

Green Army to fight rice grass

A DIVISION of the Green Army has been assigned to the beautiful, but threatened, Rubicon estuary in northern Tasmania to fight an infestation of rice grass.

Covering 130 hectares, the rice grass infestation in the Rubicon estuary is the second largest in Australia. Introduced in the 1930s to stabilise river banks, rice grass has instead become a major pest whose choking growth destroys the habitat of birds, fish, crabs and other estuarine plants.

It has the potential to invade up to 650 hectares of the Rubicon, one of Australia's most beautiful estuaries, which is also under assault from sea spurge, marram grass, sea wheat grass, broom, gorse and cape ivy.

The Green Army team's task is to work across mudflats and along foreshores to manage weeds and restore the estuary's natural ecology, in a project sponsored by Latrobe Council.

The community of Port Sorell, which sits on the Rubicon estuary, began



tackling rice grass in the mid-1990s, supported by Landcare funding. Other communities and government agencies were tackling the problem around Tasmania up until 2010, when funding for rice grass control ceased.

Without continual suppression, the weed has reclaimed some of its former

territory. It now occupies about a fifth of its possible range in Rubicon estuary.

Landcare Australia's Green Army project officer Bruce Ashley says it's a great opportunity for the team to make a difference to the environment of the estuary.

"Although it will be a bit of a challenge dealing with the

estuary conditions and tides, it will be great to see some rewarding outcomes to reverse the spread of this nasty weed."

Landcare Australia is ramping up a host of Green Army projects with strong environmental and community benefits this year and is encouraging Landcare groups to act as project sponsors and

Covering 130 hectares, the rice grass infestation in the Rubicon estuary is the second largest in Australia.

apply for Green Army teams to be involved in their projects. Applications for the latest round of Green Army projects can be submitted until March 17, 2015.

Landcare Australia, in partnership with recruitment expert ManpowerGroup, is one of the program service providers and responsible for delivering more than 90 Green Army projects allocated since the Green Army Program was launched last year.

Manpower general manager Paul Bridgewater said: "The Green Army Program as a whole provides great opportunities for Australian youth, and the Australian environment."

A part of round 3 of the Green Army Program, Landcare Australia would like to assist Landcare groups in making an application.

Landcare Australia's Green Army project officer Bruce Ashley says he is happy to answer any questions people may have – whether they are farmers, members of community groups, Landcarers or people working or volunteering in related areas of Landcare and heritage conservation.

"We are inviting anyone who thinks they might be able to benefit from the resources of a Green Army in their area to contact us," Mr Ashley said.

"We can answer any questions you might have, and explain how a Green Army team may be able to help you get the most out of the resources available. We can also help you through the round 3 application process to become a Green Army project sponsor."

● People wanting to find out more about the Green Army's round 3 can register their interest with Landcare Australia via greenarmy@landcareaustralia.com.au or phone Bruce Ashley toll free on 1800 151 105.

Reducing heat stress in livestock

PRODUCTION losses along with climate projections suggesting a rise in annual average temperatures and an increase in the occurrence of extreme weather events are driving two separate research projects into agricultural adaptation and the reduction of heat stress in livestock.

One project conducted by the Dairy Futures Co-operative Research Centre aims to identify dairy cows that have a greater tolerance to heat stress and will result in a genomic breeding value being developed for tolerance to heat stress.

The second project conducted by the University of Melbourne will determine whether feed additives such as dietary betaine, chromium and antioxidants can be used to alleviate heat stress in dairy cows and pigs. Both projects are

funded through the Australian Government's Filling the Research Gap program, along with contributions from state government and universities, private firms and industry bodies.

Heat stress occurs in livestock when animals cannot effectively control their body heat and the body temperature rises to unsafe levels. It may be observed when animals eat less, become restless and production decreases. Other symptoms include animals grouping, seeking shade, panting, slobbering or excessive salivation, foam at the mouth, open-mouth breathing, lack of co-ordination and trembling.

The initial consequence of heat stress is reduced feed intake and loss of production. In extreme cases it can lead to organ tissue damage and death.

The Dairy Futures CRC



project is drawing upon 700,000 DNA marker genotypes from 3700 Holstein and 1241 Jersey herds to develop the genomic breeding values for heat tolerance, so young bull and heifer calves can be screened for their genetic potential to cope with heat stress. The project will draw on production records such as milk yield, protein and fat percentage, and merge it with heat load data (specifically temperature and humidity

readings) from 118 weather stations in dairying regions around Australia.

The University of Melbourne research builds on previous studies where feed additives were shown to reduce the effects of heat stress on sheep, but which may be more suitable to intensive livestock systems where administering additives daily to feed rations can be effectively managed.

Heat stress may well be a growing financial cost to

livestock enterprises in the future, should average temperatures rise and the number of extremely hot days increase.

Established farm management strategies such as the provision of shade, the adequate supply of water and even cooling systems help reduce heat stress, but further effective management practices will likely be required in future to safeguard animal welfare and farm productivity. Both research projects will finalise in

June 2016.

Filling the Research Gap funds nationally coordinated research to deliver practical options for land managers to reduce greenhouse gas emissions, build soil carbon and adapt to changes in climate while improving productivity and profit.

● More information on research projects under the Filling the Research Gap program may be found at the Department of Agriculture website at: <http://www.agriculture.gov.au/climatechange/carbonfarmingfutures/ftg>

WIN \$500 FOR YOUR WORK

We want to make Landcare in Focus work for you, and to do that we need your help. Fill out a short online survey by 22 March and you will be entered into a draw to win one of five \$500 grants for your Landcare work.

Visit landcareonline.com.au



Almost 300 groups given up to \$20,000

COMMENT by BARNABY JOYCE

LAST year marked the 25th anniversary of the launch of Landcare nationally in Australia, and in recognition and celebration of this important milestone, the Australian Government announced a 25th Anniversary Landcare Grants Program to support the movement and its on-the-ground work at a local level.

The 25th Anniversary Landcare Grants 2014-15 will see almost 300 community groups and individuals across Australia share in \$5 million in project grants.

A total of 291 projects will receive funding of between \$5000 and \$20,000 for projects

with a strong agricultural focus or a focus on delivering positive environmental outcomes.

Some of the successful projects include feral animal control in the Collombatti area

practices on Kiana Station in the Northern Territory.

Other projects include the Digging up the Dirt on Soil health project, working with six farming families in central Queensland, support for the prickly acacia eradication in the Gillat River, Queensland, and rabbit eradication at Mt Rothwell in Victoria.

These practical projects, like all the work Landcare groups do, will provide lasting benefits for our environment and agricultural landscape.

The agriculture projects receiving grants will support farmers.

We know that more than three-quarters of farmers identify with the Landcare movement, and acknowledge

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of NSW, working with farmers on sustainable management practices in Clarence River NSW, and improving grazing



Federal Agriculture Minister Barnaby Joyce.

the support that local Landcare groups give them in looking after the land.

There are more than 100,000 Landcare volunteers

working in over 6000 Landcare groups, and so I'd like to thank everyone that has contributed to the Landcare movement over the past 25 years.

LANDCARE BRIEFS

International Year of Soil

2015 is the International Year of Soil. Soils are often called a neglected resource and a challenge to all is to take a moment and consider how our soils are involved in producing food, fibre and energy. If we keep our soils healthy they can store water and reduce flooding. Soils can also store organic carbon and slow the release of carbon into the atmosphere. They have a role in buffering climate change and rising temperatures. To find out what is happening to celebrate the International Year of Soil in Australia visit the Soil Science Australia website www.soilscienceaustralia.com.au.

Advisory Committee

THE inaugural meeting of the National Landcare Advisory Committee was held in Canberra on Thursday, November 27, 2014. Members of the committee met for the first time following their formal appointment to discuss their role in implementing the Australian Government's National Landcare Program. The committee will advise the Natural Heritage Ministerial Board, comprising the Minister for the Environment, the Hon Greg Hunt MP, and the Minister for Agriculture, the Hon Barnaby Joyce MP, on a range of issues related to the National Landcare Program and are looking to help increase recognition of the Landcare 'brand' and the value it brings to all Australians and sectors. More information on the committee's work plan can be found on www.nrm.gov.au.

A year's a long time in Landcare

By TESSA JAKSZEWICZ, CEO

WITH last year providing challenges for many in the Landcare and related communities, we are happy to be kicking off 2015 with a number of funding opportunities and resources for the popular Junior Landcare program, as well as taking a detailed look at this publication – Landcare in Focus – with a reader's survey.

This month we see the return of some of our regular rounds for 2015 including Lion Dairy grants and Coles Junior Landcare garden grants. Looking beyond the garden, we have launched the first-ever Landcare subject in the national curriculum. Details and full lessons are available for download via juniorlandcare.com.au/curriculumresources.

Last year provided many challenges, and here at Landcare Australia we have overhauled our reporting with a new-look 2014 Annual Report, which attempts to look at all aspects of how we work.

In addition to some key achievements highlighted in the previous issue of Landcare in Focus, we'd like to share some of the wonderful stories at a local level and beyond that we have been a part of:

■ **INNOVATIVE AGRICULTURE:** From building resilience generally to trialling mulch in wine-growing regions to improve soil fertility as well as water conservation while suppressing weed growth, we have channelled millions of dollars into Landcare farming programs over the years that make a significant



difference in terms of efficiency and profitability.

■ **BUSHFIRE RELIEF:** Just one example is the Wildhaven Wildlife Shelter in Melbourne, which has attracted money from our Holden partnership, helping it rescue and rehabilitate animals and rebuild their native habitat.

■ **BEACHCARE:** There's a whole community of Landcarers who are caring for our coasts and waterways.

One such group from Queensland's Gold Coast has supplemented a robust program supported by dedicated locals with money from Neutrogena

In the past financial year, we have distributed more than \$2m, funding some 500 projects.

Naturals for a broad base of works including cleaning up Australia's busiest beach. ■ **FLOATING LANDCARE** is a multi-stakeholder program that enables pockets of Sydney's picturesque Pittwater to be

maintained during a fun day out, reinvigorating areas only accessible by boat.

Otherwise known as Workers on Water, this project is co-ordinated by Greater Sydney Local Land Services. Our corporate volunteers donate their time, with funding generated being directed back to the local Landcare group for ongoing maintenance and support.

■ **VILLAGE NURSERY PROGRAM** is an initiative started in 2013 supported by Westpac, which will provide \$200,000 a year to selected projects, creating pathways to

employment and assisting in social inclusion for marginalised youth and community members through hands-on learning at community-run nurseries.

■ **THOUGHT LEADERSHIP** and sharing achievements – the biennial state and territory Landcare Awards are on again this year. Last year at the National Awards, South Australian finalist in the sustainable farming category, Mallee Sustainable Farming, won the People's Choice award. Check out the case studies on our website and tell us about your successes.

In the past financial year, Landcare Australia has distributed more than \$2m for these and about 500 other projects – including significant programs with generous bequest money and in large part funded through the business community.

Landcare Australia's full report will be available from our website.

Also just a reminder that Round 3 of the Green Army is now open.

Interested groups are encouraged to register their interest with us.

See pages 1 and 3 of this supplement for information on the Green Army.

We hope you like the new-look Landcare in Focus.

Please take a few minutes to complete our reader survey (advertisement on previous page) – to help us help you with a publication that is not only interesting but also assists you in making a significant difference in your Landcaring.

You could also win one of five grants of \$500 towards your Landcare work.

SUBMISSION GUIDELINES

LANDCARE in Focus is proudly supported by the Australian government's Department of Agriculture and published by Landcare Australia Limited.

For more information or to submit an article, email enquiries@landcareaustralia.com.au. Please note that due to space restrictions we cannot guarantee that all submissions will be included. All submissions must adhere to the following guidelines and the deadlines below and must include:

■ One article of no more than 300-600 words saved as a Microsoft Word document or a PDF.

■ No more than two or three high resolution (must be at least 1MB in size) images that clearly illustrate the accompanying article.

■ Full captions for each attached image that explain who is in the photos and/or what they illustrate. Also, please ensure that we have permission from any people featured in the photos to use these photos in Landcare in Focus.

■ Contact information for more information if required.

The next issue will have a focus on Water – keep a lookout for themes for future issues.

Dates for 2015

PUBLICATION	DEADLINE
May 21	April 16
WATER THEME	
August 20	July 16
November 19	October 15

Corridor opens up to success



Durness owner David Fuller last year.

THE award-winning Durness-Borland Landcare Corridor project is entering the monitoring and maintenance phase, leaving a legacy that demonstrates how the needs of farming, environment and regional planning can be jointly met by a single project.

In a matter of years, the Durness project planted more than 55,000 native trees, to create biodiversity corridors, designed to connect large areas of remnant native habitat and improve water quality in Kore Kore Creek, flowing into Port Stephens, an important fishing and recreational area.

The project also assisted with increased productivity on Durness, the property where the works were undertaken.

A beef cattle property, the 4000-hectare Durness, had been extensively cleared in the 1950s. It was bought 12 years ago by David Fuller, a farmer-businessman who until recently

owned AgrowPlow.

Mr Fuller describes himself as "half a greenie".

"I think that every place you're involved with, you should aim to leave it in better shape than when you got it," he said.

The corridor project was designed to reconnect fragmented pieces of remnant vegetation on Durness in ways that improved conservation not just on the property, but extended beyond the grazing areas out to have broader positive effects on the landscape.

The loss of some formerly cleared land to corridors has been offset by paddock redesign, introducing a rotational grazing regime and off-stream stock-watering systems.

The biodiversity corridors act as natural boundaries and shelter belts for the grazing program, and appear to have also slowed the flow of water



Durness manager Troy Wilton with the map linking the nature corridors.

off the landscape, meaning more effective rainfall stays on the farm and water arrives more slowly in the creek.

"Since we've planted the trees, we've only had one flood event," Durness manager Troy Wilton said.

Mr Fuller said there had been no loss of productivity on the property, despite the loss of land, because the fencing and off-stream watering had enabled more strategic grazing of stock.

When the trees have matured – the canopy of the oldest plantings now stand at five to six metres high – cattle will also be able to strategically graze the corridors for short

periods to reduce fuel for bushfires and assist with weed management.

It is the sort of country where a month without rain is drought, and a month with rain means half the place is inaccessible. The better drainage in the corridors is helping with accessibility in wet times, and tree cover is moderating heat and cold extremes in dry times.

Creek crossings have been stabilised with engineered works so that stock traffic does not contribute to erosion.

Creek erosion has been halted, even though the works have been tested by substantial rain since the project began.

Wildlife is beginning to move freely through the corridors, although Mr Fuller mourns the fact that he has still only seen two koalas in the time he has owned the property.

The project was made possible through a bequest by businessman Raymond Borland, managed by Landcare Australia. The bequest formed the bulk of the costs for on-ground works, which also included in-kind and financial contributions from the landholder, Landcare Australia, Great Lakes Council and Hunter Local Land Services.

For Great Lakes Council, the project provided the initial

I think that every place you're involved with, you should aim to leave it in better shape than when you got it.

momentum for planning to connect the internationally recognised Ramsar wetlands of Myall Lakes with the Gondwana rainforests of the Barrington Tops.

It has provided the inspiration for council to develop its broader strategic ecosystem services and Tops to Lakes corridor initiative.

The Durness project has started things rolling by developing functional connectivity along 52km, and from sea level to 650m in altitude.

Council, with a contribution from the LLS, contributed a further \$2.3 million to secure a 125ha conservation core adjacent to the project area – a remarkable step for a regional council.

Watch the Durness-Borland Landcare Corridor video with owner David Fuller and manager Troy Wilton on the Landcare Education YouTube page at www.youtube.com/watch?v=EIVnKTPKgCw.

Green Army recruiting

APPPLICATIONS are now open for round 3 of the Green Army Programme, and community groups across the country are encouraged to apply.

The federal government is calling for community-led projects that support practical, grassroots environment and conservation activities throughout Australia.

Indigenous groups, community organisations, environmental groups and local councils can apply to host a Green Army project.

Projects must run for 20 to 26 weeks and can take place across urban, regional and

Applications are now open for round 3 of the Green Army Programme.

remote Australia on public land, indigenous-held land or private land.

Projects must benefit the environment or national or indigenous heritage, and offer participants valuable practical experience.

Opportunities are available for indigenous participants and communities to participate in the program.

The Green Army is capable of supporting participants and projects in remote communities, and providing targeted training and ways to connect indigenous Australians with their country, identity and culture. The project guidelines and the application form are available online for organisations to begin planning new projects.

● Visit www.environment.gov.au/green-army

RIGHT: Members of the Green Army project team at Queanbeyan, NSW.
— Picture: Department of the Environment.



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Scorched bush island rescued



TO RE-ESTABLISH the ecological integrity of a bushland reserve after fire without an invasion of exotic plants such as blackberry is no small challenge, but one successfully met by South Australia's National Trust in the 26-hectare Engelbrook reserve.

Set in the hills near Adelaide, Engelbrook was gifted to the National Trust in the late 1960s.

Fires in 2007 and 2009, one started by a slasher and the other by a lost walker signalling for help, badly damaged Engelbrook's heritage, much of which resides in perched bog and fern

areas along the reserve's creek lines. Restoration needed an expert touch, and that help was found thanks to four years of funding allocated to the project by Holden through Landcare Australia.

The trust's natural heritage officer Janet Pedler said the funding allowed for the hire of "really great contractors" who successfully re-established a native shrub layer without touching off a colonisation of blackberry, gorse or broom, an all-too-likely scenario after the soil of the reserve had been bared by fire.

Bared slopes were stabilised, and significant reduction of fuel that might carry future

fires was achieved over difficult terrain.

However, Ms Pedler – an environmental consultant who has also sat on the state's Landcare committee – said the recovery work went beyond the physical.

When Engelbrook was made a reserve, no-one could foresee that by the early 21st century, the island of bushland would be sitting amid a tide of urbanisation.

Engaging the community around Engelbrook has been a key part of the National Trust's strategy for minimising the scope for future disaster.

The funding helped with the purchase of fauna

No-one could foresee that ... the island of bushland would be sitting amid a tide of urbanisation.

cameras and Anabat recorders, technology which helps give life to the statistical fauna records.

That has led directly to the recruitment of new young volunteers, Ms Pedler said.

The surveys needed to track

the bushland's recovery has produced valuable information on mammals, reptiles, frogs, birds, invertebrates, plants and fungi, which have been logged with the South Australian Museum.

The National Trust of South Australia (NTSA) is capitalising on this sense of renewal through ongoing reports in the press and via social media, with the aim of attracting further interest from volunteers and the public.

A volunteer-led group has started development of a range of NTSA interpretive trail apps for smartphones, and the app for Engelbrook Reserve is first on the list.

LANDCARE BRIEFS

Emissions Reduction Fund

YOU may be familiar with the Australian Government's Carbon Farming Initiative (CFI), which enabled farmers and land managers to generate carbon credits through a range of approved activities that reduced greenhouse gas emissions or sequestered carbon in soil and vegetation. But did you know that the CFI has transitioned into the Emissions Reduction Fund? The fund builds on the CFI, providing ongoing opportunities for farmers and land managers to participate in emission reduction projects, and earn carbon credits, through an even wider range of eligible activities.

There are some important changes to the rules and requirements for participating in the Emissions Reduction Fund compared with the CFI. For more information on the new rules and how you could get involved, visit www.environment.gov.au/emissions-reduction-fund and www.cleanenergyregulator.gov.au/Emissions-Reduction-Fund/.

Farm concessional loans

THE Australian government has concessional loans available for farmers in need of assistance. The Drought Concessional Loans Scheme helps farm businesses recover from and prepare for drought, while farm finance concessional loans help farm businesses, irrespective of their reason for hardship. The Drought Recovery Concessional Loans Scheme will help farm businesses in Queensland and NSW recover from drought and (if relevant) the impacts of the mid-2011 disruption to live cattle exports to Indonesia. The loan types available and loan settings differ in each jurisdiction. For more information, including how to apply, visit agriculture.gov.au/assistance.

Surveys find what's hot and what's not



CSIRO keynote speaker and megatrends expert Dr Stefan Hajkowicz was identified as a highlight by most respondents.

REFLECTING on the past and looking to the future proved to be the most rewarding activities for the 664 delegates who attended the 2014 National Landcare Conference, according to feedback collected by Landcare Australia.

The feedback, now published in an extensive analysis of how the conference and National Landcare Awards were received, also found that in keeping with Landcare history, delegates found the 'community' stream of sessions most satisfying.

Asked about their reception of the conference, 94 per cent said they would apply lessons from the conference in their Landcare work, 90pc got an enthusiasm boost from the Landcare Awards, and 89pc felt the same about the

Landcare Conference.

'Looking at megatrends' by CSIRO Futures Leader Dr Stefan Hajkowicz was the most popular session of the conference, earning a 93pc approval rating from delegates, closely followed by the First 25 years of Landcare panel, featuring Phillip Toyne and Andrew Campbell.

Overall, 88pc of those who responded to the post-conference survey were satisfied or very satisfied with the event, and 90pc expressed satisfaction with the networking opportunities on offer.

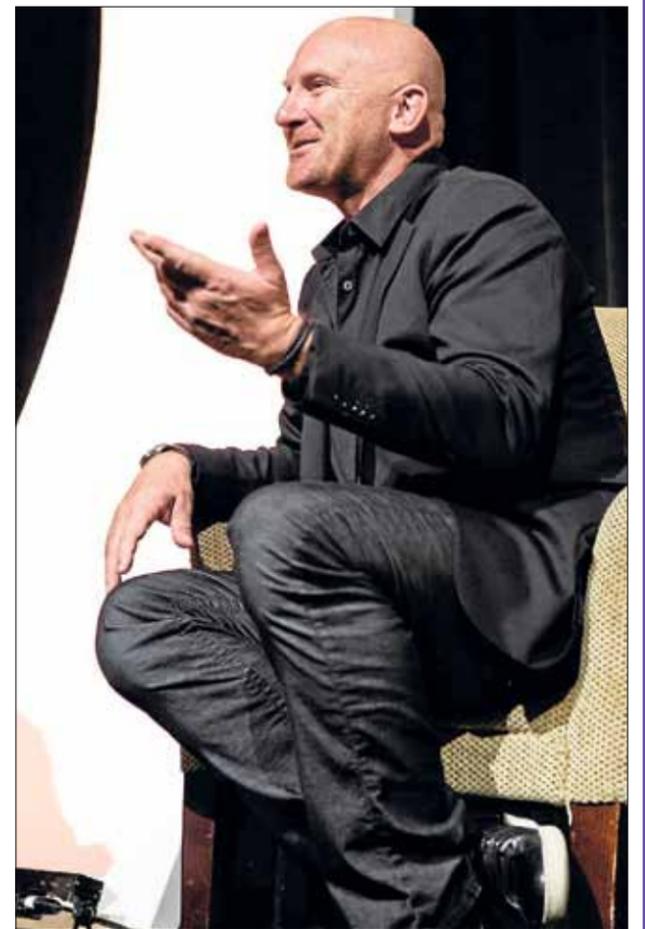
The 13 field trips run on the first day of the conference attracted 331 delegates, with 85pc of those expressing satisfaction with the organisation of the trips at the biennial event (compared with 60pc in 2012), 86pc satisfied

In keeping with Landcare history, delegates found the 'community' stream of sessions most satisfying.

with the range or choice (80pc in 2012), and 90pc satisfied with the relevance (70pc in 2012). In total, 175 abstracts were submitted to the conference (an increase of 23pc on 2012), and 56 were selected as presentations for the 18 sessions in five streams.

The main criticisms of the conference were overpricing and venue.

While nearly two-thirds of



Speaker Matt Moran has the floor.

respondents were satisfied or very satisfied with the venue in Melbourne's Southbank precinct, a significant number of people found it unsuitable for a Landcare conference.

Although the cost of attending the conference remained the same as in 2012, as with the earlier conference, pricing was a source of

criticism.

Suggestions placed by delegates via post-it notes on the 'ideas wall' were recorded in Landcare Australia's evaluation report, which is uploaded at landcareaustralia.com.au, including ideas to offer a range of sustainable foods in 2016, as well as more fruit and vegetarian options.

SIXTEEN schools and community groups from across Australia will be a little greener, less thirsty and growing a lot more fresh local produce this year after a national initiative to support water-related projects.

The Philmac Project was established by Australian manufacturer Philmac, to provide cash grants of up to \$5000 to community organisations in rural and regional Australia.

Now in its third round, the popular scheme received a record number of applications before entries closed in December, with more than 100 organisations submitting ideas to save water and improve water quality in their communities.

A judging panel selected 12 recipients from short-lists determined by public voting.

The panel also awarded four special grants for 2015 as part of a new Bluey Award.

Announcing the recipients, Philmac managing director Mark Nykiel said he was impressed by the number,

Thirsty for water grants

quality and scope of applications received, particularly from smaller and more isolated rural communities. "The Philmac Project is obviously meeting a considerable need for cash to help bring to life often small-scale projects that will make a big difference to local communities and at the same time benefit the environment.

"The latest round of grants will enable more people to learn how to grow fresh fruit and vegetables, create greener spaces for children to play in, and safer playing surfaces for local sporting clubs, and provide clean drinking water for people and livestock.

"These projects will help communities capture rainwater,

reduce water use and maximise water efficiency, and they will also save many hours of labour for over-stretched volunteers. Working with local organisations to make these differences is exactly what we set out to do and more when we established the Philmac Project.

"It is our way of saying thank you to regional and rural communities that have made it possible for us to continue manufacturing in this country. Today Philmac is a global leader in the design and manufacture of specialist fittings and valves for transferring, controlling and applying water, and that would not have been possible without ongoing support from rural and regional Australia, even through



Philmac managing director Mark Nykiel.

tough times." In the Bluey Award, the aim was to broaden opportunities for groups that might be considered 'underdogs' compared organisations that could draw on more supporters in the voting round. The award is named after Philmac's brand ambassador, Bluey, an Australian Blue Heeler.

The Philmac Project will also provide free Philmac products to eight projects this year.

2015 recipients

Queensland: Whitsunday Catchment Landcare Community Nursery, Proserpine, a Bluey Award of \$3000 to install a new irrigation system, as well as Millen Farm at Samford for the same amount to set up an irrigation system; Kin Kin School, \$2000 to install a new rainwater tank and divert grey water

to a kitchen garden; Redlynch State College Parent and Citizens Association, \$1000 worth of Philmac products to install a reticulation system on the school oval.

NSW: Orange East Public School, \$3500 to help water a renovated playground; Parkes Skate Park and Youth Recreational Group, \$1500 to supply drinking water; Canowindra Public School Parents and Citizens Association, \$1000 worth of Philmac products to improve the school's vegetable garden; Dirnaseer Memorial Hall and Community Church, a Bluey Award of \$500 worth of Philmac products to install a watering system.

SA: Curramulka Community Club, \$5000 to install an automated irrigation system at the oval; Nuriootpa Primary School, \$1000 worth of Philmac products to improve the school gardens; Waikerie Men's Shed, a Bluey Award of \$500 in Philmac products to help supply rainwater to its gardens and toilets.

Victoria/Tasmania: Upper Plenty Primary School, \$5000 to establish an aquaponics system and expand the garden program; Okines Community House, Dodges Ferry, \$1000 worth of Philmac products for their community garden; Nhill Agricultural and Pastoral Society and the Hindmarsh Equestrian Club, a special Bluey Award of \$1500 worth of Philmac products to help upgrade and extend watering systems at the Nhill showground.

WA: Paraburdoo Primary School, \$5000 to install a reticulation system on the school oval; Condingup Primary School Parents and Citizens Association, \$1000 worth of Philmac products to help install a reticulated watering system in a new native and edible garden area.

Restoration teaches lessons

ONE OF the nation's largest, longest and most successful river-restoration projects will this year share its hard-earned knowledge with other waterway projects.

The Glenelg River Restoration Project has run over 14 years, helping landholders erect 1725km of riparian fencing (another 68km will go up in 2015), and working on revegetation, weed control, carp management, erosion control, removal of fish barriers and environmental-flow releases.



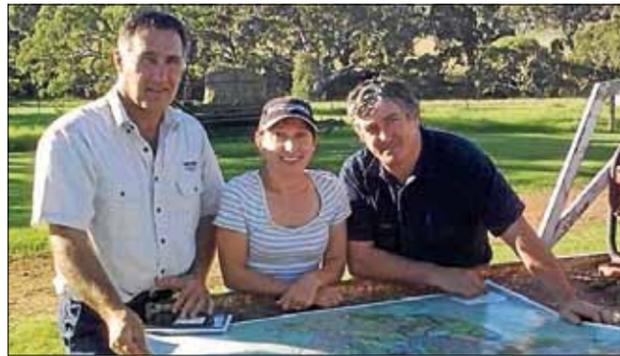
Fencing to prevent stock access to waterways allows riparian and in-stream vegetation to regenerate along the Glenelg River.

This ambitious work program earned the project the Australian Riverprize in 2013. The prize provided funding from the federal government, which has been used to support the Glenelg-Hopkins Catchment Management Authority, local agencies and communities nominating the Glenelg Estuary and adjoining coastal wetlands to the Ramsar Convention on Wetlands of International Importance.

If successful, the listing will raise the profile of this important site and provide greater security for long-term management.

The Riverprize winners are

RIGHT: Glenelg Hopkins CMA senior field services officer Rod Addinsall with landholders Julie and Peter Crowle during the Waterway Action Planning process at Red Cap Creek.



LEFT: Landholder Sam Roberts at his project site in the upper Glenelg catchment.

provided with 'twinning' funding from the International RiverFoundation to share their knowledge and experience by mentoring other organisations to restore their rivers.

The CMA's project will be advertised next month, and will provide a forum for other national resource management groups to connect and establish multiple twinning projects. The program will include a workshop (a

'waterway master class'), where key learnings of some of Australia's best waterway-management projects will be presented and discussed.

The prize stimulated global interest in the Glenelg project, with inquiries coming from across Australia, Asia and Europe.

There has been significant interest from Landcare International, with Landcare Japan recently visiting the

project to take some key learnings back to Japan. There is also interest in the project from Landcare in Uganda.

In September 2014, a Glenelg Hopkins CMA representative spoke in San Francisco at the International Water Association's Specialist Conference on Watershed and River Basin Management, explaining how the planning process for the Glenelg River Restoration Project could be

used as a model for societal engagement and participation in agricultural communities worldwide.

The community's vision is for the Glenelg River to be healthy and more resilient to drought and flooding, and able to support social, economic and environmental values.

Government funding has been provided to 659 landholders through various incentive programs, the most

This ambitious program earned the project the Australian Riverprize in 2013.

significant being through the CMA's Partnership Project – a grants program that covers the costs of materials – as well as Landcare and River Tender.

Social and economic factors are important in fencing and revegetation activities: landholders have access to funding for alternative stock-watering infrastructure and other costs such as stock crossings to minimise impact on farm productivity.

Landholders have reported improved stock management, a reduction in stock losses, improved water quality for stock, and a reduction in OH&S risk to farm employees.

Despite all the hard work and success, more remains to be done. Restoration of a river system can take generations and requires ongoing maintenance.



Drought and rural assistance for farm businesses and families

The Australian Government provides a range of assistance measures to support farm families and farm businesses in hardship.

You may be eligible for Farm Household Allowance, a fortnightly income support payment for farmers and their partners.

There are also a range of concessional loans available to help farmers across Australia manage debt servicing difficulties or who are experiencing drought conditions.

Visit the Department of Agriculture website to view the full range of assistance measures available in your state or territory.

agriculture.gov.au/assistance



Adding to the honour roll heroes

THROUGHOUT much of last year a Landcare Hero Honour Roll was growing online, with Landcare veterans being nominated for at least 25 years' service as part of the silver anniversary celebrations of the movement – with numerous additions in recent weeks and months showcasing the dedication and variety of impressive works undertaken by people dedicated to the cause.

The honour roll, run with funding from the Australian government's Department of Agriculture, has sought to promote, acknowledge and celebrate the contributions of those who have been involved in Landcare for 25 years or more.

Whether they are farmers, members of a local group, still involved as an individual Landcarer or have hung up their weeding gloves, Landcare wants to acknowledge them.

Nominations for the honour roll are now closed but you can relive some of the quarter-century events, information and celebrations via landcarelife.com/25years.

Some recent additions to the honour roll:

Jean Geue

As an advocate of conservation and Landcare in the ACT, **Jean Geue** has waged numerous campaigns in defence of biodiversity, habitat preservation and landscapes in the region.

Jean has been convener of the Friends of Aranda Bushland for two terms, organising regular weed removal and land management working parties with volunteers.

One result of her enthusiasm was the construction of a eucalypt interpretive walk, including signage and brochures, introducing the public to the reserve.

She has also been responsible for organising the



Jean Geue, a dedicated Landcare operator in the ACT.

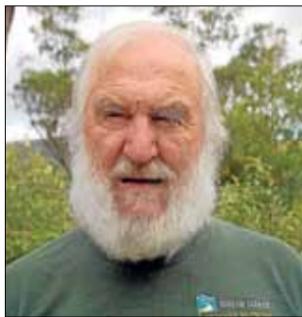
annual Chippendale Wildflower walk on Black Mountain for the past 11 years, an event now running in the ACT for more than 40 years.

Jean has meticulously recorded conservation efforts in the ACT region through thousands of photographs.

Her images and stories are invaluable records and a fabulous resource for other land managers.

Her most recent endeavour is the formation of a Parkcare Group for Black Mountain.

Her contributions are a perfect example of bringing her extensive local knowledge and volunteering experience together for the new group and its members' benefit.



Leon Trembath has been active in various Landcare groups in Victoria.

Leon Trembath

Leon Trembath has been active at every level of Landcare as a member and a leader concerned with conservation, indigenous species and landscape restoration.

He leads by example through his revegetation work on his 34-hectare Gippsland bush property.

Along with his contributions to the Madalya Landcare group since 1997, Leon served as chairman of the Yarram Yarram Landcare Network from 2005 until 2010 and was a member as well as chairman of GippsLandcare, a consortium of the five local Landcare networks in the Gippsland region.

Through Leon's vision, the Jack and Albert River Restoration Project was created. He was instrumental in creating the partnership with the Norman Wettenhall Foundation for this nationally recognised program.

He drove the establishment of the Victorian Landcare Council (VLC) in 2008, to present the interests of community Landcare to various levels of government.

In his role as inaugural

chairman of the VLC, Leon was a catalyst in the birth of the National Landcare Network.

Roger Nield

Roger Nield's landcaring began on his family farm, at Mangalo, in the hills 20km north of Cleve on South Australia's Eyre Peninsula.

More than 40 years, he has served on 19 committees dealing with soil protection and better farm management.

He helped establish the Campoona-Mangalo Soil Conservation Project in 1984, and chaired the Eastern Eyre Peninsula Landcare Management Committee.

Roger was on the state committee that organised the annual Landcare conferences.

The Nield family's contributions have been acknowledged with a state Ibis Award in 1994, state Roundup Landcare Primary Producers Award in 1995, and in 2004 Roger took out the acclaimed National Landcare Award, Individual Landcarer category.

Anne l'Ons

Anne l'Ons is the co-ordinator of the Mt Taylor Park Care Group in the ACT, and has guided the group since its formation in August 1989.

Under Anne's leadership and her guiding philosophy of "remove the weeds and let nature return", the group has removed more than 50,000 woody weeds and hundreds of thousands of annual weeds – and the natives have indeed returned.

The spectacular birdlife and wildflowers on Mt Taylor provide the living legacy of Anne's voluntary park care work over 25 years in partnership with 300-plus volunteers and 60 park rangers. After 100 years of grazing by sheep, the mountain now boasts healthy stands of *Allocasuarina verticillata*, *Exocarpos cupressiformis*, the rare endemic *Acacia penninervis*, natural recruitment of *eucalypt* sp., *Brachychiton populneus* and native grasses such as *Cymbopogon refractus*.

Anne has developed an intimate knowledge of the mountain's ecology. She observes the responses of plants and animals across the seasons, particularly the effects of an increasingly dry climate.



LEFT: Anne l'Ons, co-ordinator of the Mt Taylor Park Care Group in the ACT, shows the younger generation how to remove weeds.

Her great strength is her ability to share her botanical knowledge and gently nurture the learning of others within the group, particularly young people.

Ashley Sewell

Ashley Sewell attended the founding meeting for Barung Landcare in Queensland in April 1989 and subsequently served on the management committee for a decade as Department of Primary Industries/DNR adviser.

In this capacity, Ashley created great interest in farm forestry as an economically viable alternative land use for the Sunshine Coast hinterland.

He founded Maleny's 'From Chainsaw to Fine Furniture' Wood Expo – Barung's main educational and fundraising event. It will run for the 19th time in 2015.

Ashley's passion was to promote sustainable use of native timbers by showcasing the work of local wood artisans.

The first expo in 1996 attracted 3000 visitors. It now attracts more than 10,000 visitors each year and has become a major event in the woodworking calendar.

More than \$300,000 has been raised for Barung Landcare's environmental projects, thanks to Ashley's innovative concept.

He is still involved in the event in an advisory capacity, and most recently led his 'Know Your Timber Trees' Tour from the 2014 Expo.



Gerry Butler has worked with Landcare South Australia for 25 years.

Gerry Butler

Gerry Butler has made a 25-year contribution to driving Landcare initiatives and building the capacity of the community to manage natural resources in South Australia.

Gerry held volunteer

positions in numerous industry and community organisations prior to joining the Upper Torrens Land Management Project (UTLMP) in 1998 as project officer.

Gerry was appointed to the SA Soil Conservation Council in 1993 and participated on many state and national committees. He is a member of the Landcare Australia Advisory Council.

Throughout his career Gerry has been involved in the co-ordination of hands-on activities to address on-farm natural resource management issues by working with individual landholders and other stakeholders.

In his 16-year role with UTLMP, he initially worked with 25 local farmers and stakeholders on a pilot project over an area of 3500 hectares, which expanded to 20,000 hectares working with 35 landholders each year.

Recently he led the renewal of the Landcare Association of SA (LASA), with the aim of reinvigorating Landcare in SA, and is currently the chairman of the association.

Under his leadership, LASA convened the 2013 SA Landcare Conference.

Gerry continues to play a leadership role in the Landcare movement at a state and national level.

Nigel Gellar

Nigel Gellar has been senior ranger co-ordinator for Warddeken Land Management for 11 years. He is a Rembarrnga man from Central Arnhem Land.

Nigel worked as a research assistant with CSIRO in the 1970s (looking at impacts of feral rats and buffalo damage on freshwater systems) and a ranger for Kakadu National Park (early fire management projects) before coming to Kabulwarnamyo to mentor the Warddeken rangers.

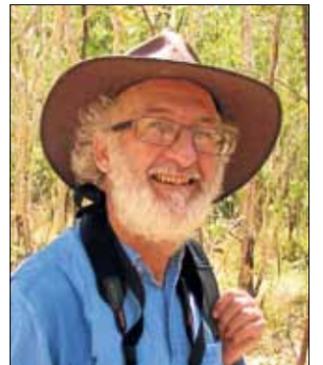
He brings a depth of knowledge, indigenous and Western, to his position as senior ranger co-ordinator and has played an enormously valuable role in landcare in Arnhem Land, in particular fire management programs.

He is passionate about "showing young fellas how to do it properly" and has been an exemplary mentor to dozens of young rangers.

He leads by example, not asking others to do more than he'll do himself.

Nigel has represented the award-winning western Arnhem Land fire abatement project at an international wildfire conference in South Africa, shared fire management knowledge with village chiefs in Namibia and spoken at conferences across Australia about indigenous land management.

He inspires all those who work with him.



Michael Mulvaney of the ACT's Red Hill Regenerators Park Care group.

Michael Mulvaney

Michael Mulvaney has led the efforts of the Red Hill Regenerators Park Care group for the past 25 years.

He has been instrumental getting the local community interested in the natural ecosystems of Red Hill, and he leads one of the most active and productive park care groups in the ACT.

The group has invested many thousands of hours into the restoration of Red Hill's diverse grassy woodland habitat, much of it endangered yellow box and Blakely's red gum woodland.

Of particular note has been the group's stewardship of Red Hill's nationally endangered button wrinklewort habitat.

Michael continues to be a very active member of the group and an inspiration to many within the ACT Landcare network.

His ability to communicate complex ecological concepts to a variety of audiences has inspired many young people to get out and enjoy the Canberra bushland, and many others to pursue a career in land management and conservation.

Bringing high-flyers back down to earth



Robin Craig of the Jaramas Foundation and her sons visit one of their projects being funded this year in NSW.

Advancing core environment goals

THANKS to the founders of a civil-engineering company, 17 Landcare projects throughout NSW have had a combined injection of \$400,000 since 2012 to advance their goals.

After they formed engineering company Abergeldie, Michael Boyle and Robin Craig decided to donate a portion of the profits to issues demanding attention, such as refugees, environmental sustainability and education.

In 2012 the couple's Jaramas Foundation, the vehicle through which they conduct their philanthropic work, established a partnership with Landcare Australia.

The result: Six projects funded in 2012, four projects funded in 2013 and seven projects funded in 2014.

The projects had an emphasis on sustainable farming, such as Holbrook Landcare Network's 'Use it or Lose it - Targeted Nutrient Management'.

"Holbrook Landcare Network had found that farmers were not matching their nutrient inputs to landscape capability and farm-system usage, at a cost to productivity, profitability and the environment.

"This could be greatly improved by nutrients based on soil sampling and analyses."

The project goal: Use proven methods to support farmers to change their fertiliser practices. Farmers are being helped to better

understand their land capability, the level at which they can operate within that capability, and how to match nutrient inputs to their desired level of output.

The Holbrook project has been so successful that it received funding to continue this financial year, with an additional 58 farmers participating in co-ordinated soil testing. Since 2013, a total of 125 farmers have participated in co-ordinated soil testing after being trained in soil-sampling methods.

Samples from 902 sites have been analysed and returned to farmers, to guide their fertiliser application decisions over coming years.

Based out of Condobolin, Central West Farming Systems (CWFS) ran a project that started in 2013, 'Soil Nutrient and Carbon Investigations for Better Management in Drier Cropping Zones', to help develop farmer confidence through capacity building to adopt sustainable farming practices and manage profitability and risk.

The funding helped CWFS buy a soil corer to collect deep soil samples more accurately and efficiently. CWFS ran a range of successful projects across the central west and had previously relied on a borrowed hydraulic soil-sampling machine. They found the corer extremely valuable for monitoring soil-health parameters around changes in water-use efficiency and organic carbon on farms.

ASSOCIATING with Landcare provides corporations with more than just a warm, fuzzy feeling, in the experience of Graham Jennings.

The former head of Westpac Agribusiness and a current Landcare Australia board member says that corporate social responsibility programs that encourage staff to volunteer as hands-on contributors to Landcare projects help make high-flying thinking about the environment more down to earth.

"In my experience with Westpac, there was a lot of value in working with Landcare and helping our people connect to the idea of caring for land and water," he said.

"The corporation is committed and giving to a worthwhile cause; there is a benefit to the staff because they can see real-life examples of how the corporation is involved; and they can connect right down to being part of programs themselves.

"And obviously the Landcare brand is very well recognised, and there is a brand benefit to the corporate."

The associations extend beyond the Landcare community into government.

"You get to be involved with things that the ministers are also involved in, so you get to understand what they are trying to do. Landcare is a vehicle for bringing governments, communities and corporates together."

An example: Floating Landcare, a Landcare adventure conservation program that took out the Environmental Protection Award at the 2014 Keep Australia Beautiful NSW Clean Beaches Awards.

Floating Landcare involves Greater Sydney Local Land Services, Landcare Australia, National Parks and Wildlife Service, and a number of local



ABOVE: Landcare Australia board member Graham Jennings volunteers at the Middle Head corporate challenge in 2014.



LEFT: A Westpac employee enjoys the view at a corporate environmental volunteering day reinvigorating Sydney's Middle Head.

councils in bringing together volunteers and corporate teams to clean up areas of the Hawkesbury estuary only accessible by boat.

Landcare Australia has helped bring \$7000 of corporate sponsorship to the program, which is otherwise referred to as Workers on Water. The 33 Floating Landcare events have removed 3.5 tonnes of marine litter, regenerated 2.5 hectares of native bushland, and engaged 200 volunteers who contributed the equivalent of \$66,000 of labour.

To sustain and strengthen these mutually beneficial associations, Mr Jennings says that Landcare needs to continually work on defining its priorities in order to provide a clear sense of value to those who would be benefactors.

"Landcare Australia has

been very clear on what its purpose is. It needs to continue with that purpose - but having said that, it needs to prioritise where it can best make a difference."

Junior Landcare, which instils an ethic of caring for the land in schoolchildren, is a self-evident priority, Mr Jennings says.

"That really is the future. Sustainable agriculture has developed a lot over the past decade, right down into soil science and farming techniques. Landcare needs to be engaged with that."

"And Landcare still has an important role in binding the community groups and community effort, where it all started."

Within these areas - and any others that the movement regards as core to its identity - Mr Jennings suggests that

Landcare is a vehicle for bringing governments, communities and corporates together.

Landcare finds a way "to drill in and add value".

"It's about prioritisation of where we can make a difference, so that Landcare builds programs around those areas that make it easy for people and corporates to connect."

While there is scope for clarifying Landcare's identity, Mr Jennings thinks the movement could also be the vehicle for some "thought leadership" on landscape management on a continental scale.

"Wouldn't it be fantastic if Australia had a landscape-management plan?"

Jemena brings energy to customers and communities across eastern Australia

Jemena has an electricity network that supplies over 320,000 customers in north west Melbourne. Jemena's Eastern Gas Pipeline brings gas from Bass Strait to the major distribution network supplying gas to 1.2 million customers in Sydney and regional NSW. Further north, Jemena's Queensland Gas Pipeline transports gas from Roma to major industrial customers in Rockhampton and Gladstone.

Over the past seven years, Jemena has partnered with Landcare Australia to help local communities care for the environment.

This year Jemena, with Landcare Australia, is once again jointly hosting its popular free Melbourne event; **Live.Grow.Explore Community Day** on **Sunday 15 March 2015**.
Details: jemena.com.au or landcareaustralia.com.au

<< Jemena volunteers at Woodlands Historic Park, Greenvale, Vic



Green patch a plus for students

KELLYVILLE Public School in NSW has for some time been involved in teaching its students about native plants and growing food, so when the opportunity arose to get a turf makeover, its EnviroKids group was on hand to share their achievements.

Kellyville Public has a vegetable patch as well as an Aboriginal garden with native

plants, and has implemented programs such as Clean-up Kellyville Week, worm farms and recycled water through its five tanks.

Kellyville Public is one of 10 schools that have been rolling out "perfect pitches of green", courtesy of an alliance between Junior Landcare and Turf Australia to encourage kids to get outdoors and engender an interest in the



Kellyville Public students enjoy the donated grass as part of the school program's successful application for a Turf Australia Perfect Pitch of Green grant.

natural environment.

The most recent initiative with the representative body for the turf industry, inspired by the 2014 FIFA World Cup, offered 10 schools or youth groups a natural grass makeover to update sports areas, enhance outdoor learning areas or create more spaces for play.

By greening up schools and play spaces, the health and wellbeing of Australian children benefits.

Turf Australia has donated turf to each recipient to cover an area of up to 200 square metres. This is slightly bigger than the goal mouth of a

By greening up schools and play spaces, the health and wellbeing of Australian children benefits.

standard sporting field.

Kellyville Public School, NSW, rolled out its own Perfect Pitch of Green with valuable assistance from others. Supporters included Kennards Hire, which inspected the site, advised on the machinery necessary for

excavation and provided a backhoe for the job; Michael Muscat at Green Life Turf who supplied the turf; Baulkham Hills Landscape which delivered 31 tonnes of soil mixed with fertiliser, and a local plumber who advised on the sprinkler system.

The day chosen to roll out the turf was 35C. Working quickly in the heat, with students helping to level the turf, parents and supporters got the area laid in two hours.

The sprinkler system was switched on, and the turf area began its life as a new play area for the students at Kellyville Public.

Touchy, feely soil test tells the story

TOUCH, smell, look are time-honoured, simple techniques for assessing soil properties, but methods that Yarra Valley Equestrian Landcare Group think are worth teaching again.

The group's recent Save with Soils day was designed to show people how simple management and observation systems can improve soil which, in turn, improves pasture, reduces the need for herbicides and fertilisers, and potentially could reduce the cost of feeding livestock.

Visitors to the event in Victoria's Yarra Valley in the Dandenongs were shown how grass root depth varies across paddocks, and how that affects water infiltration. They were asked to touch and feel various soil types and compare the samples provided. They then discussed properties of the samples, building an understanding of soil compositions and best management practices for that soil type.

A pH kit was used to assess acidity levels of different soil samples, which led to a discussion of what would comfortably grow in different pH levels.

With about 20 people attending the event, and presenter Chris Alenson fielding lots of discussion and questions, the aim of re-introducing the community to the medium for all life was declared a success.

The Save with Soils day was funded by one of 25 Landcare Week Grow Grants awarded by Landcare Australia last year as part of its 25th anniversary celebrations. The aim of the grants was to support events seeking to attract volunteers to the grassroots movement.

Read about other Grow Grants via landcareaustralia.com.au. Keep up-to-date about opportunities and stay informed by subscribing to the monthly e-newsletter on the website or follow Landcare Australia on Facebook or LandcareAust on Twitter.

Irregular army takes on Dubbo parkland

DUBBO'S defining feature, the Macquarie River, has been "blitzed" in a well-planned operation over two days, illustrating how business can connect with the bush by helping volunteers look after their landscapes or waterways in rural and regional areas – sometimes seen as the poor cousin for corporations wanting to connect with communities.

Operation River Guerrillas successfully launched an assault on the city's riverine environment to clean up weeds and improve the amenity of the riparian zone last year.

Organised by Dubbo Macquarie River Bushcare Group, the operation 'gamed' the often tedious business of weeding, pitting three corporate teams against each other in a two-hour challenge to see which could get rid of the most castor oil and thorn apple bush.



LEFT: The River Guerrillas group.

About 1600 square metres of weeds were eliminated. "It was wonderful to see

the difference we could make in a few short hours," said the group's spokeswoman

Danielle Littlewood. "We absolutely smashed it." The teams, involving 25

people, were from Central West Local Land Service, Dubbo City Council and NSW Department of Primary Industries.

The Department of Primary Industries was awarded the prize for the greatest team effort, earning a coffee and cake voucher from Sticks and Stones and tickets from the Dubbo Regional Theatre.

Chris Robinson from Central West Local Land Service won the award for "best dressed" participant and took away wine donated by Dan Murphy's.

On the second day, the River Guerrillas took about 20 community members into Rotary Park for a blitz on weeds and a mulching of the garden areas.



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Landcare in schools this year

LAUNCESTON'S Youngtown Primary School has inspired the Landcare Australia-supported teaching unit The Magic of Growing – designed to show students their actions have a tangible impact on the world and incorporate playful outdoor activities with learning in the classroom.

While primary school students can now learn through a new program that their actions have meaning, they are also building a sense of belonging to a place, with learning not confined to four walls.

These concepts are being made available to teachers through an Australian-first initiative: Landcare in the Curriculum – educational resources created through a partnership with the Primary Industries Education Foundation (PIEF) and with seed funding from the Australian Government. Youngtown's program, developed by Mario Bergamin,



Youngtown Primary students busy at work on their cards.

is built around compassion. It provides a full lesson in a teaching and learning sequence where children grow daffodils and iris plants in the school garden and then deliver them to residents of Tasmania's

Glenara Lakes Retirement Village and City Mission during Seniors' Week as a way of further learning and demonstrating their understanding of social and emotional wellbeing.

The whole school community, through key questions based on the Australian Curriculum, is able to investigate an environmental issue in a local context and make links

Such investigations might include monitoring, examining, problem solving.

through curriculum "inquiry questions" to global issues. These issues are in turn linked to the foundational year 6 curriculum subjects of science, health and PE.

Such investigations might include monitoring, examining, problem solving, investigation, or modelling a solution. This directly impacts on children, teaching staff, community members and volunteers before, during and after the project. The emphasis is on starting small and thinking big.

Rather than just go through the motions, the unit inspires children to appreciate the

"magic of growing", and the "magic of giving". They are asked to document the whole process and to be able to discuss its outcomes.

The Magic of Growing lesson is one of the Junior Landcare resources developed to bridge the gap between formal involvement in food gardens, which comprise a majority of schools, and linkages with lessons in the classroom to help children better understand where their food comes from.

The one-page How To Guides and full teaching and learning sequences also encourage greater participation in Landcare activities such as enhancing natural habitats, sustainable gardening and building a closer connection with the land. Landcare in the Curriculum resources are initially aimed at primary schools and cover subjects for students from kindy to year 6.

● The resources can be downloaded at juniorlandcare.com.au/curriculumresources.

General talks up soil

IT'S not surprising that the national Advocate for Soil Health should be urging more focus on the soil.

What is striking about Major General Michael Jeffery's address to the National Soil Science Conference in Melbourne late last year was the urgency of his appeal.

"We face 'a very serious problem,'" he said, "because by 2050 we have to somehow increase global food production by 70 per cent, against some notable countertrends". He listed these as:

- The area of agricultural land is reducing on average by around 1 per cent each year.
- Soils are likely to be increasingly degraded, eroded or aridified.
- There will be substantially less water for agriculture, particularly in India, China, Africa and the Middle East, where irrigation water is being drawn from fossil aquifers formed over geological time and virtually irreplaceable in human timeframes.
- Farming costs will rise with higher fossil fuel prices.

- R&D funds are likely to be inadequate.
- Climate change could deliver more severe droughts, bigger floods and hotter, more extreme wild fires.

"The need to do more with less, to increase the efficiency of our food production systems, while at the same time ensuring that we are using our valuable natural resources in a sustainable way, must remain a primary objective," Mr Jeffery said. Australia had a major role to play in meeting these challenges, and a focus on good soil, water and biota science was "the right place to start".

He said a national soil research and development strategy within a national policy framework of "restoring and maintaining a resilient landscape that is fit for purpose" would be welcome.

"To do this we have to look to successfully integrating the management of our soil, hydrology and biota. Each is dependent on the good health of the other two, but I don't often hear of it being expressed in this way.

"If our soil, water and biota are therefore so important, then I think we need to consider designating each as key national, natural, strategic assets, to be managed as such and in an integrated way.

"I would like to see this fundamental principle accepted across the country.

"Further, in noting that our 130,000 farmers and graziers manage over 60 per cent of our landscape, if we want it looked after properly on a sustainable basis, besides rewarding them fairly for their produce (which is a separate question in itself), should we not be rewarding or recognising them in some way as primary carers of the agricultural landscape?"

Mr Jeffery proposed two areas to tackle in the next generation of land management science.

"The first is to consider whether a national stocktake is necessary of what our knowledge base is, where it is located, and what our shortfalls are.

"From there would flow obvious priorities in meeting



General Jeffrey with postgraduate researcher Paul Harvey of Macquarie University's Vegesafe program, at the launch of Landcare in the curriculum recently.

knowledge shortfall gaps.

"And finally in broad terms, should we have in this country a suitable national data collection, collation, analysis and distribution system that is easily understood, readily accessible and responsive to user information needs?"

He said the development of this information base was important as it was the only way to measure long-term

changes in the landscape.

"This requirement for continuous collection of key data might be resource intensive but must be met," he said.

The declaration by the 68th UN General Assembly for 2015 as the International Year of Soils was timely, he said.

"The timing is right for a renewed focus on smart and sustainable soil management ... for Australia to stand up and

lead, recognising that good soil management underpins a sustainable and profitable future for all.

I would like to finish with two quotes from Franklin Roosevelt: 'The history of every nation is eventually written in the way in which it cares for its soil', and 'A nation that destroys its soil, destroys itself', and perhaps my own quote – 'save the soil to save the planet'."

NOW OPEN!

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Registrations are now open at www.juniorlandcarechallenge.com.au

Yates Junior Landcare Challenge
Winter Vegie Growing Journey



THE annual Bushcare's Major Day Out has exploded in popularity, uniting both city and country people in a quest to improve and maintain bushland across Australia.

Bushcare's Major Day Out (BMDO) was launched in 2010 to raise awareness of the threats to bushland and its biodiversity, and to entice more volunteers to participate in bushcare activities.

From small beginnings with just 12 sites, BMDO has grown rapidly to 237 sites in six states and the ACT in 2014.

This year BMDO will be held on Sunday, September 13, and the first site has already been registered – Ku-ring-gai Chase National Park in NSW.

BMDO is held as a key part of Landcare Week, supported by partner Landcare Australia in its aim to be the Major Day Out for bush and city folk alike.

Sydney resident Don Wilson and his wife Marianne dreamt up the idea for BMDO.

They worked in a local Bushcare group and believed more attention needed to be given to preserving bushland in urban and semi-urban areas.

Don gained the backing of Willoughby City Council, Landcare Australia and a volunteer committee to create this national event.

He also secured the support of personalities such as former prime minister Bob Hawke and Gardening Australia's Costa Georgiadis and Angus Stewart.

BMDO gives a helping hand to bush regeneration and habitat revival in city and country areas.

Volunteers take part in different activities depending on the site including walks, planting, weed removal and morning teas. Some events coincide with local celebrations such as the Eltham Copper Butterfly Festival in Melbourne.

Bushcare's day out aims for a record



Sedge-planting during Bushcare's Major Day Out last year.

"We encourage everyone with an interest caring for our bushland to find their local site and volunteer on the day in September," Don said. "Most importantly, we hope you keep coming back to help regenerate your local bushland."

While BMDO is now putting Bushcare's activities on the map, the seeds for the first Bushcare groups were sown back in the sixties by two Sydney sisters, Eileen and Joan

We encourage everyone with an interest caring for our bushland to find their local site and volunteer on the day in September.

Bradley. They were keen gardeners and loved bushwalking in Ashton Park and Bradley's Head.

However, they became distressed to observe the blue-wren population plummet.

They concluded that minute quantities of organochlorides from the use of chlorodiphenyltrichloroethane (DDT) were causing sterility in the birds.

The sisters also became

aware that the local council and other government authorities were exacerbating the encroaching weed problem with slash-and-burn methods of remediation. They painstakingly formulated techniques for dealing with weeds in bushland remnants.

According to BMDO vice-president Pam Organ, the Bradley sisters were the first in the world to advocate hand weeding and minimum

disturbance. Their new line of thinking was to slowly work out from weed-free areas, allowing the native seedbank to regenerate naturally and colonise the bushland.

However, this meticulous method needed many willing hands. Joan approached the primary school in Clifton Gardens and enlisted "gardening mothers".

"I was one of those recruited in 1964 by an eloquently persuasive Joan," said Pam. "We were allotted a particular weedy area and, with a strong knife our only weapon, we were each instructed to remove one type of weed only."

"We felt equally useful and useless, but this basic training heightened our interest in bush gardening and forged lifelong friendships."

Around the same time, the Mosman Parklands and Ashton Park Association formed to oppose Taronga Zoo using part of Ashton Park for a car park. This group supported Joan and Eileen in their efforts to preserve local bushland.

Joan published *Weeds and their Control* in 1967 and *Bush Regeneration* in 1971. During the 70s, the Bradley Method was accepted as a valuable contribution to bushland preservation and was adopted by the National Trust.

There are now thousands of Bushcare groups around Australia. BMDO is an annual opportunity to celebrate their achievements and encourage more Australians to get involved.

Volunteers at the 2015 Ku-ring-gai Chase National Park event will take part in an adventurous weeding trek.

The National Parks and Wildlife Service will supervise Lantana removal from the rocky crags along the water edge. Volunteers must have a head for heights!

● To register your local site, visit www.bushcaresmajordayout.org

Peel-Harvey resource management body set up

THE federal government has delivered on its election commitment to establish the Peel-Harvey Catchment Council as one of Australia's natural resource management organisations.

Federal Environment Minister Greg Hunt and the federal MP for Canning, Don Randall, made the announcement last month while visiting the Peel-Harvey Catchment Council.

There are now 56 natural resource management organisations across the country. These groups play an important role in the delivery of the National Landcare Programme and enable communities to take practical action to improve their environment and contribute to a strong, competitive and resilient agriculture sector.

"In 2014-15 the Australian Government committed \$500,000 under the National Landcare Programme to support the Peel-Harvey Catchment Council to protect unique wildlife and habitat in the Peel-Harvey catchment,"



LEFT: PHCC CEO Jane O'Malley, chairwoman Jan Star, Environment Minister Greg Hunt and Canning MP Don Randall during the minister's visit late in January.

Mr Hunt said. "This work is well underway with the Peel-Harvey natural resource management strategy to be finalised in the coming months."

"The government welcomes the application from the Peel-Harvey Catchment Council for \$3.8 million over four years to protect wildlife and habitats in

the Peel-Harvey region.

"I expect funding arrangements to be finalised shortly and look forward to working with the council to deliver on these important objectives. The natural resource values of the Peel-Harvey region and environmental pressures on the area warrant its creation as a stand-alone region with its

own dedicated management body."

Mr Randall welcomed the establishment of a dedicated body for the region and said there was enthusiastic support from both the local community and the landcare sector for the new organisation.

"The South West Catchments Council and WA

NRM (the group representing natural resource management organisations in Western Australia) have also been actively involved in supporting the establishment of the region," he said.

"I thank all of those involved for their commitment in ensuring the Peel-Harvey region's unique environment will be better

managed, thanks to the establishment of this new natural resource management body.

"Environmental and natural resource issues in the Peel-Harvey are many and complex.

"There are big issues here and they need big solutions. I'm confident the newly established Peel-Harvey natural resource management body is best placed to find these solutions."

Mr Hunt congratulated and thanked Mr Randall for his tireless commitment to the Peel-Harvey Catchment.

"Don Randall is a fantastic local member and has fought hard to establish Peel-Harvey Catchment Council as one of Australia's natural resource management organisations.

"This is great news for people in the electorate of Canning."

● www.nrm.gov.au

Running a fun way to support a great cause

IN AN environment of tight budgets, Landcare Australia and other not-for-profit organisations are increasingly looking to inventive ways to raise funds – with leisure pursuits such as running events a popular way to get people involved while having fun.

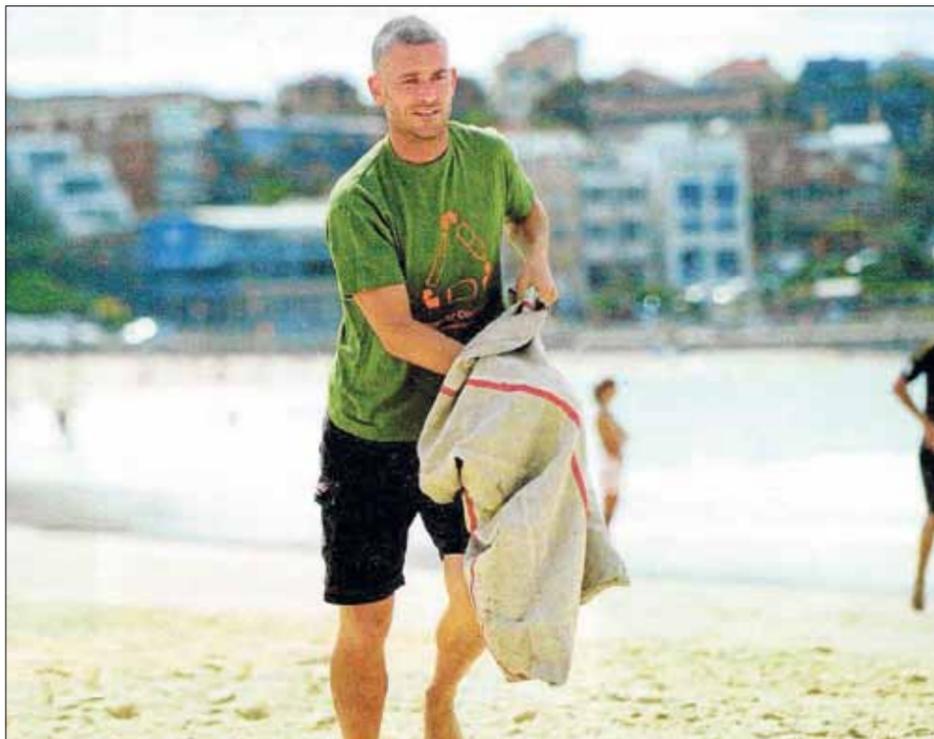
About 2500 charities in Australia have a program for runners to raise funds for a cause and it is getting more competitive.

Landcare Australia, which recently appointed its first fundraising manager, says that for people who are thinking of participating in a local running race or wanting to challenge themselves perhaps by running a marathon this year, opting to

run for a charity is a fantastically rewarding experience: "Why not consider running and raising funds for Landcare Australia to help us support vital Landcare work," Landcare Australia CEO Tessa Jakszewicz says.

"Running just for running's sake may not be enough of a reason for some people to take on a race event such as a marathon. You may look at the challenge and think: 'What's the purpose of participating other than getting to the finish line?' But having a reason of raising funds can get you motivated to take part in a running race."

She says raising money for Landcare Australia will not only support the charity's role in protecting and improving



LEFT: Responsible Runners founder Justin Bonsey picking up rubbish at Sydney's Bondi Beach.

Australia's land and water generally, but it means more of the great projects that receive grants each year from the organisation – helping

innovative farming programs, community gardens, bush and beach care and hundreds more. Details are at landcareonline.com.au/case-studies.

You can now set up a fundraising page through Everyday Hero (www.everydayhero.com.au) or Go Fundraise (www.gofundraise.com.au) and raise funds to help Landcare Australia support the Landcare community.

There are a number of races throughout Australia to participate in such as the Orange Colour City Running Festival (NSW), Greenbelt Half Marathon (South Australia), Sydney Morning Herald Half Marathon (NSW) or City to Sea (Vic). In any race you participate in throughout Australia, you can make a difference.

When you register through Everyday Hero or Go Fundraise, Landcare Australia can help you develop your own fundraising plan and explain how to go about raising funds.

For further information about setting up your fundraising page or for help to create an event to raise funds for Landcare Australia, please contact fundraising manager Rob Novotny via rob.novotny@landcareaustralia.com.au or phone toll-free on 1800 151 105.

Dairy turns its waste to asset

IT IS said 'nature has no waste' but the same observation couldn't be applied to most dairies.

That's changing, one dairy at a time, as Lion partners its dairy farmers by allocating funds through Landcare Australia to address energy consumption, nutrient management or biodiversity challenges.

Last year Lion allocated \$132,000 to the Lion Landcare Grant fund, for 13 initiatives around Australia and the reports are now coming in, demonstrating that going green can also put the budget in the black.

Kenilworth, Queensland, dairy farmer Darrin Grevett received funding to help him concrete his main yard, including a dirt-floored feed pad. That simple project has made a huge difference to the operation of the dairy.

The original yard was a management nightmare for Mr Grevett.

When it rained, the pad turned to mud, and manure ran off into surrounding paddocks.



LEFT: Manure stockpile ready to spread at River Ridge Dairies.

Scraping manure from the yard took up to four hours, and the job was never done satisfactorily.

With support of about

\$20,000 from Lion, Mr Grevett was able to concrete the yard and make a profound difference to his business.

"We've seen a lift in

production," he reported. "I put this down to cow comfort and better access to brewer's grain (on the feed pad). "They spend more time in the paddock."

Scraping the yard now takes 10 minutes, can be done in all weather, and is 100 per cent effective.

Mr Grevett is stockpiling the scraped manure into a compost pile that will be used to fertilise his pastures.

"What was once a waste product is now an input to the farm," he said.

The cleaner environment reduces the risk of mastitis, and thus vet bills, and cows flow through the yards better because of the absence of mud.

A neighbouring dairy farmer has already come to look at the Lion-Landcare funded work, and is considering taking the same path himself.

Another Queensland dairy farmer, Ramon Devere of River Ridge Dairies, Kureelpa, also received funding from Lion to help increase the capacity of a planned silt trap at his yard.

The silt trap captures and recycles the larger amounts of

Importantly, these farmers are measuring the tangible improvements achieved.

nutrients in runoff manure and water from the concrete yards, laneways and feed pad area around the dairy.

Murray Jeffrey, Lion's Head of agricultural procurement, said it was a great result to see the grants helping dairy farmers achieve both sustainability outcomes and cost savings.

Landcare Australia chief executive Tessa Jakszewicz added that innovative farming contributed to the health of the land while improving farmers' bottom lines.

"Importantly, these farmers are measuring the tangible improvements achieved by their projects, which can be shared with others."



coles SUPPORTING SCHOOL GARDENS

Coles has supported schools and community youth groups around Australia by providing almost 2,000 Coles Junior Landcare Garden Grants since 2008.

THE 2015 GRANTS ARE NOW OPEN!

To find out more about how you can be part of the program, visit www.juniorlandcare.com.au

Station shows sustainable way



Lakefield Station vegetation management in 2007.



Flying Fox Wetlands – the first Territory Conservation Agreement (300ha) site on Lakefield Station in 2011.



A frillneck lizard from the Flying Fox Wetlands.



Garry, Kirra, now 13 and Chelsea, 16, Michele Riggs and former NRM co-ordinator James Wright.



A possum sinkhole.

YEARS of shrewd thinking about how to better produce beef cattle while protecting the environment last year won Garry and Michelle Riggs a National Landcare Award. They have by no means finished their work.

The Riggs bought the 60,000 hectare Lakefield Station in the Katherine region in 1999. It had fences on only two boundaries, two bore holes without pumping gear, and not much else.

The strategic development the couple have undertaken earned them the 2014 Australian Government Innovation in Sustainable Farm Practices award.

Mr Riggs approached Lakefield's development backed by a lifetime managing NT/WA pastoral properties as well as being active in the Roper River Landcare Group from 1994, while managing Mataranka Station – part of Charles Darwin University's



Pelicans on Lake Duggan, now set up as a Landcare project on Lakefield and protected under Territory Conservation Agreement.

Katherine Rural College. He was encouraged to improve livestock management and enhance care for the land.

Much of the focus was on water, so protecting wetlands as a vital water source and habitat for native species and reducing cattle impacts on surrounding terrain was crucial.

Mr Riggs says cattle perform better with ready access to clean, fresh water. Today, Lakefield has seven bores and 52 dams to harvest water, but they are all fenced. Water is pumped to tanks with solar and supplied to cattle in

troughs. Developing more water points and so preserving the wetlands that gave Lakefield its name, has been much more achievable with access to affordable, quality solar installations that can be put together on site.

On about 90 per cent of the property, stock are never more than about 3 kilometres from clean water, which means it takes less energy for cattle to get their daily drink, and that pasture is more evenly utilised – a productivity gain aided by 400km of fencing to aid mob management.

There is also rotational fire management and planned paddock rotation where six paddocks are spelled in the wet season and eight in the dry.

Rather than fence the lakes into a single paddock and let cattle trample their riparian zones, Mr Riggs decided to fence the waterways and pump water from them to tanks to service several paddocks.

Aerial mustering can be kept to a minimum in the first round and not required at all in the second, with stock trapped into watering squares and then into lanes. The cattle can be

We've put in more than 250 soil contour banks, so water doesn't rush along roads.

moved easily, steadily or stood overnight if needed with lanes adjoining all paddocks.

To minimise sediment run-off into waterways, Lakefield also engaged in major works to stop sediment wash from its 250km of roads.

"We've put in more than 250 soil contour banks, so water doesn't rush along roads," Mr Riggs said. "Runoff moves off gently into silt traps that catch all the sediment, and the water then disperses into grass."

Mr Riggs has been involved with the NT Department of Primary Industries and Forestry

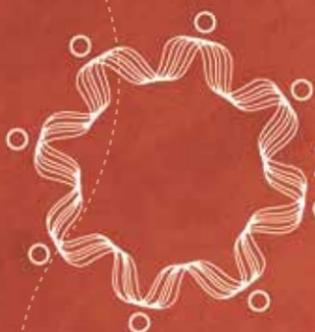
and a global animal health company in a paddock trial supporting the development of the polled gene marker test.

He aims to continually improve herd productivity so he can reduce grazing pressure.

Through careful genetic selection, controlled mating and monitoring of breeder performance, the Riggs have increased the fertility of their predominantly Brahman breeding herd from 55 to 60 per cent calving rates to "consistently in the late '70s".

Mr Riggs is using prizemoney from the National Landcare Award to initiate a tertiary scholarship for Northern Territory students studying Environmental Science, Natural Resource Management, Rangeland Management and related areas.

"For us, this recognition was over a decade in the making and it in no way would have been possible without the help and support of many people," he said.



2015 STATE & TERRITORY LANDCARE AWARDS

NOMINATIONS OPENING SOON!

If you or someone you know is working to protect or restore your local environment, farm, coastline, bushland, wetland, school, catchment or backyard, see Landcare Australia's website for more details when entries open on 23 March.