



February 2021 Edition 45

In this issue

- New bridges built in bushfire recovery to help wildlife cross highways
- Aerial spraying in Hilltops LGA
- Essential Energy partners with NPWS to regenerate Lowland Rainforest
- Stop Weeds at the Gate
- Roadside amphibian surveys for Port Stephens Council
- Wildlife on our Roads – Gang-gang Cockatoos
- Submissions received on Draft State Strategic Plan for Crown land
- Wetland Birds of the NSW Murray-Riverina Region
- Staggering loss of threatened plants over 20 years
- Final Report: Independent Review of the EPBC Act
- How creating wildlife crossings can help reindeer, bears – and even crabs

Latest news from the REC

The NSW Roadside Environment Committee (REC) will again sponsor the NSW Roadside Environmental Management Award as part of the 2021 Local Government Excellence in the Environment Awards.

This is the tenth year that the REC has sponsored the award which helps promote good practice by NSW local councils and other council organisations in managing roadside environments.

Entries for the 2021 LG Excellence in the Environment Awards will open in early June.

New bridges built in bushfire recovery to help wildlife cross highways

As part of the bushfire recovery effort along the Oxley and Pacific highways, new rope canopy bridges are being built for the local wildlife.

The rope bridges will allow wildlife to cross the busy road corridors more safely.

Minister for Regional Transport and Roads Paul Toole said the new bridges replaced the ones damaged by bushfires last summer.

“Animals like possums and gliders use these bridges to access food, water and mates on the other side of the highways, but were unable to do so after last year’s bushfire season when several of the structures caught fire,” Mr Toole said.

“Transport for NSW has reinstated the bridges on the Oxley Highway, about two kilometres east of the Pacific Highway interchange at Port Macquarie, and the Pacific Highway, about one kilometre south of Johns River.”

He said research shows the bridges are regularly used by some of the country’s most endangered species.

“The local wildlife suffered during last summer’s bushfires, so I’m glad we’ve been able to restore the bridges to help protect some of our most endangered species.”

Source: Roads & Infrastructure Australia <https://www.roadsonline.com.au/new-bridges-built-in-bushfire-recovery-to-help-wildlife-cross-highways/>



Arboreal crossing, Oxley Highway (photo: Grahame Cookie)

Aerial spraying in Hilltops LGA

On 8 December 2020, Hilltops Council in collaboration with Transport for NSW (Roads and Maritime), employed contractors Commercial Helicopters and Trafficking, and conducted the first aerial application in NSW of Granular Flupropanate to control a highly invasive grass species, African Lovegrass, capable of producing up to 10,000 seeds per plant and very quick to establish and out compete native pastures, as well as Serrated Tussock and Coolatai Grass among other grass weeds.

Taralga Agronomy services provided an accurate application rate to specifically target the African Lovegrass with two years residual in the ground for long-acting control.

Commercial Helicopters conducted the aerial application on the day, being the only company that is capable of aerielly spreading the granular herbicide. By running this program with helicopters, an area of 300 hectares was covered in a six-hour period (the process to do this with spot spraying crew would take 4+ weeks).

Transport for NSW employed Trafficking for the traffic control for the day, which setup a rolling traffic control that covered an area of over 40 km with no issues and next to no traffic congestion.

Hilltops Council would like to thank Transport for NSW for the assistance on the day and give special thanks to the following people for all their help through the process to achieve this outcome: George Caldow, Kumar Vyddiyartnam, Myles Sullivan, Paul Billingham, Bryn Rees, Ross Ellis, Libby Brooks, Chris Luff, Lee Shoemark, Sam Nicholls, Michael Brown, and all the staff from Transport for NSW, Trafficking and Commercial Helicopters for making the day run as smoothly as it did.

More details from Tom Pickering, Hilltops Council, email Thomas.Pickering@hilltops.nsw.gov.au



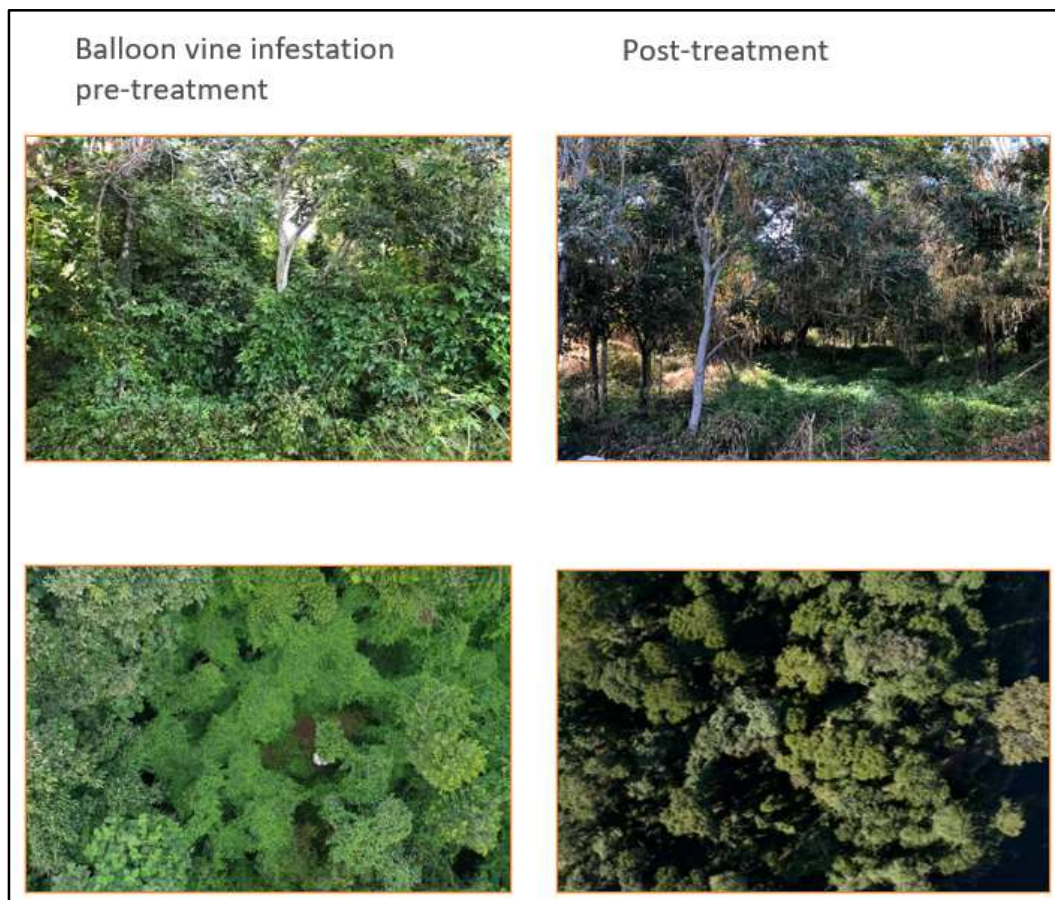
Traffic control for aerial weed spraying

Essential Energy partners with NPWS to regenerate Lowland Rainforest

Essential Energy maintains a 66 kilovolt overhead powerline that traverses the north-western tip of Susan Island Nature Reserve (situated on the Clarence River, Grafton) through regular vegetation clearance. Clearing the vegetation increases light penetration to the understory near the powerline, which has contributed to the establishment of numerous weed species and placed pressure on the rainforest plant species.

In 2020, NSW National Parks and Wildlife Service engaged a specialist contractor to undertake rainforest regeneration works within the nature reserve. When planning the works, National Parks staff approached Essential Energy to see if it would be willing to make a financial contribution towards additional regeneration works within and adjoining the powerline corridor.

Essential Energy agreed to make a contribution, and regeneration works in the vicinity of the powerline corridor were completed in late 2020. As the photos below demonstrate, the works have been highly successful in combatting the weed problems in this part of the reserve, which is regarded as an excellent outcome by both National Parks and Essential Energy. In the future, it is hoped that similar partnerships can achieve further positive outcomes, on Susan Island and in other sensitive locations where utility corridors are present.



More details from Chris Dunn, Essential Energy
chris.dunn@essentialenergy.com.au

Stop Weeds at the Gate



Local Land
Services



In 2018, Hunter Local Land Services (HLLS) and Hunter Regional Weeds, through the Hunter Regional Weeds Committee, developed the Stop Weeds at the Gate resources. Stop Weeds at the Gate is targeted at helping everyone from landholders and land managers, to farm contractors and machinery operators, to work together to prevent weed spread.

The suite of resources includes:

Stop Weeds at the Gate factsheet - outlines the definition and importance of biosecurity and briefly explains the meaning of the General Biosecurity Duty. It provides useful tips for landholders on how to protect their properties from weeds, and advice on setting up a washdown area.

Stop Weeds at the Gate Checklist is a guiding document for landholders to think about what needs to be put in place before anything enters a property. Its purpose is:

- Reduce the risk of weeds being brought to a property
- Reduce the risk of spread of weeds around a property
- Reduce the risk of spread of weeds from a property
- Assist the landholder and contractors to meet their General Biosecurity Duty.

Video Case Study - provides examples of good practice by landholders in weed hygiene and management, which adds relevance to producers. The video provides key messages covered in other resources in an easy to absorb way.

Power Point Presentation 'Mechanisms of Weed Spread' is used to train LLS staff, council staff, landholders and land managers. The presentation is publicly available and provides visual examples of weed material being caught in machinery and ways in which to clean them down.

Procedure guidelines is a higher-level resource tailored to companies or specific properties which can be readily edited. This document helps the organisation to develop a procedure to manage and meet their general biosecurity duty.

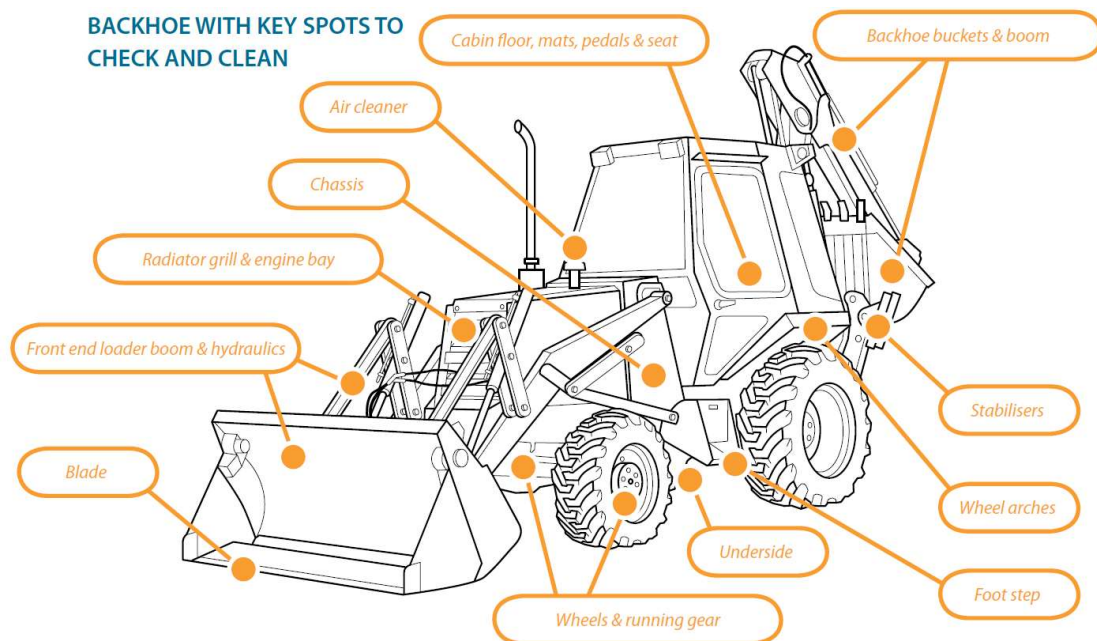
Check and Clean Spots Diagrams provide the best visual guide for identifying the location of weed material. This has been developed for 4WDs, bulldozers, backhoes and excavators. These diagrams are printed as A5 cards to keep in vehicles, or can be added to signage at a washdown area.

By Stopping Weeds at the Gate, landholders are stopping weed material moving onto their properties from other properties or material picked up off the sides of roads during travel.

Additionally, these resources help stop weed material from properties ending up on the side of roads creating new infestation areas.

For the resources discussed here go to:

<https://www.ils.nsw.gov.au/regions/hunter/community-advisory-groups/hunter-regional-weeds-committee-hrwc/stop-weeds-at-the-gate#:~:text=Stop%20Weeds%20at%20the%20Gate%20Hunter%20Local%20L and,they%20place%20an%20avoidable%20strain%20on%20native%20landscapes>



Roadside amphibian surveys for Port Stephens Council



Eco Logical Australia recently conducted roadside amphibian surveys for Port Stephens Council across the LGA. Project findings were incorporated into Council's environmental management system and standard operating procedures to assist with protection of threatened species. The project contributed to the creation of a new amphibian roadside marker category for the existing Hunter Joint Organisation Regional Roadside Environment Marker Scheme used by other road authorities across the Hunter Region.

Threatened amphibians *Crinia tinnula* (Wallum Froglet) and *Uperoleia mahonyi* (Mahony's Toadlet) both occur within Port Stephens LGA and potentially within

roadside reserves. Project findings will assist Council to effectively manage and address potential impacts their works could have on the local habitat of threatened species.

Ecologists Dee Ryder & Frank Lemckert of Eco Logical Australia are proud to have contributed to protection of threatened species within the region by working in partnership with Port Stephens Council on this project.



Crinia tinnula (Wallum Froglet), a vulnerable amphibian species, observed on the road during surveys of Taylor Beach Road, Taylor's Beach.

Wildlife on our Roads – Gang-gang Cockatoos



Left: male Gang-gang Cockatoo. Right: Hawthorn berries

Spring and summer can lead to a variety of animals moving across our landscape in search of mates, food and shelter. This can lead to them crossing roads or basking on roads (e.g. blue-tongue lizards). It is important to remain watchful and vigilant while driving to minimise risk to yourself and wildlife.

One species that you may not think of while driving is the Gang-gang Cockatoo.

Gang-gangs are one of the cockatoo species that inhabit the Southern Highlands. They have slated grey feathers, with males being distinguishable from females due to their distinctive scarlet red head and crest. Gang-gangs feed mainly on the seeds of native species (e.g. Silvertop Ash - *Eucalyptus sieberi*) and non-native species (e.g. hawthorn).

Gang-gangs have a low, diving take off when leaving a perch. Normally this doesn't cause any issues, however, when leaving hawthorn along roadsides, they will often fly across the road. Due to their low take off, this sadly puts them in the path of vehicles.

Hawthorns are a popular garden shrub throughout the Southern Highlands and can often be found on the boundaries of properties and near roadsides. When fruiting, Gang-gangs will often be observed feeding on the berries.

When driving, keep an eye out for hawthorns along the roadside and Gang-gangs flying across the road.

If you do come across an injured or sick Gang-gang, it is critical that they are cared for by a highly experienced carer of this species. Their husbandry and food requirements for rehabilitation are very specific and if stressed for any reason they will 'feather pluck' to an extreme level.

Source: 'Wingecaribee Web' – environmental newsletter of Wingecaribee Shire Council

Submissions received on Draft State Strategic Plan for Crown land



Crown land is highly valued and enjoyed by individuals and diverse communities across the state. It is used for a wide variety of purposes, from farms, parks, reserves, roads and cemeteries, to showgrounds, campgrounds, surf clubs, community halls and industrial sites.

Under the *Crown Land Management Act 2016* the NSW Government is required to create a State Strategic Plan for Crown land. The State Strategic Plan will set the

vision, priorities and overarching strategy for the management of Crown land and outline timeframes and outcomes.

More than 930 submissions were received as part of the community consultation process on the draft State Strategic Plan for Crown land in New South Wales. Also,

- A total of 555 people participated in the 12 consultation webinars held
- Social media achieved 3.6 million impressions from 946,000 people across New South Wales.

A summary report on the consultation process has been prepared and outlines the engagement process with stakeholders and the community and what was heard. It also identifies key themes in the feedback received.

The Department of Planning, Industry and Environment is currently revising the plan based on the feedback received and once completed the final plan will be submitted to the Crown Lands Ministers for consideration and public release.

More details at <https://www.industry.nsw.gov.au/lands/public/on-exhibition/draft-state-strategic-plan-for-crown-land>

Wetland Birds of the NSW Murray-Riverina Region



There is a wonderful diversity of birds in the NSW Murray and Riverina regions that rely on wetlands for at least part of their lifecycle and ultimately for their survival. Each wetland species requires a different range of habitats within wetlands to feed and breed, and each has their own ecological 'story'. A single wetland or even a farm dam can provide many of these different habitats that will support a huge diversity of birds and other wildlife.

PeeKdesigns was contracted by Murray Local Land Services to create a large format poster that represented this diversity of birds and the habitats in which

they live and breed. Hard copies of this poster have been printed in A0 and A1 size and limited copies are available from Murray Local Land Services offices in Albury and Deniliquin.

This poster includes a selection of 60 birds, from common to threatened, that can be found in wetlands, along riverbanks and around farm dams, from the upper reaches of the Murray catchment to the floodplains.

Download the poster at <https://www.peakdesigns.com.au/wetland-birds/>

Federal Court upholds Djab Wurrung's Western Highway appeal

The Federal Court has overturned Environment Minister Sussan Ley's decision to reject an appeal for the protection of six trees in the path of a highway upgrade in western Victoria.

Justice John Griffiths ruled that a fresh decision on the matter be made by a relevant party other than Ms Ley — and that the Federal Government cover the applicants' costs.

The appeal for protection was made by Djab Wurrung Heritage Protection Embassy members Sandra Onus and Marjorie Thorpe.

The 12.5-kilometre section of the highway duplication project between Buangor and Ararat had already been put on hold because of a separate action in the Victorian Supreme Court.

An injunction on that matter remains in place and a trial is scheduled to begin in February 2021.

Justice Griffiths said Ms Ley had made an error by concluding that five of the trees for which protection was sought were not at risk of damage or desecration based on their close proximity to the highway.

"Two of those trees are hollow and have been used by Aboriginals for over 50 generations for multiple purposes, including giving birth and providing shelter," Justice Griffiths said in his judgement.

"The trees are situated in a significant area near the Hopkins River.

"They are connected to songlines and stories which extend beyond the Specified Area."

The judgement noted that Ms Ley had not viewed a map showing how close the highway would come to the trees, which she had agreed were culturally significant.

Source: ABC News <https://www.abc.net.au/news/2020-12-17/federal-court-overturns-sussan-leys-decision-on-sacred-trees/12970540>

Staggering loss of threatened plants over 20 years

When it comes to threatened species, charismatic animals usually get the most attention. But many of Australia's plants are also in grave danger of extinction, and in many cases, the problem is getting worse.

New Australia-first research shows the population sizes of our threatened plants fell by almost three-quarters, on average, between 1995 and 2017. The findings were drawn from Australia's 2020 Threatened Species Index, which combines data from almost 600 sites.

The index shows that over about 20 years up to 2017, Australia's threatened plant populations declined by 72%. This is faster than mammals (which declined by about a third), and birds (which declined by about half). Populations of trees, shrubs, herbs and orchids all suffered roughly similar average declines (65-75%) over the two decades.

Of the 112 species in the index, 68% are critically endangered or endangered and at risk of extinction if left unmanaged. Some 37 plant species have gone extinct since records began, though many others are likely to have been lost before scientists even knew they existed. Land clearing, changed fire regimes, grazing by livestock and feral animals, plant diseases, weeds and climate change are common causes of decline.

Vulnerable plant populations reduced to small areas can also face unique threats. For example, by the early 2000s Foote's grevillea (*Grevillea calliantha*) had dwindled to just 27 wild plants on road reserves. Road maintenance activities such as mowing and weed spraying became a major threat to its survival. For other species, like the button wrinklewort, small populations can lead to inbreeding and a lack of genetic diversity.

A quarter of the species in the threatened plant index are orchids. Orchids make up 17% of plant species listed nationally as threatened, despite comprising just 6% of Australia's total plant species.

The endangered coloured spider-orchid (*Caladenia colorata*) is pollinated only by a single thynnine wasp, and relies on a single species of mycorrhizal fungi to germinate in the wild.

Yet even for such a seemingly difficult species, conservation success is possible. In one project, scientists from the Royal Botanic Gardens Victoria, aided by volunteers, identified sites where the wasp was still naturally present. More than 800 spider orchid plants were then propagated in a lab using the correct symbiotic fungus, then planted at four sites. These populations are now considered to be self-sustaining.

In the case of Foote's grevillea, a plant translocation program has established 500 plants at three new sites, dramatically improving the species' long-term prospects.

Source: Conversation article <https://theconversation.com/australia-first-research-reveals-staggering-loss-of-threatened-plants-over-20-years-151408>



Foote's grevillea (photo: Andrew Crawford)

Final Report: Independent Review of the EPBC Act

Independent Review of
the EPBC Act

Independent Review of the EPBC Act – Final Report

October 2020

Professor Graeme Samuel AC



The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is Australia's central piece of national environmental law. The EPBC Act and the

Commonwealth's role in environmental protection focuses on matters of national significance.

The EPBC Act requires a review every ten years to examine the operation of the EPBC Act, and the extent to which its objects have been met.

The Minister for the Environment, the Hon Sussan Ley MP, appointed an independent reviewer to undertake the review. The Reviewer, Professor Graeme Samuel AC, was supported by an Expert Panel and drew on other technical expertise as needed. All Australians were invited to participate in the review.

The final Review report has recently been released. The report found that "The EPBC Act does not clearly outline its intended outcomes, and the environment has suffered from 2 decades of failing to continuously improve the law and its implementation. Business has also suffered. The Act is complex and cumbersome and it results in duplication with State and Territory development approval processes. This adds costs to business, often with little benefit to the environment."

"The EPBC Act and its operation requires fundamental reform to enable the Commonwealth to:

- set clear outcomes for the environment and provide transparency and strong oversight to build trust and confidence that decisions deliver these outcomes and adhere to the law
- actively plan for environmental outcomes and restore the environment to accommodate Australia's future development needs in a sustainable way
- measure effectiveness to ensure that the Act delivers the right level of protection to make a difference for the environment and to support adjustments where changes are needed
- respect and harness the knowledge of Indigenous Australians to better inform how the environment is managed."

The Review made 38 recommendations for improvement. More details at <https://epbcactreview.environment.gov.au/resources/final-report>

How creating wildlife crossings can help reindeer, bears – and even crabs

Sweden's announcement this week that it is to build a series of animal bridges is the latest in global efforts to help wildlife navigate busy roads.

Swedish authorities announced they would build up to a dozen "renoducts" (reindeer viaducts) to aid the crossings and allow reindeer herds to reach grazing more easily.

It is hoped the crossings will allow herders to find fresh grazing lands and alleviate traffic jams, and also help moose and lynx to move around the landscape. The country's 4,500 Sami herders and 250,000 reindeer have been hit hard by the climate crisis, battling forest fires in the summer and freezing rain in the winter that hides lichen below impenetrable sheets of ice.

The renoducts are part of a growing number of wildlife bridges and underpasses around the world that aim to connect fractured habitats. On the Yucatán peninsula in Mexico, underpasses have been used to shield jaguars from traffic. Natural canopy bridges in the Peruvian Amazon have helped porcupines, monkeys

and kinkajous pass over natural gas pipelines. On Christmas Island, bridges have been built over roads to allow millions of red crabs to pass from the forest to the beaches on their annual migration.

In southern California, there have been signs of inbreeding among mountain lions in the Santa Monica Mountains because busy freeways around Los Angeles have isolated populations with low genetic diversity. To help save the mountain lion population from local extinction, an US\$87m wildlife bridge is planned over the 101 highway north of LA, which would be the largest in the world.

Highways England is increasingly building wildlife bridges as part of schemes around the country, with more planned for future infrastructure work.

Source: The Guardian

<https://www.theguardian.com/environment/2021/jan/23/how-wildlife-crossings-are-helping-reindeer-bears-and-even-crabs-aoe>



Red crab crossing bridge on Christmas Island (photo: Chris Bray)

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 about the REC: <https://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.



For more information contact:
Neil Dufty - Executive Officer - (02) 9354 0300
ndufty@molinostewart.com.au