

## Appendix A

### Director General's Environmental Assessment Requirements



NSW GOVERNMENT  
**Department of Planning**

**Major Project Assessment  
Mining & Industry**  
Contact: Carl Dumpleton  
Phone: (02) 9228 6283  
Fax: (02) 9228 6466  
Email: [carl.dumpleton@planning.nsw.gov.au](mailto:carl.dumpleton@planning.nsw.gov.au)

Room 306  
23-33 Bridge Street  
GPO Box 39  
SYDNEY NSW 2001

Mr Jeff Champion  
Director  
Reavill Farm Pty Ltd &  
Tucki Hills Pty Ltd  
PO Box 5261  
EAST LISMORE NSW 2480

Our Ref: S07/00562

Dear Mr Champion

**Champion Quarry Project (09\_0080)  
Director-General's Requirements**

The Department has received your application for the Champions Quarry Project.

I have attached a copy of the Director-General's requirements for the project. These requirements have been prepared in consultation with the relevant agencies, and are based on the information you have provided to date. I have also attached a copy of the agencies' comments for your information.

Please note that the Director-General may alter these requirements at any time.

If your proposal is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. It is your responsibility to contact the Department of Environment, Water, Heritage and the Arts in Canberra (6274 1111 or <http://www.environment.gov.au>) to determine if the proposal requires an approval under the EPBC Act. The Commonwealth Government has accredited the NSW environmental assessment process, so if it is determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary Director-General's requirements may need to be issued.

I would appreciate it if you would contact the Department at least two weeks before you propose to submit your Environmental Assessment for the project. This will enable the Department to determine the:

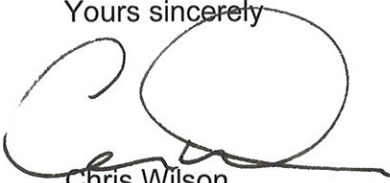
- applicable fee (see Division 1A, Part 15 of the Environmental Planning and Assessment Regulation 2000); and
- number of copies (hard-copy and CD-ROM) of the Environmental Assessment that will be required for exhibition purposes.

Once it receives the Environmental Assessment, the Department will review it in consultation with the relevant agencies to determine if it adequately addresses the Director-General's requirements, and may require you to revise it prior to public exhibition.

The Department is required to make all the relevant information associated with the project publicly available on its website. Consequently, I would appreciate it if you would ensure that all the documents you subsequently submit to the Department are in a suitable size and format for the web, and arrange for an electronic version of the Environmental Assessment to be hosted on a suitable website.

If you have any enquiries about these requirements, please contact Carl Dumbleton on 9228 6283 or [carl.dumbleton@planning.nsw.gov.au](mailto:carl.dumbleton@planning.nsw.gov.au)

Yours sincerely

A handwritten signature in black ink, appearing to be 'Chris Wilson', written over a large, faint circular stamp.

22.6.09

Chris Wilson  
**Executive Director**  
**Major Projects Assessment**  
As delegate for the Director-General

# Director-General's Requirements

## Section 75F of the *Environmental Planning and Assessment Act 1979*

<b>Application Number</b>	MP 09_0080
<b>Project</b>	<p>The Champions Quarry Project, includes:</p> <ul style="list-style-type: none"> <li>• expansion of the quarry area from 2 ha to 16 ha;</li> <li>• increase in the maximum extraction rate from 63,800 tonnes to 250,000 tonnes per annum;</li> <li>• extraction of approximately 6.25 million tonnes of sandstone material over 25 years by mechanical methods;</li> <li>• processing and stockpiling material on-site;</li> <li>• transporting the material by truck to local markets; and</li> <li>• rehabilitating the site.</li> </ul>
<b>Location</b>	Approximately 15km south of Lismore
<b>Proponent</b>	Reavill Farm Pty Ltd & Tucki Hills Pty Ltd
<b>Date of Issue</b>	June 2009
<b>General Requirements</b>	<p>The Environmental Assessment of the project must include:</p> <ul style="list-style-type: none"> <li>• an executive summary;</li> <li>• a detailed description of: <ul style="list-style-type: none"> <li>- existing operations on site;</li> <li>- existing statutory approvals that apply to these operations; and</li> <li>- the existing environmental management and monitoring regime on site;</li> </ul> </li> <li>• a detailed description of the project, including the: <ul style="list-style-type: none"> <li>- need for the project;</li> <li>- nature and quantity of the resource;</li> <li>- alternatives considered;</li> <li>- likely interactions between existing and approved quarry operations;</li> <li>- likely staging of the project; and</li> <li>- plans of any proposed building works;</li> </ul> </li> <li>• a risk assessment of the potential environmental impacts of the project, identifying the key issues for further assessment;</li> <li>• a detailed assessment of the key issues specified below, and any other significant issues identified in the risk assessment (see above), which includes: <ul style="list-style-type: none"> <li>- a description of the existing environment, using sufficient baseline data;</li> <li>- an assessment of the potential impacts of all stages of the project, including any cumulative impacts associated with the concurrent operation of the project with any other existing or approved quarry operations in the region, taking into consideration any relevant policies, guidelines, plans and statutory provisions (see below); and</li> <li>- a description of the measures that would be implemented to avoid, minimise, and if necessary offset the potential impacts of the project, including detailed contingency plans for managing any significant risks to the environment;</li> </ul> </li> <li>• a statement of commitments, outlining all the proposed environmental management and monitoring measures;</li> <li>• a conclusion justifying the project on economic, social and environmental grounds, taking into consideration whether the project is consistent with the objects of the <i>Environmental Planning &amp; Assessment Act 1979</i>;</li> <li>• a signed statement from the author of the Environmental Assessment, certifying that the information contained within the document is neither false nor misleading.</li> </ul>

<b>Key Issues</b>	<ul style="list-style-type: none"> <li>• <b>Noise / Vibration</b>– including: <ul style="list-style-type: none"> <li>- an assessment of construction noise, operational noise and off-site road noise; and</li> <li>- an assessment of potential vibration impacts;</li> </ul> </li> <li>• <b>Air Quality</b>;</li> <li>• <b>Transport</b> – including: <ul style="list-style-type: none"> <li>- a detailed assessment of the potential impacts of traffic from the proposal on the safety and efficiency of the road network; and</li> <li>- a detailed description of the measures that would be implemented to upgrade and/or maintain roads over the life of the project;</li> </ul> </li> <li>• <b>Biodiversity</b> – including: <ul style="list-style-type: none"> <li>- accurate prediction of any vegetation clearing on site;</li> <li>- a detailed assessment of the potential impacts of the project on any threatened species, populations, ecological communities or their habitats; and</li> <li>- a detailed description of the measures that would be implemented to maintain or improve the biodiversity values of the surrounding region in the medium to long term;</li> </ul> </li> <li>• <b>Water &amp; Soil</b> – including: <ul style="list-style-type: none"> <li>- a site water balance for the project;</li> <li>- detailed assessment of erosion and sedimentation impacts;</li> <li>- accurate predictions of the impacts of the project on local waterways, aquifers and local users of surface / groundwater; and</li> <li>- final void water management;</li> </ul> </li> <li>• <b>Rehabilitation</b> – including a detailed description of the proposed rehabilitation strategy for the quarry, taking into consideration any relevant strategic land use planning or resource management plans or policies;</li> <li>• <b>Visual</b>; - including consideration of the impacts to rural amenity and the prescribed buffer areas for extractive industries in the Lismore Council Development Control Plan;</li> <li>• <b>Social &amp; Economic</b>; and</li> <li>• <b>Heritage</b> – both Aboriginal and non-Aboriginal.</li> </ul>
<b>References</b>	<p>The environmental assessment of the key issues listed above must take into account relevant guidelines, policies, and plans. While not exhaustive, the following attachment contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this project.</p>
<b>Consultation</b>	<p>During the preparation of the Environmental Assessment, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups or affected landowners.</p> <p>In particular you must consult with the:</p> <ul style="list-style-type: none"> <li>• Department of Environment and Climate Change;</li> <li>• Department of Primary Industries;</li> <li>• Department of Water and Energy;</li> <li>• Roads and Traffic Authority; and</li> <li>• Lismore Council.</li> </ul> <p>The consultation process, and the issues raised during this process, must be described in the Environmental Assessment.</p>
<b>Deemed Refusal Period</b>	60 days

# Policies, Guidelines & Plans

Aspect	Policy /Methodology
<b>Risk Assessment</b>	AS/NZS 4360:2004 Risk Management (Standards Australia) HB 203: 203:2006 Environmental Risk Management – Principles & Process (Standards Australia)
<b>Noise &amp; Vibration</b>	DRAFT Construction Noise Guideline (DECC) NSW Industrial Noise Policy (DECC) Environmental Criteria for Road Traffic Noise (NSW EPA) Environmental Noise Control Manual (DECC) Assessing Vibration: a technical guideline (DECC)
<b>Air Quality</b>	Protection of the Environment Operations (Clean Air) Regulation 2002 Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC) Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC) Guidelines for Energy Savings Action Plans (DEUS)
<b>Transport</b>	Guide to Traffic Generating Development (RTA) Road Design Guide (RTA)
<b>Biodiversity</b>	Draft Guidelines for Threatened Species Assessment under Part 3A of the <i>Environmental Planning and Assessment Act 1979</i> (DEC) NSW Groundwater Dependent Ecosystem Policy (DLWC) Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries) State Environmental Planning Policy No. 44 – Koala Habitat Protection Guidelines for Developments Adjoining DEC Land (DEC)
<b>Water and Soil</b>	National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ) National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC/ARMCANZ) National Water Quality Management Strategy: Guidelines for Sewerage Systems – Effluent Management (ARMCANZ/ANZECC) National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC) Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC) State Water Management Outcomes Plan NSW Government Water Quality and River Flow Environmental Objectives (DECC) Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC) Managing Urban Stormwater: Soils & Construction (Landcom) Managing Urban Stormwater: Treatment Techniques (DECC) Managing Urban Stormwater: Source Control (DECC) Floodplain Management Manual (DNR) Floodplain Risk Management Guideline (DECC) A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH) Technical Guidelines: Bunding & Spill Management (DECC)
<i>Surface Water</i>	

<i>Groundwater</i>	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	NSW State Groundwater Policy Framework Document (DLWC)
	NSW State Groundwater Quality Protection Policy (DLWC)
	NSW State Groundwater Quantity Management Policy (DLWC) Draft
	Murray-Darling Basin Groundwater Quality. Sampling Guidelines. Technical Report No 3 (MDBC)
	Murray-Darling Basin Commission. Groundwater Flow Modelling Guideline (Aquaterra Consulting Pty Ltd)
	Draft Guidelines for the Assessment & Management of Groundwater Contamination (DECC)
<i>Soil</i>	Rural Land Capability Mapping (DLWC)
	Agricultural Land Classification (DPI)
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC & NHMRC)
	National Environment Protection (Assessment of Site Contamination) Measure 1999 (NEPC)
	State Environmental Planning Policy No. 55 – Remediation of Land
	Managing Land Contamination – Planning Guidelines SEPP 55 – Remediation of Land (DOP)
<b>Rehabilitation</b>	
	Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)
	Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)
	Strategic Framework for Mine Closure (ANZMEC/MCA)
<b>Heritage</b>	
<i>Aboriginal</i>	Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC)
<i>Non- Aboriginal</i>	NSW Heritage Manual (NSW Heritage Office & DUAP)
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
<b>Social &amp; Economic</b>	
	Draft Economic Evaluation in Environmental Impact Assessment (DOP)
	Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)
<b>Hazards</b>	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development
	Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP)
	Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis





The Manager  
Major Project Assessment - Industry & Mining  
Department of Planning  
GPO Box 39  
SYDNEY NSW 2000

Attn: Mr C Dumpleton

OUR REF: 08/4916  
3<sup>rd</sup> June 2009

Dear Sir,

**Re: Part 3A - Champions Quarry Project (Lismore LGA)**

Thank you for your e-mail of 12<sup>th</sup> May, 2009 concerning the proposed quarry development. Please address future correspondence on extractive industries issues to the A/Chief Geoscientist in Maitland (or e-mail [ian.paterson@dpi.nsw.gov.au](mailto:ian.paterson@dpi.nsw.gov.au)).

The Department of Primary Industries has been formed by the merger of Forests NSW, Mineral Resources NSW, NSW Agriculture, and NSW Fisheries. This is a coordinated response from the Department of Primary Industries. There are no significant fisheries or forestry issues.

**General Issues**

The EIS Guideline for Extractive Industries (DUAP, 1996) should be followed in the preparation of the EIS.

Conflict avoidance and management

The project should have regard to the Northern Rivers Catchment Action Plan (CAP) which has identified land use conflict in and adjacent to rural areas as a priority natural resource management and planning issue. Accordingly, the CAP has set a corresponding target - *By 2016 land use conflict within or adjacent to key environmental assets and rural production areas reduced by 90 percent*. Key environmental assets include extractive resources, wetlands, high conservation value (HCV) vegetation, habitat and the like. Rural production areas include State and regionally significant farmland.

The recently published document "Living and Working in Rural Areas: A Handbook for managing land use conflict issues on the NSW North Coast" (NSW DPI, Dec. 2007) provides a range of suggested strategies to avoid and reduce risk of land use conflict in rural areas. The entire handbook or the individual chapters are available for download at <http://www.dpi.nsw.gov.au/agriculture/resources/land>. The project should, as a matter of principle, aim to assist in achieving the NRCAP target of a reduction in rural land use conflict.

Proposed boundary adjustments

The merits and impacts of any proposed boundary adjustments should consider:

- The Lismore LEP,
- The North Coast REP, and
- The Rural Lands SEPP.



Minor boundary adjustment applications should take into account the following planning principles:

- Principle 1 - Each new lot created should be consistent with the objects of the zone in which it is located and strategic planning policies.
- Principle 2 - There is no net increase in the number of lots or dwelling entitlements.
- Principle 3 - Any new lots should not represent a major departure from the planning standard or major change in land use without full and adequate justification.
- Principle 4 - There should be no net increase in the risk of conflict between adjoining land uses and dwellings should be suitably separated from neighbouring land uses.
- Principle 5 - The location of new property boundaries should ensure optimal and balanced land resource access and utilisation.

### **Agricultural Issues**

The proposed Environmental Assessment should address:

- the agricultural and rural uses of the subject and adjoining lands,
- the agricultural values of the subject property including the site to be developed,
- the location, extent, duration and features of the associated activities,
- consistency of the proposal with relevant policies and guidelines,
- the impact of the proposal on future agricultural production,
- the impact of the proposal on any existing or former cattle tick dip sites,
- alternatives to the proposal,
- proposed rehabilitation measures and long term management/use of the subject lands,
- proposed exclusion of livestock from the operational area in the short term as well as during the rehabilitation phase,
- the compatibility of the operation with adjoining and nearby agricultural enterprises,
- management of any adverse impacts on water resources and other water users,
- management of any drainage, local flooding and flood behaviour impacts on agricultural enterprises and farm access,
- consultation with agencies, neighbours and community organisations and management of issues arising.

### **Mineral Resource Issues**

Mineral Resource issues are outlined in Attachment "M", and these should be addressed in the proposed EIS.

Should you have any further inquiries, please do not hesitate to contact:

- Mr Rik Whitehead in Wollongbar (Tel 6626 1349) for Agricultural issues.
- Mr Jeff Brownlow in Armidale (Tel 6738 8513) for Mineral Resource issues.

Yours faithfully,

IBL Paterson,  
A/Chief Geoscientist, Land Use

Encl. Attachment "M"

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**Mineral Resources NSW**

PO Box 344 Hunter Region Mail Centre NSW 2310  
516 High Street Maitland NSW 2320

[www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au)  
Tel: 02 4931 6666  
Fax: 02 4931 6790



Department of Water and Energy

The General Manager  
Lismore Shire Council  
PO Box 23A  
LISMORE NSW 2480

Contact: Brett McCulloch  
Phone: 0266 767381  
Fax: 0266 767388  
Email: [brett.mcculloch@dnr.nsw.gov.au](mailto:brett.mcculloch@dnr.nsw.gov.au)

Your Reference: DA08/233

Attn Natalie Black

11 August 2008

Attention: Natalie Black

**COPY**

Dear Sir/Madam

**DA No. 08/233  
Quarry Extension, Champions Quarry Tuckurimba**

I am writing with reference to DWE's interviews with Mr Jeff Champion and Mr Malcolm Scott regarding the above proposal on the 11 July 2008.

At the abovementioned interview, I advised Mr Champion and Mr Malcolm the following licensing requirements for the three proposed storages shown on the attached map:

- The MHRDC for the property upon which dams 1 and 2 are proposed to be located (Reavill Farm Pty Ltd) is 27.2 ML (megalitres).
- The MHRDC for the property (Tucki Hills Pty Ltd) upon which dam 3 is proposed to be located is 12.68 ML.
- The Department considers that Dam 2, which is proposed to be used as a primary re-use water storage, as per correspondence on 28 June 2008, exempt from licensing and calculation of use of harvestable right.
- The Department is of view that a license is required for Dam 1 in order that construction of a work with a potential storage capacity of 40 ML may be considered for approval. However, the top water level (TWL) of the storage must be set so that the holding capacity of the dam does not exceed the MHRDC for the property (27.2 ML). Any license issued would contain conditions limiting the storage capacity to the aggregate of the available MHRDC and "purchased" allocation.
- If the proponent wishes to use the full capacity of the storage, they must obtain an annual volumetric entitlement by purchasing an existing water license to the satisfaction of DWE.

I recommend the following conditions must be attached to the license:

Department of Water and Energy  
(Room 2/135, Muir St), PO Box 796, Murwillumbah NSW 2484  
Telephone: (02) 6676 7381

- The water level of the dam must be maintained by a pipe or similar regulator constructed through the dam wall.
- The holder of the license must construct through the dam a pipe fixed at not higher than 1 metre above the bed level with a diameter of not less than 100 mm fitted with a stop valve or other control device to the satisfaction of DWE.
- This pipe will be operated to maintain a flow in the watercourse downstream of the dam. If the holder of the license desires to raise the water level of the storage above the MHRDC they must obtain an annual volumetric entitlement from DWE.

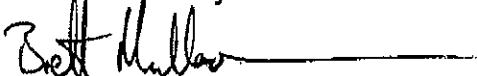
If the proponent wishes to extract water from the proposed dam 3 on neighbouring property (Tucki Hills Pty Ltd) they will require a license and the volume required must be purchased via a permanent transfer of water entitlement from an existing license. Furthermore, Tucki Hills Pty Ltd must provide permissive occupancy to Reavill Farm Pty Ltd to have an extraction work located at dam 3. Alternatively, Reavill Farm Pty Ltd could take a full lease over the neighbouring property so that the properties can be treated as one for harvestable rights purposes. In this case the proponent will not require a license if dam 3 is constructed to the MHRDC based on land area under lease.

As already mentioned to you in DWE's correspondence on 28 June 2008, the proponent will require a license if groundwater is intercepted or utilised in the proposed development (e.g. dewatering and industrial use) and will be conditional on the development of a groundwater management plan. The existing monitoring bores on the property are all licensed. However, an application form has been forwarded to the proponent for the windmill.

All comments regarding DWE's provision's for proposed works as stated in prior correspondence to you on 28 June 2008 that are unrelated to the abovementioned activity still stand (e.g. minor sediment basins & surface water drainage).

Should you wish to discuss any of the matters raised in this letter please contact Brett McCulloch on the above number.

Yours Sincerely



Brett McCulloch  
Licensing Officer  
Licensing (North)

our ref: HM:MJK: Q37 CI09/4245

Your Ref S07/00562-5; MP09-0080  
your ref:  
contact: Helen Manning

29 May 2009

Mr C Phillips  
Senior Planner  
Mining  
Major Project Assessment  
Department of Planning  
GPO Box 39  
SYDNEY 2001

Dear Mr Phillips

**Champions Quarry Project (MP09-0080)**

Reference is made to your letter of 13 May 2009, seeking Lismore City Council's input into the formulation of the Director-General's requirements for the above project. As you are aware, Lismore City Council at its meeting of 10 February 2009, considered Development Application No. 2008/233 for an expansion of the quarry and determined to refuse the application. Copies of Council's resolution and Notice of Determination are enclosed.

The Preliminary Environmental Assessment has been considered in relation to Council's concerns, as contained within its resolution. Of these matters, it is noted that the proponent intends to address traffic impacts, noise, dust and air quality, impacts on flora and fauna, soil and water, visual impacts, and Aboriginal cultural heritage. However, it is requested that the Environmental Assessment also address the following matters:

- the traffic impact assessment should assess the total number of trucks resulting on the haulage routes and the adequacy and appropriateness of the haulage routes to accommodate the level of heavy vehicles anticipated. Any deficiencies identified within haulage routes should be detailed and the relevant corrective action and timing for action identified within the assessment.
- compliance with adopted statutory planning controls in the Lismore Local Environmental Plan and Development Control Plan, specifically the objectives of the zone in which the quarry is situated, buffer requirements for quarries and the avoidance of land use conflict;
- effect of noise and vibration on fauna such as koalas in nearby areas;
- the economic impacts on eco-tourism businesses.

If you have any further enquiries in this matter, please contact the undersigned on (02) 6625 0565, between the hours of 8.30am and 10.00am, Monday to Friday.

Yours faithfully



Helen Manning  
Manager-Planning Services



# Council Minutes

## February 10, 2009

### Road Reconstruction & Maintenance

Formal notice having been given by Councillor Yarnall it was:

- 10/09 **RESOLVED** that Council holds a workshop on February 23 on the current funding and future schedule for road reconstruction and maintenance.  
(Councillors Yarnall/Clough) (S339:09-619)

## Reports

### Development Application No. 2008/233 – Champions Quarry

- 11/09 **RESOLVED** that the Councils Officer's Recommendation not be adopted and that the application be refused on the following grounds:

1. The development does not comply with the prescribed buffers in the Lismore Development Control Plan and will create land use conflict.
2. The development inconsistent with the relevant zone objectives in the Lismore Local Environment Plan 2000.
3. Traffic impacts are very significant and will have an unacceptable impact on the road network over the life of the quarry.
4. The development will generate unacceptable levels of noise especially during the proposed construction period. There is no consideration of the noise and vibration impacts on nearby fauna such as koalas.
5. The development will generate unacceptable levels of dust, including silica dust that poses health risk to adjoining residents and fauna.
6. The development may have impacts on flora and fauna. There has been insufficient investigation to determine the level of impact.
7. The development will have unacceptable impacts on water systems, soil stability and there is an inadequate rehabilitation plan.
8. Visual impacts will be significant and unacceptable for many people living in the area especially within the buffer zones.
9. The development may negatively impact on Aboriginal sites of archaeological and cultural significance.
10. The application does not address the economic impacts on eco tourist businesses.
11. This development cannot be held to comply with the public interest.  
(Councillors Clough/Smith)

### **Section 375A Voting Record**

**Voting For:** Councillors Dowell, Houston, Battista, Clough, Smith, Ekins and Yarnall

**Voting against:** Councillors Meineke, Marks, Chant and Graham

**NOTICE TO APPLICANT OF DETERMINATION OF A  
DEVELOPMENT APPLICATION**

**Environmental Planning and Assessment Act, 1979 (As Amended)**

Telephone: (02) 6625 0565

To: Champions Quarry  
PO Box 5261  
**EAST LISMORE NSW 2480**

**On behalf of Tucki Hills Pty Ltd.**

Being the applicant in respect of Development Application No. 2008/233.

**Expansion of existing Extractive Industry (Quarry) to an extraction rate of 120,000m<sup>3</sup> or approximately 200,000 tonnes per annum (average of 400,000 tonnes over any 2 year period) to a maximum of 5,000,000 tonnes or a 25 year period, and a subdivision (boundary alteration)**

Pursuant to Section 80(1) of the Environmental Planning and Assessment Act, notice is hereby given of the determination by the Council, as Consent Authority, of the Development Application lodged 09/05/2008 relating to the land described as follows:

**DP 857530 lot 5, 94 Hazlemount Lane TUCKURIMBA  
DP 729118 lot 1, 1586A Wyrallah Road TUCKI TUCKI  
DP 588125 lot 4, 1586 Wyrallah Road TUCKI TUCKI  
DP 1013042 lot 183, 1692 Wyrallah Road TUCKURIMBA  
DP 127550 lot 1, 1694 Wyrallah Road TUCKURIMBA  
DP 755746 lot 101, 1782F Wyrallah Road TUCKURIMBA**

Date of Determination: **10 February 2009**

The Development Application has been determined by **REFUSING** of Consent.

Council's Resolution No. 11/09 **RESOLVED** that the Councils Officer's Recommendation not be adopted and that the application be refused on the following grounds:

1. The development does not comply with the prescribed buffers in the Lismore Development Control Plan and will create land use conflict.
2. The development is inconsistent with the relevant zone objectives in the Lismore Local Environment Plan 2000.
3. Traffic impacts are very significant and will have an unacceptable impact on the road network over the life of the quarry.



4. The development will generate unacceptable levels of noise especially during the proposed construction period. There is no consideration of the noise and vibration impacts on nearby fauna such as koalas.
5. The development will generate unacceptable levels of dust, including silica dust that poses health risk to adjoining residents and fauna.
6. The development may have impacts on flora and fauna. There has been insufficient investigation to determine the level of impact.
7. The development will have unacceptable impacts on water systems, soil stability and there is an inadequate rehabilitation plan.
8. Visual impacts will be significant and unacceptable for many people living in the area especially within the buffer zones.
9. The development may negatively impact on Aboriginal sites of archaeological and cultural significance.
10. The application does not address the economic impacts on eco tourist businesses.
11. This development cannot be held to comply with the public interest.

#### **RIGHT OF APPEAL**

If you are dissatisfied with this decision, Section 97 of the Environmental Planning and Assessment Act 1979 gives you the right to appeal to the Land and Environment Court within 12 months after the date on which you receive this notice.

#### **REVIEW OF DETERMINATION**

Under the provisions of Section 82A of the Environmental Planning and Assessment Act 1979 (as amended), an applicant may request the Council to review a determination of the application. The request for a review must be made within twelve (12) months after the date of the determination.

For and on behalf of Lismore City Council.

Paul G. O'Sullivan  
**General Manager**

Copy to: Tucki Hills Pty Ltd, Hazlemount Lane, TUCKURIMBA NSW 2480



## Department of Water and Energy

Contact: Patrick Pahlow  
Phone: 0266 767386  
Fax: 0266 767388  
Email: Patrick.pahlow@dnr.nsw.gov.au

Your Reference: DA08/233

The General Manager  
Lismore Shire Council  
PO Box 23A  
LISMORE NSW 2480

Attn Natalie Black

28 June 2008

### **Attention: Natalie Black**

Dear Sir/Madam

#### **DA No.08/233 Quarry Extention, Champions Quarry Tuckurimba**

In reference to the above proposal DWE makes the following comments:

#### **Groundwater:**

The quarrying is proposed to lower the surface to 10mAHD on the slope of a small localised knoll which will bring the outer quarry edge to level with the surrounding land.

This will result in the intersection and local dewatering of the shallow water table above 10mAHD within the local area. It is not expected that this local dewatering will impact any shallow groundwater users. Local recharge may increase down gradient shallow water levels as a result of the quarrying operation and long term ponding. It is not expected that any deep groundwater users will be impacted by the quarrying operations however monitoring should be undertaken to confirm this.

DWE advises that the proposed development will require a dewatering licence as well as an industrial use licence should groundwater from the quarry be used for any purpose.

The issue of any licence will be conditional on the development of a groundwater management plan as proposed in Appendix 7 of the EIS, that is acceptable by DWE.

Please advise the applicant to contact DWE to discuss the licensing requirements for the existing windmill and monitoring bores on site.



## Department of Water and Energy

### Surface water:

DWE notes the proponent intends to construct a number of minor sediment basins and three major storages on the property to provide a sediment control and water supply to the proposed quarry operation. The proponent intends to construct these works on second order watercourses rising within the property as indicated of the plans provided.

It is further noted that storage capacities nominated in the documents are:

- Dam 1 located at the North of the development - capacity of 20 megalitres
- Dam 2 located toward the East of the development – capacity 40 megalitres
- Dam 3 located at the South of the development – capacity 40 megalitres

The Harvestable Right provisions of the Water management Act 2000 (WMA) allow landholders to collect and store up to 10% of the annual rainfall run-off from their lands and store this water in one or more dams for basic farming needs without the need for a license. In circumstances where the property (of contiguous Lots) is of sufficient size the Harvestable Right Dam Capacity may be significant allowing the landholder to carry on a variety of activities. In this case the property area is nominated at 187.86 hectares with a climatic zone factor of 0.12 providing an Maximum Harvestable Right Dam Capacity (MHRDC) of 22.54 megalitres. The actual volume available therefore is the MHRDC less the capacity of any existing works located on the property.

The Farm Dam Policy underpinning the harvestable right provisions of the Water Management Act 2000 contains exemptions from harvestable right calculations for specific classes of dam. A description of the exempt classes of dam is contained in Orders under section 54 of the Water Management Act 2000 published in the Gazette on 31<sup>st</sup> March 2006.

The EIS appears to be partly reliant on the exemption for dams solely for the capture, containment and recirculation of drainage and or effluent.

In this light, the proposal also details the construction of a number of sediment basins within the quarry area. These works (nine in all) would be considered as exempt works as they are designed to remove unwanted sediments from run-off leaving the site.

- In the case of **Dam 1** (20 megalitres) nominated on the plan this could be considered as a work to which the harvestable right provisions of the Water management Act 2000 could apply. The actual size of this work would be dependant on the volume of other storages located on the property



## Department of Water and Energy

- In the case of **Dam 2** (40 megalitres) it is possible this work falls within the exempt class of dam, however, the exemption would extend to the volume required to accommodate the actual working area, not the catchment area. The volume retained in excess of the “effluent containment volume” would require a license. Volumetric Entitlement would need to be sourced on the trading market and a permanent transfer undertaken. The applicant should be advised that any application to transfer an entitlement will be subject of further environmental assessment.
- In the case of **Dam 3** (40 megalitres) as this work derives no flow from the workings site an exemption could not be applied. In this case a license would be required and any volume so required would need to be sourced on the trading market and a permanent transfer undertaken. Again this transfer application will be subject to further environmental assessment.

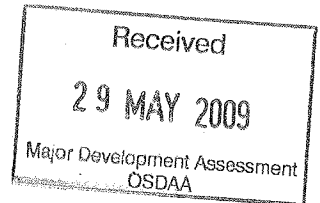
The proposal calls for the installation of a surface water drainage system to reroute fresh water around from the work site. As there is no involvement of a river, as defined by the Water Act 1912, specific authorisation of these works is not required.

Should you wish to discuss any of the matters raised in this letter please contact Patrick Pahlow on the above number.

Yours sincerely

Patrick Pahlow  
Senior Natural Resource Project Officer  
Licensing North

Your reference: MP09\_0080  
Our reference: DOC09/23119 FIL08/16580-06  
Contact: Chris Hatton



Mr Colin Phillips  
NSW Department of Planning  
Major Projects Assessments – Mining  
GPO Box 39  
SYDNEY NSW 2001

27 MAY 2009

Dear Mr Phillips,

**Request for provision of details of Key Issues and Assessment Requirements – Proposed expansion of Champions Quarry (Reavill Farm Pty Ltd and Tucki Hills Pty Ltd)**

Thank you for your letter dated 13 May 2009 requesting the Department of Environment and Climate Change (DECC) review the draft Preliminary Assessment for the above proposal.

DECC has considered the details of the project as provided by the Applicant and has identified the information it requires to assess the project concept plan in Attachment A. The proponent should ensure that the EA is sufficiently comprehensive and detailed to determine the extent of the impact of the proposal.

In summary, DECC's recommended key information requirements for the project are:

1. the impacts on local air quality;
2. the impacts created by noise and vibration;
3. the impacts on local surface water quality;
4. the impacts of the project on threatened species and their habitat;
5. the impacts of the project on Aboriginal cultural heritage values, and;
6. the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts identified in 1-5 above.

Should you require any further information please contact Chris Hatton on 66402508.

Yours sincerely

A handwritten signature in black ink, appearing to read "Jon Keats".

**JON KEATS**  
**Head Industry and Waste Unit North Coast**  
**Environment Protection and Regulation Group**

Att: Attachment A - DECC EA Requirements  
Attachment B - Guidance Material

Department of **Environment and Climate Change** NSW



## **Attachment A – Department of Environment and Climate Change Environmental Assessment Requirements**

### **Environmental impacts of the project**

1. The following environmental impacts of the project need to be assessed, quantified and reported on:
  - Air quality
  - Noise and vibration
  - Water quality
  - Threatened species
  - Aboriginal cultural heritage
2. These should be assessed in accordance with the relevant guidelines listed in Attachment B.
3. Describe mitigation and management options that will be used to prevent, control, abate or mitigate identified environmental impacts associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
4. Based on the information provided to the Department of Environment and Climate Change (DECC), the applicant will not require an Environment Protection Licence because the activity is not scheduled under the *Protection of the Environment Operations Act 1997*.

### **Air Quality**

#### ***Describe baseline conditions***

- Provide a description of existing air quality and meteorology, using existing information and site representative ambient monitoring data.

#### ***Assess impacts***

- Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source and discharge point.
- Estimate the resulting ground level concentrations of all pollutants. Where necessary (eg potentially significant impacts and complex terrain effects), use an appropriate dispersion model to estimate ambient pollutant concentrations.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution that the development will make to regional pollution, particularly in sensitive locations.
- Reference should be made to *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW* (EPA, 2001); *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* (EPA, 2001).

#### ***Describe management and mitigation measures***

- Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.

## **Noise and vibration**

A Noise Impact Assessment (NIA) for the proposal must be conducted by an appropriately qualified acoustics consultant. The NIA must be conducted in accordance with the State Government's *Industrial Noise Policy* (INP) and include the following:

### ***Describe baseline conditions***

- Determine the existing background ( $L_{A90}$ ) and ambient ( $L_{Aeq}$ ) noise levels in accordance with the *NSW Industrial Noise Policy*.
- Determine the existing road traffic noise levels in accordance with the *NSW Environmental Criteria for Road Traffic Noise*, where road traffic noise impacts may occur.
- The noise impact assessment report should provide details of all monitoring of existing ambient noise levels including:
  - a) details of equipment used for the measurements
  - b) a brief description of where the equipment was positioned
  - c) a statement justifying the choice of monitoring site, including the procedure used to choose the site, having regards to the definition of 'noise sensitive locations(s)' and 'most affected locations(s)' described in Section 3.1.2 of the *NSW Industrial Noise Policy*
  - d) details of the exact location of the monitoring site and a description of land uses in surrounding areas
  - e) a description of the dominant and background noise sources at the site
  - f) day, evening and night assessment background levels for each day of the monitoring period
  - g) the final Rating Background Level (RBL) value
  - h) graphs of the measured noise levels for each day should be provided
  - i) a record of periods of affected data (due to adverse weather and extraneous noise), methods used to exclude invalid data and a statement indicating the need for any re-monitoring under Step 1 in Section B1.3 of the *NSW Industrial Noise Policy*
  - j) determination of  $L_{Aeq}$  noise levels from existing industry.

### ***Assess impacts***

- Determine the project specific noise levels for the site. For each identified potentially affected receiver, this should include:
  - a) determination of the intrusive criterion for each identified potentially affected receiver
  - b) selection and justification of the appropriate amenity category for each identified potentially affected receiver
  - c) determination of the amenity criterion for each receiver
  - d) determination of the appropriate sleep disturbance limit.
- Maximum noise levels during night-time period (10pm-7am) should be assessed to analyse possible effects on sleep. Where  $L_{A1(1min)}$  noise levels from the site are less than 15 dB above the background  $L_{A90}$  noise level, sleep disturbance impacts are unlikely. Where this is not the case, further analysis is required. Additional guidance is provided in Appendix B of the *NSW Environmental Criteria for Road Traffic Noise*.
- Determine expected noise level and noise character (eg tonality, impulsiveness, vibration, etc) likely to be generated from noise sources during:
  - a) site establishment
  - b) construction
  - c) operational phases
  - d) transport including traffic noise generated by the proposal
  - e) other services.



Notes:

1. The noise impact assessment report should include noise source data for each source in 1/1 or 1/3 octave band frequencies including methods for references used to determine noise source levels. Noise source levels and characteristics can be sourced from direct measurement of similar activities or from literature (if full references are provided).
  2. The intermittent use of any high noise generating equipment proposed to be used (such as rocksaws and jackhammers) will need to be carefully addressed in the NIA. Regardless of whether such equipment operates for a small percentage of total annual operating hours, Project Specific Noise Limits (PSNL) must be based on the  $LA_{eq,15\text{minute}}$  criterion. It will therefore need to be demonstrated in the NIA that any such equipment will be utilised and managed in a way that complies with the PSNL.
  3. The noise impacts of overburden stripping and noise mitigation bunding should not be assessed as 'construction works' where such stripping/bunding works are conducted periodically and progressively across a site. Works of this nature need to be addressed fully in the NIA in accordance with the INP, rather than under the *Draft NSW Construction Noise Guideline (DECC, August 2008)*.
  4. Commitments and assumptions made as to the quarrying approach, operating conditions, equipment (including sound power levels) and personnel must be clearly justified in the NIA as practicable and realistic for the actual quarrying activity proposed. Inputs to noise modelling must be accompanied by clear and definitive supporting information. The modelling must be based on the reasonable worst-case scenario and, importantly, on the extent to which the proponent can effectively and practically control the actual operation to remain within the parameters of the modelling scenarios, and hence within the PSNL.
- Determine the noise levels likely to be received at the most sensitive locations (these may vary for different activities at each phase of the development). Potential impacts should be determined for any identified significant adverse meteorological conditions. Predicted noise levels under calm conditions may also aid in quantifying the extent of impact where this is not the most adverse condition.
  - The noise impact assessment report should include:
    - a) a plan showing the assumed location of each noise source for each prediction scenario
    - b) a list of the number and type of noise sources used in each prediction scenario to simulate all potential significant operating conditions on the site
    - c) any assumptions made in the predictions in terms of source heights, directivity effects, shielding from topography, buildings or barriers, etc
    - d) methods used to predict noise impacts including identification of any noise models used. Where modelling approaches other than the use of the ENM or SoundPlan computer models are adopted, the approach should be appropriately justified and validated
    - e) an assessment of appropriate weather conditions for the noise predictions including reference to any weather data used to justify the assumed conditions
    - f) the predicted noise impacts from each noise source as well as the combined noise level for each prediction scenario under any identified significant adverse weather conditions as well as calm conditions where appropriate
    - g) for developments where a significant level of noise impact is likely to occur, noise contours for the key prediction scenarios should be derived
    - h) an assessment of the need to include modification factors as detailed in Section 4 of the *NSW Industrial Noise Policy*.
  - Discuss the findings from the predictive modelling and, where relevant noise criteria have not been met, recommend additional mitigation measures.
  - The noise impact assessment report should include details of any mitigation proposed including the attenuation that will be achieved and the revised noise impact predictions following mitigation.

- Where relevant noise/vibration criteria cannot be met after application of all feasible and cost effective mitigation measures the residual level of noise impact needs to be quantified by identifying:
  - a) locations where the noise level exceeds the criteria and extent of exceedance
  - b) numbers of people (or areas) affected
  - c) times when criteria will be exceeded
  - d) likely impact on activities (speech, sleep, relaxation, listening, etc)
  - e) change on ambient conditions
  - f) the result of any community consultation or negotiated agreement.
- For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EA.
- Where blasting is intended an assessment in accordance with the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration* (ANZECC, 1990) should be undertaken. The following details of the blast design should be included in the noise assessment:
  - a) bench height, burden spacing, spacing burden ratio
  - b) blast hole diameter, inclination and spacing
  - c) type of explosive, maximum instantaneous charge, initiation, blast block size, blast frequency.

### ***Describe management and mitigation measures***

- Determine the most appropriate noise mitigation measures and expected noise reduction including both noise controls and management of impacts for both construction and operational noise. This will include selecting quiet equipment and construction methods, noise barriers or acoustic screens, location of stockpiles, temporary offices, compounds and vehicle routes, scheduling of activities, etc.
- For traffic noise impacts, provide a description of the ameliorative measures considered (if required), reasons for inclusion or exclusion, and procedures for calculation of noise levels including ameliorative measures. Also include, where necessary, a discussion of any potential problems associated with the proposed ameliorative measures, such as overshadowing effects from barriers. Appropriate ameliorative measures may include:
  - a) use of alternative transportation modes, alternative routes, or other methods of avoiding the new road usage
  - b) control of traffic (eg: limiting times of access or speed limitations)
  - c) resurfacing of the road using a quiet surface
  - d) use of (additional) noise barriers or bunds
  - e) treatment of the façade to reduce internal noise levels buildings where the night-time criteria is a major concern
  - f) more stringent limits for noise emission from vehicles (i.e. using specially designed 'quite' trucks and/or trucks to use air bag suspension
  - g) driver education
  - h) appropriate truck routes
  - i) limit usage of exhaust breaks
  - j) use of premium mufflers on trucks
  - k) reducing speed limits for trucks
  - l) ongoing community liaison and monitoring of complaints
  - m) phasing in the increased road use.

## **Water**

### ***Describe baseline conditions***

- Describe existing surface and groundwater quality – an assessment needs to be undertaken for any water resource likely to be affected by the proposal and for all conditions (e.g. a wet weather sampling program is needed if runoff events may cause impacts).

*Note: Methods of sampling and analysis need to conform with an accepted standard (e.g. Approved Meth.*

- Provide site drainage details and surface runoff yield.
- State the ambient Water Quality and River Flow Objectives for the receiving waters. These refer to the community's agreed environmental values and human uses endorsed by the Government as goals for the ambient waters. These environmental values are published on the website: [www.environment.nsw.gov.au/ieo](http://www.environment.nsw.gov.au/ieo). The EA should state the environmental values listed for the catchment and waterway type relevant to your proposal. NB: A consolidated and approved list of environmental values is not available for groundwater resources. Where groundwater may be affected the EA should identify appropriate groundwater environmental values and justify the choice.
- State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC 2000 *Guidelines for Fresh and Marine Water Quality* (<http://www.deh.gov.au/water/quality/nwqms/volume1.html>) (Note that, as at 2004, the NSW Water Quality Objectives booklets and website contain technical criteria derived from the 1992 version of the ANZECC Guidelines. The Water Quality Objectives remain as Government Policy, reflecting the community's environmental values and long-term goals, but the technical criteria are replaced by the more recent ANZECC 2000 Guidelines). NB: While specific guidelines for groundwater are not available, the ANZECC 2000 Guidelines endorse the application of the trigger values and decision trees as a tool to assess risk to environmental values in groundwater.
- State any locally specific objectives, criteria or targets, which have been endorsed by the government e.g. the Healthy Rivers Commission Inquiries ([www.hrc.nsw.gov.au](http://www.hrc.nsw.gov.au)) or the NSW Salinity Strategy (DLWC, 2000) ([www.dlwc.nsw.gov.au/care/salinity/#Strategy](http://www.dlwc.nsw.gov.au/care/salinity/#Strategy)).
- Where site specific studies are proposed to revise the trigger values supporting the ambient Water Quality and River Flow Objectives, and the results are to be used for regulatory purposes (e.g. to assess whether a licensed discharge impacts on water quality objectives), then prior agreement from the DECC on the approach and study design must be obtained.
- Describe the state of the receiving waters and relate this to the relevant Water Quality and River Flow Objectives (i.e. are Water Quality and River Flow Objectives being achieved?). Proponents are generally only expected to source available data and information. However, proponents of large or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could include:
  - a) lake or estuary flushing characteristics
  - b) specific human uses (e.g. exact location of drinking water offtake)
  - c) sensitive ecosystems or species conservation values
  - d) a description of the condition of the local catchment e.g. erosion levels, soils, vegetation cover, etc
  - e) an outline of baseline groundwater information, including, but not restricted to, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
  - f) historic river flow data where available for the catchment.

## Assess impacts

- No proposal should breach clause 120 of the *Protection of the Environment Operations Act* 1997 (i.e. pollution of waters is prohibited unless undertaken in accordance with relevant regulations).
- Identify and estimate the quantity of all pollutants that may be introduced into the water cycle by source and discharge point including residual discharges after mitigation measures are implemented.
- Include a rationale, along with relevant calculations, supporting the prediction of the discharges.
- Describe the effects and significance of any pollutant loads on the receiving environment. This should include impacts of residual discharges through modelling, monitoring or both, depending on the scale of the proposal. Determine changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, wetland hydrologic regimes and groundwater).
- Describe water quality impacts resulting from changes to hydrologic flow regimes (such as nutrient enrichment or turbidity resulting from changes in frequency and magnitude of stream flow).
- Identify any potential impacts on quality or quantity of groundwater describing their source.
- Identify potential impacts associated with geomorphological activities with potential to increase surface water and sediment runoff or to reduce surface runoff and sediment transport. Also consider possible impacts such as bed lowering, bank lowering, instream siltation, floodplain erosion and floodplain siltation.
- Identify impacts associated with the disturbance of acid sulfate soils and potential acid sulfate soils.
- Containment of spills and leaks shall be in accordance with the technical guidelines section 'Bunding and Spill Management' of the *Authorised Officers Manual* (EPA, 1995) (<http://www.environment.nsw.gov.au/mao/bundingspill.htm>) and the most recent versions of the Australian Standards referred to in the Guidelines. Containment should be designed for no-discharge.
- The significance of the impacts listed above should be predicted. When doing this it is important to predict the ambient water quality and river flow outcomes associated with the proposal and to demonstrate whether these are acceptable in terms of achieving protection of the Water Quality and River Flow Objectives. In particular the following questions should be answered:
  - a) will the proposal protect Water Quality and River Flow Objectives where they are currently achieved in the ambient waters; and
  - b) will the proposal contribute towards the achievement of Water Quality and River Flow Objectives over time, where they are not currently achieved in the ambient waters.
- Consult with the DEC as soon as possible if a mixing zone is proposed (a mixing zone could exist where effluent is discharged into a receiving water body, where the quality of the water being discharged does not immediately meet water quality objectives. The mixing zone could result in dilution, assimilation and decay of the effluent to allow water quality objectives to be met further downstream, at the edge of the mixing zone). The DEC will advise the proponent under what conditions a mixing zone will and will not be acceptable, as well as the information and modelling requirements for assessment.
 

Note: The assessment of water quality impacts needs to be undertaken in a total catchment management context to provide a wide perspective on development impacts, in particular cumulative impacts.
- Where a licensed discharge is proposed, provide the rationale as to why it cannot be avoided through application of a reasonable level of performance, using available technology, management practice and industry guidelines.

- Where a licensed discharge is proposed, provide the rationale as to why it represents the best environmental outcome and what measures can be taken to reduce its environmental impact.
- Reference should be made to *Managing Urban Stormwater- Soils and Construction* (Landcom, 2004), *Guidelines for Fresh and Marine Water Quality* ANZECC 2000).

### ***Describe management and mitigation measures***

A Soil & Water Management Plan should be developed which outlines all management and mitigation measures relating to stormwater management and erosion control. The Soil & Water Management Plan should:

- Outline stormwater management to control pollutants at the source and contain them within the site. Also describe measures for maintaining and monitoring any stormwater controls.
- Outline erosion and sediment control measures directed at minimising disturbance of land, minimising water flow through the site and filtering, trapping or detaining sediment. Also include measures to maintain and monitor controls as well as rehabilitation strategies.
- Describe waste water treatment measures that are appropriate to the type and volume of waste water and are based on a hierarchy of avoiding generation of waste water; capturing all contaminated water (including stormwater) on the site; reusing/recycling waste water; and treating any unavoidable discharge from the site to meet specified water quality requirements.
- Outline pollution control measures relating to storage of materials, possibility of accidental spills (eg preparation of contingency plans), appropriate disposal methods, and generation of leachate.
- Describe hydrological impact mitigation measures including:
  - a) site selection (avoiding sites prone to flooding and waterlogging, actively eroding or affected by deposition)
  - b) minimising runoff
  - c) minimising reductions or modifications to flow regimes
  - d) avoiding modifications to groundwater.
- Describe groundwater impact mitigation measures including:
  - a) site selection
  - b) retention of native vegetation and revegetation
  - c) artificial recharge
  - d) providing surface storages with impervious linings
  - e) monitoring program.
- Describe geomorphological impact mitigation measures including:
  - a) site selection
  - b) erosion and sediment controls
  - c) minimising in-stream works
  - d) treating existing accelerated erosion and deposition
  - e) monitoring program.
- Any proposed monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (DEC 2004).

## **Threatened species and their habitat**

### **Vegetation Clearing and Modification To Hydrological Regimes**

The vegetation on site has the potential to support threatened flora and fauna species. Any identified threatened species should be discussed in detail.

1. A field survey of the site should be conducted and documented in accordance with the draft "Guideline for threatened species assessment" and "Threatened Biodiversity and Threatened Species Assessment – Guideline For Developments and Activities".
2. Likely impacts on threatened species and their habitat need to be assessed, evaluated and reported on. The assessment should specifically report on the considerations listed in Step 3 of the draft guideline.
3. The potential for the proposal to exacerbate any Key Threatening Processes listed under the NSW *Threatened Species Conservation Act 1995*. Particular reference should be made to the potential for "loss and/or degradation of sites used for hill-topping by butterflies".
4. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on threatened species and their habitat. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
5. The EA needs to clearly state whether it meets each of the key thresholds set out in Step 5 of the draft guideline.

### **Aboriginal cultural heritage values**

1. The EA should address and document the information requirements set out in the draft "Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation" involving surveys and consultation with the Aboriginal community.
2. Identify the nature and extent of impacts on Aboriginal cultural heritage values across the project area.
3. The extent and significance of this site will need to be assessed and preferably any development in this area would avoid disturbance of the site.
4. Describe the actions that will be taken to avoid or mitigate impacts or compensate to prevent unavoidable impacts of the project on Aboriginal cultural heritage values. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
5. The EA needs to clearly demonstrate that effective community consultation with Aboriginal communities has been undertaken in determining and assessing impacts, developing options and making final recommendations.

## Attachment B - Guidance Material

### **Water quality**

- National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000)
- NWQMS Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC 2000)
- Healthy Rivers Commission Report into Coastal Lakes and Statement of Joint Intent
- The relevant targets within the State Water Management Outcomes Plan

### **Stormwater**

- Managing Urban Stormwater: Soils and Construction (DECC 2009)
- Managing Urban Stormwater: Harvest and Re-use (DEC 2006)  
( Both publications available from:  
<http://www.environment.nsw.gov.au/stormwater/publications.htm> )

### **Noise and vibration**

- NSW Industrial Noise Policy (EPA, 1999)
- NSW Environmental Criteria for Road Traffic Noise (EPA, 1999)
- Chapter 171 Noise Control Guideline, *Construction Site Noise, Environmental Noise Control Manual, 1994; NSW Construction Noise Guideline (DECC, August 2008).*

### **Threatened Species Impacts**

- Threatened Biodiversity and Threatened Species Assessment – Guideline For Developments and Activities – Working Draft 2004. Updated section now available on Amphibians – refer to website:  
<http://www.environment.nsw.gov.au/threatenedspecies/surveyassessmentgdlns.htm>
- Draft Guidelines For Threatened Species Assessment - Available from Department of Planning.

### **Assessing Aboriginal Cultural Heritage Impacts**

- Draft Guidelines For Aboriginal Cultural Heritage Impact Assessment and Community Consultation - Available from Dept of Planning
- Interim Community Consultation Requirements for Applicants
- Aboriginal Cultural Heritage Standards and Guidelines Kit





Mr Carl Dumpleton  
Major Assessments (Mining)  
Department of Planning  
GPO Box 39  
Sydney NSW 2001

Contact: Rod Browne  
Phone: (02) 6740 2347  
Fax: (02) 6742 3129  
Email: [rod.browne@dnr.nsw.gov.au](mailto:rod.browne@dnr.nsw.gov.au)

Our ref: ER 20625  
Your ref: MP 09\_0080  
File: 9051814

2<sup>nd</sup> June 2009

Dear Mr Dumpleton,

**MP 09\_0080, Champion's Quarry Expansion, Tuckurimba  
Key Issues and Assessment Requirements**

I refer to your letter of 13<sup>th</sup> May 2009 seeking this Department's (DWE's) issues of concern and requirements for attention in the Environmental Assessment (EA) for this development proposal for a major expansion of a crushed sandstone quarry south of Lismore.

This proposal is a modification of former expansion applications over recent years, most recently DA 2008/233 to Lismore City Council (LCC). The proposed expansion to a 16 ha site and the extraction of 6.25 m tonnes over 25 years, as indicated in the Preliminary Environmental Assessment (PEA), entails a significant modification to the site and local landform. This quantity of extraction equates to a volumetric size of between 2.5 and 3 million m<sup>3</sup>, which over a 16 ha area, would mean a vertical extraction of between 15 and 20 metres. Given that some of the site area will be used for processing and water management, the extraction depth will be deeper. The PEA suggests the final extraction depth will be at or above 8m AHD(?) but it is not clear how this height relates to surrounding land or the nearby floodplain.

There are a number of water management issues that require attention in the EA, many of which were conveyed to LCC to assist in the preparation of the previous Environmental Impact Statement. Copies of 2 previous DWE responses are attached, and they remain relevant to the current proposal. DWE's general requirements for Part 3A proposals are provided below, but the matters of particular interest for this project are as follows.

- The EA should include a comprehensive outline of proposed water management on the site, including the details, dimensions, capacities and purpose of structures, and the sources and quantities of any water supply or process water including groundwater. Requirements for licensing under water legislation should be considered.
- The EA should clearly indicate the proposed extraction depths and final landform in relation to surrounding land, and any likely impacts of the proposal on local drainage, water quality, and flooding.
- The EA should contain a comprehensive description of the groundwater regime beneath the site, including the prevailing depths of water tables, the extent of likely groundwater interception and inflows expected, and the extent, volumes, and discharge destination, of

any dewatering proposed. This information will be essential for licensing considerations, and should include the results from the 4 monitoring bores already installed at the site. The likely impacts on any surrounding groundwater users should be addressed

- The EA should include post extraction rehabilitation and the final land use for the site. It should be noted that DWE's strong preference is for final landforms not to penetrate below the prevailing water table resulting in a remnant water body connected with the aquifer. Where deep water bodies are proposed they are required to be effectively sealed, to minimise the risk of groundwater contamination, and to avoid a source of permanent evaporative loss.

Please contact me if you wish to clarify or discuss any of the above.

Yours sincerely,

Rod Browne  
Senior Planning and Assessment Coordinator  
Major Projects & Planning

## Department of Water and Energy

### General Assessment Requirements for Major Project Proposals Under Part 3A of *Environmental Planning & Assessment Act 1979*

The Department of Water and Energy (DWE) provides the following advice for consideration:

#### Relevant Legislation

The assessment is required to take into account the requirements of the following legislation (administered by DWE), as applicable:

- *Water Act 1912*
- *Water Management Act 2000 (WMA)*

In particular, proposals and management plans should be consistent with the Objects (s.3) and Water Management Principles (s.5) of the *WMA*.

#### Water Sharing Plans

Gazetted Water Sharing Plans (WSPs) prepared under the provisions of the *WMA* establish rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. If the proposal is within a gazetted WSP area the assessment is required to demonstrate consistency with the rules of the WSP. Refer to: <http://www.dnr.nsw.gov.au/water/plans.shtml>

#### Relevant Policies

The assessment is required to take into account the following NSW Government policies, as applicable:

- *NSW Groundwater Policy Framework Document - General*
- *NSW Groundwater Quantity Management Policy*
- *NSW Groundwater Quality Protection Policy*
- *NSW State Groundwater Dependent Ecosystem Policy*
- *NSW State Rivers and Estuaries Policy*
- *NSW Sand and Gravel Extraction Policy for Non-Tidal Rivers*
- *NSW Wetlands Management Policy*
- *NSW Farm Dams Policy*
- *NSW Weirs Policy*

In addition assessments should consider the following strategies:

- *NSW Salinity Strategy*
- *NSW Water Conservation Strategy*

The majority of these documents can be found at:

<http://www.dnr.nsw.gov.au/water/legislation.shtml>

#### Guidelines

The assessment is required to take into account the following DWE Guidelines for Controlled Activities (February 2008), as applicable:

- Riparian corridors (and associated Vegetation Management Plans)
- Watercourse crossings
- Laying pipes and cables in watercourses
- Outlet structures
- In-stream works

Refer to: [http://www.dnr.nsw.gov.au/water/controlled\\_activity.shtml](http://www.dnr.nsw.gov.au/water/controlled_activity.shtml)

#### Groundwater

DWE is responsible for the management of groundwater resources so they can sustain environmental, social and economic uses for the people of New South Wales.

### Groundwater Source

The assessment is required to identify groundwater issues and potential degradation to the groundwater source and provide the following:

- Details of the predicted highest groundwater table at the development site.
- Details of any works likely to intercept, connect with or infiltrate the groundwater sources.
- Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes.
- Describe the flow directions and rates and the physical and chemical characteristics of the groundwater source.
- Details of the predicted impacts of any final landform on the groundwater regime.
- Details of the existing groundwater users within the area (including the environment) and include details of any potential impacts on these users.
- Assessment of the quality of the groundwater for the local groundwater catchment.
- Details of how the proposed development will not potentially diminish the current quality of groundwater, both in the short and long term.
- Details on preventing groundwater pollution so that remediation is not required.
- Details on protective measures for any groundwater dependent ecosystems (GDEs).
- Details of proposed methods of the disposal of waste water and approval from the relevant authority.
- Assessment of the need for an Acid Sulfate Management Plan (prepared in accordance with ASSMAC guidelines).
- Assessment of the potential for saline intrusion of the groundwater and measures to prevent such intrusion into the groundwater aquifer.
- Details of the results of any models or predictive tools used.

Where potential impact/s are identified the assessment will need to identify limits to the level of impact and contingency measures that would remediate, reduce or manage potential impacts to the existing groundwater resource and any dependent groundwater environment or water users, including information on:

- Details of any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.
- An assessment of any groundwater source/aquifer that may be sterilised as a consequence of the proposal.
- Identification of any nominal thresholds as to the level of impact beyond which remedial measures or contingency plans would be initiated (this may entail water level triggers or a beneficial use category).
- Description of the remedial measures or contingency plans proposed.
- Any funding assurances covering the anticipated post development maintenance cost, for example on-going groundwater monitoring for the nominated period.

### Licensing

All proposed groundwater works, including bores for the purpose of investigation, extraction, dewatering, testing or monitoring must be identified in the proposal and an approval obtained from DWE prior to their installation.

### Groundwater Dependent Ecosystems (GDEs)

The assessment is required to identify any impacts on GDEs.

GDEs are ecosystems which have their species composition and natural ecological processes wholly or partially determined by groundwater. GDEs represent a vital component of the natural

environment. GDEs can vary dramatically in how they depend on groundwater from having occasional or no apparent dependence through to being entirely dependent. GDEs occur across both the surface and subsurface landscapes ranging in area from a few metres to many kilometres. Increasingly, it is being recognised that surface and groundwaters are often interlinked and aquatic ecosystems may have a dependence on both.

Ecosystems that can depend on groundwater and that may support threatened or endangered species, communities and populations, include:

- Terrestrial vegetation that show seasonal or episodic reliance on groundwater.
- River base flow systems which are aquatic and riparian ecosystems in or adjacent to streams/rivers dependent on the input of groundwater to base flows.
- Aquifer and cave ecosystems.
- Wetlands.
- Estuarine and near-shore marine discharge ecosystems.
- Fauna which directly depend on groundwater as a source of drinking water or that live within water which provide a source.

The *NSW Groundwater Dependent Ecosystem Policy* provides guidance on the protection and management of GDEs. It sets out management objectives and principles to:

- Ensure the most vulnerable and valuable ecosystems are protected.
- Manage groundwater extraction within defined limits thereby providing flow sufficient to sustain ecological processes and maintain biodiversity.
- Ensure sufficient groundwater of suitable quality is available to ecosystems when needed.
- Ensure the *precautionary principle* is applied to protect GDEs, particularly the dynamics of flow and availability and the species reliant on these attributes.

A number of gazetted WSP list and map priority GDEs and set out the management strategies and actions for sharing and protecting groundwater quality, quantity and dependent ecosystems.

### **Surface Waters**

DWE is responsible for the sustainable management of rivers, estuaries, wetlands and adjacent riverine plains.

#### Watercourse/Riparian

The assessment is required to consider the impact of the proposal on the watercourses and associated riparian vegetation within the site and provide the following:

- Identify the sources of surface water.
- Details of stream order (using the Strahler System).
- Details of any proposed surface water extraction, including purpose, location of existing pumps, dams, diversions, cuttings and levees.
- Detailed description of any proposed development or diversion works including all construction, clearing, draining, excavation and filling.
- An evaluation of the proposed methods of excavation, construction and material placement.
- A detailed description of all potential environmental impacts of any proposed development in terms of vegetation, sediment movement, water quality and hydraulic regime.
- A description of the design features and measures to be incorporated into any proposed development to guard against long term actual and potential environmental disturbances, particularly in respect of maintaining the natural hydrological regime and sediment movement patterns and the identification of riparian buffers. (See note below)
- Details of the impact on water quality and remedial measures proposed to address any possible adverse effects.

Riparian corridors form a transition zone between terrestrial and aquatic environments and perform a range of important environmental functions. The protection or restoration of

vegetated riparian areas is important to maintain or improve the geomorphic form and ecological functions of watercourses through a range of hydrologic conditions in normal seasons and also in extreme events.

Development activities and works on *waterfront* (riparian) land generally require a *Controlled Activity* approval under the *WMA* (s91). However, Part 3A Major Projects are exempt from requiring such a controlled activity approval (under s75U of the *EP&A Act*). Nevertheless the Environmental Assessment is required to take into account the objectives and provisions of relevant water legislation and guidelines, particularly the principles in s5(7) of the *WMA*.

**Note:** Recommended Core Riparian Zones (as applicable):

- Minimum of 10m for any intermittently flowing 1<sup>st</sup> order watercourse;
- 20m for any permanently flowing 1<sup>st</sup> order watercourse or any 2<sup>nd</sup> order watercourse;
- 20m – 40m (merit based assessment) for any 3<sup>rd</sup> order or greater watercourse.

[Refer to DWE Guidelines for Controlled Activities (February 2008) – Riparian Corridors available via: [http://www.naturalresources.nsw.gov.au/water/controlled\\_activity.shtml](http://www.naturalresources.nsw.gov.au/water/controlled_activity.shtml)]

### Water Management Structures/Dams

DWE is responsible for the management and licensing of these structures under water legislation.

If the proposal includes existing or proposed water management structures/dams, the assessment is required to provide information on the following:

- Date of construction (for existing structure/s).
- Details of the legal status/approval for existing structure/s.
- Details of any proposal to change the purpose of existing structure/s.
- Details if any remedial work is required to maintain the integrity of the existing structure/s.
- Clarification if the structure/s is on a watercourse.
- Details of the purpose, location and design specifications for the structure/s.
- Size and storage capacity of the structure/s.
- Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC).
- Details if the structure/s is affected by flood flows.
- Details of any proposal for shared use, rights and entitlement of the structure/s.
- Details if the proposed development/subdivision has the potential to bisect the structure/s.

DWE's Farm Dams Assessment Guide provides details on harvestable rights and the calculation of the MHRDC. Refer to: <http://www.dnr.nsw.gov.au/water/dams.shtml>

### **Basic Landholder Rights**

The *WMA* identifies Basic Landholder Rights (BLRs) for access to water whereby landholders over an aquifer or with river or lake frontage can access water for domestic (household) purposes or to water stock without the need for a water licence (although a works approval may still be required). This has the potential to impact inequitably on existing licensed water users (under a WSP) in the case where riparian frontage continues to be subdivided, creating new basic rights for water extraction.

If this is an issue for the proposal the assessment should identify any potential for creation of new BLRs along the frontage to major waterways or over any sensitive aquifers. For those subdivisions fronting rivers/lakes, innovative subdivision design which allows the creation of additional lots without direct river/lake frontage or utilises collective or community title to manage the use of any existing BLR could provide a satisfactory way of managing this issue whilst still allowing for subdivision. Subdivisions over a sensitive aquifer however, may be more limited in using this approach.

### **Sustainable Water Supply**

Many gazetted WSPs to-date have identified particular surface and groundwater systems that are currently over-allocated (that is, water licence volumes issued to landholders operating in these catchments exceed the sustainable volumes/flows within these systems). In the case of over-allocation, the systems have subsequently been embargoed and no new water licences are to be issued within these catchments. Any new or expanded development within such catchments will therefore be unable to obtain any new water entitlements directly and will have to enter the water trading market (if available within that catchment) to seek additional water. Therefore, there can be no guarantees of obtaining additional water via this mechanism and there is the potential of restrictions on further development within such catchments.

Whilst there is provision in the *WMA* to allow for limited growth in Town Water Supplies (TWS) this could still impact subsequently on other water users.

The assessment is required to address the issue of provision of a sustainable water supply for any project proposal. The assessment should include Water Management Plans detailing how a sustainable and efficient water supply can be sourced and implemented with minimal reliance on accessing valuable surface and groundwater resources.

Through the implementation of BASIX, Integrated Water Cycle Management and Water Sensitive Urban Design, any proposed development must also be able to exhibit high water use efficiency. Access to information on sustainability can be found via:  
[http://www.deus.nsw.gov.au/business\\_industry.asp](http://www.deus.nsw.gov.au/business_industry.asp)

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