- Routine maintenance, weed spraying, repairs to fencing, irrigation and rubbish removal
- Planted over 3000 trees in June 2010, planted an additional 3500 between the water gardens and McMillans Rd





### **Rapid Creek Landcare Group**



Lesley Alford, RCLG, Peter O'Hagan, David Griffiths

The Rapid Creek Landcare Group works on practical revegetation projects and raises awareness about the creek in the community. The group works particularly with DIA and DCC to achieve vegetation management outcomes. The group's focus area is the Millner side of the creek between McMillans Road and Trower Road.

The group has a monsoon forest revegetation site behind the rural blocks. Supported by the DCC, in the 2010 dry season they planted hundreds of local native trees on to the site at a well attended community planting day. Regular weeding by members ensures a maximum survival rate.

They have also been managing the wetland area downstream of the red footbridge. The area had been accidentally burnt in recent years and a high fuel load put the site at risk of further fire. Intense weed management has reduced the fuel and selectively controlled problem weeds. A hundred seedlings were planted on the site in late 2010 and the group has been caring for them since.

In 2010 the group also got involved in the management of the new section of DCC land further upstream in an area known as Yankee Pools. Through RCCAC actions this block has increased the area of creek corridor under DCC control. The group has written the *Yankee Pools Weed Management Plan* and has been involved in a number of herbicide spray events to control Gamba Grass with the assistance of a spray unit provided through Greening Australia and the NTG's Weed Management Branch.

In addition to monthly 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 participated in a joint Landcare stand at the Sustainable Living Festival at the Tropical Garden Spectacular for World Environment Day. Members of the group attended the DIA community planting in their conservation corridor and the DCC tree planting upstream of Kimmorley Bridge. The group has worked on developing a consolidated species list for the whole of the Rapid Creek corridor to assist all stakeholders with revegetation work. Rubbish removal is an ongoing part of the group's regular activities. In 2010 the group also hosted a Clean Up Australia Day event and a Great Northern Clean Up event.

The Rapid Creek Landcare Group was nominated for the Darwin Community Event of the Year and were recognised at the Flag Raising and Citizenship Ceremony for the Australia Day Local Government Award Program.



**Greening Australia** [www.greeningaustralia.org.au](http://www.greeningaustralia.org.au)

James O'Sullivan Greening Australia
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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 were involved in supplying plants for planting days carried out through 2010.

Greening Australia has provided ongoing weed control services and nursery production services for Darwin City Council and coordinated a planting day held on 13 February 2010 at the Darwin International Airport. The planting day was linked in with the Rapid Creek Landcare Groups activities and \$4,000 worth of plants were supplied.



**Parks and Wildlife** [www.nt.gov.au/nretas/parks](http://www.nt.gov.au/nretas/parks)



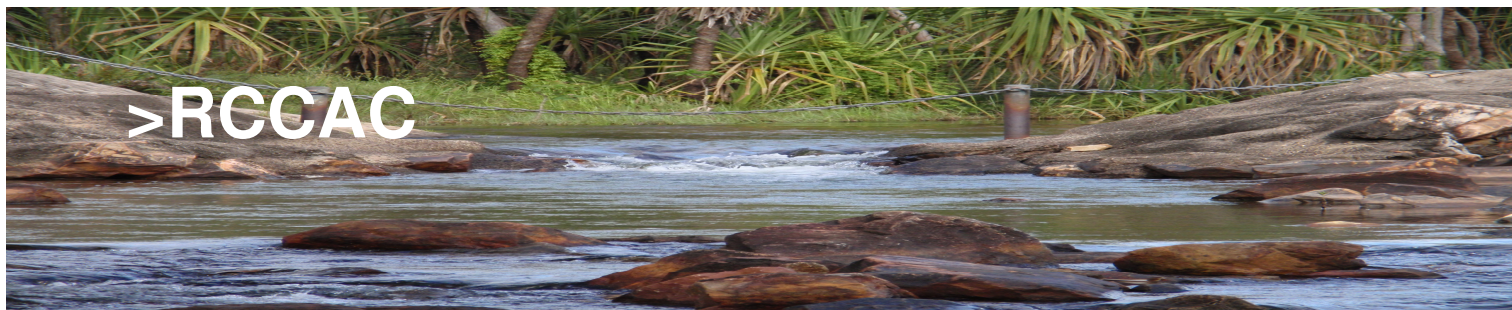
Paul Cawood, Parks and Wildlife

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 2010, Parks and Wildlife carried out their regular routine maintenance program which included various weed eradication including coffee bush and regular rubbish removal. Rangers also maintain perimeter fencing to deter vehicle pressure on the banks of the lower reaches of the creek.

Parks and Wildlife Rangers from the Crocodile Management Unit maintain a year round crocodile trap at the Rapid Creek. During 2010, there were around four crocodiles removed.





## **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 2010, Fire and Weed Management occurred, although due to the unusual start to the wet season affecting access to the northern areas of the base, some fuel loads had been retained and are targeted for 2011 Wet Season burning. Due to the short dry season, Gamba Grass increased in many areas, particularly around disturbed sites such as the woodland areas adjacent to the runway. Gamba Grass will be targeted for control in 2011 and combined within the Fire Management program to maximise efficiencies in control.

Defence is obligated to ensure that the biological, social and cultural environment in which it operates is not adversely affected onsite or offsite as a result of Defence activities. To this end, NT/K Defence Support (NT/K DS) conducts regular water quality monitoring of Defence properties in the NT/K region to monitor Defence's environmental performance in the region. The water quality monitoring programs are also undertaken to provide an effective method for determining if environmental management strategies being employed (e.g. fire and weed management, site environmental housekeeping around construction areas etc.) are achieving the desired result.

The principal objectives of the RBD water quality monitoring program is to determine the environmental quality of surface water run-off into Rapid Creek, Ludmilla Creek, Sadgroves Creek and Reichardt Creek, which ultimately drain into Darwin Harbour.

The 2010 Surface Water Quality Monitoring results indicate that turbidity levels, and Total Suspended Solids (TSS) across the site were low, however, there was some minor elevations to heavy metals as well as Nutrients at 2 sites. These anomalies were attributed as a result of high amounts of organic matter observed at some sites, as well as some local disturbances to areas related to the runway and fuel storage areas including the fuel farms. Development within these locations were more than likely increased sediments and leaching of any localised 'metals' into the locals drains which have resulted in the 'spikes'. Further monitoring in 2011 will be undertaken to ensure appropriate sediment and water quality monitoring occurs. Improved house keeping at the associated development sites in the form of more adequate sediment traps, appropriate management of material stockpiles, and localised management of runoff from these areas will also be improved.

Ground Water monitoring associated with known historical sources of contamination also occurred in 2010. Results from monitoring indicate that all sites are within acceptable limits, and no off site impacts are occurring. The monitoring wells associated with this program are only established within the localised surface aquifers to a maximum depth of 15m, with the purpose



of monitoring impacts to both local soils and ground water as a result of historical activities such as fuel farm operations etc.

Monitoring and mapping of pest animals, predominantly Wild Dogs, was undertaken in 2010. A small number of animals were detected. Defence works closely with DIA in monitoring problem dogs to ensure aircraft safety at RAAF Darwin is maintained. No Wild Dogs were removed from RAAF Darwin during 2010.



**Darwin International Airport** [www.darwinairport.com.au](http://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.

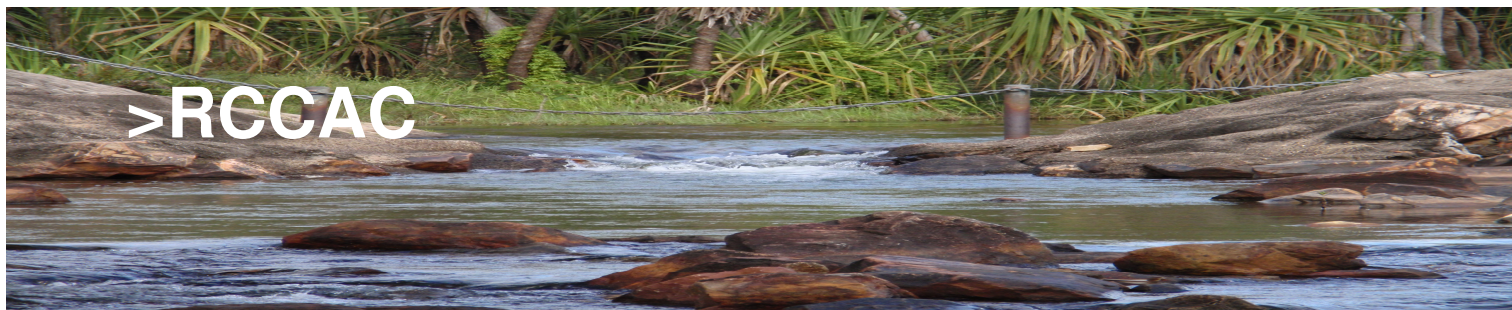
DIA saw the completion of new interpretative signage along the Rapid Creek paths located on Airport land and the Matboerrma gardens.

The Environment Strategy and Fire and Weed Management Strategies were approved and implemented. Contractors carried out work to remove silt in drains along the Creek.

Airport staff conducted Groundwater and Surface Water monitoring throughout 2010 due to high levels of E.Coli. DIA and the Aquatic Health Unit worked together to compile and compare data.

Airport staff conducted planting days in conjunction with Greening Australia and various stakeholders. The planting days were successful.





**Department of Lands and Planning** [www.nt.gov.au/nretas/dpi](http://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.

In 2010, The Department of Lands and Planning created a new position called the Crown Land Weeds Officer. The position assists in managing weed control programs and allows the Department to provide strategic and integrated weed control across the Northern Territory, including within the Rapid Creek Catchment.

The Department carried out routine maintenance such as weed control and clearing gravel from drains in 2010.



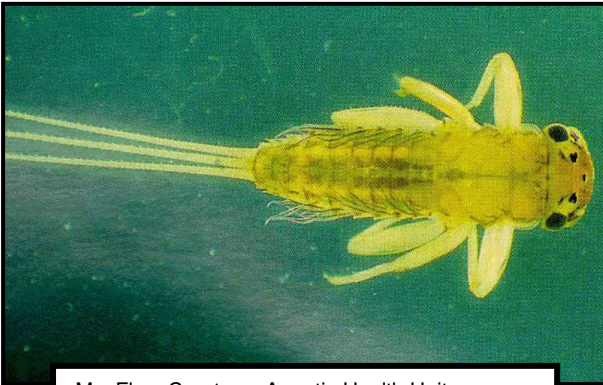
**Water Quality and Aquatic Health** [www.nt.gov.au/nreta/water/aquatic](http://www.nt.gov.au/nreta/water/aquatic)



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 collected data on macroinvertebrates (“water bugs”) and fish to ensure the aquatic life of the Creek is healthy. The results of water quality testing are published in the Darwin Harbour Region Report Cards (<http://www.nt.gov.au/nreta/water/reportcards/index.html>).

Darwin International Airport and the Department of Defence also collect 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. DIA and 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.



MayFly – Courtesy, Aquatic Health Unit



Hyrtl's Catfish – Courtesy, Dave Wilson, Aquatic Health





**Charles Darwin University** [www.cdu.edu.au](http://www.cdu.edu.au)



Nerida Noble, Grounds Maintenance, CDU

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.

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 carried out works with Darwin City Council to repair pathways that were badly damaged.

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 approved the use of the land for CDU students and community members to establish the garden. The student body organised a planting day on 6 and 7 February 2010 with the aim of planting native trees along the buffer line. The longer term plan is to have a waste water section at the bottom of the gardens. A list of recommended species was sent to the Rapid Creek Landcare Group to review.





## **Catchment Issues**

### **Repairs to the Rapid Creek Weir**

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

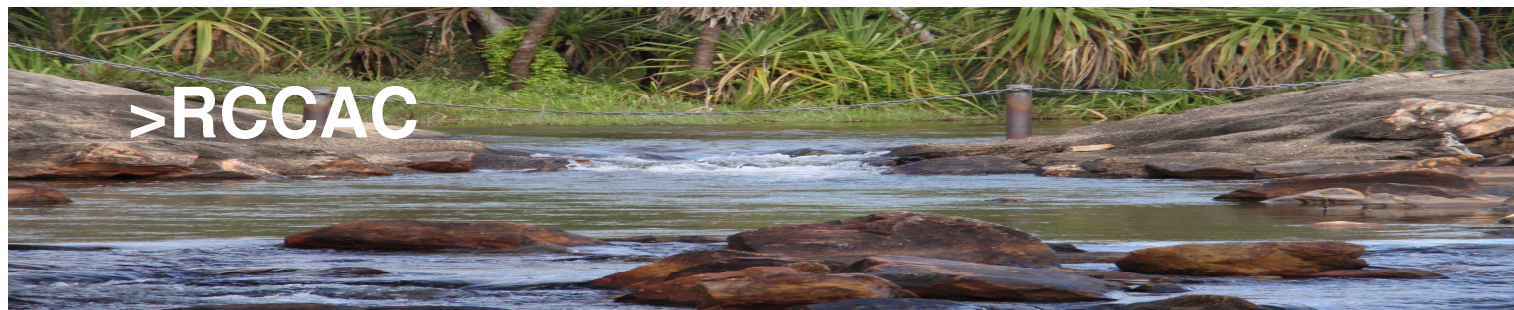
The weir was constructed in the mid 1980's by the then Department of Planning and Infrastructure (DPI), to attenuate flooding. Due to flooding and lack of maintenance over the past 10-15 years, the structure had become damaged and unsafe. The weir structure was deemed unsuitable with the centre of the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

RCCAC met and formed an informal sub committee and 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 were a temporary measure and the Department were pleased to report that the structure held up successfully for the wet season. The structure will be continually monitored by the Department and provide regular feedback to the Committee.

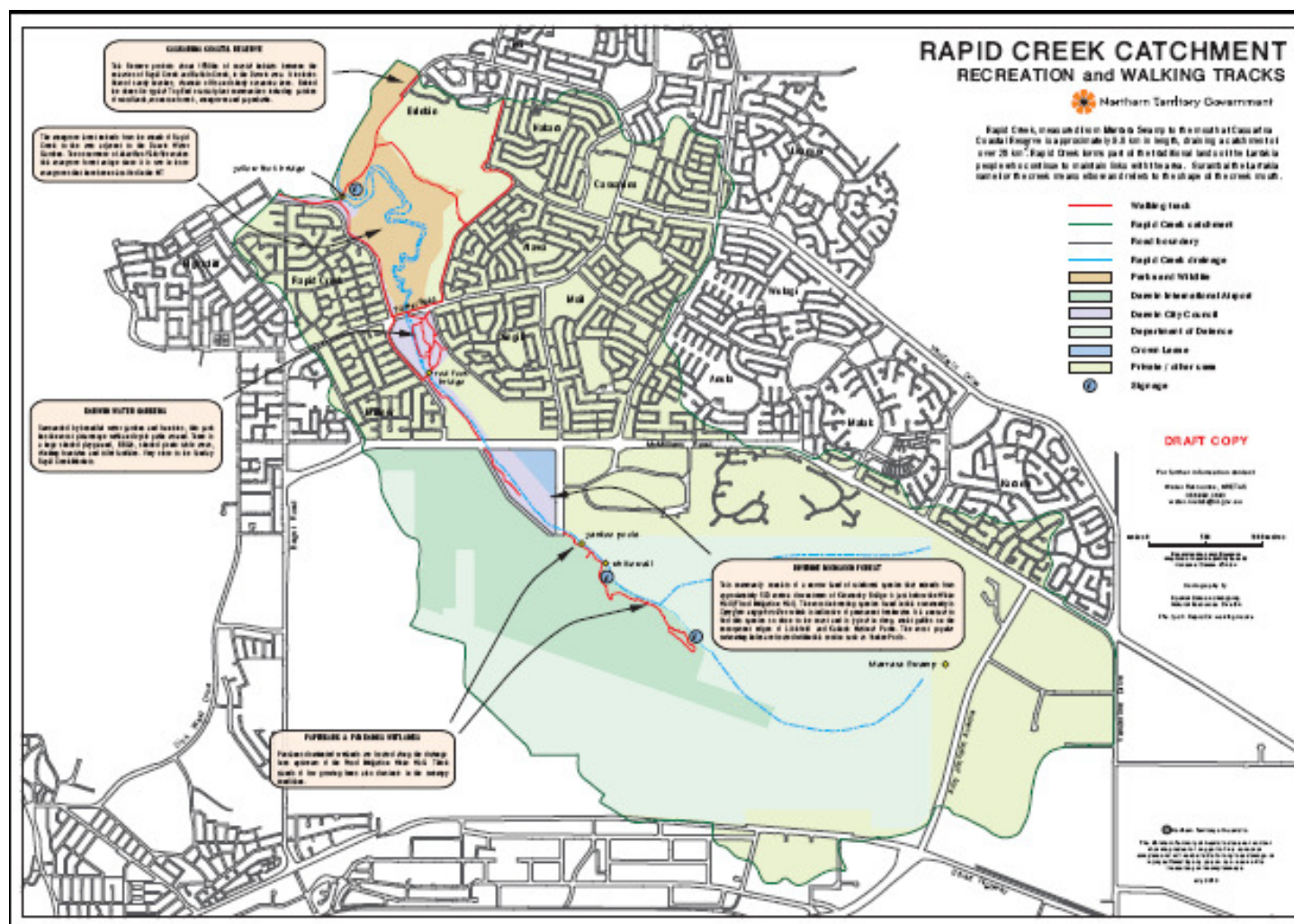


Photo courtesy: NRETAS





## Appendix 1: Map of Rapid Creek Walking Track and Stakeholder ownership



The map highlights the walking track in red as well as the land tenure for all stakeholders. Further information can be found at:

<http://www.nt.gov.au/nreta/natres/landcare/rapidcreek/maps.html>