

Section 1

Introduction

PREAMBLE

This section introduces the proposed continued operation (and extension) of Dowe's Quarry ("the Proposal"). This includes the extraction operations, transportation of the raw materials extracted, back-loading and emplacement of clay fines and any overburden within the Project Site. This section reviews:

- *the format of the document;*
- *the Applicant and relevant background to the Proposal;*
- *the Project Site;*
- *the existing operations;*
- *the approvals required and the approval process;*
- *consultation undertaken to inform stakeholders of the Proposal and to identify and prioritise issues for inclusion in the Environmental Impact Statement; and*
- *the team involved in the preparation of the Environmental Impact Statement and supporting documentation.*

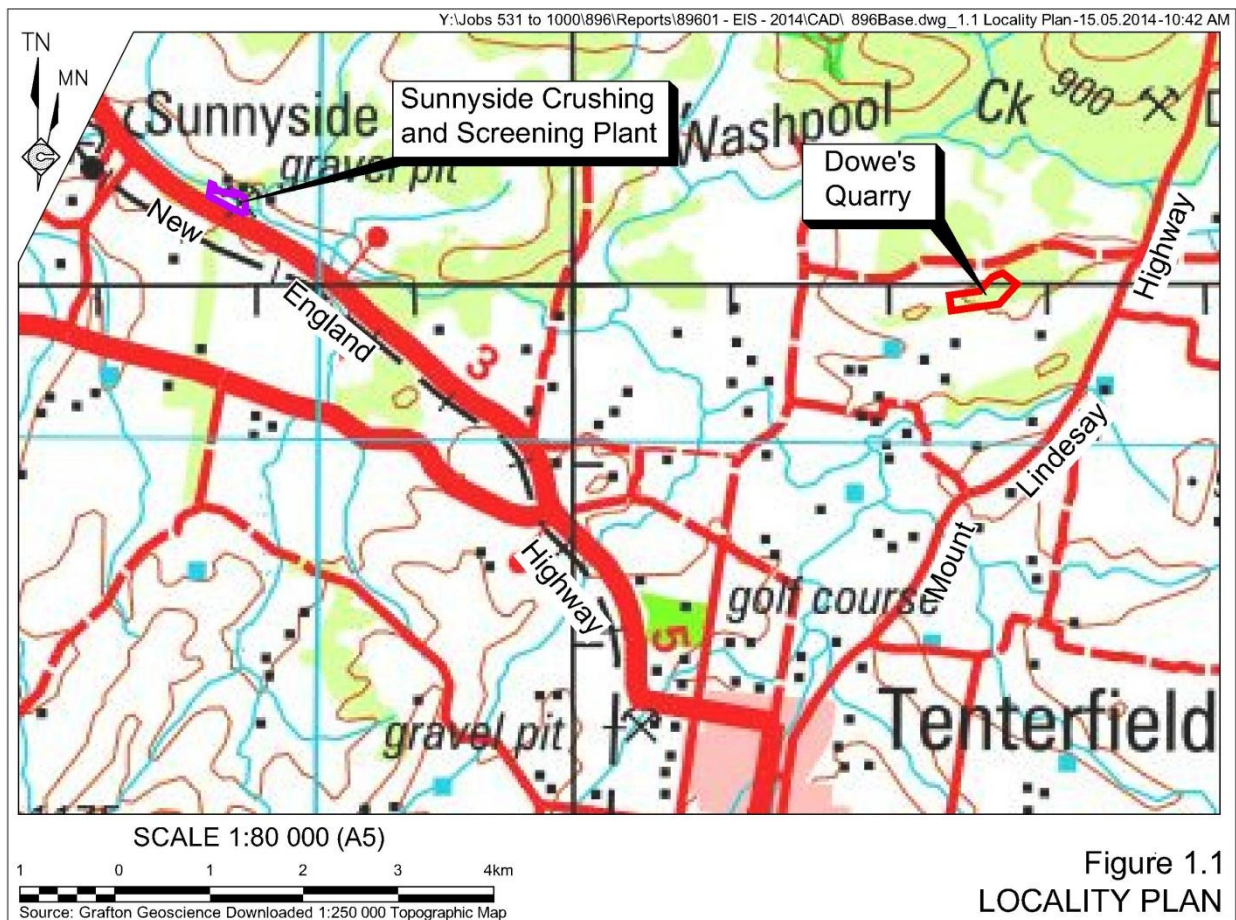
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1.1 SCOPE

This *Environmental Impact Statement* (EIS) has been prepared by R.W. Corkery & Co. Pty Limited (RWC) on behalf of Darryl McCarthy Constructions Pty Ltd (“the Applicant”) to support a development application submitted to the Tenterfield Shire Council (“Council”) for the continued operation (and extension) of Dowe’s Quarry (“the Quarry”) located approximately 8km northeast of Tenterfield (**Figure 1.1**).

The Applicant is seeking development consent for the continued operation (and extension) of the extraction operations within Dowe’s Quarry, the transportation of the extracted rock principally to the Sunnyside Crushing and Screening Plant and the return and emplacement of both clay and crusher fines, i.e. by-products from processing. These activities are collectively referred to as “the Proposal”.

The Quarry is located on rural land, owned by Mr Rod Dowe and leased to the Applicant. The Proposal would extend the life of the Quarry by 30 years.



The Proposal is classified as “Designated Development” given it is categorised as an “Extractive Industry” and, under Schedule 3(19) of the *Environmental Planning & Assessment Regulation 2000* (EP&A Reg), the annual threshold for extractive material (30 000m³/year) would be exceeded. The Proposal is also classified as “Regional Development” under Schedule 4A (8) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and

therefore requires development consent to be issued by Council (or by delegation under the Joint Regional Planning Panel (JRPP)), in accordance with the provisions of Part 4 the EP&A Act). In order to obtain development consent, the development application for the Proposal needs to be accompanied by an *Environmental Impact Statement* (EIS).

The Proposal is also classified as “Integrated Development” under Section 91 of the EP&A Act because it would require an environment protection licence issued under the *Protection of the Environment Operations Act 1997* (POEO Act).

1.2 FORMAT OF THE STATEMENT

The information presented in this document covers all aspects of the proposed development, operation, rehabilitation and environmental monitoring of the Proposal. The document has been structured to address the assessment requirements nominated by the Secretary of the Department of Planning and Environment (DP&E) (the Secretary’s Environmental Assessment Requirements (EARs)), Tenterfield Shire Council and other State agencies and/or authorities.

This *Environmental Impact Statement* has been assembled in a single volume with eight sections of text, as well as a glossary, references section and a set of appendices. The format of the *Environmental Impact Statement* is as follows.

- Section 1:** introduces the Proposal and provides an overview of the Applicant and background information relevant to the application, the Project Site, existing operations and approvals required. The section concludes with information on the management of investigations undertaken during the preparation of the EIS.
- Section 2:** provides a description of the Proposal including the objectives of the Proposal, an overview of the proposed activities, need for the Proposal and reviews the local geology, resources and Quarry products. Section 2 also describes the proposed operations including extraction, associated overburden emplacement and transportation operations including the proposed back-loading of clay fines from the Sunnyside Crushing and Screening Plant. Finally, an overview is provided of proposed infrastructure, utilities and services, hours of operation, employment, Quarry life and the progressive rehabilitation strategy.
- Section 3:** reviews the planning and legislative requirements of the Proposal including State Environmental Planning Policies and local planning instruments.
- Section 4:** commences by describing the general environmental setting within which the Quarry is located, with particular reference to aspects of the local environment likely to constrain the Proposal. Section 4 then presents a description of the range of environmental features of the local environment that would be influenced by the Proposal, i.e. the key environmental issues. The order of presentation of those issues and level of detail reflects the level of priority attributed to each key issue. The operational safeguards, controls and management procedures that have been incorporated into the Proposal design to protect the local environment are also presented. This section also analyses the potential impact the Proposal would have on the physical, biological and social environment once the proposed safeguards and procedures are adopted.

Section 5: provides a draft Statement of Commitments the Applicant would implement with respect to environmental management and monitoring for the Proposal.

Section 6: provides a conclusion to the document which justifies the Proposal in terms of biophysical, economic and social considerations, ecologically sustainable development. This section also records the consequences of not proceeding with the Proposal.

Section 7: lists the various source documents referred to for information and data used during the preparation of the *Environmental Impact Statement*.

Section 8: presents a glossary of terms, acronyms and symbols.

Appendices: present the following additional information.

1. A copy of the application for development consent.
2. A copy of the Secretary's EARs and matters identified for consideration in the correspondence submitted to DP&E by Tenterfield Shire Council and other State government agencies.
3. A copy of the Sediment Basin Calculations prepared for the Proposal by R.W. Corkery & Co. Pty Limited - June 2014.
4. A copy of the Traffic Impact Assessment prepared for the Proposal by Constructive Solutions - June 2014.
5. A copy of the Driver's Code of Conduct. – June 2014.
6. A copy of the Air Quality Impact Assessment prepared for the Proposal by ENVIRON Australia Pty Ltd - June 2014.
7. A copy of the Noise and Vibration Assessment prepared for the Proposal by Spectrum Acoustics - June 2014.
8. A copy of the Ecological Assessment prepared for the Proposal by Eco Logical Australia - June 2014.
9. A copy of the Aboriginal Heritage Assessment prepared for the Proposal by Archaeological Surveys and Reports - June 2014.

1.3 THE APPLICANT

Darryl McCarthy Constructions Pty Ltd, the Applicant for the Proposal, has been successfully operating Dowe's Quarry since 1987. The Company has been established for almost 40 years, operating throughout Tenterfield Shire principally with construction projects and the supply of construction and industrial materials. The Applicant has operated the Sunnyside Crushing and Screening Plant since 1977 where processing of the quartzose rock from Dowe's Quarry occurs and from where final products are despatched.

1.4 BACKGROUND TO THE PROPOSAL

In 1987, Darryl McCarthy Constructions Pty Ltd commenced extraction activities at the Project Site to recover quartzose rock from an extremely wide quartzose intrusion. Since that time, blasted rock has been transported to the Sunnyside Crushing and Screening Plant for processing.

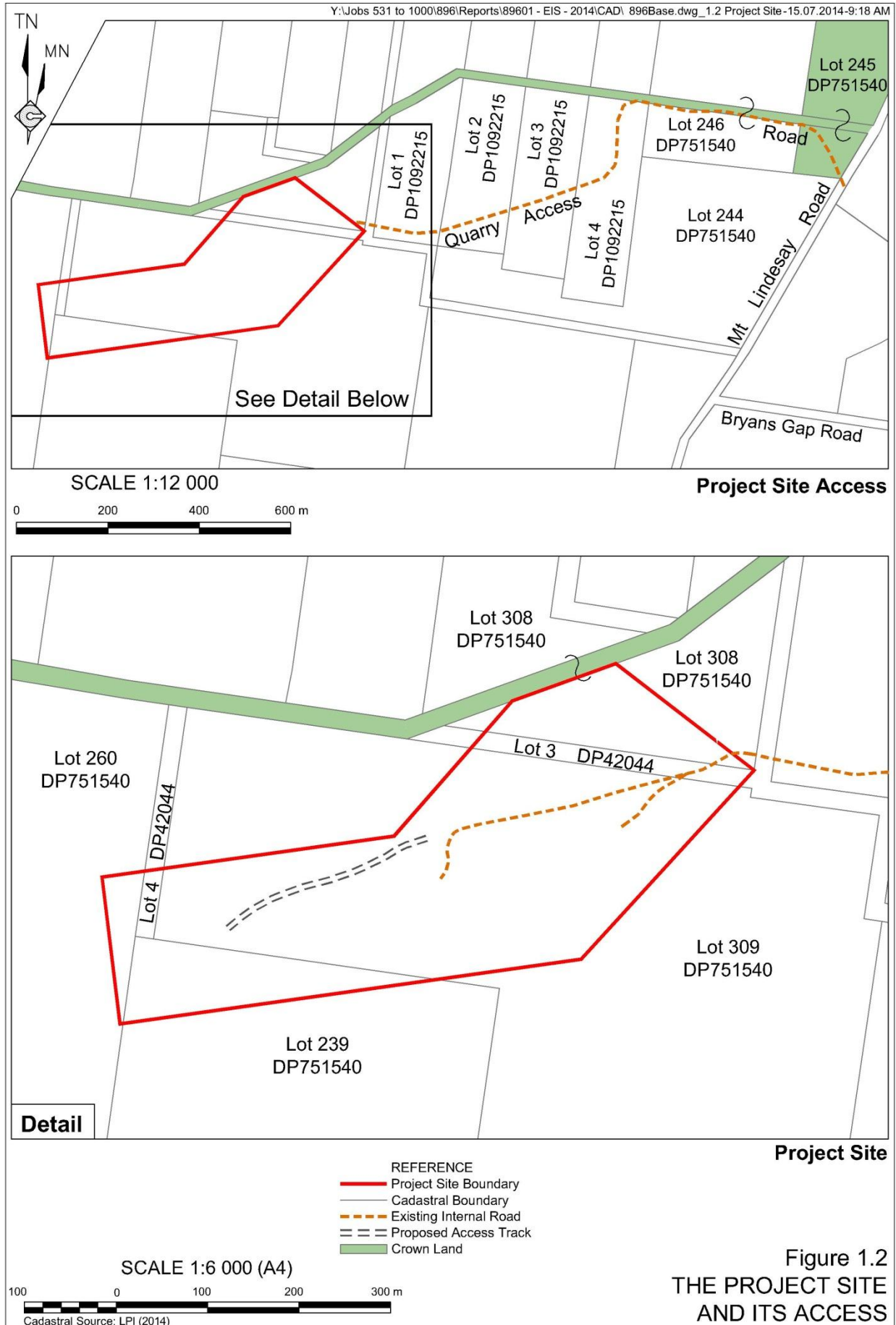
Discussions with Tenterfield Shire Council have established that no development consent under the *Environment Planning and Assessment Act 1979* is in force for Dowe's Quarry. The Applicant has since learnt that the Quarry was in fact eligible to be covered by *State Environmental Planning Policy (SEPP) 37* for its continuing use when this legislation was introduced in 1993. However, the existence of SEPP 37 and its requirements were not made known to the Applicant by Tenterfield Shire Council. Hence, the opportunity to obtain the required approval under the *Environment Planning and Assessment Act 1979* at that time was foregone.

The Quarry commenced lawfully through the then Department of Mineral Resources and has operated continuously with the full knowledge of Council since 1987. In late 2013, the need for development consent for all quarries in the Tenterfield Shire was raised by Council. The NSW EPA has similarly raised the need for the development consent as a pre-requisite for the Applicant to also apply for an environment protection licence to operate the Quarry. Following discussions with both the NSW EPA and Tenterfield Shire Council, the Applicant has engaged RWC to prepare a development application and accompanying EIS for lodgement to Tenterfield Shire Council.

1.5 THE PROJECT SITE AND ITS ACCESS

The Quarry is located on rural land within Lots 308 and 309 DP 751540 and Lot 3 DP 42044 and under the Proposal would extend into Lots 239 and 260 DP 751540 and Lot 4 DP 42044. The boundary of the Project Site has been defined principally to define an area in which all activities are proposed, recognising that not all land within the Project Site would be disturbed. The Project Site would comprise approximately 13.5ha of land owned by Mr Rod Dowe and leased by the Applicant. Approximately 7.0ha of land is proposed to be disturbed throughout the life of the Quarry. The northern boundary of the Project Site coincides with a Crown Road that traverses Lot 308 DP 751540. **Figure 1.2** displays the land titles within and adjacent to the Quarry.

Access to the Project Site is provided by a 1.3km quarry access road that joins the Mount Lindesay Road at an intersection constructed in conjunction with Tenterfield Shire Council (**Figure 1.2**). The first 150m of the quarry access road traverses Lot 245 DP751540, a parcel of Crown Land designated as a Travelling Stock Reserve. Section 98 of the *Rural Lands Protection Act 1998* prescribes the right of access for an occupier of land to a road nearest the land if no other existing access is available. Lot 245 DP751540 is the subject of an Aboriginal Land Claim lodged on 15 October 2010. The Applicant has received advice from the NSW Trade & Investment, Crown Lands that based on the provisions of Section 75 of the *Local Land Services Act 2013*, and given that the road in question was in use prior to the land claim being lodged, it is likely that it will not be claimable Crown land.



The remainder of the quarry access road traverses small sections of a Crown Road and Lot 246 DP751540, Lots 1, 2, 3, and 4 of DP 1092215 and Lot 3 DP 42044 owned by Mr Dowe (see **Figure 1.2**).

1.6 EXISTING OPERATIONS

The existing extraction area has been developed within a small ridge aligned almost in an east-west direction (see **Figure 1.3**). Elevations within the existing disturbed area currently vary from 945m AHD at the western end of the existing extraction area to approximately 900m AHD at the Northern Sediment Dam. The lowest elevation within the existing extraction area is approximately 918m AHD. The northern section of the Project Site including the overburden and clay fines emplacement slope towards the north at gradients between 20° and 35°. The southern section of the Project Site slopes generally to the south and displays gradients between 10° and 30° with the steeper slopes present on the outer slopes of the overburden emplacements (under construction). Sediment-laden runoff within the currently disturbed areas within the Project Site is directed to three sediment dams established near the northern and southern boundaries.

The following activities are currently undertaken within the Project Site.

- Vegetation clearing and soil stockpiling (intermittently).
- Removal and stockpiling of any overburden and use in rehabilitation.
- Drilling and blasting of quartzose rock.
- Oversize rock reduction through the use of a hydraulic hammer.
- Loading and despatch of extracted rock for transportation to the Sunnyside Crushing and Screening Plant for processing.
- Stockpiling of clay fines and any additional fines that are back-loaded from the Sunnyside Crushing and Screening Plant.
- Interim and final rehabilitation.

Plates 1.1 to 1.4 display representative views of the various activity areas within the Quarry. The locations and directions of the plates are displayed on **Figure 1.3**.

1.7 APPROVALS REQUIRED

Based upon the current design and understanding of relevant environmental issues, the Proposal would require the following approvals.

1. Development consent in accordance with the provisions of Part 4 of the EP&A Act. As the Proposal is an extractive industry that would continue to produce greater than 30 000m³ of quartzose rock per year, it is recognised as Designated Development under Schedule 3(19) of the EP&A Regs, for which the consent authority is the Tenterfield Shire Council. As an extractive industry (in accordance with Schedule 4A (8a) of the EP&A Act), a Joint Regional Planning Panel may be authorised to exercise the consent authority role of Council.

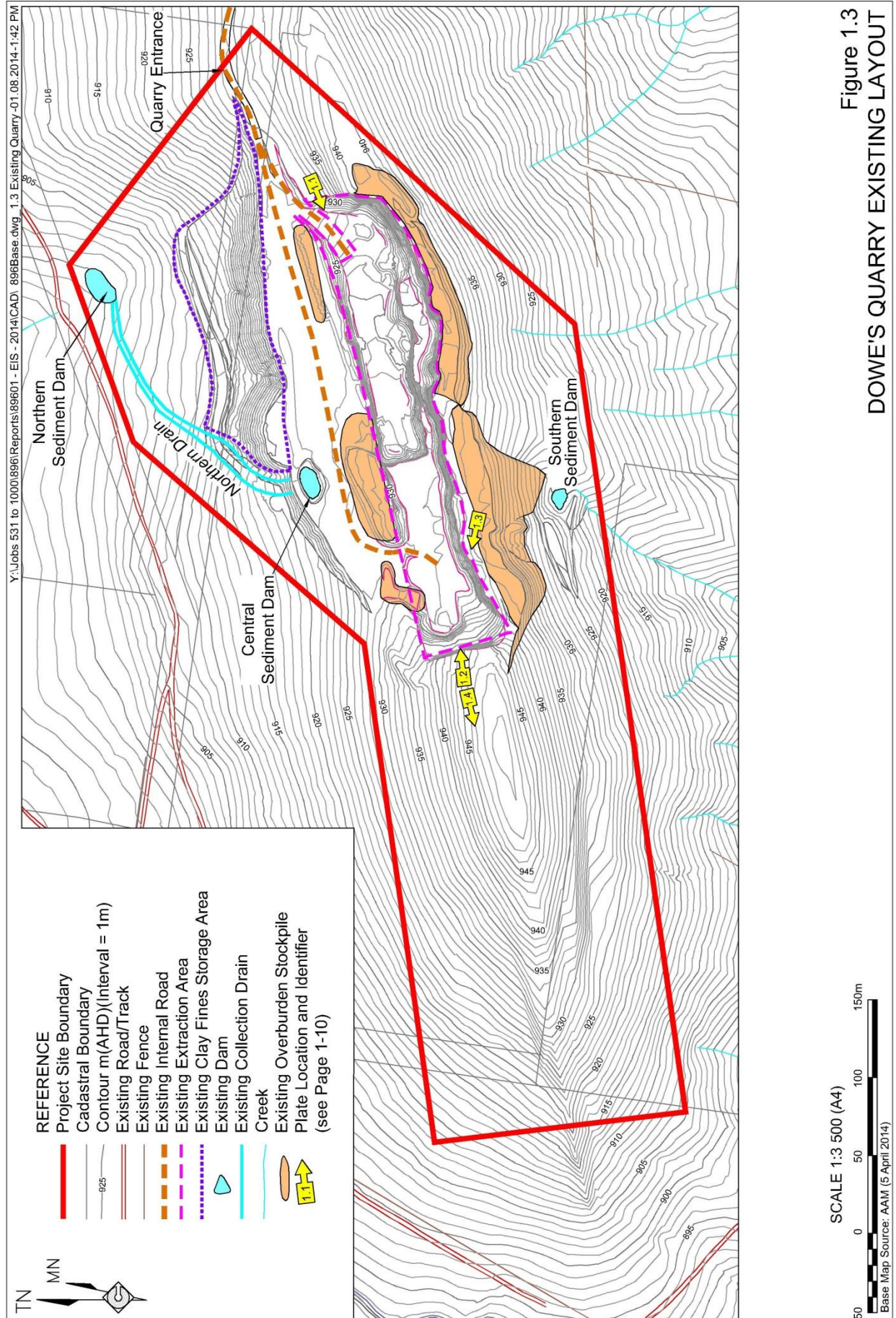




Plate 1.1: View to the west-southwest along the length of the existing extraction area within Dowe's Quarry
(Ref: E896A_020)



Plate 1.2: View to the east along the length of the existing extraction area within Dowe's Quarry
(Ref: E896A_051)



Plate 1.3: Loading of quartzose material within the existing extraction area within Dowe's Quarry
(Ref: E896A_062)



Plate 1.4: View to the west along the quartzose outcrop in the western extension of Dowe's Quarry
(Ref: E896A_050)

2. An Environment Protection Licence (EPL) under the *Protection of the Environment Operations Act 1997*. The issuing authority would be the Environment Protection Authority (EPA).
3. A Section 138 Road Permit to undertake the required improvements on the public road network, specifically at the intersection of the quarry access road and the Mount Lindsay Road.

1.8 CONSULTATION

Planning and design of the Proposal has been informed by various stakeholders from inception of the Proposal. The following subsections provide an overview of the consultation undertaken and the methods used to seek input and to inform stakeholders about the Proposal and its status, including processes to identify issues for coverage in the EIS.

1.8.1 Surrounding Landowners

Whilst the Project Site is located within a substantial rural property of at least 600ha, the Applicant recognised the need to discuss the proposed development application with some of the immediate neighbours to Mr Dowe's property. Two key neighbours were informed of the Company's plans for the ongoing operations (and extension) of the quarry, i.e. to the east and west of the Project Site.

Mr Bob Tunbridge, the owner of Property 3 (and Residences 3a and 3b – Figure 4.3) expressed general support for the extension provided the issues relating to environmental silica levels are appropriately managed. Mr Tunbridge acknowledges that blasts are periodically heard at their property, however, no ground vibration issues were evident.

The Applicant also held discussions with Mr Rick Ibbett, the owner of Property 13 (**Figure 4.3**) regarding the Proposal. Mr Ibbett, who has previously expressed concerns at dust being generated from the initial unsealed section of the quarry access road, expressed similar concerns at a recognition of the benefits of the Applicant's proposed sealing of the initial 400m of the quarry access road.

1.8.2 Government Agencies

Tenterfield Shire Council

Initial consultation with Tenterfield Shire Council was undertaken in a meeting held at the offices of the Council on 4 March 2014 at which the status of development consent for the Quarry and the Sunnyside Crushing and Screening Plant was discussed. It was agreed that Darryl McCarthy Constructions Pty Ltd would proceed to apply for development consent for existing Quarry operations and the proposed extension of the existing extraction.

On-going consultation with Council involved additional phone discussions, correspondence and meetings between the Applicant, Mr Rob Corkery and on occasions other agencies to discuss a range of issues. A summary of these issues is as follows.

- Assessment requirements to be incorporated into the EIS (discussed in the following subsection).
- Matters relating to the existing and future impacts of the Proposal.
- On-going operations at the Sunnyside Crushing and Screening Plant (to be addressed separately to the document and application).

Environment Protection Authority

The Applicant held discussions with the EPA in late March 2014 regarding the approach to the ongoing operations at Dowe's Quarry and the plans to lodge an application for an Environment Protection Licence. The EPA specifically requested that the EIS address dust-related issues both within the quarry and along the transport routes. The remainder of the issues to be addressed were subsequently outlined in the Authority's correspondence attached to the EARs (**Appendix 2**).

Roads and Maritime Services

Mr Rossiter of Constructive Solutions and Mr Rob Corkery of R.W. Corkery & Co. Pty Limited held a teleconference with RMS in May 2014 during which the following issues were raised for coverage in the EIS.

- Road safety issues.
- Support for a Code of Conduct for truck drivers
- The relevant sections of State Environmental Planning Policies.
- Address impacts at key intersections along the transport route.

The remainder of the issues to be addressed were subsequently outlined in the Department's correspondence attached to the EARs (**Appendix 2**).

Request for Secretary's Environmental Assessment Requirements

A request for the Secretary's Environmental Assessment Requirements (EARs), accompanied by a comprehensive document entitled "*Documentation Supporting an Application of Director-General's Requirements*" was submitted to the DP&E on 16 April 2014. The DP&E subsequently notified those government agencies with an interest in the Proposal requesting their key environmental assessment requirements. The EARs for the Proposal were issued on 13 May 2014, supported by correspondence from the following government agencies.

- Tenterfield Shire Council.
- Environment Protection Authority.
- Roads and Maritime Services.
- Office of Environment and Heritage.

- Department of Trade & Investment, Regional Infrastructure & Services – Division of Resources and Energy which incorporates the following agencies.
 - Department of Primary Industries, incorporating:
 - Agriculture NSW;
 - NSW Office of Water;
 - Fisheries NSW; and
 - Northern Tablelands Local Land Services.
 - Crown Lands

The assessment requirements provided by these agencies and which form the EARs are provided as **Appendix 2. Table 1.1** presents an overview of the requirements provided in that advice that were specific to the Project Site and proposed extension and where each requirement is addressed in this document. Generic assessment requirements are included with the Secretary's EARs in **Appendix 2**.

Table 1.1
Government Agency Feedback Provided in EARs

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Paraphrased Requirements	Section of EIS
Tenterfield Shire Council	
Accurately document use of roads by laden trucks travelling in both directions.	2.8, 4.2
Assess the potential impacts from dust and debris in the vicinity of the quarry access road and Mount Lindesay Road.	4.3
Address the existing performance of the intersection of Mount Lindesay Road and the quarry access road.	4.2.2.3
Document measures to maintain appropriate driver conduct for all quarry-related truck drivers and vehicles.	4.2.3
Document measures to reduce trafficking of dust from the quarry onto public roads.	4.2.3
Assess the potential impact from blasting on nearby residential receptors.	4.5
Document measures to be implemented to manage environmental impacts should demand for quarry products exceed 100 000tpa.	N/A
Establish appropriate agreements in relation to physical and legal access to the Project Site.	1.5
Office of Environment and Heritage	
Aboriginal Heritage	
Assess the potential for Aboriginal cultural heritage sites, items and remnants within the Project Site having consideration of the location, geology, known Aboriginal history and the historical use of quartz as a raw material resource by traditional custodians of the surrounding land.	4.8.2
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.	4.8.2
Biodiversity	
Assess the potential impacts to biodiversity having consideration of the native vegetation existing with the Project Site.	4.7

Table 1.1 (Cont'd)
Government Agency Feedback Provided in EARs

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Paraphrased Requirements	Section of EIS
Roads and Maritime Services	
Assess the impact of the existing and proposed development on the state road network with consideration for a 10 year horizon.	4.2
Document the volume and distribution of traffic that would be generated by the Proposal.	2.8
Assess intersection sight distances at key intersections along the primary haul route.	4.2.2.3
Assess existing and proposed access conditions, staff servicing and parking arrangements.	1.5, 2.8
Provide details of any relevant improvements to road intersections with consideration for the current Austroads Guidelines, particularly; <ul style="list-style-type: none"> • New England Highway & Nass Street intersection. • New England Highway, Bruxner Way and Old Ballandean Road intersection. • New England Highway and Sunnyside Crushing Facility Site access point/s. • Mount Lindesay Road and Old Ballandean Road intersection. • Mount Lindesay Road and Dowe's Quarry access road. 	4.2.2.3
Document proposed traffic management measures that would be implemented during operational periods.	4.2.4
Assess the potential impact on public transport and alternative modes of transport.	4.2.4.2
Assess potential impacts of road traffic noise and dust generation along the identified haulage route.	4.3 and 4.4
Document compliance with any Road Maintenance Contributions Plan.	4.2.3
Consider Clause 16(1) of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007	3.4 and further in 2.8 and 4.2.3
Crown Lands	
Address the current incomplete Aboriginal Land Claim over Crown Reserve 1149 that intersects with the existing quarry access road.	1.5

1.9 MANAGEMENT OF INVESTIGATIONS

The preparation of this document has been managed by Mr Rob Corkery, M.Appl.Sc., B.Sc (Hons), Principal of R.W. Corkery & Co. Pty. Limited and Mr Nicholas Warren B.Sc., M.Bus (Marketing), M. Env. Sc., Environmental Consultant with R.W. Corkery & Co. Pty Limited.

A range of environmental investigations have been undertaken to assess the potential environmental impacts of the Proposal, and identify operational safeguards and measures. These studies were undertaken by a team of specialist consultants managed by R.W. Corkery & Co Pty Ltd including the following key individuals and companies.

- Mr Bruce Mullins (BSc, MSc (Ecology)) and Mr Brad Dries (B Env Mgmt (Hons)) of Eco Logical Australia Pty Ltd: Ecological Assessment.
- Mr John Appleton (BA (Hons)) of Archaeological Surveys & Reports Pty Ltd: Aboriginal Heritage Assessment.

- Mr Scott Fishwick (BSc (Atmospheric Science)) of ENVIRON Australia Pty Ltd: Air Quality Impact Assessment.
- Mr Ben Rossiter (BEng (Env) Hons Cl II) of Constructive Solutions Pty Ltd: Traffic Impact Assessment.
- Mr Neil Pennington (PhD, BSc (Physics), B.Math (Hons)) of Spectrum Acoustics Pty Ltd: Noise and Blasting Impact Assessment.
- Mr Alex Irwin (BSc (Hons)), Senior Environmental Consultant with R.W. Corkery & Co. Pty Limited: Surface Water Management Structure Assessment.

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