

# Pole to Pole: Fauna Mitigation Measures for the Hume Highway Duplication Project



The NSW Roads and Traffic Authority (RTA) is duplicating the Hume Highway between Sturt Highway and Table Top in south-western New South Wales. The length of works totals 67km.

The project is being delivered through two alliance partnerships. The Hume Highway Southern Alliance is responsible for the area between Table Top (north of Albury) and Woomargama; and Northern Hume Alliance is responsible for the area north of Holbrook to the Sturt Highway. The project is due to be completed by December 2009 and is aiming to achieve long-term sustainable outcomes through a range of initiatives of which biodiversity is a key component.

## Biodiversity Offset Strategy

Potential biodiversity impacts include:

- Vegetation loss or degradation
- Habitat fragmentation and/or loss
- Direct fauna mortality during construction and operation

The design and planning included a Biodiversity Offset Strategy. The purpose of this Strategy is to mitigate impacts on species and habitat resulting from the construction, and to maintain or improve habitat in the region for long term benefit. Measures that are being implemented on the Hume Highway Duplication Project to minimise environmental impact include:

- Fauna Overpasses
- Fauna Underpasses
- Nest boxes
- Course Woody Debris (CWD)

## The Surrounding Environment

The surrounding environment of the duplication works has been significantly modified by intensive grazing, cropping and other developments. The result being that the remaining vegetation has a higher conservation value and greater role in the broader network of wildlife corridors in the region.

Several vulnerable or endangered fauna species, and an endangered ecological community (as listed in the *Threatened Species Conservation Act 1995* and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*) have been identified as occurring or potentially occurring in the project corridor.

These include:

- Squirrel Glider (*Petaurus nortolcensis*)
- Brown Treecreeper (*Climacteris picumnus victoriae*)
- White Box, Yellow Box, Blakely's Red Gum Grassy Woodland (EEC)



Installing Glider poles

## Overpasses

Pole and rope crossings have been designed to increase the connectivity between remnant vegetation across the highway and reduce ground predation and road fatalities. The crossing locations were established to maintain and maximise the connectivity of wildlife corridors with advice from NSW RTA, NSW Department of Environment and Climate Change (DECC), and scientific specialists.

**STATS: 19 glider pole crossings**  
**3 rope crossings**  
**Total of 65 poles**



Fauna underpass, with attached logs

## Underpasses

Design for the underpasses includes the installation of light wells and 'fauna furniture' including logs, pipes and rocks. Rocks have been installed through culverts to aid fish movement. The fauna underpasses are designed to provide safe passage between remnant vegetation patches, and are installed in conjunction with exclusion fencing to increase potential usage of the underpasses and reduce fauna road mortality.

**STATS: 19 fauna and fish underpasses**



Nest box

## Nest Boxes

Nest boxes have been designed for specific fauna species including the Squirrel glider (*Petaurus nortolcensis*) and the Brown Treecreeper (*Climacteris picumnus victoriae*) – both currently listed as vulnerable. The nest boxes have been installed in adjacent remnant vegetation to increase potential nesting sites

**STATS: 971 nest boxes**



Nest box with Ringtail Possums



Installing fish passage

## Mullengandra Creek Realignment

The projects also involved realigning sections of several creeks. The 380m of Mullengandra Creek realignment involved:

- The laying of 12,000m<sup>2</sup> of thick jute matting;
- Planting of over 60,000 plants, including translocation of some surrounding plants;
- Installation of 31 root wads for erosion control, 3 riffles and a log jam pool for fish habitat.



Placement of Course Woody Debris

## Course Woody Debris

Both alliances have also reused cleared timber as coarse woody debris (CWD). The placement of CWD is intended to recreate habitat and to provide foraging areas for fauna, and has been placed in several areas of remnant vegetation along the construction corridor.

Larger cleared timber including root stumps, has also been donated to the Resnagging the Murray River Project.



Mullengandra Creek plantings



Mullengandra Creek realignment