

Appendix 2

Secretary's Environmental Assessment Requirements and Matters Identified for Consideration

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Planning &
Environment

Development Assessment Systems & Approvals

Mining Projects

Contact: David Schwebel

Phone: (02) 9228 6443

Email: david.schwebel@planning.nsw.gov.au

Mr Robert Corkery
R.W. Corkery and Co Pty Ltd
PO Box 239
BROOKLYN NSW 2083

Dear Mr Corkery

**Dowe's Quarry Expansion (EAR 831)
Secretary's Environmental Assessment Requirements**

I refer to your request for the Secretary's Environmental Assessment Requirements (EARs) for the above development, which is designated local development under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). I have attached a copy of the EARs for the Environmental Impact Statement (EIS) required for this development. These requirements have been prepared in consultation with relevant State agencies and are based on the information your company has provided to date. I have also attached the agencies' input into the formation of the EARs, which you are also advised to consider closely during your preparation of the EIS.

In your request for EARs, it was indicated that the proposal will require approval under the *Protection of the Environment Operations Act*. Accordingly, the proposal is classified as integrated development under section 91 of the EP&A Act. If further integrated approvals are identified, you must undertake your own consultation with the relevant public authorities, and address their requirements in the EIS.

When you lodge your DA with the consent authority, you must provide:

- one hard and one electronic copy of the EIS to the Department of Planning and Environment;
- one hard and one electronic copy of the EIS to each identified integrated approval authority; and
- a cheque for \$320 to each identified integrated approval authority, to offset costs involved in the review of the DA and EIS. No cheque is required for the Department as it is not an approval authority.

If your proposal contains any actions that could have a significant impact on matters of National Environmental Significance, then it will require an additional approval under the Commonwealth's *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). This approval is in addition to any approvals required under NSW legislation. If you have any questions about the application of the EPBC Act to your proposal, you should contact the Department of the Environment in Canberra (6274 1111 or www.environment.gov.au).

Should the consent authority approve the proposal, then under section 22 of the *Mine Health and Safety Act 2004*, the owner or general manager of a mine or quarry must not undertake mining or quarrying operations without first nominating a person as the operator of the mine or quarry to the Chief Inspector of Mines. The Applicant should contact the local Mine Safety Operations Branch of the Division of Resources and Energy within the Department of Trade, Investment, Regional Infrastructure and Services in regard to this and other matters relating to compliance with the *Mine Health and Safety Act 2004*.

If you have any enquiries about these requirements, please contact David Schwebel.

Yours sincerely

A handwritten signature in blue ink that reads 'David Kitto' followed by the date '13/5/14'.

David Kitto

Director

Mining Projects

as delegate for the Secretary



Secretary's Environmental Assessment Requirements

Section 78A(8) of the *Environmental Planning and Assessment Act 1979* and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

Designated Development

EAR Number	831
Proposal	Expansion of an existing quartzose rock quarry, producing up to 100,000 tpa, for at least 20 years.
Location	Lots 239, 260, 308 and 309 DP 751540 and Lots 3 and 4 DP 42044, 668 Mount Lindesay Highway, Tenterfield.
Applicant	Darryl McCarthy Constructions Pty Ltd
Date of Expiry	13 May 2016
General Requirements <small>(refer Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i>)</small>	<p>The Environmental Impact Statement (EIS) must include:</p> <ul style="list-style-type: none"> • an executive summary; • a full/detailed description of the proposal, including: <ul style="list-style-type: none"> - identification of the resource; - description of the site; - a history of any previous quarrying operations on the site; - the proposed works (including rehabilitation works); - the duration and intensity of extraction operations; - any likely interactions between the proposed operations and existing/approved development and land use in the area; and - a detailed justification for the development; • a conclusion justifying the development on economic, social and environmental grounds, taking into consideration whether the proposal is consistent with the objects of the <i>Environmental Planning & Assessment Act 1979</i>; and • a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.
Key Issues	<p>The EIS must also assess the potential impacts of the proposal during the establishment, operation and decommissioning of the proposal. The EIS must describe what measures would be implemented to avoid, minimise, mitigate, offset, manage and/or monitor the potential impacts on:</p> <ul style="list-style-type: none"> • Land Resources – including a assessment of the potential impacts on: <ul style="list-style-type: none"> - soils and land capability, including an assessment of activities that would cause erosion and the measures proposed to minimise erosion and sedimentation; - landforms and topography, including cliffs, rock formations, landforms, steep slopes, etc; and - land use, including agricultural, forestry and conservation lands; • Water Resources – including: <ul style="list-style-type: none"> - identification of any licensing requirements or other approvals under the <i>Water Act 1912</i> and/or <i>Water Management Act 2000</i>; - an assessment of potential impacts on the quality and quantity of existing surface and ground water resources; - a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo; - an annual site water balance for representative years of the proposed life of the project; and - a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts; • Biodiversity – including:

	<ul style="list-style-type: none"> - accurate predictions of any vegetation clearing on site or for any road upgrades; - a detailed assessment of the potential impacts of the development on any threatened species or populations or their habitats, endangered ecological communities and groundwater dependent ecosystems; - a detailed description of the measures to maintain or improve the biodiversity values within the site in the medium to long term; and - consideration of a Biodiversity Offset Strategy; • Heritage – including: <ul style="list-style-type: none"> - an Aboriginal cultural heritage assessment (addressing 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; 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; • Traffic and Transport – including: <ul style="list-style-type: none"> - an assessment of potential traffic impacts on the capacity, efficiency and safety of the road network, in particular the assessment must include a Road Safety Audit to review the condition of the proposed routes and identify any safety issues which may exacerbated by the development; and - a description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road network in the surrounding area over the life of the project; • Noise and Vibration <ul style="list-style-type: none"> - particularly any potential noise and vibration impacts on any nearby private receptors due to construction, operation or road haulage; • Air Quality – particularly any potential dust impacts on any nearby private receptors from construction, operation or road haulage; • Rehabilitation – including: <ul style="list-style-type: none"> - a detailed description of the proposed rehabilitation measures that would be undertaken during quarry closure; - a detailed rehabilitation strategy, including justification for the proposed final land form and consideration of the objectives of any relevant strategic land use plans or policies; and - the measures that would be undertaken to ensure sufficient financial resources are available to implement the proposed rehabilitation strategy; • Waste Management – including importation of any waste material to the site; • Hazards and Risks – paying particular attention to public safety, including bushfires and transport or storage of any dangerous goods; • Visual Amenity; • Agricultural Impacts; • Utilities and Services; and • Social and Economic Impacts.
Environmental Planning Instruments	<p>The EIS must assess the proposal against the relevant environmental planning instruments, including (but not limited to):</p> <ul style="list-style-type: none"> • <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007;</i> • <i>State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;</i> • <i>State Environmental Planning Policy No. 44 – Koala Habitat Protection;</i> • <i>State Environmental Planning Policy No. 55 – Remediation of Land;</i> • <i>Tenterfield Local Environmental Plan 2013;</i> and • relevant development control plans and section 94 plans, strategies and management plans.

References	<p>The assessment of the key issues listed above must take into account relevant State Government guidelines, policies and plans. While not exhaustive, the following attachment contains a list of some guidelines, policies and plans that may be relevant to the environmental assessment of this development.</p> <p>During the preparation of the EIS you must also consult the Department's EIS Guideline – Extractive Industries – Quarries. This guideline is available for purchase from the Department's Information Centre, 23-33 Bridge Street, Sydney or by calling 1300 305 695.</p>
Consultation	<p>During the preparation of the EIS, you should consult with the relevant local, State and Commonwealth government authorities, service providers and community groups, and address any issues they may raise in the EIS. In particular, you should consult surrounding landowners and occupiers that are likely to be impacted by the proposal.</p> <p>Details of the consultations carried out and issues raised must be included in the EIS.</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 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)
Water Resources	
	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)
	Using the ANZECC Guideline and Water Quality Objectives in NSW (DEC)
	Managing Urban Stormwater: Soils & Construction (Landcom)
	Aquifer Interference Policy (DPI) 2012
Soil Resources and Agricultural Land	
	Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC)
	Guidelines for Consultants Reporting on Contaminated Sites (EPA)
	Rural Land Capability Mapping (DLWC)
	Agricultural Land Classification (DPI)
Biodiversity	
	Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities – Working Draft (DECC) 2004
	The Threatened Species Assessment Guideline – The Assessment of Significance (DECC) 2007
	NSW Groundwater Dependent Ecosystem Policy (DLWC)
	Policy & Guidelines - Aquatic Habitat Management and Fish Conservation (NSW Fisheries)
	Draft Guidelines for the Assessment of Aquatic Ecology in EIA (DUAP 1998)
Heritage	
	Guide to investigation, assessing and reporting on Aboriginal cultural heritage in NSW (OEH) 2011
	Code of Practice of the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW) 2010
	Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW) 2010
	Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DEC) 2005

Air Quality	Protection of the Environment Operations (Clean Air) Regulation 2002 Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DEC) Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (DEC) Assessment and Management of Odour from Stationary Sources in NSW (DEC)
Noise	NSW Industrial Noise Policy (DECC) NSW Road Noise Policy (EPA) Interim Construction Noise Guideline (DECC) Environmental Noise Management – Assessing Vibration: a technical guide (DEC)
Hazards	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development Applying SEPP 33 – Hazardous and Offensive Development Application Guidelines (DUAP) Multi-Level Risk Assessment Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
Traffic & Transport	Guide to Traffic Generating Development (RTA) Road Design Guide (RTA)
Waste	Waste Classification Guidelines: Part 1 Classification of Waste (DECC) 2008 Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes 1999 (EPA)



Trade &
Investment
Resources & Energy

23rd April 2014

David Schwebel
NSW Planning & Infrastructure
GPO Box 39
Sydney NSW 2001

Emailed david.schwebel@planning.nsw.gov.au

Your Reference: DGR ID No. 831
Our Reference: OUT14/12191

Dear Mr Schwebel,

**Re: Request for Director General Requirements
Proposal – Expansion of Dowe's Quarry DGR ID No.831**

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.

Mineral Resources Issues

Quartzose 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.

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

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RESOURCES & ENERGY DIVISION

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www.dtiris.nsw.gov.au



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.

Queries regarding the above information, and future requests for advice in relation to this matter, should be directed to the MRB Land Use team at landuse.minerals@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
Acting 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

- 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

- 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

- 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.



Department of
Primary Industries
Office of Water

Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Contact Christie Jackson

Phone 02 6701 9652

Fax 02 6701 9682

Email christie.jackson@water.nsw.gov.au

Your ref DGR ID No. 831

Attention: David Schwebel

Dear Mr Schwebel,

**Request for Director General Requirements for the Dowe's Quarry, Tenterfield
(DGR ID No. 831)**

The NSW Office of Water refers to your email dated 22 April 2014 seeking the Director-General's Requirements (DGRs) for the continued operation of Dowe's Quarry at Tenterfield. The Office of Water has reviewed the supporting documentation accompanying the request for Director General's Requirements.

The Environmental Impact Statement (EIS) should demonstrate consideration of the points below and address the NSW Office of Water's expanded list of assessment requirements detailed in **Attachment A, if relevant.**

1. Adequate and secure water supply for the proposal. All water required for the development and sources of water should be accounted for and outlined in the EIS.
2. Existing and proposed water licensing requirements are in accordance with the *Water Management Act 2000*. This is to demonstrate that any existing licences (include licence numbers) and licensed uses are appropriate, and to identify where additional licences are proposed. The proposal is located within the area covered by the Water Sharing Plan for the Tenterfield Creek Water Source 2004.
3. An assessment of impacts on groundwater and surface water sources including adequate mitigating, monitoring and contingency requirements to address any surface and groundwater impacts, including a detailed and consolidated site water balance.
4. It is important any works which may intercept groundwater are outlined in detail in the EIS to allow the Office of Water to undertake a proper assessment of any potential impacts. The EIS must address this issue and if dewatering is required, appropriate licences are obtained to account for the take of this water.

The EIS should outline all information known about the groundwater in the locality including current depth to groundwater in comparison with the quarry floor level. The EIS should outline any impacts the quarry may have on groundwater including any potential groundwater quality impacts.

It is important the EIS outlines all proposed monitoring bores on site. A licence is required for any works which intercept the watertable under the *Water Management Act 2000*.



5. An assessment of the impact of the proposed quarry development on groundwater dependent ecosystems (GDEs), adjacent licensed water users and basic landholder rights.
6. Detailed examination of the options to remediate and rehabilitate any excavated/disturbed areas, including remediation and revegetation of riparian areas, if applicable.
7. The EIS will need to identify all riparian areas on the site including any creeks, wetlands, drainage lines etc and outline any impacts the development may have on these areas, outline the intended management of these areas, including monitoring and mitigation measures, or any works proposed for these areas. All watercourses and drainage lines in the area should be located on a plan in the EIS.

It is important appropriate buffers are provided adjacent to all watercourses and wetlands affected by the development.

Design and construction of works within 40 metres of watercourses are to be in accordance with the Office of Water's "Guidelines for Controlled Activities". A Controlled Activity Approval would be required if any works are proposed within 40 metres of a watercourse.

8. The NSW Farm Dams Policy must be addressed in the EIS and the proposal needs to satisfy the Harvestable Rights Order published in accordance with section 54 of the *Water Management Act 2000*. Any current or additional dams, storages, detention basins constructed as part of the development will need to be in accordance with this policy or be otherwise appropriately approved and volumes of water taken in excess of Harvestable Rights need to be licenced.
9. The EIS must address erosion and sediment control measures on the site during operations and the management and discharge of stormwater from the development site. It is important any riparian areas and wetlands adjacent to the site are not affected by the proposed development.
10. Consideration of relevant National and States policies and guidelines.
11. A statement of where each element of the DGRs is addressed in the EIS (e.g. in the form of a table).

If you require clarification on any of the above please contact Christie Jackson on (02) 6701 9652 at the Tamworth office.

Yours sincerely,



Tracey Lawson
A/ Manager Water Regulation (North/ North Coast)
6 May 2014

Attachment A

Director General's Requirements**Dowe's Quarry DGR ID No. 831****1. Legislation**

The assessment is required to take into account the objects and water management principles of the *Water Management Act 2000 (WMA)* and statutory requirements of the *Water Act 1912* administered by the NSW Office of Water, as applicable.

2. Water Sharing Plans

Gazetted Water Sharing Plans (WSPs) prepared under the provisions of the *WMA* establish rules for access to, and the sharing of water between the environmental needs of the surface or groundwater source and water users. The assessment is required to demonstrate consistency with the rules of the WSP, if relevant.

Refer to: <http://www.water.nsw.gov.au/Water-Management/Water-sharing/default.aspx>

3. Relevant Policies

The EIS should take into account the following policies (as applicable):

- Guidelines for Controlled Activities on Waterfront Land (2012);
- Aquifer Interference Policy (2012);
- NSW State Rivers and Estuary Policy (1993);
- NSW State Groundwater Policy Framework Document (1997);
- NSW State Groundwater Quality Protection Policy (1998);
- NSW State Groundwater Dependent Ecosystems Policy (2002); and
- Department of Primary Industries Risk Assessment Guidelines for Groundwater Dependent Ecosystems (2012);
- NSW Water Extraction Monitoring Policy (2007);
- Australian Groundwater Modelling Guidelines (2012);
- Access Licence Dealing Principles Order (2004).

These policies can be accessed online at this link:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/default.aspx>

An assessment framework for the NSW Aquifer Interference Policy can be found online at:

<http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference>.

The EIS needs to demonstrate the proposal is consistent with the spirit and principles of these policy documents.

4. Controlled Activity Approvals

The EIS should consider the Guidelines for Controlled Activities on Waterfront Land (2012) and should address the potential impacts of the project on all watercourses likely to be affected by the project, existing riparian vegetation and the rehabilitation of riparian land. It is recommended the EIS provides details on all watercourses potentially affected by the proposal, including:

- Scaled plans showing the location of:
 - watercourses and top of bank;

- riparian corridor widths to be established along the creeks;
- existing riparian vegetation surrounding the watercourses (identify any areas to be protected and any riparian vegetation proposed to be removed);
- the site boundary, the footprint of the proposal in relation to the watercourses and riparian areas; and
- proposed location of any asset protection zones.
- Photographs of the watercourses.
- A detailed description of all potential impacts on the watercourses/riparian land.
- A description of the design features and measures to be incorporated to mitigate potential impacts.
- Geomorphic assessment of water courses including details of stream order (Strahler System), river style and energy regimes both in channel and on adjacent floodplains.

Refer to: <http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>

5. Groundwater

a) Licensing

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

b) Groundwater source

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

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

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

- Details of any proposed monitoring programs, including water levels and quality data.
- Reporting procedures for any monitoring program including mechanism for transfer of information.

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

Groundwater modelling should be undertaken in accordance with the NSW Aquifer Interference Policy and the Australian Groundwater Modelling Guidelines, and be presented in full in a technical report along with any peer reviews to allow assessment by the NSW Office of Water.

c) Groundwater dependent ecosystems (GDEs)

The EIS considers the potential impacts on any Groundwater Dependent Ecosystems (GDEs) within the area of influence of the operation:

- Identify any potential impacts on GDEs as a result of the proposal including:
 - the effect of the proposal on the recharge to groundwater systems;
 - the potential to adversely affect the water quality of the underlying groundwater system and adjoining groundwater systems in hydraulic connections; and
 - the effect on the function of GDEs (habitat, groundwater levels, connectivity).
- Provide safeguard measures to minimise impacts on any GDEs.

The NSW Groundwater Dependent Ecosystems Policy provides guidance on the protection and management of GDEs and sets out objectives and principles. The assessment is required to identify any impacts on GDEs and address the following:

6. Surface water and riparian protection

The Office of Water is responsible for the sustainable management of rivers, estuaries, wetlands and adjacent riverine plains. The assessment is required to consider the impact of the proposal on watercourses and associated riparian vegetation within the site and provide the following (where applicable):

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

7. Rehabilitation, final landform and final void management

Where relevant, the assessment must include:

- Justification of the proposed final landform with regards to its impact on local and regional groundwater systems and surface water systems.
- A detailed description of how the site will be progressively rehabilitated and integrated into the surrounding landscape.

- Detailed modelling of potential groundwater volume, flow and quality impacts of the presence of an inundated final void on identified receptors, specifically considering those environmental systems likely to be groundwater dependent.
- A detailed description of the measures to be put in place to ensure that sufficient resources are available to implement the proposed rehabilitation.
- The measures that would be established for the long-term protection of local and regional aquifer and surface water systems and for the ongoing management of the site following the cessation of the project.

8. Water management structures/dams

The assessment is required to provide information on the following for all existing and proposed water management structures:

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

End Attachment A



Department of Primary Industries

OUT14/12750

01 May 2014

David Schwebel
Student Planner – Mining Projects
NSW Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Schwebel,

Re: Expansion of Dowe's Quarry_Tenterfield Shire LGA DGR ID No. 831

Thankyou for the opportunity to provide advice on the requirements for the preparation of an Environmental Impact Statement (EIS) for the expansion of the existing extractive industry detailed above.

Agriculture NSW, a division within the Department of Primary Industries have produced a guideline that sets out the relevant agricultural issues to consider for extractive industry developments. This guideline is titled *Agriculture issues for extractive industry development* and can be accessed from the Agriculture Land Use Planning webpage at the following link:

<http://www.dpi.nsw.gov.au/agriculture/resources/lup/development-assessment/extractive-industries>

Please refer the proponent to this guideline in the preparation of the EIS to ensure all potential impacts on agricultural land and associated agricultural industries are considered.

Should you wish to discuss this matter further, please don't hesitate to contact me on (02) 66261215 or Melissa Kahler on (02) 66503125.

Yours Sincerely

A handwritten signature in blue ink, appearing to read 'Stillman'.

Selina Stillman
Resource Management Officer – North Coast

NSW Department of Primary Industries
Wollongbar Primary Industries Institute, 1243 Bruxner Highway, Wollongbar NSW 2477
Tel: 02 66261215 Fax: 02 66281744 www.dpi.nsw.gov.au ABN: 72 189 919 072





Office of
Environment
& Heritage

Your reference: DGR ID No. 831
Our reference: DOC14/55141
Contact: Nicky Owner 02 6659 8254

David Schwebel
Student Planner
Mining Projects
Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Schwebel

Re: Request for EIS Requirements – Expansion of Dowell's Quarry, Tenterfield

Thank you for your email of 22 April 2013 inviting input from the Office of Environment and Heritage (OEH) for the preparation of Director-General Requirements (DGRs) for the above proposal. OEH notes that the project is deemed to be Designated Development and as such will be assessed in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

OEH has reviewed the locality in which the proposal is located and advises that the Environmental Impact Statement (EIS) DGRs address the following:

- Aboriginal cultural heritage, given the location and geology of the proposed quarry site in a landscape known to contain items of significance to the Aboriginal community. The quartz resource proposed for extraction may have been used as a raw material resource by the traditional Aboriginal custodians of the subject lands. Any Aboriginal cultural heritage assessment undertaken must ensure that the quartz outcrop is subject to appropriate assessment, both at the desktop and field level to ensure that any evidence of use by Aboriginal people is identified. Any consultation with Aboriginal stakeholders for this project should ensure that any contemporary Aboriginal knowledge regarding this resource is incorporated into the assessment.
- Biodiversity, given the extent of native vegetation existing within the site of the proposed quarry expansion.

The proponent should ensure that the EIS will be sufficiently comprehensive to enable unambiguous determination of the extent of the direct and indirect impact(s) of the proposal. In addition to the matters raised above, the EIS should include an appropriate assessment, where deemed appropriate, of historic heritage values and flooding. OEH considers that this information is necessary to assess an EIS for the proposal.

The full list of OEH requirements that may need to be addressed in the EIS is provided in Attachment 1. In preparing the EIS, the proponent should refer to the relevant guidance material listed in Attachment 2 regarding best practice environment and heritage management.

Locked Bag 914, Coffs Harbour NSW 2450
Federation House, Level 7, 24 Moonee Street
Coffs Harbour NSW
Tel: (02) 6651 5946 Fax: (02) 6651 6187
ABN 30 841 387 271
www.environment.nsw.gov.au



If you require any further information or clarification regarding this matter please contact Ms Nicky Owner, Conservation Planning Officer, via email nicky.owner@environment.nsw.gov.au or by telephone 02 6659 8254. Please note that Nicky works part time, Tuesday to Thursday only.

Yours sincerely

 7 May 2014

DIMITRI YOUNG
Senior Team Leader Planning - North East
Regional Operations

ATTACHMENT 1:
DOWE'S QUARRY- OEH REQUIREMENTS FOR PREPARATION OF EIS

GENERAL INFORMATION

The Environmental Impact Statement (EIS) should identify the environmental objectives for the proposal. These environmental objectives will guide decisions on environmental controls and management throughout the life of the development. The EIS should fully detail the existing environment including a description of Aboriginal cultural heritage and flora and fauna characteristics.

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

- Aboriginal cultural heritage; and
- Biodiversity

The EIS should address the specific requirements outlined below and assess impacts in accordance with the relevant guidelines mentioned. A full list of guidelines is provided at **Attachment 2**.

THE PROPOSAL

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

- the size and type of the proposal and its operation;
- all anticipated environment impacts, both direct and indirect, including level of vegetation / habitat clearing
- the anticipated level of performance in meeting required environmental standards;
- 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.

THE PROJECT AREA

The EIS should fully identify all of the processes and activities intended for the site and during the life of the project, including details of:

- the location of the proposed development and details of the surrounding environment, including the biodiversity value the two lots to the north and east of the site that are zoned E2 Environmental Conservation;
- the proposed layout of the site;
- appropriate land use zoning;
- ownership details of any residence and/or land likely to be affected by the proposal;
- 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 the transportation, storage, use and emergency management;
- waste generation, storage and disposal;
- a plan showing the distribution of any threatened flora or fauna species and the vegetation communities on or adjacent to the subject site, and the extent of vegetation proposed to be cleared should be provided; and
- methods to mitigate any expected environmental impacts of the development.

Attachment 1: Dowe's Quarry, Tenterfield– OEH Requirements for Preparation of EIS

ABORIGINAL AND HISTORIC CULTURAL HERITAGE**Existing Aboriginal cultural heritage values**

OEH acknowledges the existence of numerous registered Aboriginal sites in the regional locality. These include culturally Aboriginal ceremonial and dreaming sites, conflict sites, resourcing and gathering sites, isolated finds, camp sites, artefact scatters and potential artefact deposits (PADs). 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

The EIS report should contain:

1. A description of any Aboriginal objects and declared Aboriginal places located or associated with the area of the proposed development.
2. A description of the cultural heritage values, including the significance of the Aboriginal objects and declared Aboriginal places, that exist across the whole area that will be affected by the proposed development, and the significance of these values for the Aboriginal people who have a cultural association with the land.
3. A description of how the requirements for consultation with Aboriginal people as specified in clause 80C of the *National Parks and Wildlife Regulation 2009* have been met.
4. The views of those Aboriginal people regarding the likely impact of the proposed development on their cultural heritage. If any submissions have been received as a part of the consultation requirements, then the report must include a copy of each submission and your response.
5. A description of the actual or likely harm posed to the Aboriginal objects or declared Aboriginal places from the proposed activity, with reference to the Aboriginal cultural heritage values identified.
6. A description of any practical measures that may be taken to protect and conserve those Aboriginal objects or declared Aboriginal places.
7. A description of any practical measures that may be taken to avoid or mitigate any actual or likely harm, alternatives to harm or, if this is not possible, to manage (minimise) harm.

In addressing these requirements, the applicant must refer to the following documents:

- a) *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (OEH, 2010) - www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf. These guidelines identify the factors to be considered in Aboriginal cultural heritage assessments for development proposals under Part 4 of the *Environmental Planning and Assessment Act 1979*.
- b) *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (OEH, 2010) - www.environment.nsw.gov.au/licences/consultation.htm. This document further explains the consultation requirements that are set out in clause 80C of the *National Parks and Wildlife Regulation 2009*. The process set out in this document must be followed and documented in the EIS.
- c) *Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales* (OEH, 2010) - www.environment.nsw.gov.au/licences/archinvestigations.htm. The process described in this Code should be followed and documented where the assessment of Aboriginal cultural heritage requires an archaeological investigation to be undertaken.

Attachment 1: Dowe's Quarry, Tenterfield– OEH Requirements for Preparation of EIS

Notes:

- i. An Aboriginal Site Impact Recording Form (www.environment.nsw.gov.au/licences/DECCAHISSiteRecordingForm.htm) must be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar, for each AHIMS site that is harmed through archaeological investigations required or permitted following the determination of the development consent.
- ii. Under Section 89A of the *National Parks and Wildlife Act 1974*, it is an offence for a person not to notify OEH of the location of any Aboriginal object the person becomes aware of, not already recorded on the AHIMS. An AHIMS Site Recording Form should be completed and submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm), for each Aboriginal site found during investigations.

Historic heritage

Where relevant, the EIS report should address the following:

1. The heritage significance of the site and any impacts the development 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.
2. 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 (<http://www.heritage.nsw.gov.au>). In addition, 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 should be consulted in order to identify any known items of heritage significance in the area affected by the proposal. These lists are constantly evolving and items with potential heritage significance may not yet be listed.
3. 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 Manager, OEH Heritage Division Conservation Team, can be contacted on telephone (02) 9873 8599 for a list of suitable consultants.

BIODIVERSITY

The EIS must detail the existing environment including discussion on flora and fauna characteristics. The following requirements should be addressed at a level of investigation appropriate to the site's current condition. Attention is also drawn to the Commonwealth legislation, the *Environment Protection and Biodiversity Conservation Act 1999*. If any species requiring consideration under this legislation may be affected by the proposal, approval for the works may also be required from the Commonwealth Department of Environment.

Attachment 1: Dowe's Quarry, Tenterfield– OEH Requirements for Preparation of EIS

Flora

A comprehensive description of the vegetation of the subject site should be prepared. This will include an assessment of the condition of the plant communities present, including the designation of conservation significance at a local, regional and State level, and an assessment of the likely occurrence of any threatened species, populations and / or ecological communities listed under Schedules 1 or 2 of the *Threatened Species Conservation Act 1995* (TSC Act) and any Rare or Threatened Australian Plant (ROTAP) species.

A plan showing the distribution of any threatened or ROTAP species and the vegetation communities on the subject site, and the extent of vegetation proposed to be cleared should be provided. This plan should be at the same scale as the plan of the area subject to development, and preferably showing the footprint of the proposed development superimposed on the vegetation, in order to assist in the assessment of impacts on existing vegetation.

Where the assessment concludes that threatened species, populations or their habitats, or endangered ecological communities exist on or are in close proximity to the subject site, the effect of the proposed development should be determined by an assessment pursuant to Section 5A of the *Environmental Planning and Assessment Act 1979*. An assessment of the impact of the development on the plant communities and / or ROTAP species should also be provided. A description of the measures proposed to mitigate and / or ameliorate the impact of the development on the plant communities, threatened and ROTAP species.

Fauna

A fauna survey to identify the distribution and abundance of fauna species known or likely to use the subject site should be undertaken. This should include a description of available fauna habitats and an assessment of the conservation status of each of the faunal components at a local, regional and State level.

A plan showing the results of the above survey should be provided. The plan should be at the same scale as (or as an overlay to) the plan of the development footprint and overall site, to assist in the assessment of potential impacts of the proposal on fauna.

An assessment of the potential impact of the development on fauna should be provided.

An assessment of the occurrence or likely occurrence of threatened species or populations listed on the schedules of the TSC Act, or their habitats, on the subject land should be provided. Where the assessment concludes that threatened species or populations, or their habitats, exist on or in close proximity to the subject site, the effect of the proposal should be determined in accordance with an assessment of significance pursuant to Section 5A of the *Environmental Planning and Assessment Act 1979*. A description of the measures proposed to mitigate and/or ameliorate the impact of the development on fauna should be provided.

Surveys and Assessments

Records of flora and fauna on or near the construction site can be obtained from:

- The Wildlife Atlas <http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlas.jsp>.
- Rare or Threatened Australian Plants (ROTAP) database.
- Threatened Species, Populations & Ecological Communities of NSW Catchments www.threatenedspecies.environment.nsw.gov.au.

It should be noted that these databases are not comprehensive, should only be used as a guide and do not negate the need for specific site investigations.

To address likely impacts on threatened species (including their habitat), populations and ecological communities, the proponent will need to engage a suitably qualified environmental consultant to conduct an appropriate flora and fauna survey and provide an assessment report. This report will need to evaluate and

Attachment 1: Dowe's Quarry, Tenterfield– OEH Requirements for Preparation of EIS

mitigate any adverse impacts on such species, populations and communities on the subject site and within the immediate vicinity. Surveys and assessments should not be confined to the immediate development footprint, but also include any areas where ancillary works may be undertaken, for example, any upgrade in site access roads or other supporting infrastructure.

Surveys should be undertaken in accordance with OEH's Threatened Species survey and assessment guidelines (available at www.environment.nsw.gov.au)

Surveys are required to be undertaken during optimal climatic and seasonal conditions for all potentially occurring flora and fauna species and need to consider issues such as migratory species movements, the availability of shelter, breeding, pollination patterns and prerequisites, and also the relative availability of food resources and habitat.

FLOODING

The EIS should include an assessment of the following (where applicable) referring to the guidelines in Attachment 2:

1. Whether the proposal is consistent with any floodplain risk management plans.
2. Whether the proposal is compatible with the flood hazard of the land.
3. Whether the proposal will significantly adversely affect flood behaviour resulting in detrimental increases in the potential flood affectation of other development or properties.
4. Whether the proposal will significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.
5. Whether the proposal incorporates appropriate measures to manage risk to life from flood.
6. Whether the proposal is likely to result in unsustainable social and economic costs to the community as a consequence of flooding.
7. The EIS needs to provide full details of the flood assessment and modelling undertaken in determining any design flood levels (if applicable), including the 1 in 100 year flood levels.
8. In addition, the assessment should include a sensitivity assessment of the potential impacts of an increase in rainfall intensity and runoff (10%, 20% and 30%) due to climate change on the flood behaviour for the 1 in 100 year design flood.

OEH ESTATE

The EIS should address the potential impact (if any) of the proposal on nearby and/or adjacent national parks and nature reserves.

ATTACHMENT 2 – GUIDANCE MATERIAL

Title	Web address
<u>Relevant Legislation</u>	
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/
<i>Environmental Planning and Assessment Act 1979</i>	http://www.legislation.nsw.gov.au/maintop/view/lnforce/act+203+1979+cd+0+N
<i>National Parks and Wildlife Act 1974</i>	http://www.legislation.nsw.gov.au/maintop/view/lnforce/act+80+1974+cd+0+N
<i>Threatened Species Conservation Act 1995</i>	http://www.legislation.nsw.gov.au/maintop/view/lnforce/act+101+1995+cd+0+N
<u>Greenhouse Gas</u>	
The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development & World Resources Institute	http://www.ghgprotocol.org/standards/corporate-standard
National Greenhouse Accounts (NGA) Factors, Australian Department of Climate Change (Latest relEISse),	http://www.climatechange.gov.au/publications/greenhouse-acctg/national-greenhouse-factors.aspx
National Greenhouse and Energy Reporting System, Technical Guidelines (latest relEISse)	http://www.climatechange.gov.au/en/government/initiatives/national-greenhouse-energy-reporting/tools-resources.aspx
National Carbon Accounting Toolbox	http://www.climatechange.gov.au/government/initiatives/ncat.aspx
Australian Greenhouse Emissions Information System (AGEIS)	http://ageis.climatechange.gov.au/
<u>Aboriginal Cultural Heritage</u>	
Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005)	Available from DoP.
Aboriginal Cultural Heritage Consultation Requirements for Proponents (EPA, 2010)	http://www.environment.nsw.gov.au/licences/consultation.htm
Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (EPA, 2010)	http://www.environment.nsw.gov.au/licences/archinvestigations.htm
Aboriginal Site Impact Recording Form	http://www.environment.nsw.gov.au/licences/DECCAHIIMSSiteRecordingForm.htm
Aboriginal Heritage Information Management System (AHIMS) Registrar	http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm
<u>Biodiversity</u>	
BioBanking Assessment Methodology (DECC, 2008)	http://www.environment.nsw.gov.au/resources/biobanking/08385bbassessmethod.pdf

Attachment 2: Guidance Material

Title	Web address
BioBanking Assessment Methodology and Credit Calculator Operational Manual (EPA, 2008)	http://www.environment.nsw.gov.au/biobanking/operationalmanual.htm
Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna -Amphibians (EPA, 2009)	http://www.environment.nsw.gov.au/resources/Threatenedspecies/09213amphibians.pdf
Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - Working Draft (DEC, 2004)	http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf
Guidelines for Threatened Species Assessment (Department of Planning, July 2005)	Draft available from DoP http://www.environment.nsw.gov.au/Threatenedspecies/
EPA Threatened Species website	http://wildlifeIStlas.nationalparks.nsw.gov.au/wildlifeIStlas/watlas.jsp
Atlas of NSW Wildlife	http://www.environment.nsw.gov.au/biobanking/biobankingtspd.htm
BioBanking Threatened Species Database	http://www.environment.nsw.gov.au/biobanking/eqtypedatabase.htm
Vegetation Types databases	http://plantnet.rbgsyd.nsw.gov.au/
PlantNET	http://www.ozcam.org/
Online Zoological Collections of Australian Museums	http://www.environment.nsw.gov.au/resources/Threatenedspecies/tsaguide07393.pdf
Threatened Species Assessment Guideline - The Assessment of Significance (EPA, 2007)	http://www.environment.nsw.gov.au/biocertification/offsets.htm
Principles for the use of biodiversity offsets in NSW	
<u>OEH Estate</u>	
Land reserved or acquired under the NPW Act	
List of National Parks	http://www.environment.nsw.gov.au/NationalParks/parksEISchatoz.aspx
Guidelines for developments adjoining land and water managed by the Department of Environment, Climate Change and Water (EPA, 2010)	http://www.environment.nsw.gov.au/resources/protectedareas/10509devadjEPA.pdf



Birthplace of Our Nation

6 May 2014
Our Ref: 17372-Y9MT/tld

Mr David Schwebel
Mining Projects
NSW Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Schwebel,

Re: Request for EIS Requirements - Expansion of Dowe's Quarry.
Tenterfield - DGR ID No. 831
Lots 308 & 309, DP 751540, Lot 3 & 4 DP 42044, Lot 239 & 260
DP 751540, Mount Lindesay Road, Tenterfield

Reference is made to the abovementioned matter and your email correspondence of 22 April 2014, seeking Council's requirements for the preparation of an Environmental Impact Statement for the expansion of Dowe's Quarry Tenterfield. Council has reviewed the information and identified the following matters for consideration;

Vehicle Movements/Activities

- Plans need to reflect the fact that trucks are laden in both directions;
- Council will require royalties to be paid on laden trucks or alternatively the applicant may provide a commercial assessment to demonstrate the development is meeting a fair cost of infrastructure renewal;
- Potential impact from dust on residents in the vicinity of the quarry access and Mt Lindesay Road, and along the route to the crusher plant;
- Council notes that the intersection of the New England Highway and the crusher plant (destination of quarry material) may require work - refer Roads and Maritime Services;

All correspondence should be addressed to:

The General Manager
Tenterfield Shire Council

247 Rouse Street (PO Box 214) TENTERFIELD NSW 2372

Telephone: (02) 6736 6000 Facsimile: (02) 6736 6005 email: council@tenterfield.nsw.gov.au website: www.tenterfield.nsw.gov.au
ABN 85 010 810 083

12...

Expansion of Dowe's Quarry, Tenterfield - DGR ID No. 831

6 May 2014

- The intersection of the quarry access and Mt Lindesay Road needs to be addressed based on traffic movements and current intersection condition – likely upgrade;
- Driver code of conduct should be established, addressing, but not limited to: vehicle clean down, speeds and safety (in particular the descent to the bridge on Mt Lindesay Highway), use of mobile phones/other devices, covering of loads;
- Dust – methods to be implemented to prevent the trafficking of dust and fines off-site, which may include, but not be limited to: washdown and rumble pads;
- Council has a history of complaints from the current operations on the site, primarily relating to dust and debris from vehicles exiting and entering the site, as such Council requires proposed methods to address this and any future potential for dust nuisance on the basis of increased traffic movements as a result of the increase in quarry activities and extraction.

Blasting

- The frequency of blasting to be addressed and the potential impact on nearby residential receptors.

Overall Quarry Operations

- Indications are that extraction is up to 100 000tpa – should a specific off-site project require increased frequency of blasting, extraction and vehicle movements over a short period of time, there should be specific management practices identified to deal with any increased environmental impact associated with this increase in activity. Ie. Vehicle movements, dust nuisance, blasting etc;
- Coincident physical and legal access to the site from Mt Lindesay Road to the quarry site is to be established – it is noted that the existing access road traverses numerous portions of land;
- Flora and Fauna assessment;
- Aboriginal and European Heritage to be addressed;
- Any waste products from the operation and how dealt with;
- Full and detailed progressive remediation plan to be developed;
- Section 94 contribution payable in accordance with Council's Section 94 Plan, 28/8/13 – Section B – Roads.

Should you require any further information please contact Council's Strategic Planning & Environmental Services Department on 6736 6002.

Yours sincerely,



James Ruprai
**Director of Strategic Planning
& Environmental Services**

David Schwebel - FW: Request for DGR's - Expansion of Dowe's Quarry DGR ID No. 831 (Tenterfield Shire LGA)

From: Wayne Jones <wayne.jones@dpi.nsw.gov.au>
To: <david.schwebel@planning.nsw.gov.au>
Date: 8/05/2014 10:27 AM
Subject: FW: Request for DGR's - Expansion of Dowe's Quarry DGR ID No. 831 (Tenterfield Shire LGA)

Hi David

Please see following comments from Crown Lands regarding the above project.

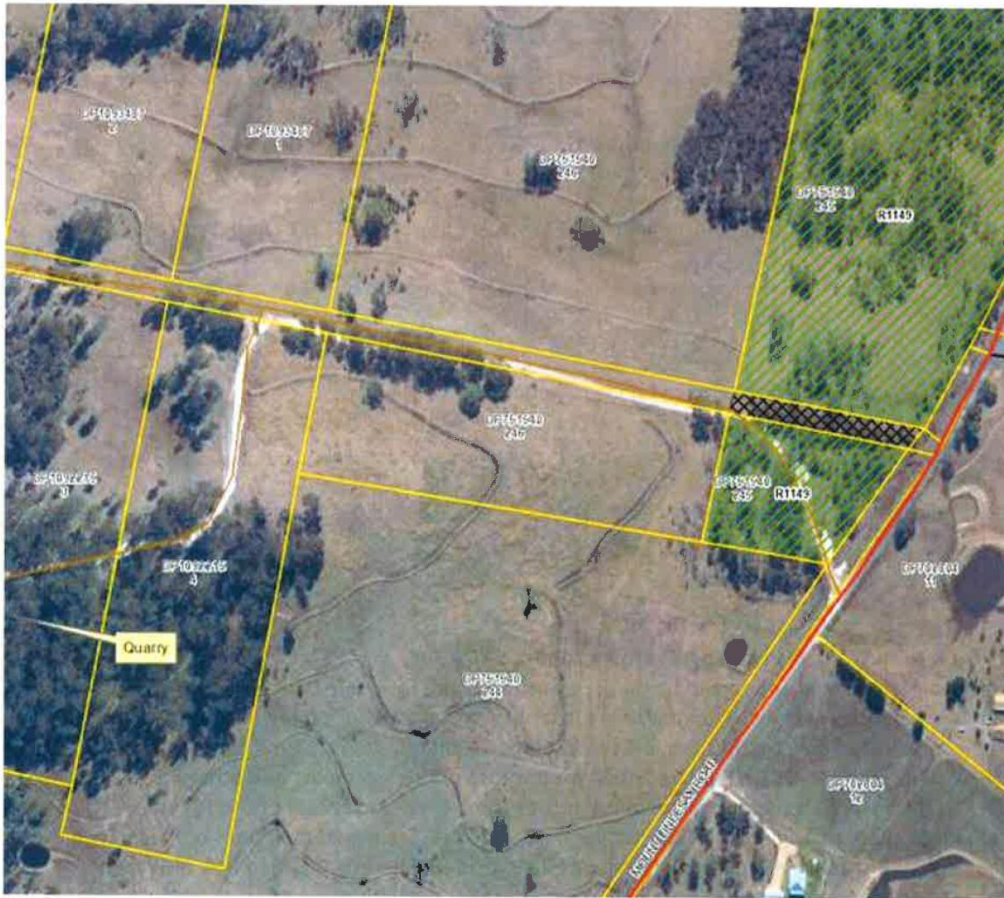
Regards
Wayne

Wayne Jones | Land Use Planning Coordinating Officer
 Department of Primary Industries
 Level 48, MLC Centre, 19 Martin Place Sydney NSW 2000
 T:02 9338 6708 | E: wayne.jones@dpi.nsw.gov.au

Comments from NSW Trade & Investment, Crown Lands

The only effect on Crown land appears to be on the transport route for quarry trucks to the east of the quarry, before joining the Mt Lindsay Road. While most of this road is either on private land or council owned road reserve (according to CRV), a short section (approximately 150m) of the actual road crosses Crown Reserve 1149 (Lot 245 DP751540), reserved for purpose of camping and other public purposes. This reserve is under management of Local Land Services (as part of the TSR network), and has a current incomplete Aboriginal Land Claim over it (ALC32071). The actual road does not align with the Crown Road reserve just to the north through Crown Reserve 1149. The existing road may also service surrounding properties. See map below.

NSW Trade & Investment, Crown Lands should be referenced regarding the section of road that crosses the reserve, when preparing the EIS.



Thanks
Kind Regards
Rebecca

From: "David Schwebel" <David.Schwebel@planning.nsw.gov.au>
To: <landuse.enquiries@dpi.nsw.gov.au>, <william.hughes@dpi.nsw.gov.au>, <planning.matters@environment.nsw.gov.au>, <landuse.minerals@industry.nsw.gov.au>, <admin.northerntablelands@lls.nsw.gov.au>, <development.northern@rms.nsw.gov.au>, <council@tenterfield.nsw.gov.au>
Date: 22/04/2014 12:05 PM
Subject: Request for EIS Requirements - Expansion of Dowe's Quarry DGR ID No. 831 (Tenterfield Shire LGA)

Proposal ☐☐☐ Expansion of Dowe's Quarry, Tenterfield
DGR ID No. 831

Good morning,
Darryl McCarthy Constructions Pty Ltd (the Applicant) has requested the requirements of the Director-General of Planning and Infrastructure for the preparation of an Environmental Impact Statement (EIS) for the above local designated development located in the Tenterfield Shire LGA.

Under Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*,☐ the Director-General is requesting your requirements for the EIS.

It would be greatly appreciated if we could receive your advice by **Wednesday 7 May 2014**, otherwise the Director-General (or Delegate) ☐ will advise the Applicant to consult you directly for your requirements. ☐ If this occurs, it would be appreciated if you would forward a copy of any requirements to us for our records.

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I have attached a copy of the information provided by the Applicant for your reference.
If you have any enquiries please contact myself at the details below.

☐

Kind Regards,

☐

David Schwebel ☐

Student Planner | Mining Projects

NSW Planning & Infrastructure

Room 305 | 23-33 Bridge Street | GPO Box 39 SYDNEY ☐ NSW ☐ 2001

T 02 9228 6443 ☐ E david.schwebel@planning.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 the Department.

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----- (See attached file:

Supporting Document.pdf)

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the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.





Mr Robert Corkery
R.W. Corkery & Co. Pty Ltd
PO Box 239
BROOKLYN NSW 2083

Attention: Mr Corkery

Notice Number 1521864
File Number EF13/5594 - DOC14/62024
Date 07-May-2014

Dear Mr Corkery

RE: Director-General Requirements - Dowe's Quarry, Tenterfield

I refer to your email dated 17 April 2014, requesting the Environment Protection Authority's (EPA) requirements for the preparation of an Environmental Impact Statement (EIS) for the above proposal. The EPA understands that the project application may be assessed by Planning and Infrastructure (P&I) under Part 4 of the *Environmental Planning and Assessment Act 1979*.

The EPA has considered the details of the proposal, including the "Documentation Supporting an Application for Director-General Requirements for the Dowe's Quarry via Tenterfield" prepared by R.W. Corkery Pty Ltd, dated April 2014. It appears that at this stage the proposal, if approved, would require a Environment Protection Licence from the EPA.

The applicant should address the issues in Attachments A and B to this letter during the preparation of the EIS to adequately assess the environmental impacts of the proposal.

In carrying out the assessment, the proponent should refer to the relevant guidelines as listed in **Attachment B** and any relevant industry codes of practice and best practice management guidelines. The EPA also requests that the applicant is provided with a full unaltered version of the EPA's assessment requirements and guidelines as set out in Attachments A and B.

The EPA requests that 1 hard copy and an electronic copy of the EIS are provided for assessment. These documents should be lodged at EPA's Armidale Regional Office, PO Box 494, Armidale, NSW 2350 and armidale@epa.nsw.gov.au



Please contact Mike Lewis on (02) 6773 7000 or by email to armidale@epa.nsw.gov.au if you wish to discuss this matter.

Yours sincerely

A handwritten signature in dark ink, appearing to read 'Angus Adair', written over a horizontal dotted line.

Angus Adair
Acting Head Regional Operations Unit
North - Armidale
(by Delegation)



ATTACHMENT A

Specific Information required by EPA

Licensing requirements

Extractive activities greater than 30,000 tonnes per year are a scheduled activity under the *Protection of the Environment Operations Act 1997* (POEO Act). The EPA is the appropriate regulatory authority for large-scale quarry premises under the POEO Act. Operators of these quarries must hold an environment protection licences for both construction and operation activities.

On the basis of the information submitted to date, it appears the proposal, if approved, would be a scheduled activity – Extractive activities - land-based extractive activities, under the POEO Act and would therefore require an Environment Protection Licence. The EIS should address the requirements of Section 45 of the POEO Act determining the extent of each impact and providing sufficient information to enable EPA to determine appropriate limits for any Licence.

Should project approval be granted, the proponent will need to make a separate application to EPA for a Licence. Additional information is available through the EPA Guide to Licensing document (<http://www.epa.nsw.gov.au/licensing/licenceguide.htm>).

Environmental impacts of the project

The environmental assessment (EA) must include a comprehensive description of the production processes, all discharges and emissions to the environment, an assessment of likely environmental impacts, and a comprehensive description of any proposed control measures.

The environmental sensitivity of the site and surrounds should be discussed. Details are required on the location of the proposed development, including the affected environment, to place the proposal in its local and regional environmental context including surrounding landuses, land use zonings and potential sensitive receptors.

The EIS should describe mitigation and management options that will be used to prevent, control, abate or mitigate identified environmental impacts associated with the project and to reduce risks to human health and prevent the degradation of the environment. This should include an assessment of the effectiveness and reliability of the measures and any residual impacts after these measures are implemented.

The following environmental impacts of the project need to be assessed, quantified and reported on:

- Water
- Air
- Noise
- Waste
- Soils
- Contaminated Land

The EA 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 at Attachment B.



Water

The EPA considers that the goals for ambient water quality are relevant environmental goals to the project. The central reference document for managing ambient water quality is the Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 (ANZECC Guidelines) and Water Quality Objectives framework (<http://www.environment.nsw.gov.au/ieof/>).

The EA must demonstrate how the following environmental outcomes for the project will be achieved:

- Preventing the pollution of waters during construction or occupation of the site by the final users;
- There is no inconsistency with any relevant Statement of Joint Intent established by the Healthy Rivers Commission; and
- Consistency with the NSW Governments River Flow Objectives and Water Quality Objectives framework.

The local drainage systems within the quarry are defined as 'waters' pursuant to the POEO Act. Section 120 of the POEO Act prohibits the pollution of waters by any person. EPA notes the potential need for water sourcing during the plant operations. Accordingly consideration of water issues and the effects on local catchments should be fully investigated.

Describe Proposal

1. The EA should provide details of the project that are essential for predicting and assessing impacts to waters including the quantity and physio-chemical properties of all potential water pollutants and the risks posed to the environment and human health.
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.
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:
 - a. protect the Water Quality Objectives for receiving waters where they are currently being achieved; and
 - b. contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.
10. Describe how stormwater will be managed both during and after construction.

Air

Dust will be the main issue associated with air quality for the project. The EA should include an air quality impact assessment (AQIA). The AQIA should:

1. Assess the risk associated with potential dust emissions for the construction stage of the proposal. Assessment of risk relates to environmental harm, risk to human health and amenity.
2. 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.
3. Detail emission control techniques/practices that will be employed by the proposal. The EA should describe in detail the measures proposed to mitigate the impacts and the extent to which the mitigation measures are likely to be effective in achieving the relevant environmental outcomes. A Cost Benefit Analysis on different mitigation measures/ technologies that have been investigated should also be included.
4. During the construction and operational phase of the project, impacts on amenity due to dust will need to be effectively managed.

Noise

The noise impact assessment should take into account the operational phases of the development and should include details of any mitigation proposed. In relation to noise, the following guidelines should be used to assess impacts as part of the EA:

1. Traffic noise associated with the construction, site establishment and decommissioning phase of the Project should be assessed using the NSW Road Noise Policy (DECCW, 2011)
<http://www.epa.nsw.gov.au/noise/traffic.htm>.



2. Construction noise associated with the proposed development should be assessed using the Interim Construction Noise Guideline (DECC, 2009) <http://www.epa.nsw.gov.au/noise/constructnoise.htm>.
3. 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.epa.nsw.gov.au/noise/VIBRATIONGUIDE.htm>.
4. If blasting is required during the operation of the proposed development, 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.epa.nsw.gov.au/noise/blasting.htm>.

Waste

The EA should describe all wastes that will be generated by the proposal including, for each of the main waste streams, the process from which it will be generated; its quantity and composition; its classification under the POEP Act; and the proposed arrangements for dealing with the waste. Consideration should also be given to disposal of cleared vegetation and excess spoil material.

Guidance on waste classification and management issues can be obtained from the publication Waste Classification Guidelines (DECC, 2008). The EA should clearly identify methods of reducing waste volumes and recycling and reusing wherever possible.

The avenues for disposal of industrial/hazardous waste are limited within New South Wales at present and the proponent should detail the likelihood of generation of these wastes and anticipated storage/disposal methods.

The EA must identify any fuel or chemical storage areas to be established on the site and describe the measures proposed to minimise the potential for leakage or migration of pollutants into the soil, groundwater or surface water systems.

The EA should:

1. Include a detailed plan for in-situ classification of waste material, including the sampling locations and sampling regime that will be employed to classify the waste, particularly with regards to the identification of contamination hotspots.
2. Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.
3. 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: For points 2 and 3 above, all waste must be classified in accordance with EPA's Waste Classification Guidelines.

4. Include a commitment to retaining all sampling and classification results for the life of the project to demonstrate compliance with EPA's Waste Classification Guidelines.
5. Provide details of how waste will be handled and managed onsite to minimise pollution, including:
 - a. Stockpile location and management



- Labelling of stockpiles for identification, ensuring that all waste is clearly identified and stockpiled separately from other types of material (especially the separation of any contaminated and non-contaminated waste).
 - Proposed height limits for all waste to reduce the potential for dust and odour.
 - Procedures for minimising the movement of waste around the site and double handling.
 - Measures to minimise leaching from stockpiles into the surrounding environment, such as sediment fencing, geofabric liners etc.
- b. Sediment and erosion control including measures to be implemented to minimise erosion, and sediment mobilisation at the site during works. The EA should show the location of each measure to be implemented. The Proponent should consider measures such as:
- Sediment traps
 - Diversion banks
 - Sediment fences
 - Bunds (earth, hay, mulch)
 - Geofabric liners
 - Other control measures as appropriate
6. Provide details of how the waste will be handled and managed during transport to a lawful facility. If the waste possesses hazardous characteristics, the Proponent must provide details of how the waste will be treated or immobilised to render it suitable for transport and disposal.
7. 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.
8. Include a statement demonstrating that the Proponent is aware of EPA's requirements with respect to notification and tracking of waste.
9. 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 OEH from time to time.
10. Outline contingency plans for any event that affects operations at the site that may result in environmental harm, including: excessive stockpiling of waste, volume of leachate generated exceeds the storage capacity available on-site etc.

Soils

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 (A. Installation of services; B Waste landfills; C. Unsealed roads; D. Main Roads; 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.

Contaminated Land

The EA must document the management of any land contamination. This includes ensuring that land is not allowed to be put to a use that is inappropriate because of the presence of contamination, and incorporates mechanisms to ensure that:

- planning authorities consider contamination issues when they are making development decisions;
- local councils provide information about land contamination on planning certificates that they issue under section 149 of the Environmental Planning & Assessment Act; and
- Land remediation is facilitated and controlled through State Environmental Planning Policy 55 – Remediation of Land (SEPP55).

The following documents should form the basis for the contaminated land assessment for the proposed development:

- Managing Land Contamination: Planning Guidelines - SEPP55 - Remediation of Land, Department of Urban Affairs and Planning and NSW EPA, 1998;
- Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites (Environment Protection Authority (EPA) 1997);
- Contaminated Sites – Guidelines on Significant Risk of Harm and Duty to Report (EPA, 1999).

Under the Contaminated Land Management Act there is a responsibility to notify the EPA of sites that pose a significant risk of harm to human health or the environment.



ATTACHMENT B - GUIDANCE MATERIAL

Assessing Environmental Impacts

Air quality

- Protection of the Environment Operations (Clean Air) Regulation 2002
- Approved Methods for the Sampling and Analysis of Air Pollutants in NSW
- Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales
- (Technical Framework: Assessment and Management of Odour from Stationery Sources in NSW, November 2006.

Greenhouse gas emissions

- The Greenhouse Gas Protocol: Corporate Standard, World Council for Sustainable Business Development & World Resources Institute <http://www.ghgprotocol.org/standards/corporate-standard>
- National Greenhouse Accounts (NGA) Factors, Australian Department of Climate Change (Latest release),
<http://www.climatechange.gov.au/publications/greenhouse-acctg/national-greenhouse-factors.aspx>
- National Greenhouse and Energy Reporting System, Technical Guidelines (latest release)
<http://www.climatechange.gov.au/en/government/initiatives/national-greenhouse-energy-reporting/tools-resources.aspx>
- National Carbon Accounting Toolbox
<http://www.climatechange.gov.au/government/initiatives/ncat.aspx>
- Australian Greenhouse Emissions Information System (AGEIS) <http://ageis.climatechange.gov.au/>

Noise and vibration

- NSW Industrial Noise Policy (EPA, 1999)
- NSW Environmental Criteria for Road Traffic Noise (EPA, 1999)
- Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (ANZECC 1990)
- Interim Noise Construction Guidelines (EPA 2009)
- Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects, 2007. See <http://www.environment.nsw.gov.au/noise/railnoise.htm> for more guidance material.
- Assessing Vibration: a Technical Guideline, EPA, 2006.

Water and Soils

Water quality

- National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000)



- NWQMS Australian Guidelines for Water Quality Monitoring and Reporting (ANZECC 2000)
- Water Quality and River Flow Objectives for the Namoi River Catchment (DEC, 2006)
<http://www.environment.nsw.gov.au/ieo/Namoi/index.htm>
- Namoi River Catchment Action Plan (CAP)

Waste water

- National Water Quality Management Strategy: Guidelines for Sewerage Systems - Effluent Management (ARMCANZ/ANZECC 1997)
- National Water Quality Management Strategy: Guidelines for Sewerage Systems – Use of Reclaimed Water (ARMCANZ/ANZECC 2000)
- Environmental Guidelines for the Utilisation of Treated Effluent by Irrigation (NSW DEC 2004)

Stormwater

- Managing Urban Stormwater: Soils and Construction 4th Edition (Landcom 2004)
- Managing Urban Stormwater: Soils and Construction – Vol 2E Mines and Quarries, 2008.
- Managing Urban Stormwater: Source Control (EPA 1998)
- Managing Urban Stormwater: Treatment Techniques (EPA 1998)

Groundwater

- State Groundwater Policy Framework Document (DLWC 1997)
- The NSW State Groundwater Quality Protection Policy (DLWC 1998)
- (Draft) NSW State Groundwater Quantity Management Policy
- NSW State Groundwater Dependent Ecosystems Policy (DLWC, 2002)
- National Water Quality Management Strategy Guidelines for Groundwater Protection in Australia (ARMCANZ & ANZECC, 1995)

Waste

- Guideline for the Use and Disposal of Biosolids Products (NSW EPA 1997)
- Environmental Guidelines: Solid Waste Landfills (NSW EPA 1996)
- Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998)
- Waste Classification Guidelines Part 1: Classifying Waste, April 2008.



File No: NTH14/00038; CR2014/002175
Your Ref: DGR ID No. 831

The Director
Mining Projects
NSW Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attn: Mr David Schwebel – Student Planner

Dear Mr Schwebel,

Director-General's Environmental Assessment Requirements (DGRs) for the Proposed Expansion of Dowe's Quarry, Tenterfield LGA, DGR ID No.831.

I refer to your email correspondence of 22 April 2014 requesting Roads and Maritime Services to provide details of key issues and assessment requirements regarding the abovementioned development for inclusion in the Director General's Environmental Assessment (EA) requirements.

Roles & Responsibilities

The key interests for Roads and Maritime are the safety and efficiency of the road network, traffic management, the integrity of infrastructure assets and the integration of land use and transport.

The New England Highway (HW9) is a classified (state) road and Mount Lindesay Road (MR622) is a classified (regional) road. Tenterfield Shire Council is the 'Roads Authority' for these roads and all other public roads in the subject area. Roads and Maritime concurrence is required under Section 138 of the Act for works on a classified road with Council's consent.

In accordance with Clause 101 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) the Consent Authority is to have consideration for the safety, efficiency and ongoing operation of the classified road where development has frontage to a classified road.

In accordance with *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* Clause 16(3), RMS is given the opportunity to review and provide comment on the subject development application.

Roads and Maritime Response

Roads and Maritime would like the following issues to be included in the transport and traffic impact assessment of the proposed development:

- The total impact of existing and proposed development on the state road network with consideration for a 10 year horizon.
- The volume and distribution of traffic generated.
- Intersection sight distances at key intersections along the primary haul route.

Roads & Maritime Services

31 Victoria Street, Grafton NSW 2460 | PO Box 576 Grafton NSW 2460
T 02 6640 1300 | F 02 6640 1304 | E development.northern@rms.nsw.gov.au

www.rms.nsw.gov.au | 13 22 13

- Existing and proposed access conditions.
- Details of improvements for road intersections with consideration for the current Austroads Guidelines, particularly;
 - New England Highway & Nass Street intersection.
 - New England Highway, Bruxner Way and Old Ballendean Road intersection.
 - New England Highway and Sunnyside Crushing Facility Site access point/s.
 - Mount Lindesay Road and Old Ballendean Road intersection.
 - Mount Lindesay Road and the Dowe's Quarry Access Road.
- Detail of staff, servicing and parking arrangements.
- Traffic Management for construction and operational phases of the development
- Impact on public transport (public and school bus routes) and consideration for alternative transport modes such as cyclists and pedestrians
- Impacts of road traffic noise and dust generation along the identified haulage route.
- Details of any proposed Road Maintenance Contributions Plan.
- Consideration for Clause 16(1) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* regarding;
 - Impact on school zones and residential areas.
 - Truck Management Plan
 - Code of Conduct for Haulage Operators
 - Road Safety Assessment of key haulage routes

Where any Road Safety Assessment of the key haulage routes identifies potential safety concerns, Road and Maritime recommends that the Traffic Impact Assessment be supported by a Road Safety Audit undertaken by suitably qualified persons.

The current Austroads Guidelines, Australian Standards and RMS Supplements are to be adopted for any proposed works on the classified road network. The Developer would be required to enter into a 'Works Authorisation Deed' (WAD) with Roads and Maritime for any works deemed necessary on the classified state road network. The developer would be responsible for all costs associated with the works and administration for the WAD

Further information on undertaking Private Developments adjacent to classified roads can be accessed at:

http://www.rms.nsw.gov.au/roadprojects/community_environment/private_developments.html

It is recommended that developers familiarise themselves with the requirements of the WAD process and contact our office to obtain further advice where necessary.

Advice to the Consent Authority

Roads and Maritime highlights that in determining any application under Part 4 of the *Environmental Planning and Assessment Act 1979* it is the Consent Authority's responsibility to consider the environmental impacts of any road works which are ancillary to the development. This includes any works which form part of the proposal and/or any works which are deemed necessary to include as requirements in the conditions of development consent. Depending on the level of environmental assessment undertaken to date and nature of the works, the consent authority may require the developer to undertake further environmental assessment for any ancillary road works.

If you have any further enquiries regarding the above comments please do not hesitate to contact Matt Adams on 6640 1362 or email development.northern@rms.nsw.gov.au.

Yours sincerely



22 May 2014

Monica Sirol
Network & Safety Manager, Northern Region

CC: Rob Corkery – R.W.Corkery, Brooklyn Office – brooklyn@rwcorkery.com

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