



# RAPID CREEK LANDCARE GROUP

REPORT TO RAPID CREEK WATER ADVISORY COMMITTEE

DECEMBER 2016





# BACKGROUND

## RAPID CREEK LANDCARE GROUP

The Rapid Creek Landcare Group's members look after Rapid Creek through working bees, by promoting awareness about the creek and by advocating for better management throughout the catchment. The group was formally incorporated in 1997 although it had existed as an informal group for some years before that.

The group works to implement the *Rapid Creek Management Plan* (developed in 1994 by Greening Australia and the Darwin City Council).

## RAPID CREEK CATCHMENT ADVISORY COMMITTEE

The Rapid Creek Landcare Group was a founding member of the Rapid Creek Catchment Advisory Committee (RCCAC). The RCCAC was formed in 1996 and met regularly from 1997 to 2012 before being disbanded in 2013. Highlights of RCCAC achievements that the Group helped work on include:

- Input into the first Darwin International Airport Masterplan and Environment Strategy in 1999 which led to the airport creating the Rapid Creek Reserve which is zoned for Conservation and protects land within 75 metres of the creek. Darwin International Airport continues to manage this land for conservation.
- Creation of a Conservation zoned corridor 100 metres wide (50 metres either side of Rapid Creek) downstream of McMillans Road in 2000. Private land in the corridor on the eastern side of the creek was subsequently acquired, rehabilitated and transferred to the Darwin City Council. The City of Darwin continues to manage the land under their control for conservation.
- Declaration of Beneficial Uses for the freshwater reaches of Rapid Creek in 2000. The Beneficial Uses are 'aquatic ecosystem protection' and 'recreation and aesthetics'.
- Submission objecting to a proposed development on native woodland and wetlands at 1 Boulter Road in 2001 which led to the proposal being rejected by the Development Consent Authority.
- Creation of a 75 metre native vegetation buffer alongside Rapid Creek when the netball complex was created at Marrara, the buffer was transferred to the Darwin City Council in 2009. The City of Darwin continues to manage this land, and the adjacent block they already owned, for conservation.

The Rapid Creek Landcare Group looks forward to participating in the new Rapid Creek Water Advisory Committee.



## GROUP ACTIVITIES

The following is a summary of Rapid Creek Landcare Group activities since the RCCAC last met.

### MONSOON FOREST CORRIDOR IN THE MID CATCHMENT

#### Revegetation work

Over the years the extent of the monsoon forest below McMillans Road has been affected by clearing and it is now very narrow in places; opportunities for natural regeneration are limited. The management plan has strategies for revegetating this area and in earlier years revegetation projects were carried out by Darwin City Council and Greening Australia.

Seedlings were planted and managed by the Rapid Creek Landcare Group into the wetland area downstream of the red footbridge, across the creek from the Water Gardens, on City of Darwin land. Previous revegetation efforts here had been badly damaged by weeds and fire. Species selection for seedling planting was crucial here as plants need to survive saltwater inundation at high tides. The site was very weedy and much work went into controlling weeds.

The group has worked in the monsoon forest on City of Darwin land behind the rural blocks on Rapid Creek Road to plant and maintain local native trees. This work has targeted areas where the monsoon forest is very narrow and where there were gaps in previous revegetation projects.

Seedlings were planted by the group near the creek at Yankee Pools to rehabilitate degraded old tracks and strengthen the edge of the riparian corridor on City of Darwin land.

The group hosted a memorial tree planting for Alan Stanger. Alan was instrumental in the community action that led to the conservation zone on the Jingili side of Rapid Creek. The City of Darwin had installed a commemorative plaque at the site prior to the planting.

#### Weed management

The group worked with the NT Government, the City of Darwin, Darwin International Airport and the Darwin Clay Target Club in the Yankee Pools area towards better weed management, particularly in relation to gamba grass (*Andropogon gayanus*). Complex land tenure in this area has made strategic vegetation management difficult and gamba grass had established in the area which is a serious threat to the sensitive riparian vegetation here. The group carried out gamba grass herbicide spraying themselves and co-ordinated better weed management by the various landholders. In addition to the weed management work large amounts of dumped material and dilapidated fencing was removed to improve access for weed and fire management, safety and aesthetics. Gamba grass has been greatly reduced in the area and most participating landholders have continued with weed management although some often need following up.



The group has worked for many years controlling the woody weed coffee bush (*Leucaena leucocephala*) alongside Rapid Creek. The particular focus for this project has been the monsoon forest corridor between McMillans Road and Trower Road where the species is now basically eliminated.

### **Conservation zoning**

The group is working with the City of Darwin to achieve Conservation zoning on their land adjacent to Rapid Creek between McMillans Road and Henry Wrigley Drive and upstream at Yankee Pools. Although the City of Darwin already manage this area for conservation the Conservation zoning will provide stronger protection to the important monsoon forest corridor and adjacent transitional communities into the future.

### **Controlling vehicle access**

The management plan refers to unrestricted vehicle access causing erosion, weed invasion, inappropriate fires, native vegetation loss and vast amounts of littering in the bushland areas between McMillans Road and the flood mitigation weir. This area contains much of the important monsoon forest community at Rapid Creek. The City of Darwin, Darwin International Airport and Greening Australia had previously carried out revegetation work in these areas with the community but the areas were getting increasingly degraded due to the vehicle access.

The Rapid Creek Landcare Group has worked with landholders to restrict inappropriate vehicle access close to Rapid Creek. This initiative has been very successful with the City of Darwin, Northern Territory Government and Darwin International Airport all installing fencing, bollards and locked gates which have effectively stopped this vehicle access. Controls include:

- New fencing, bollards and locked gates installed by Darwin International Airport effectively restricting vehicle access to the whole of their Rapid Creek Reserve.
- Bollards alongside Henry Wrigley Drive and on the boundary of Marrara netball complex installed by the NT Government restricting access to the Yankee Pools area.
- Bollards and locked gates installed by the City of Darwin along the Charles Eaton Drive access road and along Henry Wrigley Drive and McMillans Road. A new fence and locked gates were installed on the tenure boundary with NT Government land north of the creek in this area.

### **Campaign against tree removal in the name of flood mitigation**

The Rapid Creek Landcare Group was very concerned when it appeared the NT Government were going to remove many mature, native trees in the monsoon forest at Rapid Creek between McMillans Road and Trower Road. The removal was intended to mitigate flooding of houses in Millner. The group mounted a campaign which included a large public meeting attended by almost 200 people opposed to the tree removal. Subsequent NT Government reports demonstrate that the tree removal will not mitigate flooding and in fact these trees provide essential services to the functioning of the creek system. The plans for flood mitigation at Rapid Creek have yet to be finalised but it appears at this stage that tree removal will not be amongst them.



## UPPER CATCHMENT

### **Illegal clearing of native vegetation**

The wetlands and slow draining areas in the upper catchment contain large areas of important native vegetation communities and serve a major role in flood control and mitigation. The management plan recommends maintaining these areas in their present undeveloped state.

The Rapid Creek Landcare Group was devastated to find over 4 hectares of native vegetation illegally cleared at 1 Boulter Road. Despite the group's extensive campaign over two years, which gained wide media coverage, no prosecution was pursued by the NT Government. The group also campaigned, unsuccessfully, against the subsequent rezoning of 1 Boulter Road, an action the group saw as basically rewarding illegal behaviour.

### **Weed management on Defence land**

A large fire burnt through most of the Defence land in the upper Rapid Creek catchment in September 2015. A review of available information suggests that this is the first time such a large area of land has burnt at once and that it has burnt later in the year than most previous fires. Uncontrolled late dry season fires are detrimental to the environment and sensitive areas such as wetlands are very susceptible to damage. This area contains important wetland communities and extensive woodlands.

When the RCCAC was in operation, Defence regularly reported its weed and fire management activities which included herbicide spraying and annual mosaic burning. The annual burns were reported to assist in minimising widespread wildfires. In more recent years Defence weed management has been poor and widespread infestations of weeds, and in particular gamba grass, have increased and flourished. Gamba grass poses a serious fire risk; it is a Class A, B and C declared weed in the Northern Territory, a Weed of National Significance and a Key Threatening Process under the Environment Protection and Biodiversity Conservation Act.

The Rapid Creek Landcare Group has corresponded with Defence a number of times hoping to find a resolution to this issue. The group hopes that weed management will improve on Defence land in the catchment over the coming wet season.

## MANGROVES IN THE LOWER CATCHMENT

### **Inappropriate dumping**

Mangrove ecosystems support a diverse range of plants and animals and provide many free ecological services such as urban stormwater filtration of pollution, sediment and litter. Their importance is even greater in the current climate change and rising sea level environment. The mangrove hinterland is the sensitive zone at the upper edge of the mangroves where they meet landward communities. Altering the landscape in this zone can halt the landward colonisation of mangroves and can ultimately lead to the area covered by mangroves decreasing. The management plan states that 'Strategies for





protecting the mangrove community should be directed at ... preventing any further encroachment by filling or clearing.'

There have been a number of incidents of dumping of fill material alongside the mangroves in recent times. The mangrove edge roughly follows the tenure boundary between Casuarina Coastal Reserve and either the City of Darwin or Charles Darwin University land - the lack of clarity on ownership is one of the factors leading to this zone being used as a dumping ground and becoming degraded. The landcare group has been involved in discussions with the City of Darwin and Parks and Wildlife about better management of land alongside the mangroves, particularly in an area subject to ongoing dumping over many years. Recently the City of Darwin installed bollards along this section of Lakeside Drive; this should lead to less vehicle traffic and inappropriate dumping in this area. Another incident of dumping of land fill on the Casuarina Coastal Reserve adjacent to Charles Darwin University has also just been reported by the group.

### **Weeds**

The management plan states that 'Strategies for protecting the mangrove community should be directed at reduction of weeds along the edges ...' The landcare group has carried out some control of coffee bush alongside the mangroves on the western side of the creek downstream from Trower Road. However the coffee bush infestations in the lower catchment are extensive and provide an opportunity for a large scale and co-ordinated response.

### **Litter**

Litter and dumping in the mangroves is a regular occurrence. Regular participation in Clean Up Australia Day events, including events in collaboration with the Clontarf Foundation, have been focussed in the mangroves in recent years. There have been a number of clean up activities at the foreshore and in the adjacent mangroves on both sides of the creek (including one in held in conjunction with the Charles Darwin University's Enviro Collective), and in the mangroves upstream of Trower Road. Large amounts of rubbish and dumped material have been removed at these events.

## **WATER QUALITY**

### **Soil erosion and sediment control**

The effects of sediment on water quality is significant. Disturbed and cleared sites contribute to the pollution load since the massive red and yellow earths that are the dominant catchment soil type in the catchment are classified as moderately high in erodibility. The management plan requires that erosion and sediment control measures are implemented at all building and development sites in the catchment.

The group has raised a number of incidents at development sites where soil erosion and sediment control management has been inadequate at Darwin International Airport. Following our approaches there were some improvements in sediment management however the airport is a long way from meeting the *Best Practice Erosion and Sediment Control* (International Erosion Control Association, 2008) guidelines which it professes to follow.



## COMMUNITY AWARENESS

### Website

The Rapid Creek Landcare Group established a website and installed a sign advertising its address at the Red Footbridge ([www.rapidcreek.org.au](http://www.rapidcreek.org.au)). The group continues to maintain the website which contains a wealth of information about the creek and the group's activities.

### Birdwatching list

The group developed the *Rapid Creek Birdwatching List* (printing of the list was funded by the Darwin International Airport). The list was launched at the group's Fundraising Café at the Top End Native Garden Open.

### Informative walks

The group has hosted a number of walks to raise awareness about Rapid Creek, these have included two City of Darwin Healthy Communities guided bushwalks.

## ISSUES

The following are issues identified by the Rapid Creek Landcare Group for the attention of the new Water Advisory Committee:

- The need for more revegetation to consolidate the monsoon forest corridor.
- A coordinated approach to weed and fire management in the Yankee Pools area that includes Defence land and commits all landholders to ongoing management.
- Resolution of the proposal to rezone City of Darwin land (Sections 5249 and 4295) to Conservation.
- An update on flood mitigation funding, timing and reports.
- A firm commitment from the NT Government that trees will not be removed in the name of flood mitigation.
- Documented evidence showing a solid weed management program on Defence land in the catchment being implemented.
- Vehicle access along the shared pathway between the red footbridge and McMillans Road - possibility of bollards at each end of the narrow strip behind the rural blocks.
- Addressing illegal dumping and filling within the catchment.
- A plan for the mangrove edge downstream from Trower Road to ensure inappropriate dumping does not occur and weed management is addressed (this could incorporate a large scale revegetation program in the coffee bush infested areas of Casuarina Coastal Reserve).
- A demonstrated commitment from Darwin International Airport to implement *Best Practice Erosion and Sediment Control* (International Erosion Control Association, 2008) guidelines on all developments.