



Rapid Creek
Catchment Advisory Committee (RCCAC)

Annual Report 2011



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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

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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 and Heritage.

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.

Message from the Chair



Jane Aagaard, Chair

During 2011, the Rapid Creek Catchment Advisory Committee worked to resolve some ongoing issues, with also achieving great results.

Significant achievements for the year include:

- Removal of an illegal weir, resulting in 2.4 ton of concrete removed;
- The Department of Lands and Planning, Road Networks division engaged contractors to clear sediment from the drains at Kimmorley Bridge in October, in preparation for the wet season;
- Additional member to the Committee from the Roads Network division; and
- Darwin International Airport and the Aquatic Health Unit, NRETAS, working closely to share data on water quality;

In 2010, the Committee reported on the repair works to the existing Weir at the top of the Catchment. Road Networks have continued to monitor the site and are pleased that the structure is holding up accordingly.

Future works for the Catchment include;

- The installation of slow flow devices and sediment control traps; and
- Planting of trees to strengthen the banks of the creek, to reduce erosion;

Stakeholder maintenance programs were regularly carried out to ensure the catchment was well maintained, to protect existing remnant bushland and boundaries surrounding the catchment. With the ongoing support, the Committee will continue to work together to improve the management and protection of the Rapid Creek Catchment.

On behalf of the Rapid Creek Catchment Advisory Committee, I take pleasure in presenting the Annual Report for 2011.

Yours sincerely

Jane Aagaard
Chair, RCCAC



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 of 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. Representative, 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



Nik Kleine, Darwin City Council

Darwin City Council (DCC) coordinates a maintenance program for the Creek corridor between Trower Road and the 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.

1. Weed and fire management
2. Storm water and erosion control
3. Maintenance of facilities e.g. fences, walking tracks, signage, irrigation and lighting
4. Litter control
5. 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 2011 included:

1. Completed and implemented the Fire Management Plan
2. Routine maintenance, weed spraying, repairs to fencing, irrigation and rubbish removal
3. Installed two water mains
4. Green jobs, helped to plant over 2000 trees.
5. Green jobs, helped to repair the fence behind the old reveg site.



Rapid Creek Landcare Group



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 continued to maintain the monsoon forest revegetation site behind the rural blocks. Regular weeding by members ensures previous plantings are successful. Woody weed control has continued in a wider area alongside the creek between McMillans Road and Trower Road.

In 2011, the group focused on the wetland area downstream of the red footbridge. Supported by a grant from the DCC Community Grants Program the group has continued rubbish removal and weed management around previous plantings and in November planted 300 native trees at a highly successful community planting event. The group is also involved in management of an area further upstream known as Yankee Pools. This year efforts were focused on the block leased by the Darwin Clay Target Club which was heavily infested with gamba grass. Following a successful late wet season spray of gamba grass (with the assistance of Greening Australia) the NT Fire and Rescue Service burnt the block which has reduced the heavy fuel load. The group has received a grant from the Territory NRM Local Grants Program to work with all stakeholders in the Yankee Pools area in the coming year.

In addition to monthly working bees the group attends community events and assists in educating and informing the public about the creek, its values and how people can help. In May the group hosted an educational event with the Junior Rangers. The group participated in a joint Landcare stand at the Sustainable Living Festival at the Tropical Garden Spectacular for World Environment Day. Rubbish removal is an ongoing part of the group's regular activities. The group hosted the Great Northern Clean Up event and participated in a Clean Up Australia Day event hosted by DIA.

In July a member survey was carried out which gathered valuable information about members' views on the creek and the group's activities. The group participates in meetings of the Darwin urban landcare network and attended the NT Landcare Award presentations at Parliament House. The group has been involved with consultations with the NT Government over a proposed fishing platform at the mouth of the creek.

At the NT Volunteer of the Year Awards on 5 December, one of the group's members, Tara Price, was acknowledged for her ongoing, enthusiastic and tireless work for the group. Tara was presented a Most Valuable Volunteer Certificate by the acting Chief Minister, Delia Lawrie.



Greening Australia www.greeningaustralia.org.au

Zoe Carmichael,
Greening Australia

Works in the Rapid Creek Catchment for 2011 have been predominantly carried out by GANT as contracts for Darwin International Airport (DIA).

In 2010-2011 Greening Australia were involved in revegetation (1500 plants), weed management (153 hours), rubbish removal, seed collection and monitoring of project sites. Greening Australia also had input into the DIA Landcare Award submission.

In 2010-2011 a significant reduction in weed density was achieved, from category 5 to category 4. The year 4 program has further reduced weed density. The year 4 program has also implemented weed management in a new area of approximately 4 hectares along the northern boundary. This area was originally assessed as category 5 weed density, making this area a priority management zone.

Management of the wildlife corridor has continued with a similarly adaptive approach for the fourth year. Spot spraying of weed species throughout the site, integrated with time specific mechanical control of desirable native species only after seed has set ensuring longevity of desirable species and further establishment within the site.

This holistic approach has continued to reduce fire fuel load threats, and maintain community aesthetic values and biological diversity.



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



Paul Cawood, Parks and Wildlife

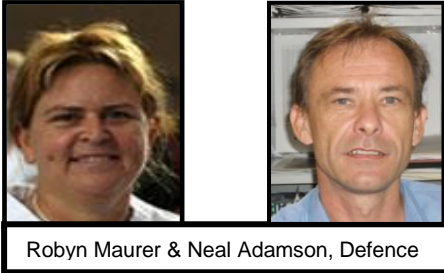
The Parks and Wildlife Service staff is committed to ensuring the implementation of the Casuarina Coastal Reserve plan of management, located within the Rapid Creek Catchment.

Rangers maintain perimeter fencing to deter vehicle pressure on the banks of the lower reaches of the creek and undertake regular rubbish removal from the regularly visited sections of the creek banks.

Parks and Wildlife Rangers from the Crocodile Management Unit maintained a crocodile trap at the Rapid Creek over those periods crocodiles were sighted. During 2011, there were three crocodiles removed.



Department of Defence



Robyn Maurer & Neal Adamson, Defence

The Department of Defence operates and upholds a maintenance program on their land within the Rapid Creek Catchment. During 2010, both Fire and Weed Management Plans were developed and implemented, however due to the unusually early 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.

Water quality results – Defence conduct surface water & ground water quality sampling and testing at 20 sites across RAAF Base Darwin. In 2011 test results have indicated elevated levels of nutrients and heavy metals, however these results are in accordance with control site levels which indicate local background conditions. 2011 has seen decreases in both hydrocarbons and Perflouro-Octane Sulphonate (PFOS) levels. Turbidity/suspended solids are at low levels and the NRETAS report card provided a result of 83.3% - Good water quality.

Management of Defence land (ie weed management, trees etc) – Defence develop and implement both annual Weed Management Plans (WMP) in accordance with NRETAS recommendations and Bushfire Management Plans (BMP). The BMP is incorporated into the WMP to improve the uptake of herbicide and thus our overall outcome.

Herbicide application is conducted by ground crew using foliar spraying techniques that avoid spray drift onto non-target plant species (and aquatic ecosystems), such as,

- Direct spot spraying on individual plants;
- not spraying during windy conditions; and
- adjustable spraying nozzles to decrease potential spray drift.

Please note chemical usage is kept to a minimum to avoid undesirable environmental impacts.

Wild dog monitoring did occur, however no dogs were removed from the Estate by Defence for the year.

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 the environmental risks and further embed sustainable environmental management into the Airport business.

Significant developments for the Airport in 2011 included:

- Opening of the long term car park and extension of the General Aviation car park facility
- Extension to the Airport Lodge to the south. This facility houses low risk asylum seekers as they undergo processing
- Expansion of the helicopter apron was expanded and pollution control added in the design
- Commencement of the Federal Police building and Canine Facilities that will be finalised in 2012
- Minor variation to the terminal was approved for both ends of the airport. It is expected that works will take up to two years and it is intended that work commences in the dry season 2012.

Environmental achievements included:

- Winners of the NT Urban Landcare Award
- Re-alignment of the Gurumbai Walking Trail in the Airport's Rapid Creek buffer zone walking track
- Updated interpretative signage along the Gurumbai trail and a sign for the Conservation area. These signs and associated brochure that was also produced in 2011 educate people about the flora and fauna, as well as the Indigenous cultural traditions and European history of the area.
- Planted approximately 2340 plants in the Rapid Creek buffer zone
- Land For Wildlife membership to enable staff and other like-minded landholders to share skills and knowledge about conservation

DIA continued to meet ongoing commitments from our Environment Strategy including, but not limited to, monitoring of ground and surface water, fire and weed management, and erosion monitoring. The airport shares the ground and surface water monitoring data with NRETAS.

Airport staff and volunteers also collected approximately 500 kg of rubbish along Rapid creek and Osgood Drive as part of 'Clean Up Australia Day' in March.



Figure 1: Gurumbai Photographer: David Silva



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



Sharon Jones, 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, and also providing leases and licences for approved use of Crown land. Blocks that are predominantly bushland are largely left in their natural state.

During 2011, the Land Administration branch has been keeping up to date with regular maintenance, including weed eradication and rubbish removal.



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



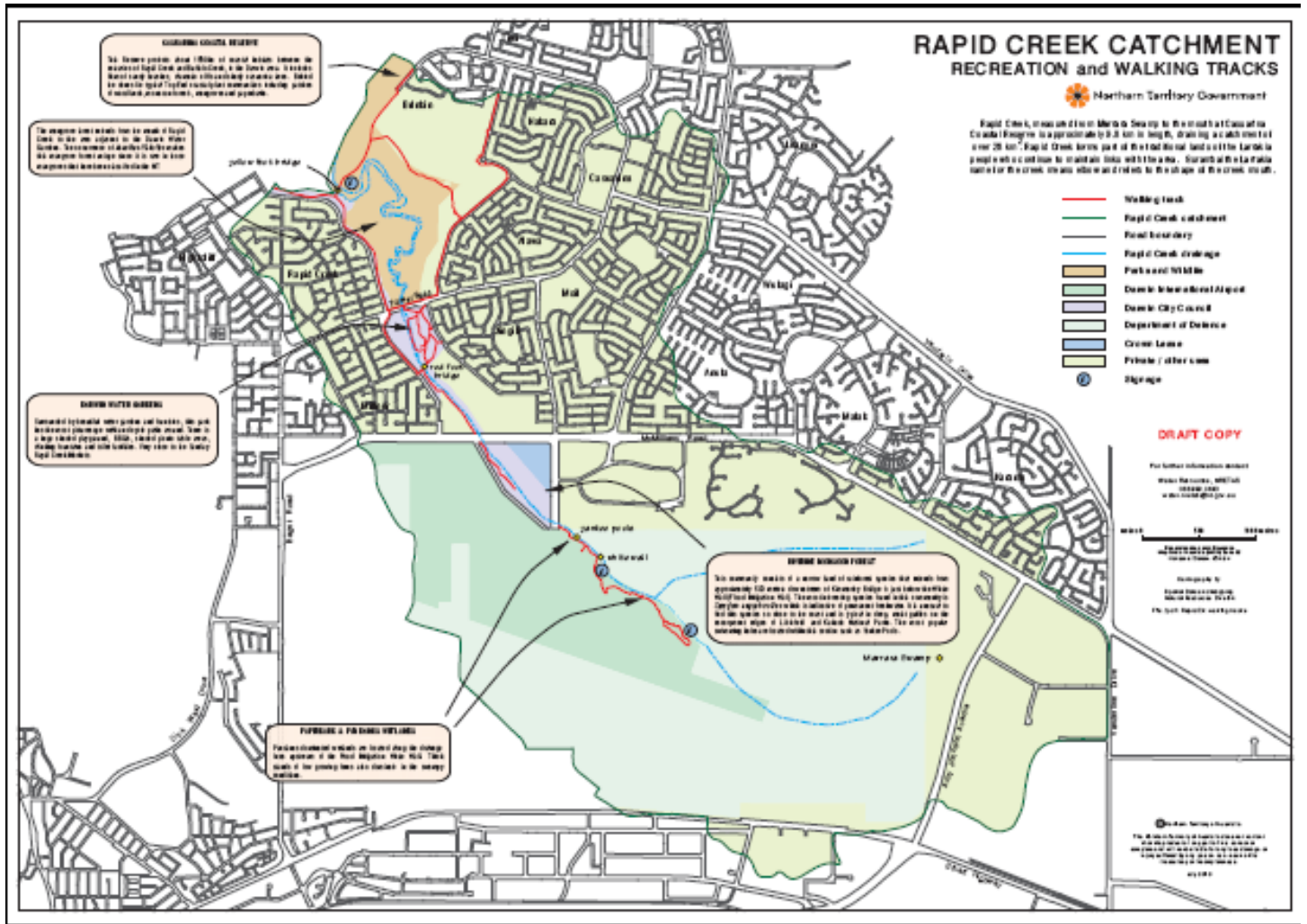
Julia Schult, Limnologist, Aquatic Health Unit

The Aquatic Health Unit undertakes a range of monitoring activities within the Rapid Creek Catchment. Annual dry season 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 Aquatic Health Unit has been working closely with the Darwin International Airport with compiling and comparing data. 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>). The Report Cards for 2011 are expected to be published later this year.

The Aquatic Health worked closely with the Department of Health, Environmental Health Unit and conducted regular monitoring for *enterococci* bacteria at the mouth of Rapid Creek and Rapid Creek Beach. The results of this monitoring are used by the Department of Health in the decision to close the beaches for public safety.



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>