BREMER CATCHMENT ASSOCIATION INC.

around the bremer

February 2018

Special points of interest:

Our next Meeting in 2018 is on 15th March 2018 Everyone welcome

Inside this issue:

President's Message	1
Soil you find in the Bremer Catchment	2
What's new in the Bremer River Network?	3
IRF announces new CEO and Chair	
National Landcare Program—nlp2	4
Weeds	5
Thunderstorm Formation	6

Have you all paid your BCA Membership for the current year?

President's Message by Bill Steentsma

I welcome our readers with the first Newsletter issue for 2018. It was very encouraging to have received previous years favourable comments about the topics. However, what about to suggest, or forward an article?

The past one and a half months have been already very busy. Our first activity was an Executive Meeting held in January. It was to plan the urgent demands for our organisation during the coming year. Some examples are e.g. liaison with the Bremer River Network (BRN), supporting letters for Projects throughout the Catchments and other issues.

Ipswich City Council has appointed a representative Councillor to BCA as a contact between BCA and the Council. The Bremer Catchment Association welcomed Cr. Silver and is looking forward to a productive and communication enriched year.

The Ipswich City Council conducted and develops the early stages of a Catchment Action Plan (CAP) for the Bremer Catchment.BCA members have contributed their extensive experiences to the compiling of the initial information. Its aim is to mitigate risks and prioritise actions based on the 2025 outcome of the Action Plan.

I have made visits to Members' properties throughout the Catchment and attended to various landuse issues. (Gully erosion and Water management). The Warrill Creek Weir contributes to nearby irrigated cultivations.

The recently required Grant for the Scouts Francis Street Property meeting concluded with a study survey of the plant population. The information will become one of the actions set for the Scouts study activities. Thank you Brian, our Treasurer, who kept a keen eye on the Project's needs.

On the 8th February I attended the SEQ Catchments Members Association Inc. Board Meeting in Brisbane. It has been a very intensive discussion day, in particular on the status of the National Landcare Program (NLP2) tender process. For further information see pg. 4.

Bill Steentsma, President 2017/2018

Soils you find within the Bremer Catchment

Soil is formed from parent rock material by the interaction of physical factors such as climate and geology, and biological factors such as vegetation and bacteria.
It takes about 300years to make 3 cm of soil. It takes only a few years for this soil to be lost if man misuses the land.

Soil consists of three main components: weathered rock particles, decomposed organic matter called humus and tiny plants and animals called micro-organism.

Variations in the amount of these components cause different soil types with differences in colour, water holding capacity and fertility.

Soil properties which most affect the resistance of soil to erosion are those which:

1. Affect infiltration and permeability, and
2. Affect resistance to dispersion, splashing, abrasion and the transportation by rainfall and runoff.

The inter-relationship between the properties of soil structure, soil texture and soil dispensability determine the erodibility of any particular soil.

The inter-relationship between the properties of soil structure, soil texture and soil dispensability determine the erodibility of any particular soil.

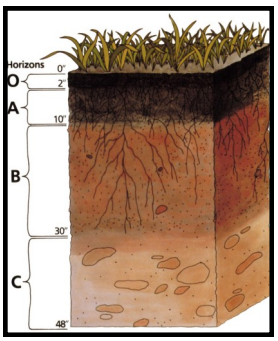
Within the catchment the most erosion prone soils are:

1. The siliceous sands in areas where the vegetation has been removed on the slopes. Sand particles are very detachable and therefore easily eroded in disturbed areas.

2. The black earths and grey and brown clays on valley floors where large amounts of runoff from higher land have washed out large gullies.

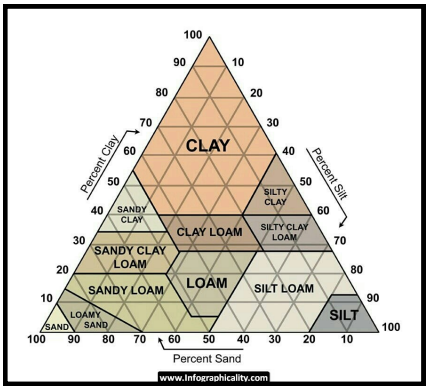
3. The soils of some of the Jurassic Walloon units which have a very hard surface but a very erodible subsurface. Where vegetation has been removed and the ground surface disturbed, water has eroded soil from beneath the surface.

4, On the steep heavily used prairie, brown and grey clays where sheet erosion has occurred.



Soil profile

Knowledge of the soils, their composition and how easily they erode if disturbed, helps farmers and land use planners to determine which land use is best suited to a particular soil type. The soil is also a 'reservoir'. It absorbs water from rain and slowly releases it into streams. This ensures that some streams flow all year.



What's new in the Bremer River Network?

The Bremer River Network is an umbrella organisation that represents all of the environment-focussed community groups in the catchment. Bremer Catchment Association is a member of the Network, and has been integral to the success of the Network since its conception in 2016. The Bremer River Network has a lot planned for 2018, including an environment-themed festival, a camping trip, a Bremer River Tour, workshops, events and forums.

The Network will continue to support the member groups by means of technical support, communications, publicity and networking opportunities.

For more information about the Bremer River Network, please visit the Facebook page: **https://www.facebook.com/bremerrivernetwork/**
Website: **https://bremerrivernetwork.neocities.org/**

Or contact the project support officer on 0432 909 578 or

bremerrivernetwork@gmail.com

The Bremer River Network is an umbrella organisation that represents all of the environment-focussed community groups in the catchment.

IRF announces new CEO and Chair

International RiverFoundation is pleased to welcome 2018 with the announcement of a new CEO and Chair.
Dr Eva Abal assumed the role of CEO from 1 January, while Professor Paul Greenfield AO has been appointed Chairman of the Board.

Both Dr Abal and Prof Greenfield have long been associated with the IRF.

Dr Abal joins the International River Foundation after years of experience with the University of Queensland, Great Barrier Reef Foundation, SEQ Healthy Waterways Partnership (now Healthy Land and Water) and more recently as Strategic Projects and Partnerships Adviser of the International WaterCentre.

Prof Greenfield is Chair of the International WaterCentre and a Director of the Great Barrier Reef Foundation, the Australian Academy of Engineering & Technology and Russo Business School. He has extensive experience as a Board Director and works widely with industry, government and universities on a range of projects spanning the biotechnology, water and energy sectors.

"IRF was established, in part, to fill the gap faced by river managers and advocates worldwide. While there are learned societies focussed on various issues of river and estuarine ecology, flood mitigation, irrigation, urban and rural run-off, and so on, there is no professional organisation for 'river managers'," said Prof Greenfield.

National Landcare Program—nlp2

The Australian Government has chosen a different approach to past years

From pg. 1

From July 2018, the Australian Government is investing $450 million over five years, Australia-wide, to deliver national priorities at a regional and local level. The investment will be delivered through the Regional Land Partnerships component of the next phase of the National Landcare Program. The Australian Government has chosen a different approach to past years insofar as this is no longer a grant process, rather the Australian Government is using a Request for Tender process to select and engage Service Providers to deliver Regional Land Partnerships services across Australia.

For a more detailed information search under: National Landcare Program nlp2

==========

Property Development Decisions

Evaluating Resources

Each land area is examined and its present use noted. From the area and the average yield or carrying capacity its contribution to the average annual income of the property is calculated. The potential of the area is then examined and the expected income estimated for the fully developed situation.

Next the cost involved in getting from the present to the potential situation is calculated, allowing proportions for fencing, clearing, machinery and other capital costs according to the number of years over which it would be reasonable to repay a loan.

This exercise is carried out for each of the management units on the property. If necessary different options could be considered on units which allow this flexibility.

Decisions

This evaluation of property potential should show where the best return can be gained from development and what investment would be needed. According to money available a priority list can be drawn up which becomes the long term development plan for the property. Each stage becomes a short term aim, all building onto the long term plan to eventually complete the picture.

The Value of Timber

Before commencing any clearing operations the area should be examined to the see if it contains useful commercial timber. There may be an opportunity to obtain timber for building purposes, fence posts, yard building, or sleepers. Too often such supplies are lost because of a lack of forward planning.

Weeds

Weeds cost Queensland an estimated $600 million annually and have significant impacts on primary industries, natural ecosystems, and human and animal health.

Prevention and early intervention are the most cost-effective means of dealing with potential, new and emerging weeds in Queensland.

The Weed Spotters' Network Queensland aims to find, identify and document those new occurrences of potential weeds at an early stage so that preventative actions can be taken.

It seeks to continue a community-based weed alert system in Queensland, based on the model developed by the previous Cooperative Research Centre for Australian Weed Management.

The cost of weeds to Australian agriculture now exceeds $4 billion per year. No estimate has been made of the cost of weeds to the environment.

Mother of millions (*Bryophyllum delagoense)* has been found at the recent inspection of the Francis Street Project. It is a fleshy herbaceous plant with upright stems growing 30-180 cm tall. Its mottled leaves are cylindrical and have a few small 'teeth' near their tips. Tiny plantlets are often produced at the tips of its leaves. Its drooping bell-shaped flowers (2-4 cm long) are usually red or reddish-pink in colour. These flowers are borne in dense clusters at the top of its stems.

A widespread weed of pastures, grasslands, open woodlands, waste areas, disturbed sites, fence lines, roadsides, embankments, and railways in sub-tropical, semi-arid, tropical and warmer temperate regions. It is commonly found growing in rocky sites or on poor soils.

Impact and control methods

Mother-of-millions is a significant environmental weed in the Catchment It is also probably of most concern in southern and central Queensland, and was recently ranked as the third most important environmental weed in south-eastern Queensland. It is actively managed by community groups in Queensland and is listed as a priority environmental weed in eight Natural Resource Management regions throughout eastern Australia. In New South Wales it is currently of concern in coastal districts and in inland regions in the north of the state. This species is well adapted to dry environments and able to survive droughts. It forms very large infestations in grasslands and open woodlands in inland regions and spreads down river systems during flood events.

It Flowers May-October and effects livestock.

Mother-of-millions is a restricted invasive plant under the *Biosecurity Act 2014.*

Mother of million plant

Mother of million flower

Supercell thunderstorms are much larger, more powerful, and last for several

Thunderstorm Formation

At the present weather conditions I thought you might be interested how thunderstorms are formed.

Most of these sometimes disturbing phenomena form by a cycle that has three stages: the cumulus stage, mature stage and dissipation stage.

Cumulus Stage;

The sun heats the earth's surface during the day. Since warm air is lighter than cool air, it starts to rise (known as updraft). If the air is moist, then the warm air condenses into a cumulus cloud. The cloud will continue to grow as long as warm air below it continues to rise.

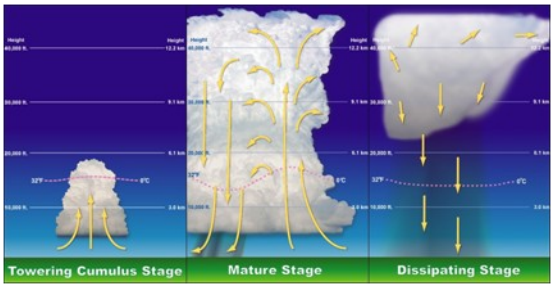
Mature Stage:
When the cumulus cloud becomes very large, the water in it becomes large and heavy. Raindrops start to fall through the cloud (known as downdraft). The downdraft pulls the heavy water downward, making rain.

This cloud has become a cumulonimbus cloud because it has an updraft a downdraft and rain. Thunder and lightning start to occur, as well as heavy rain. The cumulonimbus is now a thunderstorm cell.

Dissipating Stage:

After about 30 minutes, the thunderstorm begins to dissipate. This occurs when the downdrafts in the cloud begins to dominate over the updraft. Since warm moist air can no longer rise, cloud droplets can no longer form. The storm dies out with light rain as the cloud disappears from the top.

The whole process takes about one hour for an ordinary thunderstorm. Supercell thunderstorms are much larger, more powerful, and last for several hours.



The three stages

Disclaimer

While we hope that you will find this publication informative , BCA does not guaranty that the information herein is without flaw, or is wholly appropriate for your particular purpose. We therefore disclaim all liability for any error, loss or other consequence , which may arise from you relying on any information in this publication

Editor's Contact details:

Email: msteent@ngvemail.com

Mobile: 0414 381 664