

Avoiding, remedying, mitigating – a case study of flora and fauna management for a transmission line project in south-east Queensland

JODI REES
Senior Environmental Scientist,
Parsons Brinckerhoff

MEREDITH WOODLAND
Senior Environmental Scientist,
Parsons Brinckerhoff

DR. TATIA ZUBRINICH
Environment and
Communications Executive,
Parsons Brinckerhoff



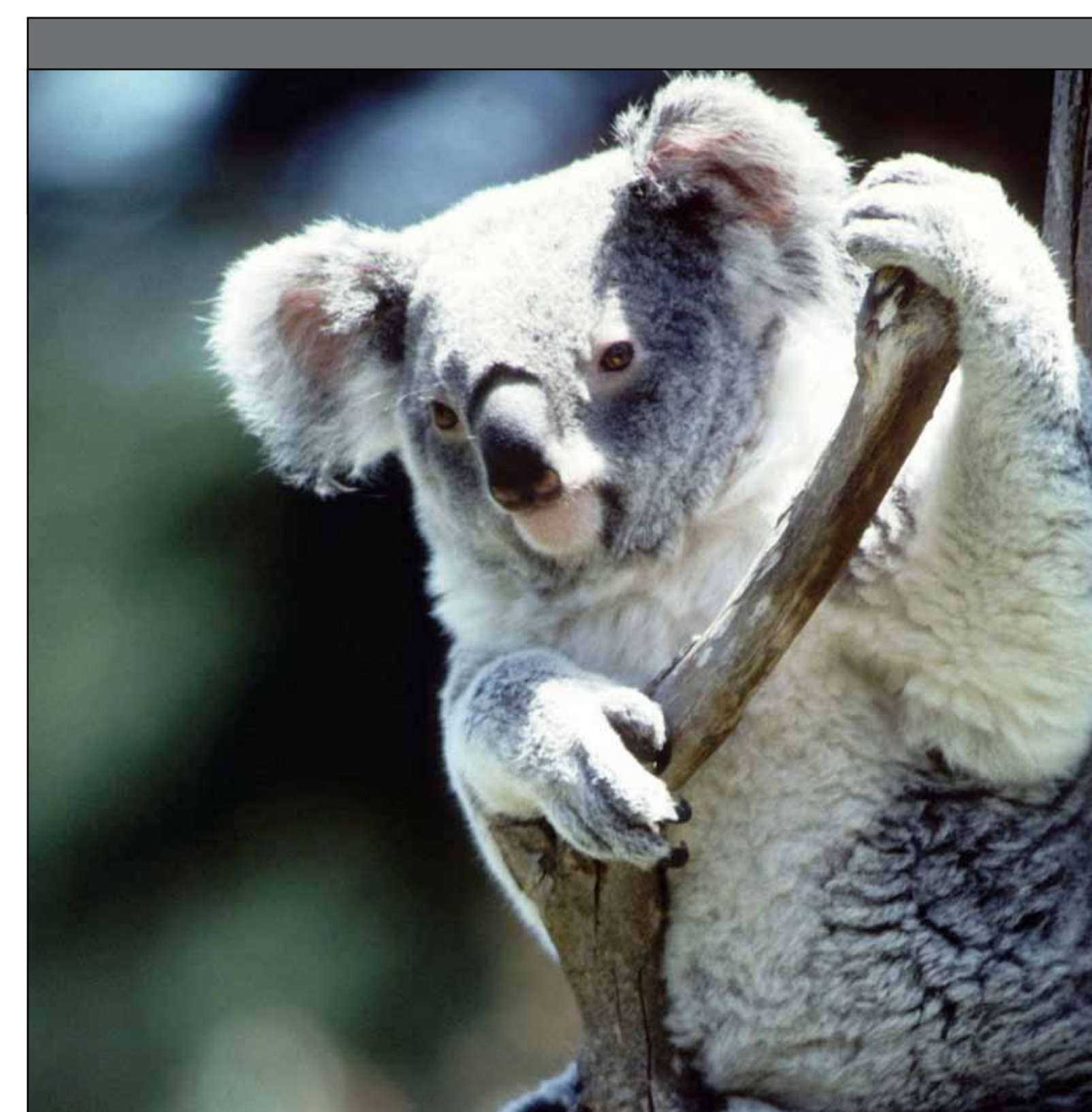
Above: Swamp tea-tree (*Melaleuca irbyana*)

The Problem

Parsons Brinckerhoff conducted detailed site assessments and discovered the proposed alignment contained the critically endangered Commonwealth-listed threatened ecological community, 'Swamp tea-tree (*Melaleuca irbyana*) forest of south-east Queensland' in several places. A referral to the Department of the Environment, Water, Heritage and the Arts was made in relation to this community. Numerous Queensland listed 'not of concern', 'of concern' and 'endangered' remnant vegetation communities, conservation areas and wetlands of bioregional importance were also identified along the alignment.

The Project

PARSONS BRINCKERHOFF WAS COMMISSIONED BY POWERLINK QUEENSLAND IN 2005 TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT (EIS) AND ENVIRONMENTAL MANAGEMENT PLAN (EMP) FOR THE PROPOSED 275/330 KV TRANSMISSION LINE BETWEEN MIDDLE RIDGE AND GREENBANK SUBSTATIONS IN SOUTH-EAST QUEENSLAND. THE 108 KM ROUTE TRAVERSES A RANGE OF HABITAT, INCLUDING MAPPED REMNANT VEGETATION AND CLEARED FARMLAND.



Habitat

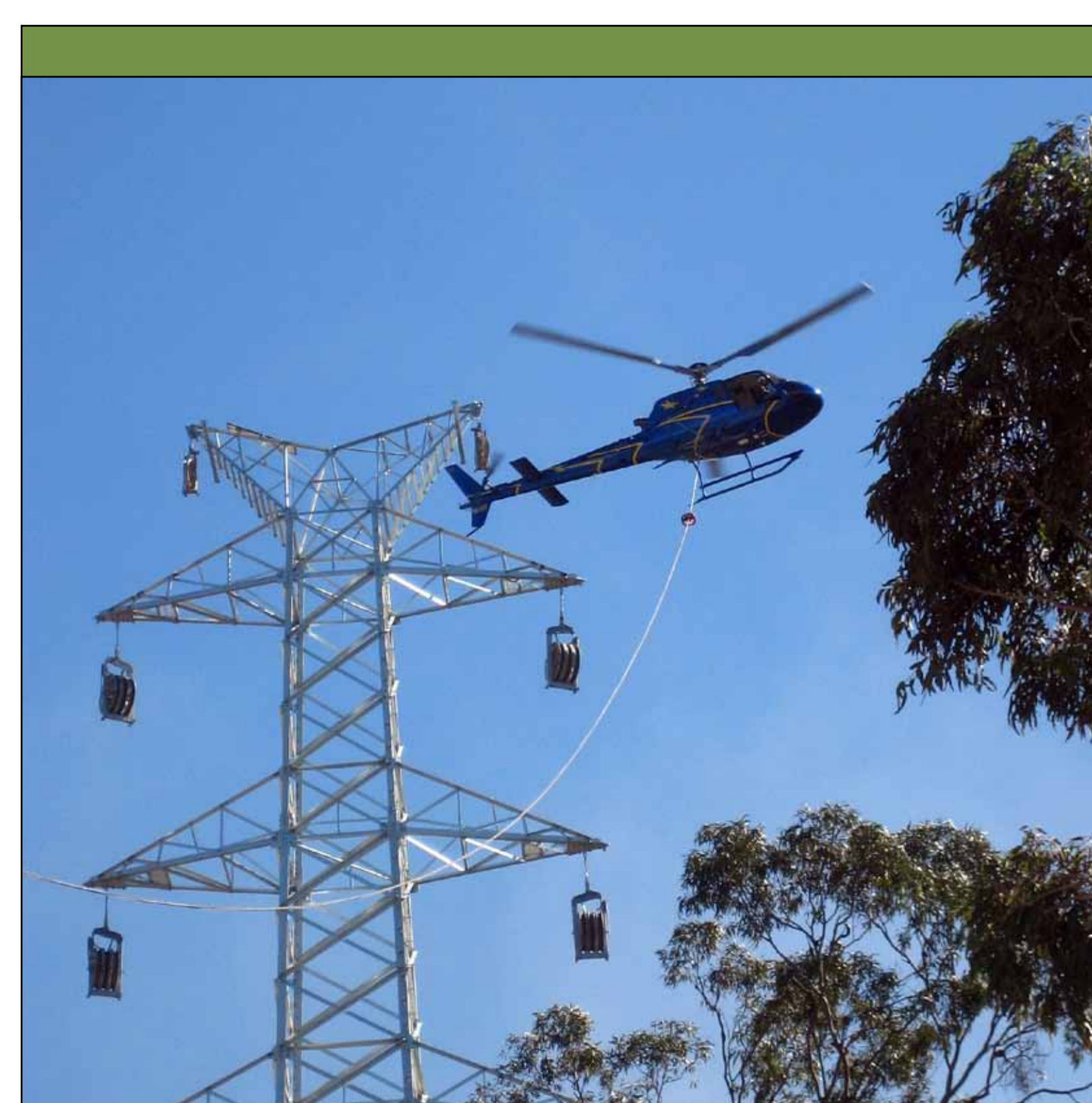
The project area contained key habitat for the following state and commonwealth listed threatened flora and fauna:

- *Petrogale penicillata* (brush-tailed rock wallaby)
- *Calyptorhynchus lathami* (glossy black-cockatoo)
- *Phascolarctos cinereus* (koala)
- *Plectranthus habrophyllus* (no common name)
- *Melaleuca irbyana* (swamp tea-tree),
- *Corymbia henryi* (large-leaved spotted gum – locally significant)

Mitigation

Powerlink has worked closely with Parsons Brinckerhoff to develop leading edge responses to environmental problems. Any mitigation measures proposed always exceed the standards required from the regulatory authorities, showing innovation and stewardship. Powerlink has a reputation for positive community engagement, taking responsibility for the environmental effects of their projects, and listening to stakeholders when it comes to required mitigation measures.

The Middle Ridge to Greenbank project involved complex topography and sensitive environmental issues that needed to be adequately addressed amid community concerns, while still achieving completion for an important infrastructure project.



Above: Helicopter stringing transmission lines

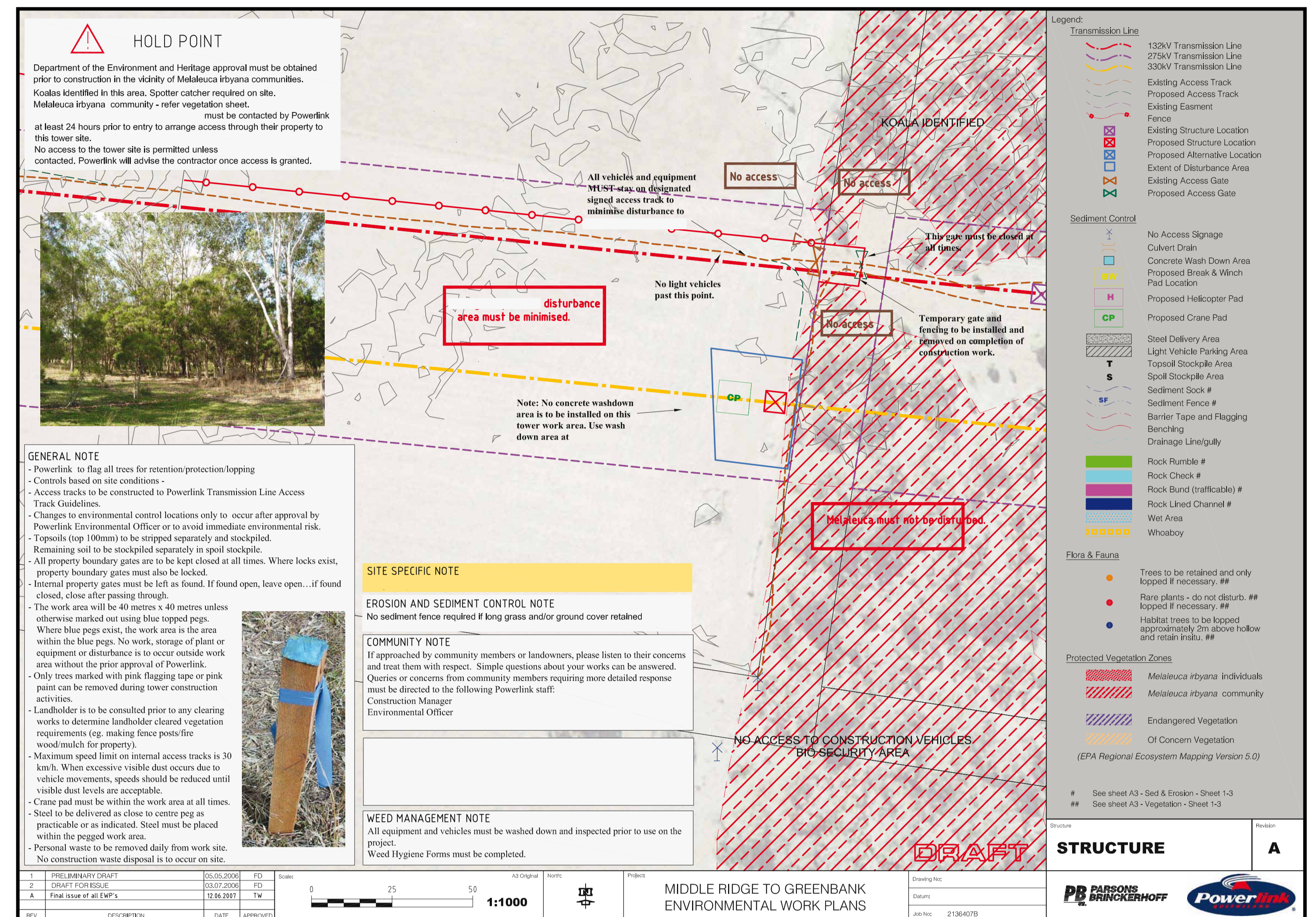


Figure 1: an example of an Environmental Work Plan

Successful Mitigation Measures Implemented

- Developing detailed Environmental Work Plans (see Figure 1 above)
- raising tower heights to span remnant vegetation
- negotiating placement of towers to maximise spanning gullies
- adjusting the transmission line alignment to avoid sensitive habitats and individual threatened species
- lopping vegetation rather than mass clearing
- using helicopter stringing over significant vegetation
- using existing maintenance tracks
- avoiding clearing along creeks and drainage lines and placing tower footprints away from bed and banks
- retaining vegetation along gully lines and on steep slopes to minimise erosion
- implementing pest management plans to avoid potential ingress of pests during construction and maintenance operations
- implementing a revegetation program where clearing is unavoidable using species endemic to the area but appropriate for growth under in the vicinity of a transmission line
- contributing to local environmental management strategies in key conservation areas
- locating and tagging hollow bearing trees, fauna feed trees for retainment where practical
- utilising a fauna spotter and catcher during construction to ensure minimal disruption to inhabiting fauna
- maintaining microhabitats such as fallen woody material and litter for reptiles and small mammals

Conservation Initiatives

With Powerlink's support, the Ipswich Koala Protection Society opened a new rescue and rehabilitation centre at Mt Forbes, as a rural base for volunteers working to rescue and care for wildlife in the region. The facility is used to assess, rehabilitate and release injured wildlife found in the Ipswich, Lockyer Valley and surrounding areas. Powerlink worked closely with the Ipswich Koala Protection Society in ensuring the protection of fauna during the construction of the Middle Ridge to Greenbank transmission line.

