

The NSW travelling stock routes and reserves network

Heritage – Habitat – Livelihood

Authored By: Bev Smiles, Cathy Merchant and Kirstin Proft
for the National Parks Association of NSW, June 2011



Cover photo: TSR near Coonabarabran, Milton Judd

Table of contents

Executive summary

Introduction	4
Scope of the campaign	4
Importance of the network	4
Threats	5
Desired outcomes	5

Part 1: What are travelling stock routes, and why do they matter?

Introduction	6
Campaign focus	
The NPA NSW campaign	6
Other TSR campaigns	7
Why are TSRs important?	8
Environmental importance of the TSR network	8
Temperate woodlands and biodiversity in TSRs	8
TSRs and connectivity conservation	12
TSRs and government biodiversity targets	13
Sustainable economic uses	
Agricultural importance	16
Tourism	17
Culture and heritage	
Aboriginal culture and heritage	18
Historical development of TSRs	19
Folk lore, songs and art	21
Continuing social benefits of the TSR Network	23
Community involvement in TSR management	24

Part 2: How are travelling stock routes threatened?

Legislative and administrative threats to TSRs

History of legislative pressures on TSRs	28
--	----

Current legislative pressures on TSRs	
Recent administrative changes	29
Threats posed by current administrative initiatives	29
Threats posed by emphasis on economic returns of TSRs	30
Other threats to TSRs	
Industrial logging	31
Firewood collection	31
Illegal tree felling	31
Invasion of weeds	32
Gas and mineral exploration and infrastructure	32
Part 3: How can we protect the environmental, economic, cultural and social benefits of TSRs?	
History of the current NPA campaign	34
Current initiatives to preserve the TSR network	
Developing a multi-use management framework	35
Environmental management	37
Heritage management	37
Recreational and social uses	37
Economic uses	38
Resourcing management	38
Developing a case for National Heritage listing	39
National heritage criteria met by the TSR network	39
The 'Grass Routes' initiative	40
Conclusion	41
Appendix 1: History of NPA's involvement with the TSR network	
Early history of the TSR campaign	42
Actions of NPA branches to protect TSRs	43

Executive Summary

Introduction

The travelling stock route and reserves network (TSR network) in New South Wales is an extensive network of public land that was established for the droving of sheep and cattle during early European colonisation, often along traditional Aboriginal pathways through the landscape. Queensland has a similarly extensive network of travelling stock routes, whilst stock routes are present to a much lesser extent in other states and territories. The combined TSR networks of NSW and Queensland, if effectively managed, have the potential to be a globally unique, continental-scale corridor of publicly owned remnant vegetation with great environmental, economic, cultural (both Aboriginal and European) and social benefits to NSW and Australia.

The National Parks Association of NSW (NPA) has been working for over 50 years to protect the unique properties of TSR network in NSW. We actively engage with the range of interest groups who enjoy sharing its multiple uses. NPA is currently campaigning to engage the community in understanding the importance and potential of the TSR network across the continental landscape, and developing an application for National Heritage Listing of the TSR network. NPA is also working towards developing a multi-use management framework for TSRs, in conjunction with a wide range of stakeholders, to promote the shared and sustainable use of the NSW TSR network.

Scope of the Campaign

The campaign focuses on the parts of the network under threat, primarily TSRs in the Central Division of New South Wales. The TSR network in the Central Division comprises crown land under the *Crown Lands Act 1989*. There are complex administrative arrangements for these TSRs between the Department of Industry & Investment (formerly the Department of Agriculture) and the Land and Property Management Authority (formerly the Department of Lands). Proposed changes to the management of Central Division TSRs pose a serious threat to the environmental, cultural, economic and social importance of the network.

Importance of the network

The TSR network provides key environmental, economic, cultural and social benefits to NSW. TSRs preserve a range of threatened ecological communities and species. Because TSRs have remained publicly owned and generally have not been cleared, many protect remnants of woodland vegetation in the otherwise highly-cleared wheat and sheep farming belt of New South Wales. Often, these remnants are the best examples of ecosystems and communities that are not well represented in National Parks and other NPWS estate. Across the state, approximately 80% of TSRs contain vegetation communities of high or very high conservation status. The TSR network also provides a unique opportunity for large-scale, connectivity-based conservation, which may mitigate

the effects of climate change on native species. Effective management and restoration of the TSR network would make a significant contribution towards state, federal and international biodiversity conservation targets.

The TSR network has a number of sustainable economic uses. It is still used in many places for moving livestock, and is a source of emergency feed during periods of drought, fire and flood. Carefully controlled intermittent grazing is not detrimental to, and may even improve, the biodiversity and environmental integrity of the network. The network is also becoming the focus of valuable environmental and cultural tourism.

The TSR network provides important connections for many Aboriginal Australians to traditional travel lines. It also connects Australians to the history of European colonisation and exploration, and this connection to TSRs and the droving lifestyle is reflected in folklore, poetry, songs and art. The network has ongoing social importance, supporting a range of recreational activities and community groups involved in its management.

Threats

The TSR network is increasingly being considered by reference to a narrow interpretation of its economic value. The district managers of TSRs, the Livestock Health and Pest Authorities, currently oversee management, the collection of rates and the movement of stock. They have recently been instructed to develop business plans that make a clear economic case for the value of TSRs under their care. It has been proposed that 'uneconomic' TSRs are handed over to the Land and Property Management Authority (LMPA). NPA is concerned that the LPMA may not have the appropriate funds and resources to effectively manage TSRs ceded back to it in a way that preserves their importance to a range of stakeholders. There is also concern that some TSRs may be sold to neighbouring land holders, leading to the further break-up of the TSR network, loss of access for current users and the probable loss of key network functions.

The environmental, cultural and social attributes of the TSR Network also face a range of other threats, including overgrazing, invasive species, firewood collection, industrial logging, mineral and gas exploration and inappropriate infrastructure development (e.g. gas pipelines).

Desired outcomes

Because of the national importance of the TSR Network in environmental, cultural, economic and social areas, NPA argues for the TSR Network to **remain under one land manager** for consistent and less complex management arrangements. We call for the **creation of strategic management principles** to maintain the multiple beneficial uses of the TSR Network and for **adequate public funding** to augment the rates charged to district landholders, recognising the wider community benefits for heritage, habitat and livelihood.

Part 1: What are TSRs, and why do they matter?

Introduction

Travelling stock routes and travelling stock reserves (collectively called TSRs) make up a network of Crown land within New South Wales. Travelling stock routes are roads along which livestock can legally be driven, and usually have wide verges on which cattle can graze. Travelling stock reserves include stock routes as well as fenced areas for camping with or watering stock overnight. Although the main purpose of the TSR network was originally for droving stock across the countryside, the network is now recognised for its environmental, economic, cultural and social importance. In particular, TSRs form a network of corridors and stepping-stones of remnant vegetation across the heavily-cleared wheat and sheep belt in central NSW. Together with the equivalent network in Queensland, sometimes known as the Stock Route Network, TSRs form a unique and iconic continental-scale corridor of publicly owned remnant vegetation.

TSR networks are also present in the other Australian states and the Northern Territory, but are not nearly as extensive as those in Queensland and New South Wales.¹ This may have resulted from differences in historical legislative controls and management strategies between states. In Victoria, although TSRs were present in the past, they appear never to have been officially gazetted,² and have now been overlaid with roads.³

Campaign focus

The NPA NSW campaign

The National Parks Association of NSW (NPA) has been working for over 50 years to protect TSRs in NSW. The administration of NSW TSRs is complex, and differs between the geographic divisions of the state. TSRs in the western division of the State are held by private landholders as leaseholders under the *Crown Lands Act (1989)*. The requirement to provide access to travelling stock is a condition of the relevant leases. Management of these TSRs is thus the primary responsibility of the landholder.

By contrast, TSRs in the central and eastern divisions of NSW are generally held in trust by Livestock Health and Pest Authorities (LHPA). The TSR network in these divisions comprises approximately 6,466 separate reserves totalling 740,000 hectares (see Figure 1).⁴ Unfortunately, in the populous eastern division of NSW, intensive development and

complex planning provisions have fragmented or completely destroyed most TSRs, although patches of vegetation in isolated travelling stock reserves may still be important 'stepping stones' of habitat in the landscape. Central division TSRs, in contrast, form an extensive and extremely valuable network of remnant vegetation. This unique network is threatened by recent changes to administrative arrangements. As a result, TSRs in the central division of NSW are the primary focus of NPA NSW's current campaign.

Other TSR campaigns

The Queensland National Parks Association has a similar campaign in Queensland to protect their stock route network. Both the NSW and Qld NPAs are members of the Stock Routes Coalition, which is a group of community organisations working at the national, state and local level. The Stock Routes Coalition has the broad aim of having the NSW and Queensland travelling stock routes declared 'Protected Corridors for Travelling Stock and Biodiversity', which are retained in public ownership and managed to maintain their biodiversity and cultural heritage, as well as their uses for travelling stock.

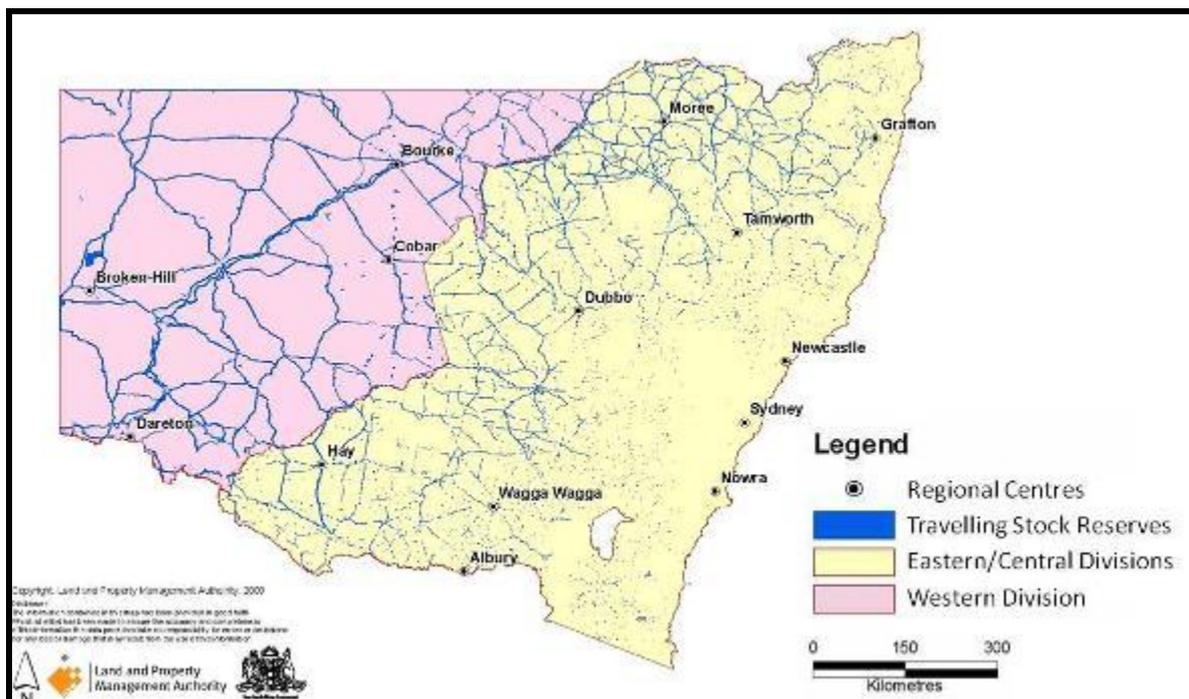


Figure 1. Distribution of TSRs across the divisions of NSW.⁵

Why are TSRs important?

Travelling stock routes and reserves have particular benefits in four key areas.

- TSRs have **enormous importance to biodiversity**. They protect endangered ecological communities and threatened species in heavily cleared areas, and may play an important role in connectivity conservation and helping native species to cope with climate change. Effective management of the TSR network could enable the NSW government to make significant progress towards a range of state, national and international biodiversity targets.
- TSRs have **sustainable economic uses**. They provide emergency feed and agistment during times of drought, fire and flood and allow movement of stock by foot. Grazing of stock on TSRs, if carefully managed, can support biodiversity conservation work. TSRs can also be focal points for environmental and cultural tourism.
- TSRs have a **rich culture and heritage**, connecting Australians to Aboriginal and European history, culture, values and resources.
- TSRs have **continuing social benefits**, providing a location for a range of recreational activities, and attracting the interest of many community groups.

Environmental importance of the TSR network

The TSR network of NSW is of enormous importance to biodiversity, as it preserves a range of threatened ecological communities and provides habitat for threatened species, particularly many woodland birds. Moreover, the combined network of stock routes throughout NSW and Queensland is an extensive system of public land that contains some of the highest quality, connected remnants of vegetation in Eastern Australia. As a result, the TSR network provides a unique opportunity for connectivity conservation on a continental scale, which may help to mitigate the effects of climate change and habitat loss on native species. Protection and management of TSRs may also provide an excellent opportunity for the NSW and Australian governments to progress towards state, national and international targets for biodiversity conservation.

Temperate woodlands and biodiversity in TSRs

Temperate Australian woodlands, such as the magnificent Box and Ironbark woodlands, once covered extensive areas of the western Slopes and Tablelands from Queensland to the Riverina. They were home to a huge variety of plants and animals. Sadly, the advance of wheat and sheep farming changed this situation. In some regions, particularly Central West NSW, more than 99% of some vegetation types has been cleared.⁶ Because TSRs were

retained as public land, they were not cleared for grazing and cropping, and woodland remnants were preserved in these areas. Although some remnants of woodland have been retained on private land, they have been subject to greater degradation pressure than woodland in TSRs. As a result, woodland remnants in TSRs support more species of birds and arboreal mammals than those on private land.⁷

The importance of the woodlands remaining in the TSR network cannot be overstated. Most areas reserved as National Parks and Nature Reserves in NSW are on land that was not suitable for clearing for agricultural uses, such as rocky outcrops and ridgelines (see Figure 2). These areas generally have poorer soils and do not support the vegetation types and habitats that occur on the fertile valley floors with creek lines, rivers and rich alluvial soils. The TSR network, however, mostly occurs on the fertile valley floors because it was developed following water sources. Therefore, the vegetation and habitats contained in TSRs are, in many cases, the best remnants of woodland ecosystems that are adapted to fertile soil conditions.⁸

The woodlands found on TSRs are essential for the survival of a range of threatened plant and animal species. 70% of hollow-using fauna in Australia is found in woodlands,⁹ but these hollows take a long time to form in the slow growing, hard wood species that characterise the western woodlands. The mature, hollow-bearing trees found along the TSRs provide vital habitat, nesting sites and protection for a range of birds, arboreal mammals and bats.¹⁰



Old Tree on 8 Mile TSR *Photo: Marcus Salton*

Nationally listed endangered ecological communities, such as the critically endangered White Box-Yellow Box-Blakely's Red Gum Woodland and Derived Native Grassland, are found in the TSR network.¹¹ Some threatened species with extremely restricted habitats, such as the critically endangered Golden Sun Moth¹² and the endangered Grassland Earless Dragon¹³ have populations within TSRs. Other endangered species such as the Regent Honeyeater use the TSR network for food and nesting areas.¹⁴

The woodlands contained in TSRs also provide habitat for a broad range of woodland birds in the sheep and wheat farming belt of NSW.¹⁵ These woodland species are currently experiencing a wave of regional extinctions. More than 60 species (25% of all native landbird species) have been identified as threatened or declining.¹⁶ Many of these species are sedentary passerine (songbird) species with a previously wide distribution range (see Box 1 on the following page).¹⁷

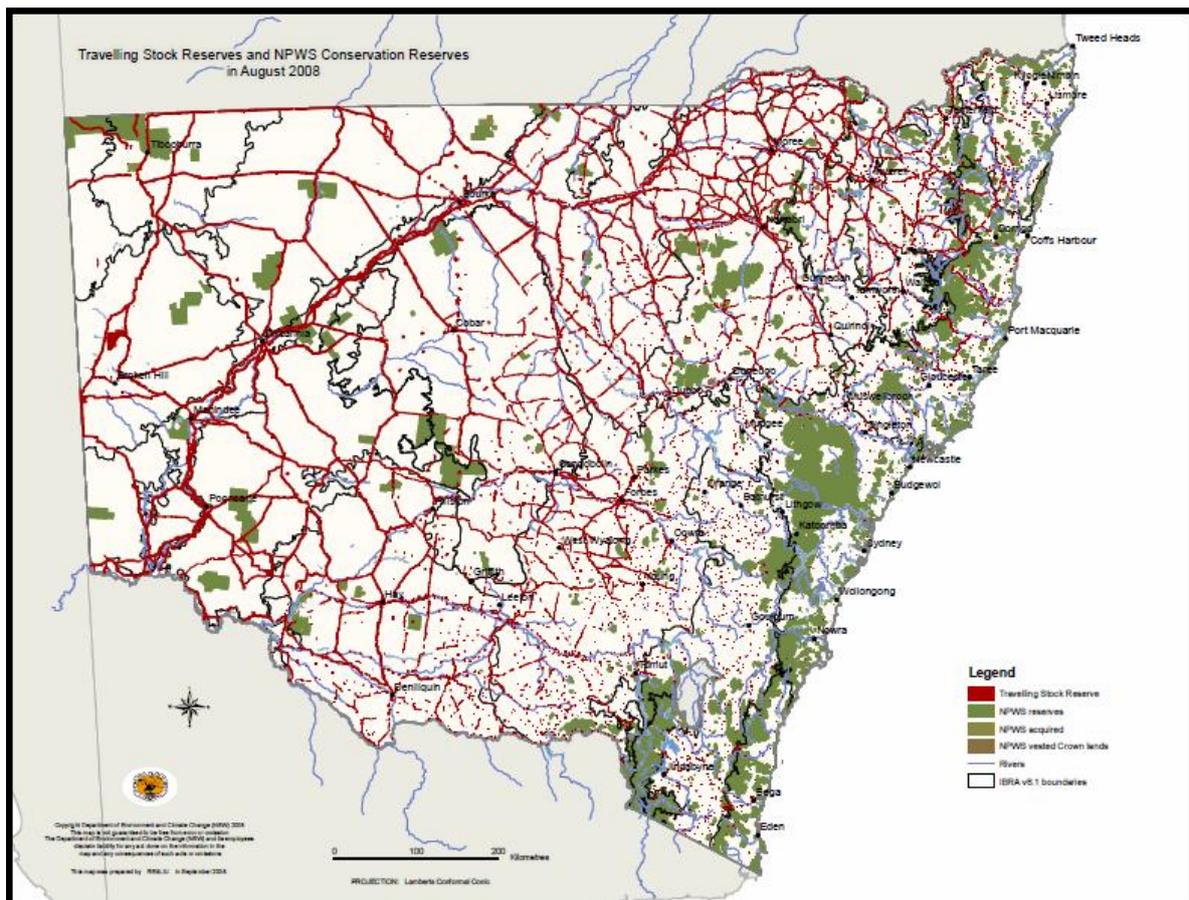


Figure 2. Relationship between TSRs, NPWS estate and bioregions in NSW



Eastern Yellow Robin *Photo: Robert Bray*

Box 1. Declining songbirds of the NSW sheep-wheat belt:

Brown Treecreeper *Climacteris picumnus*
 Speckled Warbler *Chthonicola sagittata*
 Chestnut-rumped Thornbill *Acanthiza uropygialis*
 Southern Whiteface *Aphelocephala leucopsis*
 Grey-crowned Babbler *Pomatostomus temporalis*
 White-browed Babbler *Pomatostomus superciliosus*
 Varied Sittella *Daphoenositta chrysoptera*
 Crested Shrike-tit *Falcunculus frontatus*
 Rufous Whistler *Pachycephala rufiventris*
 Crested Bellbird *Oreoica gutturalis*
 Restless Flycatcher *Myiagra inquieta*
 Jacky Winter *Microeca fascinans*
 Red-capped Robin *Petroica goodenovii*
 Hooded Robin *Melanodryas cucullata*
 Eastern Yellow Robin *Eopsaltria australis*
 Diamond Firetail *Stagonopleura guttata*

From Reid (1999)

TSRs and connectivity conservation

Connectivity conservation is an emerging approach to conservation that recognises:

- the need for large-scale restoration and rehabilitation of heavily fragmented landscapes, so that protected areas do not remain isolated and suffer local extinctions of species;
- the need for conservation planning to factor in evolutionary and ecological processes on a large spatial scale; and
- the need for conservation management to extend beyond formally protected areas to the lands around them.¹⁸

The network of travelling stock routes throughout NSW and Queensland provide a unique opportunity to apply the principles of connectivity conservation on a near-continental scale. TSRs act as corridors and ‘stepping stones’, connecting fragmented vegetation across the landscape. In particular, they connect the remnants of a north-south corridor of woodland in eastern Australia. The links provided by TSRs allow animals to disperse between remnant vegetation areas, promoting interbreeding between populations and allowing species to colonise new or abandoned habitats.¹⁹

The TSR networks in NSW and Queensland also extend across climatic gradients in eastern Australia. Temperatures in eastern Australia generally increase from south to north, whilst moisture increases from west to east (Figure 3).²⁰ These conditions have a major influence on habitat. As the TSR networks span these gradients, they allow species to move across the landscape in response to changes in rainfall and temperature. This enables the seasonal movement of species, particularly in response to extreme seasonal conditions such as drought.²¹ Perhaps more crucially, the network may also help plant and animal species to survive climate change by allowing them to move to new areas, as habitats and food sources shift with changing weather patterns.²²

The TSR network may also provide benefits to other, large-scale connectivity conservation projects. Elements of the TSR network, if properly protected and managed, may contribute to the establishment of the great eastern ranges (GER) corridor, a proposed conservation corridor extending along the Great Dividing Range and Great Escarpment from Victoria to northern Queensland. TSRs have also been incorporated as part of the Monaro Grassland Conservation Management Network, along with private land holdings, roadsides, cemeteries and other crown land.²³

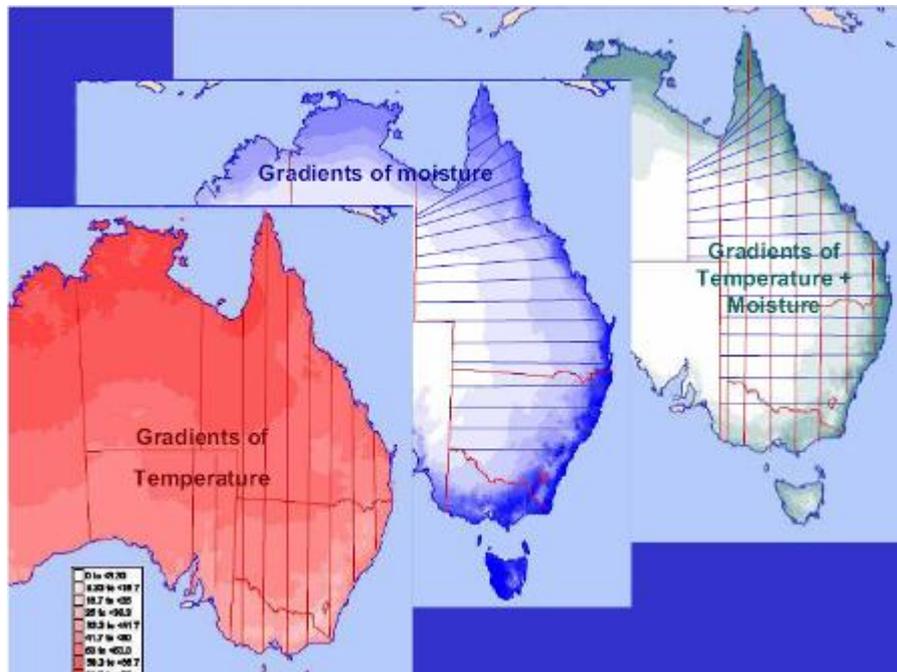


Figure 3. Gradients of temperature and moisture across eastern Australia²⁴

The importance of TSRs to government biodiversity targets

Targets for biodiversity conservation have been set by the NSW and Australian governments, as well as in the strategic goals and targets of the international Convention on Biological Diversity. The relevant targets are summarised in Table 1 on the following page.

Effective conservation of the TSR network would be an important step towards meeting these state, national and international biodiversity targets. Indeed, the importance to biodiversity of the travelling stock route 'mosaic' across the central western areas of NSW is explicitly recognised in the 2006 and 2009 *State of the Environment (SoE) Reports*, which are prepared every three years by the NSW government to evaluate the condition of the NSW environment.

Table 1. State, national and international biodiversity targets relevant to conservation of the TSR network.

Level	Document Name	Relevant targets
New South Wales	<i>NSW State Plan 2006</i>	<p>E4. 1. By 2015 there is an increase in native vegetation extent and an improvement in native vegetation condition</p> <p>E4. 2. By 2015 there is an increase in the number of sustainable populations of a range of native fauna species</p> <p>E4. 3. By 2015 there is an increase in the recovery of threatened species, populations and ecological communities</p> <p>E4. 4. By 2015 there is a reduction in the impact of invasive species</p>
Australia	<i>Australia's Biodiversity Conservation Strategy 2010 - 2030</i>	<p>4. By 2015, achieve a national increase of 600,000 km² of native habitat managed primarily for biodiversity conservation across terrestrial, aquatic and marine habitats</p> <p>5. By 2015, 1,000 km² of fragmented landscapes and aquatic systems are being restored to improve ecological connectivity</p> <p>6. By 2015, four collaborative continental-scale linkages are established and managed to improve ecological connectivity</p> <p>7. By 2015, reduce by at least 10% the impacts of invasive species on threatened species and ecological communities in terrestrial, aquatic and marine environments</p>
International	<i>Convention on Biological Diversity – Strategic Goals and Targets (October 2010)</i>	<p>11. By 2020, at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas... are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.</p> <p>15. By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.</p>

The 2006 SoE Report records that 80% of the 600,000 recorded hectares of travelling stock routes contained vegetation communities with a high or very high conservation status. It states:

*"Measures to protect and maintain biodiversity on other Crown and private lands are ... important to complement the reserve system. In fragmented landscapes, Crown lands, such as travelling stock routes (TSRs), reserves and road reserves, are often the last remnants of native vegetation and thus prime candidates for inclusion in reserve systems. These connections are vital for the movement of species throughout entire landscapes, allowing genetic exchange and adaptation to environmental changes, such as global warming."*²⁵

The 2009 SoE Report makes a similar point:

"Approximately 700,000 ha of TSRs in the Eastern and Central divisions of NSW are currently being assessed for their natural values. They are largely situated in environments that are poorly represented in the formal conservation reserve system. Their frequent association with agricultural activity places them in environments that are poorly conserved and heavily disturbed."

*A large proportion of TSRs are in bioregions or subregions (IBRA) which are less than 5% reserved and, in some cases, TSRs provide the best, or only, opportunity for conservation of threatened species or communities. The linear network of TSRs forms a fundamental system of landscape corridors, particularly in the sheep–wheat belt and tablelands".*²⁶

Sadly, the 2010 NSW State Plan performance report indicates that none of the 2015 State-wide targets to protect biodiversity are currently on track. Trends for sustainable populations of native fauna, recovery of threatened species and ecological communities, and invasive species status are still worsening.²⁷ The restoration and management of the TSR network in NSW, with emphasis on conserving the environmental functions of the network, restoring and linking fragmented ecosystems, and managing invasive species, would significantly contribute to achieving a range of state, national and international targets.

Sustainable economic uses

Agricultural importance

Since the advent of modern transport methods, the TSR network is no longer as widely used for droving as it was in the past. Nonetheless, it is still of use to drovers and pastoralists. Some walking of sheep and cattle along TSRs still occurs, and the viability of transporting livestock by foot may increase as fuel prices rise, and consumer interest in minimising carbon pollution and eating locally-produced foods increases. TSRs can be an important source of feed for livestock during periods of drought.²⁸ TSRs also provide a resource for apiarists, who can obtain licences to place bee hives on them.

Grazing and droving of livestock on TSRs need not be incompatible with protection of the biodiversity values of the network. Although overgrazing and subsequent damage to the ecosystem can be a serious problem, especially in areas around water and stock camping areas, carefully managed grazing can in fact be beneficial to biodiversity.²⁹ Well-timed grazing can be used to suppress invasive plant species, allowing native species to persist or re-establish in an area.³⁰



Cattle and hives on Bogolong driftway. *Photo: Pia Lentini*

Tourism

The potential of TSRs as focal points for ecotourism is being increasingly recognised across NSW. One prominent example of this has been in Barraba shire, in north-west NSW. This shire is well known as a breeding site for the Regent Honeyeater, a nationally listed endangered species. Many of the best-known breeding places are on the travelling stock routes that radiate around the district.

Keen bird watcher, Russ Watts, decided to share the secrets of the area by producing a route map of places where a variety of birds could be easily seen. During the 1990s, the publication 'Bird Routes of the Barraba District' was produced and the Regent Honeyeater became the emblem of the Shire.³¹ This was the birth of a new phenomenon in Australia; a guide specifically for the use of recreational bird watchers. The Bird Routes brochure has attracted visitors to Barraba from Norway, Belgium, the UK and Canada, as well as from interstate and other parts of NSW.



Bird watching in TSR *Photo: Tim Hosking*

In 2000 this initiative won the National Award for Innovation in Local Government – Environment Section. This initiative has encouraged many other local councils in NSW to develop a similar brochure for their area. There are now over 30 bird route brochures across NSW. Most are linked to travelling stock routes. Bird routes have also been established in Queensland, Victoria, Western Australia and the Northern Territory.

This resource has led to an increase in ecotourism and recognition of the sustainable economic potential of the flora and fauna in bird routes and TSRs.

TSRs have also become key areas for tourism due to their history and unique cultural associations. The 'Long Paddock' tourism initiative is a prime example. It is a touring route along the Cobb Highway, which follows part of the TSR network in Western NSW, stretching from the Victorian border to Wilcannia in the Central Darling Shire of NSW. A guide to the route and a audio tour CD have been produced, and 47 interpretive panels have been placed along the route, highlighting the history and stories of the TSRs and surrounding areas.³²

Culture and heritage

Aboriginal culture and heritage

Before European contact, Australia was criss-crossed by networks of Aboriginal travel lines. These trails connected food and water sources, and were used for travel, ceremonial and trade purposes. Traditional camping places were often located along these pathways.³³



Scarred tree on Grogan TSR *Photo: Rosemary Stapleton*

It is now thought that in many cases, travelling stock routes developed from Aboriginal travel lines, as these routes often followed the most accessible routes through the landscape, avoiding natural obstacles and linking water sources. Many TSRs may have developed by transfer of knowledge from Aboriginal guides and trackers, and workers in the pastoral industry, or by early Europeans observing the physical signs of traditional pathways and adopting them.³⁴ Traditional camping places were also sometimes gazetted as travelling stock reserves. The presence of scarred trees, middens and artefacts on many TSRs are evidence of the traditional spiritual and cultural connections of Aboriginal people with these areas.

TSRs have remained valuable to Aboriginal people since European colonisation. Many Aboriginal people have worked on the routes as drovers or in other roles, linking past and current uses of travel lines. As TSRs have remained publicly accessible, rather than restricted by land tenure like most other areas, they have often been sites for camping and provide resources used by many Aboriginal communities.³⁵

Historical development of TSRs

The system of TSRs that developed in Australia is a unique institution of unusual scope and importance, both historically and currently. The development of the TSR network began early in the European colonisation of the continent and its extent and longevity is notable. The initial development of droving trails on the continent accompanied the spread of pastoral occupancy as new lands were stocked with cattle and sheep. New South Wales, the oldest of the Australian colonies, pioneered the development and use of stock routes and the establishment of a formalized government administration for their management and maintenance.³⁶

Between the 1830s and the 1870s, a range of legislation was implemented by state governments in an attempt to control the spread of sheep and cattle diseases. These controls influenced the origins and management of TSRs in a number of ways. In 1864, NSW established 'Scab districts', managed by a board of pastoralists, which controlled the inspection for and management of scab, a disease of sheep caused by a parasitic mite.³⁷ Graziers in each district were taxed on the basis of the stock they owned and elected five of their members to administer the scheme. The scab districts slowly became the functional administrators of TSRs.³⁸ These districts underwent several name and legislative changes, eventually becoming the current Livestock Health and Pest Authorities.



'Overlanders' by S.T. Gill
 (Originally published by Hamel and Ferguson: Melbourne.)
 Available at <http://nla.gov.au/nla.pic-an714918>.

By the 1860s some established stock routes were experiencing such heavy usage that regulations were implemented to protect the rights of adjacent runholders and of subsequent drovers.³⁹ The *Occupation Act of 1861* stipulated that travelling stock was not to stray more than half a mile on either side of a stock route through unfenced lease land. Travelling stock was also required to progress at least 4 miles per day. Specific travelling stock reserves were established around this time as camping places.⁴⁰

In the 1870s, charges were introduced for travelling stock in NSW.⁴¹ Travelling stock was charged at 2 shillings per head per mile, and was required to have a permit which showed the route and schedule of travel. The minimal daily travel distance by this time was six miles for sheep and ten miles for cattle.⁴² The first comprehensive map of stock routes in NSW was prepared in the mid-1890s. At the time, the TSRs of the eastern and central divisions of NSW were estimated to occupy almost 3,100,000 acres (1,254,570 ha).⁴³

Stock routes were heavily travelled up until the late 1940s. The intensity of usage began to decline in the early 1950s due to a combination of a series of wet years and the rise of motor transport.⁴⁴ Subsequent periods of drought, however, have seen sporadic rises in the usage of TSR.⁴⁵

TSRs today represent a continuation of early European pastoral activities in today's modern world. The drover is still an important part of the livestock industry in NSW and Queensland and connections with the rural landscape, lifestyle and working traditions are integral to the Australian identity.



Drover Robert Groth Photo: Cecile van der Burgh

Folk lore, songs and art

The life of droving, camping beneath the stars and drifting along the highways and byways in the bush has been a common theme in Australian folk tradition. The extensive range of poetry, song, stories and art works inspired by the travelling stock routes, their history and the industries they support is an intrinsic element of the Australian self image and relationship with the bush.

One modern initiative, ARTBack – Sculptures of the Long Paddock, highlights the ongoing importance of TSRs to rural Australian culture and identity. In 2009, seven large sculptures inspired by the droving life and history of the TSRs and surrounding regions were been placed in various towns along the ‘Long Paddock’ Cobb highway touring route.⁴⁶ These sculptures have become a tourist attraction, connecting Australians and international visitors to the history and culture of the TSR network.

TSRs have been an inspiration for many poems and songs over the years. Stock routes and the droving life were frequently key themes in the poems of famous Australian poets of the late 19th and early 20th centuries, such as ‘Banjo’ Paterson and Henry Lawson (See Box 2).

Modern songwriters and poets have also been inspired by life on the stock routes. Aboriginal Australian singer-songwriter, Kev Carmody, has been influenced by his early life on the stock routes of south-eastern Queensland, where his parents worked as drovers.⁴⁷ Singer-songwriter John Williamson is also a great lover of stock routes, which he experienced when he lived at Croppa Creek, near Moree. In 1999, his song *Campfire on the Road* (Box 2), an ode to the legacy of the stock routes, won the country music heritage song of the year. Williamson loves TSRs because they allow all Australians the opportunity to boil a billy in the bush.⁴⁸ In August 2008, he declared his support for the campaign to protect the TSR network from being sold off:

“These corridors belong to all Australians. They are as precious as our rivers for many reasons. Like our rivers, it should not be possible to sell them off. I am quite prepared and honoured to be the patron for save our stock routes for all Aussies.”⁴⁹

Box 2. Poems and songs celebrating droving and TSRs

*"In my wild erratic fancy visions come to me of Clancy
Gone a-droving 'down the Cooper' where the Western drovers go;
As the stock are slowly stringing, Clancy rides behind them singing,
For the drover's life has pleasures that the townsfolk never know.*

*And the bush hath friends to meet him, and their kindly voices greet him
In the murmur of the breezes and the rivers on its bars,
And he sees the vision splendid of the sunlit plains extended,
And at night the wond'rous glory of the everlasting stars."*

From **'Clancy of the Overflow'** by A. B. 'Banjo' Paterson (1864-1941)

* * * * *

*"Now this is the law of the Overland that all in the West obey -
A man must cover with travelling sheep a six-mile stage a day;
But this is the law which the drovers make, right easily understood,
They travel their stage where the grass is bad, but they camp
where the grass is good;"*

From **'Saltbush Bill'** by A. B. 'Banjo' Paterson (1864-1941)

* * * * *

*"Our Andy's gone to battle now
'Gainst Drought, the red marauder;
Our Andy's gone with cattle now
Across the Queensland border.*

*He's left us in dejection now;
Our hearts with him are roving.
It's dull on this selection now,
Since Andy went a-droving."*

From **'Andy's Gone with the Cattle'** by Henry Lawson (1867- 1922)

* * * * *

*"We must never let 'em take this life away
Old stock routes belong to one and all
Drovers, dreamers all agree, poets, Aborigines
We have a right to light a campfire on the road."*

From **'Campfire on the Road'** by John Williamson (1945 - present)

Continuing social benefits of the TSR network

The TSR network has a wide range of recognised social benefits. Travellers have long enjoyed the bush remnants provided on roadsides as a scenic stopover place for a quiet rest and repast. The *Rural Lands Protection Amendment Act, 1998*, permits a range of recreational uses of TSRs, including walking, running, picnicking, swimming, horse riding, fishing and pedal cycling. Recreational and sporting groups may also obtain permits for other uses of TSRs.

Bird watchers, field naturalists and environmental educators are regular visitors to the TSR network. TSRs provide easily accessible 'outdoor classrooms' for nature study and experience of the complex web of life in the Australian bush. Their social importance is reflected by the involvement of many community groups in the management and maintenance of TSRs.



Family picnic in TSR near Dubbo *Photo: Tim Hosking*

Community involvement in TSR management

Klori TSR, which is near Tamworth in north-western NSW, is a heritage-listed site, which was identified as a TSR of floristic significance.⁵⁰ The 'Friends of Klori' community group was formed in 2001. The initial group of interested people were drawn from a range of backgrounds including local landholders, Government agency representatives and land managers, botanists, ecologists, teachers, landcarers, artists and conservationists. Set monitoring sites were established within Klori TSR, to provide a consistent area in which plants could be monitored over time and changes noted. A flora list and bird list was established and is regularly updated, a fauna survey was conducted and a herbarium was established.



Signpost at Klori TSR *Photo: Nell Chaffey*

The main work at Klori TSR has been to control the invasion of Coolatai Grass (*Hyparrhenia hirta*) in the reserve. This has been assisted by a number of grants. Field days and educational materials have been developed. A beautiful range of fundraising and awareness raising products such as cards and calendars has been designed using imagery of the flowering plants found in the reserve.

The Armidale Branch of NPA and 'Citizens Wildlife Corridors' are two other examples of community-based groups with a long history of voluntary involvement in on-ground works and conservation in TSRs across NSW.

Part 1: Endnotes

1. Pearson M., Lennon J. (2010) *Pastoral Australia: fortunes, failures and hard yakka: a historical overview 1788-1967*.CSIRO Publishing: Collingwood, Vic.
2. Cameron J., Spooner, P (2010) Origin of Travelling Stock Routes. 2. Early development, management, and the growing embrace of the law (1830-70s). *The Rangeland Journal* **32**, 341-351
3. Pearson M., Lennon J. (2010) *op. cit.*
4. Land and Property Management Authority (2010) *Assessing the Values and Management of the NSW Travelling Stock Reserve Network for Biodiversity and Optimal Management in the Hunter Valley. Report on Methodology and Findings*. Land and Property Management Authority, Sydney.
5. Modified from map in Land and Property Management Authority (2010) *Assessing the Values and Management of the NSW Travelling Stock Reserve Network for Biodiversity and Optimal Management in the Hunter Valley. Report on Methodology and Findings*. Land and Property Management Authority, Sydney.
6. Regional State of Environment Report for Councils of the Greater Central West Region of NSW 2009-2010 Supplementary Report, p. 33.
7. Lindenmayer D., Cunningham R., Crane M., Montague-Drake R., Michael D. (2010) The importance of temperate woodland in travelling stock reserves for vertebrate biodiversity conservation. *Ecological management and restoration* **11**(1), 27-30.
8. Spooner P., Lunt I. (2004) The influence of land-use history on roadside conservation values in an Australian agricultural landscape. *Australian Journal of Botany* **52**, 445-458.
9. Gibbons P., Lindenmayer D. (2002) *Tree hollows and wildlife conservation in Australia*. CSIRO Publishing: Victoria, Australia
10. Gibbons P., Lindenmayer D. (2002) *op. cit.*
11. Oliver L., McLeish T (2007) *Box Gum Woodlands in Travelling Stock Reserves on the NSW South Western Slopes*. Draft report to Department of Environment and Climate Change (NSW).
12. Department of Environment and Conservation NSW (2005) 'Golden Sun Moth- Priority Actions', *NSW Threatened Species*, Accessed 14.6.11. URL http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/pas_profile.aspx?id=10791
13. Department of Environment and Conservation NSW (2005) 'Grassland Earless Dragon- Priority Actions', *NSW Threatened Species*, Accessed 14.6.11. URL http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/pas_profile.aspx?id=10817
14. Harris J. 'Northern NSW: Latest News', *Birds Australia* Accessed 14.6.11. URL <http://www.birdsaustralia.com.au/the-organisation/northern-nsw.html>

15. Reid J. (1999) *Threatened and declining birds in the NSW sheep-wheat belt I: Diagnosis, characteristics and management*. Consultancy report to NSW National Parks and Wildlife Service. CSIRO Wildlife and Ecology: Canberra.
16. Reid J. (1999) *op. cit.*
17. Reid J. (1999) *op. cit.*
18. Mackey B., Watson J., Warboys G.L. of ANU Enterprises Pty Ltd (2010), *Connectivity conservation and the Great Eastern Ranges corridor*, an independent report to the Interstate Agency Working Group (Alps to Atherton Connectivity Conservation Working Group) convened under the Environmental Heritage and Protection Council/ Natural Resource Management Ministerial Council.
19. Reid J. (1999) *op. cit.*
20. Sutherst B, Cleland E., Szabo J. and Rogers G. (2008) *A Protected Corridor for Travelling Stock and Biodiversity*. The case for conservation of the NSW TSRs and Qld SRN. Conference paper at 'Travelling Stock Networks: Biodiversity Highway of the Eastern Inland' Conference, Sydney.
21. Sutherst B. *et al.* (2008) *op. cit.*
22. Sutherst B. *et al.* (2008) *op. cit.*
23. Eddy D. (2007) The Monaro Grassland Conservation Management Network: Reconnecting the sward. *Ecological Management and Restoration*. **8**(3), 165-176.
24. Sutherst B. *et al.* (2008) *op. cit.*
25. Department of Environment and Conservation NSW (2006) *NSW State of Environment Report*, DEC: Sydney, Australia, p. 199.
26. Department of Environment, Climate Change and Water NSW (2009) *NSW State of Environment Report*, DECCW: Sydney, Australia, p. 255
27. Department of Environment and Conservation NSW (2006) *NSW State Plan Performance Report: Green State*, DEC: Sydney, Australia
28. Fatmata J., Cacho O., Marshall G. (2000) What price for the right to go a-droving? A derived demand approach. *Working paper series in agricultural and resource economics*, University of New England, Armidale.
29. Davidson I., Scammell A., O'Shannassy P., Mullins M., Learmonth S. (2005) Travelling stock reserves: refuges for stock and biodiversity? *Ecological Management and Restoration*. **6**(1), 5-15.
30. Davidson I. *et al.* (2005) *op. cit.*
31. Watts R. 'Bird Routes of the Barraba district. *Conservation management network*. Accessed 23.3.11. URL http://users.tpg.com.au/tmcleish/animals/animals_birdroutes.html
32. 'Welcome to the Paddock' *The Long Paddock- Cobb highway touring route*. Accessed 18.3.11. URL <http://www.thelongpaddock.com.au/touring-route/welcome-to-the-paddock/>

33. Spooner P., Firman M., Yalmambirra (2010) Origin of Travelling Stock Routes. 1. Connections to Indigenous traditional pathways. *The Rangeland Journal* **32**, 329-339
34. Spooner P., Firman M., Yalmambirra (2010) *op. cit.*
35. Guilfoyle D. (2006) *Aboriginal cultural heritage regional studies: an illustrative approach* Department of Environment and Conservation NSW, Sydney
36. McKnight T. (1977) *The Long Paddock: Australia's Travelling Stock Routes*, University of New England: Armidale, NSW
37. Cameron J., Spooner, P (2010) *op. cit.*
38. McKnight T. (1977) *op. cit.*
39. McKnight T. (1977) *op. cit.*
40. McKnight T. (1977) *op. cit.*
41. McKnight T. (1977) *op. cit.*
42. McKnight T. (1977) *op. cit.*
43. McKnight T. (1977) *op. cit.*
44. McKnight T. (1977) *op. cit.*
45. McKnight T. (1977) *op. cit.*
46. 'ARTBack – Sculptures of the Long Paddock' *The Long Paddock- Cobb Highway Touring Route*. Accessed 1.3.11. URL <http://www.thelongpaddock.com.au/touring-route/artback-sculptures-of-the-long-paddock/>
47. Carmody K. (2009) 'Wide Open Road: ROAD', *ABC Radio National*. Interview first broadcast at 12pm, 28.12.09.
48. Lewis D. (2004) 'Time's up for the long paddock' *Sydney Morning Herald*. April 10, 2004.
49. The Wilderness Society (2008) 'Safeguarding our culture and history.' Accessed 14.6.11. URL <http://wenlock.wilderness.org.au/campaigns/travelling-stock-routes/safeguarding-our-culture-and-history>
50. Austen J. (2002) *The conservation and identification of biodiversity on Travelling Stock Routes and Reserves of north west New South Wales*. North West Rural Lands Protection Board: Tamworth, NSW.

Part 2: How are Travelling Stock Routes threatened?

Legislative and administrative threats to TSRs

History of legislative pressures on TSRs

The Department of Lands, which was established in 1859, manages the land that is set aside as Travelling Stock Routes and Reserves, but has no part in its administration. The first TSRs in NSW were officially gazetted in the early 1870s.¹ The TSR network became more formalised over time and the district boundaries reflected the responsibilities of the District Inspectors who had been in control of disease outbreaks since the early 1830s. The specific administration and finances of TSRs have been handled by local boards.² These boards have been known, over the years, as 'scab districts', 'pastures and stock boards', 'pasture protection boards', 'rural lands protection boards' (RLPBs), and are currently called 'livestock health and pest authorities' (LHPAs).

Prior to 1951 transfer of TSR land from local boards to the Crown was rare, because transfer required the consent of the relevant board or a resolution of both Houses of Parliament.³ The *Pasture Protection (Amendment Act) 1951* made it possible for the Minister for Agriculture to recommend the withdrawal of TSR areas from board control. This caused an upsurge in applications for the land.⁴

In the early 1960s the Department of Agriculture increased its pressure on the boards to give up more TSR land. Much of this land was then made available to adjacent landholders as leases in the same way as other unreserved Crown land is leased.⁵ In 1970 a much more comprehensive programme for rationalisation of the TSR network was commenced. Most of the land resumed from board control was offered for freehold ownership, either by tender or auction.⁶

As a result of legislative pressures over the years, the size of the TSR network in the central and eastern divisions of NSW has been reduced from an estimate of more than 2.27 million ha in 1975⁷ to just 740 000 ha in 2009.⁸

Current legislative pressures on TSRs

Recent administrative changes

Under the *Crown Lands Act 1989*, TSRs in the central division are crown reserves held in trust by Livestock Health and Pest Authorities (LHPA). LHPAs come under the portfolio of the NSW Department of Primary Industries, previously known as the Department of Industry and Investment, and, prior to that, the Department of Agriculture.

The LHPAs succeeded the Rural Lands Protection Boards (RLPB). The State Council of the Rural Land Protection Boards commissioned an independent review of the operations of RLPBs, including the role of TSRs, which was conducted in early 2008. The review recommended sweeping reforms across the RLPB system, and included the following recommendation:

“TSR land and on-going management will be ceded back to the NSW Department of Lands except where ...Boards establish... a clear business case for their retention.”

The enactment of the *Rural Lands Protection Amendment Act 2008* followed the Review and came into effect on 1 January 2009. A number of significant structural changes resulted from these amendments, including replacing 47 RLPBs with 14 LHPAs.

LHPAs are regulated by the *Rural Lands Protection Act 1998*, which provides for the protection of rural lands and the regulation of travelling stock reserves, stock watering places and the transportation of stock by vehicle. Under s. 44 of the *Act*, an LHPA must prepare draft function management plans for all TSRs under its care, control and management. During the preparation of the management plans regard is to be had to the following objectives:

- the management of TSRs for the benefit of travelling stock;
- the adoption of appropriate stocking practices;
- the conservation of wildlife (including critical habitat, threatened species, populations and endangered ecological communities and their habitat); and
- the protection of TSRs against soil erosion and diminution of water quality.

Threats posed by current administrative initiatives

The review of the operations of RLPBs had an economic emphasis and the new LHPAs were given the task of developing business plans. As recommended in the review, non-economic TSRs are to be transferred to the Land and Property Management Authority (LPMA), the successor to the former Department of Lands.

In part NPA's TSR campaign is a reaction to uncertainty in a fluid administrative and political situation. To date there has been no indication of any outcomes of the LHPA business planning process. There has also been no indication of the scale of the transfer of TSRs from LHPAs to the Land and Property Management Authority. There is also no clarity about the future of the TSRs ceded back, or whether there will be a duplication of agency functions.

Currently, LHPAs may raise rates from landholders and from users of the TSR network for travelling stock. They employ rangers to manage on ground activities, condition of TSRs and stock movements. NPA is concerned about the management of the TSR network being split across a number of jurisdictions. In particular, there is concern as to whether the Land and Property Management Authority has the appropriate resources and finances to manage the TSRs ceded back to it. If not, there is the possibility that they will be sold off the neighbouring landholders, which would seriously compromise the integrity and functions of the TSR network.

The LPMA has conducted a pilot project in the former Maitland and Hunter RLPB areas to assess the values of TSRs ceded back to it. The project was developed in partnership with the Hunter Central Rivers Catchment Management Authority (HCRCMA) and was supported by both technical and stakeholder reference groups. The pilot project developed a methodology for assessing all TSRs transferred to LPMA across the state. The study highlighted the difficulty in funding management of TSRs that were ceded back to LPMA. It also indicated that disposal of some TSRs by sale is a possibility, although this is restricted to small areas that are deemed to have low environmental value.⁹

Threats posed by emphasis on economic returns of TSRs

The increased emphasis on economic returns from TSRs may lead to the possibility of long-term private leasing (e.g. three year leases), allowing longer periods of continuous grazing. Management of the TSRs to allow biodiversity conservation will then be more difficult. Adverse impacts on ground cover and shrub layers, increased soil compaction and erosion are likely.

Even when TSRs are not leased, the LHPA business models may lead to a major increase in grazing to justify economic viability. This will lead to a long term degradation of many important environmental, cultural and social benefits of the TSR network.

Other threats to TSRs

Industrial logging

TSRs are Crown Timber Lands, giving Forests NSW (FNSW) the right to cut and sell the timber on them. This has been frequent in the Riverina forest districts. The Integrated Forestry Operations Approval for the Brigalow-Nandewar region, effective from 2010-2025, allows FNSW to begin industrial logging of TSRs in that region under certain conditions.¹⁰ Under the *Rural Lands Protection Act 1998* LHPAs may also cut timber on TSRs if they have given FNSW three months notice and, with the consent of FNSW, may sell this timber.



Red Gum Logging in Birdcage TSR, Murrumbidgee *Photo: Eric Whiting*

Firewood collection

Firewood collection is allowed on TSRs with a permit from the local LHPA.¹¹ However, collecting firewood removes key shelter and breeding sites for reptiles and ground dwelling fauna species. Decaying timber also provides important functions for soil building, moisture retention and fungal activity, which are compromised when the timber is removed from TSRs.

Illegal tree felling

Illegal tree felling for fence posts and firewood removes vital habitat components, such as tree hollows, and causes disturbance of the understorey.

Invasion of weeds

Weeds such as Coolatai Grass can be spread by moving stock and vehicles. Native grasses and understorey flora is often out-competed by invasive species, causing biodiversity to be lost.

Gas and mineral exploration and infrastructure construction

Exploration with large drilling rigs, construction of infrastructure such as gas pipelines and the national broadband network, and widening of roads are all potential threats to the environmental integrity of the TSR network. Recently, there has been increasing pressure for coal seam gas pipelines and similar to be constructed along TSRs, in order to avoid privately-owned agricultural land.^{12,13} As of early March 2011, the NSW Coalition's Strategic Regional Land Use Policy commits to *"...promoting the use of crown land, such as Travelling Stock Routes, for pipeline routes where viable and the establishment of energy and transport corridors."*¹⁴



Fringe-lily and native bee on Gara TSR *Photo: Kate Boyd*
Native plants such as this are threatened by weeds on TSRs

Part 2: Endnotes

1. Spooner P. (2005) On squatters, settlers and early surveyors: historical development of country road reserves in southern New South Wales. *Australian Geographer* **36**(1) 55-73.
2. McKnight T. (1977) *The Long Paddock: Australia's Travelling Stock Routes*, University of New England: Armidale, NSW
3. McKnight T. (1977) *op. cit.*
4. McKnight T. (1977) *op. cit.*
5. McKnight T. (1977) *op. cit.*
6. McKnight T. (1977) *op. cit.*
7. Hibberd, J.K., Soutberg, T.L. (1991) Roadside reserve condition 1977-89 in the southern Tablelands of New South Wales. *In: 'Nature Conservation 2: the Role of Corridors'*. (Eds D.A. Saunders and R.J. Hobbs.) pp. 177 – 186. (Surrey Beatty and Sons: Chipping Norton.)
8. Land and Property Management Authority (2010) *Assessing the Values and Management of the NSW Travelling Stock Reserve Network for Biodiversity and Optimal Management in the Hunter Valley. Report on Methodology and Findings*. Land and Property Management Authority, Sydney.
9. Land and Property Management Authority (2010) *op.cit.*
Integrated Forestry Operations Approval for Brigalow-Nandewar Region. Part 1.2, Division 2. Clause 41
10. Livestock Health and Pest Authorities, 'Activities allowed on TSRs'. <http://www.lhpa.org.au/travelling-stock-reserves/tsr-use-of-and-permits>. Accessed March 8, 2011.
11. Snow D., Cook A. 'Anderson under fire over gas pipe plan' *Sydney Morning Herald*, November 11, 2010. Available from <http://www.smh.com.au/national/anderson-under-fire-over-gas-pipe-plan-20101110-17npm.html>.
12. Bryant, S. 'The Nationals to protect farmland in path of gas pipeline', *ABC News*, Posted online March 3, 2011. Available from <http://www.abc.net.au/news/stories/2011/03/03/3153590.htm>
13. NSW Liberals and Nationals (2011) *Strategic Regional Land Use: Triple bottom line assessment to protect our regions*.
14. Integrated Marketing Communications (2008) *NSW Rural Lands Protection Board system review: Final report*. Integrated Marketing Communications: St Leonards, NSW. p. 9.

Part 3: How can we protect the environmental, economic, cultural, and social benefits of TSRs?

History of the current NPA campaign

In 1997, NPA and the World Wide Fund for Nature established the Western NSW Conservation Project. In 2003, NPA had to protest against the selling off of high conservation land amid fears that the Department of Lands had begun, quietly, to dismantle the massive Crown land estate and dispose of lands including the TSRs. By 2005, an expanded 'NPA West' program was actively campaigning for the preservation of remnant native vegetation on public land in western NSW.¹ (A detailed history of NPA's campaigns to keep TSRs in public ownership over the last 50 years is given in Appendix 1.)

NPA West's Riverina survey, undertaken during 2005, showed that the linear system of travelling stock routes includes most of the remnant stands of vegetation within the area.² Another 2005 NPA report, *The Unseen Conservation Estate*, indicates that the traditional pattern of intermittent grazing in TSRs is generally compatible with biodiversity conservation. The Report also addresses management issues and concludes that the board management model for TSRs is appropriate for conservation management of the network, provided adequate funding is allocated to the RLPBs.³

In mid-2006, the NSW Government commenced an internal review of the environmental values of TSRs. NPA obtained Government documents under a Freedom of Information application which indicated that Forests NSW were logging TSRs in the Riverina area, and had plans for logging TSRs in the Brigalow Belt South and Nandewar Bioregions. This was despite the fact that the documents also admitted that *"...at a state-wide level approximately 80% of TSRs can be correlated with vegetation communities with high or very high conservation status"*.⁴

In early 2008, NPA NSW convened a national conference on TSRs. This conference gave rise to the Stock Routes Coalition, which is an association of environment, community and user groups in NSW and Queensland interested in the improved management and ongoing protection of stock routes in both states.



TSR near Purlewaugh *Photo: Anthony O'Halloran*

Current initiatives to preserve the TSR network

Developing a multi-use management framework

Because of the environmental, economic, cultural and social importance of the TSR network, NPA argues that it should remain under one land manager to allow consistent and less complex management arrangements. Adequate public funding is also necessary to supplement income from the rates charged to district landholders.

NPA does not believe that the best way to preserve the TSR network would be to transfer the majority of TSRs to National Parks estate. The broad importance and many uses of TSRs mean that the network needs to be managed in a way that supports the widest possible range of functions and users.

To this end, the NPA will be holding a conference on TSRs in mid-2011. This conference aims to bring together a wide range of stakeholders in the TSR network (see Box 3), in order to develop collaboratively the foundations of a framework of strategic management principles for the shared and sustainable use of the NSW TSR Network. The key areas of concern and associated management principles will ultimately emerge from discussion groups during the conference. There are, however, a number of key themes that NPA thinks are likely to be discussed at the conference, and reflected in the management framework.

Box 3. Some of the key stakeholders in the TSR network

- Aboriginal traditional owners and Local Aboriginal Land Councils
- Drovers and graziers
- Farmers associations
- Conservationists, field naturalists
- Landcare and environmental groups
- Apiarists
- Academics
 - Environmental scientists
 - Historians
- Educators
 - Schools
 - Universities
 - Registered training organisations
- Recreational users, e.g.:
 - Tourists and travellers
 - Bushwalkers
 - Bird watchers
 - Recreational fishers
 - Horse riders
 - Cyclists
 - Four-wheel drivers
- Songwriters, poets, artists
- Government and affiliated organisations:
 - Land Management and Property Authority (as of April 2011, this Division has been abolished and groups within it transferred between five new super departments. Staff involved in the administration of the *Crown Lands Act* are now within the Department of Primary Industries).
 - Livestock Health and Pest Authorities
 - Catchment Management Authorities
 - Office of Environment and Heritage; Department of Primary Industries (state)
 - Department of Sustainability, Environment, Water, Population and Communities; Department of Agriculture, Fisheries and Forestry (federal)
 - Roads & Traffic Authority
 - NSW Roadside Environment Committee
 - Local Governments and Shires
 - Treasury

Environmental management

Careful management is vital to preserve the environmental importance of many TSRs.

Some examples of issues that need to be considered in developing environmental management principles include:

- Weed management: The linear and narrow nature of the TSR network makes weed management difficult and travelling stock can transfer weed seed, via dung or their coats, many kilometres away from its source. Stock camps, where stock is held overnight, can be major sources of weed invasion and need special attention to minimise the spread of weeds. There are five phases that need to be considered in implementing successful weed management strategies in TSRs: preventing introduction; reducing disturbance; controlling established weeds; revegetation and monitoring.
- Feral animals: Feral animals pose another major threat to native fauna. Co-ordinated, integrated pest species programs, which are jointly run with neighbouring landholders, may be the most effective approach to cross-tenure feral animal control.
- Soil erosion and reduced water quality: This requires careful stock management and the maintenance of adequate groundcover to prevent soil loss in rainfall events. Soil erosion reduces productivity and threatens the natural regeneration of remnant vegetation. In normal seasons a high level of groundcover should be maintained, especially on hill slopes, creek and riverbanks and on soil types that are prone to erosion.
- Fire management
- Regulation of clearing and logging

Heritage management

The culture and heritage (both Aboriginal and non-Aboriginal) of TSRs needs to be further studied and surveyed. Management principles need to be developed that ensure that sites, artefacts and routes with cultural or heritage importance are adequately protected.

Management of TSRs by traditional owners, and the management of TSRs on which land claims have been placed will also need consideration in developing a framework of management principles.

Recreational and social uses

The management framework will need to address how best to meet the needs of recreational users of TSRs, in a way that also supports the environmental and economic importance of the network. This may require addressing issues such as ensuring continued, safe public access to TSRs, managing vehicle access to reserves to minimise disturbance

factors and erosion and managing visitor behaviour to prevent negative impacts on stock, heritage sites or artefacts, native species and habitat or other recreational users.

Economic uses

It is important that TSRs are managed to support their sustainable economic use. Certain economic activities, such as logging and mining, may not be compatible with sustainable management of TSRs to protect their environmental, heritage, social and agricultural values. Issues that may be considered include:

- Sustainable grazing regimes: The promotion of sustainable grazing regimes, particularly in high conservation value areas of TSRs, is essential to the preservation of the biodiversity of the TSR network. Overgrazing is especially damaging to grassland and grassy woodland areas on TSRs. A sustainable grazing regime would incorporate knowledge of the different growth requirements and seasonal variations between species, an adequate retention of ground cover, and recovery periods after intensive use.
- Infrastructure construction: If necessary, NPA feels that this should occur on the edge of a TSR rather than through the middle.
- Road widening and rerouting: If necessary, NPA recommends that this should aim to keep a maximum width of available vegetation. Where vegetation fragments are too small or narrow to be self-sustaining, TSRs should be widened and linked to other vegetated areas.
- Competing interests: the management framework needs to balance the requirements of a range of potential economic uses, such travelling stock, long-term grazing leases, honey production, major infrastructure development, timber production and mining and gas exploration, with each other and with the need to protect the environmental, heritage and social importance of the TSR network.

Resourcing management

Currently, the TSR network is financially sustained by local landholders and graziers only, and much of the network is in danger of being deemed 'uneconomic'. Clearly, there is a much wider range of TSR users than just graziers and farmers, and the management framework should consider how sufficient funding can be obtained for TSRs in a way that is equitable, and supports the shared, sustainable use of the network.

Developing a case for National Heritage Listing

NPA NSW is currently preparing a nomination for National Heritage Listing of the TSR networks in NSW and Queensland. NPA NSW believes that the TSR network meets a number of national heritage criteria for indigenous heritage values, historic heritage values, and natural heritage values, as laid out in the Environmental Protection and Biodiversity Conservation Amendment Regulations 2003 (No. 1) 2003 No. 354 - Schedule 1. NPA hopes that a National Heritage Listing of the TSR network would raise the national profile of the network, and increase understanding of the importance of TSRs to a wide range of users. This will also highlight the need for increased public financial support of the network.

National heritage criteria met by the TSR network

1. *“The place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history.”*

As discussed in Part 1, TSRs have played a key role in the spread of pastoralism in Australia and the associated development of rural areas and communities. They are uniquely Australian and over time, they have become a key element of the national identity through song, poetry and art.

2. *“The place has outstanding heritage value to the nation because of the place's importance as part of Indigenous tradition.”*

TSRs are also a key part of Aboriginal tradition, through their connection to ancient Aboriginal travel lines and artefacts. They have also been important in Aboriginal tradition in the post-European-colonisation period, due to the employment of Aboriginal people as drovers and the use of some TSRs for camping and resources by historical and contemporary Aboriginal communities.

3. *“The place has outstanding heritage value to the nation because of the place's importance in demonstrating the principal characteristics of:*

- i. a class of Australia's natural or cultural places; or*
- ii. a class of Australia's natural or cultural environments”*

TSRs, as described in Part 1, are globally unique as a continental-scale, formalised network of vegetation remnants. They often provide the best or only examples of particular woodland communities and vegetation types in landscapes that are otherwise highly cleared, such as the wheat and sheep farming belt of NSW. Moreover, they tend to

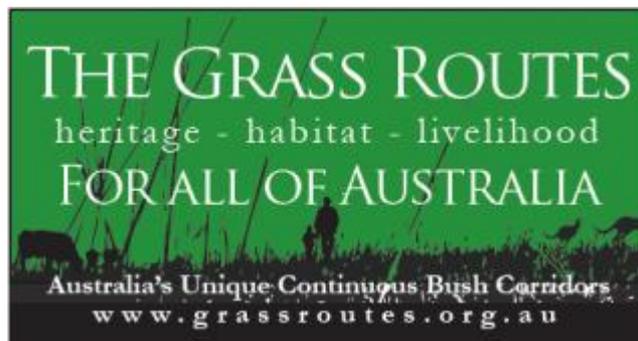
encompass fertile valley floor areas and ecosystems that are not well represented within the existing National Reserve system.

4. *“The place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history.”*

TSRs contain species and ecological communities of National Environmental Significance listed under the *Environment Protection and Biodiversity Conservation Act 1999*, specifically:

- At least 9 endangered or critically endangered ecological communities;
- At least 14 endangered and vulnerable flora species; and
- At least 9 endangered or vulnerable fauna species.⁵

The ‘Grass Routes’ initiative



Grass Routes is a community initiative that aims to contribute to the creation of an Australia-wide network of bush corridors or ‘grass routes’, with particular focus on TSRs. Grass Routes raises awareness and funds through the sale of Kangaroo Grass seed packs. It is a joint initiative between NPA’s Western program and Adam Blakester, a freelance social change strategist.

Part 3: Endnotes

1. National Parks Association (2005) *National Parks Journal*, **49**(2).
2. National Parks Association (2005) *National Parks Journal*, **49**(6).
3. Macris J. (2005) *The unseen conservation estate: tenure security and conservation management of Crown lands in NSW*. NPA NSW, Sydney.
4. National Parks Association (2007) *National Parks Journal*, **51**(5).
5. Van der Burgh C. (2010) *The travelling stock route and reserves Network: opportunities for national protection and funding for management*. Report to NPA NSW.

Conclusion

The legacy of eastern Australia's stock routes and reserves is an iconic and globally unique network of remnant vegetation, with great importance for conservation, recreation, Australian culture and heritage and the Australian economy. TSRs in NSW form a vital part of this network. Unfortunately, they are currently threatened by legislative changes that reflect insufficient funding and a lack of appreciation of the full range of services and benefits which TSRs provide to Australian people and the environment. TSRs are also under pressure from a range of social, economic and environmental processes.

NPA argues that the TSR network should remain under a single land manager to ensure consistent, well-resourced management. We are working with a wide range of stakeholders to develop a framework of management principles for the shared use of TSRs. We believe that TSRs should receive additional public funding to augment the rates charged to district landholders, reflecting the benefits that they provide to wider community. This is essential to allow the TSR network to be managed sustainably for the use of all Australians.



Pea flower in Ulamambi TSR *Photo: Anthony O'Halloran*

Appendix 1

Early history of the TSR campaign

The TSR campaign by the National Parks Association of NSW builds on 50 years of advocacy work to keep the TSR network in public ownership. Initially, NPA was concerned with keeping the network available for public use. Subsequently, the unique potential of the TSR network for conservation within the fragmented landscapes of western NSW became clear, and NPA shifted its campaign focus. Work concentrated on the assessment of the ecological importance of the TSRs and their role as habitat corridors. Their importance has increased as climate change affects environmental conditions.

In the early 1960's, concern developed that the TSR lands would be offered to private landholders. Over time the use of the network by travelling stock had diminished with increased use of road and rail transport. In 1962, Cooma Municipal Council successfully moved at the annual conference of Shire Councils that the Government be urged to keep the TSR network in public ownership and available for use by campers and travellers.¹ NPA supported this initiative and urged its members to identify any TSRs that they felt were worthy of environmental protection. At this time, the Administrator of Parks was also interested in the preservation of any TSRs suitable for inclusion within the parks estate. Lobbying by NPA achieved some success with almost 900 acres of TSRs in central and western NSW protected as National Parks or Wildlife Refuges in 1971.²

During the 1970s, NPA submitted reports to Government reviews of the management systems and control of the TSR network, continuing to campaign against the alienation and sales of Crown Land. In response, the Minister for Lands reaffirmed, in 1979, his Department's policy that travelling stock and camping reserves were to be retained for protection of the environment where they were no longer required as reserves.³

Another issue fed into the TSR debate. NPA was concerned that the landscapes of western NSW were lesser known and poorly understood and identified. In 1988, NPA commissioned the report '*Nature conservation in western New South Wales*',⁴ to identify the natural regions and provinces across western NSW and improve awareness of the importance of remnant vegetation in these areas. The Report gave further momentum and direction to the campaign to keep the TSR network in public hands.

Actions of NPA branches to protect TSRs

NPA has a network of branches across the State, some of which took up the TSR campaign to protect TSRs within their areas.

NPA Armidale Branch received Commonwealth funding under the 'Save the Bush' Program to produce a community information brochure and undertake environmental reviews of their local TSRs so as to facilitate improved TSR management. In 2001, NPA Armidale Branch member, Beth Williams, was awarded an Order of Australia Medal for her contribution to conservation. One of Beth's projects had been the restoration of TSRs to improve habitat corridors for threatened species such as the regent honey-eater.⁵

NPA branch members in **central and northern NSW** also identified and advertised bird routes along their local TSRs.⁶ Local councils often supported these NPA activities with the aim of increasing tourists to outback towns.

NPA Lachlan Valley Branch campaigned against a proposal by Forbes Shire Council to create a firebreak on a local TSR and urged action by state agencies, the National Parks and Wildlife Service, the Soil Conservation Service, the Roads and Traffic Authority and Lachlan Catchment Management Committee to prevent the clearing.⁷

NPA, supporting its branches, lobbied the rural community, arguing that the conservation of remnant vegetation on TSRs was not incompatible with their use for travelling stock, and in 1995 the State Council of RLPBs supported the retention of the TSR system in NSW for the long term benefit of stock movements as well as for the conservation of native species.⁸

NPA has also lobbied the park service and the government to include some TSRs in the National Parks estate. As fewer large blocks in western NSW were available for inclusion in the estate, the importance of smaller landholdings as habitat corridors and landscape linkages became obvious. NPA Branch members, acting locally, urged for an expansion of Towarri National Park, north-west of Scone, to incorporate land that included two TSRs. This addition facilitates a habitat connection with the Coolah Tops National Park.⁹

Appendix 1: Endnotes

1. National Parks Association (1962) *National Parks Journal*, Nov 1962, p. 4
2. National Parks Association (1971) *National Parks Journal*, Mar - April 1971.
3. National Parks Association (1979) *National Parks Journal*, July- Aug 1979.
4. Morgan G., Terry J. (1992) *Nature conservation in Western New South Wales*, National Parks Association: Sydney, NSW.
5. National Parks Association (2001) *National Parks Journal*, **45**(4).
6. National Parks Association (2002) *National Parks Journal*, **46**(2).
7. National Parks Association (1992) *National Parks Journal*, **36**(3).
8. National Parks Association (2008) *National Parks Journal*, **52**(4).
9. National Parks Association (1999) *National Parks Journal*, **43**(3).



TSRs: Linking nature, heritage, society and the economy
Aerial photo: Cecile van der Burgh