BREMER CATCHMENT ASSOCIATION INC.

February2023

around the bremer

Special points of interest:

The next Meeting will on

16th

February

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The Role of the Bremer Catchment Association

By Keith McCosh -Vice President

The role of catchment "Coordination" is still a pressing need. All the relevant stakeholders are automatically a part of this Coordination Committee. BCA has a role in keeping this coordination going and focussed on strategic areas and issues. We generally represent "the community" – a community of rural landholders and urban residents. We range throughout the catchment and our member network, with other contacts, is a powerful force for integration of effort. We can offer a formal structure for holding funds from grants and donations and investments. We also have a range of tools for use on riverine improvement projects.

BCA's objects essentially expand on this role of coordination. With our network of contacts, we can encourage all stakeholders to coordinate their effort in an efficient and strategic manner. Collectively we need to understand the catchment, with its mix of landholders and industry sectors; with its water quality and riverine problems; with its urban and estuary issues; and with the many stakeholders and their structural barriers. We acknowledge that on-ground actions need to be supported by science and appropriate use of technology, as well as communication with the people of the catchment.

BCA also has a training and engagement role – knowledge transfer of Ecologically Sustainable Development, Integrated Catchment Management, River Processes (geomorphology and hydrology), urban engineering and Best Practice land management.

We also have experience in the rural sector and the engagement of rural landowners in land management practices. We could be more active in the rolling out of a reach-based engagement approach – getting landowners and stakeholders to focus and coordinate on water quality on a reach by reach basis, one at a time. Rosevale is a pilot area for such an approach. We can also create a reach-based structure for landowners and stakeholders to continue to coordinate over the long term, year on year. This will be needed in Rosevale. So, all our rural members and other interested members can get involved in this activity.

PERFORMANCE OF FISH PASSAGE STRUCTURES AT UPSTREAM BARRIERS TO MIGRATION

Why is fish migration important?

Every year, millions of fish— salmon, steelhead trout, shad, alewives, and sturgeon, among others—migrate to their native habitats to reproduce. Some fish need to swim thousands of miles through oceans and rivers to reach their destination. They are often blocked from completing their journey by engineered barriers, such as dams and culverts. When fish can't reach their habitat, they can't reproduce and build their populations.

What types of barriers affect fish migration?

Hydropower dams use the energy of river water spilling down the height of a dam to power turbines, which generate electricity. These dams can also prevent fish from swimming upstream.

Culverts (tunnels that carry a stream under a road) can also be barriers to fish migration when they are too small or steep or are perched too high to allow fish to pass.

How do barriers impact fish?

In other countries dams and barriers block fish from migrating upstream. As a result, many fish populations have declined.

For example, Atlantic salmon used to be found in every river north of the Hudson River. Due to dams and other threats, less than half of 1 percent of the historic population remains. The last remnant populations of Atlantic salmon in U.S. waters exist in just a few rivers and streams in central and eastern Maine. They are an endangered species.

Reduced fish populations affect the entire ecosystem, since they are often important prey for other animals. They are often crucial to commercial and recreational fisheries, so reduced numbers can impact local economies as well.

Churchbank Weir

AI finds Eastern Bristlebird in SEQ:
music to the ears of bird enthusiasts!

It's literally music to the ears for bird enthusiasts and conservationists. The endangered Eastern Bristlebird was recently singing in the hills of South East Queensland after not being seen or heard here for three years. The results are testament to long-term collaboration and persistence, good land management and the use of artificial intelligence.
The finding was made by BirdLife Australia, who deployed acoustic monitors as part of surveys supported by Healthy Land & Water and the Australian Government.

Sound collected from the monitors was able to be analysed for the presence of Eastern Bristlebird calls thanks to a partnership between the Queensland University of Technology and the Queensland Department of Environment and Science.
This collaboration builds on years of work to improve our understanding of the Eastern Bristlebird, monitor and enhance bird numbers and maintain and improve the ecological condition of grassy forests surrounding rainforests on which the northern population of the Eastern Bristlebird depends.
A recent funding boost from both the Australian and Queensland Governments has allowed increased monitoring for Eastern Bristlebirds since November 2021 and led to the recording of 350 calls on five acoustic recorders during July and August 2022. With more acoustic data to be analysed and further surveys to take place, hopes are high that the number of birds present, extent of territories and evidence of breeding will be determined.

Concurrently, weed removal and a carefully planned ecological fire will take place on public and private land to maintain, restore and expand habitat for the Eastern Bristlebird.

"Eastern Bristlebirds haven't been seen in Queensland since the 2019 drought and bushfire period. We have been constantly searching for the birds since then, doing both on-ground surveys and acoustic monitoring, but have not had any luck. We deployed these recorders in June, and I almost couldn't believe my ears when I came across the positive detections using the QUT AI software. There are so many organisations working together on this project, and I think it was a huge relief for all involved to hear them calling again."

This program is supported by Healthy Land & Water, through funding from the Australian Government.

SEQ Rainfall and Flooding 2022 Recovery Grants – More time to apply!

The deadline to apply for an Extraordinary Disaster Assistance Recovery Grant (EDARG) has been extended to ***10 March 2023!***
Up to $75,000 is available for primary producers and $50,000 for small businesses and not-for-profit organisations.
South East Queensland primary producers, businesses and non-profit organisations impacted by rainfall and flooding between February and April this year, have more time to apply and access the support they need as they continue to recover.

Grants to assist with clean-up

Designed to assist with the costs of clean-up and reinstatement, the grants are jointly funded by the Commonwealth and Queensland governments under the Disaster Recovery Funding Arrangements (DRFA).
In mid November, the Minister for Agricultural Industry Development and Fisheries and the Minister for Rural Communities announced an extension to the application deadline for SEQ Rainfall and Flooding 2022 Extraordinary Disaster Assistance Recovery Grant (EDARG).
The extension is great news to South East Queensland primary producers, businesses and non-profit organisations impacted by rainfall and flooding between February and April 2022.
After a disaster it is not necessarily people's first thought to apply for a recovery grant. The Australian Government gave the extension to ensure eligible Queenslanders have time to access to the support they need as they continue to recover. It is meant to alleviate the constraints and the pressures the people affected by this year's floods are facing.
Eligible clean-up, **reinstatement activities and emergency measures include**:

- Equipment and materials to undertake clean-up.
- Additional labour costs (above and beyond normal wage expenditure, i.e. day-to-day staffing).
- Disposing of damaged goods and injured or dead livestock, including associated costs.
- Repairs to buildings (other than housing).
- Fencing not covered by any other assistance.
- Reconditioning/repairing essential plant and equipment.
- Salvaging crops, grain, and feeds.
- Purchase or hire/lease costs for equipment essential to the immediate resumption of the business.
- Payment for tradespeople to conduct safety inspections.

Essential repairs to premises and internal fittings that are not covered by insurance.

Are you eligible?

To be eligible, the applicant must:

- Be a primary producer.
- Hold an Australian Business Number (ABN) and have held that ABN at the time of the eligible disaster.
- Have a primary production enterprise that is located in the defined area for the eligible disaster that has suffered direct damage as a result of the eligible disaster.
- Have been engaged in carrying on the primary production enterprise when affected by the eligible disaster.
- Be primarily responsible for meeting the costs claimed in the application.
- For costs relating to 3.1 g) (v), (vi) and (vii) on the application provide satisfactory evidence of the loss of damage.

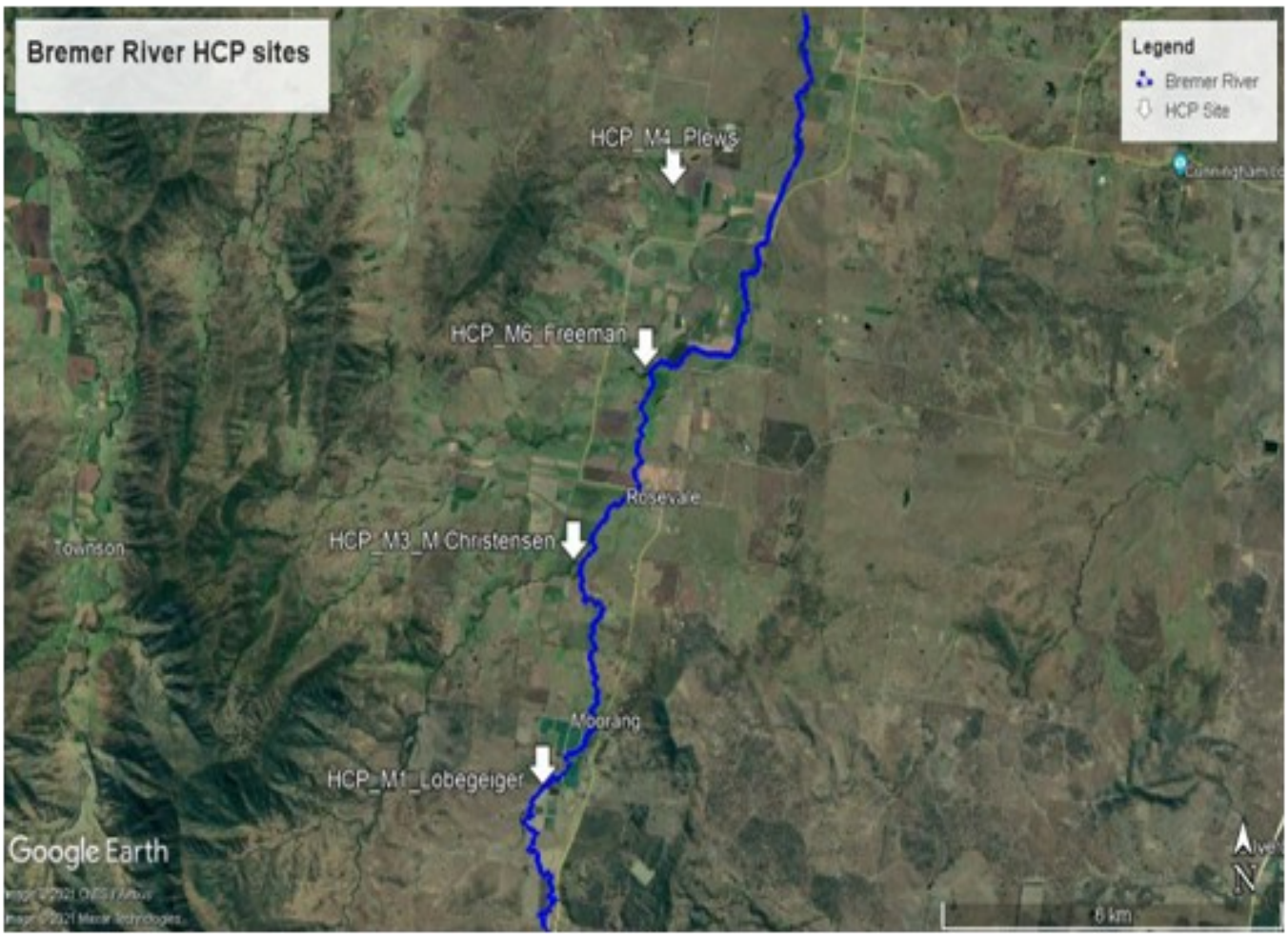
Intend to re-establish their primary production enterprise in the defined disaster area for the eligible disaster.

More information is available on the **QRIDA website**

Bremer Healthy Catchments Program

Healthy Land and Water Officers and our BCA member Tom Cole are working on several catchment project programs. Timely field meetings are required and the following records were made at one of those meetings. The Steering Group will soon meet to discuss how these projects performed.

- The Lobegeiger site was a bit of maintenance on their log jam site from 2019.
- Myrelle Christensen's site needed some maintenance on an old rock chute in the bed of Boyd Creek and we did a small amount of bank battering and log protection while we were there.
- Mel Freeman's site needed some maintenance on a 2016 rock chute on a gully entering the Bremer.
- Brad Plews' was the only new site we did for the upper Bremer. He had a dam bypass that wasn't big enough and blew out in a big way in that storm in February. We reworked the levels, reinforced the dam wall and put in a decent bypass.



Supplied by Mark Ward (HL&W)

What is Silvopasture

Within the Bremer Catchment, former cultivation areas have been returned into pasture lend. With agricultural production the concept of Silvopasture has some broadest appeal. One of the aspects is that one can establish a system on almost any type of land within its land capability limits .

Silvopasture is the deliberate integration of trees and grazing livestock operations on the same land. These systems are intensively managed for both forest products and forage. Well managed silvopastures employ agronomic principals, typically including introduced or native pasture grasses, fertilization and nitrogen-fixing legumes, and rotational grazing systems that employ short grazing periods which maximize vegetative plant growth and harvest.

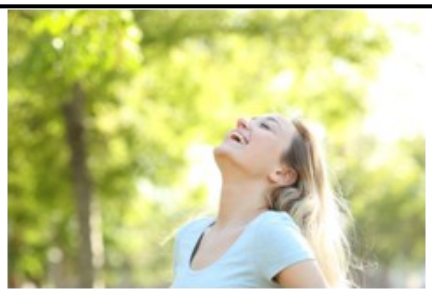
Silvopastures are:

- Intentional - The combinations of pastures, trees, and animals are purposefully managed to provide forage and timber products on a sustained basis. These are not individual practices that occur coincidentally together or are managed independently.
- Intensive - Silvopastures are intensively managed to optimise the production of the forest products and forages. Science based grazing, haying, fertilisation, tree pruning and trimming and other cultural practices are planned in advance to compliment reforestation, tree protection, market cycles and work load.
- Interactive - The forest management, pasture management, and grazing management are conducted in harmony so as to enhance the production of multiple harvestable components, while also providing conservation benefits. The combination of the products realised usually exceeds the normal yield of either enterprise individually.
- Integrated - The trees, livestock and forage are functionally combined into a single management unit tailored to meet the landowner's objectives.

1. Cooler summer environment for livestock.
2. Shorter timber rotations due to forage fertilization and competition control.
3. High value timber products resulting from pruning and management of tree density.
4. Shaded, cool season forage plants can be more nutritious for livestock.
5. Diversification of income streams spreads out market risk and increases income opportunities.
6. Greater plant nutrient uptake efficiencies - the deep tree roots coupled with pasture plant roots acquire nutrients from a greater range of soil depths.

Silvopasture

More trees, healthier heart!



A walk in the park a day, keeps the doctor away! A recent study from UNSW shows that more trees and urban green spaces reduce the risk of cardiovascular disease.

We all know green spaces can make us feel calmer, more connected to nature and less lonely.

They are important community gathering places that help build social ties and promote physical activity. But did you know they can have a direct benefit on our circulation and heart health?

A recent study from UNSW Sydney has confirmed that a walk in the park a day, keeps the doctor away. It also showed how different types of urban green spaces have different impacts and have endeavoured to start identifying the ones which matter most.

The research, led by Professor Xiaoqi Feng from UNSW and Professor Thomas Astell-Burt from the University of Wollongong, examined over 10,000 Australian adults living in apartments or houses and analysed the amount of nearby green space against ten years of hospitalisation and cause of death data. "We were interested in where Australians are living… and what type and quantity of green space may have impact on people's hearts," said Prof. Feng.

For those living in houses, there are significant benefits to the heart and cardiovascular system associated with green spaces. However, the most interesting finding was that not all green space is equal. A larger amount of tree canopy, but not open grass, is associated with a lower risk of heart disease-related mortality. Why? There is not one single cause according to the authors, but multiple factors that can contribute to this result. One example could be that trees provide shade and cooler temperatures which make streets and parks more inviting to spend time in.

Interestingly, for those living in apartments, green space wasn't associated with better cardiovascular health and more grass nearby was actually connected to less physical activity. There could be many reasons for this, but one theory is that green space presence does not necessarily mean that the area is appealing or allowed to be visited – often times it is there for the sole purpose of embellishing the complex or apartment block.

In recent years, there has been a greater focus on the health impact of green spaces, and as cities continue to grow and get increasingly crowded, it is more important than ever. Considering the rapid urbanisation we are seeing in Australia, the results of this study are an important step forward in helping us to harness the power of nature to improve our health and wellbeing.

"We need to make sure our urban planning complements existing trees and enhances green space qualities with community input, to enable current and future generations to thrive," Prof. Feng said.

Source: Media release 'Leafier communities, healthier hearts: study (FED)'; 'Leafier Communities, Healthier Hearts: An Australian Cohort Study of 104,725 Adults Tracking Cardiovascular Events and Mortality Across 10 Years of Linked Health Data'.

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