



## August 2021 Edition 47

### In this issue

- New fact sheets on roadside weed management
- New TSR grazing management pilot
- Request for koala food
- Managing TSRs in the Central Tablelands
- Subscribe to SEED datasets
- Invasive weed pampas grass spreads via train
- Crown land 2031 - State Strategic Plan for Crown land
- NSW & VIC Weeds Conference postponed
- Dead, shrivelled frogs are unexpectedly turning up across eastern Australia
- Wild weather reignites calls for underground power lines
- Grain dumping is a biosecurity risk
- End mowing of road verges to create huge wildlife habitat, says UK study
- Enhancing resilience of critical road structures under natural hazards

### Latest news from the REC

The NSW Roadside Environment Committee (REC) is sponsoring 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 have closed. Winners will be announced at an award forum and ceremony on 7 December.

---

### New fact sheets on roadside weed management

---

Roadside weed management has been clarified with two new fact sheets giving practical guidelines for both the general public and roadside managers. The resources, developed by weed consultant Andrew Storrie from AGRONOMO, highlight the complexities of roadside weed management, especially in situations where agricultural weeds start to encroach onto the road reserve.

“Roadside vegetation managers are primarily concerned with those weeds that are declared noxious and often this means weeds that impact agricultural productivity are not seen as a priority for management,” said Mr Storrie.

“However, the potential movement of agricultural weeds from road corridors to adjacent paddocks is a significant concern for rural landholders.”

These fact sheets were developed as part of an innovative project exploring the social and economic impacts of area-wide weed management. Led by the Grains

Research and Development Corporation (GRDC), the project receives funding from the Australian Government Department of Agriculture, Water and the Environment's Rural Research and Development (R&D) for Profit program. Additional support is provided by GRDC, the Cotton Research and Development Corporation and a range of research partners.

This project is taking a different approach to traditional weed control where people have often focused on select areas, such as farms, roadsides and national parks, without integration of management across respective jurisdictions.

This project is encouraging land managers from a range of agricultural and horticultural industries to come together with roadside managers to develop a shared understanding and common goal for weed management.

"The roadside weed management fact sheets will be invaluable for both the general public and roadside weed managers, who may not have been exposed to some of the issues impacting rural landholders such as herbicide resistant weeds," explained Mr Storrie.

These fact sheets and more information about this collaborative approach to weed management can be found at <https://research.csiro.au/weed-awm/>

**The responsibility and management of weeds along Australian roadsides**

Weeds on roadsides are divided into legally controllable or 'declared' weeds and 'other' weeds.

'Other' weeds have no legal requirement for control and are generally seen as a low priority for roadside vegetation managers.

Weeds that impact agricultural productivity generally fit into the 'other' weed category, and when they occur on roadsides are low priority for management unless they impact road user safety (line-of-sight) or are on a locally important weed list developed by a local natural resource management group or council.

While each state has a slightly different approach to managing roadside vegetation, major roads are the responsibility of the state roads department and minor roads are the responsibility of local government.

Australia has more than 874,000 kilometres of roads. This means up to 1.75 million km of roadside vegetation that must be managed and can potentially act as a reservoir for weeds that impact both natural and agricultural systems.

ROAD TYPE	Paved	Gravel	Formed	Other (tracks)	TOTAL
% of total	44	33	16	7	874,000km

**Managing roadside vegetation is complex**

Managing roadside vegetation can be complex due to:

- the priority of road-user safety
- maintaining road structure
- fire management
- conservation of rare and endangered vegetation
- the requirement to only control declared weeds

The management of roads and roadside vegetation is further complicated because they are managed by a range of organisations often using contractors and needing to adhere to a budgetary framework. Add to this there are many different landowners adjacent to these linear reserves that have different motivations for management.

**Managing hard-to-control weeds along Australian roadsides**

**GUIDELINES FOR MANAGERS**

- Hard to control weeds, including those that are herbicide resistant, are becoming more common on roadsides and present major challenges for road managers.
- Identification and mapping of hard-to-control weeds is the first step to improved management.
- A shift away from reliance on a glyphosate-based management system will require a commitment to retrain staff and re-evaluate work procedures and budgets.
- When herbicides are used on roadsides they must be applied through well calibrated equipment at sufficiently high rates and application volumes for the type of herbicide being used.
- When using herbicides it is critical that all spray drift and environmental constraints are followed.

Australia has more than 874,000 kilometres of roads. This means up to 1.75 million km of roadside vegetation that must be managed and can potentially act as a reservoir for weeds that impact both natural and agricultural systems.

**Managing roadside vegetation is complex**

Managing roadside vegetation can be complex due to:

- prioritisation of road-user safety
- maintaining road structure
- fire management
- conservation of rare and endangered vegetation
- the need to follow environmental constraints
- the requirement to only control declared weeds

The management of roads and roadside vegetation is further complicated because they are managed by a range of organisations often using contractors and are required to adhere to a budgetary framework.

**Road-user safety**

Public safety is the primary driver for roadside vegetation management. An extended line of sight, unimpeded vision of roadside furniture and the ability for a vehicle get off the 'road' without any damage to person or vehicle are important goals. Roadside vegetation often has a maximum 30 centimetre height before treatment, which allows road users to see roadside posts and reflectors without obstruction.

Major roads and highways tend to have wider cleared areas, predominantly for road user safety. Riverborders, Western Australia: AGARD/DMO

On major roads in Western Australia the average width managed from edge of the tar is 4m. AGARD/DMO

GRDC CRDC AWA

ROADSIDE MANAGEMENT MAY 2021 1

ROADSIDE MANAGEMENT GUIDELINES FOR MANAGERS MAY 2021 1

## New TSR grazing management pilot

The Riverina Local Land Services' new Travelling Stock Reserve (TSR) management initiative is an innovative approach and the first of its kind in NSW. It will be treated as a pilot to test the approach. The approach requires a four-year period to ensure the viability for permit holders. It only covers 10 of the 15 Local Government Areas within the Riverina region.

The TSR initiative involves creating seven defined grazing areas in the central/eastern Riverina made up of reserves, routes and council roads. These

regions will be permitted out as individual packages to prospective entities for an initial four-year period.

It is expected that the new proposal will result in the following benefits:

- provide strategic grazing through a rolling three month grazing plan through the life of the lease, submitted by the permit holder in advance to Local Land Services and the Council, showing proposed travel routes
- increased auditing of permit holders and use of GPS tracking collars on cattle to track their movement 24 hours per day
- minimise any biosecurity risks
- reduce administrative costs
- increase the funding base for the TSR program to enable investment into pest and weed control, infrastructure replacement, fire hazard reduction, and to maintain and improve the conservation values of the TSR network.

Stock movement around a grazing area will be based on the available feed reserves and the condition and quality of groundcover on the routes. Stock movement will be strictly in accordance with the three-month grazing plan. The permit holder will be subject to regular audits by Local Land Services staff. This contrasts with the current management strategy where individual TSRs are permitted out to individual landholders and multiple walking permits are issued to stock owners.

Permits will still be available for producers for destination walking stock, roadside grazing, routine stock movement and apiarists.

More details at: <https://www.ils.nsw.gov.au/regions/riverina/projects-and-programs/consultation-on-new-proposed-riverina-tsr-management-initiative>

---

### **Request for koala food**

---



Unfortunately, due the recent flood events in March 2021, Taronga's eucalyptus plantations were significantly impacted, and we are currently experiencing a shortage of supply of koala food (eucalyptus leaves), Taronga Zoo is interested in speaking to anyone who:

- is preparing to prune, fell or remove eucalyptus trees; and

- has ownership over eucalypts from which we can potentially harvest branches for koala food.

The Zoo would be extremely grateful if you were able to assist it and/or share this information amongst your network. It will consider any eucalyptus at this stage and make a call dependent on individual specimens etc.

If you can help, please contact Ben Zerbes, Manager Horticulture, Taronga Conservation Society Australia, phone 0417 201 180 [bzerbes@zoo.nsw.gov.au](mailto:bzerbes@zoo.nsw.gov.au)

---

## Managing TSRs in the Central Tablelands

---



Local Land Services (LLS) manages 3,310 hectares of Travelling Stock Reserves (TSRs) in the Central Tablelands. According to LLS:

“Our biggest challenge is that our region doesn’t have the traditional stock routes used by drovers to move stock across the state or as drought refuge, but rather a scattering of 380 individual holdings across the region ranging in size from 0.5ha to 20ha.

The logistics of managing this number of ‘paddocks’ is challenging and comes with a high per hectare cost. We also face several known compliance challenges including unauthorised collection of firewood, unauthorised grazing, unauthorised camping, four-wheel driving and motorbike riding, occupation of reserves and damage to reserves. Investigation of compliance requires significant time investment by staff, but we are committed to protecting this valuable community asset.

In the coming year our priority is to continue to focus on increasing the community’s care, value and knowledge of TSRs by encouraging active participation and through targeted and regular communication. We will continue to work closely with neighbours, permit holders, recreational users, the indigenous community, local governments, and state agencies such as Crown Lands.

We are also investigating avenues for additional investment and partnerships to manage high conservation value TSRs and improve the conservation value of all reserves.



Targeted investment in the maintenance and improvement of TSRs is informed by decision making that recognises high priority TSRs, based on income generating potential, legislative requirement, conservation value and other considerations.”

Source: <https://mailchi.mp/ils.nsw.gov.au/tablelands-telegraph-august-2021>

---

## Subscribe to SEED datasets

---



SEED is the NSW Government’s central resource for Sharing and Enabling Environmental Data. It was developed for the NSW community in a collaborative effort between government agencies to provide an accessible and reliable platform for environmental data.

A new function allowing users to subscribe to SEED datasets is now available across all datasets on the SEED portal - <https://www.seed.nsw.gov.au/>

Users can create an account and subscribe to datasets or SEED dataset filters, to be notified of updates to datasets, new or upcoming datasets, and receive announcements from SEED.

This allows users to be informed about changes to subscribed datasets before they impact dataset usage. It not only improves communication to users but also improves reliability with reduced downtime of SEED services, as administrators can send out messages to users subscribed to specific datasets and categories of anticipated changes, additions, broken links or downtime. Administrators will also receive notifications of broken datasets and attachments to fix them before they become an issue to users.

Users can select and tailor the information they receive, the frequency and the method of communication.

Live usage statistics are also available on datasets, allowing data custodians and users to monitor how the dataset is performing, and assess the popularity of datasets.

A help guide is available for step by step instructions on how to subscribe and manage your subscription preferences - <https://www.seed.nsw.gov.au/need-help/finding-data-on-dataset-catalogue/subscribing-to-datasets>

---

## **Invasive weed pampas grass spreads via train**

---

The Invasive Species Council has identified pampas grass as a growing risk to the state's critically endangered habitats and agriculture industry, particularly further inland of Lithgow.

The council's chief executive officer Andrew Cox said the weed was well-established in Western Sydney and the Blue Mountains, and as a result, seeds had been spread by train along rail corridors.

"The seeds are windblown so they can stick to vehicles easily, trains and cars, and they become invasion heads for the new weed. It's starting to spread quite alarmingly," he said.

The weed is considered a regional priority in Greater Sydney. But it does not appear on priority weed lists anywhere west of the Blue Mountains. The grass is also extremely flammable, adding another risk factor to an area already prone to bushfires.

The Central Tablelands LLS identified pampas grass as a growing concern in the region. Regional Weed Coordinator Marita Sydes said even though pampas grass did not appear on the list, weed officers were already working with landholders to control it.

"It hasn't been seen as an issue previously but we're now trying to proactively follow up on that," Ms Sydes said.

Source: ABC News 28 May 2021 <https://www.abc.net.au/news/2021-05-28/invasive-weed-travels-west/100164650>



*Pampas grass located close to rail lines (source: Invasive Species Council)*

---

## Crown land 2031 - State Strategic Plan for Crown land

---



The first ever state strategic plan for Crown land aims to better manage, use and activate Crown land to support local communities and economies, tourism, Aboriginal land rights and interests, public amenity, open and green space and the environment.

*Crown land 2031* is a 10-year strategy to ensure that Crown land delivers social, environmental and economic benefits for the people of NSW and contributes to strong, prosperous and resilient communities. The plan guides the future of Crown land, assets and infrastructure to deliver public value in more innovative ways, with decisions about the best use and management of Crown assets driven by local communities.

Crown Lands is accountable for delivering against the priorities and outcomes in *Crown land 2031* through detailed action plans, which will have clearly defined focus areas, reform initiatives and projects.

The first action plan will be available on the Crown Land website within three months. Find out more: <https://www.industry.nsw.gov.au/lands/public/on-exhibition/state-strategic-plan-for-crown-land/crown-land-2031-state-strategic-plan-for-crown-land>

---

## NSW & VIC Weeds Conference postponed

---



The combined NSW & VIC Weeds Conference showcases the latest research and ideas for managing the establishment, impact and spread of weeds.

Due to the coronavirus pandemic the 2021 conference has been postponed from August 2021 to 21-24 March 2022.

The NSW & VIC Weeds Conference is regarded as the premier event to discuss weeds and related vegetation and production issues. The conference is a biennial event conducted in partnership with a host council attracting up to 350 attendees from NSW and interstate.

Three awards are announced at the conference acknowledging the work of NSW Government, NSW local government and community weeds professionals for their outstanding contribution towards protecting NSW from the impacts of weeds.

More details at <https://www.nswweedsconf.org.au/>

---

## Dead, shrivelled frogs are unexpectedly turning up across eastern Australia

---

In most circumstances, it's rare to see a dead frog. Most frogs are secretive in nature and, when they die, they decompose rapidly. So, the growing reports of dead and dying frogs from across eastern Australia over the last few months are surprising, to say the least.

While the first cold snap of each year can be accompanied by a few localised frog deaths, this outbreak has affected more animals over a greater range than previously encountered.

This is truly an unusual amphibian mass mortality event.

In this outbreak, frogs appear to be either darker or lighter than normal, slow, out in the daytime (they're usually nocturnal), and are thin. Some frogs have red bellies, red feet, and excessive sloughed skin.

The iconic green tree frog (*Litoria caerulea*) seems hardest hit in this event, with the often apple-green and plump frogs turning brown and shrivelled.

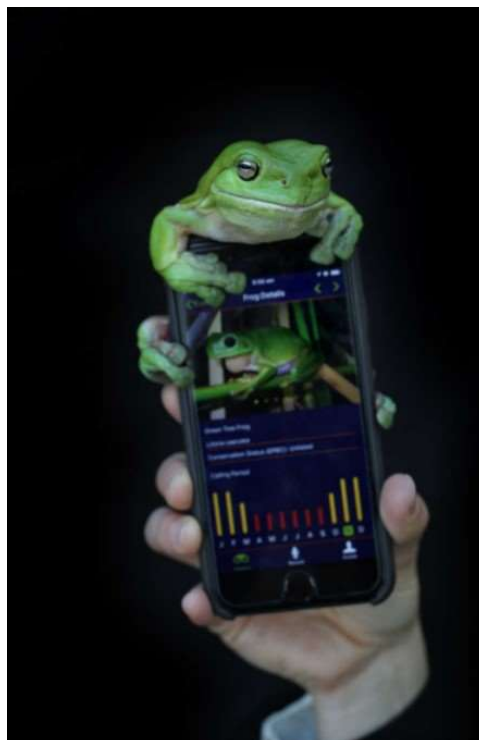


The amphibian chytrid fungus is just one possible culprit. Other less well-known diseases affect frogs.

It's also possible a novel or exotic pathogen could be behind this. So, the Australian Registry of Wildlife Health is working with the Australian Museum, government biosecurity and environment agencies as part of the investigation.

To help find the answer, report any dead or dying frogs to FrogID  
<https://www.frogid.net.au/>

Source: The Conversation <https://theconversation.com/dead-shrivelled-frogs-are-unexpectedly-turning-up-across-eastern-australia-we-need-your-help-to-find-out-why-165176>



---

### **Wild weather reignites calls for underground power lines**

---

Parts of the smashed electricity network in the Dandenongs will be rebuilt underground to prevent future outages in natural disasters after recent storms sent trees crashing into poles and wires.

A Grattan Institute energy expert and bushfire mitigation specialist say the government should move to bury power lines underground where possible in the storm and fire-prone area, with thousands of households facing the prospect of weeks without electricity.

Ten years after the Black Saturday Bushfires Royal Commission recommended power lines be placed underground, the state government has preferred a more cost-effective program to safeguard existing overhead wires.

Grattan Institute energy program director Tony Wood called for a “serious assessment” of whether electricity wires should go underground in communities vulnerable to storms and fire, including the Dandenongs.

“My suspicion is there would be areas where we should have that technology underground,” he said.

Source: <https://www.watoday.com.au/national/victoria/wild-weather-reignites-calls-for-underground-power-lines-20210618-p5826o.html>

---

### **Grain dumping is a biosecurity risk**

---



Grains Farm Biosecurity Officer from the Victorian Department of Jobs Precincts and Regions, Jim Moran, said that dumped grain provides an untreated, unmonitored, unmanaged and very attractive site for stored grain insects and disease pests to thrive and spread into neighbouring paddocks and farms, creating a significant biosecurity risk.

“Dumped grain can be a food source for birds and vermin such as mice and wild pigs which build in number and infest and damage nearby crops and grain storages. Vermin can also carry seed to other areas where it becomes a weed or vector for pests and diseases,” said Moran.

As the grain germinates it provides an ideal green bridge for the early build-up of fungal diseases such as rusts, which cause substantial yield loss to grain growers. “These illegal grain dumps are often found along transport corridors to and from ports. They provide an ideal pathway for hitch hiker pests to make their way from an urban port to a farm, where they can become established in the grain production system,” said Moran.

A question to be asked is why would you dump grain on the side of a road?  
"Some transporters are concerned about having excess weight and compliance with the Heavy Vehicle National Law, which is considered a breach of their chain of responsibility (COR)."

Grain is also dumped in smaller quantities at roadsides by drivers who have delivered to seaports or other grain receival sites and are unable to find facilities to sweep out trucks and trailers (a requirement under the Transport Code of Practice), before backloading with fertiliser or other commodities from a different facility.

Moran urges people to undertake some simple actions and reduce the risks of grain being dumped on the roadside.

"To avoid overloading a more accurate measure of weight is required. This could include installing a permanent or temporary on-farm weighbridge, gaining access to a nearby off-site weighbridge, using an on-board, over the axles or suspension-mounted vehicle scale, or simple visual methods proven to reduce overloading," he said.

Source: Inside Waste

<https://www.insidewaste.com.au/index.php/2021/06/15/grain-dumping-also-biosecurity-risk/>

---

## End mowing of road verges to create huge wildlife habitat, says UK study

---



Road verges covering 1.2% of Great Britain, an area the size of Dorset, could be used to grow wildflower meadows and create habitat for wildlife, a study says.



In a report outlining the scale of road verges in England, Scotland and Wales, researchers from the University of Exeter used Google Earth and Google Street View to estimate that verges account for about 1,000 sq miles (2,579 sq km) of the UK's land.

According to the report, up to 707 sq km (27.47%) of road verges are short, frequently mown grassland. The rest includes 1,062 sq km (40.87%) of regular grassland, while 480 sq km (18.73%) is woodland, and 272 sq km (10.66%) is scrub.

The report states this type of land, defined as the strip of land between the roadside and the fence, presents "significant opportunities" to improve verges as "multifunctional green spaces" in urban areas and densely populated regions, where land scarcity is an issue.

Ben Phillips, lead author into the report from University of Exeter's Environment and Sustainability Institute, said: "Our key message is that there's a lot of road verge in Great Britain and we could manage it much better for nature. About a quarter of our road verges are mown very regularly to make them look like garden lawns – this is bad for wildlife."

Find out more at:

<https://www.sciencedirect.com/science/article/pii/S0169204621001225>

---

### **Enhancing resilience of critical road structures under natural hazards**

---



Bridges, culverts and floodways are lifeline road structures and part of road networks, which have a significant role in ensuring resilience of a community before, during and after a natural disaster. Historical data demonstrates that the failure of road structures can have catastrophic consequences on a community affected by disaster due to the impact on evacuation and post disaster recovery. A project funded by the Bushfire and Natural Hazards CRC (BNH CRC) aimed to understand the vulnerability of critical road structures: bridges, culverts and

floodways under natural hazards of flood, bush fire and earthquakes. Once the level of vulnerability is established, the evaluation of importance of the structures for prioritization for hardening is important for decision making by road authorities.

In the first stage of the project, major failure scenarios and the consequences of failure were identified as a precursor for a focused research program on vulnerability modelling and prioritization of road structures under natural hazards. The research conducted included assessment of vulnerability of road bridges under flood, bush fire and earthquakes and floodways and culverts under flood. Further, three approaches were used to identify the consequences of failure of road structures under natural hazards: economic impact on the closure of structures on the community, prioritization of structures using analytical techniques, and post disaster social, economic and environmental impacts of failure of road structures.

A major utilisation outcome of the project is a resilient floodway design guide, published in collaboration with the Institution of Public Works Engineers Australia (Qld) (IPWEAQ). A utilisation project is currently in progress jointly funded by the IPWEAQ and BNH CRC. The guide has been reviewed by the IPWEAQ and is currently being revised by the researchers to enable uptake by local council Engineers. An asset management and vulnerability modeling tool for bridges has been developed for the DoT Victoria (formerly known as VicRoads) where the bridges prone to significant damage are highlighted in a GIS map of the road network.

The research team is working with the end users to socialize the vulnerability modeling and decision-making tools developed to enable optimized decision making to enhance resilience of road structures under natural hazards.

Access the report at: <https://www.bnhcrc.com.au/publications/biblio/bnh-8016>

---

*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.*

