

# Fitzroy River Catchment Management Plan Summary





*Photo:  
Catchment Management Planning is important  
for protecting the Fitzroy Catchment*

## Acknowledgements

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Centre of Excellence in Natural Resource Management (2010). Fitzroy River Catchment Management Plan. The University of Western Australia. May 2010.

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The maps in this report use a variety of data sets, where these are sourced from agencies or other organisations they are used with permission, and acknowledged as follows. Digital datasets supplied:

- Road Centrelines (Landgate)
- Hydrography – Linear (Department of Water)
- Hydrographic Catchments (Department of Water)
- LGA boundaries (Landgate)

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*Cover:*

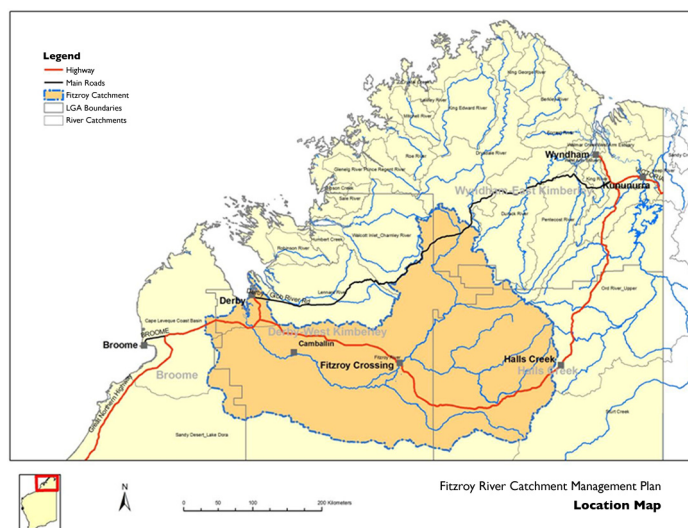
1. Geikie Gorge is a special place on the Fitzroy River. Photo: FitzCAM Project
2. The Purple-crowned Fairy-wren is one of many threatened species of wildlife supported by the Fitzroy River. Photo: W. Lawler (AWC)
3. The Fitzroy River is an important source of food and recreation. Photo: FitzCAM Project
4. The Pastoral Industry is currently the most significant industry in the Fitzroy River Catchment. Photo: K. Parker

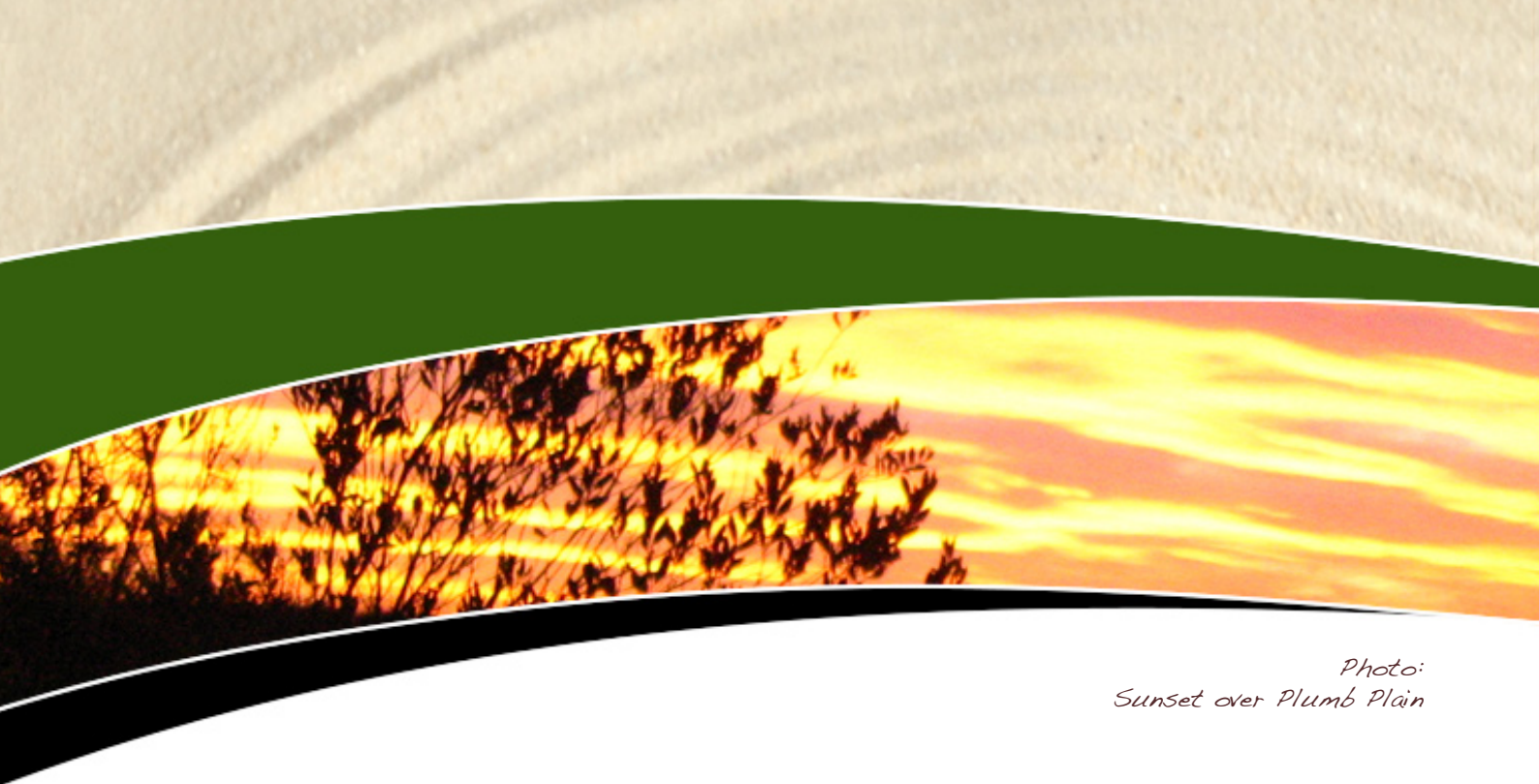
# Background

The Fitzroy River, and its catchment, is largely unchanged by human activity, making it one of the last remaining wilderness areas in Western Australia. Northern Australia is considered to be environmentally significant on a world scale and tropical river systems are central to this. The Fitzroy River is especially important as one of northern Australia's largest and most significant free-flowing rivers. Free flowing rivers are those which have not been greatly altered and controlled by structures such as dams and levees.

The Fitzroy River Catchment is home to a wide range of people who derive their livelihoods and their spiritual, cultural and historic character from its country and waters. Many groups and individuals from this area agreed that to protect the river, its Indigenous values, its water quality, its productivity and the overall natural environment of the catchment it was important to develop a Catchment Management Plan.

The Fitzroy River Catchment was identified as a priority area with high environmental, social/ cultural and economic values by Rangelands Natural Resources Management, Western Australia (Rangelands NRM) and several state and federal government agencies. The development of the Fitzroy River Catchment Management Plan was made possible through funding and support from Rangelands NRM WA.





*Photo:  
Sunset over Plumb Plain*

The Fitzroy River Catchment Management Plan covers all aspects of the catchment including ecological and cultural assets, as well as the production needs of local industries. Based on the views of a wide range of local stakeholders, it looks at how to minimise or eliminate threats to these assets.

The Fitzroy River Catchment community started being involved in Natural Resource Management (NRM) activities in the mid 1990s. This involvement increased when the FitzCAM (Fitzroy Catchment Action and Management) group was formed in late 2007. FitzCAM was made up of a wide range of stakeholders from different backgrounds and was able to voice local concerns relating to NRM, see FitzCAM structure and membership on page 9. A list of stakeholder groups is shown on pages 10 to 12.

FitzCAM's vision has been 'To work together to protect the catchment, its country, its community, its people'. To move towards this vision FitzCAM worked with facilitators to produce the Fitzroy Catchment Management Plan. It is important to recognise, however, that FitzCAM had invested a great deal of effort into catchment protection and rehabilitation before they started working with the facilitators. The Fitzroy River Catchment Management Plan provides a framework for investment in the projects, planning and research that is needed to achieve sustainable and productive ecosystems across the catchment.

## Description of the Catchment

The Fitzroy River Catchment area covers just under a quarter of the Kimberley region, or 95,000 km<sup>2</sup> (over 23 million acres). The Fitzroy River Catchment includes all rivers, creeks and streams that feed into the Fitzroy River, including the Upper Fitzroy, Leopold River, Margaret River and Christmas Creek.

Across the catchment an average of 500mm of rain falls each year although generally northern areas have higher average rainfall than southern areas. Almost all (80%) of this rainfall occurs between November and March, often causing large floods. The amount of water flowing down the river from year to year is also extremely variable.

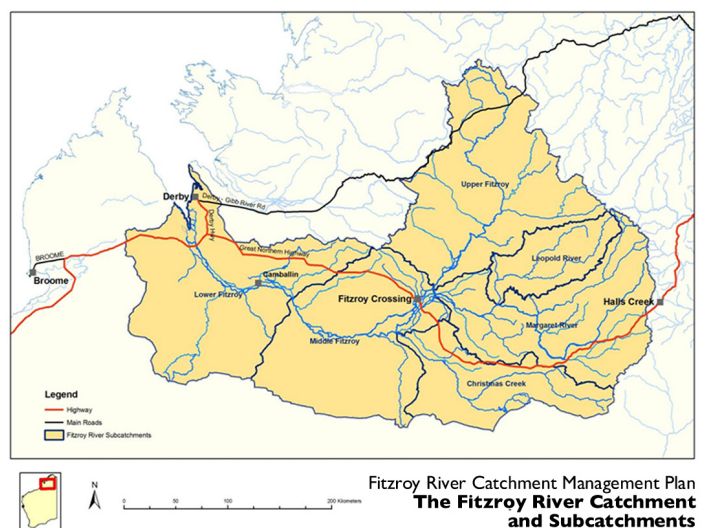
For example in 1992 only 300 gigalitres flowed past Fitzroy Crossing compared to 25,000 gigalitres in 2002, that equates to about two thirds the amount of water in the Sydney Harbor passing Fitzroy Crossing in 1992 compared to a massive 50 times the amount of water in Sydney Harbor in 2002.

*FitzCAM's Vision*  
*To work together to protect the catchment;*  
*its country, its community, its people*

The catchment supports extensive eucalypt woodlands, scattered vine thickets and hummock grasses. Some fertile soils are found in the river areas, but the catchment generally contains highly weathered soils with low fertility.

Waterways, springs, permanent pools and wetlands provide habitat for a diverse range of plant and animal life. The permanent pools, which are fed by groundwater during the dry season, are essential for the plants and animals at this time of year. They also provide a significant resource for local people.

There are many threatened wildlife species in the Fitzroy River and its catchment, such as the Red Goshawk, Purple-crowned Fairy-wren, Gouldian Finch, Peregrine Falcon, Northern Quoll, Freshwater Crocodile, Northern River Shark and Freshwater Sawfish.



The catchment supports a population of nearly 7000 people and includes parts of the three shires of Wyndham/ East Kimberley, Halls Creek and Derby/West Kimberley. Most of the population lives in the two major towns of Fitzroy Crossing and Derby, however many people live in small communities. Approximately 80% of the population is Aboriginal with 57 Aboriginal communities within the catchment. There are 44 pastoral properties, 16 of which are Indigenous lease holdings.

The pastoral industry is extremely important to the region and mining has an increasing presence. Tourism is also becoming an important industry in the Fitzroy region. Aboriginal people play a significant role in the regional economy through participation in the arts and the other industries, and through customary fishing, food collecting and hunting activities.



*Photo:  
Wet season storms are important  
for revitalising the landscape*

## Development of the Fitzroy River Catchment Management Plan

In developing the Fitzroy River Catchment Management Plan the facilitators held a number of workshops with FitzCAM and other stakeholder groups. During the workshops a total of 122 individual assets were identified. These assets were grouped into 5 themes:

### **Theme 1 Big, over-arching assets**

Many stakeholders suggested that in designing a management plan for the catchment, the large, over-arching assets should be considered as a whole. These included the wilderness values of the Fitzroy River and its catchment as well as the prosperity of local industries such as pastoralism, tourism and natural/cultural resource management.

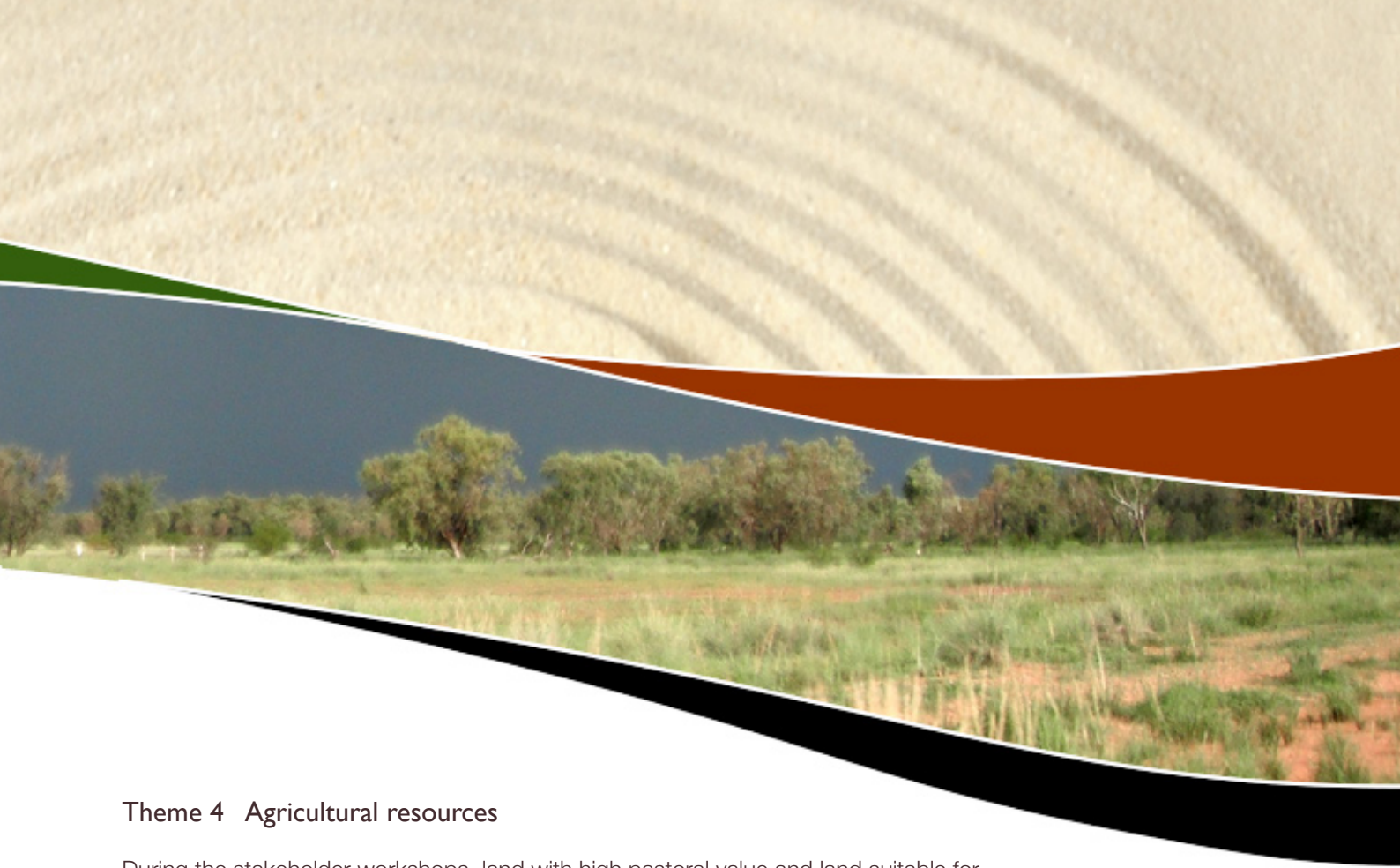
### **Theme 2 Water**

Water, and more specifically water quality, was identified as a core issue for Indigenous people and pastoralists. The relatively unregulated water flow of the Fitzroy River was identified as an important asset that helps to maintain a healthy river system through annual cleansing during floods.

### **Theme 3 Biodiversity**

Biological diversity is the variety of life forms (plants, animals and micro-organisms), the genes of those life forms, and the ecosystems in which they live. Aboriginal peoples of the Kimberley have understood and protected biodiversity in the traditional practice of caring for country.

The Fitzroy River Catchment includes the King Leopold, Mueller and Durack Ranges, Lake Gladstone, the Camballin Floodplain (Le Lievre Swamp System), Geikie Gorge, Brooking Gorge, the Fitzroy River mouth and King George Sound. All of these and other special places contain unique ecosystems that are important to protect because of their high levels of biodiversity and rare plants and animals.



#### Theme 4 Agricultural resources

During the stakeholder workshops, land with high pastoral value and land suitable for irrigated agriculture were identified as high priority assets within the catchment.

#### Theme 5 Cultural, recreational and tourism assets

The Fitzroy Catchment is a rich and diverse cultural landscape, containing many places of cultural, spiritual and historical significance for both Indigenous and non-Indigenous people. Many of the people living in the area have considerable local knowledge of natural resource management that needed to be incorporated into the Fitzroy River Catchment Management Plan. Tourism is the fastest developing industry within the Kimberley attracting both domestic and international tourists. Tourism has the potential to provide both advantages and disadvantages to the sustainability of the region.

A number of threats to these assets were identified at the workshops. Some of the threats are current and some could develop in the future. These threats include:

- ***Late dry season and uncontrolled fires***, which are harmful to plants and animals, as they become large and intense and burn out of control.
- ***Weeds*** brought into the area choke native plants, provide fuel for fires and change the natural habitat. In some cases (for example, Noogoora Burr) they limit access to the river for people and livestock.
- ***Feral animals*** such as pigs, camels, cats, donkeys, wild dogs, horses, cattle and fish can threaten native animals and their habitats. The land can also suffer through soil disturbance, soil compaction and overgrazing.
- ***Over-grazing or broad-scale land clearing*** can change the structure of the grasslands, introduce weeds, degrade the soil and cause sediment to build up in the waterways.
- ***Over-harvesting***. If there is too much access to the area, resources such as bush tucker can become scarce.
- ***Damage to the waterways through silt, sediment, erosion and floods***. Man-made structures and uncontrolled access by cattle to the river damage river banks and increase the amount of sediment in the river.



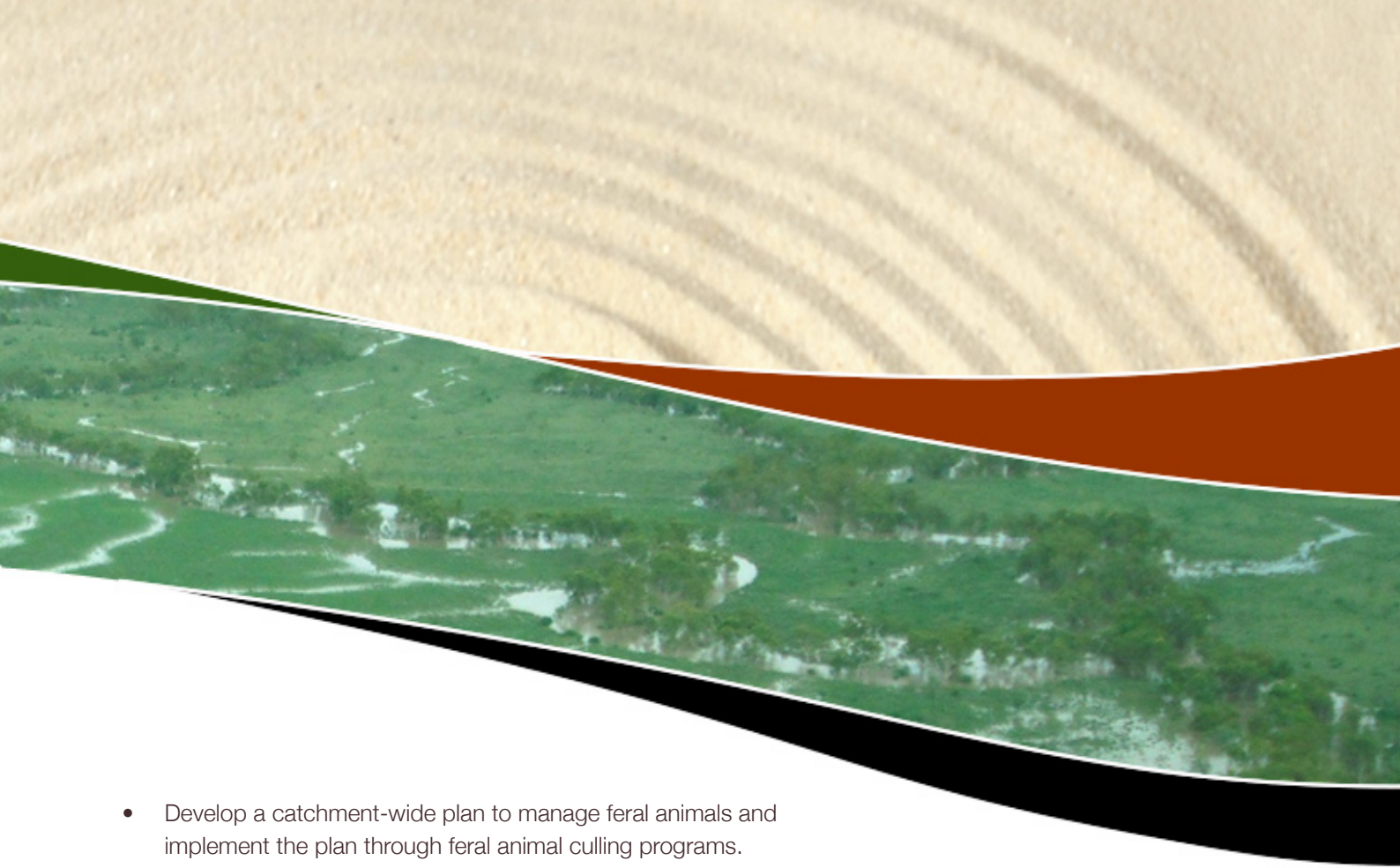
*Photo:  
The Brooking Channel following wet season rain*

- **Dams** can be a threat if they flood ecosystems, alter natural water flow, damage or destroy cultural sites or restrict access for the passage of fish.
- **Over-extraction of groundwater** either to meet Australia's growing water demands or for future agricultural activities.
- **Mining.** Potential threats include disturbance of vegetation and habitat, danger of contaminants, damage to or disturbance of cultural sites, and over-use of water for industrial purposes.
- **Tourism.** The main threat to and from tourism is uncontrolled and unmanaged access to tourist sites which, with the increasing numbers of tourists expected in the future, could destroy the very "wilderness" experience they seek.

The Fitzroy River Catchment Management Plan contains a large number of actions that will facilitate the protection of assets from identified threats. Unfortunately with limited funding available it will not be possible to fund all of the actions immediately.

The following list includes a number of Priority Investment Strategies. These are the actions identified in the workshops as requiring the most urgent attention. Please note that there is no order or priority to this list.

- Research and document the links between the different water storage systems of the river (surface, alluvial and groundwater).
- Give appropriate input to assist the Department of Water to produce equitable water management plans, which include maintaining natural river flows.
- Run a community fire management workshop that develops fire management protocols throughout the catchment.
- Carry out on-ground work in high fire-risk regions, such as controlled burns.
- Undertake mapping of occurrence of environmental weeds.
- Develop a catchment-wide plan to control weeds and implement the plan through on-ground work to remove weeds, in particular Noogoora burr, Mimosa bush and Parkinsonia.



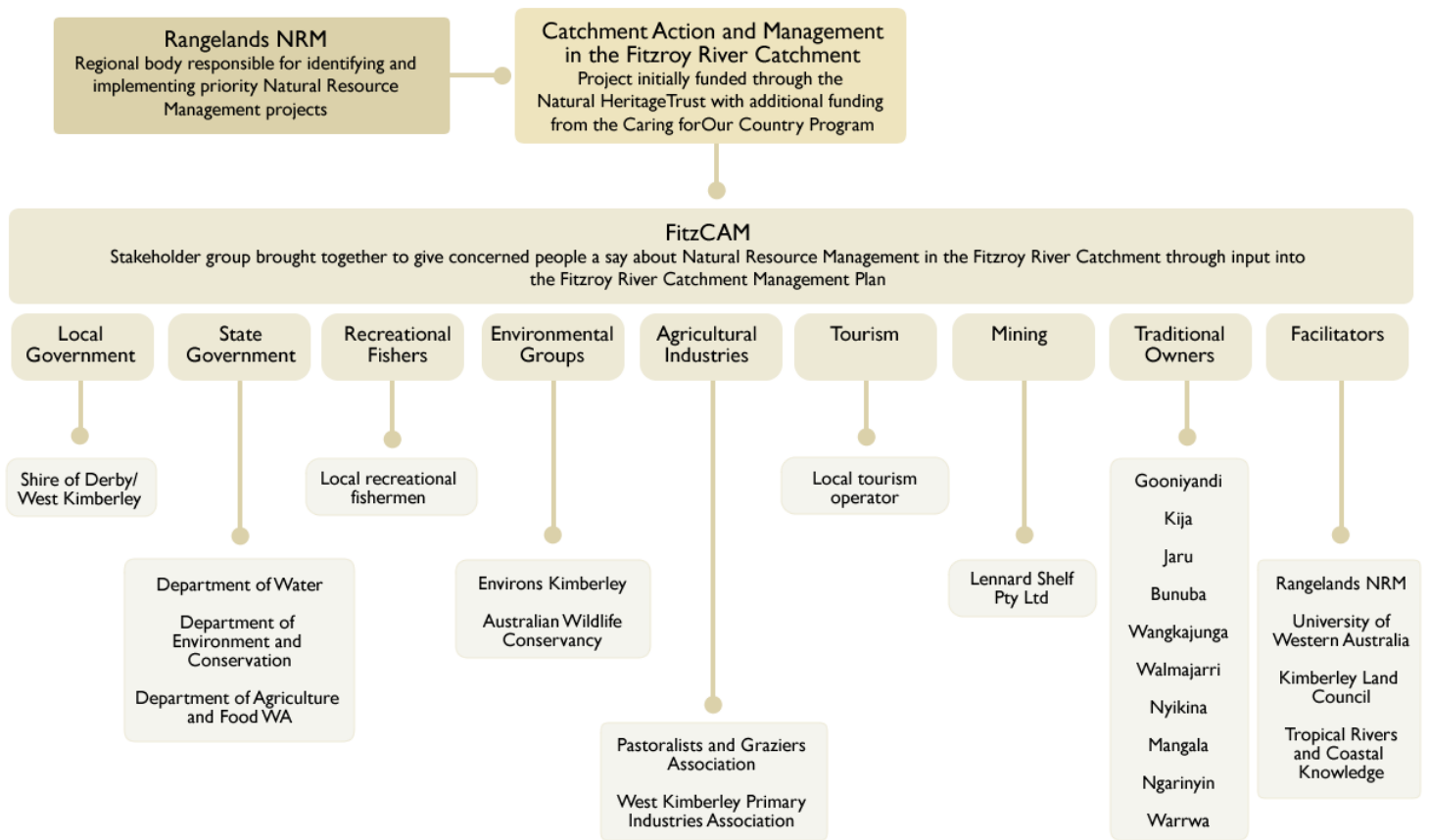
- Develop a catchment-wide plan to manage feral animals and implement the plan through feral animal culling programs.
- Work to conserve native plants and animals that are important for cultural, bush tucker and recreational purposes.
- Work to protect and improve the condition of important areas such as Geikie and Brooking Gorge through on-ground activities such as fencing and removal of feral plants and animals.
- Protect soil to reduce erosion and sediment by improving groundcover on agricultural lands across the catchment.
- Preserve cultural natural resource management knowledge by working with local individuals and groups to catalogue, preserve and record the culture, language and history of the area.
- Work to protect specific cultural sites using appropriate fencing, signage and access control.
- Protect popular tourist sites by developing and implementing appropriate local management plans for specific sites.
- Work on education programs to assist local people in developing plans to preserve their local culture and important sites.
- Maintain a local advisory body to undertake the types of functions that FitzCAM has in the past.

You can download the full Fitzroy River Catchment Management Plan from the Rangelands NRM website - <http://www.rangelandswa.com.au/pages/178/publications>

# Glossary

<b>Alluvial soil</b>	Soil containing sand, mud and sediment that has been deposited by flowing water
<b>Catchment</b>	The area drained by a water body, including all streams that flow into a river or lake
<b>Biodiversity</b>	The variety of plants and animals living within an area
<b>Ecosystem</b>	The community of different plants and animals, how they interact with each other and the environment in which they live
<b>Facilitator</b>	Someone who helps a group of people understand their common goals and helps them plan to achieve them without being involved in the discussion
<b>Gigalitre</b>	One billion litres (1 000 000 000L)
<b>Groundwater</b>	Water that seeps under the ground and is stored there
<b>Stakeholders</b>	The people who have a direct or indirect stake in the success or failure of a project or an organisation
<b>Sustainable</b>	A project or business that avoids damaging the environment and using up natural resources so that it has a healthy long-term future
<b>Wilderness</b>	An area unspoiled by modern technology and modern society or that can be restored to that state

# FitzCAM Structure and Membership



# Key Stakeholder Groups in the Fitzroy Region

Fitzroy Stakeholders	Involvement in Fitzroy
Bunuba Inc.	Indigenous organisation in Fitzroy Crossing.
Centre for Appropriate Technology (CAT)	Sustainable livelihoods for communities of Indigenous people through appropriate technology. CAT provides information, knowledge and practical services across a range of areas including energy, housing and infrastructure, water, waste, telecommunications, transport and technical skills development.
Department of Agriculture and Food WA (DAFWA)	New opportunities for Tropical and Pastoral Agriculture (NOTPA): facilitating pastoral diversification and development opportunities; Indigenous pastoral support program: assistance to develop and run pastoral enterprises.
Department of Environment and Conservation (DEC)	Joint management of Geikie Gorge with Bunuba; Administers the Environmental Protection Act (vegetation clearing and pollution licensing), the Conservation and Land Management Act, the Wildlife Conservation Act.
Department of Environment, Water Heritage and the Arts (DEWHA)	Commonwealth Government department responsible for National Heritage listing process
Department of Fisheries	Develops all policy for fisheries management including fishing licenses, aquaculture, bag limits and reserve management.
Department for Planning and Infrastructure (DPI)	Structure planning in communities.
Department of Water (DOW)	Leads state government water planning and management program as well as waterways management, water information, water licensing and some involvement in water service to remote communities.
Environs Kimberley (EK)	Non-profit environmental advocacy group.
Indigenous Land Corporation (ILC)	Assists Indigenous people acquire and manage and develop land; also been involved in the DAFWA Indigenous pastoral support program.
Indigenous water policy group (IWPG) Kimberley	Supported by NAILSMA to bring together Indigenous people to contribute to water policy and planning and keep abreast of water reform. They have launched an Indigenous Water Facilitators network.
Aboriginal Law and Culture Centre (KALACC)	The 'culture arm' of the KLC. Their objective is to "To assist and promote the ceremonies, songs and dance of Kimberley Aboriginal people, to encourage and strengthen their social, cultural and legal values and ensure their traditions have a place in Australian society".

Kimberley Aboriginal Pastoral Association (KAPA)	Association to represent Indigenous pastoralists in the Kimberley (About 30% of pastoral stations are owned and managed by Indigenous people).
Kimberley Development Commission (KDC)	The Kimberley Development Commission is a statutory authority of the Government of Western Australia. Its role is to promote the economic and social development of this magnificent region of Australia.
Kimberley Language Resource Centre (KLRC)	Supporting the transmission of language and culture for maintenance of cultural heritage and connection to country.
Kimberley Land Council - Land and Sea Unit (KLC-LSU)	Represents Traditional Owners and facilitates Indigenous engagement.
Kimberley Regional Fire Management Project (KRFMP)	An NHT-funded project getting Aboriginal people out on country for fire management.
Kimberley Sustainability Project	A KDC & KLC project funded by the commonwealth government as an extension of the 'Kimberley Appropriate Economies Round Table'
Lingiari Foundation	The Lingiari Foundation is a non-government Indigenous organisation that undertakes research on the development of Indigenous rights in Australia, and the relationship between that movement and the international struggle for Indigenous rights. Led by Pat Dodson.
Lower Fitzroy Management Group	For management of unauthorised camping, fishing and access to the lower Fitzroy
North Australian Indigenous Land and Sea Management Alliance (NAILSMA)	Peak Indigenous NRM group for northern Australia
Pastoral and Graziers Association (PGA)	Non-profit industry organisation which represents primary producers of wool, grain and meat & livestock
Pastoral Lands Board (PLB)	Administers the Land Administration Act 1997 for Pastoral Leases and pastoral diversification.
Rangelands NRM Coordinating Group (RCG)	Regional body responsible for administering NRM funds and implementing priorities.
Shire of Derby/West Kimberley	Local Government Authority governing the western part of the Fitzroy catchment.

## Key Stakeholder Groups in the Fitzroy Region, cont'd.

Shire of Derby/West Kimberley	Local Government Authority governing the western part of the Fitzroy catchment.
Shire of Halls Creek	Local Government Authority governing the eastern part of the Fitzroy catchment.
Shire of Wyndham/East Kimberley	Local Government Authority governing the northern part of the Fitzroy catchment.
West Kimberley Agricultural Association	A newly formed group of horticulturalists, irrigators and pastoralists engaged in diversified activities.
West Kimberley Land Conservation District Committee (LCDC)	This pastoral-based landcare group which has had various periods of activity.
World Wildlife Fund for Nature (WWF)	Kimberley Wetlands Program - Helping identify significant wetlands with community involvement





**Rangelands NRM**  
Western Australia

Level 3, 37 Hampden Road  
Nedlands WA 6009  
Tel 08 9485 8930

[www.rangelandswa.com.au](http://www.rangelandswa.com.au)