Did you know?

The average amount of carbon dioxide emitted by Australians is about 27 tonnes each year. This is the highest of all the developed countries. A fast growing hectare of trees will take up about 5 tonnes of carbon dioxide a year over 50 years. Planting trees is a relatively inefficient way to tackle climate change, but every little helps.

The Queensland Government is investing $20 million over the next four years to improve water quality in South-East Queensland. Initiatives include

- Waterway restoration projects to minimise water pollution
- Promoting water-sensitive design in new urban developments to reduce diffuse pollution
- Prevention of coastal algal bloom hazards
- Management of point source pollution such as sewerage treatment plants
- Reduction in pollution from diffuse sources in rural areas

It takes about 30 million litres of water to produce a year's food for each of us. A recent report indicated that a hamburger requires 11000 L of water to produce. Three a day for 365 days equals 11 million litres of water a year. Don't change your healthy diet just to save water.

As the radius of our knowledge expands, so does the circumference of our ignorance. (Japanese saying)

JP

Please recycle this newsletter by passing it to friends or neighbours.

This newsletter is produced and distributed by volunteers.

We believe in its value in communicating information to members of our community who are interested in the environment and the work of CREEC.

We thank the Caboolture Shire Council for their assistance.

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This Newsletter is on the web at www.creec.org.au

Inside this issue:

Friends of CREEC
Winner of
Excellence in
Business Award
2005

C.R.E.E.C.

caboolture shire

June 2007

BACK TO THE FUTURE

The Caboolture Sustainable Living Fair at CREEC on 2 June, introduced 2000 people to some valuable insights into the climate change future, and what individuals might do to respond to increasing pressures on water and energy use.

While these messages have been the focus of the annual fairs for six years, 2007 really put the spotlight on CREEC. In opening the Fair, Mayor Joy Leishman highlighted the importance of the Environmental Education Centre and thanked all of the volunteers from around the Shire who make year-round contributions in so many ways.

Mike Mitchell of Queensland Hire presented a cheque for $1000 to kick-start a greenhouse gas reduction strategy, by planting trees to hold carbon dioxide over a long period.

Talks in the auditorium, at stalls, workshops and displays, were popular. Lots of tips, good advice and a few challenges. Good to hear from people who have actually done it, made it work, invested wisely and enjoyed the savings and the lifestyle improvements. More about these in this and later newsletters.

Congratulations to the hundred or more people who put in the effort to make the 2007 Fair such a success.

Simon showed us how to get fit, balance work and play, save fuel and entertain the kids, all on a unicycle.

Way to go !

Global Warning

An ‘ecological disaster in the making ‘ is how the CEO of the Australian Council of Recyclers describes the move to fluorescent lights, without corresponding legislation governing their disposal (Ecos 136:5).

Phasing out of incandescent light globes in favour of compact fluorescent lamps by 2010 is a welcome initiative – they produce more light and less heat – but we need to be careful that it isn’t `simply swapping one environmental problem for another’, says the CEO of Advanced Recycling Australia.

Fluoro tubes and bulbs contain mercury. The public health effects of having millions of them dumped and broken in landfills will be `disastrous’, according to the Royal Melbourne Institute of Technology. Mercury is a neurotoxin, so the proper recycling of fluoros is essential to both the environment and our health.

J P

Sustainable Car Travel

Australia’s annual greenhouse gas emissions are about 600 M tonnes CO_2 equivalent, or 80 kg per person per day.

Transport is the third largest emitting sector, after electricity generation and agriculture (mostly livestock, as methane), with half of the transport emissions coming from cars. We live in a society which is dependent on cars; it is almost impossible to do without one to get to work, go shopping, visit friends and relatives, travel for recreation, get where we want to go.

The average car produces 4 to 6 tonnes of greenhouse pollution a year, or 2.5 kg per litre of fuel. John Burrows, in an article in the Sunshine Coast Eco. News (issue 5, March-April 2007) offers the following tips to reduce fuel usage, save money and reduce your environmental impact.

Much publicity has been given to South East Queensland reaching a 140 litre per person per day target, presumably 12 L in the kitchen, 20 L in the laundry, and 108 L in the bathroom/toilet. As Brisbane’s residential usage in 2005 was 285 L per person, this reduction, to half as much, makes one wonder how we could have been so wasteful before.

Where have the savings been made - in the garden, the laundry or the bathroom? How much money was spent, how much has been saved? What other natural resources need the same concern, attention, planning and expenditure that the water wake-up has caused us.

Think about it !

JP

Tanks a Million

Rainwater tanks come in all shapes, sizes, designs, colours, prices, delivery times and ease of installation and perhaps the biggest range of any household item, except for the house itself. Hardly an item 3 years ago!

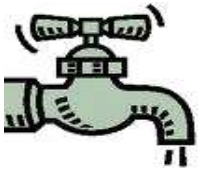
Do you really need one, or two? Where should it be located? Underground or above? Round or slimline? Connected to the internal water supply or not? How big? What uses are intended? Poly or concrete? How much is it worth to have a tank? When does the cost return a benefit? A last resort to saving water or a high priority? The Government is spending $9 billion ‘ to secure our water future ‘, why should you worry?

The water that runs off your roof each year is more than the volume used by a four person household. How much of this run off might be stored and used to replace town water internally or in the garden? What arguments would convince you, one way or the other? In the meantime, put cash into fixing the household appliances so they don’t contribute to water wastage.

A 250 square metre roof will provide 250,000 L of runoff each year. To be subsistent, the amount of storage required is about one fifth of this.

JP

Water - More or Less ?



The simple way to reduce reticulated water consumption is to make it harder to use - buckets instead of hose sprinklers, restricted hours, alternate days, increased prices and water meters to remind you.

Saving the wastage of water in the home isn't particularly complicated. In the bathroom - toilet, where more than three-quarters of water is used, good ideas include dual flush toilets, fixing leaking taps and toilets, replacing shower heads, having a shower instead of a bath, shorter showers, catching excess water in a bucket for toilet flushing or the garden, turning off the tap while brushing teeth, shaving or washing hands.

In the laundry, where about one seventh (14%) of our water is used, the Queensland Water Commission suggests fixing leaking taps, a plug in the sink, a new more efficient washing machine, using economy settings, full loads of washing, cold water to reduce energy, which also saves water use.

In the kitchen, about one twelfth of domestic use, there are savings from scraping dirty plates, a plug in the sink, a new dishwasher, fixing leaking taps, turning off the garbage disposal unit and perhaps, drinking milk and fruit juices instead of tea, coffee or something out of a bottle.

Higher up the scale are technological fixes such as reducing mains pressure, installing rainwater tanks, connecting downpipes to water storage or diverting to the garden, recycling grey water, reducing evaporation losses from the pool and garden, using rainfall more efficiently where it falls, waterwise gardening, water-sensitive urban designed housing, restricting the consumption of products, including food, which have a high water use for their production.

Some of the above increase the available supply at the household level, while reducing waste water going downstream. Balancing demand and supply is tricky and costly, especially when we haven't had to do it before. Spare a thought for those not connected to the Council's water and sewerage systems, who have worked this out already and adapted to it.

- Keep your car serviced regularly
- Take off the roof rack or bull bar when not in use
- Remove heavy items from the boot
- Keep the tyres at the correct pressure
- Use the windows instead of the air-conditioner on short runs at lower speeds
- On multi-lane roads, keep to the left and drive at 90 instead of 100 to 110 km/hr. Leave a few minutes earlier
- Aggressive driving is bad for your health and can increase fuel consumption by up to 30%
- Switch off the engine if there's a delay
- Combine as many shorter trips as you can, into one
- Car-pool wherever you can
- Drive less – walk or cycle more. Use public transport
- Next car, buy smaller or a fuel efficient hybrid

JP

Carbon-neutral Communities ?

One of the early signals that modern living was putting the environment at risk was the depletion of the ozone layer. This led to the phasing out and eventual abandoning of a number of chemicals, first at a local level and later more widely. In 1989, 35 local government leaders in USA and Canada met to consider how to respond to ozone depletion and other global environmental problems. They established the International Council for Local Environmental Initiatives (ICLEI) in Toronto, Canada in 1991. A regional office for Australia and New Zealand was set up in Melbourne in September 1999, supported largely by the Australian Greenhouse Office.

The first Australian ICLEI campaign, introduced in 1997, (labelled Cities for Climate Protection - CCP) has assisted 218 local councils to achieve various milestones so as to reduce greenhouse gas emissions at the local level. Over the last ten years, Councils have saved the equivalent of 8.8 million tonnes of carbon dioxide - a bit over 3% of the total reduction in emissions achieved by various measures, as compared to the 'business as usual' scenario for Australia.

cont.

Councils have retrofitted lighting systems, improved energy efficiency, purchased green power, used LPG–fuelled or petrol electric vehicles, mulched green waste, planted trees and converted to natural gas and solar.
A more advanced phase, CCP Plus, is being adopted by more than 100 Councils.

Phase 3 will build on what has already been achieved - with a much greater adoption of energy-saving initiatives. Melbourne proposes to end its contribution to global warming by 2020. The Council acknowledges a large gap in meeting demand for information on how to resolve environmental issues, such as water shortages and greenhouse gas emissions. Programs for sustainable buildings, recycling, energy-saving devices etc aimed at the community are being developed. A total system is envisaged.

How far away from being carbon neutral are we? Is it possible for our Council to be carbon-neutral? If it can be, what stops us?

JP

Fish Farming

The fastest growing food-production sector is the aquaculture industry, globally worth 100 billion dollars (Ecos 136:22-25). Half of the world's food fish is farmed in ponds and sea-cages. Agriculture has a limited ability to produce the extra protein needed for the expected 3 billion more people by 2050. Shortage of water and new arable land limit expansion, so the potential of the oceans for aquaculture is seen as an alternative to over-fishing of wild stocks – already a major concern, as world fisheries are under severe pressure.

Fish, crabs, prawns, abalone, oysters and other shellfish are an excellent source of dietary protein, as well as omega–3 fatty acids (needed also by fish and derived from marine micro-algae). Can Australia develop efficient systems which balance economic benefits with the conservation of coastal environments? The $300 million a year South Australian sea-cage southern bluefin tuna industry depends on catching 20 kg juveniles by trawling, and fattening them to 30 kg on a diet of local sardines and imported baitfish. It takes 12-15 kg of bait fish to produce 1 kg of tuna meat.

About one third of the global fish harvest is baitfish – anchovies, pilchards and sardines. Plant-based fish meals from soybeans and lupins lack the omega-3 fatty acids needed by fish. Experts say there is no evidence that baitfish resources are being depleted, with annual production stable at about 7 million tonnes, enough for humans and aquaculture requirements.

Salmon production in Tasmania, worth $130 million a year, requires cool water, free of pollution, so its expansion is limited. University of Tasmania research has shown that caged Atlantic salmon support a healthy invertebrate and microbial community in the sediments below and around the cages, with worms, molluscs and crustaceans, well adapted to breaking down organic material, moving in and flourishing.

Pond culture of prawns is strictly licensed, with controls on nutrient discharges. Recent research at the Bribie Island Aquaculture Centre using sea worms to feed on the algae has been translated into a commercial application, at Bullock Creek using Polychaete sand worm filters to remove nutrients from prawn pond effluent.

Concerns of the Aquaculture industry include:

- Why aren't upstream emitters of sediments and nutrients (in agricultural and urban areas) subject to the same controls and monitoring of discharges
- Whether the nutrients from large scale fin-fish farms are likely to be dispersed by sea currents and cause phytoplankton blooms
- How can tuna be bred in a hatchery rather than be caught at sea
- What wild marine species can be domesticated to become commercially viable
- How to compete with imports from south-east Asia, where production costs and labour are much lower. (High quality and freshness are critical here)

Australia has nearly 16 million square kilometres of Exclusive Economic Zone, the world's third largest area, but our aquaculture industry contributes less than 1% of global production.



JP