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Submission

to

Roads and Maritime Services

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on the

Proposed Pacific Highway upgrade Woolgoolga to Ballina

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Submission to the proposed Pacific Highway upgrade Woolgoolga to Ballina

Background

The North Coast Environment Council (NCEC) is a long-established umbrella organisation, supporting environment groups from the Hunter Valley to Queensland for more than 25 years.

The Council has had a major interest in many aspects of the Pacific Highway upgrade in all areas, and have been particularly concerned at the failure of the RMS to minimise ecological impacts at every stage of the process from route selection to construction. We believe the RMS's community consultation has never been a sincere attempt to address community concerns for the environment, and in fact, when the route selection process for the Wells Crossing to Iluka Road upgrade was finalised some eight years ago, the Council was denied any involvement in the 2 day stakeholder workshop, with the then RTA preferring to deal with a single representative of a small local environmental non-government organisation.

This submission has been prepared in two parts, with a focus on two significant areas where there is an acknowledged high level of environmental impact from the proposed upgrade, the Clarence Valley, and the section from Woodburn to Ballina - specifically Broadwater to Coolgardie.

Executive Summary

The RMS's decision to construct a motorway along large sections of the route, additional to the existing highway will, we believe, have an unacceptably high environmental impact, while also adding enormous costs compared to a simple upgrade of the existing road to 4 lanes. As well, the planned Clarence Valley motorway will provide few if any benefits to residents and businesses.

It is our belief that the NSW Government should take a long-term view of transport infrastructure requirements. With dwindling world oil reserves, and an urgent need to reduce greenhouse gas emissions, the massive waste of money in building 80km of motorway across the Clarence Valley to cater for a paltry 30% of road users is not a cost effective project, as claimed by the RMS, so cannot be justified.

Building the motorway across the Clarence Valley, where traffic volumes are lower than anywhere else between Warnambool and Gympie, benefits no one but the road freight transport and construction industry. The billions of dollars that would be saved by dropping these grandiose plans could be spent on upgrading the freight rail system and taking dangerous heavy road transport vehicles off the road, making it safer for everyone.

We believe the proposed upgrade/deviation, particularly the Woolgoolga to Ballina section, directly contravenes the RMS environmental policy that states: "*When managing biodiversity, RMS aims to: Avoid and minimise impacts first*." (www.rta.nsw.gov.au/environment/biodiversity/index.html).

The proposed upgrade, specifically through the Clarence Valley and along the Richmond River's Broadwater – Coolgardie section, will generate massive and unacceptable impacts on biodiversity and cause significant impacts on numerous Matters of National Environmental Significance. Very few of these impacts can be mitigated or offset and major declines in biodiversity will result if the proposed infrastructure is built. There are alternative low-impact route options available between Broadwater and Coolgardie that would minimise impacts on biodiversity, and the same can be said for the Clarence Valley. These low impact options must be utilised to achieve some degree of ecological sustainability.

The predicted 4.2 billion dollar cost of the upgrade, a figure that is bound to double, does not include a single dollar for the eco-services provided by the forests that will be lost. Those forests convert CO^2 into oxygen, store carbon, filter water, and protect biodiversity, something that provides us with everything we eat, much of what we wear, and many of the pharmaceutical products we enjoy. We believe that is an unforgivable omission.

Benefits of dropping the motorway proposals include:

- Local commuters, that make up 70% of traffic on the highway, will have a safe divided highway instead of the current second rate, winding single lane country road.
- Visitors to Grafton would not have to continue to battle more than 40km of those 'goat track' conditions between the off and on ramps at Glenugie and Tyndale.
- Local ratepayers will not have to foot the bill for maintenance of more than 100km of bypassed highway.
- The RMS objective (page S2) of *"developing a route involving the community and considering its interests",* would be achieved.
- 200ha of prime agricultural land, plus at least that amount of secondary agricultural land, would be saved from destruction in the Clarence Valley alone.
- 80 hectares of timber resource would be saved.
- The destruction of hundreds of hectares of native forests, including 337 hectares of endangered ecological communities (6 different community types), would be avoided.
- The additional destruction of 120ha of high conservation value habitat, 8ha of riparian vegetation at 40 major waterway crossings, and 465ha of other native vegetation in the Clarence Valley alone, would also be avoided.
- Up to 1,000 hectares of habitat for over 125 threatened terrestrial flora and fauna species would be saved.
- Massive fragmentation of the largest contiguous remnant of coastal forest communities in northern NSW would be avoided.
- The habitat of the endangered coastal emu population, now reduced to less than 100 birds, would not be dissected and the possible extinction of the species could be avoided.
- Destruction of habitat of at least 10 threatened aquatic species would be avoided.
- Actual and potential impacts on numerous SEPP 14 wetlands on the Clarence Valley floodplain, and threats to large aquatic birds that require lengthy, low trajectory take-off flight paths (such as Brolga and Black-necked Stork), through flying into the lengthy viaducts built across sections of these wetlands, would also be avoided.
- Evacuation of residents in flood prone areas will be much easier by access to an upgraded, and possibly raised, current highway.
- Extensive tracts of known habitat for a significant resident Koala population along the Broadwater to Coolgardie section, which contains preferred feed tree species Swamp Mahogany, Forest Red Gum and Tallowwood, will be spared.
- Impacts on numerous nationally significant conservation values of the Wardell wetlands and heathlands, the Blackwall Range and the Tuckean will be avoided.

In conclusion, we strongly believe the cumulative negative environmental impacts of the proposed upgrade, particularly the separate motorway sections that dissects the Clarence and Richmond River Valleys, are just too great, and the options should be abandoned in favour of the much cheaper, low impact option of upgrading the existing highway to a 4 lane divided standard.

PART A - Clarence Valley

Claimed benefits of the proposed motorway

Flood-proofing

The EIS claims the preferred route has less flood problems as it runs along higher ground through the coastal range foothills, providing an opportunity for cut and fill, providing material to construct the massive 5m high embankments across flood-prone land around the Coldstream Wetlands at Pillar Valley and Shark Creek.

We do not see flooding as an issue that justifies the extreme levels of environmental destruction that will result from the preferred alignment. Flooding is an inconvenience, but that is all it is. The preferred route is only designed to cater for a 1 in 25 year flood, **so is not flood-proof**.

There are tried and true alternatives for use during floods. The Summerland Way for minor flooding, and the New England or Newall Highways for more major events. Diversions will still happen, for all sorts of reasons. Vehicle accidents, toxic spills, and even smoke from bushfires can all close highways for extended periods.

If the RMS was serious about constructing a flood-free highway, the alternative direct line route to Brisbane via Casino, Kyogle, Woodenbong, and Beaudesert, would again be the logical way to go. The then RTA did look at an inland option in 2006 in response to the community pointing out that it would be a flood-free alternative, 50km shorter than the coastal route, would avoid contentious floodplain ecosystems, cost billions of dollars less in land acquisition costs, and avoid the traffic snarls on the Gold Coast.

However, the RTA only considered the Summerland Way option as far as Casino, and from there did a 90 degree turn to rejoin the Pacific Highway near Byron Bay. Clearly, that option could never stand up, it was far longer, and allowed the RMS to to claim that, *"it would not take traffic off the Pacific Highway"* and that,*"it would cost more than the Pacific Highway between Grafton and Tyagarah/Ewingsdale, which would still need to be built".*

The EIS promises (page S13) that building the new road to a 1 in 20 year flood level will, *"result in a substantial improvement in the flood immunity of the Pacific Highway, which is currently floodprone in several places. This would improve the ability of people to evacuate when flooding occurs".* **We assert that this is an irresponsible and potentially dangerous comment given that, as already identified, residents at highly flood-prone centres in the Clarence valley such as South Grafton, Ulmarra, Cowper, and Brushgrove, will all have to use the old flood-prone highway to access the new motorway at Glenugie, Tyndale or Maclean. To claim that the motorway will aid evacuation is blatantly untrue**.

Safety.

The EIS uses road safety to justify the Pacific Highway upgrade, but then claims (page 3.13) that: *"Improvements to the Pacific Highway and changes in road network accessibility have allowed B-double trucks to use the full length of the highway between Hexham and the Queensland border since August 2002. This has led to a significant increase in B-double traffic on the highway."*

Given that less than one third of the highway between Hexham and the Queensland border had been upgraded when the then RTA let B-doubles loose on the road in 2002, it appears, given the subsequent high percentage of accidents involving large transport vehicles that have occurred, that decision may have been a deliberate strategy to make the highway more dangerous, to force State and Federal Governments to raise the levels of funding.

The current Glenugie to Tyndale highway section through the Clarence Valley includes the site of the infamous Cowper bus crash, where Coroner's recommendations to improve safety conditions have been ignored for decades. Now, that 40km section will be bypassed entirely by the motorway. The RMS acknowledges that 70% of the highway traffic is made up of local vehicles which will remain on the old highway, because the proposed motorway bypasses Grafton far to the east, with no exit until Glenugie, 12km south of the city.

With two major growth areas, West Yamba and Gulmarrad - both of which are economically and socially linked directly to the regional centre of Grafton, the reality is that by the time the motorway comes on line, the amount of traffic through the Cowper crash site will be significantly greater than at the time of the crash.

As already stated, we believe a simple upgrade of the current highway to 4 lane divided status, with bypasses of South Grafton and Ulmarra, will solve the highway's safety issues and cost millions of dollars less. The money saved could instead be used to upgrade the rail system, get the majority of inter-city freight off the roads, conserve oil stocks, and reduce greenhouse gas emissions.

Population and traffic growth

The EIS asserts that the highway will cater for projected population growth, claiming (page S8), that: *"The Pacific Highway coastal corridor has been one of the fastest growing regions in Australia. It includes major regional centres such as Grafton ..."* and, *"emerging towns such as Maclean and Yamba ..."* . However, courtesy of the decision to bypass Grafton with a motorway, the expanding populations of Yamba and Maclean (1,100 homes on the floodplain at West Yamba alone), which the RMS acknowledges, *"offer most of the region's employment opportunities and services",* will not be able to use the new motorway to travel the 45km and 60km respectively, to access their major regional centre of Grafton.

The question that should be asked - is the highway being built to meet the needs of an expanding population? Clearly in the Clarence Valley this is not the case.

Economic and community needs

The above argument also applies to the RMS claim that: *"One of the objectives of the Pacific Highway Upgrade Program is to support State and regional economic development. Numerous government and independent reports highlight the importance of modern, efficient transport links in supporting economic development."* Failing to provide a short access from the proposed motorway to the regional centre of Grafton, and isolating the city from through traffic, hardly supports economic development or create an efficient transport link.

Environmental Impacts

The EIS lists numerous adverse environmental impacts that the highway upgrade will cause. That level of impact would, under normal circumstances, result in the project being rejected out of hand.

The project which includes significant stretches of motorway which are separate to the existing highway will, according to the RMS, cause damage to habitat for 123 threatened species, including: *"**Significant impact** to 12 threatened flora species and 24 threatened fauna species",* with: *"**Potential for significant impact** to the endangered Coastal Emu population".*

Given that all threatened species have been so listed because they are in decline, mostly through loss of habitat, and that they will become extinct if those declines are not reversed, the identified "significant impact" on no less than 36 species is unacceptably high. The proposal is certainly not an ecologically sustainable development, one of the claimed objectives of the EIS.

The opening statement of the Executive Summary makes the observation that: *"Much of the native vegetation in the study area, Woolgoolga to Ballina, has been cleared or fragmented for agriculture and rural development".* In spite of this, the EIS, admits that more than a thousand hectares of those few remaining remnants of forested land will be destroyed in the construction process, of what the local Member of State Parliament, Don Page, suggested might be an overly grandiose plan.

The EIS turns to off-sets to mitigate the impacts, claiming (page S13) that it: *"would deliver a package of offsets* ***to achieve a neutral or net beneficial biodiversity outcomes*** *for the region".*

This is another falsehood. These off-set schemes involve placing conservation covenants on habitat that already exists, so there is always a net loss of biodiversity when the destruction occurs on the project site. What also needs to be understood is that land placed under a conservation covenant is not protected against any the building of anything deemed to be critical infrastructure, such as the highway upgrade (even national park estate will be bulldozed for this upgrade), nor is it protected from any mining activity, including coal seam gas. In short, conservation covenants provide no guaranteed protection for biodiversity.

When it comes to impacts on soils, sediments and water, we read of potential *"leaks or spills of chemicals, fuels, oils and/or greases".* The EIS also identifies strong potential for siltation and pollution of creeks, and wetlands; disturbance of acid sulphate soils leading to fish kills; the clearing of river bank vegetation causing erosion; leaching of tannins from cleared vegetation, and impacts on groundwater-dependent ecosystems within freshwater wetlands. Again, this cannot be described as ecologically sustainable development?

We are seriously concerned by the inference (Table 10.5) that the destruction of 5% of all known specimens of the threatened Square-fruited Ironbarks for this upgrade, is somehow offset by the benefit of having the 100m wide cleared corridor provided by the upgrade, to act as a fire break. **This comment takes the RMS's 'spin' to a whole new level.**

The EIS identifies the environmental impacts on waterways, telling us there is a potential for: *"Infiltration of surface water to groundwater sources including drinking water supplies at Woodburn, including sediments and particles and soluble pollutants* ***(such as acids, salts, nitrates and soluble hydrocarbons) during construction or operation****".* How is this serving the community and its interests, a stated objective of the upgrade?

Another concern raised by local ecologists, is that the overall flora and fauna surveys have failed to identify a range of threatened species known to occur in the area, including the endangered Giant Dragonfly, sightings of which were recorded, and photographed, on the motorway corridor south of Tyndale, and reported to the Museum in Sydney where its identification was confirmed in 2010.

We also understand that a rare *Bursaria species,* which is currently being described by botanists attached to the New England University, is likely to occur along the route. In fact the largest known sub-population of the species, approximately 50 plants, has been identified near Bostock Road in close proximity to the motorway corridor.

Endangered Coastal Emu Community

The proposed motorway through the Clarence Valley runs directly through the centre of the known range of the last remaining endangered population of Coastal Emus for a distance of over 40km.

According to official National Parks and Wildlife census figures, the endangered population has been in steady decline since white settlers began clearing their habitat in the 1840s, and now numbers less than 100 individuals. There is no doubt that the fenced barrier of the proposed motorway will have a detrimental impact on the birds, which could be potentially devastating, and lead to the total demise of the species.

To that end, the RMS claims (page 5.177) that: *"many of the bridge structures have been overdesigned to convey floodwaters and cater for the passage of emus ... . Table 5-10 identifies those structures which have been designed in consideration of emu passage".* Table 5-10 lists bridges and culverts that provide a potential conduit for Emu passage to the opposite side of the motorway, but in reality, they provide only one dedicated Emu underpass, a 4 metre tall concrete underpass.

A single dedicated wildlife overpass that had been promised earlier, woefully inadequate for a 180km section of upgrade, has been dumped from the EIS, as was previously the case further south at Bulladelah. The provision of wildlife crossings along the entire highway is abysmal, with only 3 overpasses along the entire Pacific Highway North of Hexham.

These so-called wildlife underpasses, such as bridges and viaducts, have been so designed to allow unhindered passage of traffic and flood waters, and we doubt if any consideration has been given to Emus in their design!

Traffic crossings listed in Table 5.10, particularly bridges over the Ulmarra to Wooli Rd, 8 Mile Lane, and other roads carrying high traffic volumes, are cynically described as "incidental emu structures". All those structures will do is channel wildlife onto the road to become instant road kill. The fact is that nobody, least of all the RMS, has any knowledge about the Emus' willingness to walk under noisy traffic through a culvert. They may well walk under the viaducts, but they have been designed with water flows in mind, not the access of emus. There is at least one viaduct over the Coldstream River where, if the emus did walk under it, the birds would be blocked by the river.

Furthermore, Table 7.3 of the EIS states: *"It is proposed to fence the boundary of the alignment within the Shark Creek area to prevent passage of emu and other large fauna across the highway, so that animals do not get struck by vehicles and do not get trapped between the corridor between the new and the old highway".* That area between the old and new highways between Tyndale and Maclean is about 15km long and in places more than 1km wide, meaning an estimated 10 square kilometres of known foraging range for the Emus will no longer be accessible, providing yet another unacceptable impact on the Coastal Emu population.

The pre-construction monitoring of Emu movement patterns, and other mitigation measures, all sound good, but it should be noted that one program initiated by the RMS, a *"pilot program for satellite /GPS tracking",* has already failed, with evidence suggesting that heavy tracking devices not only caused damage to the captive reared birds that were used, but lead to several of them being killed by wild dogs.

All the measures proposed by the RMS to mitigate the impacts of the motorway on the Emu population, are untried, much less proven. Therefore we have major concerns over the RMS's suggestion that there would be an, *"Analysis of proposed mitigation measures and any potentially significant impacts remaining after their application".*

The EIS clearly admits (page 20-5) that the **highway upgrade has the, *"Potential for significant impact to one endangered population listing under the TSC* Act - emu population in the NSW North Coast Bioregion and Port Stephens LGA area". Given the current status of the population, any further impact can only lead to its extinction.**

Therefore, we believe the proposed mitigation measures should be fully analysed by the consent authority prior to construction of the motorway, and if they do not provide a 'rock solid' guarantee that there will be no detrimental impact on the endangered Emu population, then the proposal must be scrapped.

Social Impacts

We seriously question the EIS's claim that the "upgrade" will ***"significantly reduce road crashes and injuries",*** particularly across the Clarence Valley, where 70% of traffic will remain on the existing single lane highway, while traffic on the motorway, a large percentage of which will be heavy transport vehicles (B triples), will all be travelling up to 30km per hour faster.

The objective to ***"Reduce freight transport costs"*** might be achieved. However, an efficient freight rail alternative would achieve that objective, could reduce travel times, would reduce greenhouse gas emissions, and conserve the world's dwindling oil stocks, all at a far lower cost to taxpayers.

The objective claiming to:***"Develop a route involving the community and considering its interests",*** would be offensive to many in the Clarence Valley who will not be able to use the new road for commuter purposes. With no off-ramp at Grafton, drivers from the lower Clarence River area can access the new motorway at Maclean or Tyndale, but then would be unable to exit the motorway until Glenugie, 12km beyond Grafton, forcing them to back-track to the city.

Likewise, how can a new motorway, that bypasses Grafton so far to the east, possibly meet the stated objective of ***"providing a route supporting economic development"?*** And how can the addition of a new motorway, to service just 30% of the current highway traffic, be deemed to meet the objective of ***"providing the best value for money"?***

PART B. - Woodburn to Ballina - specifically Broadwater to Coolgardie

Overview

For the upgrade 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 and has negligible conservation value because there is:

- no significant 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: 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 possibly 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 land supports the last viable population of this species in coastal parts of the region (David Milledge *pers. comm* Feb 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
.
- 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 simply 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.

In conclusion, we strongly believe the cumulative negative environmental impacts of the proposed upgrade, particularly the separate motorway sections that dissects the Clarence and Richmond River Valleys, are just too great, and the options should be abandoned in favour of the much cheaper, low impact option of upgrading the existing highway to a 4 lane divided standard.

We thank the Minister for this opportunity to comment.

Susie Russell
President
North Coast Environment Council