

INQUIRY INTO KOALA POPULATIONS AND HABITAT IN NEW SOUTH WALES

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National Parks Association, Armidale Branch (formed in 1974)

Inquiry into koala populations and habitat in New South Wales Portfolio Committee no 7 – Planning and Environment

The NSW and Commonwealth Governments listed the koala as threatened in 1992 and 2012 respectively. In 2012, Adams- Hosking et al. (2016) estimated that Australia had approximately 330,000 koalas, with an estimated 36,000 in NSW. For NSW, this study estimated a 26% decline over the past three koala generations (15-21 years) and the next three generations. (Report of the Independent Review into the Decline of Koala Populations in Key Areas of NSW NSW Chief Scientist & Engineer December 2016) There are 11 commendable recommendations in this report :

That Government adopt a whole-of-government koala strategy for NSW with the objective of stabilising and then starting to increase koala numbers. 2 . That Government initiate a program to improve data on the number, location and occurrence of koalas in NSW, including trends over time, taking advantage of new sensor and communication technologies and data analytics within 12 months of receipt of this report. 3. That Government publish a state-wide predictive koala habitat map within three years of receipt of this report, with immediate priority given to improving coverage of the north coast. 4. That Government improve outcomes for koalas through changes to the planning system. 5. That Government improve outcomes for koalas through the Biodiversity Conservation Bill and associated Regulations. 6. That Government investigate models for guiding and incentivising collaborative best practice for new development and ongoing land use occurring in areas of known koala populations across tenures, industries and land users. 7. That Government agencies identify priority areas of land across tenures to target for koala conservation management and threat mitigation. 8. That Government, through the Office of Environment and Heritage, convene two symposia within 12 months of receiving this report: one for scientists active in koala research and land managers to develop a koala research plan; and one focussed on koala rehabilitation to identify actions to optimise the delivery of and support for the network of koala rehabilitation groups and carers. 9. That Government establish the Australian Museum as a preferred repository for koala genetic samples in NSW, and all data and metadata associated with these samples should be deposited into the SEED Environmental Data Portal (extended if necessary to include flora and fauna). 10. That Government facilitate the exchange of information among land managers, local government, the research community and the broader community. 11. That Government draws on knowledge and shares information with local community members through a program that supports localised engagement between liaison people and residents and industry.

As the situation continues to worsen in NSW, we are concerned that many of these recommendations have not been implemented. Threats to the survival of koalas in NW and Western NSW include land clearing for mining and agriculture as well as increased incidence of high temperatures, fire and drought. Recommendations of particular importance therefore are 1,4,5,6,7,10,11.

We urge the NSW Government to create new reserves **particularly on the western slopes and plains to protect koalas in areas of NSW under-represented or lacking in reserves.**

To provide maximum protection these reserves should come under the National Parks and Wildlife Act with national park or nature reserve status, and we see the creation of these as the most urgent priority.

The Office of Environment and Heritage has identified areas or koala hubs that are necessary for the protection of koalas and it is important to protect these areas across all land tenures.

To facilitate this, it is important to not only provide adequate resources and staffing for government agencies and organisations such as National Parks and Wildlife Service, Local Land Services, State Forestry and Landcare but also to provide assistance to landholders to facilitate long-term protection of native forested areas on their land that provide koala habitat.

Response to Terms of Reference

- the status of koala populations and koala habitat in New South Wales, including trends, key threats, resource availability, adequacy of protections and areas for further research,
- The Private Native Forestry Code of Practice, [SEP]
- the old growth forest remapping and rezoning program, [SEP]
- the 2016 land management reforms, including the Local Land Services Amendment [SEP] Act 2016 and associated regulations and codes [SEP] the effectiveness of State Environmental Planning Policy 44 - Koala Habitat Protection, the NSW Koala Strategy and the Biodiversity Conservation Act 2016, including the threatened species provisions and associated regulations, in protecting koala habitat and responding to key threats.
- identification of key areas of koala habitat on private and public land that should be protected, including areas currently at risk of logging or clearing, and the likely impacts of climate change on koalas and koala distribution, [SEP]
- the environmental, social and economic impacts of establishing new protected areas to conserve koala habitat, including national parks

The new Coastal Integrated Forestry Operations Approval (CIFOA) is a retrograde step for koala protection. The underlying problem is the government's 'twin commitment' of no reduction in wood supply and no erosion of environmental values, which has been taken to prevent action to remove logging from koala habitat. In coastal and rangeland NSW forests that are most important for koalas are also those favoured by the logging industry. There is an inconsistency between the twin commitment and the protection of habitat essential to the long-term survival of koalas in NSW. Key koala habitats require protection in reserves. There needs therefore to be a transition to plantation timbers with, limited extraction of high value native timbers on private land with associated local processing that provides more jobs than are available when native forests clear-felled and especially when chipped and shipped rather than fully processed locally. are that risks the extinction of koalas in NSW. Koalas in the north and south coast and range areas of NSW protection by the establishment of the Great Koala Park, an NPA proposal.

Private Native Forest Code of Practice is inadequate in relation to protection of koalas and other native species and there is urgent need to strengthen SEPP44 regulations and to ensure that regulations are adhered to. There is a vital need for NSW Government to provide adequate resources to government agencies and in particular to give strong positive support to the staff in agencies who often work in challenging and sometimes hostile remote areas while being committed to their work in protecting the environment and in carrying out their work duties.

The Biodiversity Conservation Act and Local Land Amendment Act need to include provisions to protect habitat, end self assessment and provide for opportunities for legal challenges in the public interest. It is essential to protect known koala habitat from land clearing by identifying it as Category 2-sensitive land or Areas of Outstanding Biodiversity Value, and it is urgent for whole of government – state and local urgently to complete the mapping of koala habitat and to work with local communities and landholders

The offset policy should be repealed. Offsets are inadequate in replicating native forests and vegetation and often require long periods of time to form as intricate and complex systems. In places where wholesale destruction of forests occur through clear-felling of large coups or through mining eg Leard State Forest it is impossible for koalas and other native species to survive while awaiting the ‘replication’ elsewhere of their natural habitat. (see photo in appendix 3).

It is important that the issues of habitat loss through excessive clearing in some agricultural practices and through mining be the main focus in addressing koala decline. Grants provided to organisations engaged in caring for koalas are important but sadly, are band-aid projects confined to dealing with translocation, and healing diseased or injured koalas when what is required are the protection of koalas by protecting their local habitats long term in national park reserves, travelling stock routes, crown lands and under conservation covenants on private land.

Western and North West NSW need urgent attention to retain and increase koala populations.

Areas where koalas are under extreme threat include include around Moree, Gunnedah, Coonabarabran, Coonamble, Baradine, Narrabri, along the Darling River, Culgoa River & Namoi River systems and on the Liverpool Plains as there has been rapid decline of koala numbers in recent years. Koala habitat in vegetation communities of white box and yellow box on the tablelands and slopes has declined from over 3 million hectares to 250,000 and along with clearing for agriculture, in more recent years forests are cleared for mining and white box-yellow box and red gum woodlands are now listed as critically endangered under EPBC Act.

The Pilliga and Leard State Forests have been severely impacted by coal seam gas and coal mining activities. It is essential to retain and enhance existing viable native vegetation across land tenures – public and private to improve connectivity across whole landscapes.

These tenures include travelling stock routes and travelling stock reserves, crown lands, state forests, national parks and reserves as well as forested areas on private land, particularly where creating connectiveness across landscapes.

Some landholders have already entered into Conservation Covenants which ensure permanent protection and further positive outcomes for koalas and other native species would be improved if there was more incentives available for private landholder to into other conservation agreements such as through the NSW Biodiversity Conservation Trust.

Armidale and Northern Tablelands Region, Tamworth and Gunnedah

Tree planting in some areas such as Armidale may possibly be helping to sustain local koala numbers but these activities & those in other rural towns such as Gunnedah insufficient to ensure overall protection for koalas, especially over large areas of the state where broad acre clearing and total destruction of some forest areas for mining is occurring.

A study by ecologist David Paull focused on seven regions of north-western NSW including Tamworth, Inverell, Glen Innes, Armidale and Walcha has raised concerns about the rapid decline of the species in recent years. The report found that only 18 % of the koala locations are in the current reserve system, while 64 per cent are on private land. Threats to the survival of koalas in NW and Western NSW include land clearing for mining and agriculture as well as increased incidence of high temperatures, fire and drought.

Tamworth ecologist Phil Spark agreed with Mr Paull's findings that in some areas of the region, including the Moree area, the koala population has rapidly declined due to land clearing in rural areas, but also pointed out in some other areas climate change was also a threat "There are a lot of old trees around Gunnedah, and over time they're going to continue to die out in those locations where there is no regeneration happening in the more open paddocks." Mr Spark said while he believed the koala population was expanding in the Armidale area due to ongoing efforts, he was concerned about the fate of koalas in the Gunnedah and Pilliga areas. (Northern Daily Leader 17.5.16).

In 2014 Gunnedah was in imminent danger of losing its title as 'Koala Capital of the World', with the koala population believed to be plummeting. According to the Australian Koala Foundation, Gunnedah had already lost the right to make the claim according to Koala Foundation chief executive officer Deborah Tabart. Environmental consultant John Lemon, who with Dan Lunney was involved in a project between 2008 -2011, said he believed the koala population had plummeted at least 60 per cent since 2007. "Gunnedah's claim to being the koala capital of the world may be challenged by other centres in the not-too-distant future as the population declines." Their project conducted between 2008 and 2011 tracked more than 50 koalas for three years, and they believe showed indications that the koalas are moving to a cooler climate. From about November-December 2009, saw the end of a prolonged drought and consecutive heatwaves. During that period, they estimated conservatively we lost about 25 per cent of the koala population. Following that, about 80 per cent of the Warrambungles koala population was believed to have been decimated by the 2013 bushfire. Record temperatures continued the tale of woe for the koala survival (46.9 degree day on January 3 this year.) "What we have got is the perfect environmental catastrophe," Mr Lemon said. He said climate extremes, the increasing frequency of drought, the length of time between decent rainfall and the toxic effect of rising temperatures on eucalyptus leaves were all working against the survival of the koala. Mr Lemon said he believed climate change brought the koalas to Gunnedah from the Pilliga region in the 1980s, and was now pushing them further towards Armidale. He said there had been sightings in Armidale where koalas had not been spotted for many years. Worst of all, Mr Lemon said, was that the koala was like the "canary in the coal mine". (Namoi Valley Independent News 13 November 2014) Since then Gunnedah has developed a koala conservation plan (Gunnedah Koala Conservation Plan for the Landcare and Community Groups prepared for North West Local Land Services by North West Ecological Services, October 2016) Rates of disease in Gunnedah population are now up to 80% giving further area for concern for the future of the Liverpool Plains koalas. [1] [SEP]

The International Union for the Conservation of Nature identified koalas as globally one of the ten most vulnerable species to climate change. A NSW koala strategy needs to incorporate the impact of climate change. Another threat to koalas from habitat loss in some areas are stress-related diseases such as chlamydia. All of these issues relating to the protection of koalas must be tackled simultaneously to reverse declines (Rhodes et al. 2011; McAlpine et al. 2015), but a failure to address habitat loss will inevitably see continued declines. Protecting existing habitat is cheaper and more efficient than habitat restoration.

Pilliga and Maules Creek areas

The Pilliga is the largest continuous remnant of semi-arid woodland in the state. The forest is located near the towns of Baradine and Narrabri and the villages of Pilliga and Gwabegar. The public land area is currently managed by NPWS as national park, nature reserve and state conservation area (SCA) and state forests. Some areas are co-managed by Gamilaraay & NPWS. The SCAs are not protected from mining activities and the hodge-podge of land tenures makes overall environmental protection of The Pilliga difficult. NPA proposes that the state forests be consolidated with existing protected areas as a single Pilliga National Park and that SCAs are included in this more environmentally secure status. See appendix 1.

Koala populations in the Pilliga have fallen precipitously due to extreme heat and drought (Lunney et al. 2012; Lunney et al. 2017), disappearing from 79% of sites where they were previously recorded. Koalas persist 'next to drainage lines in the western half of the Pilliga'. Protection and restoration of these refuge areas is therefore crucial. The importance of drainage lines as refugia raises questions as to the potential impact of gas extraction on groundwater on refugia. Koala hubs in the Pilliga are concentrated in the western state forests. This accords with the findings by Lunney et. al. (2017). ABC New England North West 15 December, 2014 reported that as part of a wider study of the Koalas in the Namoi Catchment, the Pilliga population was surveyed in 1993 and re-surveyed in November 2013 to determine any changes. *"Koalas were recorded at 5 out of 40 sites in 2013. This compares to 20 out of the same 40 sites surveyed in 1993. This is a 75-percent reduction in the distribution of Koalas throughout the forest in the last 20 years." "... there are probably no more than a hundred or so animals left in the Pilliga, from a population of about 10,000 in 1993 making this population suitable for listing as an 'endangered population' under the Threatened Species Conservation Act 1995"*

Fragmentation occurs even associated by the very well intentioned bilby program due to loss of hundreds of mature trees containing hollows vital to wildlife and clearance of ground vegetation for the construction of the extensive sanctuary fence. The sanctuary encompasses an area of 35,632 hectares at the northern more productive section of the Pilliga forests. Whilst the goal of the Australian Wildlife Conservancy is to reintroduce mammals such a bilbies, brushtailed bettongs and bridled nailtail wallabies, the fence may hamper movement of mammals including koalas seeking water and mates and that are currently struggling to exist due to drought, high temperatures and recent fires. See appendix 1 Photo: 6 June 201

Fires have almost eliminated the Warrumbungles koala population associated with the Warrumbungles with the loss 70% of its habitat. The Warrumbungles, Nandewar ranges and forests remaining between are vitally important to be protected not only for koala populations but also many species of mammals, birds, insects, invertebrates and flora

It is important that consider protection for Koala's on the eastern side of the Pilliga. There is an area of koala habitat through the forest running in north south direction along that Bohena Creek system, which could be a vital route for dispersal of the Koala. Particularly in a situation where the koala is experiencing population stress and water stress, so it is really important that these corridors remain intact for the koala to be able to move. Forests of The Pilliga are being constantly and increasingly fragmented by coal seam gas wells, cleared pads and tracks and by long-wall coal mining activities in north west of east Pilliga at Jacks Creek Forest. See appendix 2.

Leard State Forest

If, as it is believed that koalas in Leard are part of the same population as the Pilliga koala, then Leard is a very important area for allowing the dispersal of these animals in an east west direction. While there are not many koalas there it's a very important area to allow the dispersal of koalas in the region. Although the population has been severely impacted by destruction of habitat by coal mines it is vital to reserve remaining intact forests and to provide landscape links as corridors and hubs. See appendix 3.

Koala populations in the north west and western areas mentioned are in critically endangered numbers. The audit of populations undertaken in Paull and Hughes (2016) showed that across inland NSW, only 9% of populations appear to be stable or increasing, over 50% in decline and over 30% where such little recent evidence exists that their status should be considered endangered. It is vital that not only populations continue to be monitored by ecologists but that there are immediate steps taken to create nature reserves and national parks with permanent protection status.

The environmental, social and economic impacts of establishing new protected areas to conserve koala habitat.

The environmental benefits for establishing protected areas for koalas is indisputable.

In the north and north west of NSW there is a real danger that we will lose koala populations entirely without permanent protection in reserves and parks, travelling stock routes and reserves, crown lands and covenanted properties.

There are also social well being positives for creating protected natural areas. In many rural towns cessation of logging of native forests has not lead to the death of these towns (as predicted by forestry industries) in places such as Dorrigo and Grafton.

Many north west and western country towns are currently struggling due to drought and water restrictions.

Nature based tourism offers long-term opportunities for job creation including importantly for Aboriginal communities. Mining offers short-term employment in construction stage and fewer on going jobs with increase mechanisation of mining roles. There is often an adverse impact on local communities with air & water pollution and disruption to the local community by taking away qualified tradesmen by not providing training for locals.

In an area impacted by severe drought some small towns are really struggling. Local examples:

Adjacent to The Pilliga, Baradine has transitioned from a milling town to focus on the sustainable natural and cultural values of The Pilliga with its national parks and forests. Bird and plant groups frequently visit and stay in local accommodation. Visitors to the Sculpture Walk in the Dandry Gorge and the Sandstone Caves have an opportunity to learn about Gamilaraay culture and the signs feature local Gamilaraay individuals.

Pilliga township bore baths attract many visitors especially in cooler months.

A number of nature based businesses depend on retaining the natural values of The Pilliga. These include Pilliga Pottery and Barkala Homestay and Bilby Blooms native nursery.

Many local people in the north west have lobbied and sent submissions to governments to protect their cherished patches. Recently 23,500 submissions were sent to the NSW government to oppose the expansion of the Pilliga Santos coal seam gas field. Many recommendations have been negated by government policies and approvals to permit large mining operations to destroy public forests and, with the repeal of native vegetation laws, have permitted large scale clearing of native vegetation by some large operators on private lands.

Destruction of local environments is causing distress for a very diverse range of rural residents who care about their future livelihoods and wellbeing.

The NSW government states that koalas support 9,000 jobs and generate up to \$2.5 billion annually. The persistence of koalas is therefore an economic imperative, as well as a moral one. According to Destination NSW, nature-based tourism is a large and growing industry that contributes \$21 billion to NSW every year. National parks are, after the beach, the main driver of this economic activity.

They are therefore not just vital for the conservation of nature, but for regional economies too.

It is disappointing that so many country people have struggled for so long to protect koalas and other native species.

We appreciate the opportunity to respond to the Inquiry into Koala populations and habitats
Yours sincerely,

Lynne Hosking
President
Armidale Branch
National Parks Association
2 August 2019

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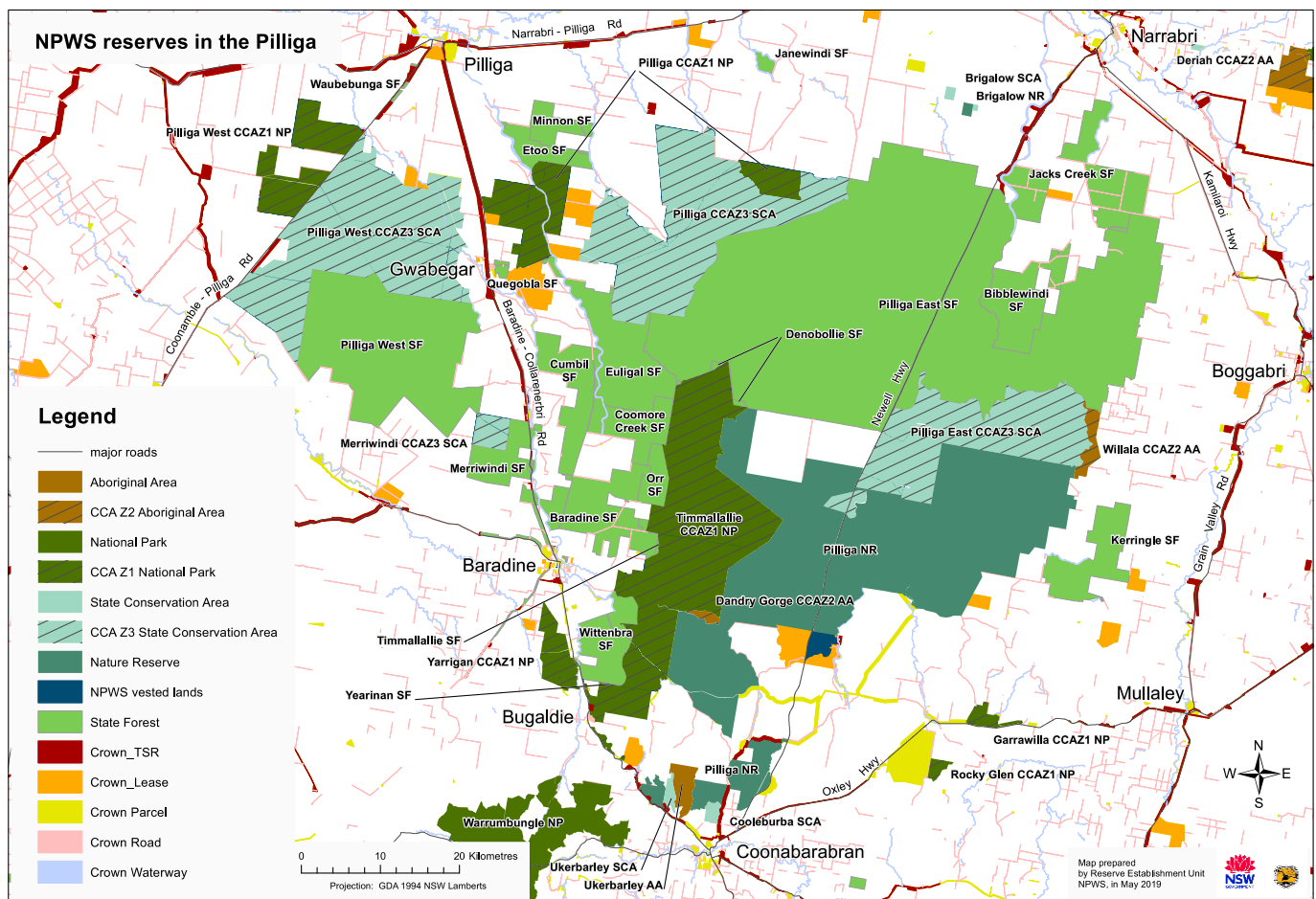
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State conservation areas: Review and results 1 December 2005

Under the National Park Estate (South-Western Cypress Reservations) Act 2010 and Brigalow and Nandewar Community Conservation Area Act 2005

State conservation areas form an important reserve category in the state's national parks network. They protect natural and cultural heritage values and provide recreational opportunities. Unlike national parks and other reserves, exploration and mining is permissible in SCAs. This enables land that is important for its mineral values, but which also has significant natural and cultural heritage values, to be reserved under the National Parks and Wildlife Act 1974 and managed for conservation, public appreciation and enjoyment, without unnecessarily restricting mining and exploration activity.

Photo of the Australian Wildlife Conservancy bilby sanctuary located in Pilliga CCA23SCA north of Pilliga East State Forest and therefore vulnerable to future mining and exploration activity. Photo taken 6 June 2019

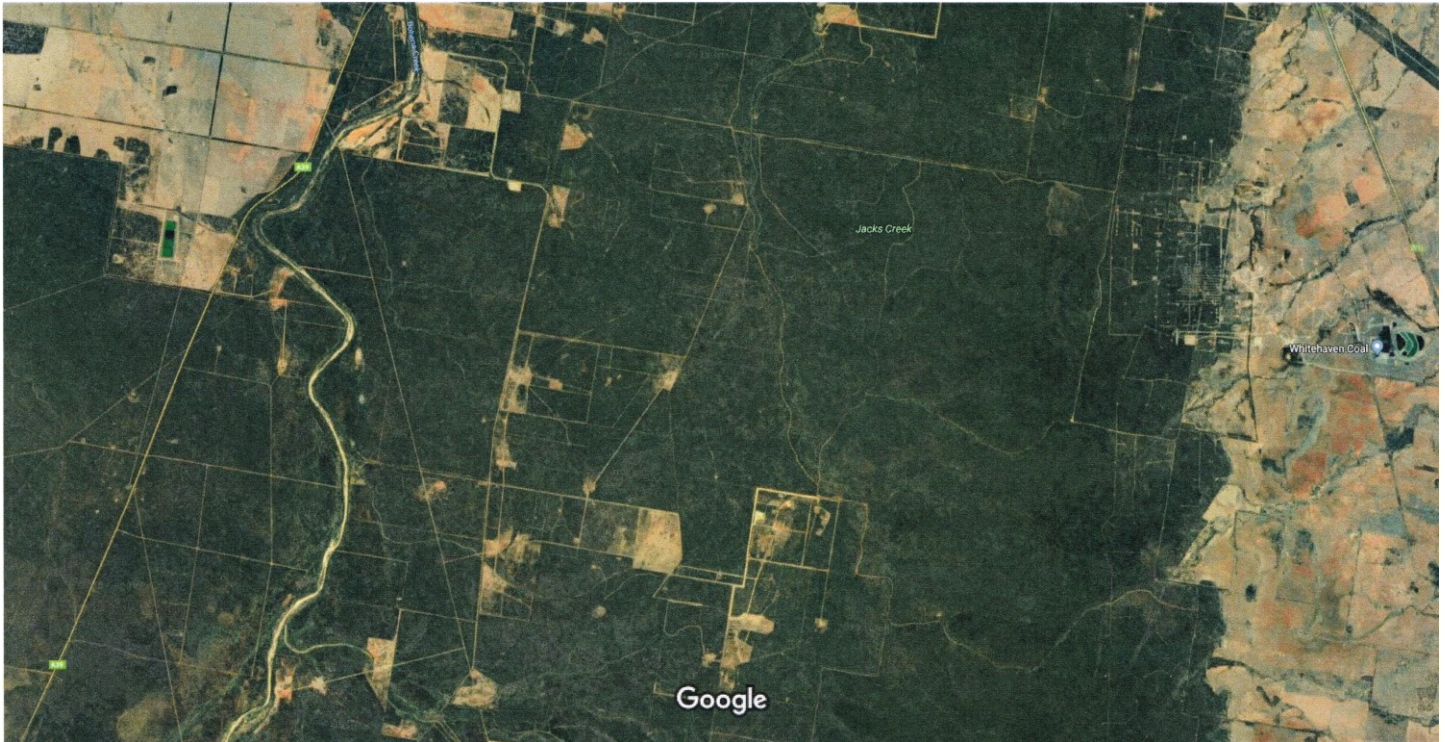




Appendix 2. East Pilliga and Jacks Creek Forests showing mining activity :

Coal seam gas wells on the left (Santos)

Long-wall coal mine on the right adjacent to cleared land (Whitehaven Narrabri coal)



The following photos in Jacks Creek Forest East Pilliga (June 2019) show recent clearing of forest by way of roads, tracks and pads for exploratory activities and pipes associated with the long wall mine under the forest.

1. New road, Surveyors Road Jacks Creek Forest, east Pilliga
2. Corner of Scratch & Lane Roads, Jacks Creek Forest, east Pilliga
3. Pipe and pad Scratch Road
4. Rehabilitation ? of cleared pad, Surveyors Road





Appendix 3 Leard State Forest



Leard State Forest and surrounds. Photos taken 9 June 2019

1. Sign at Leard State Forest showing area with mining lease
2. Offsets and new plantings cannot replicate mature forests and complex vegetation communities
3. Coal mine replaces Leard State Forest.

