ENVIRONMENTAL IMPACT ASSESSMENT

# MARY'S MOUNT
# BLUE METAL QUARRY

## BURLEITH

Prepared for:
**Gunnedah Quarry Products Pty Ltd**

Prepared by:
**Stewart Surveys Pty Ltd**



**13th December 2012**

# APPENDIX

Stewart Surveys Pty Ltd
PO Box 592
Gunnedah NSW 2380

Ph. (02) 6742 2966
Fax: (02) 6742 0684
E: office@stewartsurveys.com

# Appendix

## Appendix 1 - A1 Site Plans

Sheet 1: Existing Quarry Site Plan

Sheet 2: Proposed Quarry Site Plan

Sheet 3: Staged Rehabilitation Plan

Note: Plans are enclosed seperately

## Appendix 2 Site Photographs

This appendix includes a selection of site photographs taken on the 23rd May 2012 and 11th October 2012 on the site by Stewart Surveys. They give a good representation of the existing conditions of each area around the proposed quarry.

Photos have been broken up into 11 zones, labelled A to K and correlate to the site plan legend included on page 1 of this appendix.

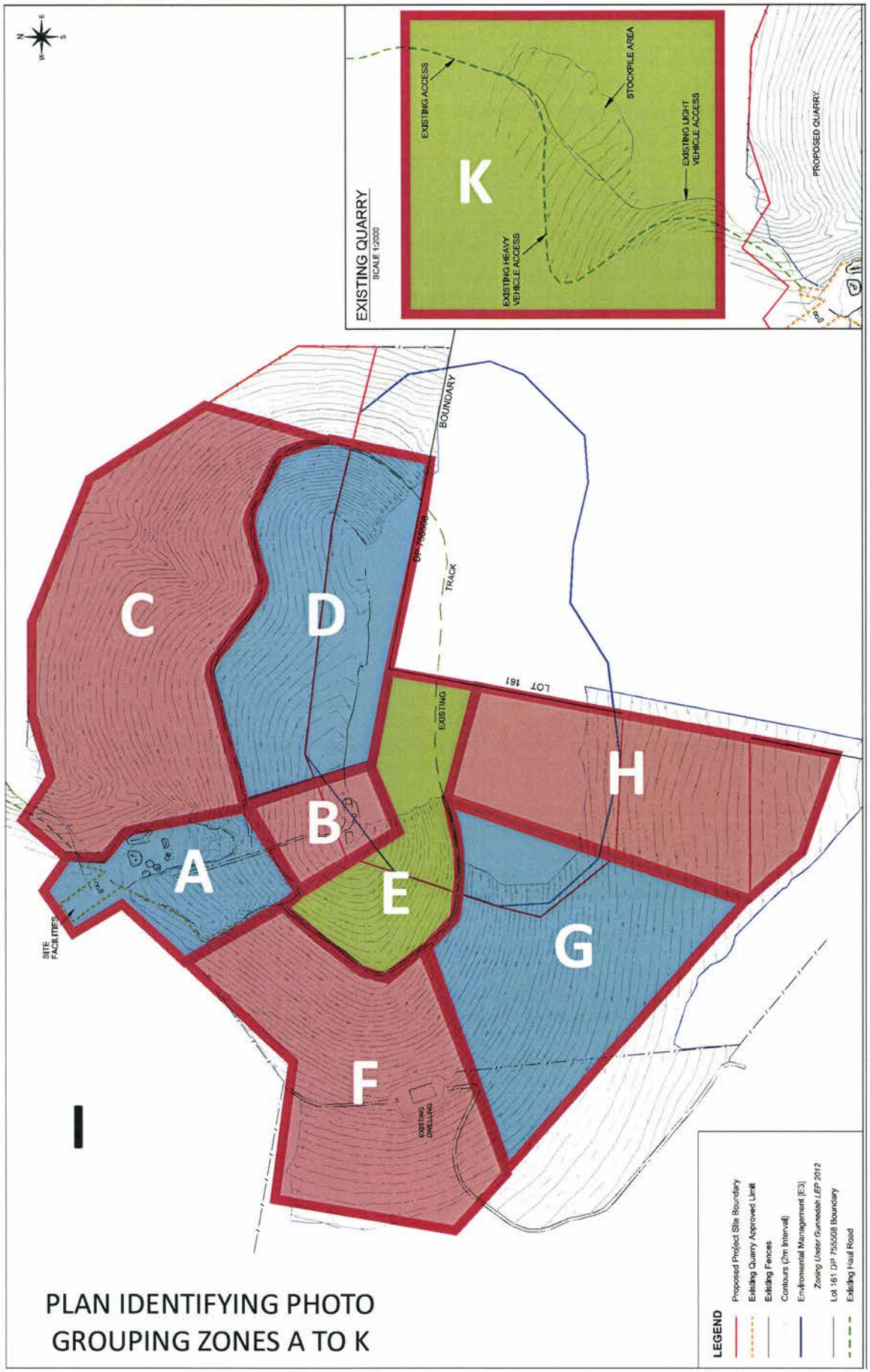
## Appendix 3 Director General Requirements

Original Director General Requirements (DGRs 617) were provided by Gunnedah Quarry Products for the preparation of the environmental assessment. These DGRs described the proposal as "extraction is to increase to 150,000 tonnes a year with no increase in approved pit size". During the planning process, when volumns of material were calculated, Gunnedah Quarry Products decided to largen the pit size to that outlined in this application. As this varied in description to the original DGRs Stewart Surveys reapplied to the Department of Planning and Infrastructure by completing the Form A application on the 24th July 2012.

Director General Requirements (DGR 653) were issued to Stewart Surveys on the 10th September 2013. These DGRs have formed the basis of this Environmental Assessment and are attached in appendix 3 for your reference.

DGRs Include:

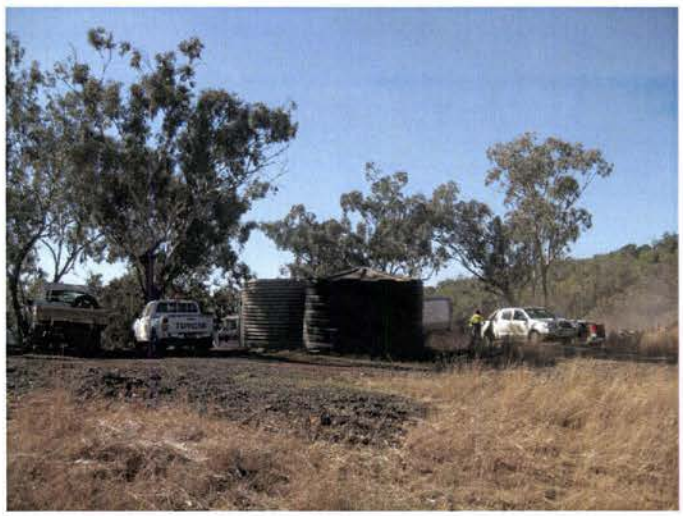
- Department of Planning and Infrastructure Requirements
- NSW Office of Environment and Heritage Requirements
- NSW Environmental Protection Authority Requirements
- NSW Roads and maritime Services Requirements
- Gunnedah Shire Council Requirements.

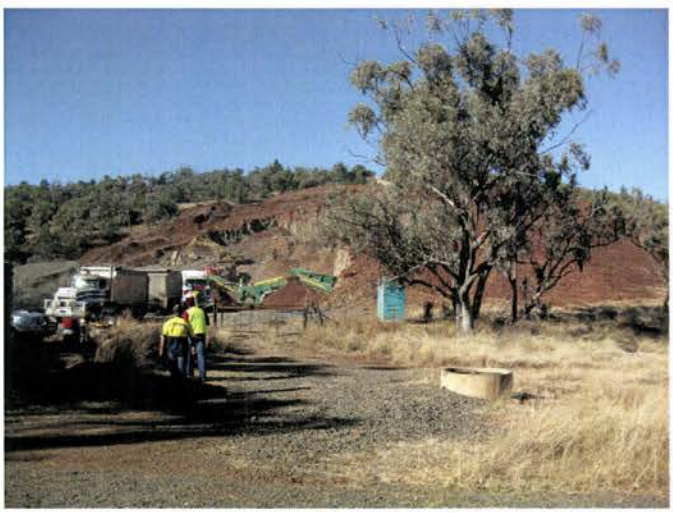



PLAN IDENTIFYING PHOTO GROUPING ZONES A TO K

## Zone A - Existing Quarry Footprint

(Refer Sheet 1 for zone mapping)





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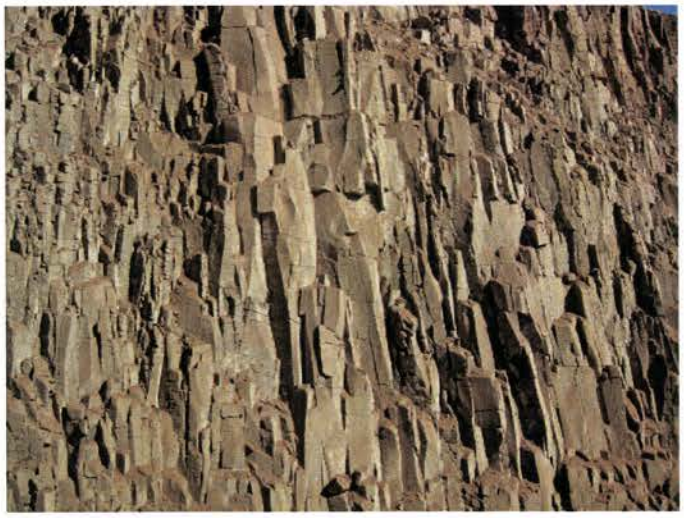

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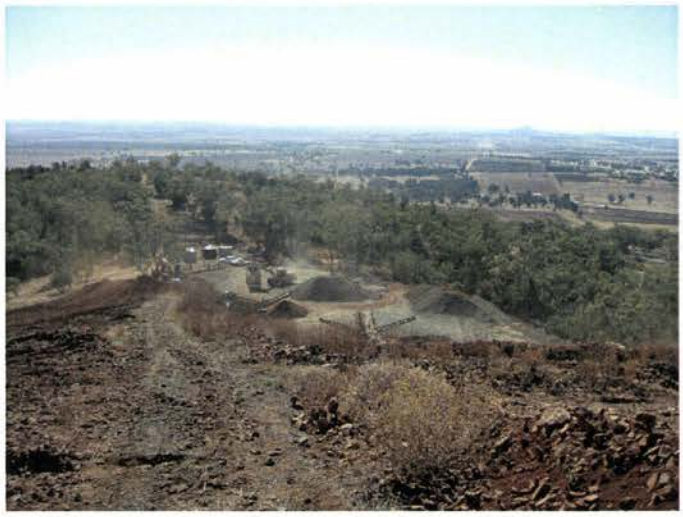
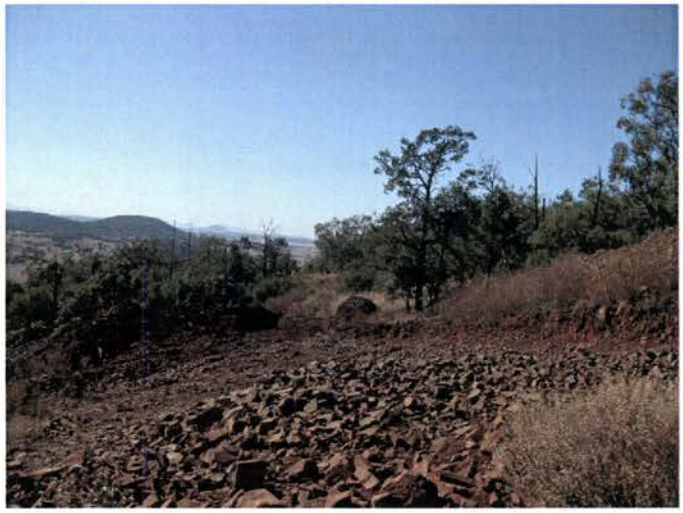


## Zone A - Existing Quarry Footprint

(Refer Sheet 1 for zone mapping)

## Zone B - Upper Quarry Area

(Refer Sheet 1 for zone mapping)



## Zone B - Upper Quarry Area

(Refer Sheet 1 for zone mapping)

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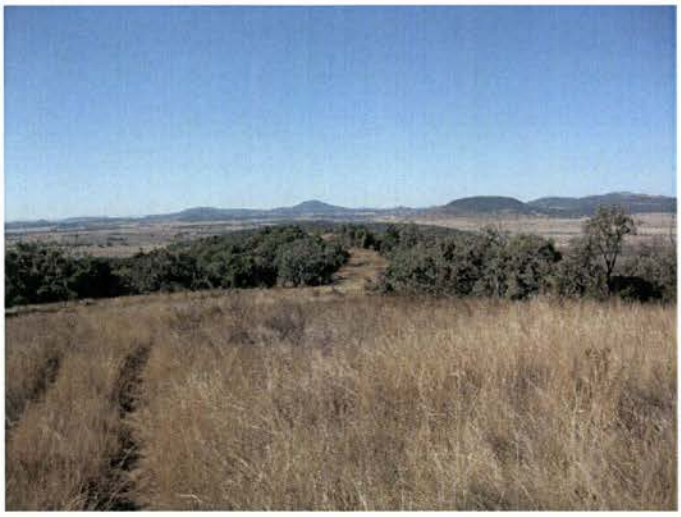
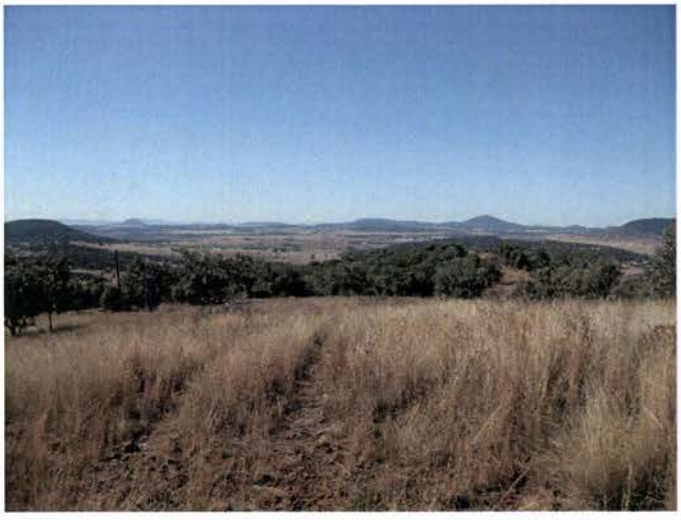
(Refer Sheet 1 for zone mapping)





## Zone B - Upper Quarry Area

(Refer Sheet 1 for zone mapping)

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(Refer Sheet 1 for zone mapping)

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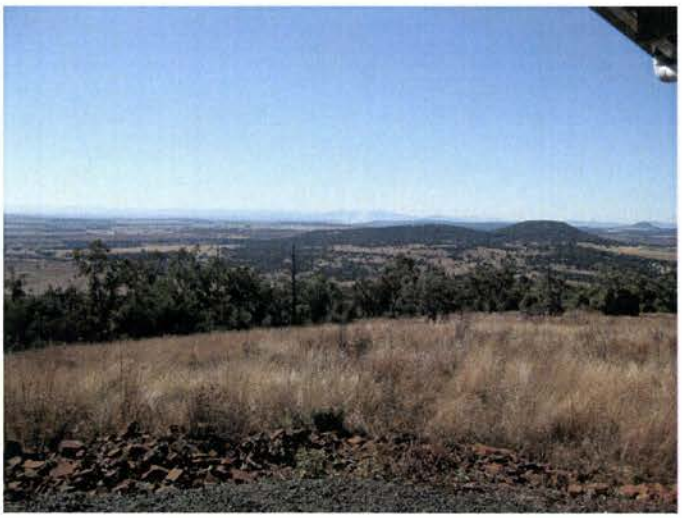
(Refer Sheet 1 for zone mapping)



## Zone C - Lower North-East Area

(Refer Sheet 1 for zone mapping)

## Zone C - Lower North-East Area

(Refer Sheet 1 for zone mapping)

## Zone D - Upper South-East Area

(Refer Sheet 1 for zone mapping)

## Zone D - Upper South-East Area

(Refer Sheet 1 for zone mapping)

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(Refer Sheet 1 for zone mapping)






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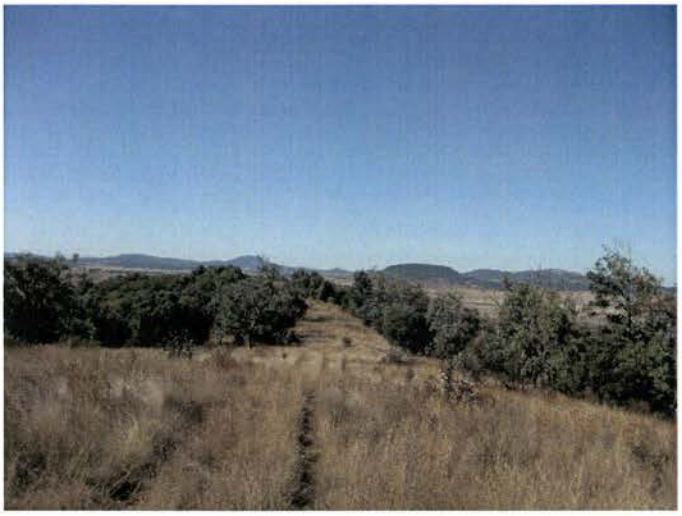


## Zone D - Upper South-East Area

(Refer Sheet 1 for zone mapping)

## Zone D - Upper South-East Area

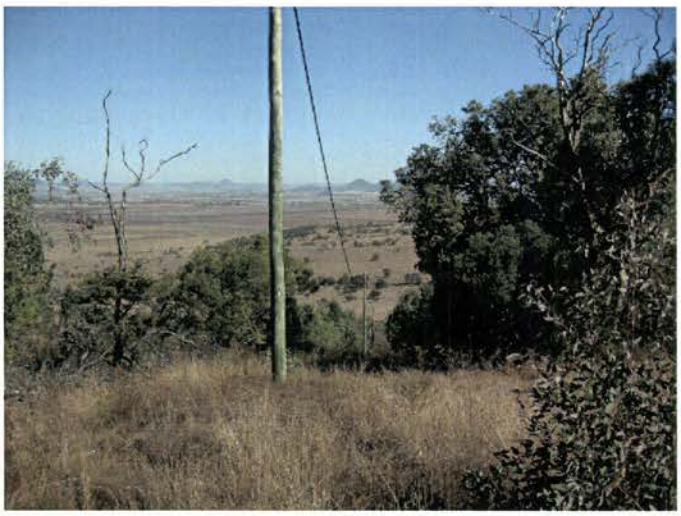
(Refer Sheet 1 for zone mapping)

## Zone E - Upper West-Southwest Area

(Refer Sheet 1 for zone mapping)

## Zone E - Upper West-Southwest Area

(Refer Sheet 1 for zone mapping)



## Zone E - Upper West-Southwest Area

(Refer Sheet 1 for zone mapping)

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(Refer Sheet 1 for zone mapping)

## Zone E - Upper West-Southwest Area

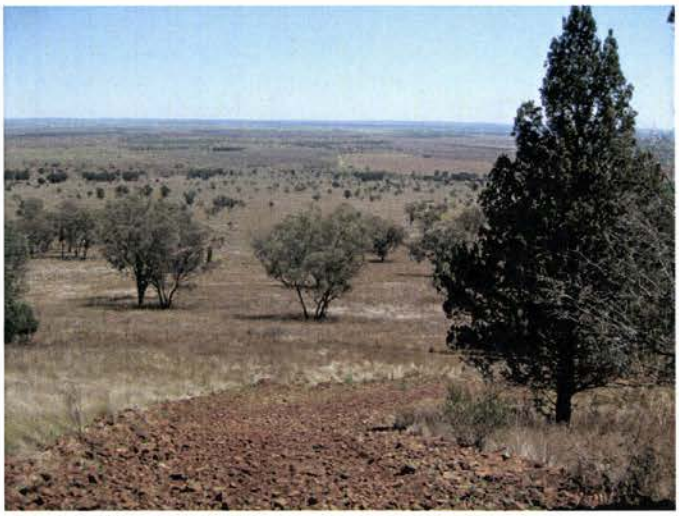
(Refer Sheet 1 for zone mapping)

## Zone F - Lower Western Area

(Refer Sheet 1 for zone mapping)

## Zone F - Lower Western Area

(Refer Sheet 1 for zone mapping)



## Zone F - Lower Western Area

(Refer Sheet 1 for zone mapping)

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(Refer Sheet 1 for zone mapping)

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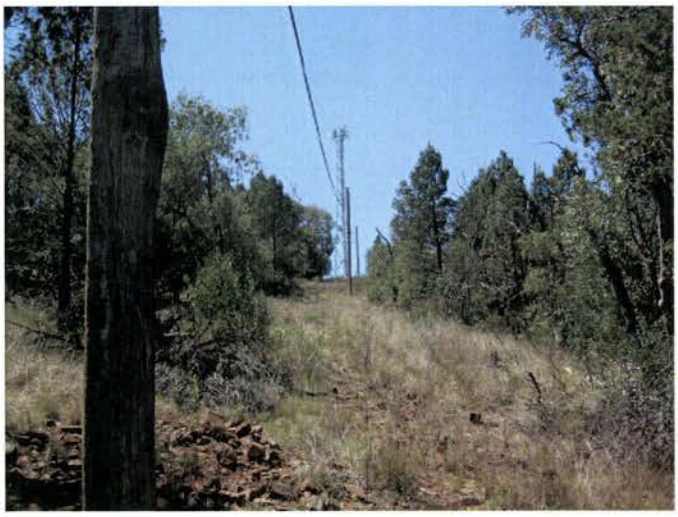
(Refer Sheet 1 for zone mapping)



## Zone F - Lower Western Area

(Refer Sheet 1 for zone mapping)

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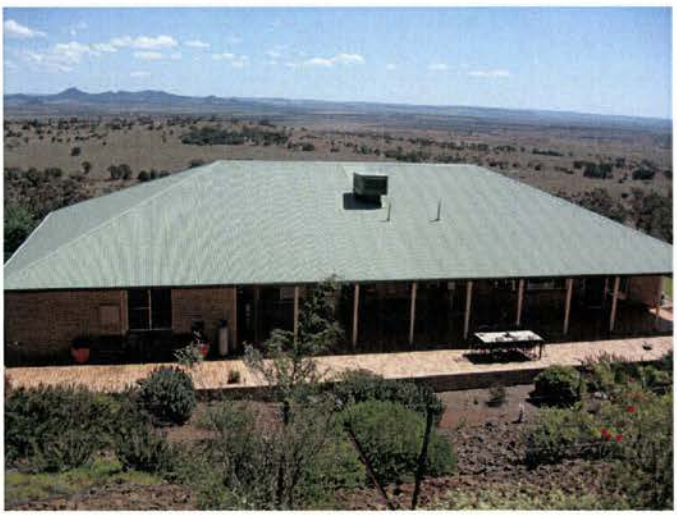
(Refer Sheet 1 for zone mapping)



## Zone G - Lower South-West Area

(Refer Sheet 1 for zone mapping)

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(Refer Sheet 1 for zone mapping)

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(Refer Sheet 1 for zone mapping)

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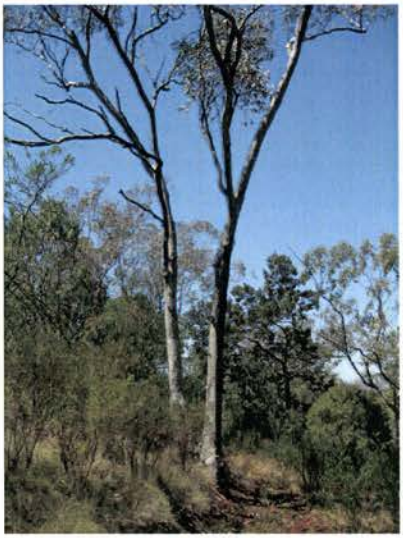

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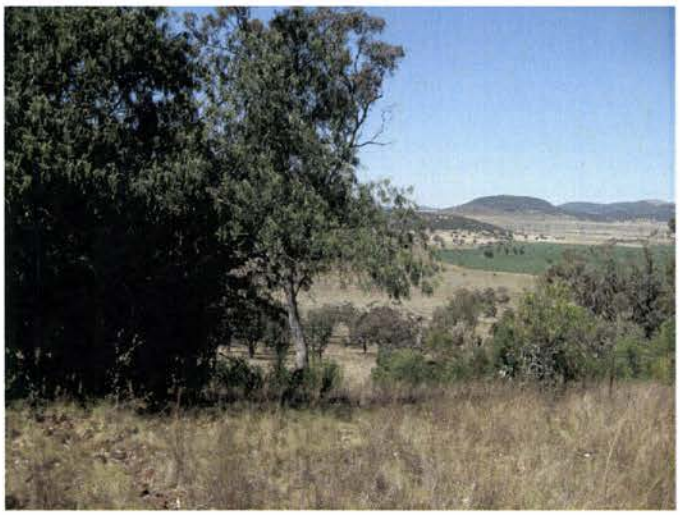
(Refer Sheet 1 for zone mapping)



## Zone G - Lower South-West Area

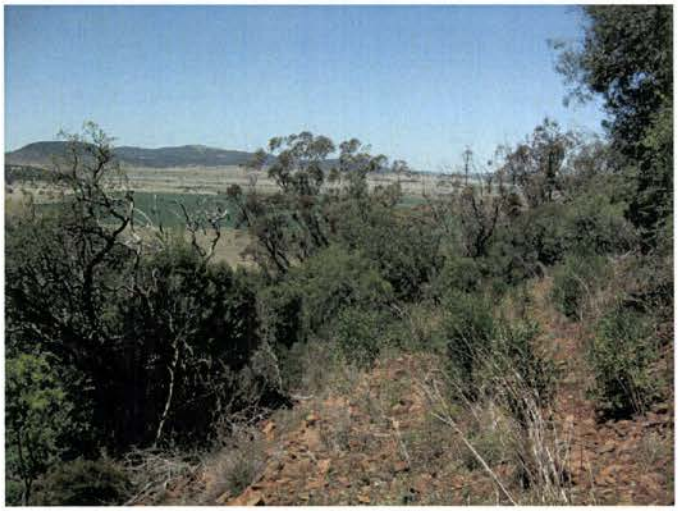
(Refer Sheet 1 for zone mapping)

## Zone G - Lower South-West Area

(Refer Sheet 1 for zone mapping)

## Zone H - Lower Southern Area

(Refer Sheet 1 for zone mapping)



## Zone H - Lower Southern Area

(Refer Sheet 1 for zone mapping)

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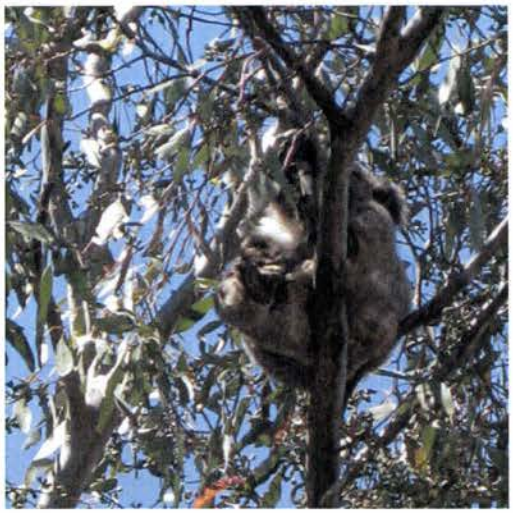
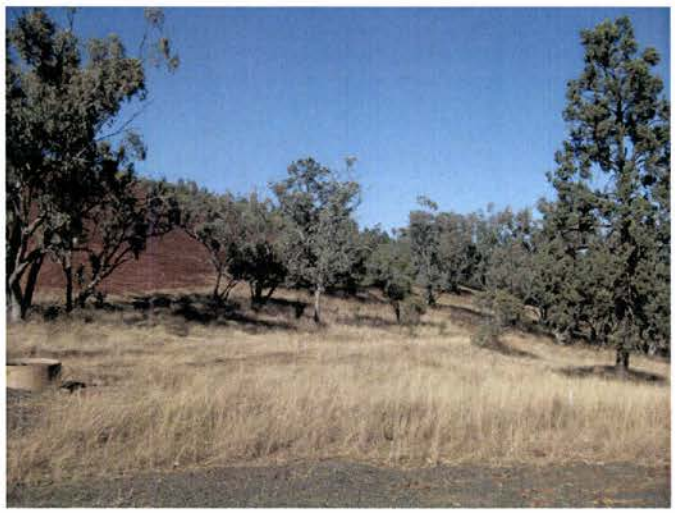
## Zone I - Area Below the Existing Quarry

(Refer Sheet 1 for zone mapping)



## Zone I - Area Below the Existing Quarry

(Refer Sheet 1 for zone mapping)

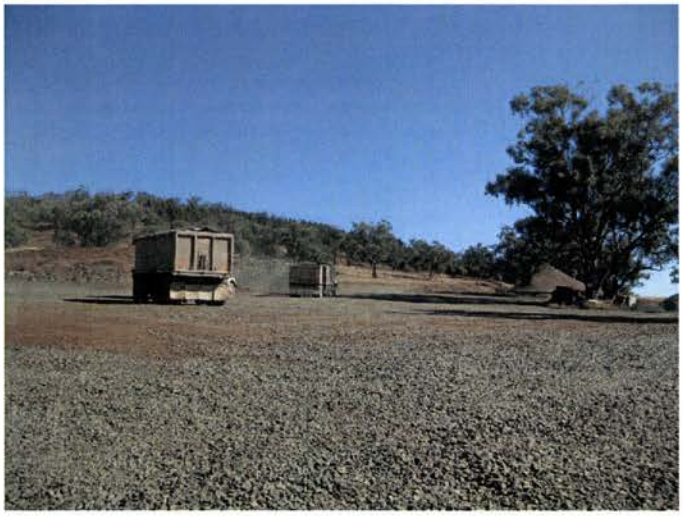


## Zone I - Area Below the Existing Quarry

(Refer Sheet 1 for zone mapping)

## Zone K - Area of Existing Processing North East of the Existing Quarry

(Refer Sheet 1 for zone mapping)



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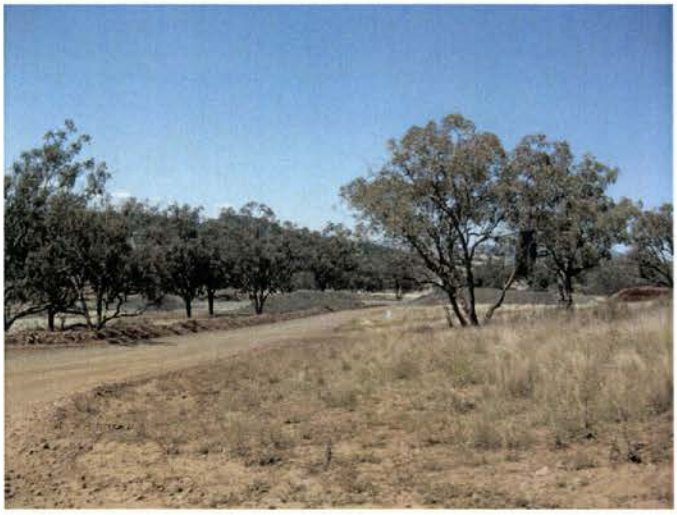
(Refer Sheet 1 for zone mapping)



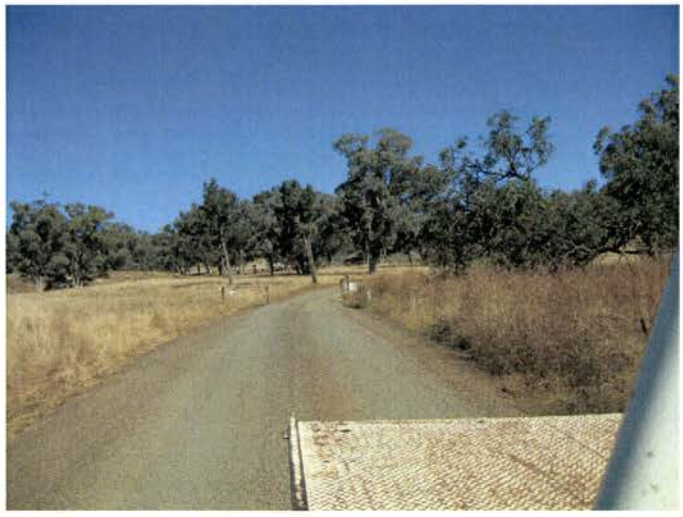
## Zone K - Area of Existing Processing North East of the Existing Quarry

(Refer Sheet 1 for zone mapping)



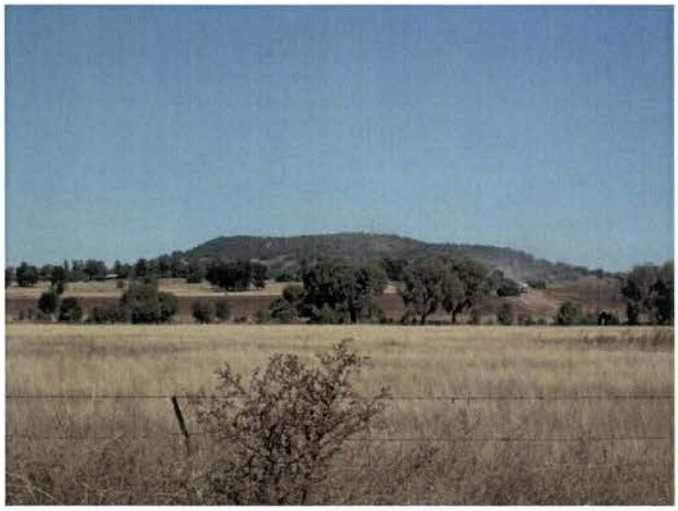

## Existing Haul Route on Private Property

(Refer Sheet 1 for zone mapping)

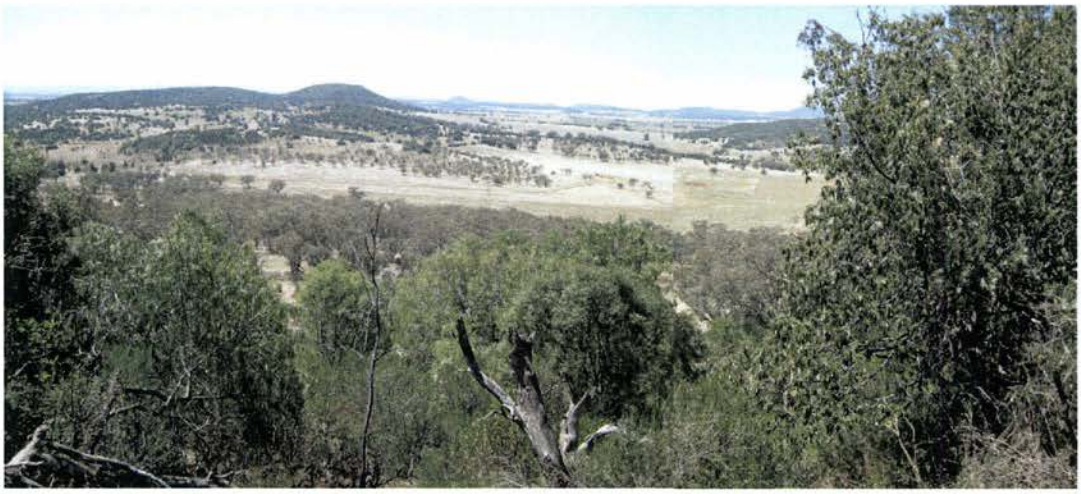
## Photos of the area along the Haul Route on "Beulah"

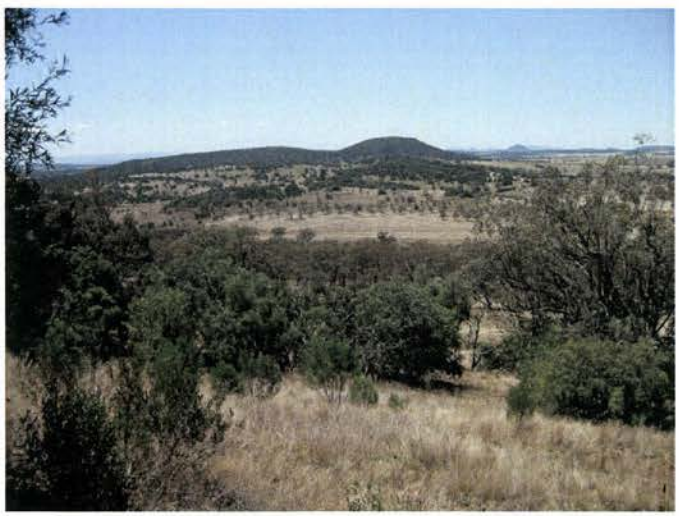
(Refer Sheet 1 for zone mapping)



## Photos of surrounding topography South and East of the proposed quarry

(Refer Sheet 1 for zone mapping)





NSW GOVERNMENT | Planning & Infrastructure

**Mining & Industry Projects**
Contact: Elle Donnelley
Phone: (02) 9228 6340
Fax: (02) 9228 6466
Email: elle.donnelley@planning.nsw.gov.au

Ms Kathryn Yigman
Stewart Surveys Pty Ltd
PO Box 592
GUNNEDAH NSW 2380

Dear Ms Yigman

**Marys Mount Quarry Expansion (DGR 653)**
**Director-General's Requirements**

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

Detailed requirements were not received from the NSW Office of Water (NOW) or the Division of Resources and Energy (DRE) within the Department of Trade, Investment, Regional Infrastructure and Services; consequently you are advised to liaise directly with DRE and NOW to obtain any further requirements.

You have indicated that the proposal will require approval under the *Protection of the Environment Operations Act 1997* and the *Roads Act 1993.* 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 for the proposal, you must provide:

- two hard copies and one electronic copy of the EIS to the Department;
- 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. Do not send a cheque to the Department of Planning and Infrastructure as it is not an integrated 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 Sustainability, Environment, Water, Population and Communities in Canberra (6274 1111 or www.environment.gov.au).

Should the consent authority approve the proposal, then under section 44 of the *Mines Inspection Act 1901,* the owner or general manager of a mine or quarry must give notice to a Mines Inspector of the commencement (or continuation) of mining or quarrying operations. 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 compliance with the *Mines Inspection Act 1901.*

If you have any enquiries about these requirements, please contact Elle Donnelley.

Yours sincerely

10/9/12

David Kitto
**Director**
**Mining & Industry Projects**
as nominee for the Director-General

Bridge St Office 23-33 Bridge St Sydney NSW 2000 GPO Box 39 Sydney NSW 2001
Telephone (02) 9228 6111 Facsimile (02) 9228 6191 DX 10181 Sydney Stock Exchange www.planning.nsw.gov.au

# Director-General's 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**

| | |
|---|---|
| **DGR Number** | 653 |
| **Proposal** | Expansion of an existing quarry pit and extraction rate increase of up to 200,000 $m^3$ of gravel per year |
| **Location** | 334 Pownall Road, Mullaley, LOT 161, DP 755508 |
| **Applicant** | Gunnedah Quarry Products Pty Limited |
| **Date of Expiry** | 10 September 2014 |
| **General Requirements** (refer Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*) | The Environmental Impact Statement (EIS) must include:<br>• an executive summary;<br>• a full/detailed description of the proposal, including:<br>- identification of the resource;<br>- description of the site;<br>- a history of any previous quarrying operations on the site;<br>- the proposed works (including rehabilitation works);<br>- the duration and intensity of extraction operations;<br>- any likely interactions between the proposed operations and existing/approved development and land use in the area; and<br>- a detailed justification for the development;<br>• a conclusion justifying the development on economic, social and environmental grounds, taking into consideration whether the proposal is consistent with the objects of the *Environmental Planning & Assessment Act 1979*; and<br>• a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading. |
| **Key Issues** | 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:<br>• **Land Resources** – including a assessment of the potential impacts on:<br>- soils and land capability, including an assessment of activities that would cause erosion and the measures proposed to minimise erosion and sedimentation;<br>- landforms and topography, including cliffs, rock formations, steep slopes, etc; and<br>- land use, including agricultural, forestry and conservation lands;<br>• **Water Resources** – including:<br>- identification of any licensing requirements or other approvals under the *Water Act 1912* and/or *Water Management Act 2000*;<br>- an assessment of potential impacts on the quality and quantity of existing surface and ground water resources;<br>- 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; and<br>- a detailed description of the proposed water management system (including sewage), water monitoring program and other measures to mitigate surface and groundwater impacts;<br>• **Biodiversity** – including:<br>• accurate predictions of any vegetation clearing on site or for any road upgrades;<br>• 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;<br>• a detailed description of the measures to maintain or improve the |

| | |
|---|---|
| | biodiversity values within the development area in the medium to long term; and<br>• consideration of a Biodiversity Offset Strategy;<br>• **Heritage** – including:<br>- an Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures; and<br>- 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;<br>• **Traffic and Transport** – including:<br>- 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<br>- 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;<br>• **Noise**<br>- particularly any potential noise impacts on nearby private receptors due to construction, operation or road haulage; and<br>• **Air Quality** – particularly any potential dust impacts on nearby private receptors from construction, operation or road haulage;<br>• **Rehabilitation** – including:<br>- a detailed description of the proposed measures that would be undertaken during quarry closure;<br>- 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<br>- the measures that would be undertaken to ensure sufficient financial resources are available to implement the proposed rehabilitation strategy;<br>• **Visual Amenity**;<br>• **Agricultural Impacts;**<br>• **Waste Management**;<br>• **Hazards**;<br>• **Utilities and Services**; and<br>• **Social and Economic Impacts.** |
| **Environmental Planning Instruments** | The EIS must assess the proposal against the relevant environmental planning instruments, including (but not limited to):<br>• *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007;*<br>• *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development;*<br>• *State Environmental Planning Policy No. 44 - Koala Habitat Protection;*<br>• *State Environmental Planning Policy No. 55 - Remediation of Land;*<br>• *Gunnedah Local Environmental Plan; and*<br>• relevant development control plans and section 94 plans |
| **Guidelines** | The EIS must take into account relevant State Government policies and guidelines, in particular the *Industrial Noise Policy* (EPA 2001), *Soils and Construction: Managing Urban Stormwater* (Landcom 2004); *Guidelines for Fresh and Marine Water Quality and Guidelines for Water Quality Monitoring and Reporting* (ANZECC); *Using the ANZECC Guideline and Water Quality Objectives in NSW* (DEC), *Approved Methods for the Modelling and Assessment of Air Pollutants* (DEC), *Approved Methods for Sampling and Analysis of Air Pollutants* (DEC), *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), *Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation (DEC 2005), Guide to Traffic Generating Development* (RTA), *Road Design Guide* (RTA) or latest versions.<br><br>During the preparation of the EIS you must 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. |
| **Consultation** | During the preparation of the EIS, you must consult with Council and 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.<br><br>Details of the consultations carried out and issues raised must be included in the EIS. |

NSW GOVERNMENT | Office of Environment & Heritage

Your reference: DGR ID No. 653
Our reference: DOC12/32602
Contact: Liz Mazzer 68835325

Elle Donnelley
NSW Department of Planning & Infrastructure
GPO Box 39
Sydney NSW 2001

Dear Ms Donnelley

**RE Proposed Mary's Mount Quarry Expansion, Gunnedah LGA DGR No. 653**

Thank you for your email (dated 31st July) seeking advice from the Office of Environment and Heritage (OEH) regarding our requirements for the preparation of an Environmental Impact Statement (EIS) for the proposed expansion of Mary's Mount Quarry.

The OEH can provide advice on the EIS where it deals with natural and cultural heritage conservation issues. The OEH may also comment on the legitimacy of the conclusions reached regarding the significance of impacts by the proposed development to these components of the environment.

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that the EIS should fully describe the proposal, the existing environment and impacts of the proposal.

Please note that it is up to the proponent (and later the consent authority after appropriate consultation) to determine the detail and comprehensiveness of the surveys and level of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the level of investigation. It is important that all conclusions are supported by adequate data.

The OEH has responsibilities under the:

- *National Parks and Wildlife Act 1974* - namely the protection and care of Aboriginal objects and places, the protection and care of native flora and fauna and the protection and management of reserves; and the
- *Threatened Species Conservation Act 1995* which aims to conserve threatened species of flora and fauna, populations and ecological communities to promote their recovery and manage processes that threaten them.
- *Native Vegetation Conservation Act 2003* – ensuring compliance with the requirements of this legislation.

It is the responsibility of the proponent and consent authority to adequately consider the requirements under the *Environmental Planning and Assessment Act 1979* (EP&A Act), including flora, fauna, threatened species, populations and ecological communities and their habitats, and cultural heritage.

OEH understands from the correspondence that the proposed activity is a Part 4 application pursuant to the *EP&A Act 1979*. As such OEH only has a statutory role in assessing such an activity if the consent authority determines that:

PO Box 2111 Dubbo NSW 2830
Level 1 48-52 Wingewarra Street Dubbo NSW
Tel: (02) 6883 5312 Fax: (02) 6884 8675
ABN 30 841 387 271
www.environment.nsw.gov.au

# ATTACHMENT 1: EIA REQUIREMENTS - FLORA AND FAUNA

## INTRODUCTION

The *Environmental Planning and Assessment Act (1979)* (*EP&A Act*) requires that proponents of a development/activity and the Consent/Determining Authorities adequately assess the impact of a development or activity in any Environmental Impact Assessment (EIA) documents. These EIA documents include:

- Statement of Environmental Effects (SoEE), or
- Review of Environmental Factors (REF), or
- Environmental Impact Statement (EIS).

These are introductory, generic specifications of the Office of Environment and Heritage (OEH) for an adequate assessment of the impacts of a development proposal on native flora and fauna (ie including protected and threatened species). However, OEH recognises that the scale and complexity of the project will to some extent, dictate the level of information that is required to address the questions posed below. Consequently, flora and fauna assessments need to be tailored to suit the proposal. For example, a development which is proposed on land which has already been totally (or substantially) cleared should address the issues raised below but the amount of work required to address these issues may be substantially less than if the area comprised undisturbed bushland and, therefore, of more significant wildlife habitat value. A preliminary assessment, including a desktop investigation and a preliminary site inspection, may indicate the need for a detailed survey of the site.

**It is up to the proponent (and later the consent and/or determining authorities after appropriate consultation) to determine the detail and comprehensiveness of assessment required to form legally defensible conclusions regarding the impact of the proposal. The scale and intensity of the proposed development should dictate the detail of investigation.**

**It is important that all conclusions are supported by adequate data and that these data are clearly presented in EIA documentation.**

OEH will consider the following issues when reviewing an EIA document:

1. **Concerns** - What are OEH's concerns regarding the conservation of natural and cultural heritage in accordance with the relevant legislation? Is the proposal likely to affect natural and cultural heritage? How?
2. **Provision of Information** - Is adequate information provided for a valid assessment of the impacts?
3. **Validity of Conclusions** - Has the proponent arrived at valid conclusions as a result of the assessment of impacts?
4. **Recommended Conditions to Consent** - Should Consent or Approval be granted, what conditions (if any) are required to ensure that the project is developed, and thereafter managed in accordance with natural and cultural heritage conservation and the provisions of legislation administered by OEH?

Thus the EIA document should fully describe the existing environment including flora and fauna, so that future impacts can be properly assessed and then reviewed (eg during the public participation phase).

- an account of the hydrology of the area and how this relates to the dynamics of the vegetation communities,
- a list of **known** and **likely** threatened species as listed under Schedules 1 & 2 (*Threatened Species Conservation Act 1995*) which might occur at the site. The OEH database needs to be accessed and the likelihood of occurrence of threatened flora species determined,
- an assessment of the impacts of the proposal on flora, on-site and off-site (eg siltation, water availability or drainage changes) and measures to mitigate these impacts,
- an assessment of the significance of the impact of the development at both the site and at the regional scale,
- a detailed rehabilitation/management plan including a list of the plant species to be used during rehabilitation (if required),
- detail methodologies used and a list of the reference literature cited, and
- any other issues that may be considered relevant.

The above guidelines will provide some of the information necessary to conduct an Assessment of Significance required for threatened flora and fauna under Section 5a of the *EP&A Act*, should threatened species be likely or known to occur in the locality of the subject development proposal. Similarly, it will provide some of the information required if an application is found to be necessary under the *Native Vegetation Act (2003)*. However the above relates mostly to the specific environmental assessment processes under the *EP&A Act* and does not constitute an Assessment of Significance.

Similarly, the above guidelines will provide some of the information required for Biobanking, but may not be sufficient for Biobanking offset calculations. Please refer to the Biobanking website or contact OEH for specific information relating to Biobanking assessment requirements. The Biobanking scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

## FAUNA

### Background

Evidence suggests that Western NSW has suffered the highest extinction rate for indigenous mammals of any region in the world. Many other vertebrate species are currently threatened. One of the major reasons for such a high level of extinction has been the destruction of habitat. Native vegetation including wetland, riparian and remnant environments are very significant areas of fauna habitat. Therefore any development in such areas should fully consider the impact on fauna and its habitat.

### Report Requirements

The EIA document should include a report on the fauna (including protected and threatened species), that includes the following:

- detailed location map and identification of the area surveyed (including the location of photographs, transects, areas of significance etc),
- at least one of the following: a land satellite image, vegetation communities map, aerial photograph, or a remnant vegetation map,
- a complete list of all **known** and **likely** terrestrial and aquatic species (eg birds, mammals, reptiles and amphibians including scientific names). It is suggested that invertebrates also be considered as they form part of the food chain for many fauna species,

Proponents can voluntarily use BioBanking to minimise and offset their impacts on biodiversity. The scheme provides an alternative path for proponents to the current threatened species assessment of significance process.

### Assessment of Significance & Species Impact Statements

If during the flora or fauna assessment or survey, threatened species are **found** or are **likely** to occur in the area, the proponents must undertake an Assessment of Significance as outlined in section 5A of the *EP&A Act* to determine whether or not the development would be likely to have a significant impact upon threatened species.

The Assessment of Significance is a statutory mechanism which allows decision makers to assess whether a proposed development or activity is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats.

The Assessment of Significance is contained within section 5A of the *EP&A Act* and consists of seven factors which need to be addressed for informed decisions to be made regarding the effect of a proposed development or activity on threatened species, populations or ecological communities, or their habitats. A copy of OEH's *Threatened species assessment guidelines: The assessment of significance* can be obtained from the OEH website at:

http://www.environment.nsw.gov.au/resources/threatenedspecies/tsaguide07393.pdf

Following threatened species assessment via the Assessment of Significance, it may be necessary to prepare a Species Impact Statement (SIS). The proponent will need to prepare a SIS in the following circumstances:

- If (after having addressed Section 5A) the flora/fauna assessment concludes that there is likely to be a significant impact to threatened species, or
- The proposed development is likely to affect critical habitat declared under the TSC Act.

If a SIS is required, the proponent (not the consultant) must write to OEH for any formal requirements for the SIS that he might deem appropriate. The SIS must then be prepared in accordance with these requirements and provided to the OEH. In some instances the Minister for the Environment will also need to be consulted for approval.

Methods to reduce the impact on the protected and threatened species should be considered fully, and are considered an integral requirement within any SIS document.

The OEH advises that conducting an Assessment of Significance or an SIS according to the provisions of the *EP&A Act* and the *TSC Act* is a complex task and should be undertaken by suitably qualified person(s).

## AVAILABLE DATA

OEH can supply, at the standard cost, fauna prediction data and recorded fauna sightings data (Wildlife Atlas of NSW) to help in the investigation. The following information on site recordings of Flora and Fauna is available from OEH:

- A general search for flora and fauna records can be conducted through the Atlas of NSW Wildlife at: http://www.bionet.nsw.gov.au/

  Please note that not all the information associated with the individual records is available on this website. You can apply to the Office of Environment and Heritage for more detailed information about individual sightings (terms and conditions apply). Contact the Wildlife Data Unit for more information on (02) 9995 5000.

# ATTACHMENT 2 – GUIDANCE MATERIAL

| Title | Web Address |
|---|---|
| *Commonwealth Environment Protection & Biodiversity Conservation Act 1999* | http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/ |
| *Environmental Planning and Assessment Act 1979* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N |
| *Fisheries Management Act 1994* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+38+1994+cd+0+N |
| *National Parks and Wildlife Act 1974* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+80+1974+cd+0+N |
| *Threatened Species Conservation Act 1995* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+101+1995+cd+0+N |
| **Aboriginal Cultural Heritage** | |
| Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010) | http://www.environment.nsw.gov.au/licences/consultation.htm |
| Code of Practice for the Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010) | http://www.environment.nsw.gov.au/licences/archinvestigations.htm |
| Due Diligence Code for the Protection of Aboriginal Objects in NSW (DECCW 2010) | http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf |
| Aboriginal Site Impact Recording Form | http://www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecordingForm.htm |
| Aboriginal Heritage Information Management System (AHIMS) Registrar | http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm |
| **Biodiversity** | |
| BioBanking Assessment Methodology (DECC, 2008) | http://www.environment.nsw.gov.au/resources/biobanking/08385bbassessmethod.pdf |
| BioBanking Assessment Methodology and Credit Calculator Operational Manual (DECCW, 2008) | http://www.environment.nsw.gov.au/biobanking/calculator.htm |
| Threatened Species Survey and Assessment Guidelines: Field Survey Methods for Fauna –Amphibians (DECCW, 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 |
| DECCW Threatened Species website | http://www.environment.nsw.gov.au/threatenedspecies/ |
| Atlas of NSW Wildlife | http://www.environment.nsw.gov.au/wildlifeatlas/about.htm |
| BioBanking Threatened Species Database | http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/home_species.aspx |
| Vegetation Types databases | http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm |

Howard Reed
Manager Mining
NSW Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Elle Donnelley

| | |
|---|---|
| Notice Number | 1508313 |
| File Number | FIL07/13575-02 |
| Date | 21-Aug-2012 |

**RE: Request for input into the Director General's Requirements - Proposed Marys Mount Quarry Expansion (DGR ID No. 653) - Gunnedah Local Government Area**

I refer to your request for the Environment Protection Authority (EPA) requirements for the environmental impact statement (EIS) in regard to the above proposal on 31 July 2012.

The EPA has considered the details of the proposal as provided by the Department of Planning and Infrastructure and has identified the information it requires to issue its general terms of approval in Attachment A. In summary, the EPA's key information requirements for the proposal include an adequate assessment of:

1. Noise impacts (including blasting) associated with the proposal and the cumulative impacts (if any) on nearby sensitive receivers,
2. Dust impacts associated with the proposal and impacts on nearby sensitive receivers; and
3. Surface water management associated with the proposal.

Based on the information provided to the EPA, the applicant will require an environment protection licence in regard to the following: carrying out scheduled activities.

The applicant will need to make a separate application to the EPA to obtain this licence. General information on licence requirements can be obtained from Environment Line on 131555 or on the OEH website at http://environment.nsw.gov.au/licensing/whoneeds.htm.

To assist the EPA in assessing the EIS it is requested that the EIS follow the format of the Department of Planning EIS guidelines and addresses the EPA's specific EIS requirements outlined in the following

PO Box 494 Armidale NSW 2350
85 Faulkner Street Armidale NSW
Tel: (02) 6773 7000 Fax: (02) 6772 2336
ABN 30 841 387 271
www.environment.nsw.gov.au

attachments. If the necessary information is not adequately provided in the EIS then delays in the development application process may occur.

The EPA requests that the applicant provide 1 hard copy and 1 electronic copy of the DA/EIS when lodging its application with the EPA. These documents should be lodged at the Armidale office of EPA at PO Box 494, ARMIDALE NSW 2350.

If you have any queries regarding this matter please contact Kharl Turnbull on (02) 6773 7000.

Yours sincerely

.....

**Robert O'Hern**

**Head Regional Operations Unit**

**North West - Armidale**

(by Delegation)

**ATTACHMENT A: EIS Requirements for the Marys Mount Quarry Expansion, Gunnedah LGA DGR ID No. 653**

**1 Environmental impacts of the project**

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

- Air Issues
  - air quality
- Noise and vibration
- Waste including hazardous materials and radiation
  - General waste – disposal options
  - Hazardous materials and radiation
- Water and Soils
  - Soils - general
  - Water quality - catchment description, water balance

The Environmental Impact Statement (EIS) 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 2**.

**2 Licensing requirements**

2.1. On the basis of the information submitted to date, it appears the proposal is a scheduled activity (Extractive Activity) under the *Protection of the Environment Operations Act 1997* (POEO Act) and will therefore require an Environment Protection Licence (EPL) if approval is granted. 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 the EPA to determine appropriate limits for the EPL.

2.2. Should project approval be granted, the proponent will need to make a separate application to THE EPA for an EPL for the proposed facility prior to undertaking any on site works. Additional information is available through the *EPA Guide to Licensing* document (www.environment.nsw.gov.au/licensing/licenceguide.htm).

**SPECIFIC ISSUES**

**3 Air Issues**

3.1. The EIS should include an air quality impact assessment (AQIA). The AQIA should:

3.2. Assess the risk associated with potential discharges of fugitive and point source emissions for all stages of the proposal. Assessment of risk relates to environmental harm, risk to human heath and amenity.

3.3. Justify the level of assessment undertaken on the basis of risk factors, including but not limited to:
- proposal location;
- characteristics of the receiving environment; and
- type and quantity of pollutants emitted.

3.4. 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:
- meteorology and climate;
- topography;
- surrounding land-use; receptors; and
- ambient air quality.

3.5. Include a detailed description of the proposal. All processes that could result in air emissions must be identified and described. Sufficient detail to accurately communicate the characteristics and quantity of all emissions must be provided.

3.6. Include a consideration of 'worst case' emission scenarios and impacts at proposed emission limits.

3.7. Account for cumulative impacts associated with existing emission sources as well as any currently approved developments linked to the receiving environment.

3.8. Include air dispersion modelling where there is a risk of adverse air quality impacts, or where there is sufficient uncertainty to warrant a rigorous numerical impact assessment. Air dispersion modelling must be conducted in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005) http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf.

3.9. Demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the *Protection of the Environment Operations (POEO) Act (1997)* and the *POEO (Clean Air) Regulation (2002)*.

3.10. Detail emission control techniques/practices that will be employed by the proposal.

## 4 Noise and Vibration

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

General

4.1. Construction noise associated with the proposed development should be assessed using the *Interim Construction Noise Guideline (*DECC, 2009). http://www.environment.nsw.gov.au/noise/constructnoise.htm

4.2. Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the *Assessing Vibration: a technical guideline* (DEC, 2006). http://www.environment.nsw.gov.au/noise/vibrationguide.htm

4.3. If blasting is required for any reasons during the construction or operational stage 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.environment.nsw.gov.au/noise/blasting.htm

Industry

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

Road

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

## 5 Waste, chemicals and hazardous materials and radiation

5.1. Identify, characterise and classify all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste.
**Note:** All waste must be classified in accordance with the *EPA's Waste Classification Guidelines.*

5.2. Identify, characterise and classify all waste that is proposed to be disposed of to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling.
**Note:** All waste must be classified in accordance with the *EPA's Classification Guidelines.*

5.3. 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.*

5.4. 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) Erosion, sediment and leachate control including measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site during works. The EIS 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

5.5. The Proponent should also provide details of:
- how leachate from stockpiled waste material will be kept separate from stormwater runoff;
- treatment of leachate through a wastewater treatment plant (if applicable); and
- any proposed transport and disposal of leachate off-site.

5.6. 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.

5.7. 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.

5.8. Include a statement demonstrating that the Proponent is aware of the EPA's requirements with respect to notification and tracking of waste.

5.9. 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 the EPA from time to time.

5.10. 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.

## 6 Water and soils

### 6.1 Soils

The EA should include:

6.1.1. 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).

6.1.2. 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. Where required, add any specific assessment requirements relevant to the project.

## 6.2 Water

### Describe Proposal

6.2.1. Describe the proposal including position of any intakes and discharges, volumes, water quality and frequency of all water discharges.

6.2.2. Demonstrate that all practical options to avoid discharge have been implemented and environmental impact minimised where discharge is necessary.

6.2.3. 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

6.3.1. Describe existing surface and groundwater quality. An assessment needs to be undertaken for any water resource likely to be affected by the proposal.

Proponents are generally only expected to source available data and information. However, proponents of relatively large and/or high risk developments may be required to collect some ambient water quality / river flow / groundwater data to enable a suitable level of impact assessment. Issues to include in the description of the receiving waters could also include, for example:

- water chemistry
- a description of receiving water processes, circulation and mixing characteristics and hydrodynamic regimes
- lake or estuary flushing characteristics
- sensitive ecosystems or species conservation values
- specific human uses (e.g. fishing, proximity to recreation areas)
- a description of any impacts from existing industry or activities on water quality
- a description of the condition of the local catchment e.g. erosion, soils, vegetation cover, etc.
- an outline of baseline groundwater information, including, for example, depth to watertable, flow direction and gradient, groundwater quality, reliance on groundwater by surrounding users and by the environment
- historic river flow data

6.3.1. 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.

6.3.2. State the indicators and associated trigger values or criteria for the identified environmental values. This information should be sourced from the ANZECC (2000) Guidelines for Fresh and Marine Water Quality (http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality).

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

**Impact Assessment**

6.4.1. Describe the nature and degree of impact that any proposed discharges will have on the receiving environment.

Depending on the nature, scale and/or risk of the proposal, this could include specific requirements to consider impacts on, for example:

- water circulation, current patterns, water chemistry and other appropriate characteristics such as clarity, temperature, nutrient and toxicants
- changes to hydrology (including drainage patterns, surface runoff yield, flow regimes, and groundwater)
- disturbance of acid sulphate soils and potential acid sulfate soils
- stream bank stability and impacts on macro invertebrates

Depending on the nature, scale and/or risk of the proposal, modelling, monitoring, or both, may need to be undertaken to assess the potential impact of discharges on the receiving environment. If modelling is required to assess the potential impact of any discharge(s), this could include, for example:

- a range of scenarios that encompass any variations in discharge quality and quantity as well as the relevant range of environmental conditions of the receiving waters. The scenarios could describe a set of worst-case conditions and typical conditions to ensure that both acute and chronic impacts are assessed,
- assumptions used in the modelling, including identification and discussion of the limitations and assumptions to ensure full consideration of all factors, including uncertainty in predictions.

The internal EPA document *Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones* (http://deccnet/water/resources/AWQGuidance7.pdf) provides guidance on modelling considerations and principles for discharges to receiving waters.

6.4.2. Assess impacts against the relevant ambient water quality outcomes.

Demonstrate how the proposal will be designed and operated to:

- protect the Water Quality Objectives for receiving waters where they are currently being achieved; and
- contribute towards achievement of the Water Quality Objectives over time where they are not currently being achieved.

6.4.3. Where a discharge is proposed that includes a mixing zone, the proposal should demonstrate how wastewater discharged to waterways will ensure the ANZECC (2000) water quality criteria for relevant chemical and non-chemical parameters are met at the edge of the initial mixing zone of the discharge, and that any impacts in the initial mixing zone are demonstrated to be reversible.

6.4.4. Assess impacts on groundwater and groundwater dependent ecosystems.

6.4.5. Describe how stormwater will be managed both during and after construction.

**Monitoring**

6.5.1. Describe how predicted impacts will be monitored and assessed over time.

For relatively large and/or high risk developments, proponents should develop a water quality and aquatic ecosystem monitoring program to monitor the responses for each component or process that affects the Water Quality Objectives that includes, for example:

- adequate data for evaluating compliance with water quality standards and/or Water Quality Objectives,
- measurement of pollutants identified or expected to be present in any discharge.

Water quality monitoring should be undertaken in accordance with the *Approved Methods for the Sampling and Analysis of Water Pollutant in NSW* (2004) (http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf).

## Attachment 2 – Guidance Material

| Title | Web Address |
|---|---|
| *Contaminated Land Management Act 1997* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+140+1997+cd+0+N |
| *Environmentally Hazardous Chemicals Act 1985* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+14+1985+cd+0+N |
| *Environmental Planning and Assessment Act 1979* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+203+1979+cd+0+N |
| *Protection of the Environment Operations Act 1997* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+156+1997+cd+0+N |
| *Water Management Act 2000* | http://www.legislation.nsw.gov.au/maintop/view/inforce/act+92+2000+cd+0+N |
| **Licensing** | |
| EPA Guide to Licensing | www.environment.nsw.gov.au/licensing/licenceguide.htm |
| **Air Issues** | |
| Approved methods for modelling and assessment of air pollutants in NSW (2005) | http://www.environment.nsw.gov.au/resources/air/ammodelling05361.pdf |
| POEO (Clean Air) Regulation 2010 | http://www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+428+2010+cd+0+N |
| **Noise and Vibration** | |
| Interim Construction Noise Guideline (DECC, 2009) | http://www.environment.nsw.gov.au/noise/constructnoise.htm |
| Assessing Vibration: a technical guideline (DEC, 2006) | http://www.environment.nsw.gov.au/noise/vibrationguide.htm |
| Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990) | http://www.environment.nsw.gov.au/noise/blasting.htm |
| Industrial Noise Policy Application Notes | http://www.environment.nsw.gov.au/noise/traffic.htm |
| Environmental Criteria for Road Traffic Noise (EPA, 1999) | http://www.environment.nsw.gov.au/noise/traffic.htm |
| Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects (DECC, 2007) | http://www.environment.nsw.gov.au/noise/railinfranoise.htm |
| Environmental assessment requirements for rail traffic-generating | http://www.environment.nsw.gov.au/noise/railnoise.htm |

| | |
|---|---|
| developments | |
| **Waste, Chemicals and Hazardous Materials and Radiation** | |
| Environmental Guidelines: Solid Waste Landfills (EPA, 1996) | http://www.environment.nsw.gov.au/resources/waste/envguidlns/solidlandfill.pdf |
| Draft Environmental Guidelines - Industrial Waste Landfilling (April 1998) | http://www.environment.nsw.gov.au/resources/waste/envguidlns/industrialfill.pdf |
| Waste Classification Guidelines (DECC, 2008) | http://www.environment.nsw.gov.au/waste/envguidlns/index.htm |
| EPA Resource recovery exemption | http://www.environment.nsw.gov.au/waste/RRecoveryExemptions.htm |
| **Water and Soils** | |
| Soil and Landscape Issues in Environmental Impact Assessment (DLWC 2000) | http://www.dnr.nsw.gov.au/care/soil/soil_pubs/pdfs/tech_rep_34_new.pdf |
| Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; B Waste<br>landfills; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC 2008) | Vol 1 - Available for purchase at<br>http://www.landcom.com.au/whats-new/publications-reports/the-blue-book.aspx<br>Vol 2 -<br>http://www.environment.nsw.gov.au/stormwater/publications.htm |
| Landslide risk management guidelines | http://www.australiangeomechanics.org/resources/downloads/ |
| Site Investigations for Urban Salinity (DLWC, 2002) | http://www.environment.nsw.gov.au/resources/salinity/booklet3siteinvestigationsforurbansalinity.pdf |
| Local Government Salinity Initiative Booklets | http://www.environment.nsw.gov.au/salinity/solutions/urban.htm |
| Water Quality Objectives | http://www.environment.nsw.gov.au/ieo/index.htm |
| ANZECC (2000) Guidelines for Fresh and Marine Water Quality | http://www.mincos.gov.au/publications/australian_and_new_zealand_guidelines_for_fresh_and_marine_water_quality |
| Applying Goals for Ambient Water Quality Guidance for Operations Officers – Mixing Zones | http://deccnet/water/resources/AWQGuidance7.pdf |
| Approved Methods for the Sampling and Analysis of Water Pollutant in NSW (2004) | http://www.environment.nsw.gov.au/resources/legislation/approvedmethods-water.pdf |

Transport
Roads & Maritime
Services

NTH12/00010, CR2012/007637
Your ref: DGR ID No. 653

The Director
Mining and Industry Projects
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attn: Ms Elle Donnelley – Planner

Dear Ms Donnelly,

**Director-General's Environmental Assessment Requirements (DGRs) for the Environmental Impact Statement relating to the Proposed 'Marys Mount Quarry Expansion' DGR ID No. 653**

I refer to your email of 31 July 2012 seeking comment on the abovementioned development proposal.

The key concern for RMS is potential for impacts upon the safety and efficiency of the state classified road network, specifically the Oxley Highway (HW11). RMS requires that the following issues be addressed in the preparation of any Environmental Impact Statement (EIS) for the proposed development.

A detailed traffic study should be undertaken that takes into account the key issues relevant to the scale of this proposal as set out in Table 2.1 of the Roads and Traffic Authority's current 'Guide to Traffic Generating Developments" (copy attached). The traffic study should include information relating to:

- Total impact of existing and proposed development on the road network.
- Estimated number of vehicle trips per day including heavy and light vehicles.
- Existing and proposed access conditions, having consideration for the largest design vehicle.
- Intersection Sight Distances and improvements for road junctions / intersections, particularly;
    - Marys Mount Road – Oxley Highway
    - Grain Valley Road – Oxley Highway
- Details of manoeuvring and parking arrangements.
- Road Traffic Noise and Dust generation.
- Impact on Transport (School Bus Routes)
- Consideration of alternative transport modes such as public transport, pedestrians & bicycles.
- Contribution plan for maintenance of the road network
- The considerations for extractive industries under Clause 16(1) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*

To ensure that haulage routes do not adversely impact on the safety of the road network adjoining the proposals, RMS recommends the traffic study be supported by a Road Safety Audit prepared by suitably qualified person that addresses the primary haulage route/s.

Current AUSTROADS standards should be adopted for any necessary upgrading of the surrounding road infrastructure.

Should you have any further enquiries regarding the above comments please do not hesitate to contact Matt Adams on 6640 1300.

Yours sincerely,

David Bell
Regional Manager, Northern

14 AUG 2012

**From:** Matthew Riley
**To:** Elle Donnelley
**Date:** 9/4/2012 10:56 am
**Subject:** Fwd: EIS requirements - Mount Mary Gravel Quarry DGR ID No. 653 (previously 617) (Gunnedah LGA)

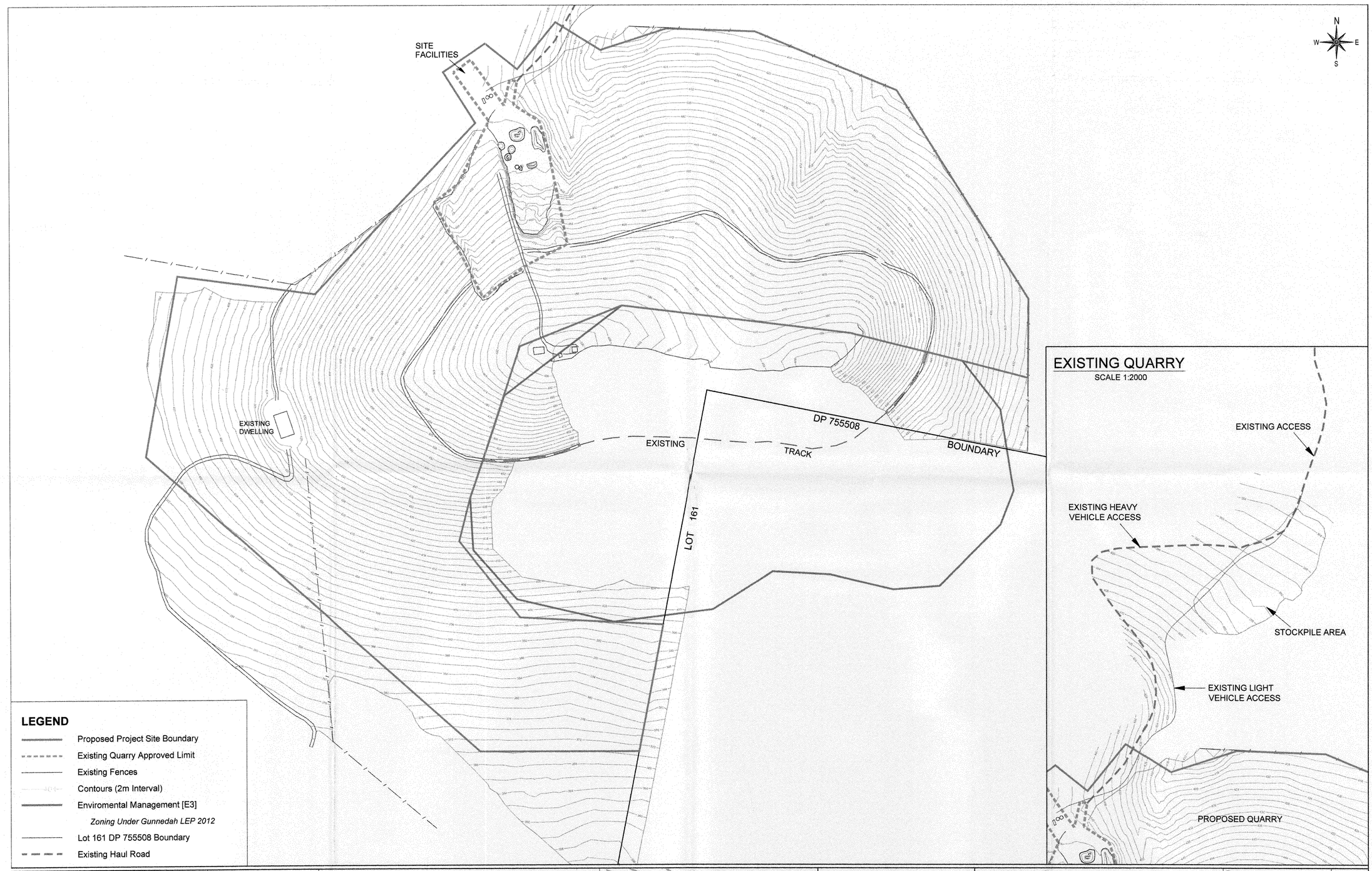
FYI

>>> "Hunt - Carolyn" <carolynhunt@infogunnedah.com.au> 9/4/2012 10:38 am >>>

Hi Matthew,
In regard to your request for EIS requirements, Council has the following specific requirement:
* Further detail/clarification is required regard the proposed amount of material to be extracted. The current approval is for not more than 30,000m3. Your covering email notes an additional 50,000m3, the covering letter from Stewart Surveys notes 150,000 tonnes per year and the application for notes 200,000m3 pa. This would need to be supported by testing of the proposed material.
In addition, the general requirements would be:
* noise, dust
* transportation routes, types of vehicles, number of vehicles per day
* hours of operation
* environmental impacts (ie. vegetation disturbance, rehabilitation, etc)

Regards,
Carolyn

**Carolyn Hunt**
**Manager Development & Planning**
**Gunnedah Shire Council**
PO Box 63, GUNNEDAH NSW 2380
**T:**(02) 6740 2122 | **F:**(02) 6740 2129 | **M:**0427 214 124
**E:**carolynhunt@infogunnedah.com.au




## EXISTING QUARRY

SCALE 1:2000




**LEGEND**

- Proposed Project Site Boundary
- Existing Quarry Approved Limit
- Existing Fences
- Contours (2m Interval)
- Enviromental Management [E3]
  *Zoning Under Gunnedah LEP 2012*
- Lot 161 DP 755508 Boundary
- Existing Haul Road

| Issue | Date | Description |
|---|---|---|
| - | - | - |



REDUCTION RATIO 1:2000

LENGTHS ARE IN METRES 1:4000@A3

**STEWART SURVEYS**
Pty Ltd Inc in NSW ABN 65 002 886 508
109 Conadilly Street
P.O. Box 592
GUNNEDAH NSW 2380
T 02 67422966 F 02 67420684
E office@stewartsurveys.com
*Surveying, Environmental & Landscape Architecture*

Client: GUNNEDAH QUARRY PRODUCTS PTY LTD

Project: MARY'S MOUNT BLUE METAL QUARRY

Title: EXISTING QUARRY SITE PLAN

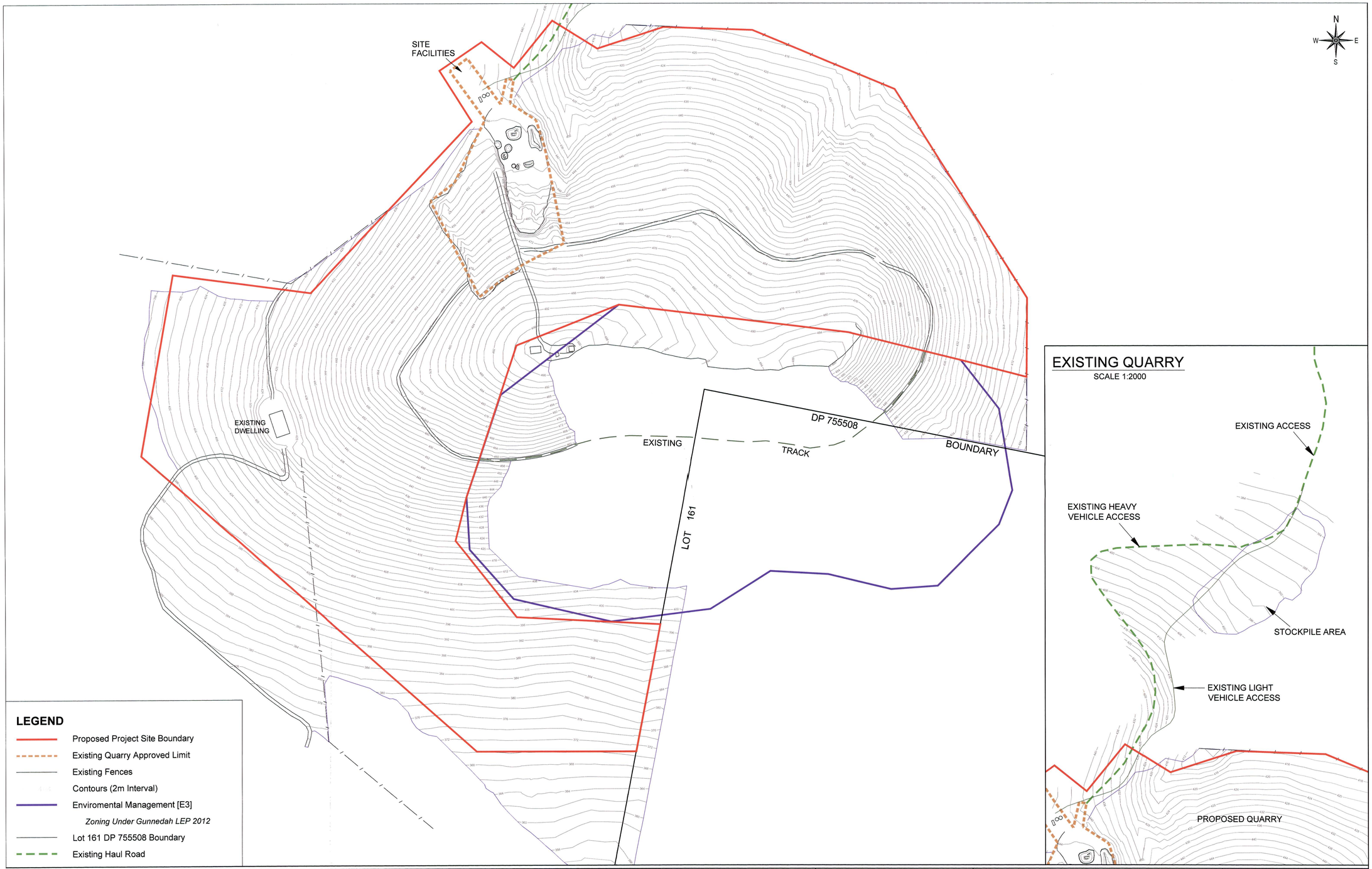
Date: May - October 2012

Sheet No.: 1 of 3

Drawing number: 4122_quarry design

Issue: A

DRAWING SHEET SIZE = A1




## EXISTING QUARRY

SCALE 1:2000




| Issue | Date | Description |
|---|---|---|
| - | - | - |



REDUCTION RATIO 1:2000

LENGTHS ARE IN METRES 1:4000@A3

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Date: May - October 2012

Sheet No.: 1 of 3

Title: EXISTING QUARRY SITE PLAN

Drawing number: 4122_quarry design

Issue: A

DRAWING SHEET SIZE = A1

PROPOSED EXTENT OF QUARRY
ZONE 55 - MGA CO-ORDINATES

| COR | EASTING | NORTHING |
|---|---|---|
| A | 783113.01 | 6563100.76 |
| B | 783190.40 | 6563125.66 |
| C | 783294.63 | 6563122.09 |
| D | 783461.23 | 6563053.22 |
| E | 783615.88 | 6562809.17 |
| F | 783615.07 | 6562717.02 |
| G | 783406.39 | 6562769.46 |
| H | 783137.56 | 6562801.95 |
| I | 783017.72 | 6562754.65 |
| J | 782945.96 | 6562525.80 |
| K | 783017.46 | 6562437.21 |
| L | 783185.09 | 6562428.78 |
| M | 783156.98 | 6562280.21 |
| N | 782970.29 | 6562280.37 |
| O | 782578.05 | 6562626.45 |
| P | 782615.38 | 6562837.38 |
| Q | 782776.56 | 6562816.06 |
| R | 782966.15 | 6563015.60 |
| S | 782928.48 | 6563075.20 |
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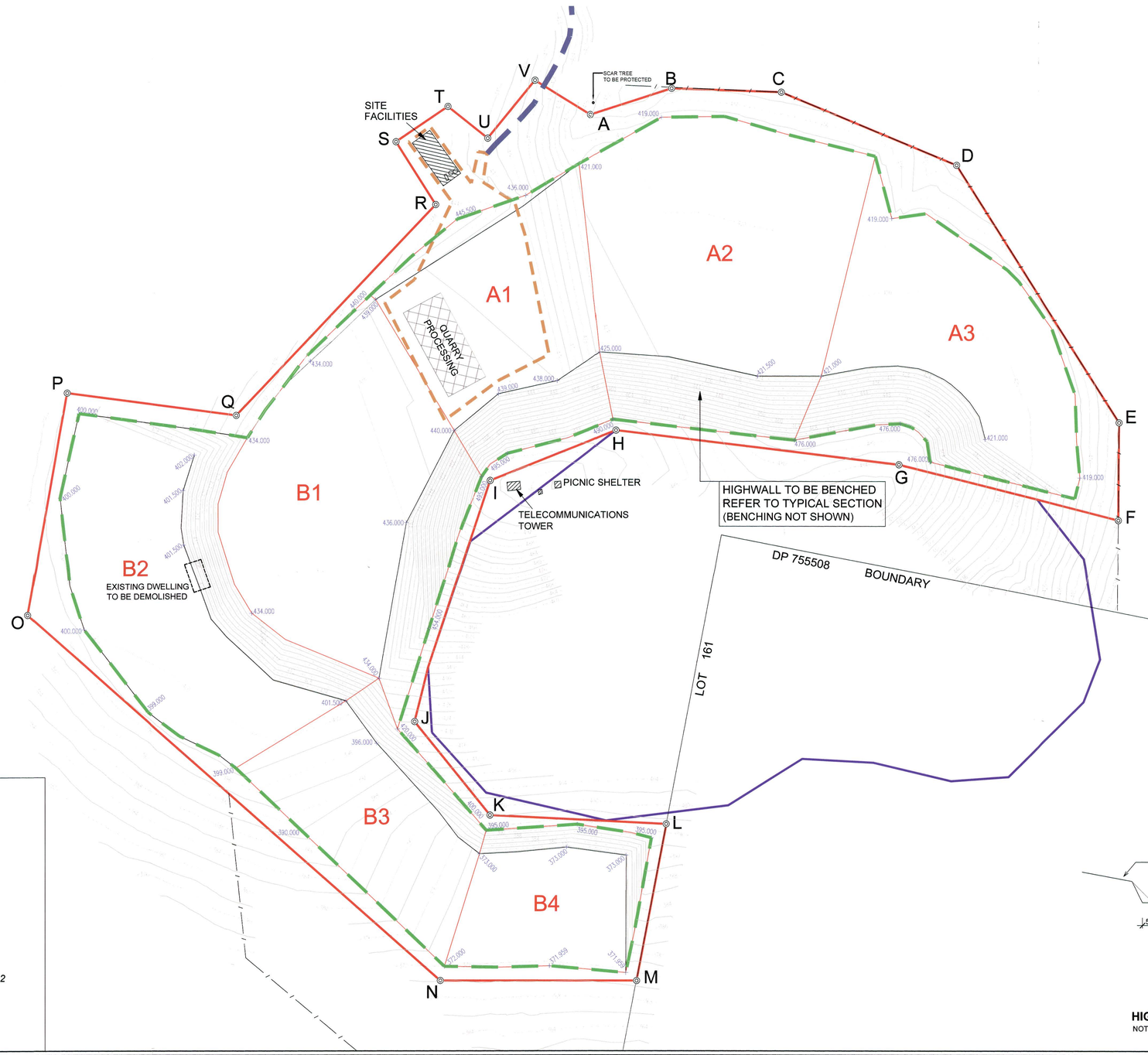
| V | 783060.42 | 6563133.32 |




**HIGH WALL TYPICAL SECTION**
NOTE: BENCHING NOT SHOWN IN CONTOURS

| Issue | Date | Description |
|---|---|---|
| - | - | - |



0 20 40 60 80 100 120 140 160 180 200
LENGTHS ARE IN METRES
1:2000@A1

0 40 80 120 160 200 240 280 320 360 400
LENGTHS ARE IN METRES
1:4000@A3

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MARY'S MOUNT BLUE METAL QUARRY

Date
October 2012

Sheet No.
2 of 3

Title
PROPOSED QUARRY SITE PLAN

Drawing number
4122_quarry design

Issue
C

DRAWING SHEET SIZE = A1