BREMER CATCHMENT ASSOCIATION INC.

May 2021

Special points of interest:

The next Operational Meeting will be held on

17-06-2021

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around the bremer

President's Corner by Bill Steentsma

Our monthly meetings (3rd Thursday, 6 pm) were well attended. The main reason is, that we had great guest speakers, with topics creating thoughts and learning provoking ideas.

This Newsletter presents a variety of Acts, relating to clearing and protected listed plants. The second article covers water management under the Water Act 2000.

"Thrown in the middle" a topic about bees and the advantage of growing Eucalypts. This divides very important segments on Riparian land and our local Purga Catchment.

The Bremer River Catchment Plan 2018-2021 (CAP) indicates lange river sections as marked for "Priority waterways for investments". Likewise, endangered and of concern vegetation.

I have nominated two of our Members to attend an ICC offered Grant Application Writing Workshop. BCA may assist to offer the experience of these members.

A closer liaison with both Councils will also be thought with regard to the River Improvement Trust.

I invite each BCA Member to contribute an article about their environmental interest for this Newsletter.

I will be attending the Lott's Field day on the 15th June. The topic is "Soil Conservation Planning & Gully erosion Field day".

Till next time, stay healthy and warm with the winter moving in very fast.

Main legislation regulating clearing or taking of protected plants in Queensland.

There are many pieces of legislation, at all levels of government, which relate to the taking or clearing of plants in Queensland. The main ones which landholders and others should be aware of include those outlined below.

Queensland's Nature Conservation Act 1992.

The Protected Plants part of the Nature Conservation Act regulates the taking of native plants from the wild. 'Taking' includes not only taking in the literal sense, but also clearing and other forms of in situ destruction. Generally, a permit is required to take a native plant from the wild. Obtaining a permit is more difficult for plants which are listed as Critically Endangered, Endangered, Vulnerable or Near Threatened under under the Act, than it is for plants which are classified as Least Concern. There are, however, Special Least Concern Plants, which are plants which are subject to harvesting pressure due to their commercial value or slow growth e.g., *Xanthorrhoea* species (Grass trees). These are regulated much like threatened and near threatened plants. Where the taking of threatened plants is unavoidable, such as with essential infrastructure, the taker of the protected plants may be required to provide an offset, which is usually in the form of saving or providing habitat for the threatened species at another location.

Queensland's Vegetation Management Act 1999.

The clearing of native woody vegetation in Queensland is regulated by the Vegetation Management Act. Native vegetation cannot usually be cleared for agriculture and grazing. There are exemptions e.g., for clearing along fence lines, around houses and infrastructure etc. Clearing for housing development and essential infrastructure is more likely to be permitted, with certain caveats, than is clearing for agriculture. Queensland's vegetation is classified and mapped into what are known as Regional Ecosystems. Like species, Regional Ecosystems can have a threat status, either 'No Concern at Present'/'Least Concern', 'Of Concern' or 'Endangered'. Permission to clear is more difficult to obtain for 'Of Concern' and 'Endangered' Regional Ecosystems. Like for threatened plants, an offset may be required.

Some plants are totally prohibited from being cultivated in Queensland. There are many cactus species for which this is the case.

Biosecurity Act 2014.

This Act regulates exotic plants which have become or may become economic and environmental weeds. Some plants are totally prohibited from being cultivated in Queensland. There are many cactus species for which this is the case. Some other plants must be removed by the landholder if found growing on a landholder's property. Any totally prohibited plant must be notified (reported). Some species must be notified if growing in or near an environmentally sensitive area, or if the occurrence of the weed represents a significant extension of its known range in Queensland.

Koala Protection Legislation.

The Queensland Government produces a koala habitat map for south-east Queensland, as koalas are under severe threat in south east Queensland. If you wish to clear vegetation which is mapped as koala habitat, you may require a permit. Exemptions may apply in some circumstances.

Continuation from pg. 2 By Mark Edginton, a Bremer Catchment Association Member.

Australian Government's Environment Protection and Biodiversity Conservation Act 1999.

The EPBC Act protects some ecological communities and species. Therefore, activities which trigger this act may require approval.

Local Government Legislation.

Many local authorities have town planning schemes or local laws which can affect the right to clear vegetation and individual trees. Local authorities may, for example, place vegetation protection orders (VPOs) on vegetation and trees on private property. Members of the public can nominate sites for Vegetation Protection Orders. Sometimes an owner will nominate trees on their own property for a VPO, so that they are protected if they sell the property or it becomes inherited. Local authorities sometimes place VPOs on non-native trees if they have cultural, historical or amenity significance.

This is just a very brief summary of the main pieces of legislation that landholders should be aware of. It is not an exhaustive list, and there is a lot of detail in each of these and other acts. Landholders and others should make thorough enquiries about their circumstances before undertaking activities which affect vegetation or protected plants on their property or elsewhere.

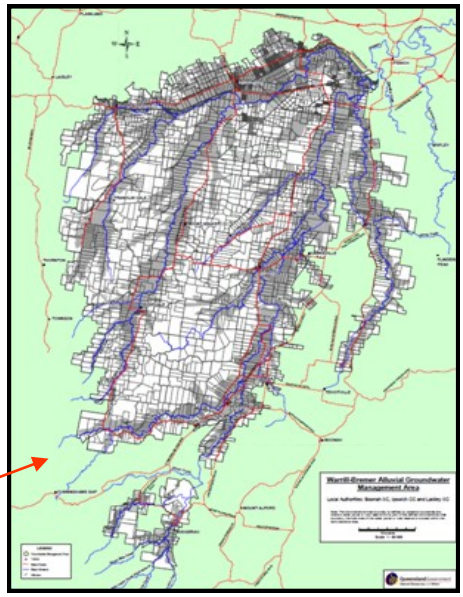
Members of the public can nominate sites for Vegetation Protection Orders.

Summary of Bremer Catchment Association Presentation

by Mim Cathcart, Department Regional Development, Manufacturing and Water

Water is managed under the Water Act 2000 and Water Regulation 2016 with Water Plans legislating for specific catchments. Bremer River and tributaries is managed under Moreton Water Plan (Brisbane River catchment) and the Great Artesian Basin Water Plan.

Overland Flow Water for any purpose is limited to 5 mega-litres capacity and is a self-assessable activity. Storages may not be joined to another storage by pipe, channel or pump. Water must continue from the storage on the path it did prior to the construction of the storage.
Turkeys nest are not regulated.



Warrill-Bremer Alluvial Groundwater Management Area

Summary of Bremer Catchment Association Presentation - continuation

Levee banks are regulated since 2016 and are self-assessable if they have no off property impacts. If a levee will have off property impacts a DA (Development Approval) is required through local council.

Surface water (creeks and rivers) may be taken by a riparian landholder for stock or domestic use.

Riparian landholders have right of use and trespass as if it is their own land.
A water licence is required for the take of any non-stock or domestic use or by a non-riparian landholder for stock or domestic use. No new water licences are being granted
Contact your local water office if you want to excavate or place fill in a watercourse as you may or may not require a permit

Alluvial and Great Artesian Basin groundwater is managed by not permitting the installation of a new bore for non-stock or domestic use. An existing bore is one that was in use when the water plan was released in 2007 and may continue to be used.
Volcanic groundwater is not regulated.

Anyone can install a stock or domestic bore from any aquifer.
The department monitoring bore network indicates that recharge of alluvial aquifers at the headwaters is greater and faster than further downstream due to deep gravel profiles in stream.

Downstream the alluvial aquifers are not bouncing back after flood events anymore indicating these aquifers are becoming increasingly stressed and depleted.

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There are gaps in our data of what bores are on ground in the area so a project to visit irrigation properties to audit the take of groundwater is proposed over the coming months which will also provide the department with an educational opportunity.

The Queensland Globe may be found at https://qldglobe.information.qld.gov.au/ and is a useful tool for land management. The layer called “Inland Waters” contains data about water in Queensland.

Contact details for Gatton Water Management office: phone 5346 9537 or email

customerservicecentregatton@rdmw.qld.gov.au

ADVANTAGES OF GROWING EUCALYPTS,

by Jocelyn Clarkson, BCA Member

Given that honey bees (apis) have suffered population decline, especially since the unprecedented bushfires of 2020 along with the prolonged drought, having flowering eucalyptus on your property will provide pollen for their honey making.

Bee pollinating a Eucalyptus flower

Otherwise, craft hobbyists, spinners and weavers might be glad to either raid your eucalyptus for their leaves or buy them to make dyes.

The Aborigines used dyes also derived from berries, fruits, nuts, bark, roots, leaves and flowers from native plants that required special methods of extraction.

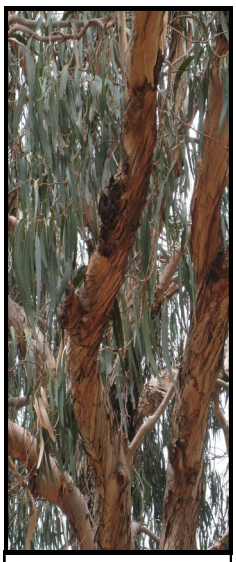
Such dyes originally only produced dull yellow colours for craft work, and it was only with the advanced methods of extraction that more varied colours were found.

The later discovery of mordents such as alum and copper ensured that the colours stayed on the materials they were applied on.

If you would like to learn more about eucalypts and their properties, look in your bookshop or library for, 'Dye making with Eucalypts' by Jean Carman.

It is worth looking for as it lists about 100 species of eucalypts and their locations around Australia, that can be used for obtaining dyes.

Another well known reference book is 'Dyes from Plants Australia' by J Lloyd.



Eucalyptus leaves

Eucalyptus leaves print

Riparian Extent and Distribution Indicators

Restoring riparian vegetation and limiting access of grazing animals to streams can effect a marked improvement in stream water quality.

The size and amount of riparian buffer adjacent to streams and water courses is an important determinant of soil loss, sediment movement and contaminant movement at the farm, sub-catchment and catchment scales.

These conditions can in turn affect water quality across an entire catchment. Therefore, condition of riparian buffers and change in the percentage of stream kilometres with riparian buffers of certain minimum thickness and connectivity are important indicators of the risk of declines in water quality. The width and extent of riparian buffers can be estimated in the field, from air photos or by GIS manipulation. Restoring riparian vegetation and limiting access of grazing animals to streams can effect a marked improvement in stream water quality.

The Department of Environment and Science concludes that riparian vegetation provides the interface between the land and body of water.

For details on why Riparian zone is important refer to the WetlandInfo riparian vegetation web page.

The Queensland Government website has additional information on vegetation management including mapping, monitoring and approvals.

Why do we measure it?

Riparian vegetation is measured spatially in order to give a degree of naturalness to the estuary, which is then used in the calculation of the Biological Health Rating (BHR). This value forms a total of 15 per cent of the complete Ecosystem Health Index (EHI).

Riparian vegetation performs many functions including;

- providing habitat for a wide range of species
- preventing erosion of riverbanks
- blocking nutrients and sediments from entering the water column.

Removal of riparian habitat in estuaries reduces the biodiversity and productivity of the system. As a result, it can lead to a reduction in water quality and ecosystem health.

Purga Creek Catchment

In the 1800s, the ease of obtaining pastoral leases on Crown land and the closeness to the Brisbane settlement encouraged settlement in the area. Extensive clearing followed grazing land use in the 1860s. Dairying commenced in the late 1870s and significant areas of cropping were established by the 1890s.

The Bremer River Catchment within Ipswich and Scenic Rim local government area, contains six major waterways, these being the Bremer River, Bundamba Creek, Purga Creek, Reynolds Creek, Warrill Creek and Western Creek.

The Purga Creek has its source on the eastern side of the catchment near Milbong and flows north through the town of Peak Crossing and joins Warrill Creek just south of Amberley Air force Base. This catchment has one of the few remaining stands of the remnant Melaleuca Irbyana and has saline hot spots, and flooding and erosion problems. Flinders Peak is an impressive backdrop to this subcatchment.

The Creek starts below Kulgun at an elevation of 105m and ends at an elevation of 20.3m merging with the Warrill Creek. A drop of around 84.8m over its 43.6km length.

Why is salinity present in upper Purga Creek?

Upper Purga Creek is a very hydrologically sensitive area. The water inputs to the area and restrictions to groundwater movement out of the catchment mean the inputs exceed the capacity of the catchment to discharge water. This results in a rise in the levels of groundwater and when it gets to within about 2 metres of the land surface, evaporation concentrates salts on the soil surface leading to salinity. The major landscape features contributing to salinity are:

A geologic catchment restriction to water flow near One eye waterhole and probably near the Ipswich-Boonah Road crossing of Purga Creek.
Dams and their frequency across the landscape, some of which are constructed on seepages mean high water levels are maintained in drainage lines through dam leakage.
The extensive alluvial valley formed upstream of Milbong and the additional sediment deposited since land clearing has further reduced water movement down the valley. The break of slope areas and upslope of roads make the salinity issues worse. In the early years roads across wet alluvium resulted in compaction. The Sub soils restricting down valley groundwater flow result in elevated water table levels and salinity on the upslope side.

Purga Creek at the gauging station at Loamside near the Bremer River is the saltiest of all the southern tributaries to the Bremer River.

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