



***Big splash in Chillagoe:***

# **WATER in focus**

The Mitchell Water Plan (2007) is due to expire on 31 August 2018. The Water Act provides for the Minister to extend a plan's expiry date for up to 10 years. The process for assessing the effectiveness of a plan and a course of action leading up to the plan's expiry involves a risk assessment and public consultation on the proposed course of action. Anyone with an interest in the plan could make a submission through that process.

Unallocated water allocation is another process but related through plan 'caps'. DNRM has not announced a 'release of new water' yet but an 'expression of interest' can be made to them. One proposal for use of unallocated water has been put forward by the Lakeland irrigators who have

proposed that the Palmer River supply water to Lakeland via a pipeline. We expect to follow up as more details emerge. *(update provided by the Acting Manager for Water Planning, DNRM Mareeba)*

## **CHILLAGOE TO HOST COMBINED GENERAL MEETINGS AUGUST 14-15**

A combined general meeting has been set for MRWVG, Northern Gulf Resource Management Group (NGRMG) and the Gulf Cattleman's Assoc. (GCA). The 2-day event will be starting on Mon 14th with MRWVG's General Meeting scheduled after lunch on Tues 15th. There will be numerous speakers and presenters covering a range of interesting subjects.

The general theme for the conference is 'water'. It's a great opportunity to meet up with old and new friends and compare notes on important issues. Looking forward to seeing you there.

JOIN US IN CHILLAGOE 14-15 AUGUST











Environmental Groups may be disappearing from the Landscape (lack of support funding) but the Mitchell River Group hangs on. Yes we are still alive and providing information on projects across the catchment. Always remember Landcare is **local people taking local action in their local areas.**

We have a new Coordinator **Dr. Pam Schultz**. Pam's work has been in the Julatten area on Koster's Curse, Kowanyama Finch Project, at the moment still on going and will include properties in the Mitchell River Catchment.

We also have a Water and Soil expert in **Brian Prove**. Brian is working with farmers in the Arriga Plains testing for salinity.

We're also very happy to see the return of long-term member **Bill Sokolich**. Bill generously used his time to put this edition of the Catch-up together and is assisting with the Chillagoe meeting.

Just a reminder our office is still at 317 Byrnes Street Mareeba, supplied free of charge by Northern Gulf NRM. We gratefully acknowledge this generous support and work closely with them to bring sustainable NRM to the Catchment.

Combined General Meeting with Northern Gulf has been set down for August 14<sup>th</sup>-15<sup>th</sup> at Chillagoe. We have some interesting speakers on the program.

The Mitchell River Group is an endorsed tax deductible gift recipient and all donations over \$2.00 to our Public Fund are 100% tax deductible.

# Critical water flow research underway

Mitchell River will host scientists in the catchment this year as part of the National Environmental Science Program (NESP)

This research will improve understanding of the critical flow needs to sustain freshwater ecosystems in the Mitchell River catchment. Key activities will be:

- Identifying and mapping 'hot spots' of freshwater primary production within the Mitchell river floodplain
- Improving understanding of the importance of these high priority areas for sustaining fish populations and other aquatic species
- Identifying other flow-dependent ecological assets in the Mitchell River and how they are likely to be impacted by water resource development
- Increasing confidence in water planning for river catchments in the Gulf thanks to an improved understanding of ecological assets and their critical links to flow.

The study is being undertaken by the Northern Australia Environmental Resources Hub headed by Prof. Stuart Bunn, Griffith Uni with the support of CSIRO and other collaborative organisations.

Visit: <http://www.nespnorthern.edu.au>



# Arriga Plains

## Water and Soil

### Quality program

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Mitchell River has received a community grant from Northern Gulf to undertake a collection of water and soil quality in the Arriga Plains.

A greater part of the Mareeba-Dimbulah Irrigation Area (MDIA) is located in the Mitchell River Catchment, via the Mitchell River and Walsh River. The Cattle Creek sub catchment forms part of the Walsh River catchment and is located approximately 16km west of Mareeba, with the creek running 22.5km north-south. Most of the agriculture in the Cattle Creek catchment is irrigated sugarcane along the eastern bank.

Since 1988, data from an existing network of groundwater observation bores has indicated that some areas in the Cattle Creek catchment had rising groundwater. This has led to waterlogging and salinity with conductivity measurements.

Soil type assessment is critical under these conditions as the introduction of salt by irrigation waters will increase the sodicity of the soil. Vulnerable soils will be subject to sodium (Na) replacing plant nutrients calcium (Ca) and magnesium (Mg) on the clay particles present in the soil, thereby reducing soil nutrient levels.

Additionally, when water (even freshwater) is added to this sodic clay, the clay breaks apart and moves down the soil profile effectively reducing the drainage

of the soil and again decreasing crop/plant health.

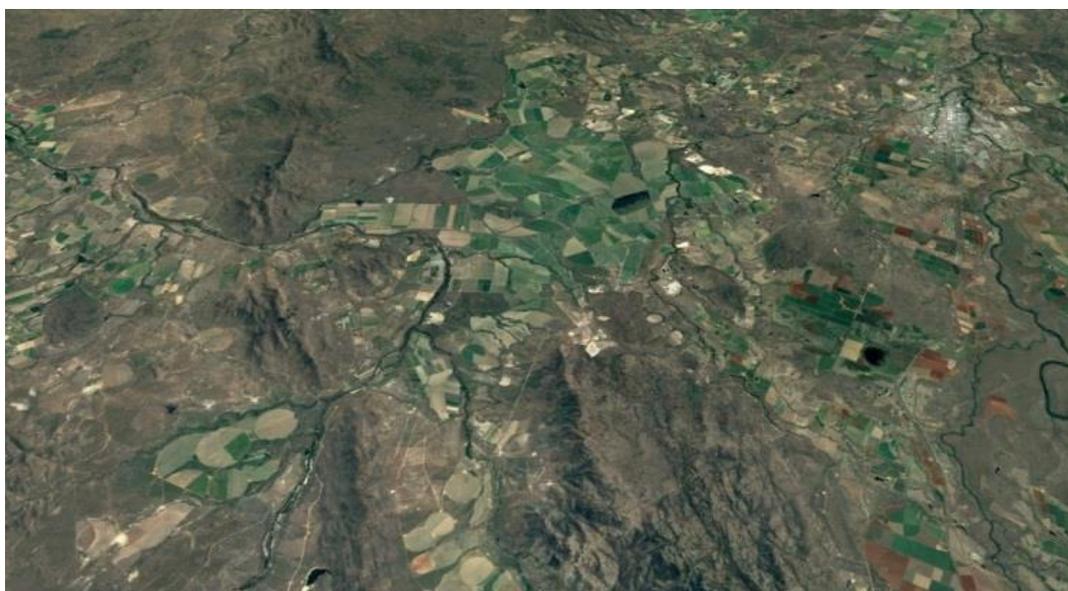
In the Arriga Plains area of the Cattle Creek catchment, the majority of the soils present are subject to waterlogging, are at risk of high salinity and are moderately to strongly sodic.

However, the lack of detailed soil type assessment and lack of well-publicised water quality monitoring throughout the region has meant that many growers continue to practice irrigation strategies that may cause long-term degradation to their primary asset.

Mitchell River's Project Officer, Brian Prove, has been talking with some of the key people in the area to gain a better understanding. One of these people is Bronwyn Dwyer, Manager at Tablelands Canegrowers. Bronwyn has a good news story: through a combination of improved irrigation and other factors, yields in the Arriga Plains have remained commercially viable over the past 20 years.

Given the area's importance for local producers, there is considerable interest in understanding more about how salinity and waterlogging are being managed.

Stay up to date on the project via the Mitchell River website at: <http://www.mitchell-river.com.au/projects/2017/17>



# Brooklyn Station's fire management regime seeks to reduce erosion, problem weeds and promote biodiversity.

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Australian Wildlife Conservancy's Brooklyn Wildlife Sanctuary situated in Northern Queensland is the most biodiverse parcel of private land in Australia. Covering almost 60,000 hectares Brooklyn supports a greater diversity of wildlife than any other single property in Australia. With more than 290 birds, 86 mammal species and 140 reptiles and frogs, Brooklyn is a true hotspot for Australia's wildlife.

Brooklyn station has several overlapping ecological systems each with their own complex flora and fauna. From uplands in that border the Wet Tropics World Heritage Area to flood plains on the upper Mitchell River.

AWC protects this area and its wildlife through a number of land management and science strategies including fire management, feral herbivore and

weed control, feral cat and fox control and in the field science programs. Collaboration with our neighbours and other regional stakeholders is an important part of our conservation strategy.

As recently as this month (June 2017) AWC, with five of Brooklyn's neighbours, implemented a series of prescribed burns – both aerial and on the ground as part of a co-ordinated regional strategy. This will reduce the risk of extensive late season fires while also reintroducing fire into key habitats where appropriate.

Fire management at the sanctuary itself is complex due to the juxtaposition of ecosystems with different requirements across different parts of the property. AWC's fire management is a tailored program designed to create a patchwork – or mosaic – of burnt and unburnt areas across the landscape to prevent large late season wildfires which are harmful to wildlife (for example, by changing the structure of habitats and making it easier for feral cats to hunt). Brooklyn is especially vulnerable to late wildfires originating from the Mulligan Highway which transects the property. Early season fires also help control weed species such as Rubber Vine and Stylo species. Recent research is exploring the use of fire to help native species out compete Grader Grass.





# Brooklyn

**See more**  
<http://www.australianwildlife.org/sanctuaries>

## Overview

Brooklyn Sanctuary supports a greater diversity of wildlife (500 vertebrate species) than any other single property in Australia. More than 290 bird species, 86 mammal species and 140 reptiles and frogs make Brooklyn a true "hotspot" for Australia's wildlife.

The level of species and ecosystem diversity on Brooklyn reflects a broad range of topography and a steep rainfall gradient across the property.

In the east, Brooklyn includes vibrantly luxurious mountain rainforests of the World Heritage Listed Wet Tropics Bioregion, rising to an altitude of 1140 metres and drenched by an average rainfall of over 4000 mm. Around 4,000 hectares of Brooklyn is world heritage listed - the largest area of privately owned world heritage on mainland Australia.

Key vitals			
Size/area:	<b>59,964 hectares</b>	Mammals:	<b>86</b>
Bioregion:	<b>Einasleigh Uplands / Wet Tropics</b>	Birds:	<b>299</b>
Ecosystems:	<b>137</b>	Reptiles:	<b>105</b>
Plants:	<b>1426</b>	Amphibians:	<b>35</b>
Threatened plants:	<b>45</b>	Threatened wildlife:	<b>40</b>

Brooklyn has over 164 species of weed on the property. These are controlled by strict vehicle/machinery hygiene, tracks are sprayed using Paraquat Herbicide and then surveyed before traffic is allowed on them.

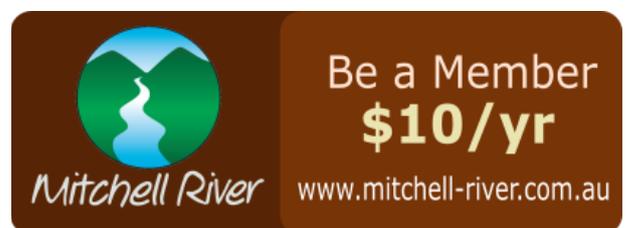
All tracks are slashed to prevent the spread of weeds by vehicles and no vehicles are allowed off these tracks. The tractor and slasher are cleaned regularly and the slasher has a fan mounted on it to remove debris while working to reduce the risk of spread. Weeds are categorised into threat and abundance and treated by the most effective method available.

Brooklyn protects over 40 threatened species of Australian animals. A survey conducted by our ecologists across 22 sites across the property late last year identified a vast array of important species including Northern Quolls, Yakka Skinks, Rock-wallabies (a hybrid of Mareeba and Godman's Rock-wallabies) Giant White-tailed Rats, Black-footed Tree-rats and small mammals such as Northern Brown Bandicoots and the Northern Short-tailed Mouse.

Brooklyn also hosts an exceptional variety of bird species, ranging from the Southern Cassowary (Australia's heaviest bird) to the diminutive Blue-Faced Parrot Finch, and the Red Goshawk, Australia's rarest bird of prey.

Last year a historic discovery was made by renowned ornithologist and AWC field ecologist John Young. John found a healthy population of one of Australia's rarest birds – the Buff-breasted Button-quail. The species is so rare that no living member has been photographed and only seven specimens of the animal exist in museum collections.

The bird is restricted to north-east Queensland, with only a hand full of sightings in a small number of locations from eastern Cape York to the area around Brooklyn. The estimated population of the Buff-breasted Button-quail is approximately 500 mature individuals – a number that is likely to be declining.



# Koster's curse in community hands

About 15 years ago, Mareeba Shire's **Sid Clayton** spotted this unusual plant at the old Maria's Palm Nursery in Julatten and felt something suspicious. It's thought that seed had come in on packing material, or plants had been brought in as ornamentals.

Once the plant had been positively identified by Biosecurity Queensland, then alarm was raised and survey teams began combing through the surrounding area.

Koster's (*Clidemia hirta*) had already spread to about 25 rural properties by the time full-scale eradication program was launched. About 5 years ago, with sufficient funding, significant progress was being made to completely eliminate the plant from this small beachhead in Australia. It seemed that we might be winning in the struggle to completely eliminate Koster's curse from Australia.

In mid 2015, however, a grim discovery was made: an extensive infestation was found along an old logging track in Wooroonooran National Park (Misty Mountains).

Koster's originates from Central America where it is just another melastome in the humid tropical lowlands and semi-arid rainforests of Mexico and Costa Rica. It found a new home in the coffee plantations of Fiji around 1885, and then rapidly spread across the



Pacific, into southeast Asia and Sri Lanka. The plant is spread by fruit-eating birds and mammals. It can also move along water courses, and through contact with machinery and vehicles. The most effective control method is hand-pulling.

As bad as Koster's is, however, most people see it is just another disaster to add to the long list of natural and man-made problems that confront the Australian landscape. We have to do what we can with what we have.

The Mitchell River Watershed Management Group, in partnership with Mareeba Shire Council and Biosecurity Queensland, will lead the long-term effort to control, monitor, and reduce Koster's Curse in the Julatten area.

**Spot it - Pull it - Report it**  
**Koster's curse**

  
Mitchell River

**SMS for Help**  
**0428 264 753**

**Identify:**  
Hairy, crepe-like leaves.  
Small white flowers.  
Brown-Purple berries.

# Kowanyama checks in from the heart of the catchment

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Coordinator **John Clark** reported that the main activity this month has been the prescribed burning operations that promote biodiversity and are part of the carbon-sequestration program.

The burning technique is an important innovative method to serve many land use issues and have a positive outcome for reducing carbon emissions from dry season burning across Australia's vast savannah landscape. There would be similarities with Brooklyn's program.

KALNRM's ongoing big issue is several evasive weeds, including Sickle Pod, China Apple and Hymenachne. Sickle pod has now reached plague proportions in the lower Mitchell. It spreads easily along the silty river banks, flood channels and over the flood plains. John reports that dense populations are often found along the river from a few meters to over a kilometre wide. Adding to the problem is that the seeds have a viability of 10 years in the ground. With an area of coverage so vast the only solution is some form of biological control: the situation has gone way past what is safe with chemical treatment methods.

On the cultural side, there has been a trail run of the Junior Ranger's Program with a good uptake and enthusiasm. Jr Rangers are conducting turtle monitoring, nesting site recording, Crimson Finch population studies and fire management.

The work with turtle nesting sites is assisting with an existing wild pig reduction program mainly through shooting. Pigs are a major problem to turtle nesting sites all along the Gulf.



## Gulf Cattlemen: first muster in Chillagoe

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The Gulf Cattleman's Association (GCA) is a collective voice for industry issues, ensuring a proactive approach at the local, regional and national levels. GCA is run by its members across the Northern Gulf grazing district.

President **Barry Hughes** notes: "We value and acknowledge the contributions made by members in supporting our continued growth. And we're especially excited about holding a meeting in Chillagoe for the first time."

An important initiative undertaken by GCA was the founding of **Mustering Wellness** which is dedicated to mental and emotional health and wellness of people in the northern region.

Barry notes: "Mustering Wellness is a platform to connect with people, understand the issues affecting mental wellness, and provide resources for members to access. We are contributing to the improved wellness of people living in remote and rural settings."

<http://www.musteringwellness.com.au>

# Living Landscapes Local Livelihoods

**Aug 14 & 15  
Chillagoe**

Eco Lodge  
9am - 4.30pm

hosted by



## Mitchell River

Combined General Meetings  
All welcome  
**Speakers - Workshops - Q & A**  
Smoko, Lunch & Dinner Provided



supported by



What's happening  
in the catchment?

VIP Dinner hosted by  
Gulf Cattleman's Association  
& Chillagoe Chamber of  
Commerce



[www.mitchell-river.com.au](http://www.mitchell-river.com.au)



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Mustering cattle on Karma Waters Station. Photo by Jennifer Eliot

Water : Weeds : Grazing : Grants : Fire : Ferals : EcoSystems : Economies

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**Mitchell River**  
the cockatoo at the top  
of the catchment  
since 1990