



ABN: 36 132 579 992

Alchemy Pastoral Projects Pty Ltd

DREAMLAND QUARRY EXTENSION

Response to Submissions

Development Application 2014/0155

Prepared by:



R.W. CORKERY & CO. PTY. LIMITED

11 August 2014



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1. INTRODUCTION

Following the public exhibition of an *Environmental Impact Statement* (EIS) supporting an application made by Alchemy Pastoral Projects Pty Ltd (t/a Terra Farma) for an extension to the Dreamland Quarry, five government agency and 12 public submissions were received by Bathurst Regional Council (BRC).

The government agency submissions supported the proposed quarry extension subject to various conditions or commitments. Of the public submissions, 11 objected to the proposed quarry extension with the 12th providing support subject to enforcement of safeguards and controls. Each submission has been comprehensively reviewed, the issues or comments raised identified, categorised by subject area and addressed where applicable. **Appendix 1** identifies each of the submissions and identifies the general and more specific issues raised.

Following receipt of the objections, BRC hosted a forum to discuss the objections to the proposed quarry extension on 10 July 2014. An opportunity was provided to each objector to reiterate their concerns or objections. The Applicant's representatives were then provided with an opportunity to respond. At the conclusion of the forum, it was agreed that a 'Response to Submissions' be prepared and supplied to BRC.

The Response to Submissions has been structured as follows.

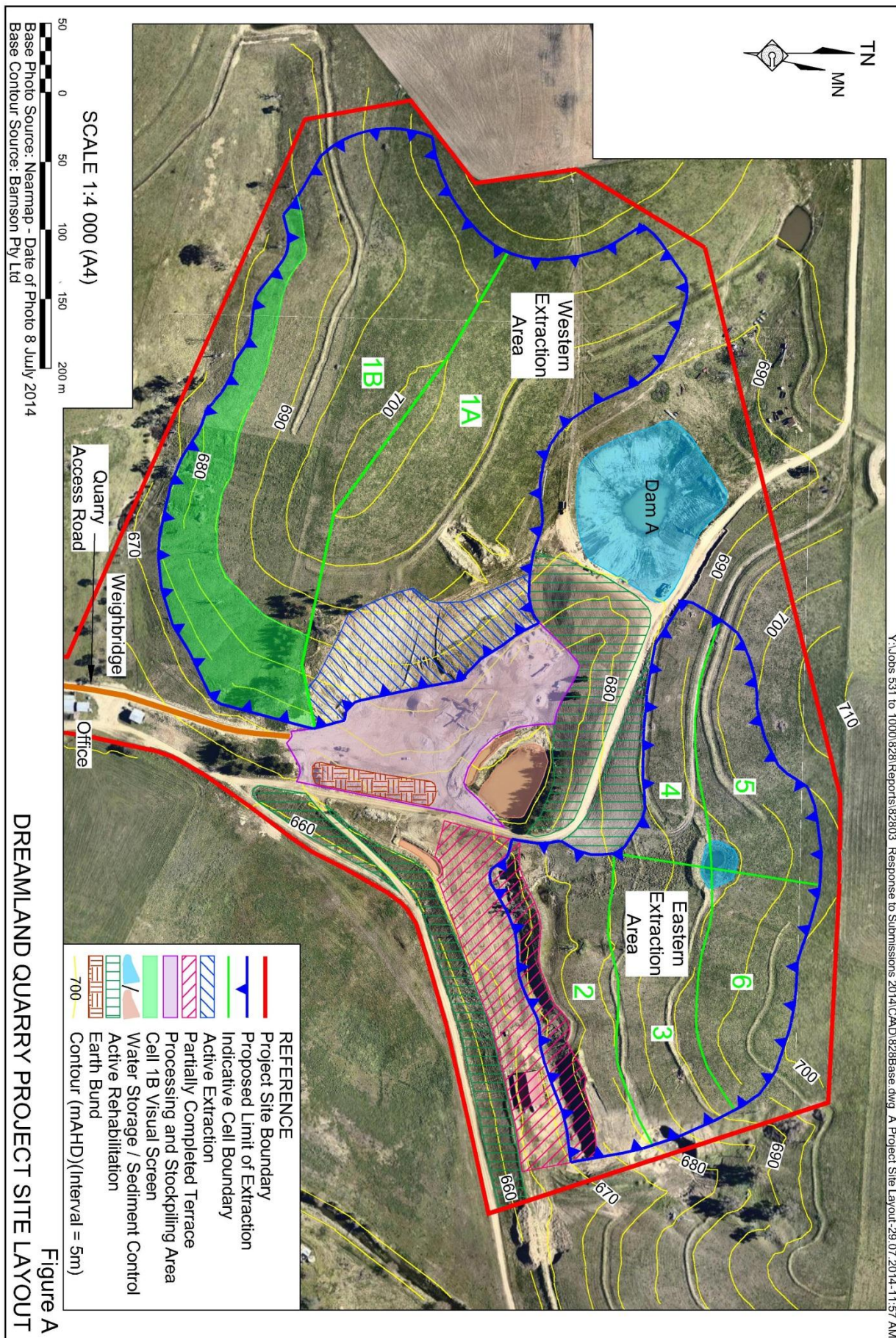
- Section 1 provides the scope and format of this document.
- Section 2 identifies the modifications made to the proposed quarry extension in response to the issues raised by the government or public submissions.
- Section 3 considers and responds to each of the recommendations made by the government agency submissions.
- Section 4 reviews each of the issues relevant to the proposed quarry extension raised in the public submissions.
- Section 5 concludes the Response to Submissions and reviews the justification for the proposed quarry extension taking into account the submissions received.

2. MINOR MODIFICATIONS TO THE PROPOSAL

2.1 PROJECT SITE BOUNDARY

A common concern raised in the objections to the proposed quarry extension was the inclusion of the flats adjoining Evans Plains Creek within the Project Site. While this area was only included to utilise the cadastral boundary of Lot 7475 DP1121891 for the purpose of defining the Project Site, and no extraction or other activities within this area was proposed, the Applicant has recognised the local concerns and revised the boundary away from Evans Plains Creek. The Applicant has also constrained the Project Site boundary to the northwest and north, to align with internal property fencing and more tightly constrain the areas of proposed disturbance.

Figure A identifies the modified Project Site boundary.



2.2 EXTRACTION AREA

Operating under the existing development consent DA 97/148, and as part of general property management activities, the status of the Project Site has progressed since the EIS was completed and lodged with the development application. This has included continued extraction, as well as, rehabilitation activities on the slopes to the north of the Processing and Stockpile Area and partially completed terrace to the east (identified with green hatch on **Figure A**). As a result of the rehabilitation, several areas previously identified within the proposed extraction area have now been excluded from the extraction area.

Other modifications to the extraction area include:

- the northern boundary of the eastern extraction area and western boundary of the western extraction area which have been constrained to accommodate the modification to the Project Site boundary; and
- the southern boundary of the western extraction area adjacent to a tributary of Evans Plains Creek (which has been better delineated by the recent satellite imagery now available for the region¹).

The internal extraction cells have been retained largely as presented in the EIS, however, as discussed in Section 2.3, the management of extraction will be based more on areas of disturbance and rehabilitation rather than specifically defined extraction cells.

Figure A identifies the various activities, status of current operations and proposed modified extraction area of the Dreamland Quarry.

2.3 EXTRACTION AND REHABILITATION MANAGEMENT

The Applicant has considered the concerns raised by the local community over the increased area, and therefore increased visual exposure, of the proposed quarry extension. As a result, the Applicant has agreed to confine the area of active extraction to 1.5ha or less. Furthermore, the Applicant would only operate one active extraction area, with all other areas within the extraction area being under an approved ERP, with provisions and timelines for the areas to be rehabilitated and for processing, stockpiling and load-out.

It is noted that the weathered granite within the eastern and western extraction areas (see **Figure A**) has somewhat different properties. The granite to the west is more weathered and more suited to production of screened sands and sandy gravels, whereas the granite to the east is more competent and therefore more suited for production as unscreened gravel or select fill. As a consequence, the Applicant wishes to retain some flexibility in the sequencing of extraction, i.e. the Applicant would like to retain the ability to progressively move between the eastern and western extraction areas.

To ensure that in moving between extraction areas compliance with the 1.5ha active extraction limit is maintained, extraction and rehabilitation would only be undertaken following the preparation and approval of an Extraction and Rehabilitation Plan (ERP). A move from one active extraction area to another will be contingent upon an approved ERP. The ERP would identify the specific sequence of extraction and rehabilitation, over a nominated time or specified extraction areas, and illustrate how rehabilitation would be undertaken to maintain the 1.5ha limit on active extraction. The ERP would also nominate the various rehabilitation objectives, performance indicators and completion criteria, noting that some rehabilitation may be temporary, i.e. further extraction from the area may be planned with the objectives of

¹ Obtained under licence from Nearmap®

rehabilitation being to stabilise the area and manage the visual amenity. It is important to note that the eastern and western extraction areas have different landforms, the eastern being a more traditional quarry style and the western being a terrace style. Therefore the ERP is likely to outline different rehabilitation objectives and methods for each, with the eastern extraction area likely to have greater use of temporary stabilisation, exposure minimise and management, until the final landform is achieved, whereas the western extraction area offers the opportunity for a vegetated graduated terrace landform upon completion post extraction.

To further reduce the impact of the quarry on local visual amenity, the Applicant has agreed to the following additional measures.

- The rehabilitation of the partially completed terrace within the eastern extraction area (see red hatched area on **Figure A**) would be prioritised and included in the initial ERP for the Quarry. The Applicant would aim to complete this rehabilitation within 18 months of receiving approval for the ERP.
- The southern slope of Cell 1 would be retained between 675m and 685m AHD until all other extraction within Cell 1 has been complete to provide a visual screen of extraction activities to the south and southeast (see **Figure A**).

3. GOVERNMENT SUBMISSIONS

3.1 NSW ROADS AND MARITIME SERVICES

The NSW Roads and Maritime Services (RMS) provided a submission to BRC (5 June 2014) stating its support for the development application subject to ongoing compliance with the conditions of the previous approval (DA2006/043) and the Roads and Traffic Authority (RTA) submission to that application dated 12 October 2005.

As presented in *Appendix 4* of the EIS, the RTA confirmed completion of the require road works to their satisfaction on 22 January 2007.

3.2 NSW ENVIRONMENT PROTECTION AUTHORITY

The Environment Protection Authority (EPA) provided a submission to BRC (30 June 2014) including General Terms of Approval (GTAs) for the development application (11 June 2014).

The Applicant accepts the controls and safeguards imposed by the GTAs, most notably a restriction in standard hours of operations as follows.

- 7:00am to 6:00pm Monday to Friday.
- 8:00am to 6:00pm Saturday.
- At no time on Sunday or public holidays.

3.3 NSW DEPARTMENT OF TRADE & INVESTMENT – MINERAL RESOURCES BRANCH

The NSW Department of Trade & Investment – Mineral Resources Branch (DTIRIS – MRB) provided a submission to BRC (28 May 2014) stating its support for the proposed quarry extension based on the satisfactory presentation of information in the EIS relating to the intended purpose and size and of the resource and the proposed method of extraction over the life of the quarry.

3.4 DEPARTMENT OF PRIMARY INDUSTRIES

3.4.1 Fisheries NSW

Fisheries NSW provided a submission to BRC (11 June 2014) stating its support for the proposed quarry extension subject to the inclusion of a 50m buffer between extraction activities and Evans Plains Creek. The Applicant accepts the maintenance and management of a 50m buffer and notably has modified the Project Site boundary (away from Evans Plains Creek) to further illustrate this.

3.4.2 NSW Office of Water

The NSW Office of Water (NOW) reviewed the EIS and provided a submission to BRC (13 June 2014) confirming satisfaction with the Applicant's commitment to appropriate management of groundwater resources.

The Applicant accepts the recommendations / requirements of NOW with respect to the sourcing of water from Evans Plains Creek (under the Applicant's Water Irrigation Licence No. 80SL039686).

3.5 NSW OFFICE OF ENVIRONMENT & HERITAGE

NSW Office of Environment & Heritage (OEH) provided a submission to BRC (12 June 2014) noting that an Aboriginal Heritage Impact Permit (AHIP) would be required for the salvage and relocation of an Aboriginal artefact (basalt flake) identified at the previously registered site EP-IF-1. As described in *Section 4.3.3* of the EIS, the Applicant would not disturb site EP-IF-1 until an AHIP is received. The inclusion of the due diligence process and guidance material with the department's submission is noted. The Applicant anticipates that application for an AHIP would be completed within six months after receipt of development consent.

4. PUBLIC SUBMISSIONS

4.1 INTRODUCTION

As noted in Section 1, 12 submissions were received from the local community. One submission supported the proposed quarry extension subject to enforcement of adequate safeguards and controls. Eleven submissions objected to the proposed quarry extension. The basis for objection was relatively consistent, however, in order to ensure that each issue raised has been addressed, a matrix which identifies each of the submissions and the issues raised has been prepared (see **Appendix 1**). The matrix categorises the various issues raised into general environmental categories and then sub-divides these into the more specific issues within each of these broader categories.

Sections 4.2 to 4.11 consider each of the broader environmental categories, sub-divided as relevant into the more specific issues raised by individual submissions. For each issue, a direct quote from one of the submissions has been provided as representative of the objection or request for additional information.

The Applicant understands that the development application to extend the Dreamland Quarry is assessed on the merits of this proposal. As is demonstrated in the following sub-sections, the EIS has taken into account the potential impacts of the proposed quarry extension and provided for controls and safeguards to minimise the impact on the local setting and surrounding

community. The above notwithstanding, it is worthy of note that within the immediate local setting, including on the properties of some of the objectors, there exist other extractive industry developments. Furthermore, extractive industry has been a feature of the Evans Plains area dating back to the 1960s including the extraction of granite from the site of the existing quarry.

4.2 LIMITS OF CONSENT AND PREVIOUS NON-COMPLIANCE

4.2.1 Extension to Existing Quarry or New Application

Three public submissions suggested that due to the scale of the extension to the existing quarry the application should be considered a new application rather than an extension to the existing operations.

Representative Quote

This is a significant extension to an existing quarry from 6 500tpa to 100 000tpa – accordingly it should be considered as a new quarry and not merely as a extension (especially going from 1ha to 17ha).

Submission 2. Provided by M.T. Byrnes

Response

The development application does represent an application for new development consent. If approved, the current development consent (DA 97/148 would be surrendered).

4.2.2 Previous Record of Applicant Non-Compliance

Seven public submissions raised concerns regarding previous examples of non-compliance against DA 97/148 and questioned the level of monitoring and enforcement required should approval be granted for the Proposal.

Representative Quotes

It is noted that the applicant has exceeded the maximum permitted annual extraction volumes under the original DA 97/148 by a significant amount.....What assurances do can possibly be given that the applicant would comply with any conditions of consent when they have failed to comply with the relatively modest approval volumes that they were operating under the current DA consent.

Submission 2. Provided by M.T. Byrnes

In the original DA the underpass was supposed to be widened. This has never been done.

Submission 3. Provided by D. & L. McKay

Evidence of the applicant's non compliance to date in all regards needs to be carefully considered in the assessment of the development application and formulation of conditions.

Submission 4. Provided by J.S. and R.H. McKay

Response

The Applicant has previously responded to a request from BRC to address issues related to the volume of material produced annually and areas of disturbance.

The Applicant recognises that aspects of the existing quarry operation could have been managed better, however, does note that recent activities such as tree planting on the southern perimeter of the partially completed eastern terrace, rehabilitation of the landform to the north and northeast of the Processing and Stockpiling Area (refer to **Plates 1 and 2**), recent planting of poplars along the southern edge of the partially completed eastern terrace (see **Plate 3**), as well as gully vegetation restoration projects undertaken on the “Dreamland” property demonstrate the intention of the Applicant to minimise the impact of the quarry into the future.



Plate 1 Slope Rehabilitation
(viewed from Processing and Stockpiling Area)

Ref: E828H_004_003_002 Merged (4).jpg



Plate 2 Quarry Extraction and Rehabilitation
(viewed from Mid-Western Highway)

Ref: E828H_011 (2).jpg



Plate 3 Recently
Planted Poplars
on the Partially
Completed
Eastern Terrace

Ref: DSCN0507.jpg

With respect to the underpass widening, all works on the Mid-Western Highway were undertaken to the satisfaction of the RMS in accordance with a Works Authorisation Deed between CW and MR Townsend and the RTA (refer to *Appendix 4* of the EIS).

4.3 GENERALISATIONS AND INCONSISTENCIES WITH THE EIS

4.3.1 Generalisations Contained within the EIS

Five public submissions raised concerns regarding the use of selective, non-specific and non-binding language in the EIS.

Representative Quote

We find this document to be very 'loosely' written with several statements stating very open terms that could lead to conditions and restrictions not being adhered to such as "generally restrict extraction times" and "may need to extend activities to 10pm".

Submission 6. Provided by A.R., S.L., R.H. & L.E. McMahon

Response

R.W. Corkery & Co. Pty Limited stands by the assessment provided in the EIS which documented the proposed quarry extension, as understood at the time of writing, but which also reflected the non-static nature of all development. The phrasing described as 'loose' was used to ensure that there be some flexibility for the Applicant to respond to non-standard issues or occurrences as they arise. The terminology implies that such occurrences would be rare and therefore activities beyond those described in the EIS only occurring occasionally.

The Applicant does note, however, that it will abide by any restrictions imposed by BRC or the EPA (as conditions of an Environment Protection Licence). For example, the Applicant accepts the restriction in standard hours of operation in accordance with the GTAs of the EPA (see Section 3.2).

4.3.2 Insufficient or Misleading Information Presented Within the EIS

Three public submissions questioned the information presented within the EIS as either misleading or insufficient to allow satisfactory consideration of potential impacts from the Proposal. A second submission provided by Mr J. Schoenmaker refutes claims in the EIS that he supported the quarry operations.

Representative Quote

Conflicting information is provided in the EIS regarding crushing of granite and concrete products.

Submission 4. Provided by J.S. and R.H. McKay

Response

The Applicant confirms that crushing of concrete does not form part of the current development application. It was originally considered by the Applicant, and included in the initial noise modelling completed for the proposed quarry extension, however, ultimately removed from the current proposal.

Representative Quote

Page 1-3 states the existing quarry currently operates under Development Consent DA97/148 when the Bathurst Regional Council advises that this Development Application has been cancelled due to non-compliance, exceeding limits of volume and area permitted and has placed a stop work order on the operation.

Submission 12. Provided by J.M. & G.M. Windsor

Response

The assertion that DA 97/148 has been cancelled is incorrect. As noted, the Applicant has responded to a request from BRC to explain the most recently reported production levels and areas of disturbance (see **Appendix 2**).

Representative Quote

... very little detail is given on the mechanics of the proposed extraction and screening and is confusing

Submission 4. Provided by J.S. and R.H. McKay

Response

The extraction and screening process to be continued at the quarry is a straight forward process and hence the description in the EIS is relatively brief. The level of detail included in Sections 2.4 and 2.5 of the EIS (pp. 2-8 to 2-18) is considered sufficient to provide the reader with an understanding of the proposed operations.

Representative Quote

... a letter supposedly written by me in the above mentioned EIS... states that I fully support the Townsends in their quarry operations. I wish to categorically state that at no time did I ever write this letter and I did not support their quarry operations.

Submission 9. Provided by J. Schoenmaker

Response

With respect to the submission of Mr Schoenmaker (Submission 9), the noted letter appears within Appendix 3 of the EIS (p. A3-12) as an attachment to an Annual Report prepared for the quarry in 2008. While the Applicant has confirmed the veracity of the letter, it is acknowledged that the statements contained in the letter are not reflective of the position currently held by Mr Schoenmaker.

4.4 TRAFFIC ISSUES

4.4.1 Driver Conduct

Five public submissions included comments relating to driver conduct when entering the Mid-Western Highway from the quarry, or when interacting on the roads with school buses, expressing concern that this would continue and present a risk to road safety and potential cause of accidents.

Representative Quotes

The truck drivers and plant operators build up speed exiting the site and just pull out onto the mid-western highway forcing the other road users to give way to them.

Submission 10. Provided by F.E. Simpson

School Bus Hours should be observed as I've seen quarry trucks overtaking the school bus going to Bathurst while trucks are coming the other way.

Submission 3. Provided by D. & L. McKay

Response

It is noted that the sight distance from the intersection of the Site Access Road with the Mid-Western Highway is very good (refer to *Plate 3.1* of the EIS) providing drivers approaching the intersection with excellent field of view with which to judge entry onto the highway. It is acknowledged that as a result of the time required for a fully laden vehicle to reach the speed limit, speed of oncoming traffic or occasional misjudgement by the driver, approaching traffic may be required to slow behind the truck. Certainly, the assertion that trucks regularly pull out in front of oncoming traffic, causing rapid deceleration of the oncoming traffic, or overtake a moving school bus (it would be impractical for the trucks to not drive past a stationary school bus picking up or dropping off children), is rejected.

Further to the above, the Applicant proposes to introduce a Driver Code of Conduct to be provided to and signed by drivers on initial entry and induction to the Dreamland Quarry. The Code of Conduct would require drivers to operate their vehicle in a safe and courteous manner, including care shown when approach and /or passing a school bus.

4.4.2 Condition and Configuration of the Quarry Access Road Intersection with the Highway

The issue of the existing condition of the intersection of the quarry access road and the Mid-Western Highway was raised in six public submissions

Representative Quote

... this stretch of road is hemmed in by a cattle underpass which is about two metres deep (on) both sides of the road and does not have sufficient shoulder width in the event of a vehicle being pushed of by trucks turning into the quarry entrance and does not give adequate escape in the event of an emergency..

Submission 5 Provided by P. McKay

Response

The Applicant notes that the intersection has been constructed in accordance with a WAD between Terra Farma and the RTA, based on the conditions supplied by the RTA in 2005 in relation to DA 2006/0043, and referenced in the RMS submission of 5 June 2014. This confirms that the intersection is considered suitable to accommodate the proposed traffic generation by the regulatory authority for the Mid-Western Highway.

4.4.3 Traffic Movements

Six public submissions objected to the proposed number of traffic movements that would be associated with the Proposal, expressing concern over the impact to local residents and the degradation of the intersection and highway surface.

Representative Quotes

... the RTA approved this access for an average of 10 trucks per week not the proposed maximum of 280 truck movements.

Submission 4. Provided by J.S. and R.H. McKay

Based on a 25t load, the current approved operations would amount for 260 loads per annum (or 520 movements). The proposed development would have 4 000 loads per annum (or 8 000 movements). The associated impacts are 15 fold – especially on the intersection with the Highway.

Submission 2. Provided by M.T. Byrnes

The vast increase in truck movements would greatly exceed the limits of an already over stressed intersection off the Mid Western Highway. The residents of ten separate households/families enter the highway within 500 metres of this intersection with limited line of vision.

Submission 12. Provided by Mr J.M. and Mrs G. M. Windsor

Response

Section 4.7 of the EIS assessed the proposed volume of traffic to be generated against historic traffic volumes of the Mid-Western Highway. As noted in Section 4.7.4.3, the average traffic that would be generated by the proposed quarry extension represents less than 1% of Annual Average Daily Traffic (AADT) and less than 5% of heavy vehicle AADT. Notably, the AADT for the highway is low when compared to highways of equivalent formation, e.g. the Mitchell Highway and Great Western Highway which enter or exit Bathurst. The statement regarding the 'stressed intersection off the Mid-Western Highway' is considered an overstatement. Furthermore and most notably, the RMS has raised no concern or objection to the proposed additional traffic.

The Applicant also rejects the assertion that line of sight along the affected stretch of the Mid-Western Highway is limited. This section of the highway is straight with a moderate gradient offering good line of sight in both directions (refer to Plate 3.1 of the EIS).

4.5 NOISE ISSUES

4.5.1 Extent of Noise Impacts

Three public submissions raised concerns over the extent of possible noise emissions resulting from the Proposal and the description of these impacts as minimal in the EIS.

Representative Quote

Of Major Concern to us:-

3. The noise and dust generated from the increased activity cannot be described as minimal especially when related industries are introduced, e.g. concrete blending.

Submission 12. Provided by J.M. & G. M. Windsor

Response

A noise model was prepared and run (by Spectrum Acoustics Pty Limited) to provide predictions of noise emissions from the extraction, processing and product despatch to be undertaken on the Project Site.

The scale and location of activities included in the noise model were chosen to be representative of the maximum number of noise sources that would be operational most of time, in locations considered by the acoustic consultant to be most likely to result in elevated noise levels at the closest receivers under noise enhancing conditions (identified in accordance with the guidance provided by the *NSW Industrial Noise Policy* [INP], EPA, 1999). It was acknowledged that on occasion there could be additional equipment operating on the Project Site, however, this would be in response to supply demands and unlikely to occur more than once or twice a year.

Notably, the noise modelling (which does not take into account the noise attenuation of the processing plant provide by the earth bund at the southern perimeter of the Processing and Stockpiling Area) predicts noise levels should remain less than 35dB(A). This is the noise criteria for quiet rural environments as nominated in the INP. In accordance with the GTAs issued by the EPA, the Applicant will undertake monitoring of operations to confirm compliance with the noise criteria of 35dB(A).

4.5.2 Road Traffic Noise and Compression Brakes

Two public submissions raised concerns regarding potential noise impacts from trucks on the road and the use of compression brakes.

Representative Quote

Noise of compression brakes continually when trucks are coming from Blayney direction. When the estimated number of trucks is 50,000 upwards this would make it intolerable.

Submission 3. Provided by D. and L. McKay

Response

The intrusiveness of compression (or engine) brakes is acknowledged by the Applicant and the following controls and safeguards would be implemented to reduce the use of these.

- There would be no loading of trucks or other use of heavy machinery before 7:00am, in line with the accepted standard hours of operation – 7:00am to 6:00pm.
- The Applicant will include within a Driver Code of Conduct a request for non-essential use of compressions brakes to be avoided. The Applicant will reserve the right to refuse entry to drivers who fail to adhere to this request.

In noting the above, it must be recognised that compression brakes may be legitimately required by truck drivers on approach to the Project Site entrance, especially when the roads are cold or icy.

4.5.3 Assessment of Noise Impacts

A public submission provided by D. and L. McKay raised concern that the assessment of noise impacts included several inconsistencies and should be reviewed by the EPA

Representative Quote

Inconsistencies and omissions of the "worst case scenario" in the Assessment include:

- *Assessment modelled for operating hours to 7:00pm but 2.9.1 Hours of Operations and foot note states activities may extend to 10.00pm.*
- *Modelled Scenario 1 fails to account for different gravel extractive processes between Cell 1 and Cell 2-6 which have two different extractive faces (i.e. long slope vs terraces.*
- *Noise sources not assessed for all extractive machinery.....*
- *No indication is made whether the noise source sound power levels is based on measurement of existing equipment....or derived from alternative sources.....*

... we request that the noise assessment is reviewed by the EPA to ensure that the data is comprehensive and can be validated prior to an approval decision being made.

Submission 4. Provided by J.S. and R.H. McKay

Response

It is noted that the Noise assessment has been reviewed by the EPA and GTAs have been issued. Notably, the GTAs require confirmation that operations do not result in noise levels exceeding 35dB(A) at receivers surrounding the Project Site.

As noted in Section 4.5.1, Spectrum Acoustics Pty Limited (a well-respected acoustic consulting firm) prepared and ran a noise model for the proposed quarry extension to predict likely noise levels under worst-case meteorological conditions.

With respect to the comment in relation to the extraction activities and noise sources used in the noise model, the following response is provided.

1. The sound power levels of the extraction, processing and transport activity noise sources used in the noise model were as follows. It is noted that the Traxcavator was not included in Table 5 of the Noise Assessment, however, it has been confirmed that this noise source was included in the modelling (pers. comm. N. Pennington – 11/7/2014).

Noise Source Sound Power Levels

Equipment	Indicative Number	Use	Lw dB(A), _{Leq(15minute)}
Traxcavator (Dozer)	1	Rip and push gravel for extraction	112
65t Excavator		Soil stripping, granite excavation	109
20t Front end loader	1	Material movement in stockpile / processing area	107
27t capacity truck	2	Transport material from extraction to process area	106
Vibrating screen	1	Separate materials	104

As excavation of the gravel generally only requires the operation of one piece of equipment (excavator or traxcavator), the source with the higher sound power level (traxcavator) was used for the purpose of modelling. Notably, Figure 4.5 of the EIS identifies the Traxcavator on the 'Modelled Operating Scenario'.

2. The same equipment would be operated for both the long slope and terrace excavation areas. As emissions of noise are based on the sound power level of the noise source, i.e. the frequency and amplitude of the sound waves created, the actual method of extraction is not a factor in the generation (and therefore) prediction of noise.
3. Scenario 1 was chosen as it was considered to present the noise sources in a combination that was as close to the nearest residential receiver (R7) as would be likely over the life of the proposed quarry extension.
4. As noted in the Noise Assessment (of Spectrum Acoustics Pty Limited) (*Appendix 6 of the EIS*), two operating scenarios were run. The second of these, which is not presented in the main EIS², provides for predicted operations to the east of the proposed extraction (when this area formed part of the proposed quarry extension). Notably, the results of the noise model for Scenario 2 (refer to *pp. A6-26 to A6-28 of the EIS*) indicate the received noise levels from Scenarios 1 and 2 would be very similar and below the nominated criteria.

Considering 1 to 4 above, it is confirmed that the noise scenario presented in the EIS provides predictions of noise levels that are representative of those likely to be received at surrounding residences under normal (neutral weather condition) and worst-case meteorological conditions.

4.5.4 Noise Barriers

A public submission provided by D. and L. McKay raised concern that the existing acoustic barrier is constructed of screened granite and would eventually be removed as it is sold to the Applicant's clients.

Representative Quote

....what guarantees do we have that this acoustic barrier is permanent and will not be sold to meet market demand at a future date?

Submission 4. Provided by J.S. and R.H. McKay

Response

The Applicant has confirmed that the acoustic barrier will remain in its current location for the foreseeable future, and may be realigned from time to time with changes in the extraction area.

4.6 AIR QUALITY

4.6.1 Dust

Concern regarding the extent of impacts from dust emissions created by the Proposal was raised in four public submissions.

Representative Quote

... there will have to be an increase in the amount of dust generated from additional trucks (along) the haulage road (especially considering the prevailing south westerly winds).

Submission 2. Provided by M.T. Byrnes

² This scenario was not included in the main body of the EIS so as not to cause confusion over the area of extraction area extension proposed.

Response

Any activity which involves the disturbance or extraction of material is likely to generate dust emissions. However, the nature of the material being extracted at the Dreamland Quarry is coarse which will limit the potential for dust to disperse significant distances from the source of such activities, as a result of the weight of the particles.

Furthermore, the Applicant has committed to implementing the various controls, safeguards and management procedures nominated in *Section 4.5.4* of the EIS. On the basis of the implementation of these, and with reference to similar type and scale operations, it has been concluded that the potential for exceedances of air quality criteria at local residences is very small. The EPA concurs and has accepted the assessment of the EIS.

The above notwithstanding, the Applicant also proposes the following additional safeguards and management measures.

- The Site Entrance Road will be maintained to prevent dust lift-off from trucks entering and exiting the Project Site.
- Dust deposition gauges will be installed at the southern and southwestern boundary of the Applicant's property and monitored monthly to demonstrate dust emissions from the Project Site comply with the nominated air quality goal ($4\text{g/m}^2/\text{month}$).

4.7 SITE MANAGEMENT / REHABILITATION ISSUES

4.7.1 Scale of Development

Concerns regarding the scale of the proposed development in relation to the existing approved activities were raised in six public submissions. Particular issues raised included the size of proposed operations relative to existing operations, the potential for a large area of the extraction area to be operated, the choice of the Project Site boundary and the need for accurate survey of the extraction area boundaries.

Representative Quotes

... the size and scale of operations has been massively increased far exceeding those approved in 1998 including significant infrastructure development of the quarry.

Submission 4. Provided by J.S. and R.H. McKay

To increase by 17 times seems excessive in this location as granite is not scarce product

Submission 5. Provided by Mr P. McKay

Response

The area of the proposed quarry extension and increase in production limit was chosen after careful consideration of potential future demand for the gravel and sand materials.

While 100 000t annually represents a ceiling production level, average production levels are anticipated to range between 20 000t and 50 000t annually. Establishing the maximum production level at 100 000tpa will, however, ensure that should a large local or regional job requiring significant volumes of gravel arise, such a market-demand volume can be supplied by the Dreamland Quarry rather than from larger quarries outside the region.

Initially, a larger area was considered for the proposed quarry extension. However, on consideration of average production rates, the area was reduced to that presented on **Figure A**

which, at average production rates, will provide for supply for approximately 25 years. This length of quarry (and approval) provides significant certainty to the Applicant and potential customers over future supply.

Representative Quote

I request that consideration be given to imposing the following conditions on an licence granted ... that one cell shall be worked at a time to minimise the impact and a requirement that the rehabilitation of this cell be completed before any other cell is worked.

Submission 10. Provided by F. E. Simpson

Response

In recognition of the large increase in approved extraction area proposed, the Applicant has committed to limiting the area of active extraction on the Project Site to 1.5ha, with all other areas to be at various stages of rehabilitation.

Representative Quote

Should approval be granted, and given this failing in the existing quarry consent, the proposed 100m steel peg boundary should be accurately surveyed with GPS coordinates for future measurements and compliance assessment.

Submission 4. Provided by J.S. and R.H. McKay

Response

The Applicant has confirmed that the outer perimeter of the extraction area will be surveyed and markers placed to identify the indicative boundary.

The Applicant will also identify (by hand held GPS survey) the perimeter of active extraction areas before commencement of disturbance and install temporary markers (offset by ~5m) to ensure disturbance remains within the demarcated area.

Representative Quote

... advise as to why the project site boundary extends to Evans Plains Creek ... There does not appear to be any extraction proposed in this location... .-accordingly why is it included? Is there an ulterior motive that has not been included in the EIS?

Submission 2. Provided by M.T. Byrnes

Response

As noted in Section 2.1, the cadastral boundary of Lot 7475 DP1121891 was initially used for the purpose of the Project Site boundary. As illustrated on **Figure A**, the Applicant has subsequently moved the Project Site boundary away from Evans Plains Creek to allay local concern.

4.7.2 Consideration of Alternative Locations

Concerns regarding the appropriateness of the local setting for the proposed quarry were raised in six public submissions.

Representative Quotes

Would the back of the hill be better where no one can see it.

Submission 1. Provided by D. & L. McKay

Of Major Concern to us:-

9. The need for a quarry of this type and dimensions when all products could be sourced from more appropriate locations elsewhere in the district.

Submission 12. Provided by J.M. & G. M. Windsor

Response

The choice was made to extend the existing quarry operation from its current location as opposed to establishing and operating a new quarry on the northwestern side of the hill for three primary reasons.

1. It was considered preferable to expand an area of existing disturbance, where ground conditions are well known and potential for unforeseen impacts low, rather than commence in an area where the ground conditions are not as well known leading to an increased possibility of unforeseen impacts.
2. The land capability of the property on the other side of the hill is greater than that of the proposed extraction area extension. Furthermore, through final landform profiling, rehabilitation and soil application, the land capability of the proposed extraction area could be improved.
3. By establishing a new quarry elsewhere on the property, either an extended access road would be required from the existing quarry entrance, or a new entrance off Stewart Street Evans Plains would be required.

On the basis that the extraction area would be progressively rehabilitated, the proposed extension was considered to be of lower risk environmentally and operationally, lower impact on agricultural resources and avoid the requirement for new or extended infrastructure on the property.

4.7.3 Rehabilitation

Five public submissions raised concerns regarding rehabilitation with comments questioning the Applicant's approach and success with rehabilitation under the current approval, the ability of the Applicant to undertake progressive rehabilitation, the suitability of proposed rehabilitation plans, limitations on the availability of topsoil and the need for an appropriate security bond to secure the necessary funds to complete rehabilitation.

Representative Quote

Rehabilitation and revegetation of the site is vital to minimise the visual impacts of the development.

Submission 1. Provided by Dr J.P and Mrs J.L. Blackwood

Response

The Applicant agrees and accepts that ongoing approval to operate the quarry will be dependent on rehabilitation of the extraction areas to the satisfaction of BRC. Section 2.10 of the EIS provides the proposed objectives and procedures for the rehabilitation of the Project Site, including information on rehabilitation maintenance, responsibilities and funding. Section 2.3 of this document provides further discussion on the proposed approach of the Applicant to extraction and rehabilitation management.

Representative Quote

The applicant states that there has been significant gully stabilisation undertaken in recent times. This statement is questionable as the location and outcomes of these activities may be overstated.

Submission 2. Provided by M.T. Byrnes

Response

This comment is not accepted. The Applicant has an excellent record of gully stabilisation, including remediation of Evans Plains Creek (refer to Section 1.7.4 of the EIS).

Representative Quote

... statements raise concerns that sufficient top soil is available not only for rehabilitation of the existing excavated site but the proposed development site as well.

Submission 4. Provided by J.S. and R.H. McKay

Response

As the extraction area is extended, the soil resources will be stripped and either directly transferred onto active rehabilitation areas or stockpiled for future use. The Applicant is confident that the volume of available soil will be more than sufficient to provide for application over all areas of disturbance.

Representative Quote

Of Major Concern to us:-

8. The lack of an "appropriate" performance bond to ensure completion and rehabilitation is securely funded.

Submission 12. Provided by J.M. & G. M. Windsor

Response

The provision of sufficient funding for rehabilitation of the quarry is discussed in Section 2.10.5.2 of the EIS.

Representative Quote

Section 4.4.2 Soil and Land Capability states that the existing quarry area has a class 8 Land Capability rating (unusable for agricultural purpose) To extend this area of excavation from 1 hectare to 17 hectares without proof that rehabilitation success is guaranteed and without water tight controls would be environmentally negligent. We request that an independent risk assessment by a qualified professional be undertaken to review the methodology and calculations outlined in the EIS.

Submission 4. Provided by J.S. and R.H. McKay

Response

The rehabilitation procedures presented in Section 2.10 of the EIS are based on those successfully implemented at other mine and quarry sites. Furthermore, the actual modification to the landform proposed (refer to Figures 2.6 and 2.7 of the EIS) is relatively minor and as such the risk that rehabilitation will not be successful is considered small.

The above notwithstanding, and as noted in previous responses, the Applicant accepts that approval to progressively extract from the extraction areas will need to be consistent with the completion of rehabilitation in a reasonable timeframe to the satisfaction of BRC. It is expected that conditions of development consent will be included which formalise a requirement to demonstrate successful rehabilitation as a pre-cursor to continued operation.

Representative Quote

It also states that chemical fertilizer would be used (Nitrogen and Phosphorous) in rehabilitation which we find contravening as Alchemy Pastoral Projects is run as an organic operation which does not allow for these fertilizers to be used.

Submission 6. Provided by A.R., S.L., R.H. & L.E. McMahon

Response

The preference of the Applicant would be to avoid the use of chemicals fertilizers, however, the choice and application of soil ameliorants or fertilizers relating to rehabilitation would be made to reflect soil and seasonal conditions on a case by case basis to allow the Applicant to meet its consent conditions.

4.8 VISUAL AMENITY

4.8.1 Visual Impacts of the Proposal

The potential changes to the landscape and the resulting impacts to visual amenity was the principle concern raised in public submissions to the EIS. All public submissions except one raised concerns regarding visual amenity (11 submissions in total). The public submissions primarily focused on general visual amenity from surrounding properties, the Mid-Western Highway and from the village of Evan Plains, however, several submissions raised concerns regarding the effectiveness of vegetation screening and questioned some statements made in the EIS regarding potential visual impacts.

Representative Quote

The visual impact from the existing quarry is already significant to the surrounding location (especially when viewed from my house and land) and would be further negatively impacted upon if the quarry area were to be increased from the approved 1ha to 17ha.

There is no realistic potential for any buffers or screening from my property to screen this unsightly development (not now and not in the future). Any suggestion that this can be achieved is total fantasy.

Submission 2. Provided by M.T. Byrnes

Response

The Applicant acknowledges the relatively open visual profile of the Project Site and proposed extraction area extension. Accordingly, the Applicant has committed to imposing a limit on the areas of extraction active at any given time (refer to Section 2.3).

Tree screens can prove effective in screening, or partially screening development such as the proposed quarry extension. Recent planting of poplars along the southern edge of the partially completed eastern terrace (see **Plate 3**) will improve appearance of the site when viewed from the Mid-Western Highway and local properties.

Furthermore, it is reiterated that the proposed final landform of the Project Site (see *Figure 2.5* of the EIS) will provide for a landform equivalent to that of the surrounding agricultural setting. As discussed in Section 2.3, the Applicant has also committed to limiting the area of active extraction to 1.5ha, with all other areas to be at various stages of rehabilitation. The Applicant accepts the conditioning of the development consent may link continued operation to the completion of rehabilitation to the satisfaction of BRC in a reasonable timeframe.

The proposed approach to the extraction and rehabilitation sequence (refer to Section 2.3) will also allow for the current disturbance to the east of the approved extraction area to be incorporated into the initial extraction and rehabilitation plan. This would form the first terrace of the eastern extraction area and illustrate within the next 12 to 18 months the acceptability of the proposed landform within the local setting.

Representative Quote

It should also be noted that the Applicant's commitment to establishing screen plantings in 1997 has not eventuated.

"The Applicant is cognisant of the need to manage the visual impact of the quarry from the surrounding vantage points and notably has improved the visual amenity of the site in recent years". This is a highly subjective statement and from our perspective entirely false.

Submission 4. Provided by J.S. and R.H. McKay

Response

The Applicant previously planted trees along the top of the batter to the east of the Processing and Stockpiling Area, however, despite best efforts, the success of these has been compromised by a lack of sufficient rainfall in recent years. Recently, a second tree planting campaign was completed (see **Plate 3**).

It is considered that the rehabilitation works recently completed on the northern slopes of the Processing and Stockpiling Area (refer to **Plates 1 and 2**) do provide for an improvement in local visual amenity.

Representative Quote

Of Major Concern to us:-

5. The visual impact will increase in relation to the increase in scope and scale of the work areas. The existing quarry can be seen not only from the Mid Western Highway and immediate neighbours but from approx 4 kilometres away as you travel south from Bathurst on the elevated sections of the highway.

Submission 12. Provided by J.M. & G. M. Windsor

Response

As discussed in Section 2.3 and previous responses, the Applicant will limit the area of active extraction to 1.5ha. The remaining areas would be maintained under rehabilitation, either temporary or permanent. Therefore, while extraction activities will be visible from the Mid-Western Highway, the Applicant has made significant commitments to minimise the visual impact of the Project Site.

4.9 WATER RESOURCES

4.9.1 Commercial Water Pumping

Concern regarding the operation of the commercial water pump and potential impacts on Evans Plains Creek and the aquatic environment was raised in a submission provided by J.M. and G. M. Windsor.

Representative Quote

Of Major Concern to us:-

6. The adverse effects on the Evans Plains Creek and aquatic habitat down stream, where the creek ceases to flow at the times when the applicant uses a commercial pump for up to 10 hours overnight to provide water to the operations.

Submission 12. Provided by J.M. & G. M. Windsor

Response

The Applicant would only pump in accordance with the conditions of Licence No. 80SL039686.

4.9.2 Erosion and Sediment Control

A submission provided by Mr M. Byrnes raised concern that an erosion and sediment control plan was not already in place for works being completed.

Representative Quote

Why isn't there a formal Erosion and Sediment Control Plan in place up front? There is significant works undertaken to date that does not appear to have any measures in place to control erosion on the site

Submission 2. Provided by M.T. Byrnes

Response

A formal erosion and sediment control plan was not included as part of the EIS as until development consent is received, there is the potential for the scale of operations and requirements to change. As nominated in Section 4.1.4.2 of the EIS, the Applicant would prepare, implement and regularly update, an ESCP for the Quarry in accordance with the relevant guideline document – *Soils and Construction: Managing Urban Stormwater, Volumes 1* (Landcom, 2004) and *2E* (DECCW, 2008).

4.10 SOCIO-ECONOMIC IMPACTS

4.10.1 Impacts to the Community

Five public submissions raised concerns over impacts to the community including general impacts lives of people in the community, a reduction in the sense of community, historic value of the village of Evans Plains and impacts due to proximity of operations to Evans Plains.

Representative Quote

The area of Evans Plains has extensive historic significance and we feel this development would destroy the historical value of the area considering the quarry will only be approximately 1km away from, and in full view of, the settlement of Evans Plains.

Submission 6. Provided by A.R., S.L., R.H. & L.E. McMahon

An increase in size of the quarry will greatly reduce the sense of community and the beauty of the region.

Submission 11. Provided by D.G. Smith

Response

The historic heritage of Evans Plains was reviewed in Section 3.8 of the EIS and the assessment of likely impact presented in Section 4.4 of the EIS is considered valid, i.e. *"it is considered highly unlikely that the Proposal would have any impact on the historic buildings of the local setting and therefore no further assessment of non-Aboriginal heritage is considered necessary."*

In responding to the comment related to the sense of community and beauty of the region, it is reiterated that the Applicant has provided for an extraction and rehabilitation sequence that will require satisfactory progressive rehabilitation and a maximum area of active extraction of 1.5ha at any one time. It is also relevant to note that a number of properties within the local setting include extractive industry as an activity. It is therefore considered that extractive industry is an accepted activity within the local community.

4.10.2 Property Values

Three public submissions raised concerns that the Proposal would result in a decrease in the value of surrounding properties.

Representative Quote

I wish to firmly oppose the BRC allowing a project of this size to be approved on the basis of the effect it would have on the lives of the immediate community and the devaluation of the properties in the Evans Plains area.

Submission 7. Provided by J. Shoenmaker

Response

There is no requirement for the EIS to consider impacts on property values as a potential constraint on the development. This notwithstanding, the proposed quarry extraction would not impact on the activities of the surrounding properties, i.e. agricultural and extractive industry. On the basis that the value of these properties is primarily based on these activities, it is reasonable to assume that the proposed quarry extension would not have a significant if any impact on property value.

Further, the proposed quarry extension would have very limited impact on the smaller "lifestyle" blocks within Evans Plains given that the Project Site would not be visible from these, nor would there be any discernible noise or air quality impact. In fact, the Applicant modified an initial quarry extension plan which would potentially have been visible and audible within Evans Plains. On the basis that the proposed quarry extension would be inconspicuous from the lifestyle properties of Evans Plains, there is no reason to suggest it would impact adversely on property values.

4.10.3 Tourism

The potential impact to the impression that visitors would leave the Bathurst region with considering the siting of the quarry on the Mid-Western Highway was raised in four public submissions.

Representative Quote

This highway exposure on the entry to Bathurst will in no way create a positive impact to visitors or commuters, given its proximity to a major entrance to the city.

Submission 4. Provided by J.S. and R.H. McKay

Response

The issue of the visual impact of the proposed quarry extension, to be managed in accordance with an extraction and rehabilitation plan (see Section 2.3), has been addressed in previous responses. It is also worthy of note that the bulk of tourist traffic enters Bathurst via the Great Western and (to a lesser extent) Mitchell Highways. Further, the occurrence of quarries in the local setting are an accepted part of the visual landscape to most reasonable people. On the basis of the preceding, any statement of the proposed quarry extension influencing or impacting on tourism is overstated.

4.11 OTHER ISSUES

4.11.1 Operating Hours

Five public submissions raised concerns regarding the proposed hours of operation for the Proposal and interaction between heavy trucks and buses during school bus operating hours.

Representative Quote

The hours of operations would effectively allow quarrying operations, related maintenance and rehabilitation including truck movements from 7:00am to 10:00pm seven days a week with no limits on weekends and public holidays.

Submission 10. Provided by F. E. Simpson

School bus hours should be observed as I've seen quarry trucks overtaking the school bus going to Bathurst while trucks are coming the other way.

Submission 3. Provided by D. & L. McKay

Response

As noted in Section 3.2, the Applicant accepts a restriction in operational activities to the following hours.

- 7:00am to 6:00pm Monday to Friday.
- 8:00am to 6:00pm Saturday.
- At no time on Sunday or public holidays.

With respect to the operation of school buses, the Applicant would include within a Driver Code of Conduct a requirement to be especially cognisant of school buses and offloading passengers between the hours of 8:00am and 9:30am in the morning and 3:00pm and 4:30pm in the afternoon.

4.11.2 Project Life

Concern that the proposed Project life was too long and that description of the proposed Project life in the EIS was not specific and offered no certainty was raised in four public submissions.

Representative Quote

Life of quarry "Would exceed" 25 years – by how much? Is the quarry proposed to go on and on forever?

Submission 2. Provided by M. T. Byrnes

A definitive end date and goal for rehabilitation completion should be established.

Submission 4. Provided by J.S. and R.H. McKay

Response

The proposed length of the quarry is dictated by total resource and annual production. It is expected that BRC may apply a sunset clause, i.e. end date, within the development consent.

As has been discussed in previous responses, the Applicant accepts that progressive rehabilitation of disturbance will be a conditional requirement of the development consent and failure to satisfactorily complete rehabilitation in a reasonable timeframe may result in the suspension or termination of the approval.

4.11.3 Community Consultation

The issue of community consultation was raised by J.S. and R.H. McKay who suggest that community consultation for the Proposal was inadequate and not inclusive of all nearby residents.

Representative Quote

Despite being the nearest effected residents, just 400m away from the quarry, no information was provided to us regarding this development proposal prior to receiving Council notification with no opportunity to nominate issues to be addressed in the preparation of this EIS was sought.

Submission 4. Provided by J.S. and R.H. McKay

Response

The author of the EIS encouraged the Applicant to liaise with the local community to identify the issues of greatest concern. As documented in *Section 1.8.1.1* of the EIS, eight local landowners were consulted by the Applicant. It is noted the owners of property 7 (of EIS *Figure 3.2*) were contacted with respect to the preparation of the EIS, however, calls were not returned. It is further noted by the Applicant that the owners of property 7 were made aware of the intention to extend the quarry prior to the construction of the residence on the property.

The fact that direct contact was not able to be made with some local landowners notwithstanding, the EIS provides a comprehensive assessment of all environmental and socio-economic parameters likely to be impacted by the proposed quarry extension.

5. CONCLUSION AND EVALUATION

5.1 INTRODUCTION

Following consideration of the submissions made on the proposed quarry extension, the evaluation of the proposal considering likely residual impacts and the principles of ecologically sustainable development, and justification for the proposal have been reviewed.

5.2 EVALUATION OF THE RESIDUAL IMPACTS OF THE PROPOSAL

Following consideration of the various submissions, many of which focused on the visual intrusion of the quarry in the local landscape, the Applicant has strengthened controls to be implemented to minimise and manage disturbance and rehabilitation on the Project Site.

The Applicant has also accepted restriction in the hours of operation to be enforced at the quarry.

On the basis of the controls and safeguards presented in the EIS, and those modifications to the proposed quarry extension presented in Section 2 of this document, it is concluded that the proposal would not result in any increase in impact on the surrounding environment exceeding the limits of accepted criteria and reasonable community expectations. Specifically the residual impacts on the local environmental setting would be limited as follows.

- Soil resources. The Applicant would implement appropriate soil management procedures to prevent erosion and sedimentation, and maximise the beneficial use of stripped soils in the rehabilitation of the Project Site.
- Water resources. The proposed quarry extension would provide suitable controls to ensure that water is diverted, collected and discharged so as not to result in a reduction to environmental flows or contamination of downstream water.
- Noise. With the implementation of the proposed safeguards and controls, the proposed quarry extension would not result in noise levels received at surrounding residences exceeding INP defined criteria. Furthermore, all noise generating activities would be restricted to daytime hours and monitoring would be undertaken to confirm compliance.
- Air quality. With the implementation of the proposed safeguards and controls, the proposed quarry extension would be unlikely to result in dust or other airborne particulate matter concentrations exceeding assessment criteria of the EPA. Furthermore, the Applicant would implement a dust monitoring program to confirm the prediction of minimal impact.
- Heritage. No impact on Aboriginal or historic heritage is considered likely.
- Biodiversity. Impacts on native vegetation and fauna habitat would be limited to an isolated patch of Yellow Box woodland. This impact has been considered insignificant given its isolation and occurrence of similar vegetation and habitat within the local and regional setting.
- Traffic. While there would be an increase in traffic volumes entering and exiting the Project Site, the RMS has not provided any indication that this is beyond the capacity of the Mid-Western Highway subject to the operation on the Site Access Road intersection with the highway as specified in the RTA's advice of 2005 and completed in 2007.
- Visual amenity. Assuming the implementation of the extraction and rehabilitation management nominated in Section 2.3, and continued control of dust emissions, the total area of active extraction related disturbance would remain equivalent and more likely less than that currently exposed. For those with direct views of the Project Site, impacts would be mitigated to the extent reasonable and feasible in the context of the proposed operations.

Assuming the proposed quarry extension proceeds, negative impacts on the socio-economic setting would be limited to the owners / residents of properties immediately surrounding the Project Site who may experience a slight decrease in local amenity due to some minor increases in impacts on noise, air quality, visibility and traffic.

The proposed quarry extension and associated activities would, however, have the following direct benefits.

- The maintenance of employment for on-site personnel and truck drivers.
- The maintenance of the supply of the road building, landscaping and construction products.

The Proposal would also provide indirect benefits to the socio-economic environment.

- Flow-on benefits to the economy through the expenditure of wages paid to employees, profits made on the sale of quarry profits and through the purchase of goods and services for the ongoing operation of the quarry.
- The beneficial use of gravel in the construction and maintenance of roads within the Bathurst Regional Local Government Area and surrounding regions.

Considering the potential direct and indirect socio-economic benefits against those deemed to be adverse, it is assessed that there would be a net socio-economic benefit resultant from the approval of the proposed quarry extension.

5.3 EVALUATION AGAINST THE PRINCIPLES OF ECOLOGICAL SUSTAINABILITY DEVELOPMENT

On review of the evaluation presented as *Section 5.3* of the EIS, there have been no previously unassessed impacts or any change to the scale of impacts which would result in this assessment being modified. That is, the proposed quarry extension would have minimal impact on the local environment, both now and in the future, and is consistent with the features which distinguish an ecologically sustainable approach to extractive industry.

5.4 JUSTIFICATION OF THE PROPOSAL

In assessing whether the proposed quarry extension is justified, consideration has been given to the residual impacts and benefits, compliance with the principles of ESD, and the consequences of the not proceeding. There has been no new information presented resulting in a modification to the assessment which would suggest a change to the conclusion presented in *Section 5.5* of the EIS, that is:

"The Proposal is assessed to be justified as:

- the perceived adverse impacts on the local environment would be minor and would be offset by the potential environmental and socio-economic benefits; and*
- the Proposal would be undertaken in accordance with the four principles of ESD.*

The consequences of not proceeding with the Proposal also weigh heavily in favour of proceeding with the Proposal."

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Appendix 1

Review of Received Submissions

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