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Latest news from the REC

Queanbeyan-Palerang Regional Council hosted the August REC meeting. During the meeting Council provided presentations on aspects of its environmental management of linear reserves including an extensive system of 'paper roads' throughout the rural residential districts.

A highlight of the meeting was a demonstration of Council's drone (UAV) which is used for environmental assessment including of roadsides and other linear reserves. Council will be using the UAV in its Council Roadside Reserve project.

A model for bringing back indigenous tree canopy in the Sutherland Shire

Sutherland Shire Council has developed an online mapping tool to assist in species selection when making planting decisions for street tree planting, development assessment conditions and bush regeneration. By selecting the right species for the location, vegetation is more likely to flourish. This contributes to a stronger Green Grid and local biodiversity, and mitigates the impacts of increasing urban heat.

The [on-line plant selection tool](#) is based on the 46 vegetation communities of Sutherland Shire and tailors plant selection for the exact location where the planting is to occur. Residents or others undertaking plantings in the local area can use the tool, entering in address details and the type of vegetation for planting, and the tool will provide species lists tailored to that specific location.

The tool has supported planting decisions for Council's Green Streets Program which has planted 3,357 indigenous trees over the last 18 months enhancing local biodiversity and blending the remnant bushland pockets across the shire into the urban canopy.

Planting locally indigenous species back into the community builds local biodiversity and ensures greater survival rates of plantings due to their suitability to the local area. The tool is available on the Council's website.

This project was the [2017 winner](#) of the Innovation in Planning, Policies and Decision Making Award at the LGNSW Excellence in the Environment Awards.

More information:

<http://www.sutherlandshire.nsw.gov.au/Outdoors/Environment/Plants-and-Bushland/Native-Plant-Selector>



Habitat Tree Relocation Project, Orange City Council

An arborist engaged by a local school to seek approval for the removal of a remnant Ribbon Gum (*Eucalyptus viminalis*) contacted Orange City Council for permission to remove the tree on the grounds that it has a history of shedding large branches with the tree perched on the edge of a sports field and overhanging the main entrance road and student pedestrian access.

Approval was granted for the tree's removal following a thorough risk assessment. During the assessment it was noted that the subject tree had significant hollows and was of, and had enormous future potential for, habitat value if it could be safely dismantled. Discussions with the school and arborist

resulted in making the tree available for relocation as a habitat 'stag' during the September school holidays.

With funding secured from the Central Tablelands Local Land Services for improving habitat (including relocation of habitat trees), Orange City Council took the opportunity to relocate a 12 metre portion of the trunk containing 4 entrances to hollows, to Gosling Creek Reserve (GCR) on the southern outskirts of the City.

GCR, once a travelling stock reserve and pine plantation has possibly the most significant remnant patch of Grassy Woodland in the Orange LGA with 46 species of native flora being recorded on site. The precinct is known habitat for breeding Superb Parrots, Squirrel Gliders and the Powerful Owl, species listed as Vulnerable on the *NSW Threatened Species Conservation Act*.

The barrel, weighing close to 6 tonnes, was craned onto a low loader and transported to site. A 100 tonne terrain crane was used at the receiving end to lift the barrel vertically and place it into a pre-prepared hole, approximately 1.5 metres deep and close to 2 metres wide and towards the edge of the remnant patch where seedling Ribbon Gums were recruiting naturally and would in time branch out to the stag.

Whilst holding the barrel upright and in the hole, an excavator was used to pack soil back around the barrel to hold it in position before the lifting chains were removed. It is anticipated that the barrel will remain standing for 50 plus years. Within days of the barrel relocation occurring both Crimson and Eastern Rosella were observed perched at the entrance to hollows and inspecting them.

More details about the project from Nigel Hobden at Orange City Council on 02 6393 8241



Crane moving the tree barrel into place

Alien and native plant seed dispersal by vehicles

According to research outlined in *Austral Ecology*, 13 October 2017, “vehicles play a significant role in spreading plants, both in terms of quantity and quality (species)”.

This study was conducted in Southeast Queensland to determine the role of utility vehicles in spreading seeds. These vehicles were found to carry up to 397 seeds per vehicle and in all four seasons of the year, with the majority of these species being alien to Australia and/or Queensland.

The largest seed loads were found in autumn in this summer rainfall environment. Seeds were shown to attach to all parts of the vehicle, often in mud picked up from the ground, affixed directly to the engine or radiator, or carried into the cabin by the driver. Therefore, much of the seed load is to be found on the underside, on the back and front mudguards while smaller collections were found in the cabin, on the radiator and engine, and on the tyres. Fewer viable seeds were found on the engine, presumably as desiccation and heat contributed more to their death on this part of the vehicle.

One method used to reduce weed seed spread by vehicles in Queensland is washing and vacuuming of vehicles. From the present study, these procedures would need to be applied to all parts of the vehicle and in all seasons of the year.

Read more at

<http://onlinelibrary.wiley.com/doi/10.1111/aec.12545/abstract?campaign=wolibraryview>

See also: <https://www.daf.qld.gov.au/plants/weeds-pest-animals-ants/weeds/preventing-weed-spread/cleandown>



NSW Biosecurity Officer Louise Rossiter removing the risk of weed spread

Two new apps for rapid assessments

Two Rapid Assessment Methodology (RAM) Apps have recently been developed to assist Councils and Local Land Services (LLS) staff in undertaking rapid assessments of their Roadside Reserves and Travelling Stock Reserves.

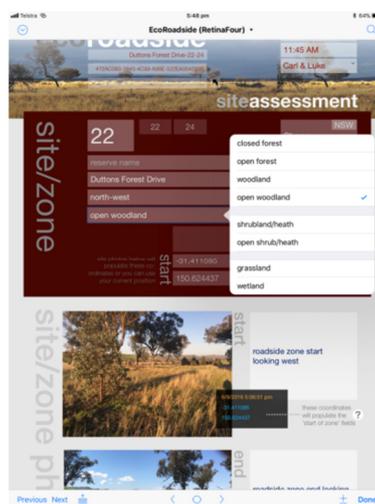
These Apps provide an in-field tool to collect data in an electronic format, bypassing the need for using field sheets and therefore the possibility for transcription errors. The Apps have been designed to work on iPad/iPhone, Android or Windows and will use information from the previously developed [RAM proforma](#).

1. The EcoRoadside App has been developed specifically for Councils by EcoServer Pty Ltd. A key part of the EcoServer platform is the cloud database that manages, serves and synchronises data collected in the field. This can occur via live (cellular) link or check-out/check-in, in areas with poor cell reception. EcoServer have previously developed a range of mobile field data collection apps for a range of environmental monitoring tasks, including rapid riparian assessment and biometric plot/transect. The App provides a visual guide with prompts and information along the way to assist councils in filling out the RAM form. Initial field testing has occurred in the Oberon LGA, with the App available for use by interested Councils in the next month, with on-line training available in January 2018.

2. The ArcCollector App is being developed by Esri for LLS and will be available for use by both LLS and councils. Preliminary testing of the LLS app has occurred, with additional in-field testing due in early December. Full training on the RAM and the ArcCollector App, with regional specific material, will be undertaken in March/April 2018. This training will be for LLS staff, and will also be open to Council staff and consultants.

To register your interest in either of these Apps please contact CRR Project Officer Kathy Godfrey on 9242 4053 or kathy.godfrey@lgnsw.org.au.

This project has been assisted by the NSW Government through its Environmental Trust.



Screen shot from a rapid assessment app

Consultation begins on the draft Biodiversity Conservation Investment Strategy



Draft Biodiversity Conservation Investment Strategy 2017-2037

A strategy to guide investment in private land conservation



The *Draft Biodiversity Conservation Investment Strategy 2017-2037* sets the government's priorities for investing in private land conservation over a 20-year period. It will guide the newly created Biodiversity Conservation Trust to deliver the government's investment in private land conservation – \$240 million over five years and ongoing funding of \$70 million each following year, subject to performance reviews.

The strategy is a key component of the government's comprehensive new framework for private land conservation established under the *Biodiversity Conservation Act 2016*. Under the Act, the Minister for the Environment is to publish a Biodiversity Conservation Investment Strategy as soon as practicable after the commencement of the Act (following consultation on a draft strategy).

The Biodiversity Conservation Trust was established on 25 August 2017 with the commencement of the *Biodiversity Conservation Act 2016*. The Trust will support and encourage landholders to enter into agreements to protect biodiversity on their land. Information about the Trust and its functions can be found at [NSW Biodiversity Conservation Trust](#).

The exhibition of the draft strategy provides an important opportunity for members of the community to have a say on the priorities for government investment in private land conservation. Submissions close **5pm 15 December 2017**.

Find out more about making a submission at <http://www.environment.nsw.gov.au/conservationprograms/biodiversity-conservation-investment-strategy.htm>

2018 Australasian Network for Ecology and Transportation Conference



The Australasian Network for Ecology and Transportation (ANET) is excited to announce that the next conference will be held from **30 April to 2 May 2018** in the RACV Goldfields Resort in Creswick, Victoria.

The theme for the conference is 'Connecting Nature, Connecting People', and ANET is busy creating a program that will be of immense value to delegates from government, industry, research and community groups from around Australia. The program will include the latest findings in road ecology research from around the world, best practice in government and industry, as well as ample opportunity for networking and creating collaborations.

At just one hour from Melbourne, the regional venue is easily accessible by train or car, and we will be running a number of shuttles from downtown Melbourne and the Melbourne International Airport to Creswick. The well-equipped facility and on-site accommodation is nestled in natural bushland and is perfectly located to inspect VicRoads projects along the Calder Freeway and Western Highway.

The ANET2018 Connecting Nature, Connecting People conference is co-hosted by the Environmental Institute of Australia and New Zealand (EIANZ), and is proudly sponsored by VicRoads.

Engaging with industry is a key focus of the conference and there will be opportunity for industry to participate through trade displays, advertising and sponsorship. For more information about this, please contact the ANET secretariat for a sponsorship prospectus.

For more information and to register your interest in the conference, please go to <https://www.eianz.org/events/event/anet2018> and check back periodically as ANET finalises key dates, arranges inspiring and informative presentations and friendly social events. There will be an open call for you to submit abstracts and proposals for presentations, posters and workshops.

To find out more about ANET and previous ANET events, please go to <http://www.ecologyandtransport.com/>. To find out more about EIANZ, go to www.eianz.org. Check out the venue here <https://www.racv.com.au/travel-leisure/racv-resorts/our-destinations/goldfields-resort.html>

Fast facts about NSW linear reserves



- There are approximately 870,000 km of roads in Australia, of which 780,000 km are defined as rural.
- There are approximately 206,000 km of public roads in NSW (21,000 km are main roads managed by NSW Roads and Maritime Services; 186,000 km are minor roads managed by local councils).
- The total area of roadside reserves in NSW is estimated at 2 million hectares.
- The total area of the Travelling Stock Reserves (TSRs) in NSW is estimated at 2.5 million hectares. This includes reserves in the Western Division. Local Land Services manages approximately 500,000 hectares of TSRs.
- The area of other linear reserves (e.g. rail corridors, utility easements, 'paper roads') is estimated at 800,000 hectares.
- The total area of linear reserves in NSW is therefore approximately 5.3 million hectares or 6.6% of NSW.
- The total area for linear reserves is approximately two-thirds of the total land area of the NSW National Parks estate (7 million hectares). Linear reserves are often made up of vegetation communities that are not protected within National Parks.

'Urgent rescue mission' to save Australia's frogs using smartphone app

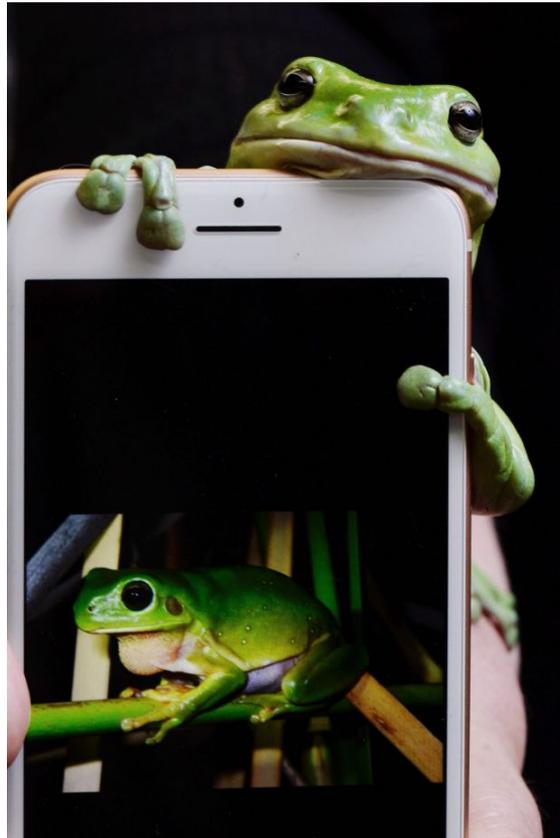


Photo: Sydney Morning Herald

A new smart phone app called FrogID is being described as an "urgent rescue mission" to save frogs that are vulnerable or endangered. It's part of a national citizen science initiative to count Australia's frogs, which was recently launched by the Australian Museum.

The app developed by IBM works a bit like the music identification and discovery app Shazam by recording male frog's chirps, barks and croaks. After downloading the app and turning on the location to aid identification, all users have to do is hit record when they think they hear a male frog calling out to attract the females of its species.

The museum's frog expert Jodi Rowley said frogs were often hard to identify by sight: some species look so similar that she sometimes has to inspect the front legs to find small differences. Like humans, each frog has its own "voice", and a larger frog will sound deeper than a younger, smaller frog.

Of the 240 native Australian species, four frogs are already extinct, five are critically endangered, 14 are endangered and 10 are vulnerable, said Dr Rowley, the curator of amphibian and reptile conservation biology.

Find out more about the app at <https://www.frogid.net.au/>

US roadside spaces can also provide valuable habitat



Photo: Earth Island Journal

When Claudia Alta “Lady Bird” Johnson, the First Lady and wife of President Lyndon B. Johnson, contemplated roadsides back in the 1960s, she envisioned a space where ugly billboards were replaced with native wildflowers and plants. Today, this idea of roadside ecology is just beginning to come into vogue as more scientists start to ask how we can better design the margins of roads to create habitat and support local ecology.

Johnson’s time as First Lady was marked by her continuous advocacy for the beautification of roadsides, neighborhoods, and natural areas. She was instrumental in realizing the passage of landmark conservation laws, such as the *Wilderness Act* of 1964 and the *Wild and Scenic Rivers Act* of 1968.

The idea of creating good wildlife habitat in urban areas and along roadsides can be a bit counterintuitive. Roads often diminish habitat by fragmenting it into smaller pieces, and wildlife that attempt to cross roads risk getting hit by vehicles — this is a major issue for some species of animals, including [frogs](#).

Yet there is evidence to suggest that we could be doing more to allow certain kinds of wildlife to circumnavigate roads while also creating and improving habitat along these right-of-ways. Considering that there are [47,000 miles](#) of freeways, and [17 million acres of roadsides](#) across the United States, there is arguably a lot of potential space for habitat enhancement projects.

Indeed, though habitat alongside roads may never be the highest quality, research shows that some species can make use of roadsides given the appropriate conditions.

With an increasing public interest in fostering quality wildlife habitat, and more researchers exploring how we can improve the habitat value of urban areas and human-altered landscapes, we seem to be on the road to more ecologically-minded highways. Lady Bird Johnson would be proud.

This is an excerpt from Earth Island Journal
http://www.earthisland.org/journal/index.php/elist/eListRead/embracing_roadsid_e_ecology/

Australia's lush street trees face grave threat if emissions keep rising

More than four in 10 houses in Australia's capital cities have a street tree.

Much-loved leafy streets and shady parks in Sydney and Melbourne are in jeopardy, according to new research that found climate change severely threatens the health of more than one-third of tree species in Australia's cities.

The [federally funded study](#) of 1.5 million trees in 29 council areas across Australia found that higher temperatures and urban heat means new tree species may be introduced, existing trees must be given special care and some trees may disappear in certain locations.

The study found 24 per cent of all public trees, or 35 per cent of tree species, were at high risk from increased temperatures under a business-as-usual scenario in which emissions continue to increase to 2070.

Some 14 per cent of all public trees, or 22 per cent of tree species, were at high risk of increased temperatures if emissions were limited, in line with international commitments, in the years to 2040.

In the City of Sydney, 50 per cent of trees were at high risk under a business-as-usual scenario. They included brush box, rose gums, grey oaks and several eucalypt species.

Risks to trees were posed by both rising global temperatures and the urban "heat island" effect, where localised warming occurs due to dark-coloured and paved surfaces, buildings and the emission of heat from human activities.

Excerpt from an article in the 'The Age' <http://www.theage.com.au/federal-politics/political-news/australias-lush-street-trees-face-grave-threat-if-emissions-keep-rising-research-finds-20171113-gzk5pd.html?btis>

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.



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