

A REVIEW OF IMPACTS ON MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE OF THE PROPOSED BROADWATER TO COOLGARDIE SECTION OF THE WOOLGOOLGA TO BALLINA PACIFIC HIGHWAY UPGRADE.

Prepared for the Blackwall Highway Action Group (February 2013)

OVERVIEW

The NSW Roads and Maritime Services agency (RMS) has released an Environmental Impact Statement for the upgrade of the Pacific Highway between Woolgoolga and Ballina. In the area between Broadwater and Coolgardie the proposed route is considerably longer (by a minimum of 2.5km) than the existing alignment of the Pacific Highway and extends well outside the study area established for the Woodburn to Ballina section of the upgrade.

The proposed route between Broadwater and Coolgardie will, if constructed, destroy, fragment and isolate the largest and most significant areas of native vegetation in the Lower Richmond Valley, have significant impacts on several Matters of National Environmental Significance and destroy biogeographically significant areas with numerous species occurring at the extreme limit of their geographic range. None of these impacts are able to be mitigated or offset. Specifically, the proposed upgrade between Broadwater and Coolgardie will:

- destroy and degrade substantial areas of six Endangered Ecological Communities and the habitat of at least 40 threatened species listed under the NSW *Threatened Species Conservation Act 1995 (TSC Act)*;
- disturb and destroy culturally significant features including scar trees, middens and ceremonial grounds that are of great importance to the Bundjalung people (in particular those people represented by the Jali Local Aboriginal Land Council);
- heavily impact upon the largest known and only viable coastal population of the nationally Vulnerable Long-nosed Potoroo on the Far North Coast; and
- generate significant adverse impacts on a large high-density resident population of the nationally Vulnerable Koala.

The proposed route of the Pacific Highway upgrade between Broadwater and Coolgardie will completely isolate the Wardell wetlands and heathlands by clearing all corridors and connecting habitats that link this area to the Blackwall Range, the Tuckean Swamp, Broadwater NP and other adjoining habitats (Scotts, 2003). All of these areas are documented as having national conservation value. The proposed route will result in the clearance and fragmentation of the known habitat of at least 40 threatened species, many of which are listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act)*.

The existing route of the Pacific Highway between Broadwater and Coolgardie is at least 2.5km shorter than the proposed upgrade/deviation. The existing route has negligible conservation value because there is:

- no native vegetation present;
- no threatened species habitat present;
- no Endangered Ecological Communities present; and
- no culturally significant features present.

The proposed highway upgrade/deviation between Broadwater and Coolgardie directly contravenes the RMS environmental policy that states:

“When managing biodiversity, RMS aims to:

1. *Avoid and minimise impacts first.”*
(www.rta.nsw.gov.au/environment/biodiversity/index.html).

The proposed route contravenes this policy because it directly impacts upon and maximises the impact upon nationally significant areas of native vegetation and various Matters of National Environmental Significance. Several upgrade options and routes are available between Broadwater and Coolgardie that avoid any impacts on biodiversity.

THE NATIONAL CONSERVATION VALUE OF THE WARDELL HEATHLAND AND WETLANDS, BLACKWALL RANGE AND TUCKEAN SWAMP

Recent State and Commonwealth Government conservation studies have identified numerous nationally significant conservation values of the area through which the Broadwater to Coolgardie section of the Pacific Highway Upgrade is proposed to be built; this includes the Wardell wetlands and heathlands, the Blackwall Range and the Tuckean.

In reference to this area Sheringham *et. al.* (2008) identified a suite of unique and highly significant conservation values. Key areas identified by this assessment are threatened by the proposed Broadwater to Coolgardie section of the Pacific Highway upgrade, as follows:

“4.3.1 Wardell–Coolgardie

The survey data highlighted the very high conservation significance of the area of vegetation centred around Wardell, Coolgardie and the Blackwall Range. The area is a rare contiguous sample of the transition from alluvial floodplain to extensive coastal barrier sandplains and ranges of meta-sedimentary and basalt bedrock. This area contained superb examples of undisturbed old-growth swamp sclerophyll forest, lowland floodplain and riparian rainforest, dry and wet sclerophyll forests and diverse wallum wet and dry heaths.... Twelve vegetation communities were recorded here...Records of numerous threatened plant species were made during the survey in this area”

“4.3.2 Tuckean Swamp–Tuckean Broadwater

“The area contained old-growth mangrove and swamp sclerophyll communities across the littoral zone to the upper limits of tidal influence and onto backswamps of the alluvial plain.... Samples of Swamp Sclerophyll Forest and Subtropical Coastal Floodplain Forest EEC are also found in a relatively undisturbed state.”

“4.3.4 Tuckean rainforest remnant

*This was a small remnant of lowland rainforest on freehold property. This diverse remnant is an important sample of rich floodplain rainforest near its southern limit. The threatened plants Onion Cedar (*Ochrosia moorei*) and White Lace Flower (*Archidendron hendersonii*) were recorded.”*

www.environment.nsw.gov.au/resources/vegetation/08316VegetationSurvey.pdf

In reference to the Wardell wetlands, including areas that are proposed to be cleared and fragmented by the Broadwater to Coolgardie Highway upgrade/deviation, the Department of Environment and Climate Change (2008) states:

“Wardell

- Wetland types in this cluster are considered poorly represented within the reserve system.*
- Land acquisition and or private land conservation recommended due to high ecological values.”*

and

“The Wardell cluster is recognised as a key corridor and habitat for fauna of the coastal complex assemblage (Scotts, 2003). It is in excellent condition with negligible weeds and represents a suite of species in their southern-most extent due to the close proximity to the Mount Warning shield. The cluster also inhabits unique Swamp Oak communities although it is poorly surveyed.

Flora: *This area contains superb examples of undisturbed old-growth Swamp Sclerophyll Forest, lowland floodplain and riparian rainforest, dry and wet sclerophyll forests and diverse wallum wet and dry heaths. It is a mosaic of unique and intact vegetation communities. Thirteen vegetation communities were recorded and this includes Swamp Sclerophyll Forest, Lowland Rainforest on floodplains and Subtropical Coastal Floodplain Forest EEC. There are over 62 records of native orchid species within this cluster and is possible the most significant patch of remnant vegetation within the Ballina Shire LGA due to the large diversity and complexity. Records of numerous (20) threatened plant species listed under the TSC Act and EPBC Act are listed below.....*

Threats: *The main threats to the Wardell cluster include vegetation clearing, highway upgrades and fire.”*

<http://www.northern.cma.nsw.gov.au/downloads/publications/rivers-and-wetlands/pub-clarence-lowlands-report.pdf>

All of these areas and the documented nationally significant conservation values that they support will be heavily impacted or destroyed by the proposed highway upgrade/deviation between Broadwater and Coolgardie in the following ways:

- Clearance of extensive areas of high conservation value native vegetation, Endangered Ecological Community and threatened species habitat;
- Fragmentation and isolation of nationally significant habitats;
- Degradation through environmental weed invasion and increased populations of vertebrate pest species; and

- Degradation through extensive landform modification, hydrological disturbance and disruption of surface and groundwater flows.

IMPACTS OF THE BROADWATER - COOLGARDIE PACIFIC HIGHWAY UPGRADE ON SPECIFIC MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE

The proposed route of the Broadwater to Coolgardie section of the Pacific Highway upgrade will result in the destruction of extensive areas of habitat for numerous threatened species listed on the EPBC Act. Of particular concern are significant impacts that will be generated on four listed species:

1. LONG-NOSED POTOROO (*Potorous tridactylus*)

Recent surveys by the Office of Environment and Heritage and Jali LALC Rangers (Andren *et al.* (in prep.) and the Office of Environment and Heritage *unpublished data*) have confirmed that substantial parts of the Wardell Jali LALC lands and adjoining private lands support a large viable population of the nationally Vulnerable Long-nosed Potoroo.

Most populations of the Long-nosed Potoroo on the Far North Coast have become extinct and most of the remaining populations have declined steeply in recent years (e.g. Cudgen and Cobaki). It is considered highly likely that the Jali lands and adjoining private lands support the last viable population of this species in coastal parts of the region (David Milledge *pers. comm* February 2013).

Construction of the proposed highway upgrade/deviation between Broadwater and Coolgardie will generate a significant impact upon, and potentially lead to the local extinction of, the Long-nosed Potoroo. This is because the proposed highway upgrade will result in:

- Clearance of habitat known to be occupied by the Long-nosed Potoroo;
- Isolation of populations of the Long-nosed Potoroo within the Jali lands and destruction of habitat linkages between those parts of the population within the IPA and those on adjoining private lands;
- Degradation of habitat through extensive landform and accompanying hydrological modification and weed invasion; and
- Increased risk of predation by foxes and other vertebrate pests because of habitat clearance and degradation.

2. KOALA (*Phascolarctos cinereus*)

The Koala has declined steeply in recent years across the Eastern Seaboard of Australia because of coastal development, habitat loss, fragmentation, inappropriate fire regimes and disease. This has resulted in populations of the Koala in NSW, the ACT and Queensland being listed as Vulnerable under the EPBC Act.

The Lower Richmond Valley supports a significant population of Koalas between the Richmond River, the Blackwall Range, the southern flanks of the Alstonville Plateau and Lismore. High density populations of the Koala are known from forests that are proposed for clearance for the Broadwater to Coolgardie section of the Pacific Highway upgrade (Commonwealth of Australia 1998; Friends of the Koala *unpublished data*). These forests are located between the Richmond River, Wardell, the Blackwall Range and the Tuckean Broadwater and are dominated by the primary Koala feed tree species, Swamp Mahogany (*Eucalyptus robusta*), Forest Red Gum (*E. tereticornis*) and Tallowwood (*E. microcorys*).

The proposed highway upgrade between Broadwater and Coolgardie will heavily impact upon the significant resident Koala population that is known in this area by:

- Clearing primary habitat with a high-density resident Koala population;
- Fragmenting areas of connected habitat and isolating viable breeding Koala populations;
- Degrading primary Koala habitat through increased weed invasion and contributing to increases in populations of foxes and other vertebrate predators and pests; and
- Degrading habitat through extensive landform and hydrological modification.

3. ROUGH-SHELLED BUSH NUT (*Macadamia tetraphylla*)

Several of the southern-most known individuals of the nationally Vulnerable Rough-shelled Bush Nut are located at Coolgardie. Some of these will be destroyed by the proposed Wardell Interchange. *Macadamia* spp. are of great commercial value and wild individuals at the southern edge of their range are highly likely to have genetic traits of immense commercial value. Destruction of these individuals is completely unacceptable. Because of the sensitive proteoid root system of this species, transplanting is a highly uncertain activity that is likely to result in death. This is completely unacceptable and cannot be regarded as an acceptable option. There are no threatened plant species along the existing alignment of the Pacific Highway between Broadwater and Coolgardie.

4. RED LILLY PILLY (*Syzygium hodgkinsoniae*)

One of the southern-most individuals of the nationally Vulnerable Red Lilly Pilly is located at the southern edge of the Coolgardie Escarpment. This individual will be destroyed by the proposed upgrade. Because this individual is a substantial tree it is highly unlikely that transplanting will be successful or an effective mitigation measure. There are no threatened plant species along the existing alignment of the Pacific Highway between Broadwater and Coolgardie. There are no threatened plant species along the existing alignment of the Pacific Highway between Broadwater and Coolgardie.

CONCLUSION

The proposed Broadwater – Coolgardie section of the Pacific Highway Upgrade will generate massive and unacceptable impacts on biodiversity and cause numerous significant impacts on several Matters of National Environmental Significance. Very few of these impacts are able to be mitigated or offset and major declines in biodiversity will occur if this infrastructure is built on the proposed alignment. Numerous upgrade options are available across the landscape between Broadwater and Coolgardie that will not generate any impacts upon biodiversity. These upgrade options must be utilised to avoid generating massive impacts on biodiversity that are not able to be mitigated or offset.

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