Woodlands and Wildlife

Newsletter of the Mid Goulburn Broken Implementation Committee

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Carbon Forum hits pay dirt

Farming the natural way was the message at the Mid Goulburn Broken Carbon Forum in Benalla.

Facilitated by Cathy Botta, the Forum aimed to encourage landholders to take the necessary steps to improve carbon on their land. More than 60 farmers and landholders attended to hear the presenters and participate in the workshop session.

David Marsh, a farmer from Boorawa in New South Wales, presented a recipe for holistic grass growing that not only improves soil but combines natural farming with profitable returns.

Mr Marsh was speaking at the Carbon Forum, which also included presentations from Carbon Traders' Ben Keogh highlighting tips for new players, Cathy Botta on the relationship between carbon and soil health, and Dr Bruce Cockroft on irrigated orchard 'super soils'.

Mr Marsh demonstrated that by using the old tried and true methods of land management, allowing native grasses to self seed naturally combined with rotational grazing regimes, he had achieved improved pasture and higher stocking rates.

"Landscape change begins with changing ," Mr Marsh said

"Managing sunlight, plants and time on our 814ha property is critical to achieving a mix of profitable and environmental outcomes while ensuring time for recreation," Mr Marsh said.

"The only real form of wealth is Natural Capital, and everything we do is underpinned by the photosynthetic process."

Complex communities expend 33% of absorbed solar energy to maintain structure and density and it takes high inputs of capital to keep cleared landscapes in their simplified state according to Mr Marsh.

Delegates were delighted with Mr Marsh's approach to holistic farming and were quick to agree that retention of pasture, as opposed to close grazing, retains moisture in the soil, increases carbon and creates the biodiversity that underpins productivity. The Carbon Forum was held by the *Mid Goulburn Broken Implementation Committee* , to create a recipe for improved carbon sequestration in the Mid Goulburn Broken catchment and beyond. *Report on p2.*

Production with Diversity – Future Landscapes Depend on this.
Stellar growth on the Marsh property.

Offstream watering points protect waterways.

INSIDE THIS ISSUE:

2007 the year for AWARDS

Landcare, community engagement and recognition of Landcare Group activities were the focus of the 2007 MGBIC community awards.
In honour of celebrations marking 10 year of CMA's in Victoria, the MGBIC awarded the Strathbogie Tablelands Landcare Group for its DVD on the 'Bridge to Bridge' project. For award details and photos go to page 3.

Nominations for the 2008 Awards will be called in April.

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY

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The Implementation Committee (IC) in Brief

One Dryland IC Support team assists the two Dryland Implementation Committees (Mid Goulburn Broken & Upper Goulburn) in their program delivery and community engagement roles. The team also supports three functional portfolios— biodiversity, water and land; that deal with Investment Plan issues, project budgets, priorities development, draft investment plan reviews and analysis of quarterly reports. A Dryland Technical Group provides input to these portfolios. The structure allows for direct relationships between the two dryland ICs, Departments of Sustainability and Environment & Primary Industries, Goulburn Murray Water and the community.

The dryland ICs have made it a priority to support Landcare and other natural resource management groups in the catchment through funding facilitators and projects, and providing ongoing support to the National Landcare Program coordinator and Regional Landcare Coordinator. The second Landcare report card has been prepared for 2007 to demonstrate the number and extent of Landcare and other natural resource management groups in the catchment.

Carbon and Soils – Cathy Botta (Forum Facilitator)

In 2006, the CMA developed a soil health action plan for the catchment. A key theme in the action plan is a focus on maintaining or improving soil carbon.

Soil carbon is seen as vital to the health of the catchment soils and is a key to developing resilient farming systems in the future. The focus of the forum was to start developing options for sequestering carbon, particularly for maintaining or improving soil carbon.

The objectives of the forum were to:

... Develop shared understanding of how carbon can be sequestered on farms and in soils

... To identify practices that can increase the amount of carbon in soils

... To develop a shared understanding of the range of potential benefits for landholders and the broader catchment of carbon sequestration.

What is Carbon Sequestration?

Carbon sequestration refers to the capture and long-term storage of carbon so that the build-up of carbon dioxide (one of the principal greenhouse gases) in the atmosphere will reduce or slow.

There are three main types of carbon sequestration:

-In terrestrial ecosystems - increasing the amount of carbon stored in vegetation and soils

-In oceans - enhancing the net uptake of carbon from the atmosphere by the oceans, through fertilisation of phytoplankton with nutrients, and injecting CO2 to ocean depths greater than 1000 meters

-Subsurface sequestration of carbon dioxide in underground geological repositories.

All of these options are commonly known as carbon "sinks". The first, increasing carbon storage in terrestrial ecosystems, is currently the focus of the most attention and is the easiest and most immediate option at the present time. The sequestration process involves vegetation absorbing CO_2 through leaves and grows, roots and leaves decay in the soil releasing the carbon and nutrients.

What is Soil Carbon?

Soil Carbon is a major component of the organic matter fraction in the soil. Soil organic matter comprises all living soil organisms and all the remains of previous living organisms in their various degrees of decomposition. The living organisms can be animals, plants or microorganisms, and can range in size from small animals to single cell bacteria only a few microns long.

Organic matter can be considered to exist in four distinct pools:

... Active OM – fresh residues are most related to biological activity and macroaggregation. This fraction has a half life of days to a years. Loss as CO2 can be very fast in some plant residues.

... Slow OM or particulate OM – partially decomposed material. Particulate organic matter can constitute from a few percent up to 25% of the total organic matter in a soil. This fraction contributes to microaggregate formation and nutrient supply. This fraction has a half life of a few years to decades.

..Humus – organic molecules with reactive regions and sites that contributes most to chemical reactivity. Humus usually represents the largest pool of soil organic matter, comprising over 50% of the total This fraction has a half life of decades to centuries.

..Inert OM like charcoal- Can be up to 10% of the total soil organic matter

When plant and animal debris is added to soil, it is broken down by macro- and micro-organisms, initially into particulate organic matter, and finally into humus. The raw materials can vary greatly in their resistance to breakdown. Woody organic substances like lignins are very resistant, while more simple compounds like sugars are readily utilised. Microbial populations involved in decomposition processes increase and in turn, these organisms die and are consumed by others. Carbon dioxide is a by-product of this complex chain of processes (microbes release CO_2). Over half of the carbon added to soil is lost as CO_2 during the breakdown process.

Measuring soil carbon

The most common method of measuring soil carbon is done by oxidising the carbon and measuring either the amount of oxidant used (wet oxidation usually using dichromate) or the CO_2 given off in the process (combustion method with specific detection).

In the Goulburn Broken catchment soil Carbon levels are commonly 1 – 2% in cropping soils, but can be up to 3% on soils that are Direct Drilled and Stubble Retained. 3 – 4% is more common in pasture soils, but recent testing has shown Organic C of 2 – 3% in pastures (results from the balanced productive soil project).

For the full report please contact Poppe Davis Ph 5736 0100

Celebration ……..

The Strathbogie Landcare Group was awarded the Goulburn Broken Catchment Management Authority Group Award at the Mid Goulburn Broken Implementation Committee (MGBIC) dinner, Benalla Art Gallery.

Landcare Groups in the Mid Goulburn Broken catchment were asked to create a DVD, video or poster of their most significant environmental project to celebrate 10 years of CMAs in Victoria, and the Strathbogie Group was outstanding with its film of the 'Bridge to Bridge' project.
The Landcare Group made a DVD on the clearing of weeds and revegetation of a prime visible public site in the upper reaches of the Seven Creeks at Strathbogie. With assistance from the Goulburn Broken CMA, an Envirofund Grant and local Primary School students, the Landcare Group and local landholders have reinstated native woodland in what was previously a weed infested riparian zone, creating a viable habitat for indigenous animals and flora.

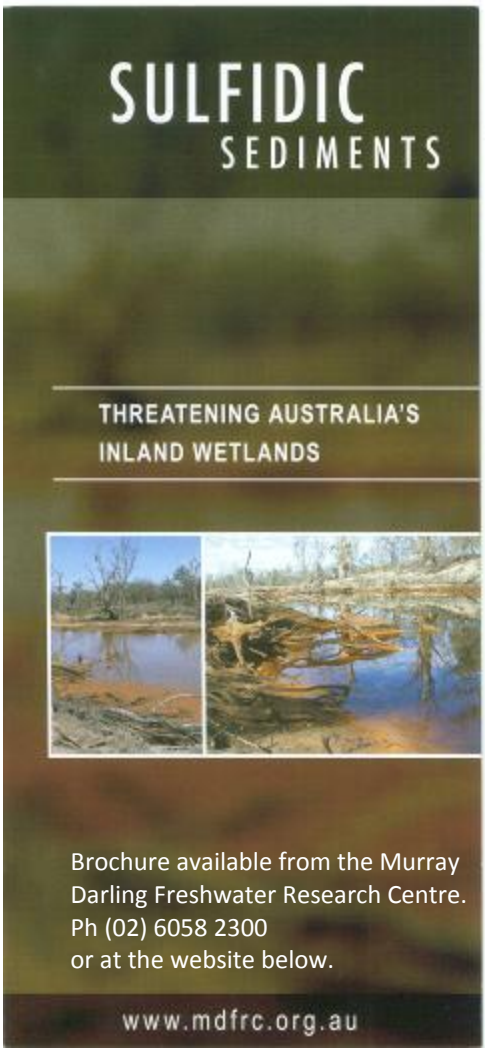
Group Secretary Bill Wells said that the Group was thrilled to be recognised in this very public way and that the assistance they had received from the CMA had greatly enhanced the success of the project.

The Group will travel by coach to the Botanical Gardens at Cranbourne and spend a day enjoying the gardens and a guided tour of the unique Australia Garden.

Other nominations for the prize include the Sheep Pen Creek Land Protection Group for their poster on community engagement and Warrenbayne Boho Land Management Group for their DVD on the Threatened Species Project to provide habitat for the Brush Tailed Phascogale (Tuan) and the Squirrel Glider.

Bill Wells (second left) receives the "10 Years of CMA's Celebratory Award" from the CMA's Bill O'Kane (centre), together with Bertram Lobert (right), Geoff Brennan

Weeds cleared to make way for a walking path and new plantings of native vegetation.



…… Awards and Rewards

Alan Neander from Warrenbayne was this years recipient of the Mid Goulburn Broken Landcare Award for Excellence. The award is presented to a Landcare executive member who has had a long term commitment to Landcare.

Alan has been a member of the group since 1997 and was elected Chair in 2002 for 4 years. He also held the Treasurers' position from 2003 and was instrumental in setting up the position for a part time coordinator. Alan continues to serve on the Facilitators Steering Committee and is always involved in all projects initiated by the group, in particular the Threatened Species Project.
The Landcare Award for Excellence is a personal award and includes accommodation and dinner for two at the Sofitel Melbourne.
In introducing the awards, MGBIC Chair David Dore told the 100 guests that the Committee is honoured to present the awards to such deserving people and that the committee believes it a worthy way to say 'thank you' for the hard work and time that volunteers devote to natural resources projects.

Left: Menon Parmeswaren receives the MGBIC 'long service' award from John Pettigrew (GBCMA Board Dep. Chair) Below: Alan Neander (Centre) with CMA CEO Bill O'Kane (left) and Regional Land-care Coordinator, Tony Kubeil.

Letter from Alberta—Poppe Davis

Information; Courtesy of the Edmonton Journal.

Having just returned from Canada I would like to share my observations of some environmental issues of concern to Canadians at the moment.

"Canada's boreal forest is about half the size of the worlds tropical forests, but contains almost twice as much carbon per square metre, largely because cold temperatures have slowed decomposition, and organic soils and thick carbon rich peats have built up over centuries."

"An international coalition of environmentalists is putting timberland in the spotlight in an attempt to preserve at least half of Canada's boreal forest from logging and other mineral and energy enterprises."

It is estimated that the forests contain about 186 billion tonnes of carbon—27 times the amount released globally by burning fossil fuels each year.

"Scientists predict that climate change will have a profound impact on the carbon balance of Canada's forests, as indications are that in the last few decades of the 20th century, wildfires and increases in the annual harvest have accounted for a slowdown in carbon uptake.
Werner Kurz from the Canadian Forest Service says that the forest fires accounted for up to 45% of Canada's total greenhouse gas emissions."

"He believes that there is a high chance that Canada's forests will become a source of greenhouse gases in the near future due to increases in wildfires, and pests such as the mountain pine beetle, which has left a swathe of dead trees in its wake. "

Canada's environmental issues are very similar to our own.

"Thumbs up!"
Spruce forests in Banff National Park.

Community Education Grants

Environment Groups in the Mid Goulburn Broken catchment will share $6,827 in Community Education Grants this year.
Strathbogie Tablelands Landcare Group will produce literature to encourage landholders along the Seven Creeks to participate in riparian projects, following the success of the Bridge to Bridge project.
The Benalla Environment Group is preparing and designing an interactive website to highlight biodiversity issues in the Mid Goulbourn Broken catchment.
Mollyullah-Tatong Landcare Group has designed information and interpretive boards to be erected on the path that runs along the Hollands Creek, to highlight the natural environment, its wildlife and flora.
Community Education Grants are offered in the Mid Goulburn Broken catchment to allow groups to run small education projects that may not be funded by mainstream funding bodies.

CONSERVATION MANAGEMENT NETWORK

For information on the Broken Boosey Conservation management Network, contact Jim Castles at Shepparton on ***P 5820 1100.***

Youth Conference

In October 2007, the GB CMA sponsored 48 student delegates from the Goulburn Broken catchment to attend the International River Health Conference in Canberra.
Delegates were amazed at the amount of environmental information available and at the number of schools that had prepared presentations on issues faced in their area.
Our students participated in a variety of presentations from schools and environmental specialists from all over Australia, They also attended the panel discussion which included Greens Senator Christine Milne, Dr Wendy Craik (MDBC), Professor Gary Jones (eWater Cooperative Research Centre) and the inspirational Daniel Adams from the Oaktree Foundation (Make Poverty History).
Euroa and Alexandra Secondary Colleges presented workshops on 'Eco living school environment' and 'How healthy is the upper Goulburn River'.

Goulburn Broken catchment delegates at the rear of Parliament House in Canberra.

Breaking News

Four men will be charged after being caught by Fisheries Victoria Officers illegally taking native fish at Lake Mokoan.

The men were apprehended as part of on-going operations by Fisheries Victoria targeting people illegally taking native fish species.

Fisheries Officers seized a quantity of illegal fishing equipment, two inflatable boats and 50 golden perch, of which 19 fish were under the legal size limit.