



Landcare in the Hastings and the Camden Haven

Hastings Landcare Inc.

Supporting Voluntary Natural Resource Management in the Hastings, Camden Haven and Wilson River Catchments

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Grants for Waterway Health

Small grants are available again for waterway health projects. You don't have to be on a targeted stretch of the river for your project to be considered for amounts up to \$5,000.

Together with Landcare organisations from the Macleay, Nambucca and Bellinger, Hastings Landcare was part of a successful bid to the National Landcare Program for \$165,000.

Projects that lead to an improvement in the health of waterways are eligible, including reducing nutrient and sediment entering streams, improving the health of riparian vegetation by weed control and stock exclusion and providing

off-stream watering points for stock.

The riparian management incentive projects will complement the larger scale works being done by Port Macquarie Hastings Council in concert with the Northern Rivers Catchment Management Authority on the "targeted" streams.

Over the past eight years, a diversity of small scale projects have contributed to riparian health in the Hastings and Camden Haven and



Hastings Landcare is pleased to be able to now offer a similar style of grant.

Get in touch with the Landcare office now to discuss your project idea and find out how to apply.

Dairy Farms Improve Sustainability

A win for dairy farmers is a win for the natural environment.

NSW Department of Primary Industries has received additional funding from the National Landcare Program to continue to provide assistance for improved natural resource management on dairy farms. Those who

are part of the Farmer Targets for Change program and missed out in the last round of funding may now have their projects funded. It is likely that there will be some additional funding available. Another program being run by DPI is EWEN (Efficient water, energy and nutrients) which is

seeking demonstration and monitoring sites for projects tackling efficient water, energy and nutrient use. DPI will conduct on-farm audits and there may be funding available to undertake such projects. Please contact DPI (6562 6244) ASAP with your project idea for either of these initiatives.

Climate vs Weather

Weather describes the state of the atmosphere locally, minute by minute. **Climate** describes the average weather over a period of at least three decades. This includes average monthly statistics about such things as temperature; number of days over 35 C, number of frosts, rainfall, number of rain-days, number of days with more than 30mm of rain, humidity, evaporation etc. Climate tells us what the weather is usually like.

Information from the NSW Department of Primary Industries on Climate Change and dairying....

Possible Impacts & Opportunities For Northern NSW Dairy Farmers

As the temperature and rainfall patterns change, there will be some effects on dairy farms in northern NSW, but there will also be some opportunities.

Winter temperatures will be warmer with fewer frosts. Pasture growth rates will likely be higher.

Earlier, warmer temperatures mean that it will be possible to sow summer crops earlier, with slightly earlier maturity and harvest.

A longer growing season will allow greater use of drought tolerant perennial pasture species.

Lower water availability will favour short rotation pasture systems.

Earlier, warmer temperatures in the growing season will enable boosting pasture production earlier using nitrogen fertilizer in winter and early spring.

Warmer temperatures are likely to cause a higher incidence of heat stress that may affect reproductive performance, weight gain and milk production.

There will probably be less run off due to increased temperatures and evaporation, reducing water

security for stock, as well as for plant and shed cleaning.

There may be effects on both the quality and quantity of feed grains and fodder produced outside dairy areas. Legume hay, for example, may be less readily available and more expensive.

Increased temperatures may make C4 pasture species (such as kikuyu, maize, forage sorghum) more competitive at the expense of the more nutritious C3 species (such as ryegrass).



How Could The Region's Dairy Farming Systems Adapt

There are many ways that the northern NSW dairy farmers could adapt their farming systems to cope with changes in the climate.

Consider the best possible pasture mix of species that can tolerate hotter and longer summers, as well as considering the maturity times of different ryegrass varieties to adapt to earlier spring conditions.

Cutting silage and hay earlier to better match the changing pasture growth curve.

Shifting from perennial pastures to a mix of annual and perennial pastures.

Increasing the amount of forage cropping to produce maximum dry matter per megalitre of water used.

Placing a greater focus on the use of water resources on the farm by:

Improving the efficiency of

irrigation systems and practices;

Continuing to expand the reuse of dairy shed effluent and wash down water;

Management of bores for water supply;

Planning the shape of dams to maximise the capture of run-off;

Planting trees near dams to reduce evaporation;

Adjusting mating and reproductive strategies to take into account the changes to pasture availability, reduction in fertility of cows as a result of higher temperatures and less efficient milk production in higher temperatures;

Maintaining or establishing shade and shelter belts to reduce the effects of increased temperatures and more regular days of extreme heat;

Providing evaporative cooling for cows;

Selectively breeding for improved performance during hot weather.

Farmers may also need to change their approach to feed base management to take into account the increased climate variability. Consideration needs to be given to what farming system will be most suited to different dairying regions. For example those that rely heavily on buying feed in may need to secure supplies 6-24 months in advance. Those that grow all their own feed may need to cut more silage and hay to manage the risk of less predictable seasons.



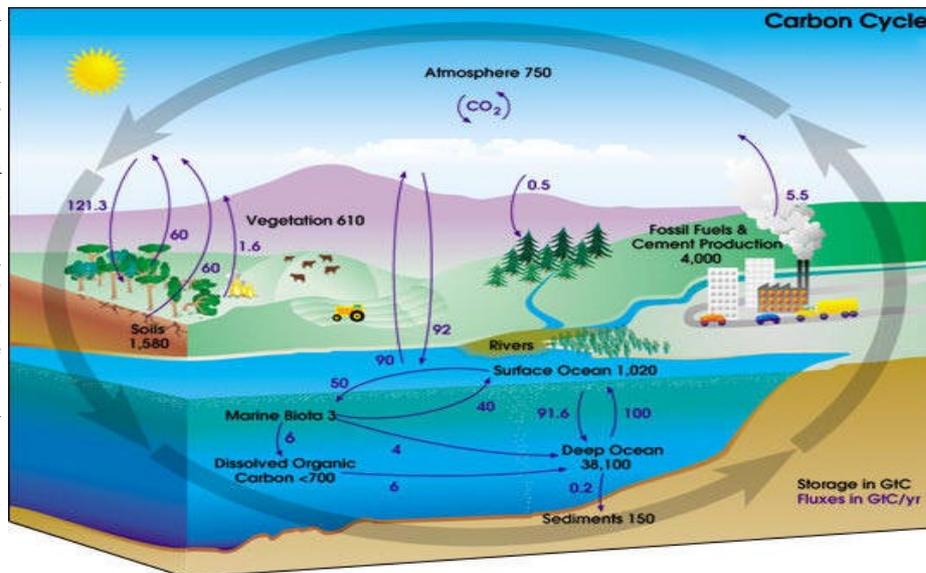
Carbon Credits

Carbon dioxide is one of the greenhouse gases contributing to global warming and climate change. When carbon is removed from the atmosphere and stored in the biosphere it is said to be **sequestered**. Places where carbon is stored are called **carbon sinks**. All living things are part of the **carbon cycle**. Carbon is continually turned over during the natural progression through birth, growth, death and decay. Some of the carbon atoms in our bodies at this moment would have been constituents of the plants, animals and soils present on earth many millions of years ago. People are around 18% carbon, wood is around 50% and the organic matter component of soils is around 58% carbon.

When people think 'carbon' they usually think 'trees', but in reality 75% of carbon in the terrestrial biosphere is in the soil. Healthy grasslands may contain over 100 times more carbon in the soil than on it, making a well managed perennial pasture the quickest and most effective way to restore degraded land. Billions of tons of organic carbon have been lost from agricultural soils – and continue to be lost – through inappropriate land management practices. This is one of the reasons why agriculture is the second largest contributor to greenhouse gas emissions in Australia. The 'standing energy' industries such as coal-based electricity generation are the largest source.

Carbon credits are a financial reward for activities that reduce the levels of carbon dioxide accumulating in the atmosphere.

There are a large number of different **carbon trading** schemes in the world, some of which date back to as early as 1995. A 'carbon trade' can simply be an agreement between two parties. For the term 'carbon credits' to be used, the emission reduction or biosequestration to which the credits apply must be subject to verification by an accredited certificate provider.



One credit, as designated by an emission trading, emission reduction, renewable energy or abatement certificate, represents one tonne of carbon dioxide equivalent. Carbon credits for sequestration are a type of offset trade and the carbon storage may be leased or sold. Simply stated, the entity emitting the carbon buys registered certificates and the entity sequestering carbon sells them (ie receives money for carbon storage). A 'trade' occurs when carbon credits are secured and then surrendered or acquitted through an accredited carbon broker, carbon exchange or carbon registry.

Source Dr Christine Jones
<http://www.amazingcarbon.com>

Australian Soil Carbon Accreditation Scheme

(Carbon sequestration in soils)
 Excerpts from Dr Christine Jones' paper to the "Managing the Carbon Cycle" Katanning Workshop 21-22 March 2007.

The Australian Soil Carbon Accreditation Scheme is first to recognize soils as a verifiable

carbon sink in the Southern Hemisphere. In Australia, comparatively little research has been directed towards management practices that enhance carbon sequestration in soils, the component of our biosphere from which most carbon has been lost

and the component with the greatest potential for storage.

The planet's soils hold three times as much carbon as the atmosphere and over four times as much as the vegetation. Soil therefore represents the largest carbon sink over which we have control.

Around 50-80% of the carbon has been lost from the topsoil in many farmed soils, often as a direct result of the loss of the soil itself.

In general, soil carbon accumulation is positively correlated with rainfall and negatively correlated with temperature. While we can't alter temperature and rainfall, we can markedly improve water infiltration rates, soil moisture retention, buffering of soil temperatures and carbon inputs and outputs, through changes in groundcover management.

Find out more about soil carbon trading at the 2008 Carbon Farming Expo, November 19.

Farming in a Changing Climate Workshop for Landowners

Workshops from the NSW Dept of Primary Industries to help landowners make their properties more resilient in a variable & changing climate.

Topics in the training

The projected local impacts of climate change.

Assessing the capability of your land and how it will perform in harder seasons.

Building resilience in your farm to optimise long term production and to better support your animals.

Targeting your time and money to best effect.

How to improve soil moisture storage, infiltration, root depth and reduce evaporation losses.

Improving pasture utilisation and rotation strategies.

Limiting soil degradation and weed control costs.

A paddock by paddock plan for drier seasons.

Methods to sequester and build soil carbon tailored to soil, slope and aspect.

Reading the biological, physical and chemical properties of soil as a complete picture.



Cost - \$90 total per property includes:

Soil testing equipment

Subsidised soil tests

Course notes

Resource publications

Property Planning Books

Planning overlays

3 days of training (over 6 weeks)

Professional advice

A paddock by paddock plan

Register now by contacting-
Greg Reid 66261213,
greg.reid@dpi.nsw.gov.au

Armidale, Sept 16th (then Oct 28th, 29th), Kyogle, Oct 21st (then Dec 16th, 17th), Wauchope, Sept 18th (then Nov 11th, 12th), Coramba, Sept 2nd (then Oct 14th, 15th)

Soil Carbon: The New Cash Crop

Carbon Farming Expo and Conference 2008



Orange Function Centre

Eyles St Orange, 9.00am — 5.00pm,
18th — 19th November, 2008

Voluntary Carbon Market Opening For Trade

- How To Get Involved
- Risks and Rewards

?? Green Paper: Not "No", Just
"Not Now"

?? Methane: \$1 a cow?

Registrations essential: book now to avoid disappointment

Contact Louisa Kiely

Phone 02 6374 0329

Fax 02 6374 0354

Email:

louisa@carboncoalition.com.au

www.carbonfarming.net.au

Want to share transport? call
Jeremy on 65856202.

Climate Torch heads to Canberra

Powered by wind, solar, a lemon and people, the climate torch passed through Port Macquarie in August on its way to Canberra to deliver a message to parliament: that we have the technology, now what we need is the political will to reduce Australia's greenhouse gases by 50% by 2020.

The torch will converge, with three other torches that have been touring the country, in Canberra on 12 October.

Hastings Branch of Climate Change Australia demonstrate the alternative energy technologies embodied in the Climate Torch.



Landcare NSW Inc

Why Landcare NSW Inc?

Landcare NSW Inc evolved from a community desire to have a representational body of Landcarers at the state level. Following the Musters at Lake Macquarie and Tamworth in 2007, a number of issues were raised that threatened the ongoing effectiveness and existence of Landcare and Landcare groups in NSW. Landcare NSW Inc was formed to provide a forum to address those issues seen as barriers to the success of Landcare in NSW.

The membership of Landcare NSW is comprised of endorsed members from Landcare regions, districts or composite groups. Landcare NSW Inc has developed clear objectives and terms of reference to guide the direction of the organisation as it promotes Landcare.

Aims

Landcare NSW Inc exists to be a strong representative body to work

for grassroots community driven natural resource management in NSW. Our aim is to promote and encourage awareness and education in sustainable natural resource management, to foster community and individual action in environmental reparation, nature conservation and the adoption of regenerative production systems, and to advocate ecologically sustainable development.

Terms of Reference

1. to celebrate the achievements of Landcare and promote Landcare and community based NRM organisations and activities,
2. to identify, communicate with and represent Landcare at the grassroots, State and National level to develop and foster ideas, knowledge and resources.
3. to organise an annual Landcare Muster where landcare networks, groups and members can raise landcare and broader natural resource and environmental issues,

and develop strategies to address issues raised.

4. to establish and enhance cooperation and partnerships between landcare and broader natural resource, environmental and primary industry organisations including regional NRM bodies and government departments,

5. to speak as endorsed representatives of landcare networks and landcare groups in the development of District, State and National landcare and broader natural resource and environmental policy.

Actions

Landcare NSW is now actively involved in providing a forum, developing strong networks and upskilling the community to share their activities and place stories between Landcarers, and also to promote Landcare to the wider community affirming the incredible effort made by the 48,000 NSW volunteer landcarers in sustainable natural resource management.

Tending the Grassroots

Strengthening Community Environmental Networks

NOVEMBER 14 - 18, QUEANBEYAN CONFERENCE CENTRE

NSW LANDCARE MUSTER (Landcare NSW hosted by Murrumbidgee Landcare Inc) The annual muster for community-based Landcare in NSW. Help set the agenda and priorities for the Landcare movement for the next 12 months. QUEANBEYAN 16th November

The Bird Bath Study

Darryl Jones from Griffith University Qld is interested in hearing about the use of bird-baths in any setting – suburban backyard, farm, inner-city apartment. In the context of the prolonged drought that much of eastern Australia has been experiencing it is likely that the bird-baths provided by people in their yards are of great importance for the survival of many species. Remarkably, almost nothing is known about this potentially significant activity. This project aims to start the long process of understanding faunal use of bird-baths, as well as the motivations of the people involved. There are three ways to be involved.

First level: Starting simply With so little known, even the most straight-forward observations can be important. For example, a simple list of the species that are known to have visited your bird baths will be

useful. Even better would be information on when and how often – there are often specific times of the day or the year when birds come. A simple note describing these things would be very helpful to us.

Second level: A bird-bath diary For people with more time and interest, we would like to invite you to keep a slightly more detailed diary of bird-bath visits. We recognise that most people cannot sit and watch their bird-bath throughout the day but it may be possible to keep a note-book handy and jot down the species, how many individuals came, the time of day and any other relevant notes.

Third level: Timed observations This would be best for people who are able to watch their bird-baths either regularly or for extended periods of time – say an hour or so. These observations aim to record



more detail about the visit, such as how long the birds stayed and whether there were any interactions with other species – especially displacements.

Why do you have a bird bath?

Finally, we are inviting everyone to write a simple explanation of why you have bothered to buy and maintain a bird-bath at your place. If you interested in learning more about this study then go to www.aqob.com.au/images/product/file/Birdbath_Study_Letter.pdf

Warning: Indian Myna Breeding Season Is Upon Us

Look out, the Indian Mynas are at it again. It's Spring and they are eagerly looking for nesting sites, and that means many native species including feather tailed gliders are at risk of being kicked out of their nests to die or be chased away. October through to March is the Indian Myna's main breeding season which can include over three clutches of five pale blue eggs. The better the environment the more they will breed, so please help to minimise food availability.

Now is the time to be aware the birds may look to nest in your house or shed roof if it is not sealed correctly. It is much easier to block access now than to manage a noisy lice infested family

of Indian Mynas.

For those out there trapping, keep up the good work. Out of all results given, approximately 600 birds were trapped over the last 12 months. Remember to be patient,



keep the bait fresh and try varying it often. If you have been using bread and dog food try sultanas or chook pellets. Tiny pieces are best and please where possible, don't let the birds see you have contact with the trap, especially if there are trapped Indian Mynas inside. We are dealing with a highly intelligent and adaptable pest, they learn very quickly what the traps are all about if they see humans.

If you are interested in trapping or would like a copy of the Pee Gees trap design please contact the Landcare office.

Ingrid Pullen

6586 4465

Rabbits

There has been an increased number of rabbit sightings in the Hastings River Drive/Westport area.

We are looking for volunteers who will take on the role of observing and noting numbers as well as getting them used to accepting feed at various location in preparation for baiting.

If you are interested please let us know at the Landcare Office — 6586 4465

Giant Devils Fig

(*Solanum hispidum*)

The Giant Devils Fig has been found in bushland between Acacia Ave & Fern Valley Pde. If you know of other locations please contact Council on 6581 8111. It is a shrub or small tree, up to 4 m high, growing like the closely related Tobacco Weed, but with larger lobed leaves and nasty-looking thorns on its stems and leaves. The flowers and fruit are also similar to Tobacco Weed, though the petals are white. This weed has the potential to spread rapidly.



Marine Habitat Mapping Information Session

NSW Department of Primary Industries, the Department of Environment and Climate Change and the Coastal Catchment Management Authorities are currently collaborating to map marine habitats in NSW. These organisations will be hosting an information session on marine habitat mapping and marine biodiversity assessment in NSW.

Thursday, 9 October 2008
6.00 pm – 8.30 pm

National Marine Science Centre

**Bay Drive – Charlesworth Bay,
COFFS HARBOUR**

The information session will provide an opportunity to:

Learn about mapping of estuarine and marine habitats.

Learn about threats to marine habitats.

Learn how marine mapping can support the sustainable management and conservation

of marine resources.

Develop new networks with marine stakeholders.

A light supper will be provided. Please note the venue is not suitable for children.

Please RSVP by Thursday, 2 October 2008 to:

Victoria Gladstone (02) 4916 3975

Email:

Victoria.gladstone@dpi.nsw.gov.au

Port Macquarie Landcare

Looking Good Feeling Better

Port Macquarie Landcarers have recently had the hard choices taken out of their working bee days. We no longer have to awake in the morning and ponder over "What will I wear today?"

With thanks to funding from the Holiday Coast Credit Union Community Partnership Program, all members are now in possession of a high visibility shirt and broad-brim hat. These sun smart items also have the Landcare logo on them.

This funding formed part of a grant of nearly \$5000, which saw the nursery upgraded too. New steel benches and a tool storage box were installed, as too was a watering system in the 'igloo'.

At about the same time, money was made available through the

Environmental Levy Fund for a new trailer with Landcare signage to be purchased.

So with new uniforms, equipment and signage - all volunteers are quite obvious now as they're working away at their various Landcare projects.

A relatively new Port Macquarie



Landcarer, Maggie Wolk, initiated a display of Landcare information at the local Westpac Bank in Horton St. during the recent Landcare Week.

Knowing that the Westpac corporation is a Landcare supporter, she and the Port Macquarie Landcare secretary met with the bank manager to put forward the proposal. The display was set up by Landcare volunteers on August 29 and dismantled on September 8.

All 4 display boards were up in the bank for the whole week, and brochures were available too. The display contained various posters and photos on weeds, pest animals, the community nursery and other Port Macquarie Landcare projects. The colour information brochure and working bee list (showing scheduled sites, dates, times and contacts) were on offer.

A media release was sent out by the newly elected Publicity Officer. Coverage was good, with an article and photo in the Port News and an interview on ABC radio.

Well Done Maggie, Julie, Steve, Janet and Estelle.



Environmental Levy Project Funds Available

Does your group operate within the Port Macquarie Hastings Council area? Grants up to \$4,000 are available for environmental projects. Contact Landcare on 6586 4465.

Life's a Beach

We love our beaches but where will they be in 100 years' time? What will we lose when climate change manifests?

Some beaches are receding at 20 cm a year as sea levels rise, while oceans grow hotter and more acidic. Creatures living in the seas will lose habitat; fisheries will be damaged.

The future looks grim for our dunes and native vegetation. But we should continue to care for them, because they will be needed more than ever as wave buffers and wildlife corridors.

These were some of the important coastal topics addressed by Dr Michael Rule and Sasha Posthuma-Grbic of the National Marine Science Centre during the NRCMA training days in Port Macquarie, on June 27 and July 4. Dozens of volunteers attended the

talks and field trips.

Matt Rogers explained land loss at Lake Cathie village. Glenn Brewer talked about native plants and bush regeneration, focusing on Lighthouse Beach.

A pod of migrating whales came



by, exemplifying the wonderful natural assets we have.

More marine treasures were discovered on the Shelly Beach rock platform walk, lead by Dr

Rule.

We visited Lake Cathie, where local Landcarers helped to interpret the changes taking place: erosion, weed incursion, and the effects of urbanisation on Littoral Rainforest.



Lake Cathie

Hastings Landcare
 44a Cameron St
 PO Box 126
 WAUCHOPE 2446
 02 65 864 465

hastingslandcare@midcoast.com.au



LANDCARE COMMUNITY NURSERY

A community nursery for community re-vegetation projects

The role of the nursery is to provide indigenous plants grown from local provenance. This not-for-profit nursery enables your project's funding to go further.

Address: NPWS Area Depot, end of Blackbutt Rd, Port Macquarie
 Times: Monday morning 9am—12 noon
 Contact: Estelle Gough 6583 6508 /0432 141605

Port Macquarie-Hastings Council, the National Landcare Program and the Northern Rivers Catchment Management Authority support the production and distribution of this newsletter. *HatCH* presents a forum for the expression of a range of opinions. The views and opinions expressed in this newsletter do not necessarily represent the views of Hastings Landcare Inc. or its employees. While every effort is made to publish accurate information, Hastings Landcare Inc. and its employees do not accept responsibility for statements made and opinions expressed in this newsletter. We invite and appreciate your contributions. Special thanks to contributors Janet Watson, Julie Ho, Estelle Gough, Beth Gabriel.

If you are receiving a paper copy of this newsletter and would like to help us save on paper, printing costs, stamps and envelopes by receiving the newsletter via email, then send us an email — hastingslandcare@midcoast.com.au— The PDF file size is approx 550KB and comes in colour.

Rural Residential Living—An excellent and informative website — www.ruralresidentialliving.com.au

Environmental Weeds of Australia is an invaluable resource for all those involved with research, training and management of environmental weeds in Australia, especially State and local weed control officers, Bushcare and Landcare volunteers. This product also provides an extremely valuable teaching resource for students (University, TAFE and Secondary schools). Price: AUD\$59.00 (excluding GST and postage). For more information about Environmental Weeds of Australia and how to purchase it, please visit: <http://www.cbit.uq.edu.au/software/enviroweeds>. Alternatively, contact CBIT at Enquiries@cbit.uq.edu.au

FAWNA has a new number! For injured wildlife call **6581 4141**. F.A.W.N.A (For Australia Wildlife Needing Aid) covers Port Macquarie-Hastings, Greater Taree, Kempsey, Gloucester and Northern Great Lakes. This time of year wildlife is very active, and its up to us to help when they are injured or displaced. It's the season for breeding and babies so keep your eyes out for where you may be able to save a life. Just last week I came across a recently dead wallaby on a main road and I found a young healthy and very much alive pink joey in her pouch. It is worth taking the time to safely check pouches and contact FAWNA if you find any cute surprises inside. Membership enquiries and donations to: PO Box 218, Wauchope NSW 2446 and www.fawna.org.au

Aerial Photographs —If you need an aerial photograph of your property for management planning purposes, contact the Landcare Office on 6856 4465 for details. Port Macquarie Hastings Council is supporting this initiative.

Website — We are in the planning phase of our Website development and are looking for contributions of stories and pictures of the groups and projects you are associated with or information on useful sites that you have found.

Calendar of Events

Community Celebration Town Green	8 October
Marine Habitat Information Session	9 October
Farming in a Changing Climate	11-12 November
Tending the Grassroots, Queanbeyan	14-18 November
NSW Landcare Muster, Queanbeyan	16 November
Carbon Farming Expo, Orange	18-19 November
Landcare Conference, Port Macquarie	September 2009

