

NEW SOUTH WALES FIRE BRIGADES

RISK MANAGEMENT DIRECTORATE

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Arup Ref: 80213/CCH:KJS
Our Ref: FSD/POL/134721

Contact: M Castelli/ls

15 JUL 2005

Mark Castelli

Roads and Traffic Authority
PO Box 546
GRAFTON NSW

Attention: Mr Roger Fenner
RTA Project Manager

Dear Sir

**Environmental Impact Statement
for the Pacific Highway Upgrade
(Moorland to Herons Creek section)
KEW**

I refer to your correspondence dated 21 June 2005, regarding the above premises.

The NSW Fire Brigades (NSWFB) has reviewed the submitted Environmental Impact Statement (EIS) for the Moorland to Heron Creek Pacific Highway Upgrade and provides the following comments:

- To assist in facilitating firefighting and other emergency operations the NSWFB recommends that in-ground street hydrants are installed at township highway interchanges (i.e. townships of Kew and Johns River).

Apart from the above recommendation the NSWFB has no concerns with the proposed upgrade.

Should you have any further enquiries regarding any of the above matters, please do not hesitate to contact the Fire Safety Division.

Yours faithfully

For Commissioner

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Department of Lands

*Land Administration & Management
Property & Spatial Information*

RTA Project Manager
Roger Fenner
PO Box 546
GRAFTON NSW 2460

98 Victoria Street TAREE NSW 2430
PO Box 440 TAREE NSW 2430
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Date 18 July 2005

Our Ref: TE02 H 82
Your ref:

Dear Sir

RE: Upgrading the Pacific Highway – Moorland to Herons Creek: Environmental Impact Statement.

The subject EIS has been reviewed in this office.

As you no doubt are aware the proposal may directly or indirectly impact on various parcels of Crown land the details of which were forwarded to Mr Toby Heys of ARUP in February, 2005. The EIS appears to adequately address all the environmental implications relative to those lands. However, it should be noted that once the extent of Crown lands required for the upgrade are determined, the RTA must obtain formal approval for the acquisition of those lands from the Department.

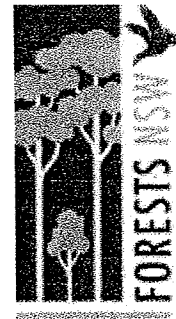
Section 2.3 (Other Statutory Approvals) of Chapter 2 of the EIS incorrectly quotes the Department of Environment and Conservation as the responsible agency for the Crown Lands Act, 1998 (not 1898). Also the information in the approval required column is incorrect. The Department does not require a lease or licence for construction of the road across Crown land and the Camden Haven River. In respect of Crown land the Department requires that the land be acquired under the provisions the Land Acquisition (Just Terms Compensation) Act, 1991. Acquisition (or an approval under the Crown Lands Act, 1989) is not required for the crossing of the Camden haven River as the Roads Act 1993 provides for a roads authority to construct bridges and tunnels across navigable waters.

Yours sincerely

Cam Cocchini
for Manager
Crown Lands NSW
Mid North Coast

Our ref: 06/11 John Fulton

RTA Project Manager
Roger Fenner
PO Box 546
GRAFTON NSW 2460



Forests NSW
Mid North Coast Region

PO Box 168
Wauchope NSW 2446

Phone (02) 6585 3744
Fax (02) 6585 2392

1st August 2005

Dear Sir,

**Upgrading of Pacific Highway – Moorland to Herons Creek –
Environmental Impact Statement**

I refer to letter of 21st June from Ove Arup Pty Ltd and your exhibited EIS for the above.

This proposal involves the resumption areas of Middle Brother and Burrawan State Forests and affects the access haulage issues associated with harvesting in that area. I therefore ask that you consider the following issues in determining the EIS and carrying out the proposed activity. These comments are directed only at the areas of Forests NSW interest and involvement. They do not address broader issues that are of legitimate community concern.

Cultural Heritage

RTA and cultural heritage contractors should remain in closer contact with Forests NSW in relation to the identification and management of cultural heritage sites, both in State forest and immediately adjacent areas that have the potential to be impacted by Forests NSW activities. Forests NSW notes that several of the sites mentioned in WP No.5, Cultural Heritage, could be impacted by forestry activities planned for the near future and Forests NSW representatives will be making contact with the consultant to ensure that newly identified sites are considered. Note also that Forests NSW has conducted more recent survey for Aboriginal sites and may be aware of sites not considered in the WP or EIS.

Flora & Fauna Survey

It appears as if a number of surveys were carried out on State forest without the express permission of Forests NSW, despite a requirement to do so. This requirement had been made clear in Forests NSW letter of 31st July 2002, from which I quote, "As discussed, biological and heritage investigations will require separate applications for Special Purposes Permits or Letters of Authority. Please advise your colleagues and sub-consultants of this requirement." This would have been a common courtesy.

Access

Forests NSW requires that access from the highway to adjacent State forest areas be available and that they be of sufficient standard to safely accommodate the passage of B-double configurations. The concepts and design appear to allow this in relation to the relocated Ross Glen and Charlies Yard access points.

Consultation and Economic Impacts (Chapters 3 and 17)

In Chapter 3, a concern from Forests NSW that 'forest product appears to be undervalued in the valuation process' is referred to Chapter 17. However there is nothing in Chapter 17 that addresses that issue at all. See comments below on Chapter 6. Forests NSW is concerned to see that timber values are taken properly into account, and the EIS avoids this issue entirely. Adequate compensation for Forests NSW loss of the site and its future productive capacity still need to be addressed.

Property Acquisition and Compensation (Chapter 6.18)

The EIS flags minor resumptions from Middle Brother State Forest (total 2.24 ha) and Burrawan State Forests (0.02 ha). There are no apparent problems from a forestry perspective with the resumptions at Ross Glen Road, immediately north of Stoney Creek and at Herons Creek. Note that a very small proposed acquisition just south of the proposed new entry point for Charlies Yard Road (to accommodate water control pond) may impact on a Special Management Zone which requires parliamentary approval for revocation (see also Chapter 16, Planning and Land Use).

Note that an area of about 1.27ha of the Sewerage Treatment Plant site (Hastings Council), north of Kew, is also to be resumed. Note that this site is partly established with a eucalypt plantation, and subject to a joint venture agreement with Forests NSW to share the value of timber produced from the site. This will need to be taken into account in determining values for compensation.

In relation to compensation, note particularly that Forests NSW is a Government Trading Enterprise, aiming to produce a profit for the State as well as manage for a wide range of conservation values. We therefore seek to protect a commercial interest. The 1999 Forest Agreement locks Forests NSW into a volume of timber production that assumed a constant productive land base. The calculated volumes of sawlog resource from this exercise have been fully committed to the timber industry in 20-year Wood Supply Agreements. These agreements provide for possible compensation to the industry by Government for reduced commitments due to reduction in the land base upon which the commitments were calculated. Therefore the compensation offered needs to look beyond simply financial compensation but address alternative timber supply where possible. This will address cumulative impact relating to the Forest Agreement process.

Planning and Land Use (Chapter 16)

The statements in sections 16.2.7.2 and 16.3.8.2 indicate a lack of appreciation of the management aims of State forests. State forests are managed broadly for the growing and selling/harvesting of timber ("logging") but also for a wide range of other values. In addition to those mentioned, State forests are managed for conservation and biodiversity values, watershed, visual amenity, cultural heritage, social values and the like.

A zoning system on State forest identifies certain areas as formal reserves, informal reserves and areas managed by special prescription for particular values. Across the landscape, over one third of State forest area is not subject to harvesting. In the general study area, there are areas of State forest excluded from harvesting because of identified high conservation value old growth, rainforest, rare forest types, the presence of threatened plants/animals and the like. Simple consultation with Forests NSW would have elicited these facts.

Fire Impacts

There appears to be no consideration in the EIS about the potential for increased risks from uncontrolled fires resulting from either the construction phase of the proposal or in subsequent use. Forests NSW currently have fire trails on Middle Brother State Forests that run parallel to the highway and afford a means of safe hazard reduction burning and possible early containment of fires escaping from the side of the highway. There is no provision for this in the proposal. The RTA and consultants would be well advised to consult further with Forests NSW, DEC and the respective Bushfire Management Committees for Greater Taree and Hastings, to ensure that attendant fire risks are minimised.

I trust that you will be able to address these issues. Forests NSW is keen to monitor developments with the proposal. Please do not hesitate to contact Planning Manager John Fulton for further comment and details.

Yours faithfully,



for Kathy Jones
Acting Regional Manager
Mid North Coast Region



Department of
Environment and Conservation (NSW)

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Your reference : 80213/CCH:KJS
Our reference : F02/06011 DOC05/12127
Contact : Kim Forsyth (02) 6659 8202
Date : 5 August 2005

Mr Roger Fenner
RTA Project Manager
Roads and Traffic Authority
PO Box 546
GRAFTON NSW 2460

05 AUG 2005

Dear Mr Fenner

**PROPOSED UPGRADE OF THE PACIFIC HIGHWAY FROM MOORLAND TO HERONS CREEK
– ENVIRONMENTAL IMPACT STATEMENT, JUNE 2005.**

I refer to Ove Arup Pty Ltd letter, dated 21 June 2005, requesting comments from the Department of Environment and Conservation (DEC) on the Roads and Traffic Authority's (RTA) documents "*Pacific Highway Upgrade – Moorland to Herons Creek, Environmental Impact Statement, June 2005*".

As you are aware, the DEC has a number of statutory responsibilities under the *National Parks and Wildlife Act 1974*, the *Environment Planning and Assessment Act 1979*, the *Threatened Species Conservation Act 1995*, the *Protection of the Environment Operations Act 1997*, the *Contaminated Land Management Act 1997*, the *Environmentally Hazardous Chemicals Act 1985* and the *Waste Minimisation and Management Act 1995*.

The DEC has undertaken a review of the Environmental Impact Statement (EIS) and provides the following comments in Attachment 1. As agreed with you on 4 August 2005, additional comments will be provided on the Noise and Vibration aspects of the EIS by 12 August 2005. Please be aware that due to current workloads, the DEC has not undertaken an extensive review of all the documentation.

Please call Ms Kim Forsyth on (02) 6659 8202 if you wish to discuss flora, fauna and cultural heritage issues or Mr Scott Hunter on (02) 6659 8223 if you wish to discuss any issues relating to air, noise, water, acid sulphate soils or waste further.

Yours sincerely

IAN GREENBANK
A/Head Waters and Catchment Unit
North East Branch
Environment Protection and Regulation Division

Included: Attachment 1

cc: Mr John O'Donnell, Roads and Traffic Authority, PO Box 546, Grafton NSW 2460

ATTACHMENT 1

Chapter 6: The Proposal Design

Section 6.4.1 – Steep batter slopes have the potential for erosion and the transportation of sediment off the project site. Appropriate erosion and sediment controls will need to be maintained until the slopes are fully stabilised.

Section 6.14 – Please ensure that as part of the development of the landscape and urban design concept plan, careful consideration is given to the mitigation measures proposed for fauna. This particularly relates to the site rehabilitation, fauna crossing and exclusion fencing locations.

Chapter 7: Construction Issues

Section 7.2.6 – The removal of the pier column stubs 0.5 m below bed level in the Camden Haven River has potential to impact on ASS/PASS. This has not been addressed in the EIS. Management measures outlined in section 8.5 would be considered appropriate for addressing this issue.

The management of slurry waters associated with the removal of column stubs by dewatering into a barge for disposal and treatment on land would require careful monitoring and detailed procedures. Appropriate controls would need to be put in place when transferring this slurry water onto land. These controls, treatment and disposal methods have not been detailed in the EIS.

7.4.5 – Concrete Batching Plants – Contaminated runoff from concrete batching sites has the potential to adversely affect receiving waters. Runoff from “dirty” areas of the site should be collected for reuse. Runoff from clean areas of the site should be collected and treated prior to discharge.

Table 7.5 – Fuel and Chemicals should be stored in an appropriately contained manner. Bunded areas must be constructed in accordance with the EPA Technical bulletin “*Bunding and Spill Management, November 1997*”. Incompatible chemicals should also be segregated.

Chapter 8: Geotechnical and Soil conditions

Section 8.5.2 (and 7.4.9)– Wind blown acid sulphate soils have the potential to adversely impact on waters. In addition to the proposed strategies for inclusion in the ASSMP it should be ensured that material stockpiles are managed to prevent the generation of wind blown material from the containment areas.

Section 8.6.1 – Whilst the EIS concludes that “*The cause of this groundwater contamination is not fully understood, but it is likely to be associated with the site’s former use as a service station*” the extent of contamination present and proposed mitigation measures have not been adequately identified in the EIS.

The extent of contamination should be identified and appropriate mitigation measures proposed prior to the detailed design stage as outlined in the EIS.

Chapter 9: Hydrology, Flooding and Water Quality

Section 9.3.2 – Waterways - The construction of temporary water crossings and work platforms has a high risk of causing pollution of waters. The EIS does not specify the nature of material used to construct these platforms and crossings. Only clean rock material should be used with strict monitoring to ensure that fine and dispersible materials are not placed into waterways.

Section 9.3.2 – Sedimentation Basins – The EIS notes the presence of sensitive receiving waters such as SEPP 14 wetlands, however, the sizing of sediment basins for retention of the 75th percentile five day storm event is not accordance with the recommendations of the guideline “Managing Urban Stormwater Soils and Construction Volume 1, 4th Edition, March 2004” (The Blue Book) as claimed in the EIS.

The *Blue Book* recommends a higher level of protection where receiving waters are particularly sensitive and higher levels of protection for longer term land disturbances such as some road construction activities.

The DEC recommends that as a minimum, sediment basins should be sized for the retention of the 90th percentile five day storm event given the duration of works and sensitivity of the receiving waters.

The discharge water quality limit for TSS referred to in the EIS may be subject to change and additional pollutant concentration limits may be added should the project be subject to an Environment Protection Licence issued by the DEC.

Section 9.4.1 – The EIS refers to the use of chemical agents or flocculants to facilitate settling processes and control turbidity in sediment basins but does not detail the type of products to be used.

Due to the sensitive receiving waters and the presence of ASS/PASS throughout the project the DEC recommends that Gypsum be the only flocculant used, unless otherwise agreed to be the DEC.

Chapter 10: Terrestrial Ecology

Please be aware that detailed comments on terrestrial ecology have been provided as part of the review of the Working Paper No. 7: Flora and Fauna Assessment. These comments are provided below.

Chapter 12: Air Quality

Earthworks associated with the construction of the proposed upgrade have the potential to cause dust emissions. Works carried out on this project should meet the DEC's objectives, which are to minimise adverse effects on the amenity of local residents and sensitive sites and to limit the effects of emissions on local and regional air quality.

Section 12.1.1 – The correct dust criterion is the background level + 2 g/m²/month up to a maximum of 4 g/m²/month. It is not 4 g/m²/month as proposed in the EIS.

Section 12.6.1 – The DEC notes that an Air Quality / Dust Management Plans will be developed as part of the project. In addition to the general mitigation measures listed, the following measures should be considered for inclusion in the plan:

- All fixed material transfer points should be enclosed and fitted with dust control devices to ensure emissions of dust are minimised;
- Siting material stockpiles to reduce the surface area exposed to prevailing winds.

Section 12.7 - Deposition monitors should be installed for 12 months before the commencement of construction instead of the 2 proposed in the EIS.

Working Paper No. 5: Cultural Heritage

The DEC has a statutory responsibility to protect and manage all Aboriginal objects and Places in New South Wales in accordance with the *National Parks and Wildlife Act 1974* (NPW Act). It is an

offence to knowingly destroy, damage and/or deface Aboriginal sites and Places without the prior consent of the DEC Director-General.

Following review and assessment of the Environmental Impact Statement, Cultural Heritage Assessment reported by Navin Officer Heritage Consultants Pty Limited, June 2004 (the Report), the DEC provides the following advice and recommendations.

The DEC generally supports the recommendations outlined in the Report regarding the eight (8) identified Aboriginal sites and six (6) additional areas which have the potential to contain further Aboriginal objects. However, the DEC suggests the following minor modifications be made to the Report's recommendations:

- Recommendation 1 :
 - Further identification of the potential scarred tree A16 is required to confirm if the tree is Aboriginal in origin. It is considered that an experienced specialist in the identification of Aboriginal scarred trees would be the most appropriate person to undertake this task. Should the tree be identified as an Aboriginal scarred tree, details of the tree must be forwarded to the DEC for inclusion into the DEC's Aboriginal Heritage Information Management System (AHIMS).
 - In the interim, a fence should be erected around the tree to ensure the tree's survival by inclusion of a buffer zone. The buffer zone must be determined by maintaining a minimum of a five (5) metre distance from the drip line of the tree. The drip line being the furthest extent of the canopy from the trunk of the tree.
 - No clearing and/or disturbance of native vegetation should occur within the buffer zone around the tree until such times as the origin of the scar has been established.
 - Should the tree be identified as an Aboriginal scarred tree that is protected under the NPW Act, the tree must be protected until an approved DEC Consent to Destroy (Section 90 NPW Act) has been issued.
- Recommendation 3 :
 - Aboriginal objects identified in the Report as A1, A3, A14 are protected under the NPW Act, and a temporary fence should be erected to ensure protection of the area from construction activity zone.
- Recommendation 5 :
 - The DEC consider it appropriate that a representative of the relevant Local Aboriginal Land Council be present to monitor all excavation and/or or ground disturbance in the areas identified as potential archaeological deposits PAD 2, 4, 5 and 6.
 - Should any Aboriginal objects be identified during monitoring of PAD 2, 4, 5 and 6, all works must cease immediately in the areas, and contact be made with the DEC's North East Branch at Coffs Harbour as soon as possible. Works shall not re-commence in the area without receipt of an approved DEC Consent to Destroy licence.

Working Paper No. 7: Flora and Fauna Assessment

To reduce confusion, it should be noted that Yoorigan National Park is now called Middle Brother National Park.

Section 2.5 - Please be aware that in November 2004, the DEC produced the "*Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities*". While these guidelines are still in a working draft format, they are considered to contain current survey recommendations.

The DEC is concerned that no targeted surveys were undertaken for the Green and Golden Bell Frog (*Litoria aurea*), despite this species having been recorded (in 1998) in close proximity to the proposed highway in the Kew area. Therefore, due consideration must be given to this species as

part of the impact assessment process and relevant tables etc should be updated to reflect the presence of this species within the study area.

Please also be aware that the Spotted-tailed Quoll (*Dasyurus maculatus*) was recorded (in 2001) in close proximity to the proposed highway in the Kew area. Therefore, due consideration must be given to this species as part of the impact assessment process and relevant tables etc should be updated to reflect the presence of this species within the study area.

Section 4.2.1.2 - It is noted that Passionfruit Creek supports vegetation and habitat suitable for frogs however no information is provided on any mitigation measures proposed at this location.

Section 4.3 – Please be aware that the DEC Atlas of NSW Wildlife has identified Koala records in the area north of Ocean Drive, hence this area must be considered not only potential but known habitat for this species. Due consideration must therefore be given to this species as part of the impact assessment process.

Section 4.5.1 – It is noted that the report identifies that there is little current connectivity between Middle Brother NP and Watson Taylors Lake due to the presence of the existing highway and the North Coast Railway. However, the DEC is concerned that construction of the new highway is likely to exacerbate these connectivity issues due to increases in cut and fill batter height and the installation of retaining walls between split level carriageways.

While it is noted that a number of culverts are proposed to be constructed along the section of highway between Stewarts River and Camden Haven River, these are primarily drainage culverts and most are limited in height. The implementation of culverts (with a suitable height and at a suitable location) is critical in ensuring that connectivity is maintained and improved between these two areas of DEC Estate.

Section 5.2 – It is noted that a variety of mitigation measures are proposed to be implemented as part of the project to address the known and likely environmental impacts. These need to be clearly and fully defined (using definitive language) to ensure that they are easy to understand and can be correctly implemented (at the appropriate time) during the construction phase. Some specific comments on these measures is provided below:

- The DEC is concerned with the use of intangible or unquantifiable language such as “where possible” as it open to interpretation and often results in an action not being possible during construction, hence the mitigation measure is not implemented.
- The recommendation that “vegetation clearing is restricted to those areas where it is necessary” is very general and open to interpretation. It doesn’t provide any clear identification of these areas and will be difficult to implement during the construction phase.
- It is recommended that any tree hollow removed during clearing be replaced with a greater than one (1) replacement ratio, which must acknowledge the type, size and usage of the hollow.
- Further clarification must be provided on the proposed identification, treatment and management of weeds within and adjacent to the road reserve. This mitigation measure must be clearly defined to ensure that what is being proposed is fully understood and can be implemented.
- It is noted that all native vegetation within the study area has been identified as key habitat (as per the Discussion Paper on Compensating for Edge Effects prepared by Bali in 2000), however it is unclear what actions are proposed to address this loss.
- It is noted that of the 55 drainage structures proposed only 12 have been identified as suitable for use as fauna crossing points. While it is acknowledged that combined fauna/drainage structures do provide value to fauna, the construction often focuses on the drainage component and the provision for fauna is a last focus. This often results in inappropriate design of the entrance/exit of these structures through the inclusion of extensive rocks provided for scour protection or the ponding of water. Both these actions may render the structure

drainage
culverts
heights
limited

SoC
issues

unsuitable for the majority of fauna. The DEC believes that this matter must be further addressed and may need to result in providing some structures dedicated solely to fauna passage.

- The DEC is concerned that a large majority of the fauna combined drainage structures are only 1.2m and 1.5m in height, however acknowledging that a few are 2.0m to 3m in height. It is noted that the report expresses concern with these low heights and as such recommends that these culverts be increased to their maximum level, however no further consideration of this recommendation appears to have been undertaken.
- In relation to the lengths of the proposed bridges, information should be provided on the minimum width and height available for dedicated fauna passage. This will ensure that this area is incorporated into the final bridge designs.
- It is recommended that the dimensions of all proposed fauna crossing structures should be documented, as a number of the dimensions for the structures located in the north only identify the height and not the width.
- Concern is expressed that no fauna provision is being made at Stewarts River bridge despite creeks and drainage lines being of important value to fauna particularly in a highly cleared landscape.
- Regarding the proposed location of the fauna exclusion fencing, the DEC recommends that it should be placed close to the road, even in situations where the distance to the boundary is 15m. This will ensure that fauna will be able to access the site rehabilitation/revegetation works which may provide a component of habitat.
- It is noted that no fauna exclusion fencing is proposed at the fauna crossing at Chainage 13070, despite the report indicating that evidence suggests that mobs of kangaroos may cross at this location. Due to the potential road safety and animal welfare issues which may result from kangaroo's crossing the highway, it is suggested that some form of fauna exclusion fencing may provide highly useful in directing these animals to the crossing structure.
- The DEC requests that further information should be provided on the structures that are to be included to allow for animals such as Koalas to climb over or move under if they are trying to cross the road, particularly where a traffic barrier will be installed in the median (as identified within Section 5.2.4 of the report).

Please be aware that the comments provided above should be incorporated into all relevant sections of the EIS.



Department of
Environment and Conservation (NSW)

Your reference : 80213/CCH:KJS
Our reference : GR2069/02 GRF10223
Contact : Scott Hunter - (02) 6640 2511

6640 - 66598282

Mr Roger Fenner
RTA Project Manager
Roads and Traffic Authority
PO Box 546
GRAFTON NSW 2460

12 AUG 2005

Dear Mr Fenner

I refer to our previous correspondence of 5 August 2005 providing comments from the Department of Environment and Conservation (DEC) on the Roads and Traffic Authority's (RTA) documents "*Pacific Highway Upgrade - Moorland to Herons Creek, Environmental Impact Statement, June 2005*".

The DEC has now completed the review the Noise and Vibration aspects of the EIS as agreed with you on 4 August 2005. Our comments are provided in Attachment 1.

Should you require further information, please contact Scott Hunter on (02) 6640 2511.

Yours sincerely

IAN GREENBANK
A/Head Waters and Catchments Unit North Coast
Environment Protection and Regulation Division

Included: Attachment 1

Cc Mr John O'Donnel, Roads and Traffic Authority, PO Box 546, Grafton NSW 2460

ATTACHMENT 1

The comments provided below on the Noise and Vibration Assessment for the proposed Moorland to Herons Creek Upgrade indicate areas where the DEC considers there is insufficient information to enable a complete review of the noise impacts associated with the proposal.

Construction (Noise and Vibration)

The DEC has reviewed Section 4.3 (Construction Noise and Vibration Criteria) and Section 7 (Construction Noise and Vibration Assessment) contained within the Noise and Vibration Assessment.

In relation to construction noise the proponent has referenced the criteria in Chapter 171 of the EPA's Environmental Noise Control Manual (ENCM). The criteria in the Chapter 171 Guideline are based on the length of the construction period.

The proponent states "For large construction projects such as this it is considered appropriate to treat noisy stages of work (such as earthworks associated with a bridge replacement, for example) as discrete construction periods and assess them against the short and medium term guidelines, provided the cumulative affect of longer-term works is carefully managed". The DEC does not agree with this statement: the criteria that apply depend on the total construction period duration.

For construction however, the DEC accepts that many construction activities are inherently noisy, and that there are limited feasible and reasonable mitigation measures. Noise limits are therefore frequently not placed in any GTA or licence. Instead, the proponent is required to develop and implement a Construction Noise Management Protocol that clearly defines how they intend to manage their construction activities (especially at the proposed eight bridge sites (pile driving in particular)) to prevent or minimise noise impacts.

In relation to groundborne vibration and blasting the DEC supports the use of AS2670 (for groundborne vibration) and the ANZECC Technical Basis (for blasting).

The proponent's Construction Noise and Vibration Assessment in Section 7 is limited to presentation of typical sound power levels for nominated construction plant items and what practices would be put in place to reduce construction noise impacts. The proponent states "The actual level of construction noise impact will depend on the type of equipment, construction methodology chosen by the construction contractor and final location of the work sites and batching plants". We note that the Noise and Vibration Assessment is a "Working Paper". The DEC recommends that any consent require the proponent to prepare, prior to commencing construction, a Construction Noise Impact Statement (CNIS) once the contractor, construction method and construction equipment are known. The CNIS should identify any location where predicted construction noise exceeds the construction noise criteria, and present feasible and reasonable measures to be implemented to minimise noise impact. Similarly for vibration and for blasting.

Operational

The DEC has reviewed the operational noise aspects of the 22.2 kilometre section of the Pacific Highway upgrade and considers that the traffic noise predictions ("future existing" (predicted 2011 if the project does not proceed), 2011 with the project, and 2021 with the project) and the process used in the modelling (i.e. to determine compliance with the Environmental Criteria for Road Traffic Noise (ECRTN) Guideline) may not be consistent with the approach presented in the RTA Environmental Noise Management Manual (ENMM).

The following areas have been identified as needing clarification so that the DEC can be confident that the correct noise mitigation processes have been put into place.

The proponent is requested to clarify the following issues and supply supporting information to the satisfaction of the DEC.

1. Confirm that the measured and calculated levels used in Table 5.1 in Working Paper No.3 for noise model calibration are both either free field or façade corrected.
2. Working Paper No.3 indicates that a source emission height of 0.5m above the road elevation was used for noise modelling purposes.

The RTA Environmental Noise Management Manual (ENMM) stipulates that; "Where the heavy vehicle component of the traffic flow is 10% or greater during the day or the night, the model selected should be capable of segregating source height and noise components for the exhaust and engine and/or tyres of heavy vehicles or alternatively, adopt a "split height" of energy for vehicles of different classification".

The AADT of the proposed road includes a percent heavy vehicle **make up of 16%** and hence the model should have used varying source heights for modelling purposes. The magnitude of potential modelling inaccuracy due to the use of a single source height should be examined with particular emphasis on the barrier analysis.

3. Working Paper No.3 indicates that residences in sub catchments B06 and B09 will require architectural treatments **only** because the target barrier option exceeds 8m in height.

The RTA ENMM indicates in Practice Note IV (page 99) that; *"If the height or other features of the target barrier option presents problems concerning the options costs, aesthetics or community preferences, the reasonableness of alternative barrier heights and other treatment options will need to be explored"*. Further the RTA ENMM indicates that; *"barriers and other road treatments that reduce external noise are normally preferred over architectural treatments that only reduce noise levels within the home,,,,,"*.

The DEC considers that this indicates that sub catchment B06 should be evaluated in terms of alternative barrier heights in combination with architectural treatments.

4. Working Paper No.3 indicates that for sub catchment B07 that the target barrier option of 6m is most cost effective. However, the recommendation in the working paper for B07 is for a 4.5m noise barrier because a 6m barrier is likely to be visually obtrusive. The reduction in barrier height will result in increased noise levels that have not been presented in the working paper. As indicated in the previous point above, in circumstances where aesthetics and community preferences etc results in reduced barrier heights, other treatments options such as architectural treatments need to also be considered. DEC notes that Appendix C to the working paper does not identify the need for architectural treatments for B07 as a result of the decision to reduce the barrier height.
5. DEC notes in Appendix C to Working Paper 3, that architectural treatments are not proposed in circumstances where;
 - the applicable assessment criteria is 'new road',
 - the base criteria is exceeded by more than 2dB; and,
 - there is no increase between 2021 predicted levels with the project and "future existing".

This approach seems to be inconsistent with the RTA ENMM in that Practice Note IV provides an exemption to treatment of residences exposed to noise from a new road only if the 2021 noise levels with the project are within 2 dB of "future existing" levels and no more than 2dB

above the target noise levels. Both criteria need to be met. Appendix C to Working paper 3 needs to be clarified for consistency with the RTA ENMM in this regard.



Our Ref: PH05/101 (PH/05/00028)
Your Ref: RTA/Pub.05.130A (ARUP 80213/CCH:KJS)

11 August 2005

The Project Manager
Moorland to Herons Creek Upgrade Project
NSW Roads and Traffic Authority
P O Box 546.
GRAFTON NSW 2460

Attn: Mr. Roger Fenner

Dear Roger,

Re: Review of the draft Environmental Impact Statement (EIS) document for the Moorland to Herons Creek Pacific Highway Upgrade Project.

Thanking you for the opportunity to review and comment on the draft EIS for the above mentioned project received at this office from ARUP on the 24 June 2005. The Department of Primary Industries has recently been formed by the merger of NSW Fisheries, Mineral Resources NSW, State Forests NSW and NSW Agriculture. This is a coordinated Department of Primary Industries (DPI) response and reflects the views of these former agencies.

AGRICULTURAL ISSUES

The sections of the EIS relevant to agricultural impacts have been reviewed. While some 70 ha will need to be acquired across some 89 properties, and a number of individual properties will be affected, there are no obvious serious or significant agricultural impacts anticipated as there is minimal major departure from the existing alignment and except for the "by-pass" of the two villages involved, the upgrade will primarily involve partial and edge acquisitions of rural properties.

Some local and individual property impacts will occur and these should be managed via the normal acquisition, compensation and negotiation process. Issues such as maintaining effective property access for farm machinery and related heavy vehicle access onto/off properties should be addressed at the individual property level.

Contact Rik Whitehead, Agricultural Environmental Officer, Wollongbar on (02) 6626 1349 should any further information or advice on agricultural issues be required.

FISHERIES ISSUES

The DPI Aquatic Habitat Protection Unit (AHPU) has reviewed the documents and considers that the information requests in relation to this project, as described in our correspondence dated 12 April 2002, have been adequately addressed. However, DPI (AHPU) also provides the following additional comments and observations for consideration:

Aquatic Habitat and Fish

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Threatened Species

- DPI (AHPU) is satisfied with the assessment of potential impact upon Black Cod and proposed mitigation measures incorporated into the Construction Environmental Management Plan (CEMP) for the project.

Licenses and Permits

- Section 11.3.1 Pg. 11-10 Volume 1 mentions the potential removal of some mangroves on the Camden Haven River as part of the requirements for construction of the new bridge. There is no mention of the requirement for a S205 (Part 7) permit from DPI (AHPU) to harm any marine vegetation and no mention of the requirement for compensation for the any loss of the mangroves at a ratio of two replacements for each one harmed / removed (i.e. 2:1) as per DPI (NSW Fisheries) Policy and Guidelines for aquatic habitat management and fish conservation.

Fish Passage

Water Way Crossings – Bridges and Work Platforms:

- DPI (AHPU) is supportive of the proposal for single span bridge crossings for smaller Class 2 waterways such as Stony Creek and Herons Creek. Section 9.3.2 Measures for Impact Mitigation Pg.9-22 of Volume 1 mentions construction of the smaller waterway bridges may involve the use of a temporary access platforms within the creek banks or a temporary crossing to provide access for machinery, as has occurred on other projects. The requirement for a working platform often results in encroachment into the waterway and potential impact upon fish and aquatic habitat that may not be accounted for in the environmental assessment of the project. DPI (AHPU) acknowledges that the requirement of such structures may be necessary to provide a safe working environment. However, DPI (AHPU) requests that there is consideration of alternatives such as a temporary timber wharf or pier structures instead of a rock fill platforms to reduce and minimise potential impact upon aquatic habitat.
- Section 9.2.2.2 Operational Impacts – Erosion and Sedimentation Pg.9-16 of Volume 1 mentions scour protection is likely for the Stony Creek bridges and possible for the Herons Creek bridges, with final determination at the detailed design phase. Previous experience on other Pacific Highway Upgrade projects has found that the extent of rock armouring for scour protection is dependent on the flood event model used. Recent modelling on other projects has used 1:2000 yr flood events which has resulted in major realignment and full rock lining of the entire length of the creek within the road reserve, resulting in additional impacts upon fish and aquatic habitat. If this modelling is applicable to this project, then the extent of the impacts and necessary mitigation measures should be included in this environmental assessment document.
- Section 11.4.2 Pg.11-14 Construction Mitigation Measures Dot Pt. 3 mentions the installation of scour protection measures in creeks etc. as a mitigation measure but this can also be an issue if not designed to be fish friendly where required. Detailed designs for scour protection must ensure that there is minimal impact upon aquatic habitat.
- Section 5 Waterway Structures and Associated Works in Appendix B Working Paper No. 2 Concept Design Pg.9 acknowledges that scour protection must be designed in an “environmentally sensitive manner taking into account aquatic ecology and stream issues”.

If you have any further inquiries regarding these matters please contact Greg Davey on (02) 6626 1360 or 0407 936 646.

MINERALS ISSUES

Mineral resources has no issues with the EIS for this project. For further information please contact Mr. Jeff Brownlow on 02 6738 8513.

STATE FORESTS ISSUES

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Please refer to separate response provided by Mr. John Fulton, Planning Manager, Mid North Coast Region, Forests NSW, Ph. 02 6585 3744.

For further information on any of the above, please contact the relevant person given at the end of each section.

Yours sincerely



GREG DAVEY
Conservation Manager
(Pacific Highway Upgrade)



File No: GT2627
05/10340
RP

Administration Centre 2 Pulteney Street
PO Box 482, Taree NSW 2430
DX 7020, Taree

Enquiries: Richard Pamplin

16 August 2005

Roger Fenner
Project Development Manager
RTA Pacific Highway Office
21 Prince Street
GRAFTON NSW 2460

Dear Roger

RE: PACIFIC HIGHWAY UPGRADE - MOORLAND TO HERONS CREEK

Thank you for your letter dated 11 July 2005 providing Council with an extension to the submission period on the Environmental Impact Statement (EIS) for the above project.

Please be advised that due to resourcing difficulties, a report was unable to be prepared for the August 2005 Planning Committee Meeting on this matter. The following points are raised following a review of the EIS:

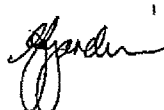
- Figure 16-1, Section 16.1.2.1 and Table 16-1 are incorrect in regard to the zonings that apply to land in the Johns River area:
 - Land shown zoned 1(c2) – Rural Farmlets, is actually zoned 1(c1) – Rural Residential (see attached zoning extract map).
- Council confirms that it has no heritage items listed in Greater Taree Local Environmental Plan 1995 in the immediate Johns River area, nor are items that are identified in the Rural Heritage Study Stage 2 for heritage listing in Johns River likely to be affected by the preferred route as identified in the EIS.
- The recommendations within Section 17.3.3 regarding the possibility of developing a Highway Service Centre on or adjacent to the proposed bypass section of Johns River is contrary to Council's draft Highway Service Centre Site Appraisals - Wang Wauk to Johns River. This document recommends that Council adopt the following recommendations:
 - Nominate the land in the vicinity of the Pacific Highway and Old Bar Road interchange as the only location within Greater Taree City to be considered for development of HSC's;
 - Require any proposal to be accompanied by a detailed traffic management design plan, comments by the RTA on this plan sought, and an assessment of the plan made by an independent, professionally competent person;
 - All existing service stations on the Pacific Highway be contained and any upgrades confined to land currently zoned for that purpose unless within the confines of a defined and adopted Highway Service Town;

- o The separation distance between HSC's of 50 to 100 km be adopted, requiring substantial justification to consider variation; and
- o Any further consideration of current rezoning applications be deferred until the currently approved development has been completed, operating and an assessment for the need for an additional HSC made.

The above advice on HSC's also applies to the proposed Moorland bypass.

If you have any queries in regard to this letter, please call Council's Senior Strategic Planner, Richard Pamplin, on (02) 6592 5266.

Yours faithfully



GRAHAM GARDNER
Director Planning & Building

Contact: Felicity Barry
Telephone: (02) 9873 8520
Felicity.Barry@heritage.nsw.gov.au
File: S90/04754/008
Our Ref: HRL35385
Your Ref:

Mr. Roger Fenner
RTA Project Manager
Roads and Traffic Authority, NSW
P.O. Box 546
GRAFTON NSW 2460

Attention: Mr. Roger Fenner

Dear Mr. Fenner,

**UPGRADING THE PACIFIC HIGHWAY – MOORLAND TO HERONS CREEK:
ENVIRONMENTAL IMPACT STATEMENT**

Further to a letter dated 21 June 2005 from Mr. Colin Henson of ARUP requesting comments on the above named Environmental Impact Statement (EIS), 'Working Paper No. 5 Cultural Heritage' has now been reviewed by the Heritage Office. It was noted that thirty-two heritage items were identified within the study area with eleven items located within the proposed impact area. Seven of these items are to be directly impacted by these works. It was also noted that a further item may require demolition as a part of the works.

Overall the level of research present within the EIS and Working Paper was considered appropriate within the documentation reviewed. However the Heritage Office is concerned by the assessment of significance, the definition of 'relics' applied and appropriate mitigative measures for items present within the Working Paper documents. In addition at least one item (H20), for which a recommendation had been prepared, was not identified in the EIS documentation. Previous comments provided by the Heritage Office in a letter dated 2 August 2005 relating to items H37; H38, definitions of relics and standard exceptions under S139(4) of the *Heritage Act* are still considered relevant following a review of the Working Papers. Prior comments on H34 have been reviewed. All prior comments have been incorporated into this submission to aid in a single response to concerns raised by the NSW Heritage Office.

The significance assessment of Non-Indigenous cultural heritage items within the Working Paper needs to be revised. It is acknowledged that the guideline, *Assessing Heritage Significance*, 2001, was adopted for this assessment process, which is appropriate. However, the significance assessment should not be in table form but express how the heritage item demonstrates the categories expressed in the guideline, where appropriate. The Grading of significance present within the guideline *Assessing Heritage Significance*, 2001 (p11) concern different components of a place that contribute to, or affect the heritage significance of, an item. The Working Paper has

included this grading system within the significance assessment to indicate the integrity of these items. The inclusion of gradings of significance within the significance assessment adopted within the Working Paper is not supported by the NSW Heritage Office. The Heritage Office is of the opinion that the significance assessments for all eleven items should be revised taking into account relevant historical contextual details. Relevant attributes that relate to various significance criteria should be demonstrated within this assessment process. Level of significance for these items should then be determined as no significance, local significance or state significance as appropriate.

The Heritage Office is concerned by an apparent misunderstanding of parts of the *NSW Heritage Act, 1977* (the Act). Definitions under the Act which relate to the relics provisions and the understanding of standard exceptions under S139(4) of the Act are misinterpreted within the EIS and Working Paper documentation.

The *NSW Heritage Act, 1977* distinguishes 'relics' from other heritage items within the definition of 'environmental heritage' in S.4 of the Act. That section identifies 'environmental heritage' as "those places buildings, works, relics, moveable objects, and precincts, of State or Local significance". The EIS and Working Paper have included within the definition of 'relic' "tree stumps with springboard notches"; (H36) and sections of the former Pacific Highway (H23) and (H32). Whilst these may be archaeological or historic landscape features not all of these are 'relics' within the meaning of the Act. In particular sections of the former Pacific Highway should be considered 'works' not 'relics'. A change in definition does not preclude these items from appropriate treatment should they be assessed as holding heritage significance, because the *Heritage Act* identifies 'works' just as 'relics' within its provisions. The Working Paper also provided an instance where two separate sections of the 1940s Pacific Highway were identified as not 'qualify[ing]' as a relic (H33) and as 'fall[ing] within the definition of a relic' (H23). The Heritage Office notes that a 'relic' is not defined by the level of significance that it holds. Therefore two separate sections of the same piece of road should not be defined in two different ways both as falling within and outside the definition of a 'relic' under the Act. You are directed to the prior comments given above concerning the differences in the definition of a 'relic' and a 'work'.

In a letter dated 2 August 2005 by the NSW Heritage Office previously noted that the EIS did not demonstrate why archaeological monitoring of dredging of the Camden Haven River for a proposed new bridge would be required. The Working Paper identified the likelihood of an historic shipwreck (H20) to be present along the current route within the Clarence River. The Heritage Office noted the inconsistency between the Working Paper and the EIS, whereby a recommendation in the EIS concerning dredging was included, but the heritage item was not. In the instance of H20, the Heritage Office recommend that this item be included into the EIS documentation as an example of potential shipwreck heritage that may be impacted by the proposal. However the recommendation should be amended to state that 'If dredging of the river beds takes place and relics are uncovered, the works must cease and the Office should be informed to discuss appropriate management of the remains'. In addition the Heritage Office request that details of this site (H20) be forwarded to the Office in order to update the NSW Historic Shipwreck Register.

Information within the Working Paper and the EIS has not identified what the 'scatter of late nineteenth century artefacts' (item H34) relates to. No reference was identified to an archaeological assessment and/or further investigation of the associated house or

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occupation site associated with these relics. The Working Paper needs to address these concerns prior to assessing the heritage significance of these relics. The assessment of significance also needs to demonstrate that appropriate contextual analysis of these relics has been undertaken.

The Working Paper and EIS identified that neither Stony Creek nor Heron's Creek bridges (items H37 and H38 respectively) would be assessed. The current study will need to undertake a heritage assessment of these items in accordance with the *NSW Heritage Manual*, 1996. This assessment will need to undertake comparative analysis of this type of bridge. Suitable measures to mitigate negative effects of the proposed demolition (if still appropriate) will be required. This detail should be undertaken as part of the EIS process.

C12A

Within the EIS and Working Paper the Heritage Office also noted reference to "existing exemptions for the RTA to section 139 permit provisions" (p15-12). The Roads and Traffic Authority, NSW currently hold no powers of delegated authority under the *NSW Heritage Act*, 1977. S139(4) of the *Act*, does however make provision for standard exceptions to the need for a S140 excavation permit. You are referred to the following page of the NSW Heritage Office website for further details regarding standard exceptions and their requirements: http://www.heritage.nsw.gov.au/03_subnav_01.htm

As noted above, the Working Paper and Environmental Impact Statement (EIS) have been reviewed and the NSW Heritage Office has raised several elements of concern. These elements of concern include significance assessment; definitions of relics; appropriate mitigative measures and S139(4) standard exceptions. Specific concern has also been raised for items H20; H34; H37 and H38.

For future Environmental Impact Statements it is also recommended that all items identified within the Working Paper documents are shown within a plan against the route options. This would aid in demonstrating the location of these items in relation to the routes, in particular the preferred option and may avoid the problems that have been identified with H20 in this EIS.

Please contact Felicity Barry of this office on (02) 9873 8520 or via e-mail at Felicity.Barry@heritage.nsw.gov.au for any enquiries regarding this matter.

Yours sincerely

VINCENT SICARI
Principal Heritage Officer

C.C. Mr. Colin Henson, ARUP, P.O. Box 76, MILLERS POINT NSW 2000



North Coast Region
Asset Management Unit
PO Box 661
Middle Street
FORSTER NSW 2428
Telephone 6591 7604
Facsimile 6591 7608

Mr. Roger Fenner
Roads & Traffic Authority
PO Box 546
Grafton NSW 2460

Dear Roger

RE: State Highway No.10 – Pacific Highway Upgrade. Moorland to Herons Creek Upgrade. Impact on Herons Creek Public School.

Thank you for extending the period allocated to us to review the EIS on this project.

Department of Education & Training North Coast Region has two areas of concern that will have an impact on the learning environment at this school.

1. The EIS documentation indicates that the distance between the highway and Herons Creeks Primary School will be reduced from 74 metres down to approximately 60 metres. Any reduction of this distance is of major concern.

The site is presently landlocked between the North Coast Rail Line and the Pacific Highway in an already restricted site. Concerns are held with respect to the safety of students, staff and the community when onsite for school activities placing them at an unsafe distance to the proposed highway route. We note that there is a noise barrier proposed but it is not to be a restrictive personal protection barrier.

We believe that the distance between the proposed north bound western lanes and the school should not be reduced from present dimensions and no further encroachment should be made onto the school grounds.

2. The EIS states that the noise levels at Herons Creek Primary School are already significantly in excess of the relevant guidelines to both the school

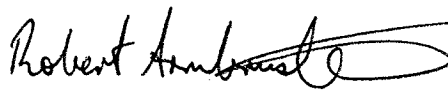
facilities and playground. The EIS also states that the noise level is not expected to change significantly in the interim, but will increase over the coming years till 2021. Therefore design parameters must meet the 2021 predicted levels.

We believe that the project should provide noise barriers that reduce noise levels back to within the criterion, for both the existing school facilities and playground areas.

72 - 55 - 26/

If you have any queries about the information noted, please contact Warren Blissett Project Manager, Asset Management on 02 6591 7606.

Yours sincerely

 23 August 2005.

Robert Armbruster
Manager, Asset Management
North Coast Region

Cc
Noel McManus
School Education Director
North Coast Region

Warren Blissett
Project Manager
Asset Management
North Coast Region



Department of
Infrastructure, Planning and Natural Resources

Memorandum

To Glenn Snow and Sarah Joyce
cc. Name + Position Title
From Patrick Pahlow, Acting Local Planning Officer
North Coast Region,
Phone 02 6672 5488 Email patrick.pahlow@dipnr.nsw.gov.au
Date 22 September 2005 **File no** **File** North Coast NR Office Comments -
Sept 2005.doc

Subject: Moorland to Herons Creek Pacific Highway Upgrade. EIS comments

Please find attached my comments on the EIS for the Moorlands to Herons Creek Pacific Highway Upgrade, that may assist planning staff attending a field inspection of the project area on the 29th September, 2005.

Cut and Fill

It is noted that the cut and fill batters required will be constructed at slopes of 2H:1V. This has been decided with the understanding that topsoiling and stabilisation would be required during construction.

The relative steepness of the cut and fill batters will provide a challenge to the retention of topsoil on the batter slopes. Therefore batter slopes that are to be topsoiled should be constructed in such a way as to retain the topsoil on the batter. This could be achieved by constructing the batter to include smaller benches of a width of 0.15 – 0.30 metres at intervals of a maximum 0.5 metre (or some other suitable method).

Protection of Sensitive Habitats

Protection of waterways, wetlands and other sensitive habitats from pollution (particularly sedimentation) is paramount. The EIS addresses this issue well and outlines a number of criteria regarding the location of various project facilities. As such, material stockpiles, construction compounds and plant compounds etc must be located away from areas so that run-off from these facilities will not directly enter a waterway, wetland or other sensitive habitat (preferably a buffer distance of at least 100m).

Where possible any construction compounds should coincide with site compounds (offices etc) to reduce the land area disturbed for these ancillary facilities. Appropriate environmental controls must be implemented at these sites. Eg diversion of clean run off around the sites, sediment control systems, grassing stockpiles of erodable materials and water quality control basins to address contaminants leaving the compounds.

The project should also include appropriate treatment of run-off from vehicle wash down sites and areas surrounding batching plants, as well as bunding of fuel and chemical storage sites (also these facilities should be located well away from watercourses, wetlands and other sensitive habitats).

All clearing of vegetation must be undertaken in such a manner as to minimise disturbance to the vegetation communities and associated fauna communities.

Memorandum Moorland to Herons Creek Pacific Highway Upgrade. EIS
comments

Page 2

Flooding

I have forwarded the Hydrology Working Paper and associated figures to a DNR Flood Risk Management Officer. I have not yet received comment regarding changes to flooding risk resulting from the project. However, there appear to be a number of houses within the area affected by both the 20 year ARI, and the 100 year ARI flood events, where significant increases in afflux may occur as a result of the highway upgrade.

The proponent should provide a more detailed assessment of the potential risk these increases in afflux pose to neighbouring properties and address possible measures that maybe implemented to mitigate these risks.

Project documentation for review

The Department of Natural Resources would like to review the following documentation when they become available:

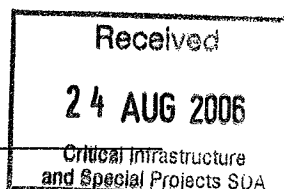
- The Project Environmental Management Plan;
- The Construction Environmental Management Plan; incorporating
 - The Flora and Fauna Management Plan;
 - The Acid Sulphate Soils Management Plan, detailing all steps to be taken for testing, treatment and remediation of all disturbed sites;
 - The Soil and Water Management Plan;
 - The Erosion and Sediment Control Plans;
 - The Work Methods Statement; and
- The Operational Management Plan; including
 - A Revegetation Management Plan outlining the ongoing maintenance of the revegetation areas associated with the project for a period of, say, 10 years including funding arrangements;
 - Water Quality Control Basins Management Plan, outlining detail of ongoing maintenance of these basins, including funding arrangements.

In particular, the Department of Natural Resources should review plans for any temporary and permanent structures to be placed across watercourses (major and minor) to assess potential impact on stream stability.

Yours Faithfully

Patrick Pahlow
Acting Local Planning Officer

Advised by Kevin G.
4-9-06 + no
flood comments to
add.
Josh
4-9-06



21st August 2006

Lisa Mitchell
Manager, Transport
Major Infrastructure Assessment
Moorland to Herons Creek Upgrade Project
GPO Box 39
Sydney NSW 2001

Attn: Mr. Glenn Snow

Your Ref:G00/00171

Dear Glenn,

Re: Review of the submissions report document for the Moorland to Herons Creek Pacific Highway Upgrade Project.

Thank you for the opportunity to review and comment on the Submissions Report for the above mentioned project received at this office on 16th August 2006. The Department of Primary Industries has recently been formed by the merger of NSW Fisheries, Mineral Resources NSW, State Forests NSW and NSW Agriculture. This is a coordinated Department of Primary Industries (DPI) response and reflects the views of these former agencies.

AGRICULTURAL ISSUES

There were no serious DPI - Agricultural issues arose from the EIS and none appear to arise from the Submissions Report. Therefore little interest or direct involvement to the proposal is required or planned by Agricultural Division.

Contact Rik Whitehead, Agricultural Environmental Officer, Wollongbar on (02) 6626 1349 should any further information or advice on agricultural issues be required.

FISHERIES ISSUES

The DPI Aquatic Habitat Protection Unit (AHPU) has reviewed the documents and considers that the information it contains to be accurate and informative. DPI (AHPU) has particular interest in this portion of the Pacific Highway Upgrade because of the high number of waterway crossings it involves.

As the proposal is being assessed under Part 3A of the EP&A Act, further Statutory approvals will not be required under the Fisheries Management Act 1994. DPI – Fisheries Division looks forward to further participation in the consultative process that will ensure a high level of conservation of fish and their habitat.

For future consultation or further inquiries regarding these matters please contact Max Enklaar on (02) 6626 1325 or 0419185535.

MINERALS ISSUES

Mineral resources have no issues with the EIS for this project. For further information please contact Mr. Jeff Brownlow on 02 6738 8513.

STATE FORESTS ISSUES

Please refer to separate response provided by Mr. John Fulton, Planning Manager, Mid North Coast Region, Forests NSW, Ph. 02 6585 3744.

For further information on any of the above, please contact the relevant person given at the end of each section.

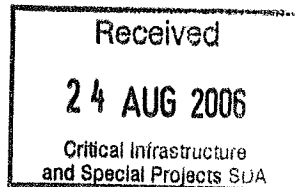
Yours sincerely



Max Enklaar

Conservation Manager
(Pacific Highway Upgrade)

File No GT 2627
Letter No:
Enquiries: Andrew Paget



Administration Centre 2 Pulteney Street
PO Box 482, Taree NSW 2430
DX 7020, Taree

Your Reference: G00/00171

21 August 2006

Lisa Mitchell
Manager, Transport
Major Infrastructure Assessment
Department of Planning
GPO Box 39 Sydney NSW 2001

Dear Lisa

**RE: Comments on Moorland to Herons Creek Pacific Highway Upgrade
and draft Protocol**

Thanks for your request to comment on the submissions report and draft protocol. Our comments on these documents are as follows:

1. Submissions to the EIS for the Pacific Highway Upgrade – Moorland to Herons Creek

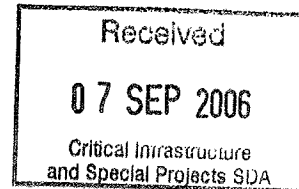
<i>Submission item from GTCC (submission dated 16 August 2005)</i>	<i>Comments on how comments are reflected in the summary of submissions</i>
1. Zoning map incorrect	Not reflected in the document. Not evident in either the Strategic Planning or Land Use sections.
2. No listed heritage items affected by the proposal	None reflected as being within our LGA
3. Highway Service Centres, Council recommends: a. That the location be limited to the Old Bar Road intersection b. That any proposal require detailed traffic management designs c. That upgrades to any other service centers be confined to highway service towns d. That centers be 50-100km apart e. That no further approvals be given for additional sites until an assessment of further needs is undertaken	Report on submissions states that no recommendation for a Highway Service Centre is included in chapters 17 or 21 of the Environmental Impact Statement, thus indicating that the proposals for the upgrades do not include Highway Service Centre proposals.

From the submissions it appears that our item 1 did not have an impact on the EIS, so was not reflected in any changes, item 2 was held as being true, as no heritage items were identified in our LGA, and that item 3 was not reflected in the EIS because the matter of Highway Service Centres was beyond the EIS and upgrade proposals.



NSW Government

DEPARTMENT OF NATURAL RESOURCES



Contact: Joshua Chivers
Phone: (02) 6653 0113
Fax: (02) 6653 0144
Email: josh.chivers@dnr.nsw.gov.au

Lisa Mitchell
Transport Branch
Department of Planning

Attn: Glenn Snow

GPO Box 39
SYDNEY 2000

4 September 2006

Dear Mr Snow

File: -101292 (EA-96) EA 110
Your ref: 9036929-1 600/0017

Re: Pacific HWY Upgrade – Moorland to Herons Creek – Referral of Submissions Report.

Thank you for your letter dated 04-08-06. The Department has made an assessment of the information provided in the Moorland to Herons Creek Submissions Report.

This Department is satisfied with the proposed responses to the Natural Resource Management Issues raised during consultation. The Department recognises the scale and purpose of the project and that some issues such as the rail corridor, whilst interesting and possibly worth pursuing, are not part of this project.

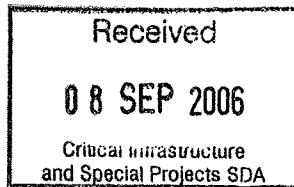
The Statement of Commitments for the Moorland to Herons Creek Upgrade appear to be comprehensive in terms of the range of natural resources management issues/values.

As per the Departments 22/09/05 comments, the Department looks forward to receiving the Operations Management Plan and the Project Environmental Management plan, in particular, the sub plans dealing with specific natural resource management issues.

Please do not hesitate to make contact should you wish to discuss any aspect of the Departments comments.

Yours Faithfully,

Josh Chivers
Planning Coordinator



3 Marist Place
Parramatta NSW 2150
Locked Bag 5020
Parramatta NSW 2124
DX 8225 PARRAMATTA

Telephone: 61 2 9873 8500
Facsimile: 61 2 9873 8599
heritageoffice@heritage.nsw.gov.au
www.heritage.nsw.gov.au

Contact: Felicity Barry
Telephone: (02) 9873 8520
Felicity.Barry@heritage.nsw.gov.au
File: S90/04754/
Our Ref: HRL41527
Your Ref: MP 05_0045

Lisa Mitchell
Manager, Transport
Department of Infrastructure, Planning and Natural Resources
GPO Box 39
SYDNEY NSW 2001

Attention: Mary Gibbs

Dear Ms. Mitchell,

**Moorland to Herons Creek – Pacific Highway Upgrade
Review and Comment on Submissions Report**

Thankyou for your email dated 10 August 2006 referring the submissions report from the subject Major Project application to the Heritage Council of NSW for comment. It would be appreciated if the Department would have regard to the following comments in determining whether the proponent has satisfactorily addressed the submission made by the Heritage Council of NSW towards the Environmental Assessment.

The submissions report has now been reviewed, which is understood to identify how the proponent has addressed the issues and comments raised by the Heritage Council submission dated 16 January 2006 to the Environmental Impact Statement/Environmental Assessment for this project.

Issues raised in the Heritage Council letter to the Department of Planning dated 16 January 2006 included questions of the adequacy and standard of heritage advice provided for the Moorland to Herons Creek EIS and Working Papers in particular regarding significance assessment, definitions under the Heritage Act, 1977 and the appropriateness of 'mitigative measures' identified as part of the proposal. The following issues were specifically recommended by the Heritage Council to the Department of Planning for further action prior to determining whether the project had adequately addressed issues of Non-Indigenous heritage and whether this project should be approved (in summary):

1. The Heritage Council recommended the preparation of Heritage Assessments and Statement of Heritage Impacts for bridges (H37 and H38) at Stony Creek and Heron's Creek. It was understood that a SOHI would assess the proposal and the appropriateness of the proposal against the significance of these items. These documents required Department of Planning review and approval.

2. An Archaeological Assessment prepared by a suitably qualified historical archaeologist was requested for item H34 and where this document recommended archaeological investigation, a research design and excavation methodology were also required to be prepared. This document required Department of Planning review and approval.
3. Advice was provided for the potential shipwreck H20, which recommended that if dredging occurs this work should be overseen in a watching brief by a suitably qualified maritime archaeologist with measures identified where archaeological evidence was found by the archaeologist during that work.
4. A Statement of Heritage Impact was requested to address each of the following items: H36; H23; H32; H21 and H33 which were required to address appropriate mitigative measures for these items and require the Department's review and approval.
5. Archival Photographic Recordings were recommended for each identified heritage item which will be negatively affected by the proposed development in accordance with Heritage Office guidelines and copies provided in accordance with this guideline.

The Heritage Council notes that some of the issues raised in the submission dated 16 January 2006 were fulfilled by the Proponent, however not all have been adequately addressed to the satisfaction of the Heritage Council of NSW.

Review of the submissions report indicates that the proponent has addressed these issues as follows:

1. The Proponent included information to address the requirement for a heritage assessment with provision of the Roads and Traffic Authority's DRAFT s170 Heritage and Conservation Register entries for the Heron's Creek Bridge and the Stoney Creek Bridge. It was noted that both of these items were identified as locally significant heritage items, however no Statements of Heritage Impact were observed for either bridge within the submissions report and the document again concludes that an appropriate mitigative measure is to simply remove these items and undertake archival photographic recordings of them. While the Heritage Council understands that these bridges have not been assessed as having State heritage significance, where these items have heritage significance and where it can be demonstrated their removal is unavoidable, it may be appropriate for the Proponent to include some form of interpretation as a measure to mitigate the loss of these heritage items in addition to full archival photographic recording. The Proponent has not demonstrated in either the Environmental Impact Statement/Environmental Assessment or the Submissions Report exactly how mitigation of the removal of these items will be undertaken.
2. The submissions report was not observed to include the requested Historical Archaeological Assessment for the potential historical archaeological site H34. The Submissions report is understood to have identified that the site is unlikely to be significant, however there is no historical research provided by the heritage consultants to substantiate these assertions, which was part of the reason the historical archaeological assessment was requested by the Heritage Council. It is recommended that the Proponent should commission and provide this document

for review as soon as possible and prior to determination of this application.

3. Advice regarding the potential shipwreck H20 was reviewed and is considered acceptable in this form.
4. No Statements of Heritage Impact (SOHI) were observed for any of the following items: H36; H23; H21 or H33. While it is understood that Appendix C of the Submissions report supplied a slightly more expanded explanation for the significance of these heritage items, nowhere in this document was justification for the proposed impacts and measures to these items provided. Where impact cannot be avoided, mitigation measures should be identified, perhaps in the form of full archival photographic recording and some form of interpretation, where appropriate, however the Proponent should be required to identify and justify the impacts proposed and the loss of heritage fabric/items with local significance. The Proponent should commission and provide these documents for review.
5. While no confirmation that archival photographic recording will be undertaken for all items identified as having local or state heritage significance and which will be impacted directly by the proposed project, the Heritage Council notes the Department of Planning can condition this appropriately within any approval. It is recommended that the Department include this requirement as an appropriate condition of consent on any future approval so issued.

It is noted that Statements of Heritage Impact (SOHI) are prepared to identify the significance of an item, the impacts to that significance, how that impact will be reduced or mitigated and whether the impact is acceptable. No such evidence has been observed for any heritage item during review of the supporting documentation for the project. These are essential documents and the Heritage Council recommends they be prepared to demonstrate how Non-Indigenous heritage issues have been appropriately considered by this project.

Lastly the issue previously raised by the Heritage Council of NSW in correspondence dated 23 August 2005 and 16 January 2006 identifies the issue of potential mis-identification and interpretation of definitions under the Heritage Act, 1977 in addition to assessment of significance for the proposed project. The Heritage Council reiterates that the advice provided in Appendix C of the Submissions Report confirms the advice towards sections of former Pacific Highway alignment in particular is inconsistent and based only on integrity. Integrity would only impact on the item's ability to demonstrate the significance and this detail is not sufficient in the Submissions Report or in any other documentation reviewed for this project to support this assertion. The Proponent is referred to publications which clarify how to assess heritage significance under Criterion A and Criterion B of the guidelines 'Assessing Heritage Significance' (2001) and which are available through the Heritage Office, Department of Planning website: www.heritage.nsw.gov.au.

In summary the Heritage Council considers the Submissions Report has only partially addressed the concerns and issues raised in its letter dated 16 January 2006, and the report has not supplied all information requested. In particular the report has not presented evidence to justify the recommendations for removal of items which have been assessed as having heritage significance within the state of NSW, nor were alternate mitigative measures to those proposed observed to have been seriously

considered and justified within this document by the Proponent.

The Heritage Council of NSW recommends to the Department of Planning that the Proponent provide this information as requested on two separate occasions in the form of comments on the Environmental Impact Statement directly to the Proponent in a letter dated 23 August 2005 and in the following advice to the Department of Planning for this Part 3A project in a letter dated 16 January 2006.

The Heritage Council of NSW will be happy to provide further comment on any outstanding documents should the Department of Planning defer review of these items for comment in future to the Heritage Council.

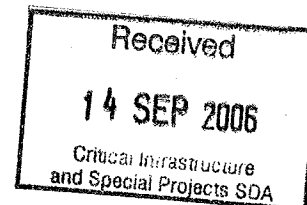
For further contact in relation to this matter please contact Felicity Barry at the Heritage Office on (02) 9873 8520 or via email: felicity.barry@heritage.nsw.gov.au.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'Vicari', followed by the date '6/09/06' written in a similar cursive style.

Vincent Sicari
Manager
Conservation Team
Heritage Office
Department of Planning

Our reference : Doc 06/16657
Contact : Scott Hunter, 6659 8282



Ms Lisa Mitchell
Manager, Transport Major Infrastructure Assessment
Department of Planning
GPO Box 39
Sydney NSW 2001

11 SEP 2006

Dear Ms Mitchell,

RE: Moorland to Herons Creek Pacific Highway Upgrade

I refer to the Submissions Report and Draft Statement of Commitments provided for the Moorland to Herons Creek Pacific Highway Upgrade received by DEC on 9 August 2006

DEC has reviewed the information provided and provides the following comments in relation to the proposal in Attachment 1.

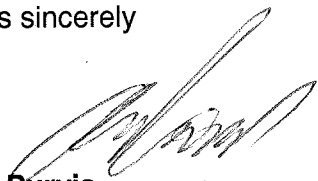
It is expected that DEC will be given an opportunity to review the draft Director-General's Environmental Assessment Report for this proposal. If the amendments to the draft Statement of Commitments are not included to the satisfaction of DEC, we will be recommending that they are included as Conditions of Approval, if approval is recommended by the Department of Planning. It should be noted that these amendments are important for DEC's ongoing support of the proposal.

It is noted that the project will need a licence for the construction stage. The proponent will need to make a separate application to DEC to obtain this licence once development project approval is granted.

Please note, we are unable to provide comments on Aboriginal Cultural Heritage at this time, we undertake to provide advice in this area by Friday 15 September 2006.

If you have any questions, or wish to discuss this matter further please contact Scott Hunter on 6659 8282.

Yours sincerely


Alex Purvis
Regional Manager North Coast
Environment Protection and Regulation Division

*Glenn,
for appropriate action
Lisa*

CC: John O'Donnell (RTA)

PO Box 498, Grafton NSW 2460
NSW Government Offices,
49 Victoria Street, Grafton NSW
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Department of **Environment and Conservation** NSW



Submissions Report

Air Quality

Section 3.5.1 of the Submissions Report indicates that the RTA intend to conduct 2 months dust monitoring prior to construction as opposed to the twelve months required by the DEC. Dust monitoring should be conducted for a period of 12 months prior to the commencement of construction. The criteria for deposited dust is averaged annually to account for seasonal variation and other factors. DEC stands by this requirement.

Soils and Water Quality

DEC confirms that sediment basins on the project should be designed to contain the 80th percentile 5 day rainfall event for non sensitive areas and the 85th percentile 5 day rainfall events for sensitive areas.

Noise and Vibration

DEC stands by all its comments made with regard to the Noise and Vibration Assessment of the EIS.

Assessment of potential impact on threatened fauna

DEC's 5 August 2005 submission to Working Paper No. 7 (Flora and Fauna Assessment) of the EIS raised concerns over the lack of adequate consideration of potential adverse impacts of the proposal on the Green and Golden Bell Frog *Litoria aurea*, Spotted-tailed Quoll *Dasyurus maculatus*, and Koala *Phascolarctos cinereus*. Targeted surveys were recommended for both the bell frog and the quoll while an assessment of Koala presence and habitat use was recommended in the study area. None of these recommendations have been pursued in the Report. Instead, reasons such as the timidity, extensive home range and capture difficulty, in the case of the quoll, and a preliminary minimal sampling effort for the bell frog, are given to support this decision in the Report. However, properly designed and implemented sampling programs for both species have been successfully deployed over many years elsewhere in NSW and therefore no valid reason exists why these surveys should not be undertaken in the study area.

DEC therefore requests that these surveys are undertaken, in accordance with DEC's "Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities" by qualified ecologists prior to commencement of geotechnical investigation and construction activities. Also, adequate assessment and inventorying of Koala presence and habitat use in the study area, especially movement routes, are still required.

The reasons for the Report's statements of "unlikely significant impact" of the proposal on the above threatened fauna need to be provided. It is not sufficient to make these conclusions as outcomes of the Eight-Part Test without adequate survey and habitat assessment to provide essential information on key aspects of the biology and ecology of these species in the study area and its surrounding landscape. This should include data on distribution, especially in relation to the current distribution and amount of key habitat and linkages, abundance, population size, local, regional, State and national conservation status, and adequacy of, and degree of representation within, the local and regional conservation reserve system. Without this information it is not possible to provide conclusions of nil or unlikely significant impact on these species.

Local and regional landscape linkage through corridors and other remnant habitat

The Report should provide details of the location, condition and spatial configuration of key habitats and corridors in the study area and its regional landscape. This is particularly required to allow an adequate, pre-construction assessment of the amount and quality of habitat remaining in the landscape that facilitates the dispersal, movement and breeding/foraging/refuge elements of the life cycles of threatened and protected fauna and flora.

The supposed absence of mapped regional corridors of native habitat should not imply absence of important remnant vegetation in the landscape and thus "limited demand for fauna crossings" (refer paragraph 5, page 41 of Report). For example, pockets or lineal strips of native vegetation along fencelines, road verges or isolated but hollow-bearing paddock trees, have been demonstrated to have important roles as movement conduits and valuable foraging/roosting habitat for a range of threatened and protected fauna. DEC also remains concerned that highway construction activities are likely to further reduce the degree of connectivity of native vegetation present between Middle Brother National Park and Watson Taylors Lake, because of proposed retaining wall installation and increased cut and fill batter heights.

Mitigation and monitoring of potential impacts

DEC notes that extant RTA philosophy on the mitigation of potential impacts of road construction activities on natural and cultural heritage utilises a "mitigation by design" approach. If this is true for the Moorland to Herons Creek Project, then a comprehensive mitigation, monitoring and performance evaluation (of implemented mitigation measures) protocol needs to be developed and implemented. This should be fully articulated, in plain English, in the Report. Unfortunately, this is not evident in this document.

A corollary of this is the failure of the Report to clearly describe, in definitive terms, the elements of the proposed impact mitigation strategy. For instance, the continued use of terms such as "where possible" makes it very difficult to determine whether or not proposed culverts, fauna fencing, under or overpasses will be implemented and where they are to be sited.

A suite of other deficiencies relating to proposed mitigative measures remain apparent in the Report. Many of these have been raised in DEC's 5 August 2005 submission and include:

- clear identification of the proposed location, structure, function/design (ie. recognition of the need to separate between wet and dry culvert function for fauna passage), and performance criteria for proposed fauna crossings, fauna fencing and associated facilities. Attention needs to be paid to the need to 'naturalise' the surface of planned underpasses and provide for adequate movement of fauna other than kangaroos and wallabies. This is particularly pertinent to both sides of Stewarts River, Camden Haven River and Herons Creek. Stock underpasses and general passages are not necessarily suitable or attractive to the movement of CWR terrestrial marsupials.
- Sole dedication of built-for-purpose fauna passages under the proposed highway at sites of vegetation connection (regional and sub-regional corridors and other significant sites containing remnant native vegetation, especially along drainage lines and gully systems) is needed
- The location of proposed vegetation clearing activities also needs to be specified rather than left as general statements.
- Species-specific design input is needed to ensure fauna exclusion fencing and other barriers are installed to exclude threatened and protected fauna with different climbing and foraging characteristics, eg. small terrestrial marsupials (eg. Common Planigale, bandicoots), scansorial marsupials (eg. Brush-tailed Phascogale, Koala), and threatened snakes.
- Ongoing consultation with DEC will be needed to ensure appropriate and adequate design, implementation, maintenance and performance monitoring of mitigation measures proposed for this project.

Statement of Commitments

General

The Statement of Commitments indicates that the relevant Government Departments will be consulted in the preparation of the CEMP and associated management sub plans. DEC advise that they are a relevant Government Department with regard to the following plans:

- Construction Environmental Management Plan (CEMP)
- Operational Environmental Management Plan (OEMP)
- Noise and Vibration Management Sub Plan
- Flora and Fauna Management Sub Plan
- Indigenous Heritage Management Sub Plan
- Soil and Water Management Sub Plan
- Acid Sulfate Soil Management Sub Plan
- Spoil and fill Management Sub Plan
- Contamination and Investigation Management Plan

Section 1.2 Environmental Management Representative (EMR)

DEC seeks clarification as to why the EMR will only have authority to recommend the RTA to stop work under certain circumstances. In similar, previously approved projects the EMR was authorised to stop work immediately in certain circumstances.

Section 2.3

We note that this section does not provide:

- a time frame for the preparation of the OEMP;
- details of what will be addressed by the OEMP;
- the requirements of any alternative management system suggested under this section

These issues should be clarified.

Section 5.1

The Noise and Vibration Management Sub Plan should address the DEC's comments on the Noise and Vibration Assessment of the EIS.

Hours of Operation for the project should be restricted to :

7:00am to 6:00pm Monday to Friday;

8:00am to 1:00pm Saturday;

At no time on Sundays or Public Holidays.

Works may be permitted outside these hours with prior approval from the DEC:

The Noise and Vibration Plan should include, but not be limited to, the following:

- Tests for ascertaining acoustic parameters.
- Identification of noise and vibration catchments and predicted noise and vibration levels.
- Impacts from site compounds/construction depots.
- Location, type and timing of erection of temporary and permanent noise barriers and/or other noise mitigation measures.
- Specific physical and managerial measures for controlling noise and vibration.
- Noise and vibration monitoring, reporting and response procedures.
- The urban design issues relating to noise and vibration control measures.

A Noise Impact Statement shall be prepared consistent with the noise management plan and shall include:

- Description of proposed processes and activities.
- Valid background levels.
- Examination of alternative methods that would potentially reduce noise impacts.
- Assessment of potential noise from proposed construction methods.
- Description of and commitment to work practices which limit noise.
- Description of specific noise mitigation treatments and time restrictions and consideration of their effectiveness.
- Justification for any activities outside the normal working hours.
- Consideration of construction vehicle movements.
- Compliance with DEC criteria.
- Monitoring of construction activities.
- Community consultation and notification.

Construction noise for the project should comply with the following criteria unless otherwise agreed by the DEC:

1. For a construction period of four weeks or less, the L_{10} level measured over a period of not less than 15 minutes when the construction site is in operation shall not exceed the background level by more than 20 dB(A).
2. For a construction period of greater than four weeks but less than 26 weeks, the L_{10} level measured over a period of not less than 15 minutes when the construction site is in operation shall not exceed the background level by more than 10 dB(A).
3. For a construction period of greater than 26 weeks, the L_{10} level measured over a period of not less than 15 minutes when the construction site is in operation shall not exceed the background level by more than five dB(A)

Construction noise levels should be monitored to verify compliance with the requirements specified in the Noise and Vibration Management Plan and, the Noise Impact Statement. Should monitoring indicate exceedances the DEC is to be consulted and additional mitigation measures implemented as required.

Section 6.1

Post-construction monitoring of noise should be undertaken as part of the Noise and Vibration Management Plan. This monitoring should be used to assess the adequacy of the traffic noise mitigation measures. Should the assessment indicate a clear trend in traffic noise levels which are higher than the predictions made and exceed the Environmental Criteria for Road Traffic Noise (ECRTN) noise goals, further noise mitigation measures must be implemented in consultation with the DEC.

Section 10.4

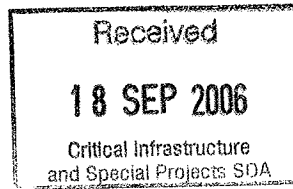
This section should also refer to the DEC guideline *Contaminated Sites: Guidelines for Assessing Service Station Sites*, December 1994.

Section 10.5

This section should details how potential for changes in groundwater will be assessed and monitored before, during and following construction.

Section 11.1

The dust monitoring referred to in this section should include a commitment to conduct 12 months monitoring prior to the commencement of construction, not the 2 months indicated in the submissions report.



Forests NSW

PO Box 168
Wauchope NSW 2446

Phone (02) 6585 3744
Fax (02) 6585 2392

15 September 2006

Lisa Mitchell
Manager, Transport
Major Infrastructure Assessment
Moorland to Herons Creek Upgrade Project
PO Box 39
Sydney NSW 2001

Attn: Mr Glenn Snow

Dear Glenn,

RE: Review of the Submissions Report for the Moorland to Herons Creek Pacific Highway Upgrade Project

Thankyou for the opportunity to provide comment on the Submissions Report for the Moorland to Herons Creek Pacific Highway Upgrade Project.

ForestsNSW has reviewed the document in light of issues raised by ForestsNSW during the consultation process regarding impacts of the Project on State Forests. The document provides an accurate summary of all major points raised by ForestsNSW relevant to the EIS process and provides a response by the RTA that is acceptable to this organisation.

For further consultation or enquiries, please contact Rebecca Pagan, Resources Forester at the Wauchope office of ForestsNSW (02 6586 9746).

Yours sincerely

Rebecca Pagan
Resources Forester

For

Kathy Jones
Regional Manager
Central Region

*Glenn/Mary,
for note & inc. in
the report.
Lisa 19.9.06*

Port Macquarie-Hastings Council

PO Box 84
Port Macquarie NSW 2444
DX 7415
Email: council@pmhc.nsw.gov.au
Website: www.pmhc.nsw.gov.au
Fax: 02 6581 8620

ABN: 11 236 901 601

19 September 2006



PORT MACQUARIE
HASTINGS

Your ref: G00/00171

26 SEP 2006

Lisa Mitchell
Manager
Transport-Major Infrastructure Assessment
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Mary,
for consideration
Lisa 26.9.06

Dear Lisa

Moorland to Herons Creek Pacific Highway Upgrade - Council Consultation

I refer to your letter dated 4th August 2006 inviting Council to comment on the Submissions Report June 2006 (RTA/Pub.06.150).

We have reviewed the report and EIS and raise no objection to the proposal as described in the EIS. We have also reviewed the impacts identified and submissions made and consider the responses provided in the Submissions report are acceptable, excepting some comments in relation to the economic impacts on Kew.

We request the Department to consider the following for inclusion in the Statement of Commitments:

1. Undertaking of Kew "mainstreet" improvement works as a partial offset to the economic impacts identified in the EIS. There is a reliance in the EIS for Council and community in their respective roles to "offset possible economic" downturn in Kew. We certainly recognise Council's role in local economic development, however, we also consider there is a role for the proponent to partially "offset" the downturn. A copy of a concept design showing possible options for "mainstreet" improvements is attached.
2. Liasion with Council's Tourism Manager during the detailed design phase to ensure appropriate advance directional signage to key destinations and in particular the Kew Visitor Information Centre;
3. Liasion with Councils Technical Services Manager during the detailed design phase to ensure integration with Councils latest plans for infrastructure service provision within the Kew/Kendall area.
4. Development of a formal agreement with Council regarding the transfer of the existing sections of the Pacific Highway to Council, such an agreement to cover when the transfer shall be effected and any works to be undertaken by the Roads & Traffic Authority on the existing Pacific Highway prior to the transfer. The agreement should be made prior to the opening of the Highway upgrades.
5. Ensure as part of the detailed design phase the intersection with Herons Creek has suitable median width to cater for the storage of B-Bouble vehicles.

A sustainable high quality of life for all

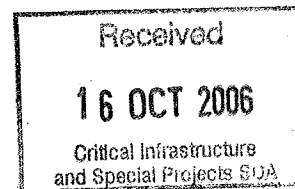
6. Include as part of the design phase suitable replacements for or upgrading of existing bus stops, particularly safe set down and pick up for school children.
7. Ensure as part of the detailed design appropriate provision for pedestrians and cyclists between the Kew main street and the Camden Haven high school.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Cliff Toms', with a long horizontal stroke extending to the right.

Cliff Toms
Technical Services Manager

Our reference : Doc 06/16657
Contact : Rebecca Edwards-Booth , 6659 8225



Ms Lisa Mitchell
Manager, Transport Major Infrastructure Assessment
Department of Planning
GPO Box 39
Sydney NSW 2001

12 OCT 2006

Dear Ms Mitchell,

RE: Moorland to Herons Creek Pacific Highway Upgrade, supplementary comments on Aboriginal cultural heritage issues

I refer to the Submissions Report and Draft Statement of Commitments provided for the Moorland to Herons Creek Pacific Highway Upgrade. In Department of Environment and Conservation (DEC) correspondence of 11 September 2006, the DEC committed to providing additional comment on Aboriginal Cultural Heritage matters relating to the project.

I note from discussions with the Roads and Traffic Authority (RTA) that the Department of Planning (DoP) had also indicated it needed to be satisfied that Aboriginal archaeology has been adequately assessed prior to recommending [Part 3A] approval to the Minister. In response to DoP's request, the DEC has undertaken preliminary consultation with the Aboriginal community to gauge their views with regard to the assessment of Aboriginal cultural heritage values in relation to the project. The DEC has also reconsidered our previous position with regard to the assessment of potential archaeological deposits affected by the project.

Having considered the submissions report, draft statement of commitments and the results of consultation, the DEC now provides the following comments in relation to the proposal in Attachment 1.

If you have any questions, or wish to discuss this matter further please contact Rebecca Edwards-Booth on 6659 8235.

Yours sincerely

A handwritten signature in black ink, appearing to read "Alex Purvis".

Alex Purvis
Manager North Coast Region
Environment Protection and Regulation Division



Attachment 1

Submissions Report

The DEC wishes to add to comments made with regard to the management of Aboriginal cultural heritage values as contained in our submission of 11 September 2006 in view of subsequent negotiations between the RTA, DEC and the Aboriginal community.

Section 2.4.8

The submissions report states that of the Aboriginal sites previously identified during environmental assessments, only two Aboriginal sites are likely to be impacted by the project; scarred tree A16 and isolated find A6. The DEC notes that in addition to these sites, four potential archaeological deposits (PAD's) are also located on the alignment and will be subject to impact.

Section 3.9.1

The DEC supports the recommended strategy of allowing road works to impact upon Aboriginal site A6 which was assessed as being an isolated artefact with no associated cultural deposit. However, reported Aboriginal scarred tree A16 has been assessed as being of high local significance due to the relative rarity of the site type in this area. In responding to the EIS (2005) the DEC recommended that the reported scarred tree (A16) be assessed by a specialist in Aboriginal scarred tree identification to confirm the likely origin of the scarring. The submission report indicates that an initial level of assessment by a heritage professional, who did not specialise in this area, proved inconclusive.

It is unclear from the EIS and submissions report whether impact upon Aboriginal site A16 is likely to occur. Scarred trees have proven to be particularly susceptible to changes in landuse even in instances where direct physical damage to the tree is not immediately apparent, often resulting in the eventual sickening and death of the tree. Given the significance of the tree to the local Aboriginal community, the DEC wishes to avoid detrimental impacts. The DEC considers that a specialist assessment of the tree should be completed prior to commencement of construction works to determine whether the reported scarred tree (A16) constitutes an Aboriginal object. At the conclusion of the assessment, the findings should be forwarded to the DEC for inclusion on the Aboriginal Heritage Information Management System (AHIMS).

Should it be determined that the scar/s have resulted from an activity other than use of the bark, or other tree products, by Aboriginal people, then the DEC would have no further requirement for active management of the tree. However, should it be determined that the tree represents an Aboriginal object, and that the project poses a potential threat to the trees continued health, the RTA should reach agreement with both the relevant local Aboriginal community groups and the DEC with regard to plans for the management and/or salvage of the tree. Where the tree can be actively managed and conserved *in situ*, this strategy should be adopted. However, where it is determined that the tree must be removed, the removal of the scarred tree (A16) would require a section 90 under the provisions of the *National Parks and Wildlife Act 1974* if completed prior to the project receiving Part 3A approval.

Potential Archaeological Deposits (PAD's)

The Department of Planning has requested that prior to giving approval in relation to the project, that the RTA and DEC consult further. Specifically, additional comment was sought in relation to the assessment of identified PAD's. The DoP indicated it needed to be satisfied that Aboriginal archaeology had been adequately assessed prior to recommending [Part 3A] approval to the Minister.

The Submissions Report indicates that construction impact is likely to occur in relation to PAD's 2, 4, 5 & 6 as a result of a range of activities including the construction of road cuttings, access tracks, conduct of geotechnical investigations, topsoil stripping and installation of bridge pylons. It had previously been agreed that works in these areas would be monitored by appropriately

experienced representatives of the relevant Local Aboriginal Land Council. However, this strategy was proposed in response to DEC's earlier refusal of a section 87 application for archaeological test excavations.

As indicated, in response to DoP's request the DEC has undertaken some preliminary consultation with the Aboriginal community to gauge their views with regard to the assessment of Aboriginal cultural heritage values in relation to the project. The Aboriginal community representatives consulted have indicated that they wish to see additional investigations be undertaken in relation to the potential archaeological deposits likely to be impacted by the project. Given that the projects planning has progressed to a stage where specific impacts can be more adequately assessed, the DEC supports the Aboriginal communities request for archaeological testing to enable the results of such testing to better inform the decision making process.

The completion of an investigation to determine the archaeological significance of the PAD's represents a proactive risk assessment measure, and will also enable a better understanding of the past use of this landscape by Aboriginal people. The RTA would also be able to proceed with an increased level of surety having a greater understanding of the values affected by the project and the likelihood of significant deposits or cultural items being encountered during construction works. This information may also be utilised by the Aboriginal community in reaching conclusions regarding the Aboriginal cultural significance of the sites and the related cultural landscape.

It would be advisable for the RTA to make application to the DEC for a permit under section 87 (NPW Act 1974) should archaeological investigations be undertaken prior to approval of the project under Part 3A. The DEC suggests that the RTA liaise further with the Aboriginal community to determine the most appropriate method of proceeding with these investigations.

Alternatively should it be determined from a risk assessment perspective that it is appropriate additional investigations be completed following approval of the project in accordance with Part 3A, then an agreement to undertake such investigations should be specifically referenced within the statement of commitments. As this represents a substantial measure to assist with mitigation of the project impacts, the DEC considers that it would be appropriate that the issue be dealt with separately to the IHMSP. It would be advisable that investigations be undertaken in accordance with a methodology agreed to following consultation with the Aboriginal community and DEC prior to commencement of construction works. It would then be appropriate that the results and recommendations resulting from the investigations be reflected within the IHMSP.

Three Brother Mountains Aboriginal Place

Middle Brother Mountain has been declared by the Minister for the Environment to be an Aboriginal place in accordance with section 84 of the NPW Act 1974. The Minister's declaration recognises the special significance of this place to the Aboriginal community. Middle Brother mountain is included within the first Aboriginal place declaration recognising the continuity of Aboriginal heritage significance across the landscape and resulting in the declaration of three linked land areas within the one Aboriginal Place declaration, referred to as the Three Brother Mountains Aboriginal Place.

The effect of declaration is that the lands within the surveyed boundaries of the Aboriginal place are thereafter considered to be an Aboriginal object and are thus protected by the provisions of the *National Parks and Wildlife Act 1974*. In practice, Aboriginal communities maintain an ongoing interest in the management of such areas and routinely request involvement in discussions regarding any works which may impact upon these lands. Given the nature and significance of such places, the DEC will seek to avoid or mitigate all possible impacts on declared Aboriginal places. Therefore, the RTA should ensure that construction works and all ancilliary activities are contained within the existing highway reserve in the area of Middle Brother State Forest to limit the potential for inadvertent damage to this significant land area. Should there remain potential for impact upon lands contained within or immediately adjacent to the Aboriginal Place, further discussion should take place between the DEC, RTA and relevant Aboriginal community groups

to enable informed discussion relating to the range of alternatives available to avoid or mitigate detrimental impacts.

Statement of Commitments

The Statement of Commitments indicates that the relevant Government Departments will be consulted in the preparation of the CEMP and associated management sub plans. DEC advise that they are a relevant Government Department with regard to development of the Indigenous Heritage Management Sub Plan.

Table 6.1

The DEC supports the commitment to prepare an Indigenous Heritage Management Sub Plan (IHMSPP) in relation to the project (Item 8.1(a)). Some of the measures contained within the Table 6.1 are no longer applicable given the proposed approval of the project under Part 3A. In addition to the issues listed for inclusion within the IHMP the following issues should also be discussed and addressed;

- a) The salvage and curation of Aboriginal objects affected by the project. Particularly consideration should be given to different methods of managing salvaged Aboriginal objects, such as support for construction of a Keeping Place for Aboriginal objects salvaged or relocation within the vicinity of the original site location following the completion of construction works.
- b) Describe the duties of any Aboriginal heritage monitors and outline agreements regarding engagement of monitors
- c) Further discussion is also warranted in relation to the definition of 'sensitive sites' at which monitoring activities will be undertaken. It is not clear whether this reference refers to all Aboriginal sites listed in section 15.4 of the EIS or only to potential archaeological deposits. It would appear that the subsurface archaeological investigations proposed may to some degree alleviate the need for monitoring in relation to each of the PAD's impacted by the project.
- d) It is suggested that the location of site A14 be marked on all construction and management related maps, inclusive of an appropriate buffer, to ensure that no inadvertent damage occurs to this significant Aboriginal site.
- e) Specific measures should be proposed for works undertaken in close proximity to Middle Brother Mountain, including discussions with DEC, Forests NSW within Department of Primary Industries and with the Aboriginal community.
- f) Propose and implement measures anticipated to enable monitoring of compliance with the agreements and measures designed to manage/mitigate damage to Aboriginal sites and Aboriginal cultural heritage values.
- g) Aboriginal Heritage Induction Training should be undertaken by all employees and contractors associated with the project and should include the following matters.
 - basic training in the identification of Aboriginal objects
 - reference to the importance of the Three Brothers Mountains to the local Aboriginal community and the need to limit construction impacts to the present road reserve in the vicinity of the Mountain.
 - discussion of specific protocols should skeletal materials be uncovered in the course of any ground disturbing works which are thought to represent Aboriginal ancestral remains.

The DEC also considers that the IHMSPP should address the management of Aboriginal objects located at Aboriginal sites A1, A3, A14, A7, A8, A16 and PAD3. The summary contained within the submissions report implies that these sites will not be subject to direct construction impact.

However, the DEC wishes to remove the potential for inadvertent damage to these areas as a result of ancillary activities or the location of site infrastructure etc. Therefore, the locations of each Aboriginal site should be identified on sensitive area plans, inclusive of appropriate buffers, and recommendations for management of these sites should be included within Construction and Operational Environmental Management Plans or via alternative mechanisms. Should it be determined that these Aboriginal sites will be impacted by works associated with the project, then agreements should be reached with regard to appropriate measures for management and/or salvage of these sites prior to commencement of works.

The Statement of Commitments makes reference to the table of mitigation measures contained in Table 6.1. Item 8.2(b) within this Table indicates that *"in the event that Aboriginal objects are exposed during construction ... all work would cease and advice would be sought from DEC"*. It is suggested that the wording of this section be amended such that a stopwork is only required where significant Aboriginal objects are exposed or are identified during the course of works. The DEC considers that use of the suggested text would more adequately reflect agreements in place and the intent of Part 3A amendments to facilitate infrastructure projects. Agreement would then be required following discussion with Aboriginal community groups and the DEC regarding the definition of 'significant' Aboriginal objects. This definition could then be included within the IHMSP.

Should the project receive Part 3A approval it would be appropriate that the issue of management and/or salvage of the scarred tree (A16) be dealt with within the statement of commitments distinct from the Indigenous Heritage Management Subplan (IHMSP). Where the tree is to be retained *in situ* appropriate measures should be put in place to reduce the potential for damage to the tree as a result of construction works. Such measures may include the fencing of a 10m "no go area" buffer outside the dripline (canopy) for the tree.

Where it is decided that the tree is to be salvaged, it should not be assumed, without the benefit of consultation, that the Aboriginal community would have the ability to salvage or store the scarred tree. Prior to undertaking the salvage of the scarred tree, agreement should be reached on the following issues.

- salvage of the tree (decision would have to be made on whether only the scarred portion of the tree would be salvaged or whether it would be appropriate that a larger portion of the tree be retained)
- method of removal of the tree (may need to seek advice from specialists associated with the Australian Museum on appropriate methods for removal and handling of the tree)
- storage of the tree in the short and longterm. There are a range of possible alternative locations for storage and curation of the scarred tree which would include, but not be limited to relocation on Aboriginal community owned lands (eg Land Council), local historical museum, or within a local National Park or State Forest area.
- conservation and management measures to be put in place to ensure the care and protection of the tree (this may best be included within a short management or conservation plan for the tree and would then be held by the relevant Aboriginal community groups, the DEC and RTA's contractors). This plan would also address the appropriate acknowledgment and interpretation of the tree as agreed between the involved parties.