Trade & Investment
Resources & Energy

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1 February 2013

The Manager
Major Projects Assessment
Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

Dear Sir/Madam

Re: Woolgoolga to Ballina Pacific Highway Upgrade – Environmental Impact Statement on Public Exhibition

Thank you for your letter of 12 December 2012 regarding the public exhibition of the Environmental Impact Statement for community comment. This is a response from the Mineral Resources Branch (MRB) of the Division of Resources and Energy, Department of Trade & Investment, Regional Infrastructure & Services (DTIRIS). Other Branches and Divisions of DTIRIS including Agriculture, Fisheries and Forests may provide comment in separate correspondence.

MRB notes that issues highlighted in our response to the *EIS Adequacy Review* (refer to letter dated 8 November 2012) have not been adequately addressed in the EIS on display. The main issues highlighted in that letter are summarised below.

The EIS inadequately deals with geology in general and extractive resources in particular. Geology is central to the understanding of extractive resources and properly written and illustrated geology would provide far greater insight into management of these resources.

The EIS effectively confirms MRB's concerns of potential conflict between meeting highway demand for extractive materials while continuing to satisfy the community's needs for sustainable supply for other purposes.

"Construction of the project by the end of 2016 would require construction activities to be underway on all project sections concurrently. This would significantly increase the demand on local quarries. Coupled with other activities in the region, this high level of resource demand could exceed local supply" (Table 21-3: Strategic assessment of cumulative impacts relative to the Pacific Highway Upgrade Program).

It also foreshadows the need for a quarry offset program however lacks both a proposed offset program and also the quality of analysis that would be needed to justify such a program.

"There would also be a loss to the mineral resources in the region through the resumption and sterilisation of quarries. This loss may be partially mitigated through offsets and other compensatory processes" (Table 21-2: How the project satisfies the objects of the EP&A Act).

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Chapter 1: Introduction

Brief reference is made to the Clarence-Moreton Basin however it lacks further description and an explanation of its importance in controlling/influencing landscapes and quarry resources as well as influencing ecology, land uses, aboriginal heritage and groundwater.

Chapter 2: Assessment process

MRB contends that the *Environmental Planning and Assessment Act 1979, Section 117(2) Direction 1.3 – Mining, Petroleum Production and Extractive Industries* and the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* must be taken into consideration as part of the approval process.

Chapter 3: Strategic justification and need

The critical issues for MRB are the impacts on known/potential resources (particularly extractive resources), the sustainability of supply from those resources (taking offsets into account), and the sensitivity of those effects to route selection.

Chapter 4: Project development and alternatives

From MRB's perspective an evaluation of alternative scenarios requires far better data and analysis of extractive resources and resource potential than is currently contained in the EIS.

Without an adequate geological/resource assessment the cost-benefit advantages of alternatives is not obvious. Some alternatives could potentially be cheaper and easier to build by largely eliminating the need for such massive and distant transport of fill, minimising adverse impacts on resources, communities and the environment generally.

Chapter 6: Description of the project – construction

This section gives a good sense of the massive scale of earthworks and other material requirements

Table 6-14 (Potential quarry sources) should list site numbers corresponding to those on *Figure 6-44 (Potential quarry sources for the project materials)* and should explain the discrepancy in the number of sites (17 v 60). *Table 6.14* should also provide an indication of likely surplus capacity from quarries listed, as well as a breakdown of surplus capacity by material class (complying coarse aggregate, fine aggregate, roadbase, and fill), along with indicative transport distances by upgrade segment. *Figure 6-44* should be supplemented by separate maps for each material class shown against a backdrop of potential source rock units for that class.

Certain critical issues remain to be addressed reliably and quantitatively, viz:

- Any shortfall by product type in meeting both community and highway needs under current production and road/bridge limits.
- Any cumulative impact on the long-term supply capacity of the districts traversed, and any consequent increase in transport costs, roadside impacts and net greenhouse gas emissions arising from more distant replacements
- Any offset needs/opportunities as foreshadowed in *Table 21-2 (How the project satisfies the objects of the EP&A Act).*
- Any sensitivity of these factors to route selection (see also Chapter 4).

Chapter 7: Consultation

MRB notes the reference made to previous consultation with DTIRIS in *Table 7-10 issues raised by government agencies* however it is felt that the issues, particularly supply and sustainability of extractive resources, have not been adequately addressed.

Chapter 9: Soils, sediments and water

A more useful description of the physical environment including geology (with illustrations) is needed. The lack of adequate discussion concerning geology and its control over the physical/natural environment raises doubt about claimed insights into resources and environmental consequences.

An understanding of geology is critical because it is a valuable predictor of resource potential and material type. Discussions of resource issues and offsets would be far more credible if these important geological distinctions were clearly articulated in the EIS.

Chapter 13: Non-Aboriginal historical heritage

Gold shafts are known near Maloney's house (#26), Broadwater (locations online through MinView (http://www.dpi.nsw.gov.au/minview). They should be checked from a heritage and safety perspective. Sulphide-bearing mineralisation in the area may be a source of acid-sulphate and heavy metals contamination in groundwater.

Chapter 15: Noise and Vibration

Terrain, geology and depth of weathering are critical controls on the need for blasting. Any constraints on blasting and depth of excavations may adversely affect the cut to fill imbalance of existing earthworks, and place additional demand on quarries, access roads and communities in the region. Those effects need to be quantified and carefully assessed.

Chapter 16: Land use and property

Regionally significant farmland is well illustrated and mapped, whereas quarries and other natural resources are not. *Figure 16-14* needs symbols to differentiate material type, quarry size and if active. It also needs a geological backdrop or some other means to differentiate rock/material type.

Table 16-4 should relate *to Figure 16-14* and *Figures 16-15* to 1*6-17* plus to s17.2.1. Quarry maps needs to show all quarries to be acquired or otherwise impeded and needs to differentiate them by material type & quality, size of production, total resource, transport distance and market impact. The "quarried materials" listed are rock-types – both quarried material (product) and rock-type should be listed.

Chapter 17: Social and Economic

The EIS lacks, but should contain, a credible assessment of extractive material markets and operating or potential sources in the districts and region affected. It should document in appropriate maps and tables (in this chapter and/or Chapter 16), the material type, value, size, and location of quarries in the district and region, and specifically those to be acquired or adversely impacted.

This chapter should adequately reflect the fundamental dependence on extractive resources by incorporating adequate and appropriate assessment of the industry, its markets and opportunities for offsets, not only of quarries to be acquired or adversely impacted, but also more distant quarries to be depleted to meet highway demand. The assessment should be supported by appropriate maps and tables.

Chapter 19: Mitigation and management measures

MRB endorses *LU28* & *LU29* (*Table 16-5 - Land use and property mitigation measures)*, namely for the on-going consultation with land owners operating quarries and with coal seam gas proponents to ensure impacts from the project are minimised.

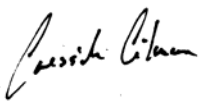
Chapter 20: Environmental risk analysis

Threats to quarries and material supplies are an environmental risk. The cumulative impact of prematurely closing quarries and replacing them with more distance sources potentially causes significant consequential environmental risk such as increased transport costs, roadside impacts and net greenhouse gas emissions. These should be briefly quantified.

In summary there is both need and considerable scope for providing a far more detailed and reliable account of extractive resources, their sensitivities to adverse impact from the proposed highway upgrade, and their relationship to the physical environment (particularly geology).

For further information regarding mineral issues please contact Cressida Gilmore in the Department's Maitland Office (Tel 02 4931 6537) or email cressida.gilmore@industry.nsw.gov.au.

Yours sincerely



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