
Murrindindi Climate Network newsletter November 2012



The Murrindindi Climate Network (MCN) was established in the belief that there are many strategies that can be undertaken to reduce the impact of human activity on the environment, but this requires the support and coordination of many stakeholders under the umbrella of a united network. Here's a taste of what MCN and its members have been up to recently.

Greening your Business – Local Businesses on the Big Screen

By Rita Seethaler

At this year's Annual General Meeting, the Murrindindi Climate Network is celebrating its fifth year with the inaugural viewing of the documentary "Greening your Business – Local Businesses on the Big Screen". In this movie, local businesses from Marysville & Triangle and Yea districts are visited by MCN's green business assessors, and together they investigate opportunities to improve the energy efficiency of their businesses. Many business owners in the two regions in this pilot project were interested in receiving such a free assessment because they understood that wasting energy – even small amounts accumulated over time – ultimately translates into losing a lot of money.

So far, the assessment process has been very revealing; during every single one of the 36 assessments conducted to date, several energy saving measures have been identified. Sometimes obvious, sometimes not – but most of them are relatively easy to apply with a relatively short payback time and are relevant to both businesses and private homes. These really are the "low hanging fruit" – opportunities that shouldn't be missed.

Funded by EPA Victoria, the Green Business Assessment Program has received a lot of interest from the business community and local government and included a variety of sites: hospitality, administration, retail (food and non-food sectors), primary industries and public buildings such as schools. In light of the enthusiastic response, MCN is currently talking with EPA Victoria about an extension of the project timelines, so that we can continue to deliver assessments to businesses, schools and public buildings in the test regions. In return for the free assessment, the business community will be asked to participate in the

formulation of a Voluntary Green Code of Practice – a manifesto to live by and to demonstrate to visitors that we are operating in a tourism region that is environmentally responsible.

The idea of a Voluntary Green Code of Practice initially came from Marysville & Triangle's Economic Leadership Group (ELG) that was established in the wake of the Victorian bushfires in 2009. MCN has been honoured to take up this project in 2010 on behalf of ELG, to secure funding, organise the training of local assessors and to conduct assessments. We now invite our members and the interested community to share the results and experiences gained so far, and to actively assist in the process of formulating the Voluntary Green Code of Practice.



Cameraman Kevin Manning (Director, Hero Productions) filming green business assessors Peter McKernan and Andrew Cooper discussing lighting issues at Marmalade's in Yea

Come and see your local green businesses on the big screen. The documentary will be screened at the upcoming **Murrindindi Climate Network AGM; see page 2 for details.**

The Murrindindi Climate Network

AGM and viewing of

Local Businesses on the Big Screen

“Greening Your Business”

17th November 2012, 3.00pm – 5.30pm



St John's Church Hall
Alexandra



OTHER PRESENTATIONS

Easy ways of achieving energy efficiency measures in your business

Andrew Cooper and Peter McKernan

A retrofitting guide for older homes

Scott Bewley

How green are our cleaning practices?

Rita Seethaler



**Followed by free BBQ dinner!
All Welcome**

- A short formal AGM will precede the presentations -

Please **RSVP** for catering purposes to

murrindindi.c.n@gmail.com or Moira Jeffreys 5774 7569

by **November 12th**

Gardens for the Planet

by Nicola Woolford

The saying "think global act local" rings true when it comes to edible gardening as a way of reducing our impact in the world. Not so long ago it was common to have your own veggie plot, orchard and local swap schemes, however with the rapid move toward dependence on supermarkets and large scale seed companies and farmers managing our food growing and transport, many backyards lie empty except for a few ornamental trees and the odd rosemary bush.

Luckily many green thumbs are still active and continue the passion for edible gardening.

The Murrindindi Climate Network Vice President, Sue McNair, has been a key figure working in partnership with St Johns Anglican Church, Alexandra Community Health, Murrindindi Shire Council, Rotary Club and Berry Street in continuing to support the **Alexandra Community Garden**.

The last two working bees were held on September 8th and October 20th, with up to 11 keen gardeners and helpers planting, weeding, tidying, feeding and planning the eight large beds and surrounding grounds. Although not all beds are "hired" they still have plants growing to be available to everyone. The garden was looking great for the recent Alexandra and District Open Garden weekend.



Edible summer produce



Companion planting helps keep vegetables healthy. Even small gardens can provide lots of edible produce.

The Open Gardens are a great way for gardeners to show off their passion, with many gardens having a mix of ornamental and edible areas. Nicola Woolford of MCN also has her small garden on show. With a focus on recycling organic matter and making compost and weed tea, Nicola is focused on bringing Permaculture principles into her garden for a healthy ecosystem. Her aim is to help show people that you can still provide some of your own food with a small space and even have room for chickens.

Other gardening news:

Alexandra Primary School has started making a Permaculture designed edible garden, with a new chicken house and wicking beds to get started. Buxton Primary School is also getting support from MCN members to continue their growing area. The parents' group also made a chicken shed and run that the students now enjoy as well as having their own supply of eggs.

With all this growing activity it also worth mentioning the other health benefits that come from the pleasures of growing and eating your own or at least sharing and knowing where your food has come from.

Launch of the updated Murrindindi Climate Network website

by Nicola Woolford

After having set up the first MCN website in 2008 up and running it for MCN in conjunction with our former coordinator Mary Hall, Jenneke Kylstra recently passed the reins to me. The website has been redesigned and is intended to be easy to navigate and update for non-technically minded people. A new server is also being used: www.freesites.com.au.

Although it is a simple website, it does offer the MCN a presence on the web to promote the group and events, link with other activities and organisations and provide a way to access newsletters and Annual reports. **Check it out at www.murrindindiclimatenetwork.org.au**. Please post a comment and suggestions are welcome.

Bush food or weed?

by John Coyne, MCN Board member

While working at a site at Maintongoon, on the ridge between Alexandra and Bonnie Doon, I noticed an unfamiliar plant. Fragile-looking, but lush and healthy, no more than 15cm tall, a cluster of plants were growing on a pile of wood ash and charcoal.

The property owners didn't know what this plant was but mentioned that the cockatoos liked to feed on it. There were several patches of the plant that they knew of and they willingly potted-up one plant for me to take to identify.

An uncommon feature of this plant is the leaf or bract to which the flowers are attached. The leaf is attached to the entire perimeter of its stem, giving the appearance that the stem passes through the centre of the leaf; what botanists refer to as a 'perfoliate' leaf. There are other narrow linear leaves that grow from the base of the plant but they tend to be lost from view behind the erect flowering stems. Flowering at Maintongoon was happening during late September, the ground conditions were still damp and the location of the plants in dappled shade under the

canopy of mature Eucalypts implied that the soft fleshy stems and leaves need some protection from the sun. I've since discovered that this plant also needs protection from slugs and snails.

Thanks to the knowledge of Geoff Olive and his associates, and to Phoebe Coyne, we were able to confirm this plant's identity. It's an exotic from the west coast of America, often called Miner's Lettuce or Indian Lettuce. Common names can lead to errors, as several plants are known as Indian Lettuce, so for clarification the botanical name is *Claytonia perfoliata*. The name Miner's Lettuce stems from its use as a food source by prospectors in America.

I thought I should check its prevalence if it's an exotic - it could be a potential weed! It doesn't seem to be a garden plant. A search of botanical records in Victoria shows three locations where this plant has been recorded: Castlemaine, near Ballarat and further west near Coleraine. Relatively uncommon, could prospectors from California have brought this plant out? It seems to be found growing in former gold

mining areas here, and its location at Maintongoon is at the top of an old track leading to the gold diggings on the Devil's River site, now under the water of the Delatite Arm of Lake Eildon.

Should you try *C. perfoliata* as a vegetable, Web information refers to the young leaves being edible raw or cooked, along with the flowers. However, as the plant ages or becomes drought stressed (I suspect that this plant is only observed here prior to summer arriving) then the content of soluble oxalates builds and it becomes bitter and potentially toxic.



Claytonia perfoliata,
or Miner's Lettuce,
found growing in the
Maintongoon region by
John Coyne.

Hydro Power from the Marysville Forest

by John Coyne, MCN Board member

This story is about the two small hydro electric power generating systems located within the Steavenson Falls Forest Reserve close to Marysville: the Michell-Ossberger Turbine that provides power for the lighting at the waterfall, and the Kouris Centri Turbine, a demonstration turbine set up further downstream by the Melbourne inventor Paul Kouris.

The waterfall on the Steavenson River is a major tourist attraction for visitors to the Marysville area. Waterfalls have great appeal and this landscape feature was the reason behind the reservation of this patch of forest, years ago, by the Victorian Government. In the early 1970s, members of the local community facilitated a project to install a small hydro electric power system on the river so that electricity would be available to floodlight the waterfall at night. The project had historical links as hydro power was used by some guesthouses in Marysville up until the 1960s, due to the fact that the township wasn't connected to the electricity power grid until then.

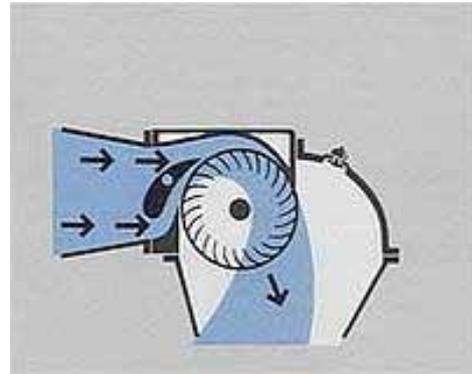
Black Saturday 2009 had an enormous impact on this forest reserve. Infrastructure was destroyed by the combined effects of fire, gale force winds and hundreds of falling trees. Post bushfire funding has enabled the infrastructure to be rebuilt and enhanced. October 30, 2012 marked the official reopening of the reserve by the local Victorian Member of Parliament, Cindy McLeish.

Michell-Ossberger Turbine

Luckily the Michell-Ossberger hydro power system was adequately protected from fire damage by the concrete and cement block building enclosing it. Recent refurbishment works have included the electrical connection of this generator to the power grid three kilometres distant in Marysville. This is of great benefit in making better use of the system. The turbine is continuously running as it is installed on the pipework that delivers water to the townships of Marysville and Buxton. Power can now be continuously fed into the system instead of the previous after-dark-only floodlight use.

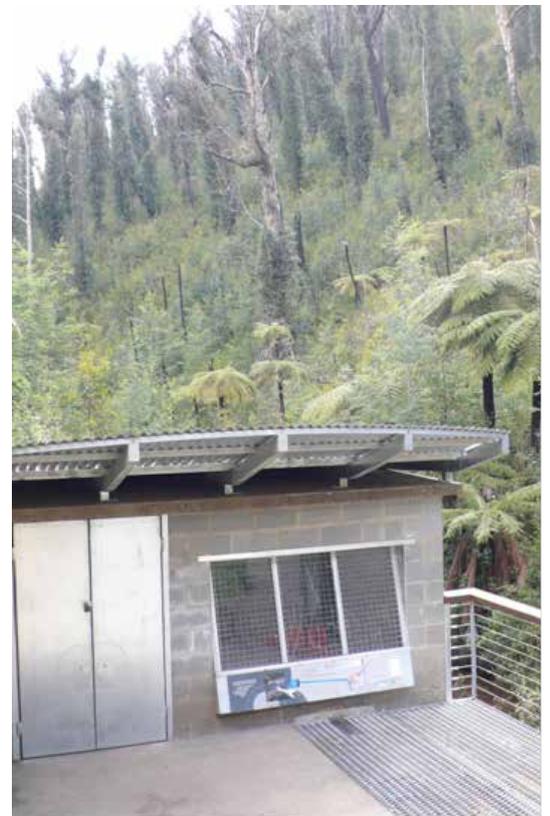
Specifications of the Michell-Ossberger turbine:

- Head: 18m
- Flow: 127 litres/sec
- Electrical power output from single phase generator: 13kW



Section through a 'cross flow' turbine

The turbine has a 'cross flow' design, a concept developed by the Melbourne engineer George Michell and patented by him in 1903. Ossberger GmbH & Co, Germany, still manufactures these turbines but it is fascinating that a Melbourne engineer who completed his engineering training at Melbourne University in the 1890s has a connection with this local hydro power plant. Michell's cross flow design was a significant advancement at the time as it allowed the water jet to pass twice across the fins of the turbine.



Refurbished Michell-Ossberger Turbine house at Steavenson Falls. The orange painted turbine can be seen through the viewing window.

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George Michell's story is a book in itself; he was a quiet achiever, forgotten to the general public but internationally recognised in marine engineering for his revolutionary bearing design. (Michell's invention of the Thrust Bearing allowed friction to be reduced on ships' propeller shafts to such an extent that the British Admiralty stated that in the year 1918 alone, Michell saved the Royal Navy one million pounds sterling in fuel oil costs.)

Kouris Centri Turbine

Paul Kouris has designed an innovative turbine that harnesses the power from a vortex of water. Several years ago he installed a demonstration model of his Kouris Centri Turbine at the old water supply weir on the Steavenson River.

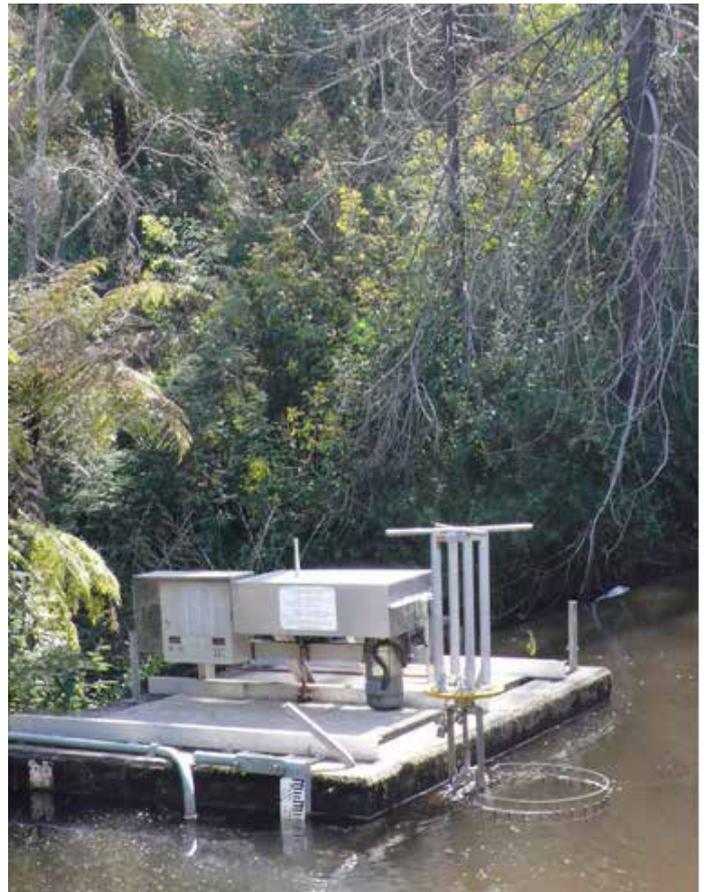
This turbine is unconventional as it has all of the blades of the turbine immersed in the column of water. The energy in a vortex is generated by the rotation of the earth so essentially, Paul claims, it is the spinning earth that generates the power.

The Kouris Centri Turbine has the advantage that it can operate with a comparatively low head of water and because the water vortex exerts a centripetal force within the turbine chamber, construction of the system can utilise light weight materials. A model is shortly to be released that uses a two metre diameter by two metre tall plastic tank to house the turbine. With a flow of 400-500 litres per second, this turbine should be able to generate 5-7 kW of electrical power. Paul is excited about the potential use of this turbine in irrigation canals world wide, as a simple transportable remote power supply.

Details of the KCT Marysville demonstration turbine :

- Input flow: 110 litres/sec
- Electrical output: 350 Watts
- Nett head height: 0.6 metres

(More information: www.kourispower.com)



Kouris Centri Turbine mounted on the wall of the old weir near Steavenson Falls.

Wanted

A couple of old unwanted steel barrels to use for developing a 'biochar' demonstration. Approximate size needed: 100 litres and 200 litres. If you can help, please contact John Coyne on 0427 001 211.

MCN's contact details

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Website: www.murrindindiclimatenetwork.org.au