Submission No 201

INQUIRY INTO KOALA POPULATIONS AND HABITAT IN NEW SOUTH WALES

Name: Mr James Fitzgerald

Date Received: 2 August 2019

To Committee Secretary

Portfolio Committee NO 7 – Planning and Environment
Parliament House
Macquarie Street,
Sydney NSW, 2000

Terms of Reference

1. *That Portfolio Committee No. 7 – Planning and Environment inquire into and report on actions polices and funding by government to ensure healthy, sustainable koala populations and habitat in New South Wales, and in particular:*

a) *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,*

b) *the impacts on koalas and koala habitat from:*
   - *(i) the Coastal Integrated Forestry Operations Approvals and regional Forest Agreements,*
   - *(ii) the Private Native Forestry Code of Practice,*
   - *(iii) the old growth forest remapping and rezoning program,*
   - *(iv) The 2016 land management reforms, including the Local Land Services Amendment Act 2016 and associated regulations and codes*

c) *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;*

d) *identification of key areas of koala habitat on private land 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;*

e) *the environmental, social and economic impacts of establishing new protected areas to conserve koala habitat, including national parks, and*

f) *any other related matter.*

2. *That the committee report by 15 June 2020.*

I will be providing responses to terms of reference a), c), d) and e) in my submission.

Background:

I am 53 years old and have had a lifelong interest in Australian wildlife. I grew up in a house at the bottom of Mt Ainslie in Canberra and as a child would rescue wildlife in distress and spend most of my awake hours exploring the bushland and wildlife on Mt Ainslie and Mt Majura. In some ways, my interest in wildlife has followed the evolutionary tree. As a young child I was interested in insects and then frogs and reptiles. I became a licensed reptile keeper, which included Australia's largest goanna the Perentie, the male Perentie was captive bred by Joe Bredl senior and the female Perentie was given to me by Steve Irwin in 1991, in the days before he became famous. I have always had an interest in marsupials and this led me to purchase my first wildlife

sanctuary in 2004. This enabled me to build large rehabilitation facilities for injured wildlife. I am a member of 3 wildlife rescue groups, Wildcare, LAOKO and NARG. I am the President and Koala Coordinator for Wildcare. I have been involved in the rescue and rehabilitation of the following species, koalas, kangaroos, wallabies, wallaroos, goannas, echidnas, wedge tailed eagles, tawny frog mouths and eastern long necked turtles. Of these species, both the koala and rosenberg goanna are listed as vulnerable to extinction.

I now own 3 wildlife sanctuaries, Hammer's Hill Wildlife Sanctuary (780 acres) Kalandan Wildlife Sanctuary (890 acres) and Irwin's Corner (140 acres). The sanctuaries are located 110km south east of Canberra and are next door to each other, providing a total of 1810 acres of habitat for wildlife. Most of the land is bushland which supports a breeding population of koalas. Other vulnerable species that live naturally at the sanctuaries are the Squirrel Glider, Rosenberg goanna and possibly the Greater Glider and Quoll. I created Two Thumbs Wildlife Trust (named after the fact that koalas have two thumbs on each hand) to ensure that the sanctuaries were a safe place for wildlife, wildlife rehabilitation and wildlife research for perpetuity. I will keep buying more land for wildlife, as ideal properties become available and when the banks will lend me more money, for as long as I live. I make sure that my life insurance is more than my mortgage to ensure that the land will be debt free if something unexpected happens to me.

a) **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 primary threat to koalas is habitat destruction and fragmentation. The secondary threats to koalas are chlamydia, dog attacks and car accidents. These secondary threats only occur after the habitat has been destroyed or fragmented by human activities. Koala habitat destruction needs to be recognised as the biggest threat facing koalas. Protecting koala habitat that currently exists, needs to be the number one priority if we are serious about saving the koala.

I think we need to do more research into and explain the benefits of biodiversity and how much we have already lost. It is estimated that there were over ten million koalas before they were hunted for their fur in the early 1900s. The last koala open season was in August 1927 and it was only in Queensland, because by that time they had virtually wiped koalas out from hunting in South Australia, Victoria and NSW. In August 1927 the total number of koala skins that were sold in Queensland was 584,000, in just one month! Most Australians don't know how much we have already lost. I think if more Australians had knowledge of what we have already lost, it would create more of a sense of urgency for action to be taken.

You often hear that biodiversity is good but not much is done to explain why biodiversity is good, especially in terms that connect to the general community. Animals, plants, soils and soil microbes all interact in the use of and recycling of nutrients, the provision of clean air and water, plus many other positive services. For example, the pre-British settlement estimate of Australia's koala population is over 10 million koalas, today the estimate is less than 100,000 (a loss of over 99%). A koala eats between 500g and 1kg of eucalyptus leaf every day and a population of ten million koalas would have eaten more than a million tonnes of eucalyptus every year. Eucalyptus leaf is the most explosively flammable part of the Australian bush and without millions of koalas eating tonnes of eucalyptus leaves, bushfires can burn hotter and travel further causing much more damage. I think we need to do more research into the benefits provided by species such as the koala, and then use this knowledge to explain the benefits we have lost to the general community, in order to garner more support for conservation.

Bushfire is a threat to koalas, both wildfire and hazard reduction burns. There needs to be more research into how we best protect koalas from fire. The koala habitat on the Snowy Monaro is drier than the coastal koala forests and as an owner of three wildlife sanctuaries, bushfire is something that I worry about every summer.

I had a bushfire started by lightning on a ridgeline near the western boundary of my property on the Saturday of the Australia Day weekend in 2019 and I had another bushfire started by lightning on a different ridgeline on 16th of December 2017. If either of these bushfires had got away, they would have wiped out a significant koala breeding population on my property.

As well as being a wildlife rescuer and rehabilitation volunteer, I am also a Rural Fire Service volunteer. The bushfire that was started by lightning on a ridgeline at my property in the December 2017 was put out by ground crews on foot and a helicopter over 2 days. It was a significant hike into the fireground and there was no way to get a firetruck anywhere near the fire. The bushfire that was started by lightning on a ridgeline at my property in the summer of 2019, was on the adjacent ridgeline but with this bushfire we were not able to get a helicopter because they were all allocated to other bushfires. Luckily, we could get a bulldozer unloaded at my front gate at 6.30am the next morning and the conditions were very good, no wind and a much cooler day. Starting from an existing fire trail on my property, I guided the bulldozer through the bush

along the ridgeline for about 1.5km through the bush until we reached the fireground. I was spotting for koalas in the trees to make sure we did not knock over any trees with koalas in them and I also made sure we totally avoided knocking over koala chew trees and koala home range trees and as much possible avoided koala preferred feed tree species. We continued through the fireground and along the ridgeline until we got to the bottom of the ridgeline and joined the new track to another existing fire trail. As part of making the new track, we would also make a number of larger flat areas along the track as turning circles for firetrucks. This new bulldozer track enabled 7 fire trucks (Cat7s and Cat9s) to get access to the fireground and fight the fire. They successfully put the fire out by 4pm. We used the Cat9 firetrucks to collect water from a crossing on the Bredbo River to keep the larger Cat7 firetrucks full of water, so that they could keep pumping water onto the fire.

A couple of days after the bushfire was out, as the bulldozer was still at my property, I paid for two more tracks to be built along other ridgelines on my property. One on these tracks that I paid for, was along the ridgeline that had the bushfire started by lightning in December 2017. Again, I had the tracks build with a number of turning circles for firetrucks, spotted for koalas and avoided knocking over trees that are important to koalas. I also made the tracks start at the existing fire trail on my property and join another fire trail down the bottom of the valley, as this enables firetrucks to access the track from either end. I now have three new tracks along ridgelines, one that was paid for by the RFS to fight the 2019 bushfire and 2 that were paid for by me. The two that I paid for cost me $1350.00. Cheaper than 1 hour of helicopter time.

Now that I have these tracks, if there is another bushfire started by lightning along any one of those three ridgelines on my property, we will be able to get firetrucks in there straight away and get the bushfire out before it has time to grow.

From my discussion with fire researchers, it sounds like hazard reductions burns in my local forest will only provide a small short term benefit, but in later years will actually significantly increase fire risk due to increases in understory growth. Hazard reduction burns can kill koalas and other species listed a vulnerable in our area, like the Squirrel Glider and Rosenberg Goanna.

One of the big advantages I see with the complementary tracks along ridgelines idea, is that once the tracks have been built, they will be there for 100s of years with little maintenance due to the fact that most of this country does not erode even in steep terrain. We also need to do a cost benefit analysis between the cost of hazard reduction burns and the cost of installing tracks along the ridgelines. I think it will prove to be much cheaper to install tracks.

What we need now is some research into how best to protect koala habitat from bushfire. It might prove that complementary tracks along ridgelines from the existing fire trail networks, (which enable rapid fire suppression after lightning strikes), are a better option than hazard reduction burns within koala habitat.

We need research into the impact of bushfire on koalas and koala habitat. For example; Do hazard reduction burns cause koalas to move their home range? Does this impact on koala breeding success, if hazard reduction burns cause changes to koala home ranges? It might mean that the home range overlap between males and females is altered and breeding opportunities could be reduced. Also, how do hazard reduction burns impact leaf quality? If hazard reduction burns negatively impact on leaf quality or availability, this could impact the ability of koalas to find palatable leaf to eat.

We also need research in support of tree planting/habitat restoration. Over the years I have had researchers from the ANU and Western Sydney University stay at my sanctuary as a base for their field research. One of the things that I have learnt from ANU researchers is that koala preferred trees can have significant differences in the toxins in their leaves, even within the same species. It could prove to be very important that seeds used to grow trees for habitat restoration, are collected only from trees that have been proven to be palatable to koalas. There is a risk that people and organisations could be planting koala preferred tree species, but due to genetics of the trees that the seeds were collected from, the trees planted might be too toxic for koalas to eat.

Koala don't just eat one species of koala preferred tree until they get a lethal dose of the species leaf's toxins, they deliberately change the species they are eating prior to it making them sick and they will not go back to that species again until they have processed the toxins related to that species. So mixing leaf from different preferred species is very important to the koala. Field research in relation to how koalas select the mix of koala preferred trees to feed on in the wild, could help inform the ideal ratio of different koala preferred species in a tree planning / habitat restoration projects.

c) 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;

The 2007 United Nations Global Environmental Outlook 4 report (GEO-4), identified species collapse as a major environmental threat. We are now in the world's sixth great extinction event. Current man-made extinction rates are 100 times higher than the base level in the fossil record. Australia has the worst record for animal extinctions. The failure of the current wildlife protection system will end up with more animals endangered… not a functioning ecosystem. Fertility is a product of nature that is needed to replenish depleted soils that farming and human food production ultimately depend on.

I believe the current laws need to change to recognise what we have already lost. The current laws are based on human values. Humans value things that are rare, for example, if gold was very common and the little black rocks that we make roads out of

were rare, we would have roads made of gold and expensive jewelry would have little black rocks. The current laws place greater protections on wildlife as they become rarer and rarer. These are human values and lead to comments like “it’s not endangered why save it”. We won’t have a functioning ecosystem if we wait until everything is endangered. Current legislation lets wildlife numbers fall too low, creating genetic bottlenecks that reduce long term chances of species survival. The current wildlife protection systems are based on predictions of when the species might become extinct but fails to recognise the important role the species play in the larger ecosystem and the interrelatedness of species. By interrelatedness, I mean, if you have a certain number of plants, you will have a related number of animals that eat those plants and a related number of animals who eat the plant eaters. The current wildlife protection system does not provide for the many mutually beneficial relationships that exist in the natural world.

I believe we need to base our wildlife protection laws on benchmarks based on pre-British settlement estimates of wildlife populations and habitat types. Then we need to aim to protect or restore wildlife numbers to 10% of the pre-British settlement estimates. This benchmarking would recognise the interrelatedness of species, because if we restored 10% of koala connected habitat and koala numbers to 10% of their pre-British settlement estimate, we would also need to restore predators of koalas like the Powerful Owl to 10% of the pre-British settlement estimate for their species. Re-establishing habitat and wildlife based on10% of pre-British estimates would provide the ratios of plants to animals and predators to prey. Animals like the Powerful Owl would play its role in ensuring survival of the fittest by taking the occasional young koala from an unfit or inattentive koala mother. Other animals like the glider possums that help pollinate trees and is also a prey species for the Powerful Owl, would also need to be rebuilt so that the Powerful Owl didn’t focus all of its attention on the koala. It is these types inter-relational connections across species and the roles they play in the natural world, that are not recognised in the current system of wildlife protection in Australia. By basing conservation laws on a 10% benchmark of pre-British estimates for both habitat types and wildlife species, it will make it clear to everyone what we have already lost and I am sure that most people will agree that a 90% reduction is enough destruction.

d) identification of key areas of koala habitat on private land 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;

Even the largest national park is just a gene puddle, rather than a gene pool, if it is not connected to other habitat. It is a long-established scientific fact that fragmented populations of animals become genetically weaker over time. The genetic weakness then causes the fragmented populations to start to die out as they are no longer able to fight diseases or adapt to changes in their environment. We need continent scale wildlife corridors to enable gene pools to flow again via the normal dispersal of young males. Wildlife rehabilitation groups know that male animals are over represented in roadkill because of their need to disperse and find other populations. We need to have night time only reduced speed limits within wildlife corridor zones, to assist with the flow of the gene pool. Car accidents can kill the best and brightest males and have a

significant negative impact on natural selection. The road network is a killing grid for wildlife and more needs to be done, especially within wildlife corridors, to reduce the impact of roadkill on all species. Wildlife underpasses and overpasses for roads and exclusion fencing with one way wildlife gates to enable wildlife to get out of exclusion zones, should be priorities within wildlife corridors.

Wildlife corridors need to be defined and wildlife-friendly people and businesses encouraged to buy land along the corridors with conservation agreements and reduced rates. I believe conservation covenants with reduced rates, should only be available via a strategy of defined wildlife corridors, that are based on the connectivity needs of wildlife species and habitat types. As I understand it 60% of Australia's biodiversity lives along the Great Dividing Range, this would be one area where covenants and reduced rates should be provided. It might be appropriate to reduce some of the native vegetation controls outside wildlife corridors. People would then have a choice based on their belief systems and or business needs as to where it would be best for them to live and or own land.

We need policies that encourage conservationists and farmers to work together. Current laws create unnecessary division. One idea in areas where current laws prevent farmers from subdividing their land, is to allow an environmental subdivision. This would enable farmers to subdivide land provided they placed a conservation covenant on the land's title. These new properties would then be placed on the market for conservationists and conservation groups to buy. This would lesson some of the conservation costs that current laws impose on farmers and prevent the crazy situation that I have seen, where current laws prevent subdivision and the only current way a farmer can make any money from remaining bushland on their property, is to have the bushland logged. I believe that we will know when we have the policy setting right, when farmers get excited to hear that a conservationist is moving into their area.

I also think that the NSW Government needs to review all koala populations and rank the koala populations based on the potential to save the population in the long term. Criteria should be developed to determine which populations are best placed to be saved. Koala population that are currently growing and have access to large amounts of habitat to expand into need some priority. There is a lot of focus on koala populations in areas where people live, that have already suffered habitat fragmentation due to human development. People who live in these areas know there has been a decline in koala numbers. While these populations need help, there are koala populations that if we learn from the mistakes already made in other areas, we could save the habitat from being developed and fragmented. This needs to be done before developers move in and push up the land values. Once people start making money, it is very hard to stop development.

e) the environmental, social and economic impacts of establishing new protected areas to conserve koala habitat, including national parks

I believe that the government needs to create an Environmental Loans scheme to support conservationists and conservation groups in the purchase of land. Significant amounts of koala habitat are located on private property and recent law changes have made it easier to clear habitat. There is a need to protect large areas of habitat in order to protect the koala.

Since 2004, I have been buying koala habitat to protect koalas, in 2004 I bought the 780 acre Hammer's Hill Wildlife Sanctuary, in 2013 I bought the 890 acre Kalandan Wildlife Sanctuary and in 2016 I bought the 140 acre Irwin's Corner Wildlife Sanctuary. Once the land area of a property exceeds 120 acres the banks will no longer provide loans at home loan rates, which are currently around 3.5%. The only option is Business loan rates which are around 8.45%. Business loan rates are higher to cover the cost associated with the fact that a high number of business go bankrupt and many business assets depreciate over time and these facts causes losses for the banks. Conservationists like myself are much lower risk then businesses and we are borrowing against land that goes up in value. In financing my sanctuaries, I have been told by both banks and non-bank lenders that they particularly don't like the fact that I am buying the land for wildlife / environmental reasons, they would prefer that I was going to subdivide and sell the land or build houses on it or some other money making / value adding purpose.

I have a reliable income that means I can repay the loans and don't need to make money from the land, but the banks do not like the fact that I am buying land to provide a safe place for the breeding population of koalas that call my sanctuaries home. I would like a government public partnership that would be a no cost option for the government. The idea is for the Government to provide Environmental Loans to properly credentialed conservationists or conservation groups to enable them to buy habitat and protect it. This might be possible by the government borrowing money from the Reserve Bank of Australia at 1.5% and then adding 1% to cover the government's administrative costs and then providing the environmental loans at 2.5%. Example; current business loan borrowing $350,000 at 8.45% would cost $29,575 in interest per year but an environmental loan borrowing $1,200,000 at 2.5% would cost $30,000 interest per year.

If the government was able to provide environmental loans, it would enable conservationists to buy much more land and protect habitat without being penalized with the current very high business loan rates. Obviously, loan criteria would need to be developed to ensure that the loans were provided only for land that had significant conservation values and that the borrower was a well credentialed conservationist or conservation group and had the means to repay the loan.

The loan would also come with the condition that a perpetual conservation covenant was placed on the title of the land. The pool of money to be loaned could be borrowed from the Reserve Bank of Australia at 1.5% or the Government might provide funds to create a lending pool. The administration of the loans could be outsourced via a tender

process to a bank because they already have the systems in place to process and administer loans. The cost of administrating the loans would be covered by adding 1% to the loan interest rate.

The Environmental Loan scheme idea has the support of the Humane Society International in Australia. The scheme would be relatively straight forward to set up and by adding a small percentage to cover the governments costs, it would be a no cost option for the government.

I believe that ideas like the Environmental Loan Scheme and the Environmental Subdivision that I detailed above, are policy ideas that will have wide spread support in the community and create a system of cooperation between farmers and conservationists. I think by using these types of ideas to create wildlife corridors is better than creating laws that impose the cost of conservation on farmers.

James Fitzgerald

2nd August 2019