



**February 2015 Edition 21**

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**Latest news from the REC**

- The NSW Landcare Gateway provides information about and resources for Landcare groups and other NRM organisations. The REC has updated its information on the NSW Landcare Gateway and this can be accessed at <http://www.landcare.nsw.gov.au/groups/nsw-roadside-environment-committee>
- The REC now has a presence on social media. 'Like' the REC on Facebook at <https://www.facebook.com/nswrec> and 'follow' the REC on Twitter @NSWREC

**NSW Roadside Environmental Management Award winners announced**



The Excellence in the Environment Awards recognise outstanding achievements by Local Government in NSW in managing and protecting the environment. The Awards include a Roadside Environmental Management Award, sponsored by the REC. This Award recognises excellence and innovation in roadside environmental management planning and implementation.

The award incorporates, but is not limited to:

- Assessment of roadside environments.
- Preparation of roadside vegetation management plans or similar.
- Implementation of roadside vegetation management plans or similar e.g. through staff/contactor training, community education, demonstrated integration with other council planning.
- Monitoring and evaluation of roadside vegetation management plans or similar.

The 2014 Awards were presented at a ceremony at UTS Aerial Function Centre, Sydney on Tuesday 2 December 2014. The winners of the Roadside Environmental Management Award were:

- Winner – Division A Glen Innes Severn Council  
*Restoration of Medium and High Conservation Value Road Corridors*
- Winner – Division B Kempsey Shire Council  
*Rehabilitation and weeding specific priority Kempsey Roads*
- Highly Commended – Division C Sutherland Shire Council  
*Green Streets - Realising the biodiversity value of roadsides across Sutherland Shire*
- Highly Commended – Division C Central West Region – 10 Councils: Bathurst, Blayney, Cabonne, Dubbo, Gilgandra, Mid-Western, Orange, Parkes, Warrumbungle and Wellington  
*Central West Councils Salinity & Water Quality Alliance Roadside Vegetation Management Implementation Project (see article below)*
- Winner – Division C and Overall Winner Riverina and Murray Regional Organisation of Councils (RAMROC)  
*Linking, Thinking and Acting: Roadside Vegetation in the Murray Catchment*



*Natasha Lappin (RAMROC) accepts the overall 2014 Roadside Environmental Management Award*

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## Roadside Rescue across 10 Councils

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In 2013, the Central West Councils' Salinity and Water Quality Alliance was successful in receiving a \$250,000 Roadside Vegetation Committee grant through the NSW Environmental Trust to protect and rehabilitate high conservation roadside vegetation in Bathurst, Blayney, Cabonne, Dubbo, Gilgandra, Mid-Western, Orange, Parkes, Warrumbungle and Wellington Council areas. A further \$5,000 for capacity building activities was also received from the former Central West Catchment Management Authority.

The projects mostly involved a combination of targeted weed spraying and revegetation to protect and/or extend areas of high conservation value roadside vegetation. Bathurst, Blayney, Cabonne, Gilgandra, Orange and Wellington Councils all focused on weed control and revegetation in differing combinations.

Dubbo City Council focused its efforts on woody weed control, and improving identification of high conservation value roadside vegetation. Mid-Western and Warrumbungle Councils have both closed stockpile work sites in sensitive roadside areas.

All Councils involved in the project are now using green roadside pickets – except Mid-Western which had previously installed red roadside pickets – to protect and identify high conservation value areas and have signs identifying their project locations.

Parkes and Warrumbungle Councils used part of their funds to invest in a weed blower attachment for slashers that mow roadsides. These have been put to good use limiting the spread of weed seeds on their slashers.

All Councils in the project also received two banners to help them promote the roadside vegetation program and raise awareness of high conservation roadside vegetation. The banners are supported by a small flyer highlighting the benefits of roadside vegetation and identifying activities that are not permitted.

Roadside vegetation was further promoted through a television advertisement that ran across the region and a short video that the Councils can upload onto their websites.

The video is found at <https://www.youtube.com/watch?v=hLejsc5B67c>

The TV advertisement is found at [https://www.youtube.com/watch?v=d5vFq1Qp\\_aU](https://www.youtube.com/watch?v=d5vFq1Qp_aU)

(This article was reprinted from the 2013-14 Central West Regional State of the Environment Snapshot Report with the permission of Central Tablelands Local Land Services. The Report can be accessed at <http://www.dubbo.nsw.gov.au/CouncilServices/StateOfTheEnvironmentReports.html>)

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## Red Guide Posts Project wins Weed Management Award

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Eastern Riverina Noxious Weeds Advisory Group, Western Riverina Noxious Weeds Advisory Group, Lachlan Valley Weeds Advisory Committee, Macquarie Valley Weeds Advisory Committee, Riverina & Central West Local Control Authorities, Local Land Services and Roads and NSW Maritime Services have collaborated to develop a simple system to assist in reducing the spread of high risk invasive species along roadsides. It involves the installation of red guide posts at the 'start' and 'end' of each roadside weed infestation to identify the site, and an extensive awareness campaign to ensure that the local weeds officer is consulted on any works that occur at these sites.



This project was funded through the NSW Weeds Action Program (WAP) New Innovative project for weeds 2013-2015 and Murray Local Land Services Integrated Pest and Weed Management Projects. Over 2,000 red guide posts have been distributed to 33 participating councils across the Riverina & Central Western NSW to be installed next to existing white guide posts. More details from

<http://www.riverinaweeds.org.au/ongoing-projects/>

The project won Division C and was the Overall Winner of the Weeds Management Award at the 2014 NSW Local Government Excellence in the Environment Awards recently held in Sydney.

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## Future of TSRs outlined in Crown Lands Review

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The Crown Lands Review conducted by the NSW Government recommended the following actions for travelling stock routes (TSRs) in the state:

*RECOMMENDATION 5. Local Land Services work with the relevant stakeholders to develop assessment criteria to review all TSRs and determine their future ownership and management.*

*GOVERNMENT RESPONSE - Supported – Work will commence in 2014 on a pilot program with Local Land Services. Community consultation will occur through the pilot process.*

The Crown Lands Management Review Summary and Government Response is found at

[http://www.lpma.nsw.gov.au/data/assets/pdf\\_file/0010/196435/Crown\\_Lands\\_for\\_the\\_Future\\_accessible.pdf](http://www.lpma.nsw.gov.au/data/assets/pdf_file/0010/196435/Crown_Lands_for_the_Future_accessible.pdf)

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## **NSW Government to adopt majority of NRC Recommendations for Weed Management**

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The NSW Government has announced that it will adopt the majority of recommendations made by the Natural Resources Commission (NRC) in regards to weed management and will oversee the implementation of significant changes following the review.

The review identified that the effectiveness of weed management in NSW is variable and that current mapping of weeds is inconsistent, making it increasingly difficult to get a complete picture of weed density, extent and impact.

The Government Response is found at

[http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0004/528448/nsw-government-response-nrc-report-on-weeds.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/528448/nsw-government-response-nrc-report-on-weeds.pdf)

Source: <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/nsw-government-response-to-nrc-weeds-review>

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## **Collaborating for the Conservation of the Small Purple-pea**

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John Holland Rail Pty Ltd (JHR) has inherited the management of a significant environmental area subject to a Voluntary Conservation Agreement (VCA) between Tralee and Williamsdale (Tuggeranong and Bombala rail easement). The VCA area is highly diverse supporting threatened flora species and Endangered Ecological Communities (EECs).

JHR as an approved "Rail Infrastructure Manager" under contract from the New South Wales Government Transport for NSW (TfNSW) is collaborating with the NSW Office of Environment and Heritage (OEH) to conserve a number of Small Purple-pea (*Swainsona recta*) populations found within the VCA area. The Small Purple-pea is listed as Endangered under NSW, ACT, Victorian and Commonwealth legislation. One of the management issues associated with the Small Purple-pea populations is that some populations are at risk of collapsing into the cess due to erosion of the cutting ridge. Small Purple-pea plants that have eroded over the edge have died and seeds have failed to germinate.

In April 2014, cutting stabilisation works were undertaken with guidance of John Briggs (OEH). The works were constrained by working at heights and difficult access for plant and materials. Given the sensitive nature of the site it was determined that engineering a retaining wall or undertaking reshaping of the cutting ridge would pose an unacceptable risk to the Small Purple-pea population. As such stake coir logs were employed to stabilise the eroding cutting edge. Given the coir logs were light weight and could be manipulated around the uneven eroding edge, it was deemed the most practical method to eliminate heavy machinery use and disturbance to individual Small Purple-pea plants. Approximately 50m of cutting was stabilised.

To date, the conservation project has cost \$19,938 and has successfully prevented further loss of Small Purple-peas eroding over the cutting.

	
<p><i>Chris Weston JHG, Maggie Sutcliffe NPWS, John Briggs OEH inspecting a Small Purple-pea population.</i></p>	<p><i>Small Purple-pea</i></p>

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### Assessing Roadside Forest Resources by Remote Sensing Technologies

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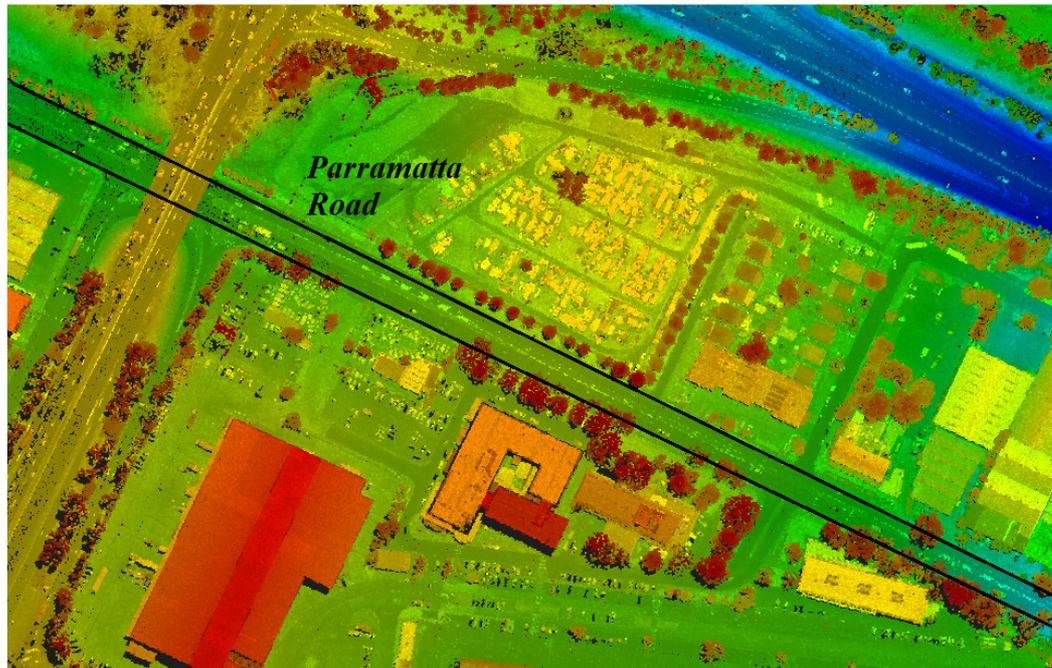
Sydney’s transportation infrastructure – roads and railway lines – is concentrated in the core of the metropolitan area. These transport links have adverse environmental impacts, including habitat fragmentation, exotic species invasion and air pollution from exhaust. So the remaining trees along transport corridors are particularly important in alleviating these impacts and assessment of benefits of remnant forests in these areas is crucial for strategic urban planning.

Mingzhu Wang, a PhD student from Macquarie University, was part of a team that selected parts of two major roads – Parramatta Road and Pacific Highway – as study sites. The adjacent areas along Parramatta Road have a high percentage (62.3%) of industrial and commercial land use while those along the Pacific Highway have 68.3% of residential land use. Two types of remote sensing data (LiDAR and Hyperspectral Images) were used to assess tree resources along these two roads.

Tree distribution and individual tree features such as height and crown width were mapped for both roads. The tree coverage of Pacific Highway (32.0%) is over twice that of Parramatta Road (10.8%). The average tree height and crown width of Pacific Highway is also higher. Using LiDAR derived models they simulated the solar radiation on building roofs to assess the shading impacts of trees.

It was shown that the presence of trees results in substantial reduction in solar radiation and that larger trees make more contribution to radiation reduction. The radiation reduction along the Pacific Highway is around 2.5 times that along Parramatta Road due to the different tree coverage patterns and species selection for new plantings should be tailored to different land uses. These remote sensing technologies are very effective tools for linear reserve management in terms of

tree inventories, monitoring of tree coverage change, and refining policy and strategies for better long-term planning outcomes.



*LiDAR points showing the roadside trees along Parramatta Road*

For more information contact Mingzhu Wang, Environmental Sciences, Macquarie University, phone (02) 9850 4224, or email [mingzhu.wang@mq.edu.au](mailto:mingzhu.wang@mq.edu.au)

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## **Old Survey Blaze Trees in Road Reserves**

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In 2014, Honours student Jake Shoard and ecologist Peter Spooner at Charles Sturt University (Albury) completed a research project to investigate the whereabouts of old survey references trees (sometimes known as blaze trees) in southern NSW. The project was supported by Slopes to Summit (a community connectivity conservation project), NSW NPWS, and the NSW Department of Land and Property Information.

Two main approaches were used to locate survey trees. First, a community survey approach was developed, where local landholders and other community members reported the location of potential trees in the landscape. Second, the NSW LPI provided valuable assistance by providing old survey crown plan maps to locate trees as marked by surveyors for over a century. Field surveys were then conducted to assess the survival and condition of potential trees.

A total of 93 trees were found, however as a form of living heritage, most are succumbing to the ravages of time. Many survey trees possessed markings that dated back to early European settlement in the late 1800s, when pastoral leases held by early squatters were subdivided in to smaller land holdings for new settlers.

Most old Eucalypts were in poor condition, where markings were often illegible, particularly for trees over 90 years old. Survey trees were blazed for different

purposes, where the study recorded the first evidence of trees blazed as part of irrigation development in the early 1930s (picture).

Many of the survey trees were found in road reserves, which provide refuge for remnant vegetation in otherwise cleared farming landscape. For this reason, knowledge of the location of survey trees and their historic significance is critical for future conservation management by road managers. Survey reference trees are living history, where in many rural areas, are one of the few remaining physical legacies of early European land settlement history.



*A survey reference tree located in a road reserve in the Corowa district, blazed in 1932 on a *Callitris glaucophylla* native pine. Photo: P. Spooner.*

For further information on the project:  
Dr Peter Spooner, ecologist and environmental historian  
[pspooner@csu.edu.au](mailto:pspooner@csu.edu.au)

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## National Recognition for Vegetation Management Methods

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When Technigro Founder and Business Manager, Nick Bloor said he wanted to change the way vegetation is managed in Australia forever, he wasn't just saying it.

In 2008, Nick and his innovative team created the award winning Integrated Vegetation Management Project (IVMP) – a science based approach to sustainably managing vegetation by reducing management costs and harm to the environment, while significantly improving safety and asset quality.

Recently Technigro, a Citywide Group Company, received national recognition from Australia's peak industry body at Parks and Leisure Australia's (PLA) 2014 Awards of Excellence, in the categories of Award for Research Project, which was in its inaugural year and Award for Sustainable Initiatives.

In recognition of the award PLA CEO Mark Band said, "there is a lot going on in the research field that is not recognised and so we believed it was time to highlight the people behind the places and initiatives that are helping to create a more sustainable environment for us to live and play in". The awards program is dedicated to fostering business and public understanding of the importance of excellence in the parks and leisure sector to the social, environmental, economic and physical wellbeing of all Australians.

The research project was a three year international collaboration including Australia's two largest local government authorities, manufacturers, service providers and a world leading university, backed by the federal government through Horticulture Australia. By classifying species composition and identifying and applying innovative tools and breakthrough technologies, through field-based trials the research project was able to prove the following public benefits:

- A 25% reduction in the cost of managing mown vegetation
- A reduction in the risks to workers and the public from lower intervention levels
- Better environmental management, measured by reductions in carbon emissions, vegetation biomass and soil erosion
- A transition to increasing densities of desirable plant species leading to higher quality public open spaces.

Upon receiving the award Nick was quick to acknowledge all those involved who brought the concept to life by saying, "he accepted the awards on behalf of the international collaboration between Brisbane City Council, Gold Coast City Council, Bayer Environmental Science, Syngenta, Horticulture Australia and North Carolina State University. We look forward to the industry transformational impacts of IVM and a cleaner, greener, safer approach to managing vegetation in public open spaces."

For more information contact Helen Baker on 07 5559 2076 or email [helen.baker@technigro.com.au](mailto:helen.baker@technigro.com.au)

(Source: Technigro media release)

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## **Oregon Roadkill Mapped**

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Mapping of data recorded by the Oregon Department of Transportation (ODOT) from 2007 to 2013 shows that there are over 42,000 wildlife deaths on state-maintained highways in Oregon, USA.

Most deaths were deer (95.6%), with Elk, small wild game, bears and coyotes making up the largest portions of the remaining 4.4%. It is possible that the death count is even higher than 42,000 because deaths were not recorded as accurately in the past. In 2007, only 1,801 deaths were recorded, but the ODOT has stated that the 2013 value of 8,619 is likely to be consistent with the reality of deaths annually. Using this value for all years would suggest that since 2007, there have been up to 72,000 deaths on Oregon state-maintained highways.

The data demonstrated the importance of managing roadside environments to conserve wildlife.

Source:

[http://www.oregonlive.com/commuting/index.ssf/2014/11/oregon\\_roadkill\\_mapping\\_over\\_4.html#incart\\_river](http://www.oregonlive.com/commuting/index.ssf/2014/11/oregon_roadkill_mapping_over_4.html#incart_river)

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## **ChemFree workshop relevant to linear reserve managers**

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The Weed's Network surveyed 986 weeding stakeholders in 2014 to learn about their attitudes and experiences with herbicides. It found that 78% per cent of people who use herbicides believe that herbicides contribute to pollution. Further, 75% cent of those surveyed who use herbicides want to use less.

The above findings suggest that while herbicide users may desire to use less herbicide, the necessary knowledge to reduce herbicide use is lacking. The findings also indicate that the majority of people who currently use herbicides are worried about the potential ill effects these chemicals might have on their health and the environment.

Australians currently spend more than \$2.30 billion (wholesale) on herbicides each year (source: APVMA 2013/14). These chemicals are acknowledged to be toxic to both humans and the environment and are considered to be potential pollutants by state EPA's.

A nation-wide survey of the impacts of herbicides has never been undertaken in Australia. However, in the USA a recent government study found that 90% of urban streams contained unacceptable levels of herbicide contamination (source: USDA 2014).

There is also mounting evidence emerging around the world that herbicides pose a risk to human health, with countries such as Holland moving to ban the use of glyphosate, the world's most commonly used herbicide, in 2015.

The Weed's Network is taking up the challenge posed by the survey findings and research. With the assistance of partnering organisations around Australia, The Weed's Network is convening a series of 'ChemFree Weed Management Workshops'. For example, it is partnering with Greater Sydney Local Land Services to convene a ChemFree Weeding Workshop in Sydney on 30 March 2015. In Perth, it is partnering with Eastern Metropolitan Regional Council to convene a workshop on 15 May 2015.

The Sydney workshop program and flyer is available online and it should be useful to NSW linear reserve managers such as local councils:

<http://www.eventbee.com/v/chemfreeweedingsydney2015>

(Source: Weed's Network media release)

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## For Your Diary

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The *IPWEA Fit for Purpose – Local Government Reform Workshops - First Workshop* will be held in Bungendore, NSW, on 2 March. This workshop will include information on facing the growing challenges faced by councils, elected officials, and professionals in meeting community expectations whilst working within constrained financial and regulatory boundaries.

Website: <https://www.etches.com/ehome/index.php?eventid=116215&>

### *LGNSW Fit for the Future Workshops*

Local Government in NSW is facing significant challenges that demand fresh thinking. The following workshops have been designed to support councils who are currently preparing their Fit for the Future proposals. The following workshops are being held:

#### **Amalgamations: To Merge or not to Merge?**

Sydney CBD – Thursday 26 and Friday 27 February 2015

#### **Fit for the Future? Proposal Bootcamps!**

Dubbo – Monday 16 and Tuesday 17 March 2015

Port Macquarie – Monday 30 and Tuesday 31 March 2015

#### **Fit for the Future? Rural Council Bootcamps!**

Sydney CBD – Thursday 12 and Friday 13 March 2015

#### **Regional Collaboration: What Works?**

Sydney CBD – Thursday 30 April and Friday 1 May 2015

More information at: <http://www.lgnsw.org.au/key-initiatives/reform-fit-for-the-future>

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*The aim of this newsletter is to share information about the management of NSW linear reserve environments and profile the NSW Roadside Environment Committee (REC). For more information on the REC, including how to develop roadside vegetation management plans, go to:*

<http://www.rms.nsw.gov.au/about/what-we-do/committees/roadside-environment-committee.html>

*Please contact the REC Executive Officer if you wish to subscribe or unsubscribe.*



NSW  
Roadside  
Environment  
Committee

For more information contact:  
**Neil Dufty - Executive Officer - (02) 9354 0300**  
[ndufty@molinstewart.com.au](mailto:ndufty@molinstewart.com.au)