



## **Appendix 1 A**

### **Regulatory Requirements**

<b>Appendix Section</b>	<b>Description</b>
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<b>1C</b>	<b>Guidelines for preparing Assessment Documentation relevant to the EPBC 1999 Act</b>
<b>1D</b>	<b>Existing Consent</b>
<b>1E</b>	<b>Community Submission</b>

Brandy Hill Expansion Project  
Environmental Impact Statement

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# **Appendix 1A**

## **SEARs**

Brandy Hill Expansion Project  
Environmental Impact Statement

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# Director General's Environmental Assessment Requirements

## Section 78A (8A) of the *Environmental Planning and Assessment Act 1979*

### State Significant Development

<b>Application Number</b>	SSD 5899
<b>Development</b>	<p>Brandy Hill Quarry Expansion Project, which includes:</p> <ul style="list-style-type: none"> <li>expanding the existing quarry to extract and process up to 1.5 million tonnes of hard rock material a year for 30 years;</li> <li>use of blasting (8 am to 5 pm weekdays);</li> <li>constructing and operating additional infrastructure including a concrete batching plant (15,000 m<sup>3</sup> per year), mobile pug mill and pre-coat plant;</li> <li>24 hour operations, sales and despatch;</li> <li>transporting quarry products off-site and receiving 20,000 tonnes of concrete waste for recycling via public roads; and</li> <li>rehabilitating the site.</li> </ul>
<b>Location</b>	Approximately 12 km north-west of Raymond Terrace
<b>Applicant</b>	Hanson Construction Materials Pty Ltd
<b>Date of Issue</b>	9 July 2015
<b>General Requirements</b>	<p>The Environmental Impact Statement (EIS) for the development must meet the form and content requirements in clauses 6 and 7 of Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>.</p> <p>In addition, the EIS must include:</p> <ul style="list-style-type: none"> <li>a detailed description of the development, including: <ul style="list-style-type: none"> <li>need for the proposed development;</li> <li>alternatives considered;</li> <li>likely components and staging of the development - including construction, operational stage/s and rehabilitation; and</li> <li>plans of any proposed building works;</li> <li>the likely interactions between the development and any other existing, approved or proposed extractive industry development in the vicinity of the site (such as the Martins Creek Quarry);</li> </ul> </li> <li>consideration of all relevant environmental planning instruments, including identification and justification of any inconsistencies with these instruments;</li> <li>a risk assessment of the potential environmental impacts of the development, identifying the key issues for further assessment;</li> <li>detailed assessment of the key issues specified below, and any other significant issues identified in the risk assessment, which includes: <ul style="list-style-type: none"> <li>a description of the existing environment, <u>using sufficient baseline data</u>;</li> <li>an assessment of the potential impacts of all stages of the development, including any cumulative impacts, taking into consideration relevant guidelines, policies, plans and statutes; and</li> <li>a description of the measures that would be implemented to avoid, minimise and if necessary, offset the potential impacts of the development, including proposals for adaptive management and/or contingency plans to manage any significant risks to the environment; and</li> </ul> </li> <li>a statement of commitments, outlining all the proposed environmental management and monitoring measures included in the EIS.</li> </ul> <p>The EIS must be accompanied by a report from a qualified quantity surveyor providing:</p> <ul style="list-style-type: none"> <li>a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the <i>Environmental Planning and Assessment Regulation 2000</i>) of the proposal, including details of all the assumptions and components from which the CIV calculation is derived;</li> <li>a close estimate of the jobs that will be created by the development during</li> </ul>

	<p>the construction and operational phases of the development; and</p> <ul style="list-style-type: none"> <li>• certification that the information provided is accurate at the date of preparation.</li> </ul>
<b>Key Issues</b>	<p>The EIS must address the following specific issues:</p> <ul style="list-style-type: none"> <li>• <b>Land Resources</b> - including a detailed assessment of the potential impacts on: <ul style="list-style-type: none"> <li>- soils and land capability;</li> <li>- landforms and topography, including rock formations, steep slopes, land slippage, etc; and</li> <li>- land use, including agricultural use;</li> <li>- extractive material resources, including assessment of the size and quality of the resource and description of the methods used to assess the resource and its suitability for the intended applications;</li> </ul> </li> <li>• <b>Biodiversity</b> – including: <ul style="list-style-type: none"> <li>- accurate estimates of proposed vegetation clearing and impacts on regionally significant remnant vegetation, or vegetation corridors;</li> <li>- a detailed assessment of potential impacts of the development on any terrestrial or aquatic threatened species or populations and their habitats, endangered ecological communities listed under State or Commonwealth threatened species legislation;</li> <li>- a detailed assessment of potential impacts of the development on any groundwater dependent ecosystems; and</li> <li>- a detailed description of the measures that would be implemented to avoid, reduce or mitigate impacts on biodiversity, including an appropriate biodiversity offset strategy;</li> </ul> </li> <li>• <b>Traffic &amp; Transport</b> – including: <ul style="list-style-type: none"> <li>- accurate predictions of the road traffic generated by the construction and operation of the development, including a description of the types of vehicles likely to be used for the transportation of quarry products, the public roads in the Dungog Shire, Maitland City and Port Stephens LGAs likely to be so used and the times during which those roads would be used;</li> <li>- an assessment of potential traffic impacts on the safety and efficiency of the road network; and</li> <li>- a detailed description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road networks in the surrounding area over the life of the development;</li> </ul> </li> <li>• <b>Noise</b> – including a quantitative assessment of potential: <ul style="list-style-type: none"> <li>- construction, operational and off-site transport noise impacts;</li> <li>- reasonable and feasible mitigation measures, including evidence that there are no such measures available other than those proposed; and</li> <li>- monitoring and management measures, in particular real-time and attended noise monitoring;</li> </ul> </li> <li>• <b>Blasting</b> – including proposed hours, frequency, methods and impacts;</li> <li>• <b>Air Quality</b> – including a quantitative assessment of potential: <ul style="list-style-type: none"> <li>- construction and operational impacts, with a particular focus on dust emissions including PM<sub>2.5</sub> and PM<sub>10</sub>;</li> <li>- dust generation from blasting and processing, as well as diesel emissions;</li> <li>- reasonable and feasible mitigation measures to minimise dust and diesel emissions, including evidence that there are no such measures available other than those proposed; and</li> <li>- monitoring and management measures, in particular real-time air quality monitoring;</li> </ul> </li> <li>• <b>Heritage</b> – including: <ul style="list-style-type: none"> <li>- an Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must: <ul style="list-style-type: none"> <li>○ demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures;</li> <li>○ outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures); and</li> </ul> </li> <li>- a historic heritage assessment (including archaeology) which must:</li> </ul> </li> </ul>

- include a statement of heritage impact (including significance assessment) for any State significant or locally significant historic heritage items; and,
  - outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures);
- **Water Resources** - including:
  - a detailed assessment of the potential impacts of the development on:
    - the quantity and quality of regional water supplies;
    - regional water supply infrastructure; and
    - affected licensed water users and basic landholder rights (including downstream water users);
  - a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;
  - an assessment of proposed water discharge quantities and quality/ies against receiving water quality and flow objectives;
  - identification of any licensing requirements or other approvals under the *Water Act 1912* and/or *Water Management Act 2000*;
  - demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP);
  - a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant WSP or water source embargo; and
  - a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts;
- **Waste** – including:
  - accurate estimates of the quantity and nature of the potential waste streams of the development; including any leachate and acid-generating potential;
  - a waste disposal strategy, including any leachate;
  - details of the importation of materials onto the site; and
  - a description of measures that would be implemented to minimise production of other waste, and ensure that that waste is appropriately managed;
- **Greenhouse Gases** – including:
  - a quantitative assessment of potential Scope 1, 2 and 3 greenhouse gas emissions;
  - a qualitative assessment of the potential impacts of these emissions on the environment; and
  - an assessment of reasonable and feasible measures to minimise greenhouse gas emissions and ensure energy efficiency;
- **Visual** – including:
  - a detailed assessment of the:
    - changing landforms on site during the various stages of the development; and
    - potential visual impacts of the development on private landowners in the surrounding area as well as key vantage points in the public domain;
  - a detailed description of the measures that would be implemented to minimise the potential visual impacts of the development;
- **Hazards** – paying particular attention to public safety, including bushfires;
- **Social & Economic** – including:
  - an assessment of potential impacts on local and regional communities, including impacts on social amenity;
  - a detailed description of the measures that would be implemented to minimise the adverse social and economic impacts of the development, including any infrastructure improvements, or contributions and/or voluntary planning agreement or similar mechanism; and
  - a detailed assessment of the costs and benefits of the development as

	<p>a whole, and whether it would result in a net benefit for the NSW community;</p> <ul style="list-style-type: none"> <li>• <b>Rehabilitation</b> – including the proposed rehabilitation strategy for the site having regard to the key principles in the <i>Strategic Framework for Mine Closure</i>, including: <ul style="list-style-type: none"> <li>- rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria;</li> <li>- nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and</li> <li>- the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.</li> </ul> </li> </ul>
<b>Plans and Documents</b>	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>. These documents should be included as part of the EIS rather than as separate documents.</p>
<b>Consultation</b>	<p>During the preparation of the EIS, you must consult with relevant local, State and Commonwealth Government authorities, service providers, Aboriginal stakeholders, community groups and affected landowners.</p> <p>In particular you must consult with the:</p> <ul style="list-style-type: none"> <li>• Commonwealth Department of Environment</li> <li>• Office of Environment and Heritage (including the Heritage Branch);</li> <li>• Environment Protection Authority;</li> <li>• Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services;</li> <li>• Department of Primary Industries (including the NSW Office of Water, NSW Forestry, Agriculture and Fisheries sections, and Crown Lands division);</li> <li>• Roads and Maritime Services;</li> <li>• Hunter Local Land Services;</li> <li>• Dungog Shire Council;</li> <li>• Maitland City Council;</li> <li>• Port Stephens Council; and</li> <li>• community groups including, but not limited to: Bolwarra Heights Community Group, Brandy Hill and Seaham Action Committee and the Voice of Wallalong and Woodville.</li> </ul> <p>The EIS must:</p> <ul style="list-style-type: none"> <li>• describe the consultation process used and demonstrate that effective consultation has occurred;</li> <li>• describe the issues raised by public authorities, service providers, community groups and landowners;</li> <li>• identify where the design of the development has been amended in response to issues raised; and</li> <li>• otherwise demonstrate that issues raised have been appropriately addressed in the assessment.</li> </ul>
<b>Further consultation after 2 years</b>	<p>If you do not lodge a DA and an EIS for the development within 2 years of the issue date of these DGRs, you must consult further with the Director-General in relation to the requirements for lodgement.</p>
<b>References</b>	<p>The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, Attachment 1 contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.</p>

## ATTACHMENT 1 Technical and Policy Guidelines

The following guidelines may assist in the preparation of the Environmental Impact Statement. This list is not exhaustive and not all of these guidelines may be relevant to your proposal.

Many of these documents can be found on the following websites:

<http://www.planning.nsw.gov.au>

<http://www.bookshop.nsw.gov.au>

<http://www.publications.gov.au>

### Policies, Guidelines & Plans

Risk Assessment	
	AS/NZS 4360:2004 Risk Management (Standards Australia)
	HB 203: 203:2006 Environmental Risk Management – Principles & Process (Standards Australia)
Land Resources	
	Agricultural Impact Assessment Guidelines 2012 (DP&I)
	Agfact AC25: Agricultural Land Classification (NSW Agriculture)
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
	Agricultural Issues for Extractive Industries (NSW Department of Trade and Investment, Regional Infrastructure and Services)
	Soil and Landscape Issues in Environmental Impact Assessment (DLWC)
Biodiversity	
	Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians (DECCW 2009)
	Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DECC 2004)
	Guidelines for Threatened Species Assessment (DoP 2005)
	BioBanking Assessment Methodology and Credit Calculator Operational Manual (DECCW 2011)
	The Threatened Species Assessment Guideline – The Assessment of Significance (DECC 2007)
	NSW State Groundwater Dependent Ecosystem Policy (DLWC)
	Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)
	State Environmental Planning Policy No. 44 – Koala Habitat Protection
	Principles for the Use of Biodiversity Offsets in NSW (OEH)
	Significant impact guidelines 1.1 – Matters of National Environmental Significance (Commonwealth Department of Environment 2013)
Traffic & Transport	
	Guide to Traffic Generating Development (RTA)
	Road Design Guide (RTA)
Noise & Blasting	
	NSW Industrial Noise Policy (DECC)
	Environmental Noise Management – Assessing Vibration: a technical guide 2006 (DEC)
	NSW Road Noise Policy 2011 (DECCW)
	Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZECC)
	Environmental Criteria for Road Traffic Noise (EPA)
Air Quality	
	Protection of the Environment Operations (Clean Air) Regulation 2002
	Approved Methods for the Modelling and Assessment of Air Pollutants in NSW 2005 (DEC)

	Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC)
	Guidelines from the USEPA, the California EPA Office of Environmental Health and EPA Victoria relating to respirable crystalline silica
<b>Heritage</b>	
<i>Aboriginal</i>	Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC 2005)
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH)
	Code of Practice for Archaeological Investigations of Objects in New South Wales 2010 (OEH)
<i>Historic</i>	NSW Heritage Manual (NSW Heritage Office)
	The Burra Charter (The Australia ICOMOS charter for places of cultural significance)
<b>Water Resources</b>	
<i>Surface Water</i>	NSW Water Management Act 2000
	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
	Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009
	NSW Government Water Quality and River Flow Objectives (DECC)
	Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC)
	Managing Urban Stormwater: Soils & Construction (Landcom) and associated Volume 2E: Mines and Quarries.
	Managing Urban Stormwater: Treatment Techniques (DECC)
	Managing Urban Stormwater: Source Control (DECC)
	Floodplain Development Manual (DIPNR)
	Floodplain Risk Management Guideline (DECC)
	A Rehabilitation Manual for Australian Streams (LWRRDC and CRCCH)
	Technical Guidelines: Bunding & Spill Management (DECC)
	Environmental Guidelines: Use of Effluent by Irrigation (DECC)
<i>Groundwater</i>	NSW Water Management Act 2000
	NSW Water Act 1912
	Office of Water Guidelines for Controlled Activities (2012)
	National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ/ANZECC)
	NSW State Groundwater Policy Framework Document (DLWC, 1997)
	NSW State Groundwater Quality Protection Policy (DLWC, 1998)
	NSW State Groundwater Quantity Management Policy (DLWC, 1998)
	Guidelines for the Assessment & Management of Groundwater Contamination (DECC, 2007)
	Any relevant Water Sharing Plan for groundwater and surface water resources
	NSW Aquifer Interference Policy (2012)
<b>Waste</b>	
	Waste Classification Guidelines (EPA)
<b>Greenhouse Gases</b>	
	National Greenhouse Accounts Factors (Australian Department of Climate Change (DCC))
	Guidelines for Energy Savings Action Plans (DEUS)
<b>Hazards</b>	
	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development



**Socio-Economic**

Draft Economic Evaluation in Environmental Impact Assessment (DoP)

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Techniques for Effective Social Impact Assessment: A Practical Guide (Office of Social Policy, NSW Government Social Policy Directorate)

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**Rehabilitation**

Mine Rehabilitation – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)

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Mine Closure and Completion – Leading Practice Sustainable Development Program for the Mining Industry (Commonwealth of Australia)

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Strategic Framework for Mine Closure (ANZMEC-MCA)

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**ATTACHMENT 2**  
**Agency Input into Key Assessment Issues**

**ATTACHMENT 3**  
**Community Group Submissions**

**ATTACHMENT 4**  
**Commonwealth Department of Environment assessment requirements**



## **Appendix 1 B**

### **Agency Input into Key Assessment Issues**

Brandy Hill Expansion Project

Environmental Impact Statement

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Your reference:

Our reference:

Contact

DOC13/12723; LIC10/854-02

Michael Howat; (02) 4908 6819

Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

Attn: Ms Ruth Murphy

Dear Ms Murphy

**BRANDY HILL QUARRY EXTENSION PROJECT (SSD 5899)**

**Recommended Director Generals Requirements**

**Issued in relation to Part 4 Division 4.1 of the *Environmental Planning and Assessment Act 1979***

I refer to your request for the Environment Protection Authority's (EPA's) requirements for the Environmental Impact Statement (EIS) for the above proposal received by the EPA on 3 April 2013. The EPA notes the proposal is for an extension to Hanson Construction Material Pty Ltd's existing Brandy Hill Quarry, Environment Protection Licence (EPL)1879.

The EPA understands that the proposal includes the following:

- Extend the life of the quarry;
- Extend the approved extraction boundary for the quarry;
- Increase the annual extraction limit to 1.5 million tonnes per annum; and
- Relocate the quarry infrastructure within the premises.

The EPA has considered the project as detailed in the report titled "Brandy Hill Quarry - Quarry Expansion Project: Preliminary Environmental Assessment", dated March 2013, and has identified the information it requires to assess the project. This information is provided in **Attachment 1**. The proponent should ensure that the EIS is sufficiently comprehensive to enable the EPA to determine the extent of the impacts of the proposal. In this regard EPA notes this is a major expansion of existing operations (doubling of production and introduction of night-time operations) and key areas that will need specific attention include: noise/blasting impacts; traffic noise impacts; and potential increased air impacts. These issues are expanded upon in Attachment 1.

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in **Attachment 2** and any relevant industry codes of practice and best practice management guidelines.

The proponent should be aware that any commitments made in the EIS may be formalised as approval and subsequently environment protection licence conditions. Pollution control measures should not be proposed if they are impractical, unrealistic or beyond the financial viability of the development. It is important that all conclusions are supported by adequate data.

The EPA requests **two hard copies of the EIS** for assessment. These documents should be provided to Regional Manager (Hunter), Environment Protection Authority, PO Box 488G NEWCASTLE NSW 2300. Please also send an electronic copy to our referral mailbox – [planning.matters@environment.nsw.gov.au](mailto:planning.matters@environment.nsw.gov.au).

If project approval is granted, the proponent will need to make a separate application to the EPA for an amendment to the existing EPL 1879, or a new EPL if desired, prior to undertaking any on site works.

If you have any queries regarding this matter please contact Michael Howat on phone 4908 6819.

Yours sincerely

**PETER JAMIESON**  
**Head Regional Operations Unit – Hunter**  
**Environment Protection Authority**

Encl:   **Attachment 1:** EPA's Recommended Director Generals Requirements – Brandy Hill Quarry Extension  
          **Attachment 2:** Guidance Material

## **ATTACHMENT 1**

### **EPA's Recommended Director Generals Requirements (DGRs) Brandy Hill Quarry Extension Project – SSD 5899**

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# 1 Environmental impacts of the project

1. Impacts related to the following environmental issues need to be assessed, quantified and reported on:
  - Air Issues
  - Noise and vibration
  - Waste and chemicals
  - Water and Soils
    - Soil
    - Water quality

Environmental Impact Statements (EISs) should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is provided at **Attachment 2**.

## 2 General

### 1. The Proposal

The objectives of the proposal should be clearly stated and refer to:

- the size and type of the operation;
- the nature of the processes and the products, by-products and wastes produced;
- the use or disposal of products;
- the anticipated level of performance in meeting required environmental standards and cleaner production principles;
- the staging and timing of the proposal; and
- the proposal's relationship to any other industry or facility.

### 2. The Premises

The EIS will need to fully identify all of the processes and activities intended for the site over the life of the development. This will include details of:

- The location of the proposed facility and details of the surrounding environment;
- The proposed layout of the site;
- Appropriate land use zoning;
- Ownership details of any residence and/or land likely to be affected by the proposed facility;
- Maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc in the locality that may be affected by the facility;
- All equipment proposed for use at the site;
- Chemicals, including fuel, used on the site and proposed methods for their transportation, storage, use and emergency management;
- Waste generation and disposal;

- Methods to mitigate any expected environmental impacts of the development;
- Site rehabilitation following termination of the development

### 3 Licensing requirements

1. Should project approval be granted, the proponent will need to make a separate application to the EPA for an amendment to the existing Brandy Hill Quarry Environment Protection Licence 1879 prior to undertaking any on site works. Additional information is available through EPA's *Guide to Licensing* document: [www.environment.nsw.gov.au/licensing/licenceguide.htm](http://www.environment.nsw.gov.au/licensing/licenceguide.htm)

General information on licence requirements can also be obtained from EPA's Environment Line on 131 555 during office hours, or can be found at the EPA web site at:  
<http://www.environment.nsw.gov.au/licensing/>

## SPECIFIC ISSUES

### 4 Air issues

The EIS should include a detailed air quality impact assessment (AQIA). The AQIA should:

1. Assess the risk associated with potential discharges of fugitive and point source emissions for all stages of the proposal. Assessment of risk relates to environmental harm, risk to human health and amenity.
2. Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:
  - a. proposal location;
  - b. characteristics of the receiving environment; and
  - c. type and quantity of pollutants emitted.
3. Describe the receiving environment in detail. The proposal must be contextualised within the receiving environment (local, regional and inter-regional as appropriate). The description must include but need not be limited to:
  - a. meteorology and climate;
  - b. topography;
  - c. surrounding land-use; receptors; and
  - d. ambient air quality.
4. Include a detailed description of the proposal. All processes that could result in air emissions must be identified and described. Sufficient detail to accurately communicate the characteristics and quantity of all emissions must be provided. Identification and location of all fixed and mobile sources of dust/air emissions from the development, including rehabilitation, needs to be provided. The location of all emission sources should be clearly marked on a plan for key years of the quarry development. The EIS needs to identify all pollutants of concern and estimate emissions by quantity (and size for particles), source(s) and discharge point(s).

Note: emissions can be classed as either: be limited to:

- a. point (eg emissions from stack or vent), or
  - b. fugitive (from wind erosion, leakages or spillages associated with loading or unloading, crushing/screening, plant and yard operation, vehicle movements [dust from road, exhausts, loss from load], land clearing and construction works).
5. Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits.
  6. Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment.
  7. Include air dispersion modelling where there is a risk of adverse air quality impacts, or where there is sufficient uncertainty to warrant a rigorous numerical impact assessment. Air dispersion modelling must be conducted in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005)  
<http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf>.

This assessment should include the following parameters:

- a. dust deposition;
  - b. total suspended particles;
  - c. PM<sub>10</sub> particulate matter;
  - d. Respirable crystalline silica (EPA understands the rhyodacite quarried on-site has a high silica content and hence levels at sensitive receptors should be estimated and assessed using relevant guidance such as that produced by the USEPA, the California EPA Office of Environmental Health and EPA Victoria).
8. Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations (POEO) Act (1997)* and the *POEO (Clean Air) Regulation (2010)*.
  9. Provide an assessment of the project in terms of the priorities and targets adopted under the NSW State Plan 2010 and its implementation plan Action for Air.
  10. Detail emission control techniques/practices that will be employed by the proposal.
  11. The EIS will need to examine if the current air monitoring network is sufficient for the upgraded quarry. In this regard EPA notes the current Environment Protection Licence stipulates three dust deposition monitoring locations. EPA is moving away from dust deposition monitoring due to issues with this monitoring method and the fact that results are only produced monthly, well after the actual time of monitoring. EPA is moving towards PM<sub>10</sub> monitoring for quarries and the EIS should therefore explore a monitoring network based on PM<sub>10</sub>. The EIS should also examine the most appropriate method of monitoring PM<sub>10</sub> and in particular compare the costs / benefits of using high volume sampler technology (which will produce a result every six days and has a delay for sample analysis) verses using technology such as a Tapered Element Oscillating Microbalance (TEOM) (which will give daily instantaneous results).

## 5 Noise and vibration

In relation to noise, the following matters should be addressed (where relevant) as part of the Environmental Assessment.

### General

1. As this is an active quarry construction noise associated with the proposed development should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes*.  
<http://www.environment.nsw.gov.au/noise/industrial.htm>
2. Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006).  
<http://www.environment.nsw.gov.au/noise/vibrationguide.htm>
3. Blast impacts should be demonstrated to be capable of complying with the guidelines contained in *Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration* (ANZEC, 1990).  
<http://www.environment.nsw.gov.au/noise/blasting.htm>

A detailed assessment of blast impacts will be necessary as it is noted that blasting activities will be occurring significantly closer (and less well shielded) to sensitive receptors than occurs at present.

4. Operational noise from all industrial activities (including private haul roads and private railway lines) to be undertaken on the premises should be assessed using the guidelines contained in the *NSW Industrial Noise Policy* (EPA, 2000) and *Industrial Noise Policy Application Notes*.  
<http://www.environment.nsw.gov.au/noise/industrial.htm> .

Particular attention should be given to determining noise impacts of the proposal as much of the processing and handling of material at present occurs in a reasonably well shielded location, however moving the processing operations approximately 500 metres south will not only bring noisy activities closer to sensitive receptors, but this area is likely to be significantly less well acoustically shielded. EPA also notes that processing and heavy vehicle movements are proposed to occur 24 hours a day 7 days per week, whereas currently these activities generally only occur 6 am to 6 pm Monday to Saturday.

### Road

5. Noise on public roads from increased road traffic generated by the quarry should be assessed using the guidelines contained in the *Environmental Criteria for Road Traffic Noise* (EPA, 1999).  
<http://www.environment.nsw.gov.au/noise/traffic.htm>

A detailed assessment of traffic impacts will be necessary as EPA is aware of current community concern about heavy vehicles travelling through residential areas along Brandy Hill Drive.

The EIS will need to be very clear on increases in traffic movements. EPA notes from the Preliminary Environmental Assessment (PEA) that currently about 150 truck "movements" occur per day, of which 80 % occur in the hours 6 am to 12 pm. The PEA details about 144 "loads" per day being generated by the proposal. The EIS needs to be very clear with terminology and should discuss truck "movements" as it would appear the current proposal will generate 288 movements per day, which is a substantial increase from present.

Given the increase in traffic generated by the proposal (extending well into the night-time), the EIS will need to examine and detail if alternative routes to Brandy Hill Drive are possible / desirable / needed to reduce road noise (or safety) impacts on residents within Brandy Hill Village.

6. Noise from new or upgraded public roads should be assessed using the *Environmental Criteria for Road Traffic Noise* (EPA, 1999).  
<http://www.environment.nsw.gov.au/noise/traffic.htm>

## 6 Waste and chemicals

The EIS should:

1. Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.  
**Note:** All waste must be classified in accordance with *EPA's Waste Classification Guidelines*.
2. Identify, characterise and classify all waste that is proposed to be disposed of to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling.  
**Note:** All waste must be classified in accordance with *EPA's Classification Guidelines*.
3. Include details of all procedures and protocols to be implemented to ensure that any waste leaving the site is transported and disposed of lawfully and does not pose a risk to human health or the environment.
4. Include a statement demonstrating that the Proponent is aware of the relevant legislative requirements for disposal of the waste, including any relevant Resource Recovery Exemptions, as gazetted by EPA from time to time.

## 7 Water and soils

### 7.1 Soil

The EA should include:

1. An assessment of potential impacts on soil and land resources should be undertaken, being guided by *Soil and Landscape Issues in Environmental Impact Assessment* (DLWC 2000). The nature and extent of any significant impacts should be identified. Particular attention should be given to:
  - a. Soil erosion and sediment transport - in accordance with *Managing urban stormwater: soils and construction*, vol. 1 (Landcom 2004) and vol. 2 E. Mines and quarries (DECC 2008).
  - b. Mass movement (landslides) – in accordance with *Landslide risk management* guidelines presented in Australian Geomechanics Society (2007).
  - c. Urban and regional salinity – guidance given in the Local Government Salinity Initiative booklets which includes *Site Investigations for Urban Salinity* (DLWC, 2002).
2. A description of the mitigation and management options that will be used to prevent, control, abate or minimise identified soil and land resource impacts associated with the project. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.
3. Where required, add any specific assessment requirements relevant to the project.

## **7.2 Water**

### Describe Proposal

1. Describe the proposal including position of any intakes and discharges, volumes, water quality and frequency of all water discharges.
2. Demonstrate that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.
3. Where relevant include a water balance for the development including water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.

### Background Conditions

4. Describe existing surface and groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.
5. State the Water Quality Objectives for the receiving waters relevant to the proposal. These refer to the community's agreed environmental values and human uses endorsed by the NSW Government as goals for ambient waters (<http://www.environment.nsw.gov.au/ieo/index.htm>). Where groundwater may be impacted the assessment should identify appropriate groundwater environmental values.
6. 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.mincos.gov.au/publications/australian\\_and\\_new\\_zealand\\_guidelines\\_for\\_fresh\\_and\\_marine\\_water\\_quality](http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality)).

7. State any locally specific objectives, criteria or targets which have been endorsed by the NSW Government.

#### Impact Assessment

8. Describe the nature and degree of impact that any proposed discharges will have on the receiving environment.
9. Assess impacts against the relevant ambient water quality outcomes. Demonstrate how the proposal will be designed and operated to:
  - o protect the Water Quality Objectives for receiving waters where they are currently being achieved; and
  - o contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.
10. Where a discharge is proposed that includes a mixing zone, the proposal should demonstrate how wastewater discharged to waterways will ensure the ANZECC (2000) water quality criteria for relevant chemical and non-chemical parameters are met at the edge of the initial mixing zone of the discharge, and that any impacts in the initial mixing zone are demonstrated to be reversible.
11. Assess impacts on groundwater and groundwater dependent ecosystems.
12. Describe how stormwater will be managed.
14. Describe in detail any water storage ponds, or basins, proposed to be constructed during the whole quarry operational life. Provide location of the proposed storage(s), estimated volume capacities and expected water quality. In this regard the EIS needs to be clear as it would appear from the PEA that the existing southern stormwater ponds may be impinged upon by the moving of processing activities to the south.

#### Monitoring

13. Describe how predicted impacts will be monitored and assessed over time. Including a Trigger Action Response Plan, or similar response management plan, that will be implemented in response to any adverse impacts identified from the activity. This plan is to identify appropriate trigger values for the site and provide appropriate response actions to be implemented if adverse impacts are identified through the monitoring program.

## **8. Monitoring Programs**

The EIS should include a detailed assessment of any noise, air quality, water quality or waste monitoring required during the construction phase and on-going operation of the site to ensure that the development achieves a satisfactory level of environmental performance. The evaluation should include a detailed description of the monitoring locations, sample analysis methods and the level of reporting proposed.

**ATTACHMENT 2****Guidance Material**

<b>Title</b>	<b>Web address</b>
<b><u>Relevant Legislation</u></b>	
<i>Protection of the Environment Operations Act 1997</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N</a>
<i>Environmental Planning and Assessment Act 1979</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N</a>
<i>Water Management Act 2000</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N</a>
<b><u>Licensing</u></b>	
Guide to Licensing	<a href="http://www.environment.nsw.gov.au/licensing/licenceguide.htm">www.environment.nsw.gov.au/licensing/licenceguide.htm</a>
<b><u>Air Issues</u></b>	
<b>Air Quality</b>	
Approved methods for modelling and assessment of air pollutants in NSW (2005)	<a href="http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf">http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf</a>
POEO (Clean Air) Regulation 2010	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N">http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N</a>
<b><u>Noise and Vibration</u></b>	
Interim Construction Noise Guideline (DECC, 2009)	<a href="http://www.environment.nsw.gov.au/noise/constructnoise.htm">http://www.environment.nsw.gov.au/noise/constructnoise.htm</a>
Assessing Vibration: a technical guideline (DEC, 2006)	<a href="http://www.environment.nsw.gov.au/noise/vibrationguide.htm">http://www.environment.nsw.gov.au/noise/vibrationguide.htm</a>
Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990)	<a href="http://www.environment.nsw.gov.au/noise/blasting.htm">http://www.environment.nsw.gov.au/noise/blasting.htm</a>
Industrial Noise Policy Application Notes	<a href="http://www.environment.nsw.gov.au/noise/traffic.htm">http://www.environment.nsw.gov.au/noise/traffic.htm</a>
Environmental Criteria for Road Traffic Noise (EPA, 1999)	<a href="http://www.environment.nsw.gov.au/noise/traffic.htm">http://www.environment.nsw.gov.au/noise/traffic.htm</a>
Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DECC, 2007)	<a href="http://www.environment.nsw.gov.au/noise/railinfranoise.htm">http://www.environment.nsw.gov.au/noise/railinfranoise.htm</a>
<b><u>Waste and Chemicals</u></b>	
<b>Waste</b>	
Waste Classification Guidelines (DECC, 2008)	<a href="http://www.environment.nsw.gov.au/waste/envguidlins/index.htm">http://www.environment.nsw.gov.au/waste/envguidlins/index.htm</a>
Resource recovery exemption	<a href="http://www.environment.nsw.gov.au/waste/RRecoveryExemptions.htm">http://www.environment.nsw.gov.au/waste/RRecoveryExemptions.htm</a>
<b><u>Water and Soils</u></b>	
<b>Soils – general</b>	



Title	Web address
Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000)	<a href="http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf">http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf</a>
Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008)	Vol 1 - Available for purchase at <a href="http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx">http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx</a> Vol 2 - <a href="http://www.environment.nsw.gov.au/stormwater/publications.htm">http://www.environment.nsw.gov.au/stormwater/publications.htm</a>
Landslide risk management guidelines	<a href="http://www.australiangeomechanics.org/resources/downloads/">http://www.australiangeomechanics.org/resources/downloads/</a>
Site Investigations for Urban Salinity (DLWC, 2002)	<a href="http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf">http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf</a>
<b>Water</b>	
Water Quality Objectives	<a href="http://www.environment.nsw.gov.au/ieo/index.htm">http://www.environment.nsw.gov.au/ieo/index.htm</a>
ANZECC (2000) Guidelines for Fresh and Marine Water Quality	<a href="http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality">http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality</a>
Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones	<a href="http://deccnet/water/resources/AWQGuidance7.pdf">http://deccnet/water/resources/AWQGuidance7.pdf</a>
Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004)	<a href="http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf">http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf</a>



**Heritage Council**  
  
of New South Wales

3 Marist Place  
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Contact: Katrina Stankowski  
Telephone: (02) 9873 8569  
Katrina.Stankowski@heritage.nsw.gov.au  
File: 13/06560  
Job ID No: A1402610 & A1404305  
Your Ref: SSD5899

Howard Reed  
Manager, Mining Projects  
Department of Planning & Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

**Attention: Ruth Murphy**

Dear Mr Reed

**RE: Request for Director General's Requirements for the preparation of an Environmental Impact Statement – Brandy Hill Quarry Extension Project (SSD 5899).**

---

I refer to your letter dated the 27<sup>th</sup> March, 2013 (received by this Branch on 4<sup>th</sup> of April), requesting information regarding the NSW Heritage Council's requirements for the preparation of the above mentioned Environmental Impact Statement (EIS).

It is advised that the EIS should address the following issues:

- The heritage significance of the site and any impacts this major project may have upon this significance should be assessed. This assessment should include natural areas and places of Aboriginal, historic or archaeological significance. It should also include a consideration of wider heritage impacts in the area surrounding the site.
- The Heritage Council maintains the State Heritage Inventory which lists some items protected under the Heritage Act, 1977 and other statutory instruments. This register can be accessed through the Heritage Branch home page on the internet ([www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)). It should be noted that the legal standing of items listed on the State Heritage Register can also be provided by applying for a section 167 Certificate through the Heritage Branch home page.
- In addition, you should consult lists maintained by the National Trust, any heritage listed under the Australian Government's Environment Protection and Biodiversity Conservation Act 1999 and the local council in order to identify any identified items of heritage significance in the area affected by the proposal. Please be aware, however, that these lists are constantly evolving and that items with potential heritage significance may not yet be listed.

- Non-Aboriginal heritage items within the area affected by the proposal should be identified by field survey. This should include any buildings, works, relics (including relics underwater), gardens, landscapes, views, trees or places of non-Aboriginal heritage significance. A statement of significance and an assessment of the impact of the proposal on the heritage significance of these items should be undertaken. Any policies/measures to conserve their heritage significance should be identified. This assessment should be undertaken in accordance with the guidelines in the NSW Heritage Manual. The field survey and assessment should be undertaken by a qualified practitioner/consultant with historic sites experience.
- The proposal should have regard to any impacts on places, items or relics of significance to Aboriginal people. Where it is likely that the project will impact on Aboriginal heritage, adequate community consultation should take place regarding the assessment of significance, likely impacts and management/mitigation measures.
- The relics provisions in the Heritage Act require an excavation permit to be obtained from the Heritage Council, or an exception to be endorsed by the Heritage Council, prior to commencement of works if disturbance to a site with known or potential archaeological relics is proposed. Where possible refer to archaeological zoning plans or archaeological management plans held by Local Councils. If any unexpected archaeological relics are uncovered during the course of work excavation should cease and an excavation permit, or an exception notification endorsement, obtained.

The Heritage Branch would be happy to review any further documentation that may address any likely heritage impacts. If you have any further enquiries regarding this matter, please contact Katrina Stankowski on (02) 9873 8569.

Yours sincerely



15/04/2013

**Vincent Sicari**  
 Manager  
 Conservation Team  
 Heritage Branch  
 Regional Operations  
 Office of Environment & Heritage

**As Delegate of the NSW Heritage Council**

**Ruth Murphy - Brandy Hill quarry - DGR's**


---

**From:** <greg.paine@industry.nsw.gov.au>  
**To:** <ruth.murphy@planning.nsw.gov.au>  
**Date:** 4/18/2013 4:08 PM  
**Subject:** Brandy Hill quarry - DGR's

---

Ruth,

Advices of NSW Office of water below.

I am still chasing any requirements from Fisheries NSW.

Will follow under formal DPI letterhead shortly.

Greg Paine  
 Business Services

Tel: 8289 3951

NSW Office of Water requires the EA for the proposal to demonstrate the following:

1. Adequate and secure water supply for the proposal. Confirmation that water supplies for the project can be sourced from an appropriately authorised and reliable supply. This is to include an assessment of the current market depth where water entitlement is required to be purchased.
2. Identification of site water demands, water sources (surface and groundwater), water disposal methods and water storage structures in the form of a water balance. The water balance is to outline the proposed water management on the site and to also include details of any water reticulation infrastructure that supplies water to and within the site.
3. An impact assessment on adjacent licensed water users (surface and groundwater), riparian ecosystems and groundwater-dependent ecosystems. This is to meet the requirements of relevant state policy in addition to the objects and principles of the *Water Management Act 2000* which can be accessed at the following link:  
<http://www.water.nsw.gov.au/Water-management/Law-and-Policy/default.aspx>
4. An assessment of the potential to intercept and/or impact groundwater and predicted dewatering volumes, water quality and disposal/retention methods. This will need to address the requirements of relevant policy including the Aquifer Interference Policy. It is recommended final landforms of open voids containing groundwater are minimised. Where there is ongoing groundwater take induced by evaporative loss this must be identified and addressed by retaining the appropriate water licence entitlement at the site.
5. An impact assessment of any proposed works within or adjacent to watercourses and adequate provision of buffer requirements. Ability to achieve the principles of the *Water Management Act 2000* and the requirements of the Guidelines for Controlled Activity Approvals. The relevant guidelines can be accessed at the following link: <http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>
6. Preparation of a surface water management plan and groundwater management plan to integrate the proposed water balance and management for the site and to identify adequate mitigating and monitoring requirements for both water quality and water volume.
7. Existing and proposed water licensing requirements in accordance with the *Water Act 1912* and *Water Management Act 2000* (whichever is relevant). This is to demonstrate that existing licences (include licence numbers) and licensed uses are appropriate, and to identify where additional licences are proposed. The proponent will be required to ensure they hold adequate licensed entitlement commensurate with the anticipated volume of groundwater take and surface water take prior to this take occurring. Groundwater take includes the volume of water intercepted by the proposed activities both via the quarry pit and any extraction bores, in addition to any ongoing take induced by evaporative loss within the pit. The annual requirements need to be regularly reviewed through updates of modelling and reviews of metering data.
8. Adequate mitigating and monitoring requirements to address surface water and groundwater impacts.

For further information please contact Rohan McDonald, Planning and Assessment Coordinator, Newcastle, t: (02) 4904 2642 or [rohan.mcdonald@water.nsw.gov.au](mailto:rohan.mcdonald@water.nsw.gov.au).

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Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.





Trade &  
Investment  
Resources & Energy



File: OUT13/7716

8 April 2013

Mr Howard Reed  
Manager, Mining Projects  
NSW Department of Planning & Infrastructure  
GPO Box 39  
Sydney NSW 2001

Department of Planning  
Received  
11 APR 2013  
Scanning Room

Dear Mr Reed,

**RE: Brandy Hill Quarry Extension Project (SSD 5899) – Quarry DGRs request**

Thank you for the opportunity to provide advice on the subject proposal.

This is a response from NSW Trade & Investment, incorporating advice from its Agriculture, Fisheries, and Mineral Resources Branches. Specific Fisheries or Forests issues arising may be provided in separate correspondence.

MRB notes that the Preliminary Environmental Assessment contains no mention of a resource assessment in the key issues to be included in the final Environmental Assessment. MRB would like to draw the proponent's attention to the mineral resource issues outlined below and in Attachment 'A' regarding the inclusion of a resource assessment for the proposed quarry expansion area.

**Mineral Resources Issues**

Rhyodacite is not a prescribed mineral under the Mining Act, 1992. Therefore, DTIRIS – Mineral Resources Branch has no statutory role in authorising or regulating the extraction of this commodity, apart from its role under the *Work Health & Safety Act 2011* and associated regulations and the *Mine Health and Safety Act 2004* and associated regulations, for ensuring the safe operations of mines and quarries.

All environmental reports (EISs or similar) accompanying Development Applications for extractive industry lodged under the Environmental Planning & Assessment Act 1979 should include a resource assessment (as detailed in Attachment A) which:

- Documents the size and quality of the resource and demonstrates that both have been adequately assessed; and
- Documents the methods used to assess the resource and its suitability for the intended applications.

Applications to modify, expand, extend or intensify an existing consent that has already been adequately reported using the above protocol in publicly available documents, may restrict detailed documentation to the additional resources to be used, if accompanied by a summary of past resource assessments and of past production.

NSW Department of Trade and Investment, Regional Infrastructure and  
Services

RESOURCES & ENERGY DIVISION  
PO Box 344 Hunter Region Mail Centre NSW 2310  
Tel: 02 4931 6666 Fax: 02 4931 6726  
ABN 51 734 124 190  
[www.dtiris.nsw.gov.au](http://www.dtiris.nsw.gov.au)

DTIRIS - Mineral Resources Branch collects data on the quantity and value of construction materials produced annually throughout the State. Forms are sent to all operating quarries at the end of each financial year for this purpose. The statistical data thus collected is of great value to Government and industry in planning and resource management, particularly as a basis for analysing trends in production and for estimating future demand for particular commodities or in particular regions. In order to assist in the collection of construction material production data, the proponent should be required to provide annual production data for the subject site to DTIRIS - Mineral Resources Branch as a condition of any new or amended development consent.

For further information regarding mineral issues please contact Malcolm Drummond in the Department's Maitland Office (Tel 4931 6704 or email [malcolm.drummond@industry.nsw.gov.au](mailto:malcolm.drummond@industry.nsw.gov.au)).

#### **Agricultural Issues for Extractive Industries (Quarries)**

The relevant agricultural issues to consider when preparing and also when assessing extractive industry proposals are set out in the Departments' Guideline: *Agricultural issues for Extractive Industries* available on our website; <http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture/extractive-industries>. The guideline also documents recommended project design and mitigatory responses.

The guideline is part of a series designed to help consent authorities identify potential agricultural impacts, and assess whether such proposals can avoid conflict with existing agricultural developments; and protect valuable food and fibre production resources. The guidelines can similarly help consultants and proponents and are available from the Department of Primary Industries land use planning web portal: <http://www.dpi.nsw.gov.au/environment/landuse-planning/agriculture>.

#### **Fisheries Issues**

General issues are summarised in Attachment B.

Yours sincerely



Simon Francis  
A/Team Leader Land Use

Encl. Attachments "A to B"



**ATTACHMENT A**

**TRADE & INVESTMENT NSW  
RESOURCES & ENERGY DIVISION (Mineral Resources Branch)**

**ENVIRONMENTAL and WORK HEALTH & SAFETY  
ASSESSMENT REQUIREMENTS FOR  
CONSTRUCTION MATERIAL QUARRY PROPOSALS**

It is in the best interests of both the proponent and the community to fully assess the resources which are to be extracted. This means that a thorough geological assessment should be undertaken to determine the nature, quality and extent of the resource. Failure to undertake such an assessment could lead to operational problems and possibly even failure of the proposal.

The following issues need to be addressed when preparing an environmental assessment (EA) or environmental impact statement (EIS) for a proposed construction materials (extractive materials) quarry:

**Resource Assessment**

---

1. A summary of the regional and local geology including information on the stratigraphic unit or units within which the resource is located.
2. The amount of material to be extracted and the method or methods used to determine the size of the resource (e.g. drilling, trenching, geophysical methods). Plans and cross-sections summarising this data, at a standard scale, showing location of drillholes and/or trenches, and the area proposed for extraction, should be included in the EA or EIS. Relevant supporting documentation such as drill logs should be included or appended. Major resource proposals should be subject to extensive drilling programs to identify the nature and extent of the resource.
3. Characteristics of the material or materials to be produced:
  - a) For structural clay/shale extraction proposals, ceramic properties such as plasticity, drying characteristics (e.g. dry green strength, linear drying shrinkage), and firing characteristics (e.g. shrinkage, water absorption, fired colour) should be described.
  - b) For sand extraction proposals, properties such as composition, grainsize, grading, clay content and contaminants should be indicated. The inclusion of indicative grading curves for all anticipated products as well as the overall deposit is recommended.
  - c) For hard rock aggregate proposals, information should be provided on properties such as grainsize and mineralogy, nature and extent of weathering or alteration, and amount and type of deleterious minerals, if any.



- d) For other proposals, properties relevant to the range of intended uses for the particular material should be indicated.

Details of tests carried out to determine the characteristics of the material should be included or appended. Such tests should be undertaken by NATA registered testing laboratories.

4. An assessment of the quality of the material and its suitability for the anticipated range of applications should be given.
5. The amount of material anticipated to be produced annually should be indicated. If the proposal includes a staged extraction sequence, details of the staging sequence needs to be provided. The intended life of the operation should be indicated.
6. If the proposal is an extension to an existing operation, details of history and past production should be provided.
7. An assessment of alternative sources to the proposal and the availability of these sources. The impact of not proceeding with the proposal should be addressed.
8. Justification for the proposal in terms of the local and, if appropriate, the regional context.
9. Information on the location and size of markets to be supplied from the site.
10. Route(s) used to transport quarry products to market.
11. Disposal of waste products and the location and size of stockpiles.
12. Assessment of noise, vibration, dust and visual impacts, and proposed measures to minimise these impacts.
13. Proposed rehabilitation procedures during, and after completion of, extraction operations, and proposed final use of site.
14. Assessment of the ecological sustainability of the proposal.

### **Health and Safety Issues**

In relation to the health & safety of mining and quarrying operations, the following issues should be addressed:

1. All operations are to comply with the following Acts & Regulations
  - a. *Work Health & Safety Act 2011*
  - b. *Work Health & Safety Regulations 2011*
  - c. *Mine Health & Safety Act 2004*
  - d. *Mine Health & Safety Regulations 2007*

2. The mine holder must nominate the mine operator in writing on the prescribed form to the Chief Inspector as required by the *Mine Health & Safety Act 2004* Section 22 prior to the commencement of extraction.
3. The operator of the mine must appoint a production manager as required by the *Mine Health & Safety Regulation 2007* Clause 16 and the operator must notify the Chief Inspector of the appointment in writing as required by the *Mine Health & Safety Regulation 2007* Clause 18 prior to the commencement of extraction.
4. Any blasting operations carried out by the mine operator must comply with the *Explosives Act 2003* and the *Explosives Regulations 2005*.

### **Mineral Ownership**

The *Mining Act 1992* applies to those commodities prescribed by the regulations of the Act (Schedule 2, Mining Regulation 2003). Most construction materials are not prescribed minerals under the *Mining Act 1992*. In general terms, this means these materials are owned by the Crown where they occur on Crown land and by the landowner in the case of freehold land. A Mining Title is not required for their extraction although a Crown Lands licence is required where they occur on Crown land.

Construction materials such as sand (*other than marine aggregate*), loam, river gravel, and coarse aggregate materials such as basalt, sandstone, and granite are not prescribed minerals under the *Mining Act 1992*. Therefore, Trade & Investment NSW has no statutory responsibility for authorising or regulating the extraction of these commodities, apart from its role under the *Mine Health and Safety Act 2004* with respect to the safe operation of mines and quarries. However, the Department is the principal government authority responsible for assessing the State's resources of construction materials and for advising State and local government on their planning and management.

Some commodities, notably structural clay (*ie clay for brick, tile and pipe manufacture*), dimension stone (*except for sandstone*), quartzite, kaolin, limestone and marine aggregate are prescribed minerals under the *Mining Act 1992*. Minerals which are prescribed as minerals under the terms of the Mining Act may, in some cases belong either to the Crown or to the landowner, depending on a number of factors including the date on which the mineral was proclaimed and the date of alienation of the land. The proponent needs to determine whether the material is privately owned or Crown mineral (publicly owned). If it is privately owned, then either a notification under Section 8 of the Mining Act 1992 or, alternatively, a mining lease or mineral claim would be required. If it is a Crown mineral, an application for a mining lease or mineral claim will have to be lodged.

If you are unsure whether a mining title is required for your proposal you should contact NSW Trade & Investment, Resources & Energy Division.



## ATTACHMENT B

### Primary Industries Division - Aquatic Habitat Protection Requirements

#### Matters to be Addressed

##### Definitions

The definitions given below are relevant to these requirements:

**Fish** means any part of marine, estuarine or freshwater fish or other aquatic animal life at any stage of their life history (whether alive or dead). This includes aquatic molluscs, crustaceans, echinoderms, worms, aquatic insect larvae and other macroinvertebrates.

**Marine vegetation** means any species of plant that at any time in its life must inhabit water (other than fresh water).

**Waters** refers to all waters including tidal waters as well as flowing streams, irregularly flowing streams, gullies, rivers, lakes, coastal lagoons, wetlands and other forms of natural or man made water bodies on both private and public land.

#### 1. General Requirements

- Area which may be affected either directly or indirectly by the development or activity should be identified and shown on an appropriately scaled map (1:25000) and aerial photographs.
- All waterbodies and waterways within the proposed area of development are to be identified.
- Description and maps of aquatic vegetation, snags, gravel beds and any other protected, threatened or dominant habitats should be presented. Description should include area, density and species composition.
- A survey of fish species should be carried out and results included. Existing data should be used only if collected less than 5 years previously.
- Identification of recognised recreational and commercial fishing grounds, aquaculture farms and/or other waterways users.
- Details of the location of all component parts of the proposal, including any auxiliary infrastructure, timetable for construction of the proposal with details of various phases of construction
- Aspects of the management of the proposal, both during construction and after completion, which relate to impact minimisation and site rehabilitation eg Environment Management Plans, Rehabilitation Plans, Compensatory offsets
- For each freshwater body identified on the plan, the plan should include, either by annotation or by an accompanying table, hydrological and stream morphology information such as: flow characteristics, including any seasonal variations, bed substrate, and bed width
- For each marine or estuarine area identified on the plan, the plan should include, either by annotation or by an accompanying table, hydrological and stream morphology information such as: tidal characteristics, bed substrate, and depth contours

#### DREDGING AND RECLAMATION ACTIVITIES

- Purpose of works
- Type(s) and distribution of marine vegetation in the vicinity of the proposed works
- Method of dredging to be used

- Timing and Duration of works
- Dimension of area of works including levels and volume of material to be extracted or placed as fill
- Nature of sediment to be dredged, including Acid Sulphate Soil, contaminated soils etc
- Method of marking area subject to works
- Environmental safeguards to be used during and after works
- Measures for minimising harm to fish habitat under the proposal
- Spoil type and source location for reclamation activities
- Method of disposal of dredge material
- Location and duration of spoil stockpiling, if planned

#### ACTIVITIES THAT DAMAGE MARINE VEGETATION

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- Type of marine vegetation to be harmed
- Map and density distribution of marine vegetation
- Reasons for harming marine vegetation
- Methods of harming marine vegetation
- Construction details
- Duration of works/activities
- Measures for minimising harm to marine vegetation under the proposal and details of compensatory habitat development to replace lost vegetation.
- Method and location of transplanting activities or disposal of marine vegetation

#### ACTIVITIES THAT BLOCK FISH PASSAGE

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- Type of activity eg works in a stream that change flow or morphological characteristics of the stream, including culvert and causeway construction, sediment and erosion control measures, stormwater diversion structures.
- Length of time fish passage is to be restricted, whether permanent or temporary
- Timing of proposed restriction. Should be timed to avoid interfering with migratory movements of fish.
- Remediation or compensatory works to offset any impacts

#### THREATENED SPECIES

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- Threatened aquatic species assessment (Section 5c, EP&A Act 1979). This must be addressed even if there are no Threatened Species present on the site.
- Seven Part Test

#### FISHING AND AQUACULTURE

---

- Outline and document commercial, recreational and indigenous fishing activities that may be affected by the activity, including regular commercial fishing grounds, popular recreational fishing sites, recognised indigenous harvesting sites.
- Will the activity interfere with or cause an impact on the continuing operation and viability of nearby aquaculture or mariculture ventures.

### 2. Initial Assessment

A list of threatened species, endangered populations and endangered ecological communities must be provided. In determining these species, consideration must be given to the habitat types present within the study area, recent records of threatened species in the locality and the known distributions of these species.

In describing the locality in the vicinity of the proposal, discussion must be provided in regard to the previous land and water uses and the effect of these on the proposed site. Relevant historical events may include land clearing, agricultural activities, water

abstraction/diversion, dredging, de-snagging, reclamation, siltation, commercial and recreational activities.

A description of habitat including such components as stream morphology, in-stream and riparian vegetation, water quality and flow characteristics, bed morphology, vegetation (both aquatic and adjacent terrestrial), water quality and tide/flow characteristics must be given. The condition of the habitat within the area must be described and discussed, including the presence and prevalence of introduced species. A description of the habitat requirements of threatened species likely to occur in the study area must be provided.

In defining the proposal area, discussion must be provided in regard to possible indirect effects of the proposal on species/habitats in the area surrounding the subject site: for example, through altered hydrological regimes, soil erosion or pollution. The study area must extend downstream and/or upstream as far as is necessary to take all potential impacts into account.

**Please Note:** Persons undertaking aquatic surveys may be required to hold or obtain appropriate permits or licences under relevant legislation. For example:

*Fisheries Management Act 1994*

- Permit to take fish or marine vegetation for research or other authorised purposes (Section 37)
- Licence to harm threatened (aquatic) species, and/or damage the habitat of a threatened species (Section 220ZW).

*Animal Research Act 1985:*

- Animal Research Authority to undertake fauna surveys.

It is recommended that, prior to any field survey activities taking place, those persons proposing to undertake those activities give consideration to their obligation to obtain appropriate permits or licences which may be required in the specific context of the proposed survey activities.

### **3. Assessment of Likely Impacts**

The EIS must:

- describe and discuss significant habitat areas within the study area;
- outline the habitat requirements of threatened species likely to occur in the study area;
- indicate the location, nature and extent of habitat removal or modification which may result from the proposed action;
- discuss the potential impact of the modification or removal of habitat;
- identify and discuss any potential for the proposal to introduce barriers to the movement of fish species; and
- describe and discuss any other potential impacts of the proposal on fish species or their habitat.

For all species likely to have their lifecycle patterns disrupted by the proposal to the extent that individuals will cease to occupy any location within the subject site, the EIS must describe and discuss other locally occurring populations of such species. The relative significance of this location for these species in the general locality must be discussed in terms of the extent, security and viability of remaining habitat in the locality.

### **4. Ameliorative Measures**

The EIS must consider how the proposal has been or may be modified and managed to conserve fisheries habitat on the subject site and in the study area.

In discussing alternatives to the proposal, and the measures proposed to mitigate any effects of the proposal, consideration must be given to developing long term management strategies to protect areas within the study area which are of particular importance for fish species. This may include proposals to restore or improve habitat.

Any proposed pre-construction monitoring plans or on-going monitoring of the effectiveness of the mitigation measures must be outlined in detail, including the objectives of the monitoring program, method of monitoring, reporting framework, duration and frequency.

In the event of a request for concurrence or consultation of the Director of Industry & Investment NSW, one (1) copy of the EIS should be provided to Industry & Investment NSW in order for the request to be processed.

It should be noted that Industry & Investment NSW has no regulatory or statutory role to review draft EISs unless they are accompanied by or are requested as part of a licence application under Part 7A of the FM Act. However, Industry & Investment NSW is available to provide advice to consent and determining authorities regarding Fisheries' opinion as to whether the requirements have been met if requested, pending the availability of resources and other statutory priorities.

#### **Useful Information**

To help you in the preparation of an EIS, the publication "*Guidelines for the Assessment of Aquatic Ecology in EIA*" (Draft 1998) produced by the Department for Urban Affairs and Planning may prove useful in outlining appropriate procedures and methodologies for conducting aquatic surveys.

Should you require any further information on these requirements please contact the Aquatic Habitat Protection Office at Port Stephens on 4916 3931.



**Ruth Murphy - FW: Request for input to SSD 5899 DGRs - Brandy Hill Quarry Expansion**

**From:** Malcolm Withers <malcolm.withers@hunterwater.com.au>  
**To:** "Ruth.Murphy@planning.nsw.gov.au" <Ruth.Murphy@planning.nsw.gov.au>  
**Date:** 4/22/2013 1:23 PM  
**Subject:** FW: Request for input to SSD 5899 DGRs - Brandy Hill Quarry Expansion  
**Attachments:** Canon MFD Attached Image; Brandy Hill Quarry Expansion\_15.03.2013 Final.pdf; Part.005

Good afternoon Ruth,

I refer to your request for Director General's Requirements Hunter Water may have for the proposed Brandy Hill Extension Project (SSD 5899). I sincerely apologise for the delay in responding to your request. The quarry site is remote from Hunter Water's water and sewerage systems and is outside of our drinking water catchments.

As a consequence, Hunter Water has no objection to the proposed quarry expansion. If you have any further questions, please do not hesitate to contact me.

Regards



**Malcolm Withers**

Senior Developer Services Engineer | Hunter Water Corporation  
 36 Honeysuckle Drive Newcastle NSW 2300 | PO Box 5171 HRMC NSW 2310  
 T 02 4979 9545 | F 02 4979 9311 | M 0429 372 449  
[malcolm.withers@hunterwater.com.au](mailto:malcolm.withers@hunterwater.com.au)

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**From:** Ruth Murphy [mailto:[Ruth.Murphy@planning.nsw.gov.au](mailto:Ruth.Murphy@planning.nsw.gov.au)]  
**Sent:** Wednesday, 27 March 2013 4:05 PM  
**To:** Enquiries  
**Subject:** Request for input to SSD 5899 DGRs - Brandy Hill Quarry Expansion

**Brandy Hill Quarry Extension Project (SSD 5899)  
 Request for input to DGRs**

Dear Mr Wood

Please find attached a copy of the letter requesting your agency's input to the DGRs for the Brandy Hill Quarry Extension Project and the proponent's Preliminary Environmental Assessment for your information. I have posted the original letter to you.

It would be greatly appreciated if we could receive your advice by Monday 15 April 2013.

Kind regards





Ruth

**Ruth Murphy**

Planner, Mining and Industry Projects

NSW Department of Planning & Infrastructure | GPO Box 39 | Sydney NSW 2001

T 02 9228 2081 E [Ruth.Murphy@planning.nsw.gov.au](mailto:Ruth.Murphy@planning.nsw.gov.au)



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Office of  
Environment  
& Heritage

Your reference: SSD\_5899  
Our reference: DOC13/12728 ; FIL13/3481  
Contact: David Paull, 4908 6837

Mr Howard Reed  
Manager, Mining Projects  
Department of Planning and Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

Attention: Ruth Murphy

Dear Mr Reed

**RE: REQUEST FOR INPUT TO DIRECTOR GENERAL'S REQUIREMENTS FOR BRANDY HILL QUARRY EXTENSION PROJECT (SSD 5899)**

I refer to your letter dated 27 April 2013 seeking input into the Director General's Requirements (DGRs) for the Brandy's Hill Quarry Extension Project, a proposed State Significant Development. It is noted that the proposal would involve the removal of approximately 20 hectares of native vegetation to facilitate the extension of the quarry pit and the relocation of existing infrastructure.

The Office of Environment and Heritage (OEH) has reviewed the proposal based on the information provided in the report titled the 'Preliminary Environmental Assessment: (Brandy Hill) Quarry Expansion Project' as prepared by Hanson Construction Materials Pty Ltd, March 2013. OEH has considered the details of the proposal and has identified the information it requires to assess the proposal (**Attachment 1**). The proponent should ensure that the Environmental Impact Statement is sufficiently comprehensive to enable OEH to determine the extent of the impact(s) of the proposal. In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in **Attachments 2 and 3** and relevant best practice management guidelines.

OEH requests one (1) hard and two (2) electronic (CD) copies of the EIS for assessment. These documents should be sent to:

Manager, Planning and Aboriginal Heritage  
Office of Environment and Heritage  
PO Box 488G  
NEWCASTLE NSW 2300.

If you require any further information regarding this matter please contact David Paull, Regional Biodiversity Conservation Officer, on 4908 6837.

Yours sincerely

12 APR 2013

**RICHARD BATH**  
Head - Hunter Planning Unit  
Regional Operations



**ATTACHMENT 1: OEH'S RECOMMENDED DIRECTOR GENERAL'S REQUIREMENT'S FOR  
BRANDY'S HILL QUARRY EXTENSION PROJECT**

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## 1 Environmental impacts of the project

Impacts related to the following environmental issues need to be assessed, quantified and reported on:

- Aboriginal cultural heritage
- Biodiversity

Environmental impact statements (EISs) should address the specific requirements outlined below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is at Attachment 2.

## 2 The Proposal

The objectives of the proposal should be clearly stated and refer to:

- the size, scale and type of the activity / development;
- all anticipated environment impacts, both direct and indirect, including level of vegetation / habitat clearing;
- threatened species, populations, ecological communities and / or habitats impacted upon;
- the staging and timing of the proposal; and
- the proposal's relationship to any other proposal and/or developments.

## SPECIFIC ISSUES

### 3 Aboriginal Cultural Heritage

OEH recommends that the following Aboriginal cultural heritage issues be addressed by the proponent in preparing the EIS.

#### Existing Aboriginal cultural heritage values

OEH acknowledges the existence of numerous registered Aboriginal sites in the regional locality. These include culturally modified trees, isolated finds, camp sites, artefact scatters and potential artefact scatters (PADS). It is also acknowledged that the project area contains landforms which have yielded a significant volume of evidence of Aboriginal occupation. It is therefore recommended that the proponent consider any potential impacts of the proposal on these known Aboriginal sites/objects, the sensitivity and significance of these sites to the traditional Aboriginal knowledge holders and any relationship that may exist between these sites and any Aboriginal cultural heritage values of the project area.

#### Potential impacts of the project on Aboriginal cultural heritage values

##### Standard requirements:

1. The EIS must address and document the information requirements set out in the draft '*Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation*' (Department of Environment and Conservation 2005). This document is available from Department of Planning and Infrastructure upon request.
2. The EIS must include surveys by suitably qualified archaeological consultants in consultation with all of the local Aboriginal knowledge holders.
3. The EIS should identify the nature and extent of impacts on Aboriginal cultural heritage values across the project area and clearly articulate strategies proposed to avoid/minimise these impacts.

If impacts are proposed as part of the final development, clear justification for such impacts should be provided.

4. The EIS must assess and document the archaeological and Aboriginal significance of the project area's Aboriginal cultural heritage values.
5. Describe the actions that will be taken to avoid or mitigate impacts of the project on Aboriginal cultural heritage values. This must include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented. Any proposed methodology for Aboriginal cultural heritage investigation should reflect best practice standards recommended by OEH in the *'Code of Practice for Archaeological Investigations of Objects in New South Wales (2010)'*.
6. The EIS must provide documentary evidence to demonstrate that effective community consultation with Aboriginal communities has been undertaken in assessing impacts, developing protection and mitigation options and making final recommendations. OEH supports broad-based Aboriginal community consultation and as a guide OEH's *'Aboriginal cultural heritage consultation requirements for proponents 2010'* provides a useful model to follow. This requirement is available on OEH's website at:  
[www.environment.nsw.gov.au/licences/consultation.htm](http://www.environment.nsw.gov.au/licences/consultation.htm).
7. If impacts on Aboriginal cultural heritage values are proposed as part of the final development, an assessment of the proposed impacts in the context of *'inter generational equity'* and cumulative impact must be undertaken. This assessment must examine both cultural and archaeological perspectives equally at both the local and regional levels, with consideration given to the site level and broader landscape level.

Note: If the EIS is relying on past surveys it is critical to confirm that the surveys are consistent with the requirements of the above State Significant Development project application guidelines. Further, whilst there may be no requirement for obtaining an Aboriginal Heritage Impact Permit (AHIP) under Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act) for projects approved under the provisions of Part 4 of the *Environmental Planning and Assessment Act 1979*, there are other sections of the NPW Act which remain valid. This includes the requirement to obtain a Care Agreement for salvaged objects (Section 85) and reporting to OEH on the status of new or impacted Aboriginal sites (Section 89A).

## 4 Biodiversity

OEH acknowledges that the proposal will involve an increased extraction of additional resources up to 1.5 Million tonnes per annum (as stated in the Preliminary Environmental Assessment (PEA)), and the relocation of infrastructure. The area of the intended development footprint is not specified in the PEA though will require the removal of approximately 20 ha of native vegetation. This may provide habitat to threatened species, populations and/or ecological communities, and as such, where applicable, an appropriate assessment (including relevant surveys) must be conducted in accordance with the following recommendations.

Biodiversity impacts can be assessed using the BioBanking Assessment Methodology (scenario 1) or a detailed biodiversity assessment (scenario 2). The requirements for each of these approaches are detailed below.

**Please Note:** The BioBanking Assessment Methodology can be used either to obtain a BioBanking statement, or to assess impacts of a proposal and to determine required offsets without obtaining a statement. In the latter instances, if the required credits are not available for offsetting, appropriate alternative options may be developed in consultation with the OEH and in accordance with OEH policy.



Scenario 1 - Where a proposal is assessed using the BioBanking Assessment Methodology (BBAM DECC 2008):

1. Where a BioBanking Statement is being sought under Part 7A of the TSC Act, the assessment must be undertaken by an accredited BioBanking assessor (as specified under Section 142B (1)(c) of the TSC Act) and done in accordance with the BioBanking Assessment Methodology and Credit Calculator Operational Manual (OEH 2011a). To qualify for a BioBanking Statement a proposal must meet the improve or maintain standard.
2. The EIS should include a specific Statement of Commitments that reflects all requirements of the BioBanking Statement including the number of credits required and any DG approved variations to impact on Red Flags.
3. The EIS should include a specific Statement of Commitments which:
  - is informed by the outcomes of the proposed BioBanking assessment offset package;
  - sets out the ecosystem and species credits required by the BioBanking Assessment Methodology and how these ecosystem and/or species credits will be secured and obtained;
  - if the ecosystem or species credits cannot be obtained, provides appropriate alternative options to offset expected impacts, noting that an appropriate alternative option may be developed in consultation with OEH officers and in accordance with OEH policy;
  - demonstrates how all options have been explored to avoid red flag areas;
  - submission of credit calculator files for both the development and biobank sites as outlined in **Attachment 3**,
  - all appropriate BioBanking assessment files (including all reports, underlying assumptions [particularly in the selection of vegetation types from the vegetation types database, placement of assessment circles, connectivity assessment etc], associated maps, field sheets etc), and any relevant expert reports (if applicable). **Attachment 3** is a checklist of information required when utilising the BioBanking Assessment Methodology and can be used as a guide to the relevant information required,
  - all appropriate GIS shape files (e.g. maps, plots and transects, assessment circles, species polygons, vegetation communities),
  - geo-referenced map(s) showing the locality of the offset lands, relevant vegetation zones and management areas (if applicable),
  - legible copies of all field plot / transect data sheets for all plots entered into the credit calculator. This is the primary source of information OEH utilises to assess biometric vegetation types chosen, habitat preferences and site condition, and
  - with respect to the use of the offset policy, the level or tier of offset achieved must be clearly stated and explained, and any credit variation rules which have been applied must be justified.
4. Where the 'NSW OEH interim policy on assessing and offsetting biodiversity impacts, State significant development (SSD) and State significant infrastructure (SSI) projects' (OEH 2011b) is being used then the proponent must stipulate which level(s) of offset is being offered. In accordance with the interim policy, justification must be provided as to why it is appropriate to apply the Tier 2 ('no net loss') or Tier 3 ('mitigated net loss') outcomes. In considering whether the mitigated net loss standard is appropriate, justification must be provided on: (i) whether the credits required by the calculator are available on the market; (ii) whether alternative offset sites (other than credits) are available on the market; and (iii) the overall cost of the offsets and whether these costs are reasonable given the circumstances. This must be to satisfaction of and in consultation with OEH. Tier 2 and Tier 3 offset proposals will likely require a larger area of remnant vegetation to be offered in the offset package than if Tier 1 ('improve or maintain') had been met.
5. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby OEH estate reserved under the NPW Act or any marine and estuarine protected areas under the Fisheries Management Act 1994 or the Marine Parks Act 1997 should be considered. Please refer to the Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (DECCW 2010).

6. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify and assess any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

Scenario 2 - Where a proposal is assessed outside the BioBanking Assessment Methodology:

1. The EIS should include a detailed biodiversity assessment, including assessment of impacts on threatened biodiversity, native vegetation and habitat. This assessment should address the matters included in the following sections.
2. A field survey of the site should be conducted and documented in accordance with relevant guidelines, including:
  - the Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna - Amphibians (DECCW, 2009a)
  - Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004), and
  - Threatened species survey and assessment guideline information on [www.environment.nsw.gov.au/threatenedspecies/surveyassessmenttgdlns.htm](http://www.environment.nsw.gov.au/threatenedspecies/surveyassessmenttgdlns.htm).

If a proposed survey methodology is likely to vary significantly from the above methods, the proponent should discuss the proposed methodology with OEH prior to undertaking the EIS, to determine whether OEH considers that it is appropriate.

Recent (less than five years old) surveys and assessments may be used. However, previous surveys should not be used if they have:

- been undertaken in seasons, weather conditions or following extensive disturbance events when the subject species are unlikely to be detected or present, or
- utilised methodologies, survey sampling intensities, timeframes or baits that are not the most appropriate for detecting the target subject species,

unless these differences can be clearly demonstrated to have had an insignificant impact upon the outcomes of the surveys. If a previous survey is used, any additional species listed under the TSC Act since the previous survey took place, must be surveyed for.

Determining the list of potential threatened species for the site must be done in accordance with the Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004) and the Guidelines for Threatened Species Assessment (Department of Planning, July 2005). The OEH Threatened Species website [www.environment.nsw.gov.au/threatenedspecies/](http://www.environment.nsw.gov.au/threatenedspecies/) and the *Atlas of NSW Wildlife* database must be the primary information sources for the list of threatened species present. The BioBanking Threatened Species Database, the Vegetation Types databases (available on DECCW website at [www.environment.nsw.gov.au/biobanking/biobankingtsdpd.htm](http://www.environment.nsw.gov.au/biobanking/biobankingtsdpd.htm) and [www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm](http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm), respectively) and other data sources (e.g. PlantNET, Online Zoological Collections of Australian Museums ([www.ozcam.org/](http://www.ozcam.org/)), previous or nearby surveys etc.) may also be used to compile the list.

3. OEH notes the following known and/or predicted threatened species, populations and ecological communities (based on OEH *Atlas of NSW Wildlife* database, vegetation mapping and potential habitat) which have broad habitat matches to that of the site occur on or areas nearby (approx. 10km radius) to the proposal. These should be targeted during surveying (but not be limited to just these):

(a) Potentially occurring Threatened Fauna and populations

Class	Family	Scientific Name	Common Name	NSW status	Comm. status
Amphibia	Hylidae	<i>Litoria brevipalmata</i>	Green-thighed Frog	V	
Reptilia	Elapidae	<i>Hoplocephalus bitorquatus</i>	Pale-headed Snake	V	
Reptilia	Elapidae	<i>Hoplocephalus stephensii</i>	Stephens' Banded Snake	V	
Aves	Casuariidae	<i>Dromaius novaehollandiae</i>	Emu population in the New South Wales North Coast Bioregion and Port Stephens local government area	E2	
Aves	Anseranatidae	<i>Anseranas semipalmata</i>	Magpie Goose	V	
Aves	Columbidae	<i>Ptilinopus magnificus</i>	Wompoo Fruit-Dove	V	
Aves	Columbidae	<i>Ptilinopus regina</i>	Rose-crowned Fruit-Dove	V	
Aves	Columbidae	<i>Ptilinopus superbus</i>	Superb Fruit-Dove	V	
Aves	Ciconiidae	<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	E1	
Aves	Ardeidae	<i>Botaurus poiciloptilus</i>	Australasian Bittern	E1	E
Aves	Ardeidae	<i>Ixobrychus flavicollis</i>	Black Bittern	V	
Aves	Accipitridae	<i>Circus assimilis</i>	Spotted Harrier	V	
Aves	Accipitridae	<i>Hieraaetus morphnoides</i>	Little Eagle	V	
Aves	Accipitridae	<i>Lophoictinia isura</i>	Square-tailed Kite	V	
Aves	Burhinidae	<i>Burhinus grallarius</i>	Bush Stone-curlew	E1	
Aves	Rostratulidae	<i>Rostratula australis</i>	Australian Painted Snipe	E1	V
Aves	Cacatuidae	<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V	
Aves	Cacatuidae	<i>Calyptorhynchus lathami</i>	Glossy Black-Cockatoo	V	
Aves	Psittacidae	<i>Glossopsitta pusilla</i>	Little Lorikeet	V	
Aves	Psittacidae	<i>Lathamus discolor</i>	Swift Parrot	E1	E
Aves	Psittacidae	<i>Neophema pulchella</i>	Turquoise Parrot	V	
Aves	Strigidae	<i>Ninox connivens</i>	Barking Owl	V	
Aves	Strigidae	<i>Ninox strenua</i>	Powerful Owl	V	
Aves	Tytonidae	<i>Tyto longimembris</i>	Eastern Grass Owl	V	
Aves	Tytonidae	<i>Tyto novaehollandiae</i>	Masked Owl	V	
Aves	Tytonidae	<i>Tyto tenebricosa</i>	Sooty Owl	V	
Aves	Climacteridae	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	V	
Aves	Acanthizidae	<i>Chthonicola sagittata</i>	Speckled Warbler	V	
Aves	Meliphagidae	<i>Anthochaera phrygia</i>	Regent Honeyeater	CE	E
Aves	Meliphagidae	<i>Epthianura albilfrons</i>	White-fronted Chat	V	
Aves	Meliphagidae	<i>Grantiella picta</i>	Painted Honeyeater	V	
Aves	Meliphagidae	<i>Melithreptus gularis</i>	Black-chinned Honeyeater (eastern subspecies)	V	
Aves	Pomatostomidae	<i>Pomatostomus temporalis temporalis</i>	Grey-crowned Babbler (eastern subspecies)	V	
Aves	Neosittidae	<i>Daphoenositta chrysoptera</i>	Varied Sittella	V	
Aves	Pachycephalidae	<i>Pachycephala olivacea</i>	Olive Whistler	V	
Aves	Petroicidae	<i>Melanodryas cucullata cucullata</i>	Hooded Robin (south-eastern form)	V	
Aves	Petroicidae	<i>Petroica boodang</i>	Scarlet Robin	V	
Aves	Petroicidae	<i>Petroica phoenicea</i>	Flame Robin	V	
Aves	Estrildidae	<i>Stagonopleura guttata</i>	Diamond Firetail	V	
Mammalia	Dasyuridae	<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V	E
Mammalia	Dasyuridae	<i>Phascogale tapoatafa</i>	Brush-tailed Phascogale	V	
Mammalia	Dasyuridae	<i>Planigale maculata</i>	Common Planigale	V	
Mammalia	Phascolarctidae	<i>Phascolarctos cinereus</i>	Koala	V	V
Mammalia	Burramyidae	<i>Cercartetus nanus</i>	Eastern Pygmy-possum	V	
Mammalia	Petauridae	<i>Petaurus australis</i>	Yellow-bellied Glider	V	
Mammalia	Petauridae	<i>Petaurus norfolcensis</i>	Squirrel Glider	V	
Mammalia	Macropodidae	<i>Macropus parma</i>	Parma Wallaby	V	
Mammalia	Macropodidae	<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	E1	V
Mammalia	Pteropodidae	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V

Mammalia	Emballonuridae	<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V	
Mammalia	Molossidae	<i>Mormopterus norfolkensis</i>	Eastern Freetail-bat	V	
Mammalia	Vespertilionidae	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	V	V
Mammalia	Vespertilionidae	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	V	
Mammalia	Vespertilionidae	<i>Miniopterus australis</i>	Little Bentwing-bat	V	
Mammalia	Vespertilionidae	<i>Miniopterus schreibersii oceanensis</i>	Eastern Bentwing-bat	V	
Mammalia	Vespertilionidae	<i>Myotis macropus</i>	Southern Myotis	V	
Mammalia	Vespertilionidae	<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat	V	V
Mammalia	Vespertilionidae	<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	V	
Mammalia	Vespertilionidae	<i>Vespadelus troughtoni</i>	Eastern Cave Bat	V	
Flora	Apocynaceae	<i>Cynanchum elegans</i>	White-flowered Wax Plant	E1	E
Flora	Asteraceae	<i>Ozothamnus tessellatus</i>		V	V
Flora	Asteraceae	<i>Rutidosis heterogama</i>	Heath Wrinklewort	V	V
Flora	Euphorbiaceae	<i>Monotaxis macrophylla</i>	Large-leafed Monotaxis	E1	
Flora	Fabaceae	<i>Senna acclinis</i>	Rainforest Cassia	E1	
Flora	(Caesalpinioideae)				
Flora	Fabaceae	<i>Acacia bynoeana</i>	Bynoe's Wattle	E1	V
Flora	(Mimosoideae)				
Flora	Juncaginaceae	<i>Maundia triglochinoides</i>		V	
Flora	Myrtaceae	<i>Callistemon linearifolius</i>	Netted Bottle Brush	V	
Flora	Myrtaceae	<i>Eucalyptus glaucina</i>	Slaty Red Gum	V	V
Flora	Myrtaceae	<i>Eucalyptus parramattensis</i> subsp. <i>decadens</i>		V	V
Flora	Myrtaceae	<i>Eucalyptus pumila</i>	Pokolbin Mallee	V	V
Flora	Orchidaceae	<i>Corybas dowlingii</i>	Red Helmet Orchid	E1	
Flora	Orchidaceae	<i>Cryptostylis hunteriana</i>	Leafless Tongue Orchid	V	V
Flora	Orchidaceae	<i>Cymbidium canaliculatum</i>	<i>Cymbidium canaliculatum</i> population in the Hunter Catchment	E2	
Flora	Orchidaceae	<i>Pterostylis gibbosa</i>	Illawarra Greenhood	E1	E
Flora	Polygonaceae	<i>Persicaria elatior</i>	Tall Knotweed	V	V
Flora	Proteaceae	<i>Grevillea parviflora</i> subsp. <i>parviflora</i>	Small-flower Grevillea	V	V
Flora	Rhamnaceae	<i>Pomaderris bodalla</i>	Bodalla Pomaderris	V	
Flora	Rhamnaceae	<i>Pomaderris queenslandica</i>	Scant Pomaderris	E1	
Flora	Rhamnaceae	<i>Pomaderris reperta</i>	Denman Pomaderris	CE	CE
Flora	Rubiaceae	<i>Asperula asthenes</i>	Trailing Woodruff	V	V
Flora	Rutaceae	<i>Leionema lamprophyllum</i> subsp. <i>obovatum</i>	<i>Leionema lamprophyllum</i> subsp. <i>obovatum</i> population in the Hunter Catchment	E2	

Key: V=Vulnerable; E(1)=Endangered; E2=Endangered Population; CE= Critically Endangered

### (c) Potentially occurring Threatened Ecological Communities

- Central Hunter Grey Box-Ironbark Woodland in the New South Wales North Coast and Sydney Basin Bioregions
- Central Hunter Ironbark-Spotted Gum-Grey Box Forest in the New South Wales North Coast and Sydney Basin Bioregions
- Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions
- Hunter Floodplain Red Gum Woodland in the NSW North Coast and Sydney Basin Bioregions
- Hunter Lowland Redgum Forest in the Sydney Basin and New South Wales North Coast Bioregions
- Hunter Valley Vine Thicket in the NSW North Coast and Sydney Basin Bioregions
- Lower Hunter Valley Dry Rainforest in the Sydney Basin and NSW North Coast Bioregions
- River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

4. The EIS should contain the following information as a minimum:

- a. The requirements set out in the *Guidelines for Threatened Species Assessment* (Department of Planning, July 2005).
- b. Description and geo-referenced mapping of study area (and spatial data files), e.g. overlays on topographic maps, satellite images and /or aerial photos, including details of map datum, projection and zone, all survey locations, all vegetation communities, key habitat features and reported locations of threatened species, populations and ecological communities present in the subject site and study area.
- c. Description of survey methodologies used, including timing, location and weather conditions.
- d. Details, including qualifications and experience of all staff undertaking the surveys, mapping and assessment of impacts as part of the EIS.
- e. Detailed description of all vegetation communities (both forested and non-woody [e.g. derived grasslands], including classification and methodology used to classify) and including all plot data. Plot data should be supplied to the OEH in electronic format (e.g. MS-Excel) and organised by vegetation community.
- f. Identification of national and state listed threatened biota known or likely to occur in the study area and their conservation status.
- g. Description of the likely impacts of the proposal on biodiversity and wildlife corridors, including direct and indirect and construction and operation impacts. Wherever possible, quantify these impacts such as the amount of each vegetation community or species habitat to be cleared or impacted, or any fragmentation of a wildlife corridor. The proposal should provide an assessment of the cumulative impacts of the proposal in relation to other nearby developments.
- h. Identification of the avoidance, mitigation and management measures that will be put in place as part of the proposal to avoid or minimise impacts, including details about alternative options considered and how long term management arrangements will be guaranteed.
- i. Description of the residual impacts of the proposal. If the proposal cannot adequately avoid or mitigate impacts on biodiversity, then a biodiversity offset package is expected (see the requirements for this at point 6 below).
- j. Provision of specific Statement of Commitments relating to biodiversity.

5. An assessment of the significance of direct and indirect impacts of the proposal must be undertaken for threatened biodiversity known or considered likely to occur in the study area based on the presence of suitable habitat. This assessment must take into account:

- a. the factors identified in s.5A of the EP&A Act, and
- b. the guidance provided by *The Threatened Species Assessment Guideline – The Assessment of Significance* (DECC 2007) which is available at:  
[www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf](http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf)

6. Where an offsets package is proposed by a proponent for impacts to biodiversity (and a BioBanking Statement has not been sought) this package should:

- a. Meet OEH's *Principles for the use of biodiversity offsets in NSW*, which are available at:  
[www.environment.nsw.gov.au/biocertification/offsets.htm](http://www.environment.nsw.gov.au/biocertification/offsets.htm).
- b. Identify the conservation mechanisms to be used to ensure the long term protection and management of the offset sites.
- c. Include an appropriate Management Plan (such as vegetation or habitat) that has been developed as a key amelioration measure to ensure any proposed compensatory offsets, retained habitat enhancement features within the development footprint and/or impact mitigation measures (including proposed rehabilitation and/or monitoring programs) are appropriately managed and funded.

With respect to managing and conserving a proposed offset in perpetuity, OEH considers and supports the following as appropriate conservation mechanisms:

- o The establishment of biobanking sites with biobanking agreements under the *Threatened Species Conservation Act 1995*;
- o The dedication of land under the *National Parks and Wildlife Act 1974* (NPW Act);

- A Conservation Agreement under the NPW Act;
- A Trust Agreement under the *Nature Conservation Trust Act 2001*; or
- A Planning Agreement under s 93F of the *Environmental Planning and Assessment Act 1979*.

**Note:** OEH no longer supports public positive covenant under s88E of the *Conveyancing Act 1919* as an appropriate conservation mechanism to secure and/or manage biodiversity offsets.

7. Where appropriate, likely impacts (both direct and indirect) on any adjoining and/or nearby National Parks and Wildlife Service estate reserved under the *National Parks and Wildlife Act 1974* or any marine and estuarine protected areas under the *Fisheries Management Act 1994* or the *Marine Parks Act 1997* should be considered. Refer to the *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water* (DECCW 2010). The OEH notes Rawdon Creek Nature Reserve is in the vicinity of the proposal, and as such any direct or indirect impacts to this reserve need to be documented and assessed.
8. With regard to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the assessment should identify any relevant Matters of National Environmental Significance and whether the proposal has been referred to the Commonwealth or already determined to be a controlled action.

## **References**

- DEC (2004) Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities. Draft, Department of Environment and Conservation, Hurstville; available at: [www3.environment.nsw.gov.au/pdfs/tbsa\\_guidelines\\_draft.pdf](http://www3.environment.nsw.gov.au/pdfs/tbsa_guidelines_draft.pdf).
- DECC (2007) Threatened Species Assessment Guidelines: The Assessment of Significance. August 2007. Department of Environment and Climate Change (NSW).
- DECC (2009) *Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna – Amphibians*. April 2009. Department of Environment and Climate Change (NSW), Goulburn Street, Sydney.
- DECCW (2010) *Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water*. DECCW, Sydney.
- DoP (2005) *Guidelines for Threatened Species Assessment*. Department of Planning, Sydney, July 2005.
- OEH (2011a) BioBanking Assessment Methodology and Credit Calculator Operational Manual. Office of Environment and Heritage (NSW), Goulburn Street, Sydney. [www.environment.nsw.gov.au/biobanking/calculator.htm](http://www.environment.nsw.gov.au/biobanking/calculator.htm)
- OEH (2011b) NSW OEH interim policy on assessing and offsetting biodiversity impacts of Part 3A, State significant development (SSD) and State significant infrastructure (SSI) projects. NSW Office of Environment and Heritage, Sydney, June 2011.
- RBG&DT (2013) *PlantNET website*. <http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm> Royal Botanic Gardens and Domain Trust, Sydney.

## **ATTACHMENT 2: GUIDANCE MATERIAL**

<b>Title</b>	<b>Web address</b>
<b><u>Relevant Legislation</u></b>	
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	<a href="http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/">www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/</a>
<i>Environmental Planning and Assessment Act 1979</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N">www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N</a>
<i>National Parks and Wildlife Act 1974</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N">www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N</a>
<i>Threatened Species Conservation Act 1995</i>	<a href="http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N">www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N</a>
<b><u>Aboriginal Cultural Heritage</u></b>	
Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005)	Available from DoP.
Aboriginal Cultural Heritage Consultation Requirements for Proponents (EPA, 2010)	<a href="http://www.environment.nsw.gov.au/licences/consultation.htm">www.environment.nsw.gov.au/licences/consultation.htm</a>
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (EPA, 2010)	<a href="http://www.environment.nsw.gov.au/licences/archinvestigations.htm">www.environment.nsw.gov.au/licences/archinvestigations.htm</a>
Aboriginal Site Impact Recording Form	<a href="http://www.environment.nsw.gov.au/licences/DECCA_HIMS_Site_Recording_Form.htm">www.environment.nsw.gov.au/licences/DECCA_HIMS_Site_Recording_Form.htm</a>
Aboriginal Heritage Information Management System (AHIMS) Registrar	<a href="http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm">www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm</a>
<b><u>Biodiversity</u></b>	
BioBanking Assessment Methodology (DECC, 2008)	<a href="http://www.environment.nsw.gov.au/resources/biobanking/08385bbasessmethod.pdf">www.environment.nsw.gov.au/resources/biobanking/08385bbasessmethod.pdf</a>
BioBanking Assessment Methodology and Credit Calculator Operational Manual (EPA, 2008)	<a href="http://www.environment.nsw.gov.au/biobanking/operationalmanual.htm">www.environment.nsw.gov.au/biobanking/operationalmanual.htm</a>
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna -Amphibians (EPA, 2009)	<a href="http://www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf">www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf</a>
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004)	<a href="http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf">www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf</a>
Guidelines for Threatened Species Assessment (Department of Planning, July 2005)	Draft available from DoP
EPA Threatened Species website	<a href="http://www.environment.nsw.gov.au/Threatenedspecies/">www.environment.nsw.gov.au/Threatenedspecies/</a>
Atlas of NSW Wildlife	<a href="http://wildlifeAtlas.nationalparks.nsw.gov.au/wildlifeAtlas/watlas.jsp">http://wildlifeAtlas.nationalparks.nsw.gov.au/wildlifeAtlas/watlas.jsp</a>

Title	Web address
BioBanking Threatened Species Database	<a href="http://www.environment.nsw.gov.au/biobanking/biobankingtsdpd.htm">www.environment.nsw.gov.au/biobanking/biobankingtsdpd.htm</a>
Vegetation Types databases	<a href="http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm">www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm</a>
PlantNET	<a href="http://plantnet.rbgsyd.nsw.gov.au/">http://plantnet.rbgsyd.nsw.gov.au/</a>
Online Zoological Collections of Australian Museums	<a href="http://www.ozcam.org/">www.ozcam.org/</a>
Threatened Species Assessment Guideline - The Assessment of Significance (EPA, 2007)	<a href="http://www.environment.nsw.gov.au/resources/Threatenedspecies/tsaguide07393.pdf">www.environment.nsw.gov.au/resources/Threatenedspecies/tsaguide07393.pdf</a>
Principles for the use of biodiversity offsets in NSW	<a href="http://www.environment.nsw.gov.au/biocertification/offsets.htm">www.environment.nsw.gov.au/biocertification/offsets.htm</a>
<b><u>OEH managed land</u></b>	
Land reserved or acquired under the NPW Act	
List of national parks	<a href="http://www.environment.nsw.gov.au/NationalParks/parksEISchatoz.aspx">www.environment.nsw.gov.au/NationalParks/parksEISchatoz.aspx</a>
Guidelines for developments adjoining land and water managed by OEH	<a href="http://www.environment.nsw.gov.au/protectedareas/developmntadjoinin gdecc.htm">www.environment.nsw.gov.au/protectedareas/developmntadjoinin gdecc.htm</a>



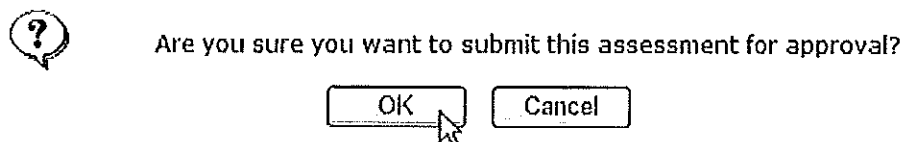
### **ATTACHMENT 3:**

#### **CHECKLIST OF INFORMATION REQUIRED WHEN UTILISING THE BIOBANKING ASSESSMENT METHODOLOGY & SUBMITTING THE BIOBANKING ASSESSMENT TO OFFICE OF ENVIRONMENT AND HERITAGE (OEH) USING THE BIOBANKING CREDIT CALCULATOR VERSION 2.0**

The *Assessors' Guide to Using the BioBanking Credit Calculator v.2* has been finalised and it is now available for download from the Office of Environment and Heritage website. The guide provides information on the operation and use of the web-based BioBanking Credit Calculator v2.0.

To submit your assessment to OEH open your assessment in *Edit* mode. Navigate to the *Assessment details* page and select the *Submit* button in the top right hand corner. A *Submit the assessment for approval* box will appear (Figure 1), where you can confirm submission (*OK* button) or cancel submission (*Cancel* button). Once a case has been submitted to OEH, the status of the case will change in your *My work* tab from *Work in progress (WIP)* to *submitted*. Please note that you cannot make any edits to an assessment that has been submitted, although you will be able to view the assessment.

#### **Submit the assessment for approval**



**Figure 1:** Menu box in the BioBanking Credit calculator v. 2 that enables an assessment to be submitted to OEH.

The following documentation must be submitted with your Environmental Impact Statement or Environmental Assessment report (in hard copy and soft copy):

- BioBanking Assessment Report including a list of dominant indigenous species for overstorey, mid-storey and ground cover for each vegetation type and, where required:
  - local benchmark data;
  - request for increase in gain of site value;
  - a description of the proposed development;
  - measures to avoid and mitigate the impacts of development;
  - an assessment of indirect impacts;
  - a statement of on-site measures;
  - a description of the application of the BioBanking Assessment Methodology, including details of and assumptions made in utilising the methodology, such as (but not limited to) placement of assessment circles, remnant value, connectivity and reasoning behind selection of vegetation types in the Biometric Vegetation Type database;
  - plot and transect values including a list of the indigenous plant species identified in each of the plots; and
  - a description of targeted threatened flora and fauna surveys, and any general baseline surveys (incl. vegetation specific surveys). These should be also be provided schematically.

and

Where required, the BioBanking Assessment Report should also include:

- expert reports;
- an application for a determination on red flag areas;
- more appropriate use of local data for vegetation types, benchmarks or threatened species;
- environmental contributions accompanied by a BioBanking Agreement Credit Report (if applicable); and
- an application for deferred retirement arrangements (if applicable).

- Copies of completed field data sheets, and updated with correct plant taxonomy in instances where field names have been used.
- Maps (soft copy as A4 jpgs) of:
  - offset site / BioBanking Agreement boundary or development footprint;
  - vegetation zones;
  - management zones;
  - and where required:
    - existing waste;
    - existing erosion; and
    - existing structures (in waterways)
- Separate shape files should be supplied for all the maps mentioned above plus:
  - plots and transects;
  - assessment circles;
  - species polygons;
  - polygons for adjacent remnant area; and
  - the location or habitat area of sensitive species, and the management area related to that sensitive species (as this information cannot be displayed publicly).

All maps must include:

- a title (as per the names above);
- the site's name, location and lot/Deposited Plan (DP) numbers;
- the scale;
- the date it was prepared; and
- a legend.

Boundaries and zones must be confirmed on the site using a GPS. This information should be digitised onto an ortho-rectified aerial photo or SPOT-5 image. Maps must be easily readable and submitted to OEH as a Geographic Information System (GIS) file that is ESRI compatible. Shape files must use GDA94 datum. Name each shape file as: 'biobank site name\_descriptor'. For example, 'Hill Farm\_photo points' or 'Hill Farm\_management zones'.

Photo points should be named A, B, C, D, E, F, G, etc. Photo points should be located in areas where change is expected, i.e. where replanting, natural regeneration, intensive weeding or other active management actions are to be carried out. As a rough guide, include at least one photo point in each management zone where active management actions will be undertaken. Boundaries and zones must be confirmed on the site using a GPS. This information should be digitised onto an ortho-rectified aerial photo or SPOT-5 image. Maps must be easily readable and submitted to OEH as a Geographic Information System (GIS) file that is ESRI compatible.

Shape files must use GDA94 datum. Name each shape file as: 'biobank/development site name\_descriptor'. For example, 'Hill Farm\_photo points' or 'Hill Farm\_management zones'.

Additional requirements for offset sites that may be required (based on liaison with OEH):

- completed biobanking agreement management action template (provided in Word format), and
- Biodiversity Credits Pricing Spreadsheet.

Once the case has been received OEH will review the data entered, and any supporting documentation. For State Significant Development (SSD), State Significant Infrastructure and residual Part 3A (under the *Environmental Planning and Assessment Act 1979*) this review will take place during the assessment of the Environmental Impact Statement or Environmental Assessment report (for Part 3A matters).



## **Appendix 1 C**

### **Guidelines for preparing Assessment Documentation relevant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**

Brandy Hill Expansion Project  
Environmental Impact Statement

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## **Guidelines for preparing Assessment Documentation relevant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)**

These Guidelines are intended to inform the development of Assessment Documentation for projects assessed under an assessment bilateral agreement. If a separate chapter is not provided in the Assessment Documentation, the Table at [Attachment 1](#) detailing where the information is located must be completed.

### References:

- *Environment Protect and Biodiversity Conservation Act 1999* - section 51-55, section 96A(3)(a)(b), 101A(3)(a)(b), section 136, section 527E;
- Environment Protect and Biodiversity Conservation Regulations 2000 - Division 3.2, 3.02(a)(b)(ii)(iii), Division 5.2, Schedule 4;
- Bilateral Agreements - Item 18.1, Item 18.5, Schedule 1; and
- Policy - *Environment Protect and Biodiversity Conservation Act 1999* Environmental Offsets Policy October 2012

## **1 BACKGROUND AND DESCRIPTION OF THE ACTION**

The Assessment Documentation must provide background to the action and describe in detail all components of the action for example (but not limited to), the construction, operation and (if relevant) decommissioning components of the action. This must include the precise location of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on matters of national environmental significance (MNES).

The description of the action must also include details on how the works are to be undertaken (including stages of development and their timing) and design parameters for those aspects of the structures or elements of the action that may have relevant impacts.

The Assessment Documentation must include how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action.

The Assessment Documentation must also provide details on the current status of the action, alternatives to the action, as well as the consequences of not proceeding with the action.

## **2 THE ENVIRONMENT INCLUDING MNES**

The Assessment Documentation must include a description of the environment and management practices of the proposal site and the surrounding areas and other areas that may be affected by the action. Include all relevant MNES protected by controlling provisions of Part 3 of the EPBC Act (see [Attachment 2](#) for MNES specific to the project):

- (a) A description of the World Heritage values of the World Heritage property relevant to the action.
  - a. Including Outstanding Universal Value, relevant plans

- (b) A description of the National Heritage values of the National Heritage Place relevant to the action.
  - a. Including any relevant plans
- (c) A description of the ecological character of the Ramsar Wetland relevant to the action.
  - a. Including any relevant plans
- (d) Listed threatened species and communities (including suitable habitat) that are or are likely to be present in the vicinity of the site, including the following details:
  - i. Details of the scope, timing/effort (survey season/s) and methodology for studies or surveys used to provide information on the listed species/community/habitat at the site (and in areas that may be impacted by the project). Include details of:
    - o best practice survey guidelines are applied; and
    - o how they are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements.
  - ii. Include any relevant plans/agreements
- (e) Listed migratory species (including suitable habitat) that are or are likely to be present in the vicinity of the site, including the following details:
  - i. Details of the scope, timing/effort (survey season/s) and methodology for studies or surveys used to provide information on the listed species/habitat at the site (and in areas that may be impacted by the project). Include details of:
    - a. best practice survey guidelines are applied;
    - b. how these are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements.
  - ii. Include any relevant plans/agreements
- (f) A description of the environment relevant to the nuclear action.
- (g) A description of the Great Barrier Reef Marine Park environment relevant to the action.
  - a. Including Outstanding Universal Value
- (h) A description of the water resource environment relevant to the coal seam gas development or large coal mining development.
  - a. Refer to the Independent Expert Scientific Committee's (IESC) Information Guidelines for Proposals Relating to the Development of Coal Seam Gas and Large Coal Mines where there is a Significant Impact on Water Resources, available at <http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas>
  - b. Note: Advice will be requested from the IESC in regards to the proposal.

- (i) A description of the environment relevant for part of the Commonwealth Marine (for actions outside the Commonwealth marine area that may impact the environment in the Commonwealth marine area).
  - a. Note: whole of the environment must be considered –refer to the [Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies](#).
- (j) A description of the environment relevant for Commonwealth Land (for actions outside Commonwealth Land that may impact on the environment on Commonwealth Land).
  - a. Note: whole of the environment must be considered –refer to the [Significant Impact Guidelines 1.2 – Actions on, or impacting upon, Commonwealth land and Actions by Commonwealth Agencies](#).

### 3 IMPACTS

- (a) The Assessment Documentation must include a description of all of the relevant impacts of the action on MNES (identified in Section 2). Impacts during the construction, operational and (if relevant) the decommissioning phases of the project must be addressed, and the following information provided:
  - i. a description of the relevant impacts of the action;
  - ii. a detailed analysis of the nature and extent of the likely direct, indirect and consequential impacts relevant to MNES, including likely short-term and long-term impacts – refer to the [Significant Impact Guidelines 1.1 - Matters of National Environmental Significance](#) for guidance on the various types of impact that need to be considered;
  - iii. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
  - iv. any technical data and other information used or needed to make a detailed assessment of the relevant impacts;
  - v. an explanation of how Indigenous stakeholders' views of the action's impacts to biodiversity and cultural heritage have been sought and considered in the assessment. Including where relevant, how guidelines published by the Commonwealth in relation to consulting with Indigenous peoples for proposed actions that are under assessment have been considered and applied; and
  - vi. where the proposal is a coal seam gas development or large coal mining development and likely to significantly impact on a water resource – refer to the IESC's Information Guidelines for Proposals Relating to the Development of Coal Seam Gas and Large Coal Mines where there is a Significant Impact on Water Resources, available at <http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas>

- (b) The Assessment Documentation should identify and address cumulative impacts, where potential project impacts are in addition to existing impacts of other activities (including known potential future expansions or developments by the proponent and other proponents in the region and vicinity).
- (c) The Assessment Documentation should also provide a detailed assessment of any likely impact that this proposed action may facilitate on the relevant MNES at the local, regional, state and national scale.

#### **4 AVOIDANCE AND MITIGATION MEASURES / ALTERNATIVES**

##### Avoidance and Mitigation Measures

The Assessment Documentation must provide information on all proposed avoidance and mitigation measures to manage the relevant impacts of the action on MNES.

The Assessment Documentation also must take into account relevant agreements and plans that cover impacts on MNES including but not limited to:

- any recovery plan, conservation advice for the species or community;
- any threat abatement plan for a process that threatens the species;
- any wildlife conservation plan for the species;
- any management plan for a Ramsar wetland;
- any management plan for a World Heritage property and National Heritage place;
- any Marine Bioregional Plans;
- any Strategic Assessment;
- Outstanding Universal Value; and
- the IESC Information Guidelines for Proposals Relating to the Development of Coal Seam Gas and Large Coal Mines where there is a Significant Impact on Water Resources available at <http://www.iesc.environment.gov.au/publications/information-guidelines-independent-expert-scientific-committee-advice-coal-seam-gas>.

The Assessment Documentation must include, and substantiate, specific and detailed descriptions of the proposed avoidance and mitigation measures, based on best available practices and must include the following elements:

- (a) A consolidated list of avoidance and mitigation measures proposed to be undertaken to prevent or minimise for the relevant impacts of the action on MNES, including:
  - i. a description of proposed avoidance and mitigation measures to deal with relevant impacts of the action, including mitigation measures proposed to be taken by State/Territory governments, local governments or the proponent;

- ii. assessment of the expected or predicted effectiveness of the mitigation measures, including the scale and intensity of impacts of the proposed action and the on-ground benefits to be gained through each of these measures;
  - iii. a description of the outcomes that the avoidance and mitigation measures will achieve;
  - iv. any statutory or policy basis for the mitigation measures; and
  - v. the cost of the mitigation measures.
- (b) A detailed outline of a plan for the continuing management, mitigation and monitoring of relevant MNES impacts of the action, including a description of the outcomes that will be achieved and any provisions for independent environmental auditing.

Where appropriate, each project phase (construction, operation, decommission) must be addressed separately. It must state the environmental outcomes, performance criteria, monitoring, reporting, corrective action, contingencies, responsibility and timing for each environmental issue.

- (c) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.

### Alternatives

The Assessment Documentation must include any feasible alternatives to the action to the extent reasonably practicable, including:

- (a) if relevant, the alternative of taking no action;
- (b) a comparative description of the impacts of each alternative on the triggered MNES protected by controlling provisions of Part 3 of the EPBC Act for the action; and
- (c) sufficient detail to make clear why any alternative is preferred to another.

Short, medium and long-term advantages and disadvantages of the options must be discussed.

## **5 RESIDUAL IMPACTS / OFFSETS**

The Assessment Documentation must provide details of:

- (a) the likely residual impacts on MNES that are likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account.
  - i. Include the reasons why avoidance or mitigation of impacts is not reasonably achieved; and
  - ii. Identify the significant residual impacts on MNES.



#### Offset Package (if relevant)

The Assessment Documentation must include details of an offset package proposed to be implemented to compensate for the residual significant impact of the project, as well as an analysis about how the offset meets the requirements in the Department's *Environment Protect and Biodiversity Conservation Act 1999* Environmental Offsets Policy October 2012 (EPBC Act Offset Policy), or an endorsed state offsets policy (see [www.environment.gov.au/protection/environment-assessments/bilateral-agreements/condition-setting-assessment](http://www.environment.gov.au/protection/environment-assessments/bilateral-agreements/condition-setting-assessment)). .

The offset package can comprise a combination of direct offsets and other compensatory measures, so long as it meets the requirements of the EPBC Act Offset Policy, or an endorsed offsets policy. Offsets should align with conservation priorities for the impacted protected matter and be tailored specifically to the attribute of the protected matter that is impacted in order to deliver a conservation gain.

Offsets should compensate for an impact for the full duration of the impact.

Offsets must directly contribute to the ongoing viability of the MNES impacted by the project and deliver an overall conservation outcome that improves or maintains the viability of the MNES as compared to what is likely to have occurred under the status quo, that is if neither the action nor the offset had taken place.

Note offsets do not make an unacceptable impact acceptable and do not reduce the likely impacts of a proposed action. Instead, offsets compensate for any residual significant impact.

The Assessment Documentation must provide:

- (a) Details of the offset package to compensate for significant residual impacts on MNES; and
- (b) An analysis of how the offset package meets the requirements of the EPBC Act Offsets Policy, a discussion on the feasibility and the workings outlined in Attachment 3; or
- (c) Details of how the offset meets an endorsed state offsets policy.

## **6 ENVIRONMENTAL RECORD OF PERSON(S) PROPOSING TO TAKE THE ACTION**

The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action; and
- (b) for an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

## **7 ECONOMIC AND SOCIAL MATTERS**

The economic and social impacts of the action, both positive and negative, must be analysed. Matters of interest include:

- (a) details of any public consultation activities undertaken, and their outcomes;
- (b) details of any consultation with Indigenous stakeholders.
- (c) projected economic costs and benefits of the project, including the basis for their estimation through cost/benefit analysis or similar studies;
- (d) employment opportunities expected to be generated by the project (including construction and operational phases).

Economic and social impacts should be considered at the local, regional and national levels. Details of the relevant cost and benefits of alternative options to the proposed action, as identified in Section 4 above, should also be included.

Identification of affected parties is required, including a statement mentioning any communities that may be affected and describing their views.

## **8 INFORMATION SOURCES PROVIDED IN THE ASSESSMENT DOCUMENTATION**

For information given in the Assessment Documentation, state:

- (a) the source of the information;
- (b) how recent the information is;
- (c) how the reliability of the information was tested;
- (d) what uncertainties (if any) are in the information; and
- (e) what guidelines, plans and/or policies did you consider.

## **9 CONCLUSION**

An overall conclusion as to the environmental acceptability of the proposal on each MNES, including:

- (a) a discussion on the consideration with the requirements of the EPBC Act, including the objects of the EPBC Act, the principles of ecologically sustainable development and the precautionary principle;
- (b) reasons justifying undertaking the proposal in the manner proposed, including the acceptability of the avoidance and mitigation measures; and
- (c) if relevant, a discussion of residual impacts and any offsets and compensatory measures proposed or required for significant residual impacts on MNES, and the relative degree of compensation and acceptability.



# **Appendix 1 D**

## **Existing Consent**

Brandy Hill Expansion Project  
Environmental Impact Statement

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# Port Stephens Shire Council

COUNCIL CHAMBERS RAYMOND TERRACE

Hymix.

Hunter Valley Mining  
Corporation Pty Ltd  
"Dalmore Park"  
New England Highway  
LOCHINVAR 2321

Planning Dept.

P9/1/12/1920

Environmental Planning and Assessment Act, 1979

## NOTICE TO APPLICANT OF DETERMINATION OF A DEVELOPMENT APPLICATION

To: Hunter Valley Mining Corporation Pty Ltd,  
of: "Dalmore Park", New England Highway, Lochinvar,  
being the applicant in respect of development application no. 1920.

Pursuant to section 92 of the Act notice is hereby given of the determination  
by the consent authority of the development application no. 1920,

for: Hard Rock Quarry and Processing Plant,  
at: Part Portions 38 and 56, Main Road 301, Seaham, Parish  
of Seaham.

The development application has been determined by:-

- ~~\*(a) granting of consent unconditionally;~~
- \*(b) granting of consent subject to the conditions specified in this notice;
- ~~\*(c) refusing of consent.~~

The conditions of the consent are as set out in schedule 1.

The reasons for the imposition of the conditions/~~the refusing~~ are as set  
out in schedule 2.

### Notes:

- (1) To ascertain the date upon which the consent becomes effective refer  
to section 93 of the Act.
- (2) To ascertain the extent to which the consent is liable to lapse refer  
to section 99 of the Act.
- (3) Section 97 of the Act confers on an applicant who is dissatisfied with  
the determination of a consent authority a right of appeal to the  
Land and Environment Court exercisable within 12 months after receipt  
of this notice.

Date of Endorsement: 21st December, 1983

J W Walsh  
SHIRE CLERK

- 1) The applicant shall obtain from the State Pollution Control Commission all statutory approvals required under the Clean Air, Clean Waters and Noise Control Acts.
- 2) The applicant shall submit a detailed landscaping plan prepared by a qualified landscape architect to Council. The plan is to be submitted prior to the lodging of the Building Application and is to pay particular attention to the provision of a buffer screen to shield the site of operations from Main Road 301 and any area visible on the skyline. Such landscaping shall have regard to the ultimate land use of the site as a recreational area. Screen planting is to be of mature species and is to be carried out prior to work commencing on the site and is to be maintained for a period of twelve (12) months or until such time as an effective screen is provided.
- 3) The applicant is to pay all costs associated with the up-grading of the intersection of the access road with the Main Road and is to meet the standards set by the Traffic Authority of NSW in respect to this access.
- 4) The applicant is to undertake all those environmental protection measures outlined in the Environmental Impact Statement prepared by Resource Planning and shall ensure that every effort is taken to minimise any adverse impact upon the existing environment.
- 5) The applicant is to undertake adequate steps to ensure that Dead Man's Creek is not polluted by sedimentation from run-off associated with quarrying works.
- 6) The applicant is to enter into a legally binding agreement with Council to the effect that the site will be restored in accordance with the landscape plan required by Condition No 2 and that at the completion of work on the site all industrial plant will be removed, all operations upon the site are to cease after quarrying operations have been completed and the site is to be dedicated to Council as public gardens and recreation space at no cost to Council.
- 7) A Tree Preservation Order is in force over the whole of the Shire of Port Stephens, and the removal of or interference in any way with the trees existing upon your site, without the written permission of Council will nullify this consent.  
  
Special attention will be paid to the manner in which landscaping of the site incorporates the existing flora.
- 8) The approval of the Department of Industrial Relations and Technology to be obtained prior to occupation or use of buildings.

- 9) Full details of office and amenities to be submitted with Building Application.
- 10) Engineer's details of footings and concrete slabs to plant and buildings to be submitted with the Building Application.
- 11) That ten (10) carparking spaces are to be provided upon the site in accordance with Council's Business and Industrial Control Code.
- 12) No work is to commence upon the development of this land unless and until the road proposed within the subdivision of Development Application No 2157 is constructed and dedicated to Council.
- 13) This application is subject to a Section 94 Contribution under the provisions of the Environmental Planning and Assessment Act, 1979 in respect of the upgrading of communication and transport facilities within the area and in this regard widening of Main Road 601 to provide bus lay-bys for the picking up of and setting down of school children will satisfy this requirement.
- 14) Should claims for compensation in respect of damage or loss of value of property within 2 km of the centre of the quarry arise, the applicant shall accept the verdict of an independent board in respect to payment of damage claims or in the case of gross devaluation of property, acquisition thereto. The board shall consist of:-
  - (a) A Chairman being the nominee of the Valuer General who shall have a casting vote,
  - (b) A representative of the Seaham District Community Association,
  - (c) A nominee of the applicant, and
  - (d) A nominee of Council.

A majority decision of this Board shall be binding upon the applicant. Should the applicant refuse to accept the decision of the Board, then the land use will become null and void.
- 15) Prior to commencement of work upon the site the applicant shall carry out at his expense a land use assessment of all properties within the 2 km radius of the quarry. Such assessment shall be used as a basis for Condition No 14.
- 16) Access to and from the site shall be in accordance with an approved traffic route of Council and shall not be varied without the express written permission of Council. Such variation without Council consent will render this development consent null and void.

SCHEDULE 1:

FILE: P9/1/12/1920

- 17) In accordance with Council policy towards the maintenance of and road use by heavy vehicles this application shall contribute towards the fund in respect to roads in the immediate vicinity of the area which are likely to be affected by the operation being carried out. The levy per tonne moved is 20¢ and is payable on a monthly basis based on weigh bridge tickets.
- 18) That the value of the tonne levy of 20 cents be varied annually with movements in the C.P.I. commencing from a base year being the first year of production.

SCHEDULE 2:

Conditions 1 - 18 to comply with:- Requirements of the State Pollution Control Commission; Council's Landscaping requirements; Requirements of the Traffic Authority of NSW; Council's Tree Preservation Order; Requirements of the Department of Industrial Relations and Technology; Council's Carparking requirements in accordance with the Development Control Plan for Parking Matters; Section 94 of the Environmental Planning and Assessment Act, 1979; Council's Business and Industrial Control Code; and the provisions of the Deemed Environmental Planning Instrument for Port Stephens Shire.



# Port Stephens Shire Council

COUNCIL CHAMBERS RAYMOND TERRACE

Hymix.

Hunter Valley Mining  
Corporation Pty Ltd  
"Dalmore Park"  
New England Highway  
LOCHINVAR 2321

Planning Dept.

P9/1/12/1920

Environmental Planning and Assessment Act, 1979

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To: Hunter Valley Mining Corporation Pty Ltd,  
of: "Dalmore Park", New England Highway, Lochinvar,  
being the applicant in respect of development application no. 1920.

Pursuant to section 92 of the Act notice is hereby given of the determination by the consent authority of the development application no. 1920,

for: Hard Rock Quarry and Processing Plant,  
at: Part Portions 38 and 56, Main Road 301, Seaham, Parish  
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The development application has been determined by:-

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The conditions of the consent are as set out in schedule 1.

The reasons for the imposition of the conditions/~~the refusing~~ are as set out in schedule 2.

### Notes:

- (1) To ascertain the date upon which the consent becomes effective refer to section 93 of the Act.
- (2) To ascertain the extent to which the consent is liable to lapse refer to section 99 of the Act.
- (3) Section 97 of the Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within 12 months after receipt of this notice.

Date of Endorsement: 21st December, 1983

J W Walsh  
SHIRE CLERK



- 9) Full details of office and amenities to be submitted with Building Application.
- 10) Engineer's details of footings and concrete slabs to plant and buildings to be submitted with the Building Application.
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- 12) No work is to commence upon the development of this land unless and until the road proposed within the subdivision of Development Application No 2157 is constructed and dedicated to Council.
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- 14) Should claims for compensation in respect of damage or loss of value of property within 2 km of the centre of the quarry arise, the applicant shall accept the verdict of an independent board in respect to payment of damage claims or in the case of gross devaluation of property, acquisition thereto. The board shall consist of:-
  - (a) A Chairman being the nominee of the Valuer General who shall have a casting vote,
  - (b) A representative of the Seaham District Community Association,
  - (c) A nominee of the applicant, and
  - (d) A nominee of Council.

A majority decision of this Board shall be binding upon the applicant. Should the applicant refuse to accept the decision of the Board, then the land use will become null and void.
- 15) Prior to commencement of work upon the site the applicant shall carry out at his expense a land use assessment of all properties within the 2 km radius of the quarry. Such assessment shall be used as a basis for Condition No 14.
- 16) Access to and from the site shall be in accordance with an approved traffic route of Council and shall not be varied without the express written permission of Council. Such variation without Council consent will render this development consent null and void.

Telephone Enquiries:  
**Paul Douglass**  
**Development & Building Dept**  
Please Quote File No:  
**1920/83**  
Property No.:

Hymix Australia Pty Ltd  
Hymix House  
36 Bay Street  
DOUBLE BAY NSW 2028

Dear Sir/Madam,

**Re: Amendment to Development Consent No 1920 for Extractive Industry -  
Hard Rock Quarry at Pt Portion 38 and 56, Main Road 301, Seaham.**

Further to your submission dated 20 May 1991, where you have sought an amendment to the abovementioned development consent, issued by Council on 21 December 1983, I can advise that pursuant to Section 102 of the Environmental Planning and Assessment Act 1979, Council hereby grants an amended consent.

*Condition numbers 14 and 15 of development consent no. 1920 are now hereby deleted.*

All other conditions of consent remain unchanged.

Section 102 of the Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court which, pursuant to Part 15 of the Land and Environment Court Rules, is exercisable within sixty (60) days after the receipt of this notice.

If you require any further information in respect of this matter, please contact Paul Douglass of Council's Development and Building Department.

Yours faithfully

J W Walsh  
General Manager/Shire Clerk

Per: 

pd.mw

# Port Stephens Shire Council

updating

59 Port Stephens St. Raymond Terrace Tel (049) 83 1333

Telephone Enquiries:

**Paul Douglass**

**Development & Building Dept**

Please Quote File No:

**1920**

Property No:

Hunter Valley Mining Corporation Pty Ltd  
'Dalmore Park'  
New England Highway  
LOCHINVAR NSW 2321

Dear Sir/Madam,

**Re: Amendment to Development Consent No 1920 for Extractive Industry -  
Hard Rock Quarry at Pt Portion 38 and 56, Main Road 301, Seaham.**

Further to your submission dated 20 May 1991, where you have sought an amendment to the abovementioned development consent, issued by Council on 21 December 1983, I can advise that pursuant to Section 102 of the Environmental Planning and Assessment Act 1979, Council hereby grants an amended consent.

*Condition numbers 14 and 15 of development consent no. 1920 are now hereby deleted.*

All other conditions of consent remain unchanged.

Section 102 of the Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court which, pursuant to Part 15 of the Land and Environment Court Rules, is exercisable within sixty (60) days after the receipt of this notice.

If you require any further information in respect of this matter, please contact Paul Douglass of Council's Development and Building Department.

Yours faithfully

J W Walsh  
General Manager/Shire Clerk

Per: 

pd.mw



23 September 1992



# **Appendix 1 E**

## **Community Submission**

Brandy Hill Expansion Project  
Environmental Impact Statement

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**Urgent**

**To: Mr Howard Reed**

**Manager of Mining Projects**

**NSW Department of Planning**

**From: Gerard Coren**

**Secretary, Voice of Wallalong and Woodville (VOWW)**

**Re: Martins Creek Quarry**

# V.O.W.W.

## VOICE OF WALLALONG AND WOODVILLE

VoWW Inc. ABN 33269793710

14/8/2014

Mr Howard Reed

Manager of Mining Projects

NSW Department of Planning

GPO Box 39

Sydney, NSW. 2001

Dear Mr Howard Reed

**RE: Martins Creek Quarry: Intensification of Use: Request for DGRs/ Secretary's Environmental Assessment Requirements.**

I write on behalf of VOWW to place the following submission before you in relation to the above.

### Background to VOWW

Voice of Wallalong and Woodville Incorporated ('VOWW') is a community organisation representing many of the landowners and residents of Wallalong, Woodville and near environs. Its aims are to

- a. Protect the rural character of Wallalong, Woodville and adjacent lands ('area'), including the natural, historical and cultural heritage of the district.
- b. Support and protect agricultural activity in the area, recognising the role the industry plays in a rural community's identity and economy.
- c. Work to improve facilities, services and the amenity of the area in order to enhance its rural character.
- d. Oppose urban development as being inconsistent with the nature and character of the area and instead work towards a vision of sustainable rural-based planning and development.
- e. Actively represent the community's interests on issues relevant to its vision in dealing with government and community stakeholders, giving a real voice to the Wallalong/Woodville community on matters affecting its future.

#### The application for DGRs by Daracon

The Committee of VOWW has seen the submissions of the Paterson Progress Association and the Bolwarra Heights Community Group and concurs in them.

Of significant concern to VOWW are the impacts of traffic and noise the increased road haulage of the quarry product from Martins Creek will have on the residents in VOWW's area. There must be an extensive provision of information sought from the developer covering those aspects as well as the cumulative impacts the traffic generated by both the Brandy Hill Quarry (SSD 5899 for which DGRs have been issued in respect of expansion and intensification of quarrying) and the subject application (both presently and if both are approved eventually as sought) are likely to have upon the communities and road networks in the area.

The roads presently used by both quarries in VOWW's area are Butterwick Road (Butterwick/Woodville), Clarence Town Road (Woodville), Paterson Road (Woodville/Bolwarra Hts) , Brandy Hill Drive (Brandy Hill) and High Street (Wallalong).

Road safety and noise are paramount considerations.

An examination of the material furnished so far by the Hanson Group in its Preliminary Environmental Assessment in respect of the Brandy Hill Quarry and available on your Department's website shows some alarming matters in respect of traffic generation.

#### Brandy Hill Quarry

That proposal's number of gravel trucks, concrete trucks and other sundry vehicles are considerable and will not at all mix well with other traffic on the roads.

Sales: 24 hours Monday to Sunday

Production: ditto

Maintenance: ditto

Blasting: 8am - 5pm Mon to Friday

It is said that the present truck movements are 150 per day approx (see para 3 in the Prelim Environmental Assessment) with peak between 6am and noon, when 80% of truck movements occur.

The RTA's Guide to Traffic Generating Developments defines trip as a one way vehicle movement from one point to another and excludes the return journey. Therefore a vehicle entering and leaving a land use is counted as two trips.

Please look at Table 2 's comparisons (see para 4.1). Here we have proposed:

Quarry: 137 loads per day: note a load should equal 2 trips or movements (because there has to be a truck go into the plant to come out with a load) but that is not how it is expressed - so I suggest read 274 trips/movements per day

Concrete Recycling: 2 loads per day ie read 4 movements per day

Concrete Production: 5 loads per day ie read 10 movements per day.

Total so far: 144 loads ie read 288 movements per day

which is almost double the company's approximation of existing truck movements. Most of these are truck and dog combination too.

Arithmetic for the Total so far: deducting 10 days for public holidays, we have - 355 days x 288 movements = 102240 movements per annum. ( If we adopt 290 days - see below- we have 83520 movements p.a.).

Further:

New concrete batching plant will produce approximately 2700 additional trips per annum (emphases added, see para 4.1).



That means there will be 270 days where, for the concrete batching plant alone, there are a minimum of 10 trips/movements per day given that there will be 5 loads daily. What has happened to the movements in the other 95 days in the year?

Then add on the other loads/movements/trips for rock, gravel, etc. :

TOTAL: A MINIMUM OF 298 MOVEMENTS EACH DAY, most of which are between 6am and noon, and well over double the present movements.

Conclusion:

The cumulative effect of both the Martin's Creek Quarry and the Brandy Hill Quarry, if consent is granted as sought, will be harmful to the health and safety of the residents in the areas which VOWW represents.

The repetition of the submissions of the other two community groups is unnecessary given our expectation that those examining the proposal will take them fully into consideration. There has to be a limitation on the output, working hours and traffic generated by both quarry intensification proposals, in the public interest.

Yours faithfully,



Gerard Coren

Secretary, VOWW

For the President and Committee of VOWW.

per John Redman, President.

Bolwarra Heights Community Group  
bolwarraheightscg@outlook.com

August 4, 2014

Mr Howard Reed  
Manager of Mining Projects  
Department of Planning  
NSW Government

Dear Mr Howard Reed,

Please accept this overview of our situation as a true review of the issues that have been affecting our community of Bolwarra, Bolwarra Heights and Maitland, especially over the last eighteen months. When compiling the Secretary's Environmental Assessment Requirements for the proposed increase in activity at the Martins Creek Quarry can you please consider our plea to have our concerns included in this process with the same consideration as all of the stakeholders that are notified and invited to participate in the approval process.

### **Introduction**

Bolwarra Heights is a semi-rural and residential area approximately 10km from the centre of Maitland; it is also approximately 20km from Martins Creek Quarry (MCQ) and approximately 10km from the Brandy Hill Quarry (BHQ) at Seaham.

Maitland and the Hunter region are experiencing high levels of population growth and our road networks are undeniably under stress. Trucks from quarries in particular are causing significant negative social impacts on quality of life and social amenity. Our roads are being heavily damaged and our rates are rising rapidly. The heavy vehicles servicing MCQ make up a significant proportion of heavy traffic on our roads. Any wealth being generated for the quarry operator is offset by councils and ratepayers in maintaining bridges and roads never designed for this usage. Tocal Road, Bolwarra Heights in particular was initially constructed and used as a local residential road. Now it is being used as the primary distribution route for the large- scale mining operation of MCQ without appropriate assessment of its suitability for this purpose. The Paterson Progress Association measured more than 100 trucks an hour passing through their streets during a peak of activity. Most, if not all of the trucks passing through Paterson also pass through Bolwarra Heights. The MCQ proposal to increase to 1.5 Million T P/A of quarry products being trucked through our local area is outrageous and completely unacceptable

Bolwarra Heights is impacted by two significant and separate quarry expansion projects; Martins Creek Quarry and Brandy Hill Quarry. At the intersection of Tocal and Paterson Road at Bolwarra Heights, trucks from both quarries join the same transport route; hence a cumulative impact of trucks from quarries. If both of these applications are approved without conditions, our suburb would be subject to up to 3 Million T P/A of aggregates being transported through it. This is not a reasonable proposition. Alternative transport strategies must be found.

We, the Bolwarra Heights Community Group was formed to unite the many residents with deep and serious concerns over the levels of noise, dust and other pollutants that we have been exposed to as well as the increased dangers posed by excessive numbers of heavy vehicles in our streets. The residents in our area bought their properties in good faith with the understanding that there are approved developments that undertake their business within our communities. However, the current level of truck movement is excessive, unreasonable and it would seem, illegal. Our lives have become so seriously disrupted with sleep deprivation and an inability to escape the constant noise, vibrations and pollution it's been almost unlivable and unbearable. A recent door-knocking by several concerned residents received overwhelmingly support by the residents of the community. Almost 100 signatures of support were attained in one hour of door-knocking.

We and other community groups, as well as councils impacted by current quarry operations, have had meetings with the current operators of the quarry, Daracon in response to the recent dramatic increases in daily truck movements (up to 600 per day) and hours of operation, (starting as early as 4.30am, 6 days a week). To date we have been largely unimpressed with Daracon's responses to our complaints and their stated intentions to continue at current production levels and apply to increase this already unacceptable amount.

### **Our Concerns**

We have major safety concerns and other issues with the current quarry operations.

Our specific concerns with the use of roads in Bolwarra Heights are as follows-

#### **1- Safety issues**

- a. Heavy truck movements on roads used by school buses picking up and dropping off children.
- b. These trucks pass the corner of Bolwarra Road and Paterson Road, a short distance from Bolwarra Public School. Some children ride their bikes to school along Paterson road.
- c. Speeding of some truck drivers through the suburb.

- d. As it stands, the speed limit of 60km/hr on Tocal road is too high considering the width of the road and the intersections present. Add in speeding trucks with full loads and it is a recipe for disaster. There have been many near misses reported.
  - e. Small local roads that were not designed for such volumes and the heavy loads of such traffic. Some residential roads have no shoulders, footpaths or bike lanes.
  - f. Truck drivers have been seen talking on their mobile phones whilst driving through the suburb.
- 
- 2- Noise pollution especially early in the morning, (as early as 4.30 am)
  - 3- Vibration of heavy vehicles affecting residents and their homes.
  - 4- Air pollution from vehicles affecting residents' health
  - 5- Dust from the trucks settling over the area. One resident reports having to clean his pool twice a week rather than once a month which he did in the past. Most residents have noticed more and more dust settling throughout their properties.
  - 6- Rapid deterioration of the road surface from the amount of heavy traffic
  - 7- There has never been an independent audit of traffic through our suburb, with particular reference to the massive increase in truck and dog movements associated with the operations of MCQ under the management of Daracon.
  - 8- The social effects on our community, for example, the peace and quiet of the early mornings disturbed by quarry trucks, our outdoor spaces invaded by the sight and noise of the trucks, our footpaths not being a safe place for residents to walk.

Our specific concerns with regard to the actions of Daracon, the operator of the quarry are as follows-

- 1. The company earlier this year won the contract for a major railway project in Hexham. With no community consultation they proceeded to transport massive amounts of gravel products through Bolwarra Heights. This involved up to 600 truck movements a day. The company has still not expressed any contrition over this abuse of local communities.

2. The owner, David Mingay freely admitted at a public meeting held at Paterson School of Arts on the 31/7/14, that he has limited control over the actions of contracted truck drivers. This raises serious questions about the ability of the company to responsibly and safely transport such massive amounts of product through residential suburbs.
3. The company at this same meeting revealed that they only moved about 50,000 T of product by rail this calendar year, out of a total reported by the company of 730,000 T. This represents approximately 7% of the product moved. This is a pitiful effort by a quarry that has purpose built rail siding on site. The community seriously doubts the sincerity of Daracon when the company has demonstrated so little effort to minimize its harmful impacts on the involved communities.
4. In our meeting with Mr Mingay and Daracon representatives, we were informed that they have no intention to transport their products any other way except by truck through our suburb. Mr Mingay suggested to us that he felt a reasonable solution to our issues with truck noise and vibration would be for concrete barriers to be built along the road in front of our houses. This inflammatory response to our legitimate complaints displays a distinct lack of empathy or even understanding for our situation. We feel that the company is merely paying lip service to the process of community consultation as a way of satisfying its requirements in the application process.

## **Conclusion**

We, the community of Bolwarra Heights, are strongly opposed to any expansion of Martins Creek Quarry activity above 500,000T pa that relies on the road transport of the product through our residential community. Any increase in tonnage above 500,000 T p/a will bring marginal local employment opportunities, yet result in ongoing and significant disruption to residents and infrastructure. We suggest that moving such an amount of aggregate from the Martins Creek Quarry is more appropriately performed using rail. We stand united with the communities of Paterson and Brandy Hill, Woodville and Wallalong.

Specifically, we would suggest that

1. Rail is the most appropriate transport mechanism for the bulk of the product from this quarry.
2. There should be no increase over 500,000T pa permitted if it is going to be transported by truck through our suburb.
3. The hours of operation of the quarry be altered to prevent trucks passing through Bolwarra Heights before 7am, and that limits be placed on truck movements during school transport times.
4. The cumulative impact on Bolwarra Heights of the pending DA processes of both local quarries needs to be taken into account, especially with regard to the traffic effects on our suburb. There needs to be a regional assessment of the traffic issues.
5. The Department of Planning considers similar project consents such as that found in the recent project approval (February 2012) for the Teralba Quarry which restricts truck movements per hour and day on any particular transport route. Limits must be placed on daily truck movements to prevent the extreme situation of 600 truck movements a day that we experienced earlier in the year.

#### **Additional Information**

To aid the department in its understanding of the situation, we have attached,

1. A pictorial demonstration of the issues within Bolwarra Heights.
2. A historical background of recent operations of the 2 local quarries.
3. A draft "Secretary of Environmental Assessment Requirements" for this application with the Paterson progress Association suggestions in red and ours in blue.

Sincerely,

Simon Thibault-

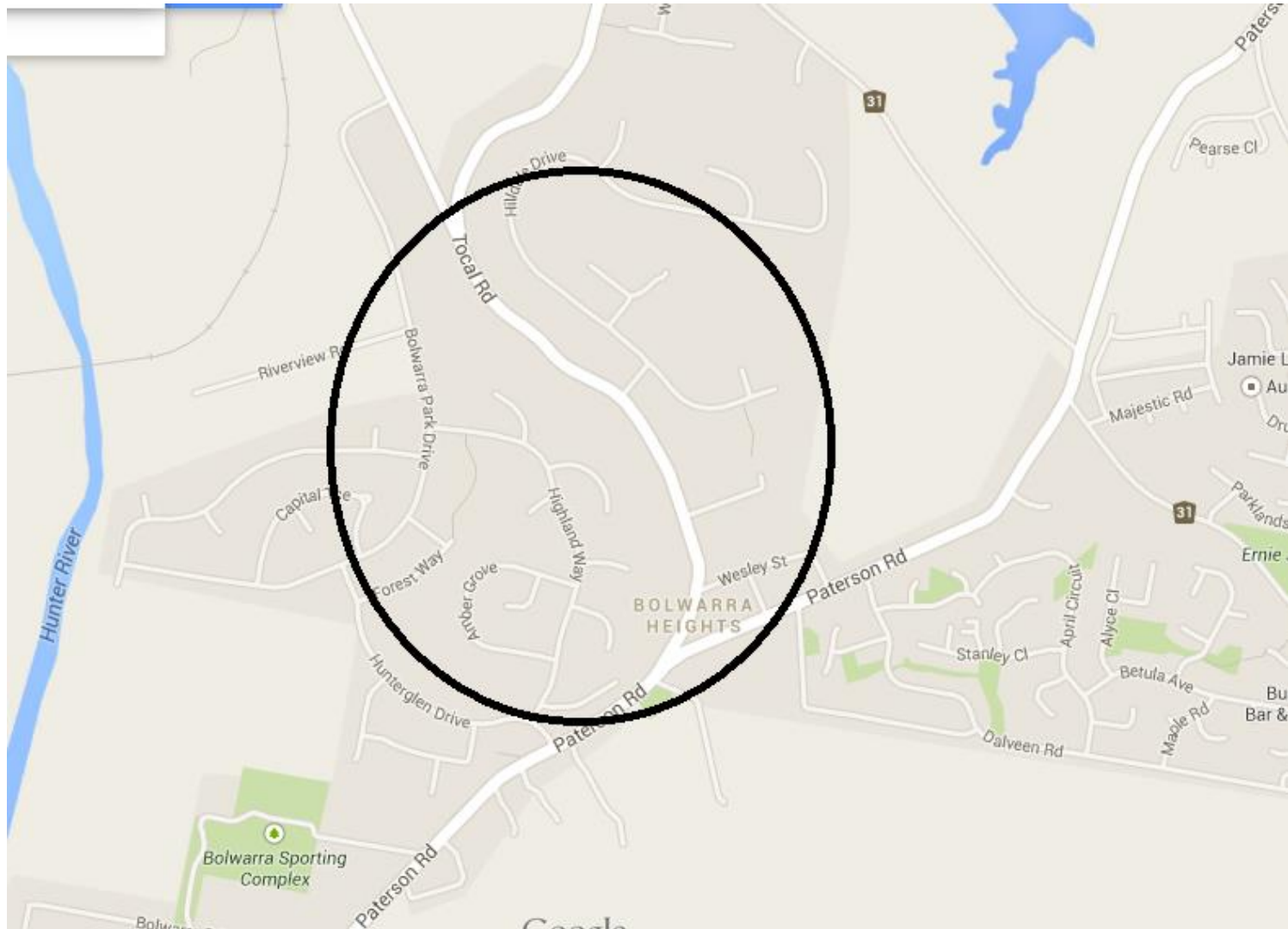
Representing the Bolwarra Heights Community Group

# Bolwarra Heights Road Problems





# The main area of our concern; Tocal Rd, Bolwarra Heights.



This section of road is barely 8mtrs wide in total, gutter to gutter. It was originally a gravel rural access road to outlying villages such as Lambs Valley and Maitland Vale. It is now the 'main road' to many Dungog Shire towns, and to the Martins Creek quarry.



# Tocal Rd Problems

- Quarry 'truck and dogs' are the main concern to residents. Earlier this year truck movements increased to at times 60 trucks passing per hour due to a new Daracon contract to supply extra ballast rock from the Martins Creek quarry. Truck movements begin around 5:15am each day and continue Mon-Sat.
- This and other local roads already carry a large base load of heavy haulage trucks and commercial vehicles as it is the main access to towns such as Dungog, Paterson, Vacy, Gresford and its very busy farming properties.
- The speed limit is 60km/h. A fully loaded quarry truck/dog (which weigh in excess of 50T) cannot stop quickly from 60km/h in an emergency situation, there is NO room to go around/off the road.
- The road is barely 8 meters wide in places, gutter to gutter. This is not wide enough to allow even one vehicle to stop safely on either side of the road, in particular the 500mtrs from Paterson to Hilldale Rds. Cars, trucks and busses stop and even park in potentially very dangerous locations at times, especially at the start of Tocal Rd near the Bolwarra Heights petrol/service station.
- Many people of all ages use the designated footpaths, at times they are less than 2 mtrs from vehicles including fully laden trucks travelling at or in excess of 60km/h.
- Fixtures such as Power poles and sign posts are obstacles that are less than 1 m from the road, on the edge of the footpath. There would be no way of avoiding them or a parked car in an accident situation.
- At least 6 minor accidents have occurred within the last few years on Tocal Rd, plus many near miss situations witnessed with the quarry trucks, luckily none have progressed to serious or fatal accidents.

A typical morning at 23 Tocal Rd..... Note the road width and unavoidable potential hazards such as power poles and large trees close to the road





Area around No 7 Tocal Rd. Note again power poles and pedestrian footpath close to road. School buses pick up and drop off children in this vicinity on school days.



The Tocal Rd/Paterson Rd intersection. A invitation for potential disaster with the current amount of traffic in front of a tightly accessed Petrol Station. Any submission to increase truck movements along this road CANNOT be approved!



## General Requirements

The Environmental Impact Statement (EIS) for the development must comply with the requirements in Clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000.

In particular, the EIS must include:

- (a) a full description of the development, including:
  - the resource to be extracted, demonstrating efficient resource recovery within environmental constraints, and having regard to NSW Trade and Investment's requirements (see Attachment 2 *to be supplied by the Department*);
  - the site layout and extraction plan;
  - processing activities;
  - a waste (overburden, leachate, etc.) management strategy, dealing with the EPA's requirements (see Attachment 2);
  - a water management strategy, dealing with the EPA's and Department of Primary Industries' requirements (see Attachment 2);
  - a rehabilitation strategy, having regard to the key principles in the Strategic Framework for Mine(Quarry) Closure; and
  - the likely interactions between the development and any other existing, approved or proposed extractive industry development in the vicinity of the site (such as the Hanson operated Brandy Hill Quarry);
- (b) a list of any approvals that must be obtained before the development may commence;
- (c) an assessment of the likely impacts of the development on the environment, focussing on the specific issues identified below, including:
  - a description of the existing environment on the land and in the locality likely to be affected by the development, using sufficient baseline data;
  - an assessment of the likely impacts of the development, including any cumulative impacts, taking into consideration

- (i) any relevant laws, environmental planning instruments, guidelines, policies, plans and industry codes of practice, and
  - (ii) the strategic land use planning proposals and the potential for any existing and future land use conflicts between the proposed development for the area and lands likely to be materially affected by the proposal;
- (d) a description of the measures that would be implemented to mitigate and/or offset all likely impacts of the development, and an assessment of:
  - whether these measures are consistent with industry best practice, and represent the full range of reasonable and feasible mitigation measures that could be implemented;
  - the likely effectiveness of these measures; and
  - whether contingency plans would be necessary to manage any residual risks; and
  - a description of the measures that would be implemented to monitor and report on the environmental performance of the development if it is approved;
- (e) a consolidated summary of all the proposed environmental management and monitoring measures, identifying all the commitments in the EIS;
- (f) consideration of the development against all relevant environmental planning instruments (including Part 3 of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive industries 2007), and justification for any inconsistencies with these; and
- (g) the reasons why the development should be approved having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development. While not exhaustive, Attachment 1 (to be supplied by the Department) contains a list of some of the environmental planning instruments, guidelines, policies, and plans that may be relevant to the

environmental assessment of this development.

(h) In addition to the matters set out in Schedule 1 of the Environmental Planning and Assessment Regulation 2000, the development application must be accompanied by a report from a qualified quantity surveyor providing:

- a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Environmental Planning and Assessment Regulation 2000) of the proposal, including details of all the assumptions and components from which the CIV calculation is derived;
- a close estimate of the jobs that will be created by the development during the construction and operational phases of the development; and
- certification that the information provided is accurate at the date of preparation.



## Key Issues

The EIS must address the following specific matters:

- Land Resources - including a detailed assessment of the potential impacts on:
  - soils and land capability;
  - landforms and topography, including rock formations, steep slopes, land slippage, etc;
  - land use, including agricultural use; and
  - extractive material resources, including assessment of the size and quality of the resource and description of the methods used to assess the resource and its suitability for the intended applications;
- Biodiversity – including:
  - accurate estimates of proposed vegetation clearing and impacts on regionally significant remnant vegetation, or vegetation corridors;
  - a detailed assessment of potential impacts of the development on any terrestrial or aquatic threatened species or populations and their habitats, endangered ecological communities and groundwater dependent ecosystems; and
  - a detailed description of the measures that would be implemented to avoid, reduce or mitigate impacts on biodiversity, including an appropriate biodiversity offset strategy;
- Traffic & Transport – including:
  - accurate predictions of the road traffic generated by the construction and operation of the development, a together with a comparison with the traffic generated by the development in the 12 months preceding the application; *NOTE: this must not include reference to the first 6 months of 2014 as baseline data other than as a demonstration of the real impact of 1.5mT extraction rates on the community.*



- a detailed assessment of potential traffic impacts on the safety and efficiency of the road network used by development-related traffic for the transportation of the product, including modelling to predict queue lengths and intersection performance of transportation route both within and without the Shire of Dungog; and
  - a detailed description of the measures and works (including concept plans) that would be used and/or implemented to upgrade, maintain and improve the capacity, efficiency and safety of that road network utilised for the purposes of the development and the transportation of its product, over the life of the development;
  - a description of the types of vehicles that are likely to be generated by and/or used for the purposes of the development and the transportation of its product; the names of public roads in the network within the Shires of Dungog and Port Stephens and City of Maitland that are likely be used by those vehicles; and the times during which those roads will be so used.
  - a detailed assessment of the existing railway facilities to the site including an assessment of these as an alternative transport option, including relative costs, capacities and effects on the local communities.
- Noise – including a quantitative assessment of potential:
    - construction, operational and off-site transport noise impacts, including in the latter respect , regard being had to the NSW Road Noise Policy;
    - reasonable and feasible mitigation measures, including evidence that there are no such measures available other than those proposed; and
    - monitoring and management measures, in particular real-time and attended noise monitoring;
  - Blasting – including proposed hours, frequency, methods and impacts particularly on buildings, and residents within 2 klm radius of the development;
  - Air Quality – including a quantitative assessment of potential:

- construction and operational impacts, with a particular focus on dust emissions including PM2.5 and PM10;
  - dust generation from blasting and processing, as well as diesel emissions and dust generated from the transportation of the product;
  - reasonable and feasible mitigation measures to eliminate or minimise dust and diesel emissions both onsite and off-site including the road network used in the transportation of the product; and
  - monitoring and management measures, in particular real-time air quality monitoring;
- Heritage – including:
    - an Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must:
      - demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures;
      - outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures); and
    - a historic heritage assessment (including archaeology) which must:
      - include a statement of heritage impact (including significance assessment) for any State significant or locally significant historic heritage items; and,
      - outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures);
- Water Resources - including:

- a detailed assessment of potential impacts on the quality and quantity of existing surface and ground water resources including the impacts on:
    - existing user entitlements, affected licensed water users and basic landholder rights; and
    - groundwater-dependent and riparian ecology;
  - a detailed site water balance, including a description of site water demands, water disposal methods (inclusive of volume and frequency of any water discharges), water supply infrastructure and water storage structures;
  - identification of any licensing requirements or other approvals under the Water Act 1912 and/or Water Management Act 2000;
  - demonstration that water for the construction and operation of the development can be obtained from an appropriately authorised and reliable supply in accordance with the operating rules of any relevant Water Sharing Plan (WSP) or water source embargo; and a detailed description of the proposed water management system, water monitoring program and other measures to mitigate surface and groundwater impacts;
  - in carrying out such tasks, have regard to the EPA's and Department of Primary Industries' requirements (see Attachment 2).
- Visual – including:
    - a detailed assessment of the:
      - changing landforms on site during the various stages of the development; and
      - potential visual impacts of the development on private landowners in the surrounding area as well as key vantage points in the public domain;
      - a detailed description of the measures that would be implemented to minimise the potential visual impacts of the development;
  - Hazards

- paying particular attention to public safety (including the effects of dust, noise, vibration and traffic generated the development) and bushfires;
- Social & Economic – including:
  - an assessment of potential impacts on local and regional communities, including impacts on residential and social amenity;
  - a detailed description of the measures that would be implemented to eliminate or minimise the adverse residential, social and economic impacts of the development, including any infrastructure improvements that ought be made , and payment of monetary contributions to Dungog, Port Stephens and Maitland Councils for road upgrading, road construction and road cleaning, draining and maintenance required as a result of the carrying out of the development and/or voluntary planning agreement(s) or similar mechanisms for the benefit of local and state governments and the communities adversely affected by the impacts of the development and which agreement or mechanism will survive any transfer of the land to be developed; and
  - a detailed assessment of the costs and benefits of the development as a whole, and whether it would result in a net benefit for the NSW community;
- Rehabilitation – including the proposed rehabilitation strategy for the site having regard to the key principles in the Strategic Framework for Quarry Closure, including:
  - rehabilitation objectives, methodology, monitoring programs, performance standards and proposed completion criteria;
  - nominated final land use, having regard to any relevant strategic land use planning or resource management plans or policies; and
  - the potential for integrating this strategy with any other rehabilitation and/or offset strategies in the region.

## **Plans and Documents**

The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Environmental Planning and Assessment Regulation 2000. These documents should be included as part of the EIS rather than as separate documents.

## **Consultation During the preparation of the EIS,**

You must consult with relevant local, State, and Commonwealth Government authorities, service providers, **community groups and affected landowners**.

In particular you must consult with the:

- Commonwealth Department of Sustainability, Environment, Water, Population and Communities;
- Office of Environment and Heritage (including the Heritage Branch);
- Environment Protection Authority;
- Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services;
- Department of Primary Industries (including the NSW Office of Water, NSW Forestry, Agriculture and Fisheries sections, and Catchments and Lands (Crown Lands Division));
- Transport for NSW (including the Centre for Transport Planning, and Roads and Maritime Services);
- Hunter-Central Rivers Catchment Management Authority; and
- Dungog Shire Council, Port Stephens Council and Maitland City Council

## **The EIS must:**

- describe the consultation process used and demonstrate that effective consultation has occurred;

- describe the issues raised by public authorities, service providers, community groups and landowners;
- identify where the design of the development has been amended in response to issues raised; and
- otherwise demonstrate that issues raised have been appropriately addressed in the assessment.

### **Further consultation after 2 years**

If you do not lodge a DA and an EIS for the development within 2 years of the issue date of these DGRs, you must consult further with the Director-General in relation to the requirements for lodgement.

### **References**

The assessment of the key issues listed above must take into account relevant guidelines, policies, and plans as identified. While not exhaustive, Attachment 1 contains a list of some of the guidelines, policies, and plans that may be relevant to the environmental assessment of this development.

### By way of background

My name is [REDACTED] and I would like to introduce myself as the author of the following background information to help assure the department of its contents validity.

Until February 2014 I worked 23 years for Metromix – Quarry Division and for the last 15 years or so my role was Customer Service Manager, Hunter Region. From 1999-2012 I spent a lot of my time at the Martins Creek Quarry. The following is a summary of my observations of that time.

### Martins Creek Quarry

Before 1999, Martins Creek Quarry produced ballast, elongated shaped 30mm drainage aggregate and a scalp product through their fixed primary and secondary crushing plant. We believe there may have been some occasional contract crushing undertaken using mobile tertiary crushing plant and screens to produce smaller aggregates for other markets, but it was still a small scale operation, with an estimated production of around the 200kt/year. The MCQ has a rail siding, which had historically been utilised to transport the majority of the ballast product.

During 1999, Metromix, an independent construction material company, which required a source of a high quality rock to supply their shareholders with asphalt, sealing, and high strength/low shrinkage concrete aggregates that could not be supplied from their existing Teralba Quarry, signed a ten year agreement for RailCorp to supply “in specification” tertiary aggregates to Metromix. The installation of a fixed tertiary crushing plant to the existing plant followed very soon after. All of the tertiary products were delivered by road.

In the following years RailCorp undertook a lot of research into the use of the MCQ scalps material for use as a highly specified RTA road base. After a number of years the product was approved by the RTA and shortly after Daracon, in approximately 2004, signed a 5 year contract with RailCorp to purchase all of the scalps from MCQ. RailCorp produced the road base product for Daracon through RailCorp’s Pugmill. So, within a 5 year period there were three companies selling product from the one quarry which has a very unclear development approval. During 2010, both Daracon and Metromix were notified by RailCorp that sales would be severely restricted for a period of about four months because RailCorp was in danger of breaching their agreement of 449kt/year (by road) with the Dungog Council. Apparently, Daracon do not have to comply with the agreement that RailCorp had put in place.

Over the years, from 1999 and 2012, RailCorp and Metromix paid a voluntary monetary amount for a road levy, but neither Maitland nor Port Stephens Councils received any payments. Both Maitland Council (MCC) and Port Stephens Council (PSC) boundaries with Dungog Council (DC) are approximately 12km from MCQ and the vast majority if the product from MCQ is being despatched in the direction of each council area. Both councils have not been able to be considered until, hopefully, now.

### Brandy Hill Quarry

In 1983 the PSC approved the development for the Brandy Hill Quarry, apparently originally for 200kt/year. Over the years it has apparently built up to 700kt/year, but no one can show us that figure, as there is no figure on the original DA which was approved by the PSC. There was certainly

no environmental studies carried out to increase their requirements; it just happened. The 700kt/year allowed Hanson to apply for a 500kt-2Mt EPA licence and it was approved because they were producing 700kt/yr. As you are aware, Hanson is currently writing an EIS for its Brandy Hill Quarry Expansion (SSD-5899). The cover letter sent to Mr Andrew Driver of Hanson by the NSW Government - Planning & Infrastructure, titled State Significant Development – Director-General's Requirements Brandy Hill Quarry Expansion Project (SSD-5899)", signed by David Kitto on 26.3.13 informs Hanson that "the Department may alter these requirements at any time".

Can you please inform us if the BHQ DGRs will be updated to include the MCQ development and will the MCQ application for a SSD – Secretaries Environmental Assessment Requirements will include the cumulative impact of the two developments? Both companies are applying for a 1.5Mt/year, which is a total of 3MT/year over a relative small area in our region. As the crows fly, MCQ and BHQ is only 15km from each other.

Sincerely

[REDACTED]

Member - Bolwarra Heights Community Group

[REDACTED]