



Submission by Birdlife Northern NSW on the Narrabri Gas Project Proposal

We are writing this submission on behalf of Birdlife Northern NSW, a branch of Birdlife Australia. Birdlife Australia is the nation's largest bird conservation organisation. It has over 110,000 members, volunteers and supporters. We are opposed to the Santos's development of a coal seam gas field in the Pilliga and ask that the government reject their proposal. We are concerned that this proposal, if it goes ahead, will fragment, modify (through noise and light pollution) and destroy vital woodland habitat and have a significant negative impact on threatened bird and other fauna species in the Pilliga.

The Pilliga is the largest remaining temperate woodland left in eastern Australia. It is a very important area for conservation. The birdlife of the Pilliga has been studied for a long time and recent studies have confirmed that, while the species composition has changed somewhat, it is still home to diverse and healthy populations of birds (Cleland E.D. 2015). In Cleland's paper, he asserts that bird populations in the Pilliga are now characteristic of more structurally diverse woodlands than they were in 1918, with less dominance by a few species and now have a more balanced composition of species. The Pilliga is also designated as a Key Biodiversity Area under the Birdlife International scheme, as one of "Natures Hotspots". There are eleven endangered ecological communities and 95 threatened and/or migratory fauna have been recorded there or are predicted to occur. This includes 61 bird species, amongst them a suite of once common woodland species that are now all listed as endangered or vulnerable under the TSC Act or the EPBC Act. These include the critically endangered Regent Honeyeater and Swift Parrot, as well as Hooded Robin, Diamond Firetail, Little Lorikeet, Brown Treecreeper, Superb Parrot, Turquoise Parrot, Grey-crowned Babbler, Speckled Warbler, Black-chinned Honeyeater and Varied Sittella. All these ten species were once common in NSW and are now classified as vulnerable. The main reason for their decline is the destruction of habitat. The Pilliga is also home to the largest population of Barking Owls in NSW. This large forest owl is now also vulnerable to extinction.

Santos is proposing to place over 800 gas wells in 425 locations in this important habitat. Most of its project would, if it goes ahead, be situated in the Pilliga state forests. At over 500,000 hectares, the Pilliga represents 18.7% of the Brigalow Belt South Bioregion. Only 4% of this bioregion is in reserves. The Pilliga is also a recharge area and surface water contributor to the Murray-Darling Basin.

The following are the specific threats that this project poses to bird and other species in the Pilliga woodlands:

- **Fragmentation of habitat.** There will be 800 gas wells built and therefore more roads than presently. This will increase fragmentation of the woodland and divide the woodland into smaller areas. Many species, like the Hooded Robin, need large areas of woodland for their survival. Fragmentation also increases edge effects and creates barriers to the movement of species, further threatening their survival.
- **Removal of habitat.** The actual area to be cleared is relatively small. However, the ecological assessment mentions that the project may involve the removal of over 10,000 hollow-bearing trees. This is a huge impact. Hollow nesting and breeding birds and mammals, including the Barking Owl, Little Lorikeet, Superb Parrot and Turquoise Parrot, rely on these hollows for their survival.
- **Feral fauna.** The ecological assessment proposes that feral animal monitoring and control should be carried out into the future. When this work finishes, as is likely, the increased fragmentation of and ease of access to the forest may result in increased numbers of feral animals, including foxes and feral cats. This increased predator pressure could have a devastating impact on native species.
- **Fire.** The gas to be mined in this project is highly flammable, an obvious fire risk. Where there are increases in the movement of people and vehicles there is also a higher risk of accidental fires. This could change fire regimes, the structure of the woodlands and the survival and makeup of the woodland species.
- **Noise.** Some species are more susceptible to increased noise than others. This project will increase noise levels and could have an impact on owls and raptors which are particularly sensitive to noise. This would include the Barking Owl, as well as other birds such as the endangered Glossy Black-Cockatoo. Noise disturbance is likely to affect breeding behaviour and success. It is also likely to affect the ground dwelling woodland species, as well as bats that rely on echolocation.
- **Traffic.** The ecological assessment estimates vehicle movements at 350 a day, at their peak. Some fauna are especially susceptible to vehicle strike. This includes Superb and Swift Parrot, Masked Owl, Turquoise Parrot, Diamond Firetail and Hooded Robin.
- **Fencing.** Nocturnal and some diurnal species are susceptible to entanglement in fences and there will be increased fencing in the area, if this project goes ahead. This could include owls, emus, gliders, bats and macropods.
- **Light.** Increased artificial night light is likely to impact on the behaviour and survival of nocturnal species, including the threatened owls and bats.

There are other more general threats to the Pilliga from this proposal. They include weed invasion, contamination of surface waters and the land by saline water and the risk of erosion and sediment runoff.

Of particular concern to us is the future of the Regent Honeyeater and Swift Parrot. They were not observed in the study area of the ecological assessment for the EIS. However, their population has been drastically reduced (about 350 and 1,000 individuals respectively). The Regent Honeyeater is highly nomadic and the Swift Parrot is a migrant from Tasmania. Their food resource is nectar from certain species of eucalypts which can flower erratically. They are both dependent on sequential flowering of these trees. Each species was only surveyed once in a targeted manner. So it is possible they were missed and/or there were no

appropriate flowering trees during the surveys. They may use this part of the woodland in certain years. Their survival is very precarious and the cumulative effect of habitat removal and disturbance, including in this project, could be the tipping point for their extinction. Both species and the Superb Parrot have all been recorded in the Pilliga previously.

However, birds do not exist in isolation from their environment, so we are also concerned for all species of fauna and flora, especially those listed as threatened. The Ecological Impact Assessment lists 17 amphibians, 186 birds, 45 mammals, and 41 reptiles. Of these, 27 species are listed as threatened under the TSC Act. The threatened mammals that were recorded in the project area include the Black-striped Wallaby, Eastern Pygmy-possum, Squirrel Glider, Koala and 5 species of bats. There is also the Pilliga Mouse, which is also vulnerable to extinction and is only found in the Pilliga. As well, there are 27 threatened flora species previously recorded or predicted to occur in these woodlands.

We acknowledge that the area of native vegetation to be cleared will be relatively small, but the cumulative effect of fragmentation and all the other disturbances will have a huge impact on the woodland and the species found there. The Pilliga woodland, arguably the single most important woodland left west of the divide, should be managed for conservation and not subject to these disturbances. The woodlands in NSW have been heavily cleared in the last 200 years and this proposal will inevitably lead to the loss of more biodiversity. It should be viewed in this context – that is, most of the woodlands are gone, along with many of the species that belonged there (see Robinson and Traill, 1966). Some are globally extinct, many are now endangered or vulnerable to extinction. We disagree with the view expressed in the environmental assessment, that there will be no significant impacts on threatened flora and fauna. We believe that there is a major threat to the threatened species in the Pilliga from this project and therefore ask the Government to reject this proposal and to permanently protect this part of the Pilliga from future developments

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References

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