BREMER CATCHMENT ASSOCIATION INC.

around the bremer

June 2022

Special points of interest:

The next Operational Meeting will be on 16th June 2022

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President's Message—Darren Close

Welcome to the June addition of the BCA newsletter. I believe I'm not the only person that has that Déjà vu feeling, with more heavy rainfall into an already saturated catchment that has resulted in further flooding. Whilst not as severe as February 2022, recent strong winds have added to the impact that these floods have had on our already beleaguered catchment.

These current weather events have the potential to fundamentally change ecosystems and geomorphology. Species that had been driven to the brink of local extinction could have been pushed over the edge.

Barely recovering aquatic and riparian species have lost much needed habitat. We have already heard at BCA than many restoration sites have been severely impacted or wiped out. In some cases, years of work has been washed away or buried under tonnes of silt and debris. While regenerators are generally a tenacious and positive lot, such impacts can affect the enthusiasm of volunteers to persevere, or for funders to continue to resource projects. It is important to remember that resilient ecosystems are better able to respond to and recover from extreme weather events and that all project sites are building that resilience.

While the damage to project sites may have been great, the works done are likely going to result in a faster recovery of the environment as a whole. Thanks to the hard work and dedication of numerous stakeholders there is a significant body of knowledge out there already in relation to managing land after floods. Interested parties can access information relevant to their circumstances to fill these gaps.

Through generating guidance materials, hold workshops and facilitate trained volunteers, will fill to fill those gap.

BCA will be advocating to government that there is a need for investment to put trained bush regenerators into flood affected areas to ensure that weeds don't establish and proliferate and that the native ecosystems can recover.

With so many natural disasters in such a short period, it is imperative that the threats to ecosystem recovery are managed, and bush regenerators are one of the best ways to manage those threats.

THE CLIMATE FOR CHANGE:

LOOKING TO THE FUTURE OF LANDCARE

By: Dr Shane Norrish, CEO Landcare Australia

Over 30 years ago, landcare was formed by a union of farmers and conservationists to address degradation of natural assets. Yet with ongoing climate change induced natural disasters impacting much of Australia, I have been reflecting on how recently our movement has taken on a new dimension.

The breadth of landcare work within communities across our country continues to expand.

These past years we have experienced devastating drought, bushfires and catastrophic floods, and while many of us are still reeling from the impacts, the incredible response to these disasters from thousands of volunteers and groups across Australia has shown that landcare is not only critical for environmental protection, it is now central to local recovery and resilience building.

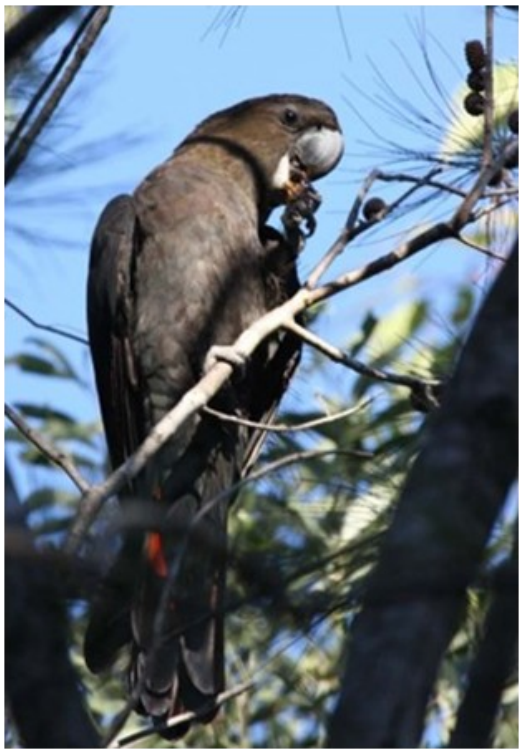
From a Landcare Led Bushfire Recovery Project bringing together schools, Landcarers, landholders, ecologists and Traditional Owners to protect fire affected bird life, to a WIRES Landcare Wildlife Relief and Recovery project empowering citizen scientists to investigate long term impacts of disasters on Platypus. The breadth of landcare work within communities across our country continues to expand.

Together we are showcasing the value of local experience and motivation in caring for our country, and demonstrating to Australia that not only are we future focused, but we are in it for the long haul. I would also like to take this opportunity to introduce the newest members of our Board of Directors: Naomi Edwards, Ricky Archer, James Walker and Anna Hooper.

Their expertise, particularly related to the youth, Indigenous and agricultural sectors, will help broaden our engagement and reach within the landcare movement. This allows us to build a more dynamic future for key landcare communities. It is certain there will be more challenges ahead, with the support of our new Directors and all of the incredible landcare volunteers. I know that the landcare movement will continue to grow, to overcome natural disasters, and to be the champions of a sustainable future for Australia.

The Glossy Black-Cockatoo - revised Conservation Guidelines now available

The Glossy Black-Cockatoo is listed as a threatened species under Queensland and New South Wales legislation. Although South East Queensland and North Eastern New South Wales have some of the most significant populations of the species in Australia, there are no integrated protection programs (such as recovery plans, breeding programs or population monitoring) for the Glossy Black-Cockatoo in these regions.



The updated version represents the first revision of the Conservation Guidelines

The updated version represents the first revision of the Conservation Guidelines, with the inclusion of new research findings regarding the species and threats to its status and recovery, updated information about existing and potential mechanisms available for species protection and recovery, and a revised list of broad actions and priorities for research.

The document is intended to be a compendium of current knowledge about the Glossy Black-Cockatoo and its conservation needs in South East Queensland and North Eastern New South Wales.

Supply chain innovation, ChillSafe tackles food waste challenge

After 10 years of working with commercial businesses, Coolsan Australia will roll out its innovative ChillSafe technology to domestic consumers in July 2022. The patented, simple-to-use sachet is designed to reduce bacteria, mould and viruses in cool storages and keep food fresher for longer, resulting in less food wastage.

Packing shed at Venus Citrus – a Chillsafe user. Photo supplied by Venus Citrus.

Thomas deMasi is on a mission. The catch cry for his company, Coolsan Australia is 'Better hygiene, less spoilage' but the end goal is broader than that, and global.

"If all of us can prevent just one orange, apple or strawberry a day from being wasted and going into landfill it will have a huge impact on reducing water, fertiliser, fossil fuels, human capital and all the other inputs required to bring fresh food from the paddock to the plate,"

Thomas is passionate about achieving less food wastage and greater efficiency of the inputs used to grow food, such as water and fertiliser, through innovative improvements in the supply chain.

Their solution? ChillSafe, a patented, simple-to-use sachet slightly bigger than an iPhone, that's been proven to protect against bacteria, mould, yeast and viruses and reduce odours in cool stores everywhere from pubs, clubs and bakeries to supermarkets, McDonalds' outlets, fruit packing sheds and thousands of refrigerated shipping containers.

ChillSafe's soft launch for homes in July

And after proving its worth in the commercial supply chain over the past 10 years, Coolsan will launch the ChillSafe sachet into Australian homes in July, allowing shoppers to benefit from the product in their home fridges. For less than the cost of a cup of coffee per week, the ChillSafe sachet will provide eight weeks of coverage.

"If all of us can prevent just one orange, apple or strawberry a day from being wasted and going into landfill it will have a huge impact on reducing water, fertiliser, fossil fuels, human capital and all the other inputs required to bring fresh food from the paddock to the plate," explained Coolsan CEO and Co-founder, Thomas deMasi..

"To produce a single orange requires 50 litres of water, so ensuring the safe storage of food and reducing spoilage will have a real and measurable impact on the planet."

Fellow Coolsan Co-founder and chemist, Dr Gary Erickson, developed the ChillSafe technology in 2015 in response to a request from his wife, Merrill, when the two were operating an Airbnb in Coonabarabran in rural New South Wales.

Assessing bank stabilisation sites after the May floods. Upper Warrill Creek

By Mark Waud, Healthy Land & Water

We had the opportunity to get out to a few sites to see how they had handled the May floods in the upper Bremer and Warrill catchments.

We saw some good bank protection demonstrated from the in stream structures, though we didn't have enough time to assess the gully erosion sites.

Log jams on the upper Warrill Creek installed through the Healthy Catchments Program circa 2010. The landholders have planted and maintained the revegetation on the banks, giving the site long term stability.

Log jam on Gap Creek before it enters Warrill Creek. Note the established vetiver on top of the log jam, with trees planted there as well. As well as protecting the bank and neighbouring paddock from erosion and allow vegetation to be re-established on the banks, these log jams create aquatic habitat. During the dry years of 2019-20 we saw the pools around log jams hold water for a long time, sustaining fish populations.

Log jam on Gap Creek before it enters Warrill Creek. Note the deposition upstream and downstream of the log jams. Deposition next to the bank shows we have moved the faster flowing current to the middle of the channel and the slower moving water deposits material.

Great deposition of silt from the flood amongst a pile field on Gap Creek. The lower banks here allow the water to spread out, the pile field slows the water velocity and the silt gets deposited.

Hybrid rock revetment on Gap Creek just upstream from the bridge on Tarome Road. This 3 metre high structure protecting the bank on this section requires some small repairs. We think the piles were not driven deep enough due to the rock encountered on the river bed in some sections. In the fast, dynamic systems like the Warrill, these piles need to be driven about 2 metres into the bed or more to ensure they don't come loose in a big event.

Understanding Soil Profiles

An example of brown clay in the Boonah area (Scenic Rim).

Brief Soil Description:

Deep brown clay, light clay top-soil, over medium clay subsoil. Hard setting surface. (Variable depth to soft weathered parent material)

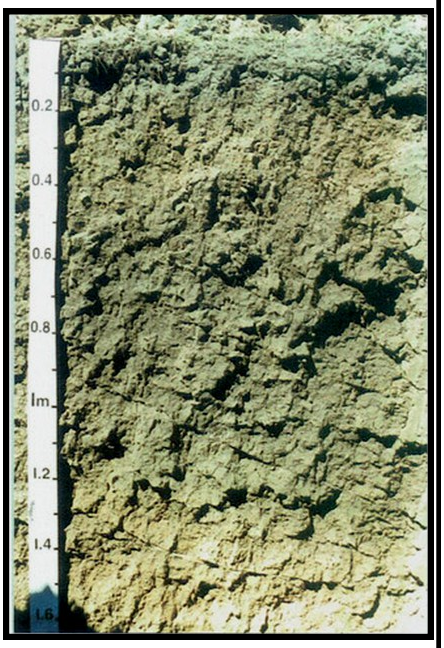
Undulating rise. Slope 3—10%. Weathered sedimentary rock—Jw—shale, coal, siltstone, sand-stone of Walloon Coal Measures.

Improved pastures. Almost completely cleared.

Surface structure can deterio-rate following prolonged cultiva-tion/ handling to produce a hard setting surface.

Soil Profile

	Depth	Description
A	0– 10cm	Very dark greyish brown; Light clay; weak structure; Field pH 5.6; Clear to-
B21	10-120cm	Brown; medium clay; Moderate angular blocky Structure; pH5.6-6.0;
B22	120-160cm	Light yellowish brown; Medium clay moderate an-gular blocky structure; pH 6.0



Soil Surface

These soils generally have a well-structured surface with a firm surface condi-tion and sometimes stony on slopes.

Surface structure can deteriorate following prolonged cultivation/handling to produce a hard setting surface.

Excessive cultivation or handling of these soils should be avoided.

Reference: Boonah Soil Field Days—Landcare Qld, DNR&M Qld Gov.

Planning your Property

Watering Points

Here are some thoughts to consider when you think about watering points for your animals on your property.

1. Provide more than one watering point per paddock and locate them in stable areas. This will even out grazing pressure and reduce the risk of erosion. Where dams or "turkey nests" must be built on fragile soils, fence them to keep stock out and pipe the water to a more stable area. Locating such dams as high as possible in the paddock will allow for a gravity reticulation system to be used.
2. Provide watering points one to two kilometres apart on steep hilly land, and three to four kilometres away from paddock corners to minimise stock pads along fence lines and to allow stock access from several different directions.
3. Locate troughs away from gullies and watercourses.
4. To reduce pollution and siltation of dams, place them above shade areas or stock camps.

Laneways and Stockyards

1. Build laneways 20 to 50 m wide to assist with stock movement.
2. Site stockyards in a central position to provide access to as many paddocks as possible. Where this cannot be done, a laneway system will simplify stock handling. If possible, locate yards on ridges to avoid drainage problems.

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