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The role of linear reserves in NSW biodiversity conservation

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Presentation · November 2023

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The role of linear reserves in NSW biodiversity conservation

Neil Dufty, Executive Officer, NSW Roadside Environment Committee Water Technology Pty Ltd



Tena koutou, tena koutou, tena koutou katoa



NSW linear reserves

- Roads 1 million hectares
- Travelling stock reserves 2.5 million hectares
- Crown roads 0.5 million hectares
- Other (e.g. rail corridors, energy easements) – 0.8 million hectares

Approximately 6% of NSW land area







Values of linear reserves

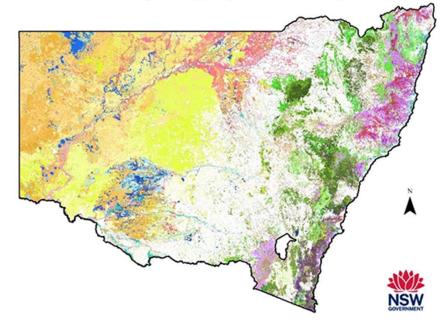
Roadside value	Description and management considerations
Connectivity	Prime function of road for humans
	Wildlife collisions (links to road safety)
	Dispersal conduit for species
Cultural heritage	Historic bridges, aqueducts, cuttings,
	Location for scar trees, monuments, memorials, and other built objects of
	historic significance,
	Historic road, stock routes, drove roads, driftway, sunken roads.
Ecotourism values	Route to explore sites, localities or landscape
	Interpretation signage and other infrastructure
Environmental	Refuge for threatened species and ecosystems
	Seed source for revegetation activities
	Weed and pest management
	Fire and timber management
	Provision of ecosystem services e.g. pollination
Infrastructure corridor	Corridor for water supply, electricity, gas and telecommunications
	Vegetation clearance for utilities
Recreational	Sight-seeing, horse riding, hiking, bike riding
	educational values
Resources	Source of firewood/ rocks/ gravel and sand
	Stock grazing for fodder during drought
	Stockpiling of materials for road management
Roadside amenity	Aesthetic values of roadside
	Litter management
	Transport parking areas
Transport and road safety	Legal requirements/ insurance,
	Road upgrade, construction and maintenance requirements,
	Soil stability management/ landslides,
	Water runoff, run-on control, flooding, snow and ice.

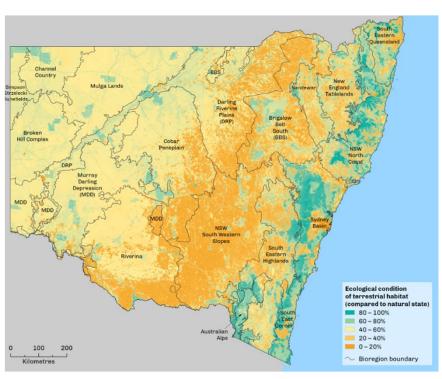


NSW vegetation

Plant community types

State Vegetation Type Map: Plant Community Types





expert insight and practical solutions



Condition of vegetation

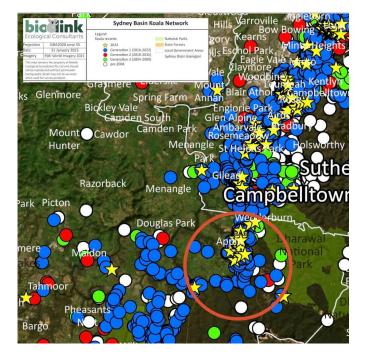


Box Gum Grassy Woodland

- Mainly located in the slopes areas of NSW
- Critically endangered ecological community (EEC)
- Less than 5% remaining in NSW
- Most of this EEC is found in linear reserves



Koalas and linear reserves







Issues with linear reserve management

- Lack of specific legislation
- Animal roadkill
- Construction (road safety vs environment)
- Maintenance
- Weeds
- Bushfires
- Illegal firewood collection
- Littering & illegal dumping
- Cultural heritage
- Recovery after natural disasters
- Economic returns (e.g. grazing)
- Landscape connectivity
- Climate change impacts



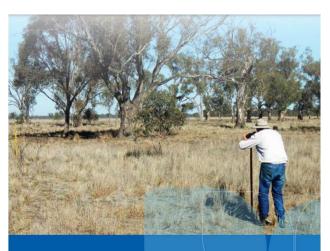
expert insight and practical solutions



Better environmental management

- Environmental assessments
- Roadside vegetation management plans
- Wildlife crossings
- Part of asset management
- Biodiversity offsetting
- Biodiversity guidelines for staff and contractors
- Training staff
- Community education
- Citizen science
- Indigenous knowledge
- Partnerships and collaborations





Local Land Services Rapid conservation assessment method Training package and guidelines





NSW Roadside Environment Committee



- Networking between linear reserve land managers
- Promotion of good practices in linear reserve environmental managers

Activities:

- State Forums
- Regional meetings
- Quarterly newsletters
- Awards
- Social media
- Advice to stakeholders
- Input to reviews
- Support for initiatives
- Signage and education materials

Water Technology

- Australian company
- Offices in NSW, QLD, VIC, SA, WA and NZ
- Environment, Natural Hazards & Resilience
- About 140 employees

Linear reserve environmental management:

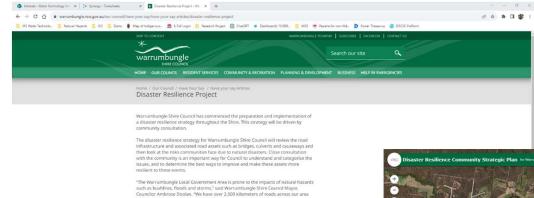
- Environmental assessments (e.g. REF, EIS)
- Assessments using the RAM
- Koala and other fauna mapping
- Development of roadside vegetation management plans
- SoPs for roadside management
- Training works crews
- Tool for prioritisation of TSRs
- Road Disaster Resilience Project



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Road Disaster Resilience Project



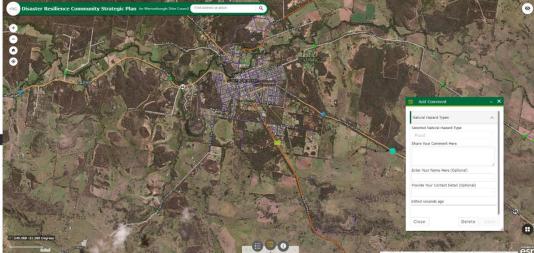
such as bushfres, floods and storms," aiad Warumbungle Shire Council Mayoo, Councilor Ambres Boolan, "We have ever 2.500 kilometers of roads across our area that can be damaged in these types of events. Community consultation is an other than the second storm of the second storm of the second storm be Shire to obtain as much hock two movely as a positive "aid of 2006an. We wont to hnow that emergency services can use our roads in these events, and that our rural residents can set the second storm yened."

Community consultation will be carried out in-person across the Shire, and through an easily accessible on-line survey tool.

Click here to access the Disaster Resilience Project Online Community Survey Tool

The online survey tool has been developed to collect community input about the risks communities face due to natural hazards and on how to improve the road Infrastructure assets in the LGA to make these assets more resilient to flood hushfire.







tēnā koutou



