BREMER CATCHMENT ASSOCIATION INC.

April 2022

Special points of interest:

The next Operational Meeting will be on 19th May 2022

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President's Message—Darren Close

As the cacophony of channel billed cuckoos dwindle on their return journey to the tropics and we say good riddance to this summer's La Nina, our heart goes out to all those affected by the floods which has left catastrophic damage.

Lives lost, homes inundated, business interrupted, and an estimated ten million tonnes of soil stripped from the land and washed into an already fragile river system.

It's times like these that make it even more important to recognise our changing climate, realise the devastating impacts and make sure we don't let events like this slip by without reconsidering and changing the way we manage the delicate relationship between people, communities and rivers.

While there is no denying this years rainfall was exceptional, the Bremer has flooded before and it will flood again. It is a history we can ill afford to forget as we continue to live and build on its flood plain.

As hydrologists will tell you, no two floods are the same. The water may follow familiar paths, but natural and human factors can alter flood behaviour each time.
Humans can significantly influence the extent of floods.
Every time a tree is felled, wetland drained or land developed, the local flood risk is heightened.

Housing estates are built densely – small subdivisions occupied by large houses. And homes are constructed on slabs, rather than elevated to allow water to pass underneath. Soil and vegetation can absorb water and slow the rate of flooding. But impermeable surfaces such as roads, footpaths and car parks increase surface run-off. Increasing public awareness is important in mitigating flood risks, as is individual responsibility. But planning authorities must also make hard decisions.
Developers have been allowed to increase the urban footprint and density throughout south-east Queensland.

This has created more hard, impermeable surfaces and replaced absorbent green spaces, increasing the likelihood of flooding.
This comes as climate change is predicted to increase the frequency and intensity of floods, and make flood predictions more difficult.

We may not be able to control the rain, but we can change how we respond to future flood hazards.

The current condition, environmental values and threat to the health of the waterways of the Bremer Catchment

By: Jack McCann | Waterway Health Officer , ICC

'The Bremer catchment maintains many excellent environmental values, including unique flora and fauna, habitat for aquatic and terrestrial wildlife as well as many culturally and socially significant natural areas important for connection to the landscape.

Threats and challenges facing the Bremer Catchment

Despite this, there are a number of threats and challenges facing the catchment which are impacting the current condition, and have led to degradation of many waterways and riparian corridors. Key threats faced by the catchment include erosion and sediment, flooding, pollutants, introduced weeds, land management practices, pest fish and aquatic connectivity barriers.

Many of these issues are intrinsically linked and collectively contribute to impacting water quality, in-stream habitat condition and riparian condition. There are a range of projects currently being delivered by council, along with community groups and private landholders to address these threats and enhance the environmental values of the Bremer catchment. Current actions being undertaken include;

- riparian revegetation activities
- construction of stormwater treatment wetlands
- streambank stabilisation
- engaging with rural landholders to improve their land management practices
- aquatic connectivity rehabilitation
- environmental monitoring and education.

It is anticipated that through on-going effort and investment in addressing these key threats and challenges faced by the Bremer catchment that in time we will see the overall condition of the land and waterways improve to a more diverse and resilient landscape.

Riparian repair on the Bremer

Points when planning your Property

The siting of tracks, watering points, fences and other improvements without considering the property's natural features often leads to soil erosion, water- logging or pasture degradation problems. In some cases, poorly located improvements may hinder stock management.

Roads and tracks

- Locate roads and tracks on ridgelines or along the contour to minimise the build-up of runoff water along them.
- Where tracks run up and down the slope, construct low earth mounts (whoa-boys) across them to remove runoff water. Position whoa-boys every 50 m along tracks on steep slopes, with up to 100 m spacing on low slopes. Ensure that the outlet of each whoa-boy is free of stumps or rocks so that the flow of runoff water is not obstructed.
- Where tracks must run diagonally across the slope, zigzag them to avoid long straight runs where runoff water will accumulate.
- Where tracks cross streams or gullies, position whoa-boys at the top of the banks to minimise erosion of the crossings.
- On contoured land, build tracks just below to minimise the amount of runoff water collecting on and damaging them.
- Avoid positioning tracks in or close to watercourses, waterways, fence -lines or stock pads, as runoff water concentrates in these areas.
- When constructing tracks, minimise soil and vegetation disturbance. A light blading to remove obstacles is all that is required. Change the location of the wheel tracks regularly to prevent ruts developing**.**

Change the location of the wheel tracks regularly to prevent ruts developing

Fences and gates

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- Fence similar land and pasture types into the same paddock to even out grazing pressure
- Fence adjustment and parallel to to watercourses and gullies to minimise the number of gulley crossings..
- Site gates on high stable areas 100 to 200 m from paddock corners to minimise stock-pad erosion and reduce the risk of stock jamming into corners. A short dummy fence may be required to direct stock through the gate..
- Site fences two to three metres below contour banks to allow for bank maintenance.

Watering points

- 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.
- 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.
- Locate troughs away from gullies and watercourses.
- To reduce pollution and siltation of dams, place them above shade areas or stock camps.

The above mentioned points have been highlighted on DPI and Projects farm field days many times. A property map and contour-lines overlay will assist.

On-farm composting and soil health field day |

Come along and learn more about an on-farm trial re-using dairy manure, raw materials, and green waste to make compost for improving soil health, sustainable crop production and drought resilience, *presented by Healthy Land and Water.*

Agricultural consultant, Mr David Hall, will lead discussions on the benefits and practical management considerations of on-farm composting and application of compost to crops and pastures

The Field Day will cover the following main topics:

- **What is compost and understanding the composting process.**
- **Benefits of compost for restoring valuable organic matter to the soil, improving soil structure and moisture retention, improving soil carbon and biological activity.**
- **Practical management implications for on-farm composting.**
- **Application of compost and re-cycled organic materials to crops and pastures.**

DATE: Thursday 5th May 2022 | 9:30am – 12:30pm
LOCATION: Gerber Farms 137 Clarendon Station Rd, Lowood Qld 4311
RSVP: 1st May 2022
Morning tea/light lunch provided

For more information or to RSVP, contact Marc Leman on 0417 643 586 or marc.l@hlw.org.au

Numbers are limited – bookings essential!

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The same field Day will be repeated on:

DATE: Thursday 6th May 2022 | 9:30am – 12:30pm
LOCATION: 93 Radford Rd. Radford Qld 4307
RSVP: 1st May 2022
Morning tea/light lunch provided

For more information or to RSVP, contact Marc Leman on 0417 643 586 or marc.l@hlw.org.au

Two On-farm composting and soil health field days Lowood And Radford 5th and 6th May

Changes to Riparian Vegetation

Riparian vegetation (vegetation along the streamside) plays a crucial role in the health of rivers and streams. In undisturbed environments, riparian vegetation generally has a diverse under-storey of native grasses, herbs and shrubs and an over-storey of larger trees.

Today, there are few remaining catchments where riparian vegetation has not been altered. It has been extensively removed or changed throughout the catchment, particularly in lowland agricultural areas.

How does riparian vegetation protect rivers and streams?

A catchment buffer

Riparian vegetation acts as a buffer, protecting rivers and streams from the activities of the surrounding catchment areas.

Riparian vegetation acts as a buffer,

Cleared catchments generate greater volumes of overland runoff than forested catchments, particularly when the soil is compacted by machinery or stock. When overland runoff that contains sediment reaches the riparian zone, it is slowed by the roots, under-storey and leaf litter, and can then soak into the ground.

Freshwater ecosystems are complex and dynamic

Until recent decades, rivers and streams were regarded as a resource to be exploited. They were seen as convenient channels or drains for water or transport of wastes.
With great improvements in our knowledge of these freshwater ecosystems, we now understand that they are a complex mix of chemicals, physical and biological factors, all of which interact.

Human activity can add to the complexity by altering and interrupting natural cycles in ways that can threaten the survival of these ecosystems.

But there are actions communities can take that lessen or even reverse the effects of these activities.

Questions asked at field days about Kangaroo Grass

Kangaroo grass, (*Themeda triandra)* has a particularly wide distribution, found in all of Australia's states and territories. **The grass can be an ideal choice to prevent erosion as it needs little maintenance and grows in full sun with little water once established.** Kangaroo grass is drought tolerant.

Who uses Kangaroo grass?

Kangaroo grass is primarily used in **making flour**, and has been an important food for Indigenous Australians for thousands of years. As a crop, kangaroo grass grains were harvested and ground into flour and porridge.

Is kangaroo grass good for cattle?

Kangaroo grass is fire tolerant and responds well to regular burning and spelling. It responds quickly to the first rain of the season growing an upright green leaf from the crown of the plant. Being very palatable **it is preferentially grazed by cattle and horses when it is green and most sensitive to grazing**.

Is kangaroo grass native to Australia?

Description, *Themeda triandra,* is **probably one of the most widespread of all Australian native grasses**. The journals of the early explorers and settlers make frequent reference to this grass. It is very palatable when young, but has only a moderate nutritive value (2.8 to 12.4% crude protein).

How long does kangaroo grass take to grow?

Being a summer-flowering species, maximum growth is achieved by sowing in spring/summer. Seed sowing: No tilling of the site is necessary prior to the establishment of Kangaroo Grass, nor is the application of nutrient rich fertilisers. Under optimum conditions, seeds will germinate from **7 days to 2 weeks** after sowing

Do cattle and horses eat Kangaroo grass?

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How do you collect kangaroo grass seed?

The most convenient way of harvesting kangaroo grass seed is to use a brush harvester such as the 'Grass Hopper'. In a reasonable season this machine is capable of harvesting up to 100 kg of high quality seed-floret material per hour.

What does QRIDA do?

For more than 25 years, the Queensland Rural and Industry Development Authority (QRIDA) hes been supporting producers to invest in their first primary production business, secure the future sustainability of their enterprise, expand, diversify and tackle drought and other tough conditions.

Primary producers looking to enter primary production or improve their current primary production enterprise are encouraged to start the conversations with their local QRIDA Regional Area Manager, Brian Coe.

Brian can visit producers on farm or talk to them over the phone about their business goals and needs.

Having worked in the agribusiness industry for many years, Brian has seen a range of new entrants to primary production succeed in building a viable farm business.

“It can be tough to get a start, no doubt,” says Brian.

“Many farmers are unsure where to turn to, and we’re talking about significant sums here to start or buy a business.”

QRIDA’s First Start Loan offers up to 2 million to support new entrants into primary production where commercial finance may not be an option.

“There’s no secret here, this loan works to ensure the long-term success and viability of Queensland farms and encourages prople into primary production.”

“There’s no better feeling than helping a producer realise what they’re looking to achieve. We encourage farmers not to self-assess and instead, pick up the phone and get in touch,” says Brian.

When applying for a First Start Loan from QRIDA, applicants are asked to provide information about their primary production enterprise, their plans, and how they can support these plans financially.

“Preparing the business plan, production schedule, and cashflow helps people understand their business. Every applicant I work with learns something through this process, and that only helps them make better decisions,” says Brian.

QRIDA also offers Sustainability Loans of up to $1.3 million to assist existing producers to achieve a more productive and sustainable enterprise.

For more information on QRIDA programs and services, and to get in contact with Brian, call 1800 623 946 or visitqrida.qld.gov.au.

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