



Transport for NSW

# Koala Management Plan

Woolgoolga to Ballina Pacific Highway  
upgrade Richmond River to Coolgardie Road  
Progress update | May 2020



Local koala spotted adjacent to the project

The Australian and NSW governments are jointly funding the \$4.9 billion Woolgoolga to Ballina Pacific Highway upgrade. The project was approved by the NSW Minister for Planning in June 2014 and the Federal Minister for the Environment in August 2014. The approvals come with strict conditions about managing the project's impact on the environment, including the koala and other threatened species.

## Background

The Koala Management Plan and Ballina Koala Plan were approved in 2016. Preparation of the plans for the area between Richmond River and Coolgardie Road near Wardell was guided by the Koala Expert Advisory Committee and advice from 15 independent scientific experts.

The plans set out Transport for NSW's mitigation and monitoring actions for the upgrade.

This update informs the community and stakeholders about our progress on our koala protection initiatives.



## Progress snapshot

- Four fauna culverts installed on Wardell Road with a koala recorded crossing through culvert
- Material haulage completed along Old Bagotville Road. Temporary koala fence and grids removed
- Planted 110 hectares of koala habitat and food tress and preparation underway for remaining 20 hectares
- Since the project started, about 11,130 workers have been trained in koala zero harm strategies
- Trapped 7 wild dogs and 15 foxes found in koala habitat
- All fauna connectivity structures and fencing installed along the upgrade
- Population results have been received for year two of the monitoring program

## Fauna connectivity

33 fauna connectivity structures including bridges and culverts have been built between Richmond River to Ballina to allow safe passage for animals to cross the highway. A further 30 kilometres of fauna fencing has been installed. This represents about 99 per cent of the fauna fencing to be installed between Richmond River and Ballina.

The purpose of connectivity structures are to:

- Reduce and minimise roadkill
- Avoid and minimise habitat loss and fragmentation
- Maintain and improve movement pathways for all fauna groups
- Maintain and improve population viability and gene flow for target threatened species

Using results from ecological monitoring studies of fauna connectivity structures over the last 18 years as well as input from ecologists, designers and engineers, Transport for NSW has continued to adapt and improve how fauna connectivity is designed and implemented on projects.

The Woolgoolga to Ballina project has over 300km of fauna fencing and over 300 crossing structures that will facilitate the safe passage for animals to cross the highway.



Dedicated fauna culvert underpass on the Pacific Highway near Thurgates Lane, Wardell



Combined drainage/ fauna bridge underpass on the Pacific Highway south of Wardell Road

## Wardell Road

The Woolgoolga to Ballina Koala Management Plan has developed a range of measures to minimise the projects impacts on the koala population including a fully-closed (fenced) a fully-closed (fenced) highway corridor, connectivity structures, and the establish 130 hectares of new koala habitat adjacent to the upgrade. In addition, Transport for NSW have installed fencing and other connectivity structures at two known koala hot-spots that occur on other roads near the project (part of Wardell Road and the existing Pacific Highway north of Wardell). The aim of these measures is to reduce Koala mortality in the order of 4-8 animals per year.

Ongoing monitoring of fencing and connectivity structures on Wardell Road started in October 2019. This first month of monitoring revealed a koala heading north through the connectivity structure on two occasions. This is particularly encouraging because it was before the fire in the Wardell heath and the structure allowed a safe crossing of Wardell Road. In December 2019, a healthy looking koala was observed moving north in the Wardell Road culvert.

Other native animals have also been sighted using the Wardell Road culvert. These include a potoroo, swamp wallaby, short-eared brushtail possum and echidna.



Koala grid on Coolgardie Road (west), installed in December 2019. Koala grids are used in conjunction with fauna fencing to prevent koalas from entering the highway alignment, creating a fully enclosed system.



Koala sighted using the Wardell Road fauna culvert in October 2019

## Progress report

### Old Bagotville Road

Material haulage along Old Bagotville Road is complete and temporary fauna fencing and grids have been removed. No koala strikes during material haulage along Old Bagotville Road have been recorded.



**Material haulage completed**

### Koala Cortisol Stress Study

University of Sydney, in partnership with Transport for NSW, has carried out further analysis of koala scats to detect changes in cortisol levels over time. Cortisol is a stress hormone found in koalas. Scats were collected across the five stages of phased resource reduction including the early stages of clearing in 2017 and further scats were collected from the population monitoring sites in 2018. The study compares impact sites (adjacent/within alignment) against control sites located approximately nine kilometres from the alignment but within the same koala population.

Cortisol concentrations in 2018 were higher than observed in 2017. This may have been associated with severe lack of rain. Consistent with the 2017 assessment, there was no statistically significant difference in the change of cortisol concentrations between control and impact sites.

### Koala feed tree planting

So far, koala habitat and food trees have been planted on 110 hectares of the total 130 hectares to be planted.



Plant survival across the project continues to be very good. Some minor replanting has been required due to natural causes such as fire and drought. Trees are also growing well with average heights ranging between two metres to four metres, with some up to six metres in height.

### Next steps:

- Preparation is underway to plant the remaining 20 hectares of trees when construction has finished
- Ongoing slashing and weed management to ensure new trees remain healthy





Replanting sites north of Wardell (July, 2019). This work forms part of the revegetation strategy designed to improve habitat connectivity and provide extra koala food trees on land previously cleared for farming





# Zero harm to **Koalas**



## Watch out, koalas about!

Expect to see koalas between dawn and dusk as this is when they are most active.

- ▶ Koala breeding season is from August to February - be on high alert for koalas moving about during this time especially in our koala hotspots (sections 5, 8, 9 and 10)
- ▶ Koalas on the move!
  - When travelling to and from work, dawn to dusk, be aware of and obey speed limit restrictions
- ▶ If a koala is observed in the construction corridor:
  - Stop work immediately
  - Maintain awareness of koala's movements
  - Notify environment officer / project ecologist and follow their instructions
- ▶ If a koala is observed outside the construction corridor during work hours:
  - Notify environment officer / project ecologist and follow their instructions
  - Maintain awareness of koala's movements
- ▶ If a koala is observed outside the construction corridor outside work hours:
  - If the koala is injured or at risk of injury phone 02 6622 1233
- ▶ Make sure you close gates behind you – if you opened it, close it.



**PACIFIC**   
**COMPLETE**

## Koala population monitoring near Wardell

Sandpiper Ecological Surveys was awarded the koala population monitoring program for the project. The population monitoring helps us to measure the effectiveness of our mitigation measures, including the koala exclusion fencing, food tree plantings and connectivity structures. Koala monitoring is planned to continue throughout construction and well after the road opens to traffic. This will help provide an understanding of whether the mitigation measures have had an impact on the projected population decline.

The second annual monitoring report showed that the population estimate in both the Broadwater and Bagotville populations is very similar to the koala population estimate prior to construction commencing.

A report on the year 2 population monitoring is available on the website [www.pacifichighway.nsw.gov.au/environment/wildlife-management/koalas](http://www.pacifichighway.nsw.gov.au/environment/wildlife-management/koalas).

Once sufficient data is available, koala population trends will then be compared with the Population Viability Analysis predictions at five-year intervals.

The Wardell Road bushfire in October – November 2019 burnt a large amount of koala habitat east of the Pacific Highway. Searches by the project team after the fire found no injured koalas. Koala population surveys were also carried out in November – December with some pleasing results of healthy koalas found in and around burnt habitat.

### Next steps:

- Continue monitoring

## Predator control

Wild dogs and foxes contribute to the deaths of koalas and other native animals. So far, 22 feral animals have been trapped and removed over an area of 367 square kilometres, which includes 64 landholders as part of the predator control program. A soft claw trapping method is being used so any non-targeted animal can be released without harm.

### Next steps:

- Continue predator control on all our biodiversity offset properties and nearby private properties.

## Koala zero harm induction training

Since 2015, about 11,130 workers have been trained to identify koala habitat, key threats, mitigation strategies and strict protocols to follow when a koala is spotted.



There are on average 2900 workers on site each month and zero harm training is included in the induction of all project workers.

### Next steps:

- Continue to induct new workers in the zero harm program

## Contact us – Woolgoolga to Ballina



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