

COUNCIL ASSESSMENT REPORT

Panel Reference	2018NTH006
DA Number	2018/021
LGA	Gunnedah Shire Council
Proposed Development	Operation of an Extractive Industry – Quarry (extracting up to 399,000 tonnes of hard rock per annum), including crushing and screening of product onsite
Street Address	'North Aminya' Oxley Highway, Carroll Lot 50 DP 751007 & Lot 2 DP 126172
Applicant/Owner	Applicant: Outline Planning Consultants Land Owner: IR & DM Swain
Date of DA lodgement	28 February 2018
Number of Submissions	Eight (8) Submissions
Recommendation	Approval subject to conditions
Regional Development Criteria (Schedule 7 of the SEPP (State and Regional Development) 2011	Clause 7(a) Extractive Industry (Designated Development)
List of all relevant s4.15(1)(a) matters	<ul style="list-style-type: none"> • Environmental Planning & Assessment Regulation 2000 • State Environmental Planning Policy No. 44 – Koala Habitat Protection • State Environmental Planning Policy No. 55 – Remediation of Land • State Environmental Planning Policy (Infrastructure) 2007 • State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 • Gunnedah Local Environmental Plan 2012 • Gunnedah Development Control Plan 2012 • Gunnedah Shire Council Engineering Guidelines for Subdivisions & Developments V2.0 (August 2013)
List all documents submitted with this report for the Panel's consideration	<ul style="list-style-type: none"> • Development Application Assessment Report • Draft Conditions of Consent • Submissions
Report prepared by	Wade Hudson (Town Planner)
Report date	9 January 2018

Summary of s4.15 matters

Have all recommendations in relation to relevant S4.15 matters been summarised in the Executive Summary of the assessment report? **Yes**

Legislative clauses requiring consent authority satisfaction

Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report? **Yes**

Clause 4.6 Exceptions to development standards

If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report? **Not Applicable**

Special Infrastructure Contributions

Does the DA require Special Infrastructure Contributions conditions (S7.24)? **Not Applicable**

Conditions

Have draft conditions been provided to the applicant for comment? **No**

1. Executive Summary

1.1 Reason for Consideration by Northern Regional Planning Panel

The Development Application has been referred to the Northern Regional Planning Panel (NRPP) for determination pursuant to *Part 4, Division 4.2, Section 4.5(b)*, of the *Environmental Planning and Assessment Act 1979*, as the development proposal is an extractive industry that is identified as designated development under *Schedule 3, Section 19*, of the *Environmental Planning and Assessment Regulations 2000*.

1.2 Brief Description of Proposed Development

The development application is seeking consent for the operation of an extractive industry (quarry), with an annual extraction limit of 399,000 tonnes, with a total extraction of 4.3 million tonnes over the lifetime of the quarry. The quarry will have a life expectancy between 13-30 years, based on an average extraction limit of 150,000 tonnes per annum and maximum extraction 399,000 tonnes per annum. The development will include the crushing, screening and stockpiling of product onsite as part of quarry production.



Figure 1 - Locality Plan

1.3 Compliance with Planning Controls

The development is not regarded as being state significant development as per *Schedule 1, Clause 7* of the *State Environmental Planning Policy (State and Regional Development) 2011*, as the development is not proposing the extraction of more than 500,000 tonnes of extractive material per year. The proposal does not have a total resource of more than 5 million tonnes and the development site is not an environmentally sensitive area of State significance.

The development is identified as designated development, specified within *Clause 19, Schedule 3* of the *Environmental Planning and Assessment Regulation 2000*, as it is an extractive industry that will extract a volume greater than 30,000m³ per year, with a disturbance area of greater than 2 hectares.

The development is also identified as being integrated development under *Clause 4.46* of the *Environmental Planning and Assessment Act 1979*, as the development requires an approval under the *Protection of the Environment Operations Act, 1997* (S.43(b) and S.48). General terms of approval have been issued by the Environment Protection Authority (EPA) and are included within Annexure 3, as Draft Conditions of Consent.

1.4 Consultation

The development application was exhibited and notified in accordance with the *Part 6, Division 5*, of the *Environmental Planning and Assessment Regulation 2000*. The development application was notified and placed on public exhibition for a minimum of 30 days. The application was advertised on two separate occasions within the Gunnedah local paper (Namo Valley Independent). Due to the potential impact on the surrounding area, Council notified land holders within a 5 kilometre radius of the site. During the exhibition period, Council received eight (8) submissions, including four (4) submissions by public authorities and a second submission by one (1) submitter during the second exhibition period undertaken following receipt of additional information provided by the proponent. Copies of the submissions were provided to the applicant, who was given an opportunity to respond to the matters raised within the submissions. Copies of the submissions are contained within Annexure 1 and are discussed in greater detail later in the report.

1.5 Recommendation

It is recommended that Development Application No. 2018/021, for the operation of an extractive industry (quarry) with an annual extraction limit of 399,000 tonnes and a total resource extraction of 4.3 million tonnes, including crushing, screening and storage of extracted material over an area of 12.4 hectares, be approved, subject to conditions of consent contained in Annexure 2.

1.6 Annexures

Annexure 1	Submissions (Confidential)
Annexure 2	Draft Conditions of Consent
Annexure 3	General Terms of Approval – Environment Protection Authority

2. Evaluation of Development Application

2.1 Proposed Development

- Operation of an Extractive Industry (Quarry) with:
 - An annual extraction limit of 399,000 tonnes (approximately 154,000m³) per annum;
 - A total extraction of 4.3 million tonnes (1.66 million cubic metres);
 - An area of impact of 12.4ha (9.2ha quarry area and 3.2ha for processing and resource stockpiles);
 - Crushing and screening of product onsite;
- Planting of 1.2ha of vegetation in the area immediately to the south of the quarry disturbance area;
- Landscaping and rehabilitation of development site.

2.2 Site Description

The development site contains two (2) separate allotments, being Lot 50 DP 751007 and Lot 2 DP 126172. The site has a total area of 131.0998 hectares. The site has frontage to Oxley Highway. The site is commonly known as "Little Mountain".

The development site does not contain any structures, such as dwelling houses, residential outbuildings or farm buildings.

2.3 Background

The site has historically been used for agricultural activities. Material was extracted from the site during the construction of Keepit Dam prior to 1960.

Council granted Development Consent on 19 August 2015, for the operation of an extractive industry with a total area footprint of 19,948m² (including stockpiles, offices/amenities, storage dams and equipment storage), an annual extraction limit of 12,000m³ (30,000 tonnes), and the installation of associated structures and stockpiles areas onsite. However, not all conditions of consent have been satisfied. It should be noted that extraction works have illegally commenced on the site with extracted materials been stockpiled onsite, which is being investigated and actioned separately by Council. The site also contains structures associated with this approved extractive industry that have not been granted consent under S68 of the *Local Government Act 1993*.

Development Consent No. 2015/047 is to be surrendered prior to the commencement of any works for the proposed development.

2.4 Environmental Planning & Assessment Act 1979 (EPAA)

Evaluation of the development application was undertaken in compliance with Section 4.15 of the EPAA.

S4.15(1)(a)(i) any environmental planning instrument

State Environmental Planning Policies (SEPP)

- *State Environmental Planning Policy No. 33 – Hazardous and offensive development (SEPP 33)*

The development is not regarded as being potentially a 'hazardous industry' or an 'offensive industry'. The operator of the site will implement measures to limit any potential hazardous or offensive impact. The development is located within a rural locality, with adjoining allotments being utilised for agricultural activity. It is not envisaged that any development would occur on adjoining lots that could be placed at risk from this development. The quarry is located at an adequate distance from any lot boundaries for suitable buffering from any potential adjoining development.

Management practices on the site during operation will ensure that there is no build up or emission of hazardous material on or from the site. It has been indicated that all explosives and detonators will not be stored on the development site. Contractors, when

attending the site during blasting, will bring all explosives and equipment required. Therefore, there is no permanent onsite storage, handling and management procedures required for explosives.

The development will include the installation of a liquid fuel storage tank onsite for the storage of diesel fuel. The fuel tank will be self-bunded and will have a capacity of 20,000L. All dangerous goods including cleaning agents, pesticides and petrol fuel required onsite would be kept onsite within the workshop/storage shed, within small 10-20 litre drums. Acetylene will be stored in compressed gas tanks, stored separately from other stored equipment. It is considered that the volume of the dangerous goods proposed to be stored onsite and the rural nature of the site, will not be hazardous to the surrounding area. All onsite storage and management of potentially dangerous goods will be conducted in accordance with the Quarry Environmental Management Plan.

- *State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)*
SEPP 44 is applicable to the proposed development as the development site is located within the Gunnedah local government area (identified within Schedule 1 of SEPP 44) and the development site has an area of greater than 1 hectare.

An assessment was undertaken of the site, identifying the existing tree species on the site. The site was identified as containing a number of *Eucalyptus Albens* (White Box) which are listed in Schedule 2 of SEPP44 as Koala Feed Trees. The report identifies that the Koala Feed Trees constitute more than 15% of the trees contained in the upper and lower strata of the tree component. Hence, the development site has been identified as 'potential Koala habitat'.

A further site survey was conducted to determine if the site was core Koala habitat by identifying any evidence of a resident Koala population or presence of any breeding females. During the site surveys, there was no evidence of tree scratchings or Koala scats, indicating that there has been no Koala activity onsite. There were also no individual Koalas onsite during the survey. Hence, it was concluded that the development site is not 'core Koala habitat'.

- *State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)*
The development will not result in a change of the predominant land use with the existing agricultural usage continuing. The development site has existing approval for an extractive industry (quarry). The NSW Government's Heads of Asbestos Coordination Authorities (HACA) map does not identify the site as being a potential area with natural occurring asbestos. A search of the site's historical use did not identify any historical uses, accompanying the current agricultural use that could have potentially led to contamination of the site.

However, during the site inspection, it was noted that there was a portion of soil that appeared to be contaminated by an oil or fuel spill. It was recommended that this soil be excavated and removed from the site, to a suitably licensed facility. There was no other contamination noted onsite, nor was there any potential sources recorded that could warrant further investigation. It is expected that, subject to the removal of the aforementioned contaminated soil, that the site is suitable in its current state for the proposed development works.

Upon completion of extraction and remediation works, a site validation report should be prepared and provided to Council that ensures that the identified oil/fuel spill and any other contamination resulting from the development, has been removed or remediated.

- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (SEPP [MPPEI])*
The development proposal is not exempt development under the provision of the SEPP (MPPEI). Agricultural activity is permissible within the land zoning of the site and hence, the use of the site for an extractive industry is permitted subject to development consent. The development site is not located near any existing mines, petroleum production or extractive industries that may be significantly impacted by this development and the development will not require any land acquisition as part of the development proposal.

Council has, in accordance with the SEPP, given consideration to the following matters:

1. Compatibility of proposed mine, petroleum production or extractive industry with other land uses:
 - a. The development site is being utilised for low intensity agricultural pursuits (grazing and cropping activities). Adjoining and adjacent lands are also being used for low intensity agricultural activities. The operation of the extractive industry will be conducted in an area of the site that is not suitable for agricultural activities. Submitted noise, air quality and traffic assessments, have concluded that there would be no significant additional impacts on adjoining land uses in the vicinity of the development site and it is expected that the development will not result in any land use conflict.
 - b. The proposed expansion will result in a number of economic benefits, including direct financial benefits to the land owner and developer. There are wider economic benefits through employment and access to local rock products, rather than sourcing the product from greater distances.
 - c. The submitted noise, air quality and traffic assessments have concluded that there would be no significant additional impacts on adjoining land uses in the vicinity of the development site. Hence, the development will not result in any land use conflict.
2. Natural resource management and environmental management:
 - a. The development will mitigate any potential impacts on the building or natural environment via the implementation of the Quarry Environmental Management Plan (QEMP). The QEMP for the site shall include a Bushfire Protection Plan, Noise and Blasting Management Plan, Dust Prevention Management Plan, Traffic Management Plan, Soil Management Plan and Rehabilitation and Landscape Strategy.
 - b. The development proposes to remove an estimated 7.39ha of the existing vegetated area (28.53ha) over and around the immediate development site ('Little Mountain') as it is located over the resource. The development site contains habitat that is suitable for 11 various threatened species to occur onsite. One vulnerable fauna species was detected during an investigation of the site, within the impact area, being the Yellow-bellied Sheath-tail Bat. The development proposes to undertake 1.2ha of replacement planting around the remnant vegetation to infill areas of lost vegetation. The 1.2ha of replacement vegetation will have a similar makeup and density as the existing remnant vegetation and will include the installation of replacement hollows at a ratio of 1:1. This planting is to occur prior to any extraction works occurring and aims to limit the impact of the development on the habitat available to these ecological communities.
 - c. The submitted information does not detail the impact on greenhouse gas emissions. However, given the scale of the development, the main emissions would be from vehicles and machinery, which is considered to be of minor impact.

3. Resource Recovery

The submitted documentation notes that the proposed development does not exhaust the available resource. No waste material or excess overburden is identified in the proposed quarrying method. Where topsoil is available, this will be retained as a valuable resource for rehabilitation.

4. Transport

The development site will access directly to the Oxley Highway with 50% of traffic directed west through Carroll towards Gunnedah and the remaining 50% expected to travel east towards Tamworth. The development is expected to result in 90 movements per day from the site. As only 50% of movements from the site will be directed through towards Gunnedah, the increase in traffic through Carroll will be 45 vehicles per day.

The haulage route will be through the residential area of the village but will not travel past the Carroll school. Current daily traffic volumes along the Oxley Highway are approximately 3,470 movements measured to the east of Gunnedah. These movements consist of 1,734 movements travelling east (towards Carroll) and 1,736 movements west (from the direction of Carroll). Based on these records, an expected increase of 45 vehicle movements is not expected to have a significant impact on the residential zone of Carroll, being a minor increase in overall movements along the Oxley Highway.

It has been indicated that the peak hourly traffic movements from the proposed quarry will be between 7am and 8am and will generate a maximum of 6 additional truck movements from the site through Carroll. Current heavy vehicle movements through Carroll during this time period have been measured at 7 heavy vehicles. With the reduction in speed through Carroll and the existing heavy traffic volumes on this section of road, the proposed increase is considered to be a relatively minor overall increase in vehicle movements in this area.

The development will require an upgrade of the highway intersection to ensure the safety of motorists. Traffic and access to the site will be addressed further through this report.

5. Rehabilitation

The development will include the progressive rehabilitation of the site, including the reshaping of landforms, removing of all structures and equipment, replacement of topsoil and planting of vegetation. This will include the reshaping of the quarry site to create 7 meter wide benches and planting of vegetation to help stabilised the excavated hillside. Progressive remediation will be undertaken, in accordance with an approved rehabilitation plan.

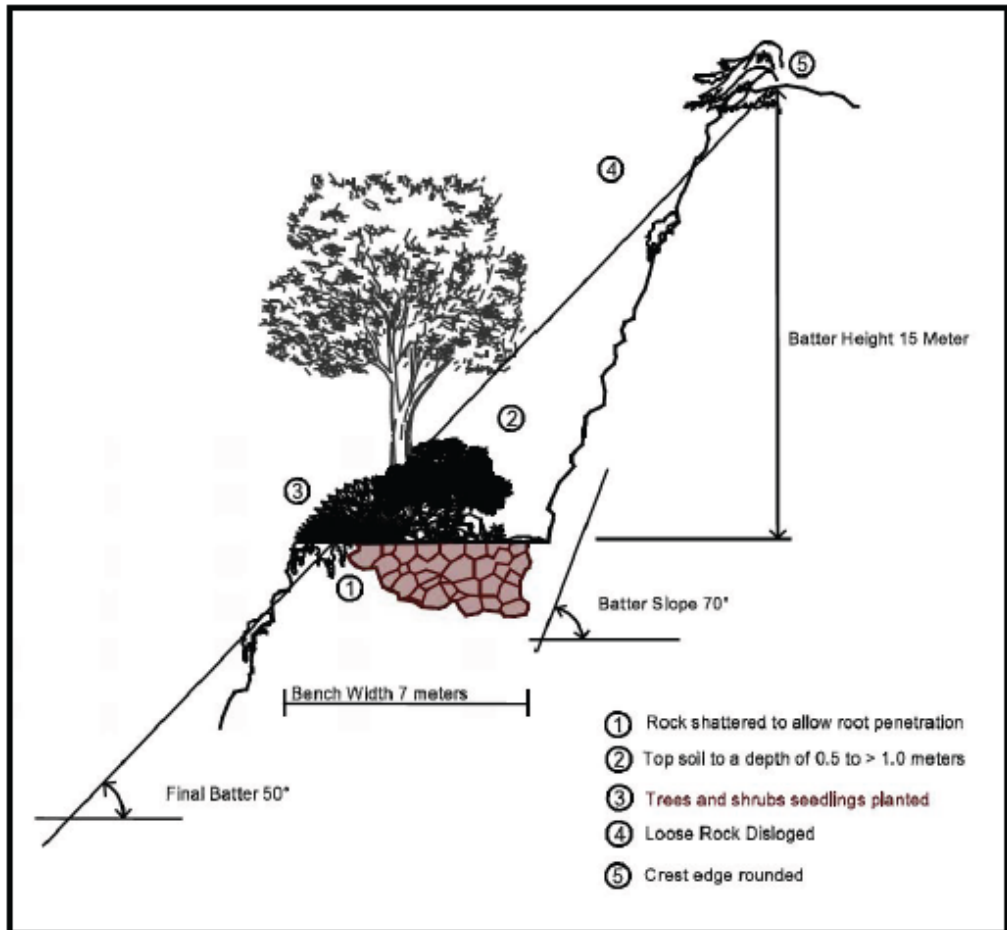


Figure 7 – Proposed Rehabilitation of Quarry Benches (Figure 2.5 of EIS)

- State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)*
 Under the provision of Clause 104 of the ISEPP, any development specified within column 1 of Schedule 3 is to be referred to the Roads and Maritime Services (RMS) for comment. An extractive industry is not a specific activity identified within Schedule 3 and the development will not create more than 200 traffic movements per hour. Hence, the development is not regarded as being traffic generating development and no concurrence was required from the RMS. It should be noted that Council did notify the RMS as part of the exhibition of this development application. RMS did provide a submission to the development proposal, with the matters raised, considered in the preparation of the proposed conditions of consent.
- State Environmental Planning Policy (Rural Lands) 2008*
 The quarry site is not considered to be suitable for agricultural activity due to the poor soil quality, the limited topsoil and steep slope of the site. The remainder of the site is being utilised for primary production purposes. The proposed development is considered to have no impact on sustainability of the agricultural activities within the surrounding area. The proposed development is an intensification of proposed activities approved under Development Consent No. 2015/047, being extraction works for up to 30,000 tonnes per year. The submitted noise and air quality reports include measures to reduce the potential conflict between the land use of the quarry and those of the existing and future development within the surrounding locality.

Regional Environmental Plans (REP)

There are no regional environmental plans that apply to the development site.

Gunnedah Local Environmental Plan 2012 (GLEP)

- Clause 6.1 – Flood Planning*
 The development site is identified as being partially subject to flooding during a 1% ARI flood event. The south-western corner of the site is identified as being subject to flooding, as per Figure 4. The location of the quarry, site office, onsite stockpiles and vehicle

access to the highway are not subject to flooding. Hence, it is not expected that the development will increase any potential risk to life or property. Nor will there be any adverse impacts to flood behaviour that could potentially increase or intensify the flood characteristics on other development or properties. Hence, the development is considered to be compatible with the flood land zoning.

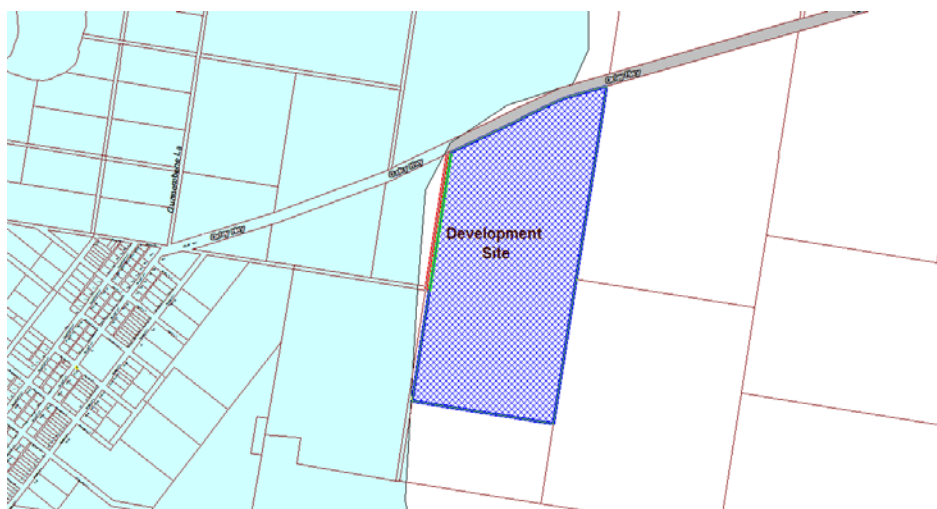


Figure 4 – Flood Planning Map, Gunnedah LEP 2012

- *Clause 6.5 Essential Services*
Water

The development proposes to direct stormwater within the quarry basin and floor to the sediment basin, where it will then be utilised during the processing of quarry material and dust mitigation. It is expected that natural rainfall will be adequate to provide water for the majority of the development's water requirements. However, in the event that insufficient rainfall occurs and an alternative water resource is required, it has been noted that the existing dams onsite will be harvested or water will be trucked to the site. A condition is to be imposed to ensure that water is only sourced from within the development site, subject to any necessary approvals for water harvesting. Potable water supply for human consumption will be delivered to the site by commercial suppliers.

Electricity

The development site does not have the provision of any electrical transmission lines to the quarry site. The developer has indicated that the quarry will operate a diesel power generator for the provision of onsite electricity.

Sewerage

The development site does not have provision of Council's sewer services, nor is there a sewer main within the vicinity of the site that could be extended to service the site. The site is located in a rural locality and the proponent proposes to use onsite management for disposal of effluent with sewerage. General waste will be removed by a licensed contractor. A condition of consent is proposed, requiring the lodgement of an application under Section 68 Application of the *Local Government Act, 1993*, for the installation of a waste treatment device and temporary buildings.

Stormwater

As stated previously, there will be no runoff from the quarry area. All stormwater will be collected from the quarry basin and floor, for reuse onsite. This will reduce the release of stormwater from the quarry site and the potential for any contaminants to drain from the site.

Access

The development site has frontage to Oxley Highway, with access to the quarry being located within Lot 2 DP 126172. The current vehicle access off the highway is not adequate for the proposed development and will require an upgrade to a BAL/BAR level treatment. The intersection upgrade will require the developer to enter into a Works Authority Deed (WAD) with the RMS, and ensure that the works are completed in accordance with the RMS standards.

S4.15(1)(a)(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved)

There is no current draft Local Environmental Plan for the Gunnedah Shire Council Local Government Area on exhibition.

S4.15(1)(a)(iii) any development control plan

Gunnedah Development Control Plan 2012 (DCP)

➤ 1. Introduction

• *Clause 1.8 – Consultation*

The development application was notified to all neighbours within a 5 kilometre radius and the application was placed on public exhibition from the 23 April 2018 until the 19 June 2018, being in exceedance of the required 30 day exhibition period. Council received seven (7) submissions. Matters raised within the submissions are to be addressed further through this report. In response to additional information provided by the developer, Council re-exhibited the development application from 3 September 2018 until the 9 October 2018. One (1) submission was received during this exhibition period.

➤ 6. General Development Specifications

• *Clause 6.1.1 – Development on Flood Affected Land*

The development site is mapped as being partially flood prone land under the provision of the Gunnedah Local Environmental Plan 2012, which has been addressed previously in the assessment under Clause 6.1 of the Gunnedah LEP. The proposed quarry site and all stockpiles are to be located outside of the area identified as being flood prone.

• *Clause 6.1.3 – Development of Floodways*

The portion of the site that is flood affected is not regarded as being a floodway as per the characteristics of the site. Hence, there will be no development occurring on floodways.

• *6.1.5 – Access to lots within Flood Fringe*

The proposed vehicle access provides direct access onto the Oxley Highway in a location that is not subject to flooding. The internal vehicle access will not be subject to flood inundation. Hence, it is concluded that the site provides flood free access to the quarry site.

• *Clause 6.2 – Parking Requirements*

The development will have an estimated 6 or 7 employees. There is no specific requirement within Council's DCP for the operation of a quarry. With no on-street parking available, all vehicles are to park on the site. Hence, it is proposed a minimum of 7 employee parking spaces, being the maximum number of employees noted, are to be provided on site. It is recommended that an additional two parking spaces be provided to ensure adequate parking is made available for other visitors to site (ie. contractors). Hence, a minimum of nine (9) parking spaces are required onsite.

• *Clause 6.3 – Landscaping*

The development requires the provision of less than 10 onsite parking spaces. Hence, there is no requirement for landscaping of parking areas. The development will require the provision of a landscaping plan for the vegetation barrier to be planted around the perimeter of the quarry working area. The vegetation barrier will provide a visual barrier to reduce the impact of the development. Council requires that this landscaping barrier be a minimum of 5 metres in width and should incorporate staggered planting of vegetation to create a more effective barrier.

• *Clause 6.4 – Outdoor Lighting*

The development will not involve any works hours during the night, where lighting of worksites, stockpiles or onsite amenities will be required. The development does not propose any exterior lighting.

- **Clause 6.5 – Outdoor Advertising/Signage**
The development proposal does not include the erection of any signage.
- **Clause 6.6 – Environmental Controls**
 - **Clause 6.6.1 – Environmental Effects**
The traffic, air quality and noise impacts are discussed later in this report.

Flood Liability

A small portion of the south-western corner of the development site is flood prone, with the specific quarry area not being subject to flooding. The quarry is not expected to have any impact on flooding of adjoining or downstream properties.

Slope

The development site has significant slope along the quarry site. The development will create a long wall along the quarry face during excavation that will be of a very high slope/grade. The remainder of the site has low slope change and internal non-sealed roads are considered to be suitable for the grade to allow vehicle access to the site. The final landform at the completion of rehabilitation works will have a grade of 50-70 degrees, with the landform having an average height of 33 metres. New vegetation will be planted on established benches to assist in stabilising the finished landform.

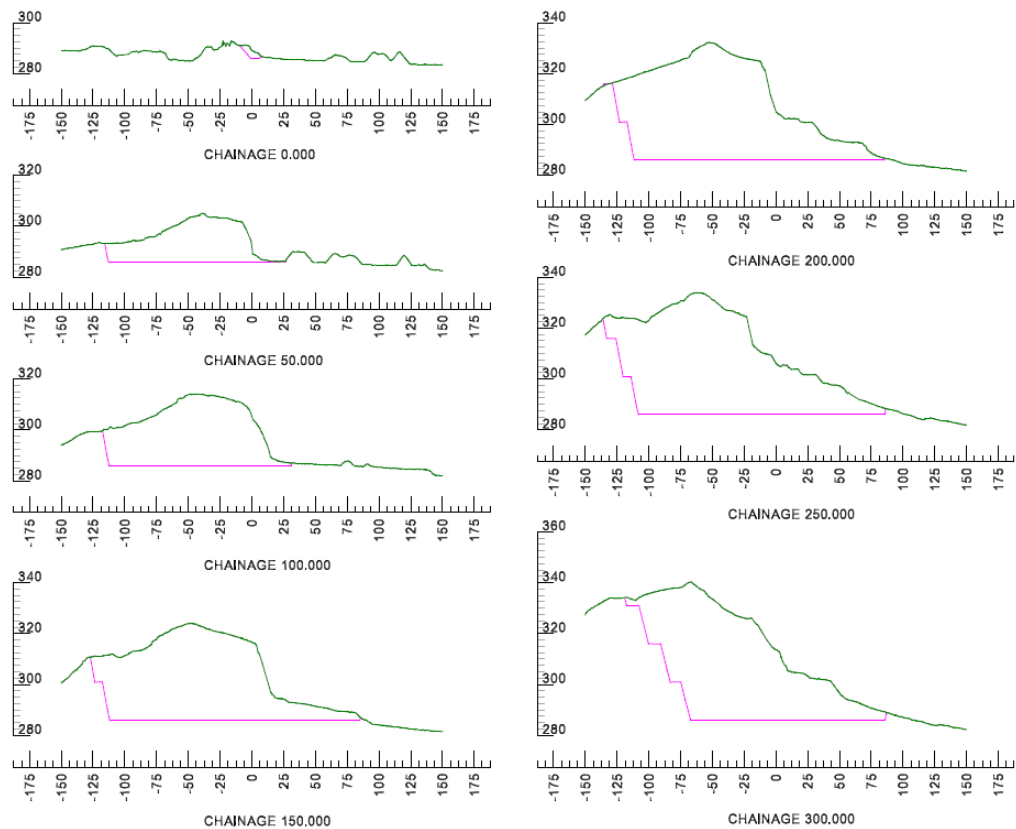


Figure 5 – Final landform cross sections

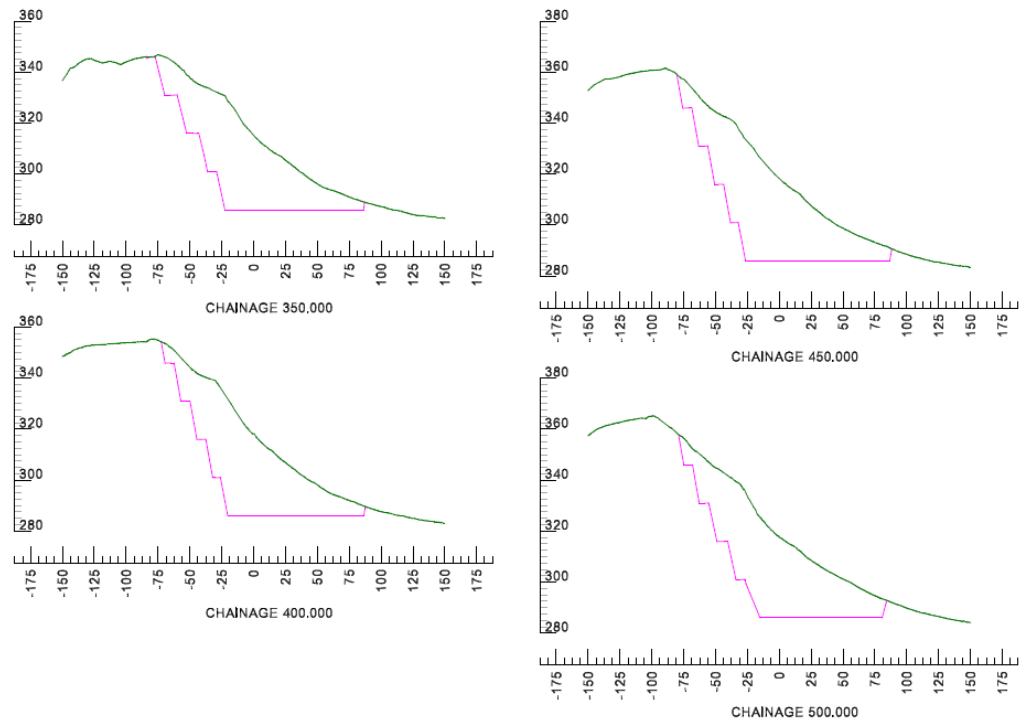


Figure 6 - Final landform cross sections

Construction Impacts

The development will require the installation of a transportable office and amenities on the site. The installation of these structures will require the lodgement and approval of a S68 application under the *Local Government Act 1993*. Approval was granted under Development Consent No. 2015/047 for the installation of a transportable office/staff room and equipment storages and these buildings have since been installed on the site. However, no approval under the *Local Government Act, 1993* has been issued for the installation of these buildings, in accordance with consent conditions, and these buildings are installed on the site illegally.

The development will require the construction of the Oxley Highway and internal haulage road intersection. Intersection upgrades works will require the developer to enter into a WAD with the RMS to ensure construction works occur in consultation with and to RMS standards.

Solid and Liquid Waste

As identified within the assessment of LEP, Clause 6.5 – Essential Services - onsite amenity services are to be provided via portable amenities to services staff needs as necessary. Effluent and general waste will be stored onsite and removed by a licensed contractor. No general waste is to be disposed of onsite.

Sustainability

An extractive industry (quarry) by its very nature is not a sustainable activity with the winning of material from the hillside. The resource is finite with the proposed extraction of a total product volume of 4.3 million tonnes (1.66 million cubic metres). A condition is proposed for the limitation of resource extraction, being consistent with the proposal and a limited number of years that extraction can occur. This will ensure that the extraction of the resource is clearly identified and that remediation and rehabilitation works on the site occur within a defined time period.

The development will involve the retention of topsoil onsite, which is to be used in the rehabilitation of the development site. Rehabilitation works are to be conducted to re-establish natural land forms, replace topsoil and plant vegetation and ground cover. The topsoil that will be stored onsite is to be spread across the quarried area and vegetation replanting occurring to ensure stabilisation of the soil profile. Development will include the progressive rehabilitation of natural habitat and flora species through seeding of topsoil. Upon re-establishment of the area, it is the responsibility of the quarry operator to monitor

the progress of the rehabilitation, including the reduction in the presence of weeds and monitoring of the effectiveness of erosion and sediment control measures.

Clause 6.6.2 – Erosion and Sediment Controls

The submission of a Quarry Environmental Management Plan will require the provision of a soil management plan that addresses the appropriate management of erosion and sediment control. All stormwater from within the quarry area will be collected as 'dirty water' and drained to the sediment basin and quarry floor, for reuse during operations onsite. This will ensure that there is no discharge of stormwater from the site, reducing the potential soil erosion, transporting sediments downstream. An appropriate soil management plan is to be provided to Council for approval as part of the QEMP.

The storage of topsoil and subsoil stockpiles onsite will require specific sediment and erosion controls to ensure that these stockpiles are stored for the duration of the extractive works and utilised during the rehabilitation works and are not eroded or lost. It has been identified within the application that if the stockpiles have not naturally seeded and established groundcover after 3 months of placement, that seeding will be conducted to ensure stabilisation of the stockpiles.

- *Clause 6.6.3 – Conflicting Land Uses*
The surrounding land use is agricultural grazing and cropping land. The development will not impact the area that can be utilised for agricultural uses. It is expected that both current agricultural usage and the proposed quarry operation will not be conflicting.
- *Clause 6.6.4 – Waste Management*
The development is not expected to generate a large amount of waste material. Topsoil and subsoil removed from quarry working areas during the quarry setup phase will be stored onsite for later use during rehabilitation works. Any waste material generated during the crushing and screening of material onsite will be re-used within the quarry area or on the internal haul route. Any general waste and effluent from staff is to be stored onsite and removed by a licensed contractor. No waste will be permanently disposed of onsite.
- *Clause 6.6.5 – Noise*
The noise impacts are discussed later in this report.
- *Clause 6.6.6 – Geology*
It is considered that the sites soils are suitable for the proposed development. The quarry area has a high slope along the existing quarry headwall and around the side of the hillside, with the area having very little topsoil and vegetation cover.

S4.15(1)(a)(iia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F,

There is no planning agreement or draft planning agreement entered into between the development applicant, relevant body or Council, under section 93F of the Act.

S4.15(1)(a)(iv) the regulations

Joint Regional Planning Panels Order 2009

Gunnedah Shire Council is identified as being located within the Northern Region Planning Panel.

Environmental Planning & Assessment Regulations 2000

The development is identified as designated development under the provisions of Schedule 3, Part 19 Extractive Industries. See Part 1.3 of this report.

S4.15(1)(a)(v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),

There are no matters applicable to this application.

S4.15(1)(b) the likely environmental impacts on the natural and built environments and social and economic impacts in the locality

- **Context & setting**

The development site is located on a rural property approximately 1.5 kilometres east of the village of Carroll. The development lot contains a large selection of agricultural cropping land and a small area of grazing and forested area around 'Little Mountain'. The proposed location for the quarry has previously been cleared as a result of material being extracted from the site. The surrounding area is predominately agricultural grazing and cropping land.

The previous approval enabled the quarry operation on the northwest elevation of the hillside. The proposed quarry will extend quarry operations along the western elevation of the hillside to include a total excavated area of 9.2 hectares. The quarry will also incorporate approximately 3.2 hectares for processing and stockpiles. The quarry site has limited views from public areas surrounding the site. The site is most visible from the Oxley Highway to the north of the site. The developer has provided a visual indication of the expected final landform shape where visible from public areas. It is considered that the larger portion of the 'Little Mountain' will be retained and that the size and scale of the development will not be dominate the surrounding locality.

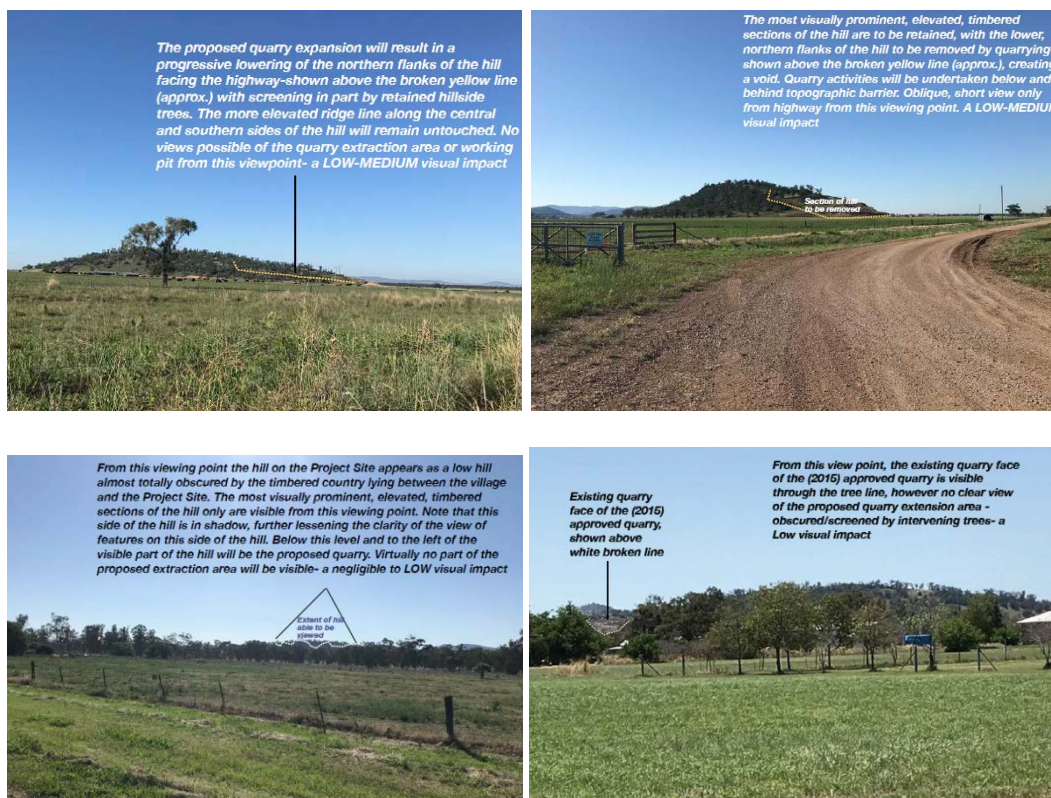


Figure 8 – Artist impression of final and form

To limit the potential visual impact of the development, it is has been proposed to undertake the planting of vegetation around the working quarry area, during the quarry establishment phase. It is expected that the vegetation screen will limit the visual impact of the working quarry area where visible from adjoining public areas.

- **Access, transport and traffic**

The development has an existing vehicle access from the Oxley Highway. The current formation of the vehicle access is not adequate to cater for the size and number of proposed vehicle movements. The development will generate an average of 45 loaded trucks per day, (249 trucks per week) and a maximum of 78 loaded quarry vehicles per day. It is expected that during peak time (7:00am-8:00am) the maximum number of trucks to and from the site will be 21 during this hour. The management of any heavy vehicle

impacts around the development site during this period will be addressed in the Driver Code of Conduct, which is to be incorporated into the QEMP.

Vehicles used for the haulage of material will be truck and dog vehicles with an expected capacity of 32 tonnes per vehicle. It is expected that delivery vehicles will exit the site with 50% of traffic expected to turn east (Tamworth) and 50% turning west (Gunnedah) along the Oxley Highway. Due to the nature of the product, the destination for deliveries may change depending on the location of the works and customers. Staff movements are expected to be 14 movements per day. The development will require the provision of adequate onsite parking. The quarry will employ 6-7 onsite staff and hence, the maximum number of staff vehicles onsite at any one time would be 7. It is also recommended that an additional 2 be provided to cater for contractor or visitor parking spaces.

The intersection of the internal access road and the Oxley Highway has sufficient site distances of over 300m in either direction. It was determined that, based on the current number of vehicle movements within the road network and the area being a 100km/h speed zone, the minimum safe sighting distance would be 275m. To accommodate the increase in vehicle movements and site safety, the intersection of the Oxley Highway and the property access is to be upgraded to a BAR/BAL intersection design. This design standard is based on the maximum number of vehicles per hour, the posted speed limit and traffic counts along the Oxley Highway. Prior to any works occurring within the Oxley Highway road reserve, the developer is to apply and enter into a Works Authority Deed (WAD) with the RMS for all works to be conducted as part of the intersection upgrade. It should be noted that the submitted EIS, made reference to the intersection being upgraded as a condition of consent of Development Application No. 2015/047. At the time that this report was prepared, no upgrade works had been completed.

- *Public domain*

The development will not provide or result in the required provision of any public or recreational land nor are there any Council policies or plans that require the provision of public reserves as a result of the development.

- *Utilities*

The provision of adequately utilities has been outlined previously in this report.

- *Heritage*

The development site is not identified within Council's Local Environmental Plan or the Office of Environment and Heritage (OEH) State Heritage Register as containing an item of Aboriginal or European heritage. An Aboriginal Heritage Information Management System (AHIMS) search of the property was undertaken and did not identify any items within the immediate area around the site. A broader search found one site located 6km to the north of the development that was considered to be an isolated finding and may reflect a single event rather than the repeated use of the landscape indicating historical aboriginal activity.

A survey of the site did not locate any items of heritage significance. To ensure that if any potential heritage items are discovered during excavation works, the QEMP is to include the unexpected finds protocol relevant to historic archaeology. Any items of potential Aboriginal or European heritage that are uncovered during construction works or any demolition works undertaken as part of the development will require work to stop and the Office of Environment and Heritage be contacted.

- *Other land resources*

The 'Little Mountain' containing the extractive resource comprises a rocky outcrop of very limited agricultural value. The development site is not identified as productive agricultural land due to shallow topsoil and the high slope of the land. The proposed quarry will not operate over areas of the site currently being utilised for agricultural activities. The operation of the quarry is not expected to impact or degrade the quality of the adjoining agricultural land. The quarry basin will collect any stormwater caught within the quarry area. The lack of any groundwater table being located during test boring confirms that the development is not expected to have any impact on the ground water table or discharge contaminated surface water from the site.

- *Water*
The development will generate a need for water supply for the ongoing operation of the site and dust mitigation measures, which has previously been outlined.

The submitted documentation notes that investigation into the location of the underground water table in the proposed quarry area was undertaken to a depth of 18m. The investigation noted that the water table was not penetrated at this depth. Hence, it is considered that the proposed development will not impact on water table in the area.

- *Soils*
Submitted information has identified that the site has no history or evidence of saline soils. There is no current instability on the site, with little observable erosion. The site has no history of ground subsidence. Suitable sediment and erosion controls are to be implemented during development works. All erosion controls are to be retained for the duration of all works. Vegetation cover will be implemented on top and subsoil stockpiles and on finished landforms after rehabilitation to ensure that soils are stabilised. Upon completion of excavation works, site remediation works are to be undertaken.
- *Air and microclimate*
The operation of the quarry is expected to generate suspended particle (dust) release from the site primarily occurring from the clearing of vegetation, topsoil and earthworks, excavation, loading/unloading of haul trucks, bulldozing and grader operations, wind erosion of stockpiles and disturbed site, transfer points, conveyors, crushing and screening, vehicle movements, and blasting and drilling.

An air quality assessment report was submitted, assessing the levels of Total Suspended Particles (TSP), particle matter less than 10 microns in size (PM₁₀) and particle matter less than 2.5 microns in size (PM_{2.5}), predicted at each of the five nearest residential receivers, nearby recreational area and the school located in the village of Carroll. The findings of this report determined that the incremental and cumulative levels for TSP and PM_{2.5} levels did not exceed assessment criteria during any assessment scenario.

The findings of the air quality report determined that the levels of PM₁₀ at nearby receivers exceeded predicted 24 hour average concentrations by a maximum of 1.89µg/m³. However, the incremental levels at each receiver did not exceed the 25µg/m³ limit for predicted annual average PM₁₀ concentrations, with the closest receiver R1 (Residence, 5483 Oxley Highway) having a predicted level of 15.8µg/m³. It was expected that the exceedance was acceptable as the baseline data used for modelling, of 50.7µg/m³ was already in exceedance of the 50µg/m³ criteria. As a result, the predicted 24 hour average concentrations at all receivers were measured as an exceedance. High background levels are attributed to a high background reading on the 31/01/2016 during the modelling period. As a result, the findings of the air quality report determined that the operation of the quarry will result in an increase of a predicted 24 hour average concentrations at receivers R3 (149 Kilphysic Road) and R4 (113 Kilphysic Road) by a maximum of 0.19 µg/m³.

Also air pollutants may be released from the use of diesel generators and use of vehicles onsite. Diesel emissions were not expected to be significant enough to affect air quality at nearby receptors. The developer proposes to use water application to stockpiles and internal haul routes to reduce dust release and the establishment of vegetation on topsoil stockpiles will be encouraged. In the event natural coverage does not occur after 3 months of stockpiles being formed, seeding of stockpiles will be conducted. Other mitigation measures will be the limiting of vehicle speed to 40km/h within the site, covering of loads leaving the site, maintenance of vehicles and machinery onsite and maintaining a vegetation buffer around the working quarry area of the site. To reduce the potential for dust nuisance from trucks exiting the site onto the Oxley Highway, it was a recommendation of the TIA that the first 30 metres of the proposed quarry access be sealed. This will also ensure that there is minimal loose gravel material moved onto the highway.

- *Flora and fauna*
An investigation of the development site did not identify any threatened or endangered flora or fauna species under the NSW *Threatened Species Conservation Act 1995*. The

investigation identified the presence of multiple species within the site including the Yellow-bellied Sheath-tail Bat, which is listed as being vulnerable under the NSW *Threatened Species Conservation Act 1995*. There was no evidence of any Koala activity within the development area.

The development site contains 28.53ha of remnant vegetation around the 'Little Mountain'. The development proposal proposes the removal of 7.39ha of native vegetation (White Box – White Cypress shrubby open forest) with 2.57ha of this open forest also being derived grassland that was previously cleared for agricultural use. Vegetating of the quarry benches and quarry floor will occur during rehabilitation to help establishment of rehabilitation works.

An assessment was undertaken of the proposed vegetation removal under NSW *Threatened Species Conservation Act 1995* and *Environmental Protection and Biodiversity Conservation Act 1999*, 7-part test assessment method. It was concluded that a Species Impact Statement was not required. It was recommended that the development include the progressive revegetation of the quarry site, being an estimated final revegetated area of 9.2ha.

The developer has also proposed to undertake an additional 1.2ha of revegetation of a presently cleared area of land at the base of the 'Little Mountain' (illustrated in Figure 9) at the commencement of the project.

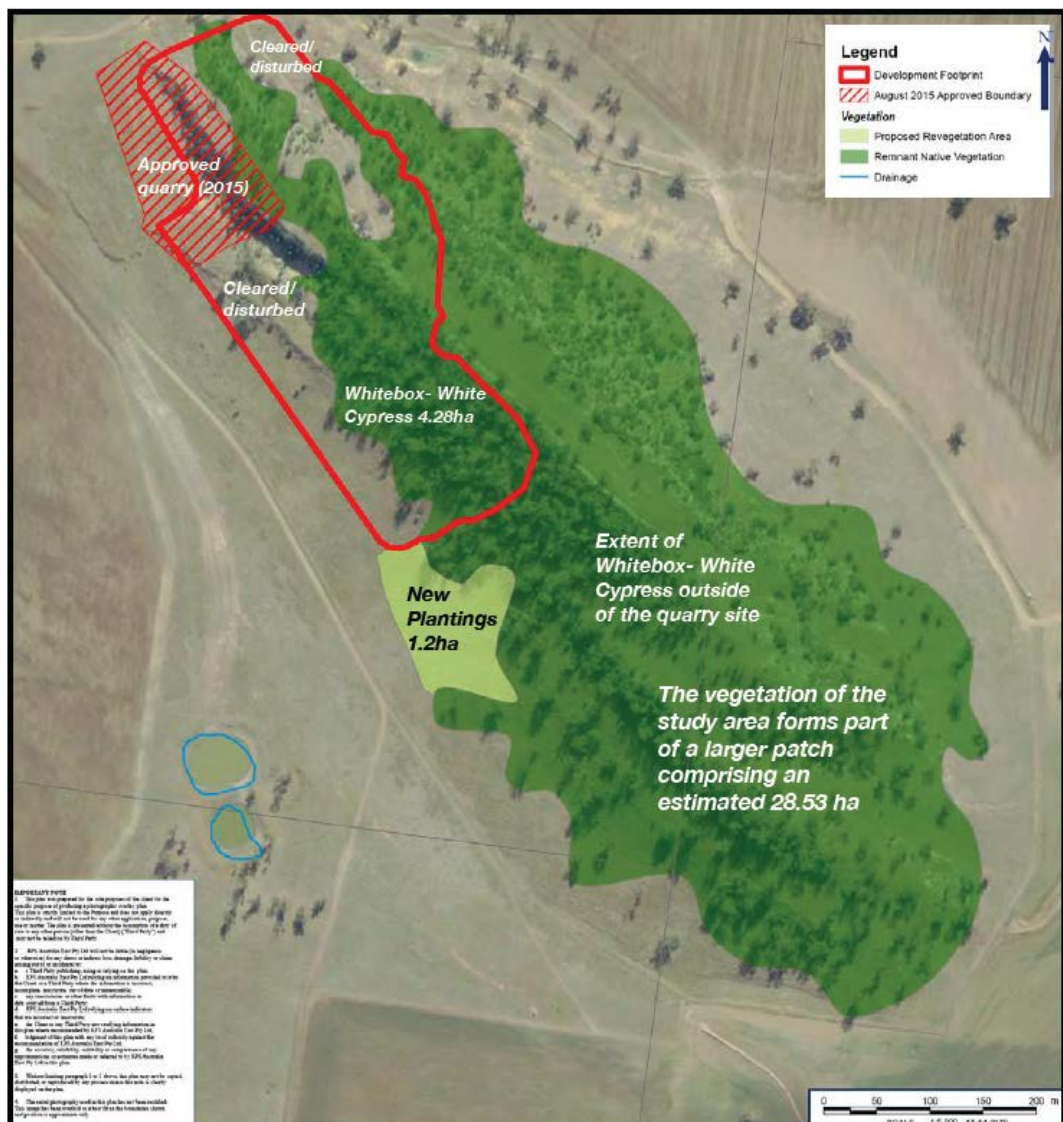


Figure 9 – Areas of remnant vegetation and vegetation replanting

A perimeter fence will be erected around the revegetated area to limit the access by livestock. Revegetation species will be limited to species suitable for creation of habitat

and consistent with the existing onsite vegetation. Species and their densities identified by the developer include:

- Eucalyptus Albens (White Box), planted 30 trees per hectare
- Eucalyptus Melliodora (Yellow Box), planted 60 trees per hectare
- Geijera Parviflora (Wilga), 30 stems per hectare
- Callitris Glaucophylla (White Cypress-pine), 30 stems per hectare
- Dodonaea viscosa subsp. Angustifolia (Sticky Hop-bush), seeding 0.5kg per hectare

The progressive rehabilitation is to include ongoing monitoring and watering to ensure establishment occurs, with any unsuccessful planting to be reinstated. The development will also include the planting of vegetation barriers to reduce the visual impact of the development.

- *Waste*
All waste and effluent will be managed onsite with removal of waste to be undertaken by a licensed contractor, to a licensed facility for disposal. There is little or no waste generated from quarry activities.
- *Energy*
The development site does not have the provision of electrical services to the site. The buildings will utilise a diesel generator. In the event that the developer requires connection to an electrical transmission network, the connection of the site can be undertaken in consultation with the local service provider.
- *Noise & vibration*
The operation of the quarry results in several noise generating activities. The most significant of these has been identified as the operation of a tracked mobile drilling rig, 1000kVA generator, dump truck, impact crusher and truck movements. These noise activities and the proximity to the closest residential receivers, the nearby school and recreational area in the village of Carroll, have been assessed in a Noise Impact Assessment. The noise assessment determined that the resulting noise levels for each of the recognised stages of the excavation works, did not exceed the relevant noise criteria at any of the residential receivers with the noted exception of receiver R1 (Residence, 5483 Oxley Highway), which exceeded the noise criteria during each stage. This residential receiver is owned by the same landowner as the development site and is subject to a negotiated agreement. In the event that land ownership of this property changes, adherence to EPA noise guideline levels are to be achieved through the Environmental Protection Licence (EPL). To ensure that noise levels do not cause nuisance to the amenity of the surrounding area the report has recommended mitigation measures to reduce the potential impact from the development, including achieving as much distance between noise generation sources as possible, conducting earthmoving and ground impact operations separately and conduct low impact methods wherever possible. Further monitoring is identified to occur annually at receiver R5 (112-130 Phillip Street) for reporting purposes.

Monitoring of traffic noise was undertaken at residential receiver R1, being the receiver closest to the development site entrance and Oxley Highway, with existing road noise levels being measured at 58.8dB(A). The resulting increase in noise levels at this receiver from the introduction of haulage vehicles will be between 0.2–0.6dB(A). The expected noise level at residential receiver R1 will be 59.4dB(A) and will not exceed the noise criteria of 60dB(A). Hence, it was expected that the increase in vehicle presence within the surrounding road network would not result in an exceedance of regulatory noise levels.

The development will require 10-15 blasts per year to excavate up to the maximum of 399,000 tonne. Blasts will be restricted to between 9:00am and 3:00pm to reduce impacts from noise or vibration on surrounding residences. Blasts are to be undertaken in accordance with the guidelines of Australian and New Zealand Environment and Conservation Council (ANZECC). No more than 1 blast is permitted during any one day, excluding misfires. Council will require that all landholders and tenants within a 5 kilometre radius and Council be notified of each scheduled blast occurrence, including details of the time, date and location of the blast. Notification of each blast is to be undertaken a minimum of 48 hours prior to the occurrence of each blast.

- Natural hazards*

The development site is identified as being flood and bushfire prone land. The flood impacts on the site and any potential impact of the development on flood behaviour has been addressed previously through this report. The site is partially identified as being bushfire prone land. The development is located down slope of the potential bushfire threat, hence limiting the potential hazard on the quarry activity. The development will utilise the quarry working area as an inner protection zone to protect staff and equipment in the event of fire and the nature of the quarry will ensure that there is very limited fuel onsite. Fire extinguishers will be provided within plant and structures onsite and a water truck will be maintained onsite and be available in the event of a fire. The site is not identified as an area subject to ground subsidence.
- Technological hazards*

As previously identified, the operation of the quarry will generate, traffic, air quality and noise impacts that may potentially impact on nearby receptors. These matters have been assessed under each of their specific sections through this report.
- Safety, security & crime prevention*

The proposed development will not result in any change in safety, security or crime prevention in the surrounding area. The quarry site will be considered as a worksite and will be subject to the *Work Health and Safety Act 2011* and *Work Health and Safety Regulation 2011*. The operator of the quarry site will be responsible for inducting all employees, contractors and visitors to the site. Signs displaying the specific safety requirements of the quarry operation will be installed around the proposed quarry when in operation. The operation of the quarry is not expected to promote any unsocial behaviour.
- Social & Economic impact in the locality*

The development will create employment opportunity within the Gunnedah community with an estimated 6-7 staff required. The quarry will provide material for sale to the community and will provide competition within the market. The quarry is expected to operate between the hours of 7:00am and 5:00pm Monday to Friday and 7:00am and 1:00pm Saturdays, excluding public holidays. It is expected that these operational hours will be consistent with agricultural activities in the surrounding area. The development will not result in loss of social equality or result in any social displacement.
- Site design and internal design*

Development works are restricted to an area of 12.4ha. Development operations are to include the quarry extraction area, stockpile areas, water storage dam, onsite office/amenities and parking facilities. To ensure that visual impacts from the development are minimised, visual screen barriers are to be incorporated. Temporary barrier screens are to be erected where vegetation screens are proposed, until such time as vegetation reaches maturity.
- Construction*

The development will involve the placement of temporary buildings for which relevant approvals are required.
- Cumulative impacts*

The proposed development is considered to have minimal cumulative impacts. There are no other extractive industries within the immediate area, nor are there any large traffic generating developments within the close proximity to the site. The development is to be isolated to a maximum area of 12.4ha, being the north and west slopes of the hillside and flat area adjoining this area. The remainder of the site will continue to be used for agricultural purposes. The proposed quarry area is the site of Development Consent No. 2015/047 for the operation of a quarry. The proposed quarry will be an increase in area and volume of material extracted than that of the current development consent. The proposed development will not impact on the availability of land suitable for agricultural activity. The proposed use is considered compatible with the surrounding agricultural use.

S4.15(1)(c) *the suitability of the site for the development*

The development is located in a rural locality and the distance to the nearest residential area is considered to be adequate, resulting in little or no impact on the area. The development is considered to be compatible with the surrounding agricultural use and will not impede the continuation of the existing surrounding uses. The quarry site is not subject to flooding and does not require any specific flooding controls. The site is identified as being bushfire prone however, the location of the bushfire risk in comparison to the proposed quarry site is considered to result in minimal threat to the proposed development. The development site does not contain any identified items of Aboriginal or European heritage significance. Hence, the site is considered to be suitable for the proposed quarry development.

S4.15(1)(d) any submissions made in accordance with this Act or the regulations

Council received eight (8) submissions during the two submission period. The submissions noted the following issues:

- *Correct Property Address & Ownership*
A draft condition of consent is included within Annexure 2 that requires the installation of a rural addressing peg prior to any extraction operations commencing. This will ensure that the correct property address for the property is identified.

The Air Quality, Noise Assessments and Environmental Impact Statement incorrectly identified residential receiver R2 as being the owner of the development site and excluded this receiver from the assessments. The developer has noted the correct owner of receiver R2, being different from the development site owner and has amended the submitted documents for re-assessment.

- *Inclusion of Lot 2 DP 126172 within the land to be developed*
The applicant has clarified that the development allotments are Lots 50 DP 751007 and Lot 2 DP 126172. The development was re-exhibited, noting the corrected development site.
- *Potential traffic hazards of vehicles accessing or leaving the site*
The intersection of the development access and the Oxley Highway is to be upgraded to a BAR/BAL to minimise potential traffic impacts from the development. The appropriate intersection treatment has been determined and will cater for the number and speed of vehicles within the road network. The site access has adequate sight distance in either direction, consistent with the 100km/h speed limit along the Oxley Highway.
- *Visual impact of the development as viewed from adjoining residences and public areas*
The developer has provided a visual indication of the expected final landform that indicates that a large portion of the hillside will be retained and that the size and scale of the development will not dominate the surrounding locality. To ensure that visual impacts are mitigated, the developer is to undertake the planting of vegetation around the working quarry area. It is expected that this vegetation screen will limit the visual impact of the working quarry area.
- *Expansion of QEMP to include unexpected finds protocol for archaeological items*
A condition has been imposed that the QEMP is to be updated to include an unexpected finds protocol.
- *Plant species identified on the site is not consistent with the Plant Community Type identified within the submitted study*
The developer has confirmed the plant community type for the site vegetation referred to in the Flora and Fauna study prepared by RPS. Justification was given for the use of this plant community type as opposed to others typically noted within the region and is considered to be suitable for the site.

S4.15(1)(e) the public interest

The application is regarded as being designated development as per the provision of Schedule 3 of the *Environmental Planning and Assessment Regulations, 2000*. The development application required notification to other external agencies. The development proposal was also identified as being integrated development under the provisions of the

Protection of the Environment Operations Act, 1997 (S.43b and S.48). General Terms of Approval have been received from the Environmental Protection Agency and included as Annexure 3 of this report. A condition has been included in the draft conditions that the development is to be undertaken in accordance with the General Terms of Approval.

The development application was placed on public exhibition for a period of 30 days. Matters raised in the submissions have been assessed throughout this report. The public interest has been considered and conditions of consent have been recommended, where appropriate. As a consequence, the approval of the development application is not considered to be contrary to public interest.

3. Conclusion

The development application is seeking approval for the operation of an extractive industry (quarry) with the extraction of 399,000 tonnes of material per annum (a total extraction of 4.3 million tonnes - 1.66 million cubic metres) and the planting of a landscaping buffer and 1.2ha of habitat replacement vegetation planting. The development will include operational hours of 7:00am-5:00pm Monday-Friday and 7:00am-1:00pm Saturday and an expected 104 vehicle (90 truck and 14 staff) movements per day and 249 loaded trucks per week. Upon completion of extraction works, the development will include removal of all structures from the site, re-establishment of the topsoil and landform, remediation of quarry site and retention of internal roads.

The application has been assessed pursuant to the requirements of the *Environmental Planning and Assessment Act 1979* and *Environmental Planning and Assessment Regulations 2000*. The evaluation of the application has demonstrated that the proposed development is satisfactory in terms of the matters for consideration as identified by the legislation.

It is recommended that, in relation to Development Application No. 2018/021 for the operation of an extractive industry – quarry (extracting up to 399,000 tonnes of hard rock per annum), including crushing and screening of product onsite, at Lot 50 DP 751007 and Lot 2 DP 126172 'North Aminya' Oxley Highway, be approved subject to the listed conditions of consent identified within Annexure 2.

Annexure 2 Draft Conditions of Consent

A. That development consent be granted subject to the following conditions:

- A1.** The proposed development shall be carried out generally in accordance with the details set out in the following:
- Development Application form lodged 28/02/2018;
 - Environmental Impact Statement, prepared by Outline Planning Consultants Pty Limited, dated February 2018;
 - Additional information letter, prepared by Outline Planning Consultants Pty Ltd, dated 28 March 2018, ref: DA 2018/021;
 - Additional information letter, prepared by Outline Planning Consultants Pty Ltd, dated 18 April 2018, ref: DA 2018/021;
 - Additional information letter, prepared by VIPAC Engineers and Scientists Limited, provided to Council 16 November 2018; and
 - Submitted plans:
 - Prepared by Ryan Geospatial, dated 21/11/2017, Drawing No. 2017-132-101, Sheet 1 of 1 (General Overview 2mtr Contours and Pit Void), Sheet 1 of 1 (Operation Layout Site Complex and Long Section), Sheet 1 of 1 (Final Rehabilitation Plan), Sheet 2 of 4 (Operation Layout Site Complex and Long Section), Sheet 3 of 4 (Cross Sections), Sheet 4 of 4 (Cross Sections);
 - Supporting Documentation:
 - Traffic Impact Assessment, prepared by Street Wise Road Safety & Traffic Services, dated: 12 January 2018, ref: FINAL J/N 0118;
 - Stage 1 Contaminated Site investigation, prepared by Geolyse, dated 16 October 2017, ref: 217448_REP_001B.docx;
 - Heritage Impact Assessment Report, prepared by RPS Australia East Pty Ltd, dated 4 January 2018, ref: PR136338;
 - Air Quality Assessment, prepared by VIPAC Engineers and Scientists Limited, dated 16 November 2018, ref: 20E-17-0085-TRP-542472-5; & dated 13/11/2018, Ref: 20E-17-0085-TRP-8550179-0;

except as otherwise provided by the conditions of consent.

Reason: To ensure compliance with application and plans.

- A2.** To confirm and clarify the terms of this approval, development consent is given for the undertaking of the following works:
- Extraction of Material of no more than 399,000 tonnes per annum;
 - Total maximum extraction amount of 4.3 million tonnes (which equates to 1.66 million cubic metres) of material;
 - Maximum processing capacity for crushing, grinding or separating works of no more than 399,000 tonnes annually;
 - Period of extraction of material of no more than 30 years from the commencement of extraction operations;
 - Maximum number of truck movements (includes loaded and unloaded) per day 90 (with no more than 249 truck movements in any one week (Monday-Saturday));
 - Maximum of fifteen (15) blasts per annum and not more than one per day, excluding misfires;
 - Maximum onsite fuel storage capacity of 20,000 Litres; and
 - Rehabilitation of the site.

Note. The quarry operator is required to inform Council of the commencement date of extraction operations approved under this consent. Council will then provide written confirmation of the lapsing date for quarry operations under this development consent.

Reason: To ensure compliance with application and plans.

- A3.** To confirm and clarify the terms used in this approval, the following definitions are provided:
- *Extraction Operations* means the removal of overburden, the extraction, processing, handling, storage and transportation of extracted material both on and off site in relation to this consent.

Note: All conditions under Section C – ‘Prior to the Commencement of Extraction Operations’ shall be completed prior to the commencement of *Extraction Operations*.

Reason: To ensure compliance with application and plans.

Surrender of Existing Development Consent

A4. At the commencement date of *extraction operations* (as defined in Condition A3), the owner of Lot 2 DP 1107747, "North Aminya" Oxley Highway, Carroll shall, in writing, surrender Development Consent No. 2015/047.

Reason: To ensure compliance with application and plans.

Vegetation Removal

A5. To confirm and clarify the terms of this approval, consent is granted for the clearing of a maximum of 7.39ha of White Box – White Cypress Pine shrubby open forest, as identified within the Flora and Fauna Assessment Report, prepared by RPS Group, dated 14 February 2018 and the area identified within Figure 6: Vegetation Communities of this document.

Note. Development consent is not given for the removal of any trees outside this designated development area.

Reason: To ensure compliance with development proposal.

B. Prescribed conditions

Note: The following conditions are prescribed conditions and may or may not relate directly to this development.

B1. Compliance with Building Code of Australia and insurance requirements under the Home Building Act 1989

(cf clauses 78 and 78A of EP&A Regulation 1994)

- (1) For the purposes of section 4.17 (11) of the Act, the following conditions are prescribed in relation to a development consent for development that involves any building work:
 - (a) that the work must be carried out in accordance with the requirements of the Building Code of Australia,
 - (b) in the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force before any building work authorised to be carried out by the consent commences.
- (1A) For the purposes of section 4.17 (11) of the Act, it is prescribed as a condition of a development consent for a temporary structure that is used as an entertainment venue, that the temporary structure must comply with Part B1 and NSW Part H102 of Volume One of the Building Code of Australia.
- (2) This clause does not apply:
 - (a) to the extent to which an exemption is in force under clause 187 or 188, subject to the terms of any condition or requirement referred to in clause 187 (6) or 188 (4), or
 - (b) to the erection of a temporary building, other than a temporary structure to which subclause (1A) applies.
- (3) In this clause, a reference to the Building Code of Australia is a reference to that Code as in force on the date the application is made for the relevant:
 - (a) development consent, in the case of a temporary structure that is an entertainment venue, or
 - (b) construction certificate, in every other case.

Note. There are no relevant provisions in the Building Code of Australia in respect of temporary structures that are not entertainment venues.

Reason: To ensure compliance with the statutory requirements.

B2. Erection of signs

- (1) For the purposes of section 4.17 (11) of the Act, the requirements of subclauses (2) and (3) are prescribed as conditions of a development consent for development that involves any building work, subdivision work or demolition work.
- (2) A sign must be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:

- (a) showing the name, address and telephone number of the principal certifying authority for the work, and
 - (b) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and
 - (c) stating that unauthorised entry to the work site is prohibited.
- (3) Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.
- (4) This clause does not apply in relation to building work, subdivision work or demolition work that is carried out inside an existing building that does not affect the external walls of the building.
- (5) This clause does not apply in relation to Crown building work that is certified, in accordance with section 6.28 of the Act, to comply with the technical provisions of the State's building laws.
- (6) This clause applies to a development consent granted before 1 July 2004 only if the building work, subdivision work or demolition work involved had not been commenced by that date.

Note. Principal certifying authorities and principal contractors must also ensure that signs required by this clause are erected and maintained (see clause 227A which currently imposes a maximum penalty of \$1,100).

Reason: To ensure compliance with the statutory requirements.

C. Prior to the Commencement of Road Works

- C1.** The developer shall enter into a 'Works Authority Deed' (WAD) with the Roads and Maritime Services (RMS) for all road works on the Oxley Highway. A RMS Pre-Qualified contractor shall complete all road works under the WAD to practical completion, as determined by RMS. Further information on Private Developments adjacent to classified roads can be accessed on the RMS website. A copy of the road works construction plans shall also be provided to Council.

Reason: To maintain the integrity, safety and efficiency of the classified road network.

- C2.** Erosion and sediment control facilities must be installed and maintained for the duration of the road works, to avoid damage to the environment during road work construction. The plan and specification for these facilities are considered an integral part of the development and must be approved with the road work construction plans. The approved erosion and sediment control measures are to be maintained throughout the construction of the development.

Reason: To ensure that adequate control measures are installed.

D. Prior to the Commencement of Extraction Operations

Road Construction

- D1.** Prior to the commencement of the extraction operations, the existing vehicle access to the Oxley Highway is to be upgraded and shall include the construction of a BAR/BAL intersection treatment. All road works are to be designed and constructed in accordance with the applicable Austroads Guidelines and Australian Standards with reference to the Roads and Maritime Services Supplements for Austroads/Australian Standards and to the satisfaction of Council's Director of Infrastructure Services.

Reason: To enable haulage vehicles to safely enter the classified road.

- D2.** Prior to the commencement of the extraction operations, the developer is to seal the internal haul route from the edge of the formation of the Oxley Highway for a distance of 30 metres. The access is to be constructed of either of bitumen seal, asphaltic concrete, concrete or interlocking pavers or other alternative product which has been approved by Council.

Reason: To ensure that suitable works are undertaken prior to commencement of extraction operations.

Onsite Parking

- D3.** Prior to the commencement of the extraction operations, onsite car parking accommodation shall be provided for a minimum of nine (9) vehicles, to ensure the provision of adequate on-site parking facilities commensurate with the demand likely to be generated by the proposed development. The car parking area shall be constructed of all-weather material and shall be clearly signposted. An adequate parking area shall be provided for deliveries and heavy vehicles.

Reason: To ensure adequate on site car parking is provided.

Environmental Management

- D4.** Prior to the commencement of extraction operations, a Quarry Environmental Management Plan is to be submitted and approved by Council. The Quarry Environmental Management Plan is to include, but not be limited to the following documents:
- a) A Soil Management Plan outlining the availability and suitability of top soil and subsoil, a soil balance for rehabilitation purposes and stock piling location and management plan. The Plan shall also include details of erosion and sediment control and final void management;
 - b) A Traffic Management Plan detailing the proposed signage and speed limits for the internal haul route and proposed code of conduct for employees and truck operators, prepared by a suitability qualified person.
 - c) A Driver Code of Conduct for the transportation of materials on public roads, shall be developed for all heavy vehicle drivers that access the development site (including haulage and delivery vehicles). All drivers will be required to sign a register of acceptance to the Driver Code of Conduct. The Driver Code of Conduct shall include the following (but not limited to) driver behaviour, compliance with road rules and safety, minimising noise and dust emissions, inform drivers of all known safety considerations along the haul route (including school bus routes and timetables, school zones, concealed driveways, seasonal haulage operations, wet weather safety and any other known local hazards) and ensuring all loads are covered before leaving the quarry site;
 - d) A Bushfire Protection Plan prepared in accordance with the NSW Rural Fire Service "Planning for Bushfire Protection, 2006";
 - e) An Unexpected Heritage Discover Protocol for unexpected finds protocol relevant to historic archaeology contained in the Heritage Impact Assessment Report;
 - f) A Rehabilitation and Landscape Strategy detailing how the site will be rehabilitated and the entire development timeframe for revegetation works. Remediation works are to include progressive rehabilitation. Final rehabilitation works are to commence immediately upon completion of extraction works and completed by 32 years from the commencement of extraction, being 2 years after extraction finishes.

Reason: To ensure compliance with application and plans.

Vegetation Planting

- D5.** Prior to the commencement of any extraction operations, a minimum of 1.2ha of vegetation planting shall be undertaken in the area identified on Figure 8: Recommended Revegetation Area, of the Flora and Fauna Assessment Report, prepared by RPS Group, dated 14 February 2018. Revegetation works are to be undertaken in accordance with Part 4.5.3 of this document.

Vegetation replanting is to be monitored throughout the life of the development. Any unsuccessful tree planting is to be replaced and maintained in accordance with the procedures for revegetation works outlined in the Flora and Fauna Assessment Report, prepared by RPS Group, dated 14 February 2018.

Reason: To ensure that sufficient revegetation is conducted prior to removal of existing vegetation.

Landscaping Plan

- D6.** A landscaping plan shall be submitted to and approved by Council prior to the commencement of extraction operations. The plan shall illustrate a minimum five (5) metre wide landscaping buffer along the north and western external boundary of the quarry working area. Vegetation should be staggered to create a more effective vegetation barrier. Details of proposed tree species, height at maturity and proposed pot size are to be submitted to Council.

Note. Suitable vegetation species should incorporate low maintenance, drought and frost tolerant species, suitable for the climatic conditions of the region.

Reason: To ensure adequate landscaping along road frontage.

Identification of Extraction Boundary

- D7.** The 'limit of extraction' boundary (as identified on the proposed quarry site plan, prepared by Ryan Geospatial, dated 21/11/2017, Drawing No. 2017-132-101, Sheet 2 of 4 (Operation

Layout Site Complex and Long Section), shall be clearly marked out with durable pegs or other markers prior to the commencement of extraction operations. The identification marks shall in place remain for the life of the development, with all operators being made aware of the boundary markers and the limits of the extraction boundary.

Reason: To ensure compliance with application and plans.

Complaints Register

D8. The operator of the quarry shall nominate a contact person and telephone number for the benefit of adjoining neighbours and establish a complaints register that includes records of nature, time and date of complaint, climatic conditions such as wind direction and speed and the action taken to address complaint. The register shall be made available to Council upon request.

The developer shall notify all landowners and tenants within a 5.0 kilometre distance of the boundary of the development site in writing of the contact details and associated information and that they may contact the quarry operator to complain about the operation of the quarry. A copy of the notification shall be provided to Council.

Reason: To ensure amenity of area.

Land Consolidation

D9. Prior to the commencement of Extraction Operations, Lot 50 DP 751007, Lot 2 DP 126172 shall be consolidated into one Lot. A copy of the registered plan of consolidation shall be provided to Council.

Reason: To ensure compliance.

Property Identification

D10. Prior to the commencement of extraction operations, a Rural Addressing number and post shall be applied for through Council and erected.

Reason: To ensure compliance and to ensure the correct property identification.

E. Prior to the Commencement of Building Works

On-Site Sewerage Management & Temporary Structures

E1. Prior to the installation of waste treatment device or moveable structure, the Developer shall apply to Council for approval under Section 68 of the Local Government Act 1993 to:

- (a) Install, construct a waste treatment device or a human waste storage facility or a drain connected to any such device or facility
- (b) Operate a system of sewage management
- (c) Install a moveable structure (transportable buildings) on the land

Note: All works are to be carried out by an appropriately licensed contractor in accordance with NSW Code of Practice for Plumbing and Drainage-2006.

Reason: To ensure environmental health standards are met.

E2. Appropriate measures are to be implemented in relation to erosion and sediment control prior to work commencing. Such measures are to be maintained during the construction of the development in accordance with Council's Gunnedah Development Control Plan, 2012.

Reason: To ensure erosion and sediment control on the development site.

F. General

Traffic and Parking

F1. All internal driveways, parking areas and vehicular turning areas are to be constructed with a base course of adequate depth to suit design traffic and of a dust suppressed material, which is to be approved by Council.

Reason: To facilitate the use of vehicular access and parking facilities and to minimise any associated noise and dust nuisance.

F2. All mobile plant vehicles utilised onsite are to use frequency modulated reversing alarms (as opposed to beeping reversing alarms).

Reason: To reduce potential noise impacts on surrounding land holders and occupants.

- F3.** All works identified in the approved Quarry Environmental Management Plan are to be implemented.

Reason: To ensure that the Quarry Environmental Management Plan is appropriately implemented.

- F4.** All vegetation planting undertaken as part of initial vegetation planting and rehabilitation planting is to be adequately protected via construction or installation of protective fencing or tree guards that restricts browsing on seedlings.

Reason: To restrict browsing on seedlings.

- F5.** No waste from the operation of the development is to be disposed of onsite, either by burning of waste or by disposal to onsite landfill.

Reason: To ensure maintenance of car parking areas.

- F6.** The use of water from existing water storage dams shall be only from storages located on the development site. Prior to the use of water from onsite storages, any necessary approvals for water harvesting and re-use are to be obtained.

Reason: To ensure compliance with application and plans.

G. During Extraction Operations

Extraction Operation Hours

- G1.** The haulage of material shall be undertaken in the following heavy vehicles:
- 100% of heavy vehicles used shall be truck and dog (capacity of 32 tonnes) only.

Reason: To ensure compliance with application and plans.

Dust

- G2.** To minimise the potential for dust nuisance generated by the development, the mitigation measures outlined in Section 2.3.2 Management of Quarry Operations, Table 2.2, of the Environmental Impact Statement, prepared by Outline Planning Consultants Pty Limited, dated February 2018, shall be implemented during the extraction operations.

Reason: To ensure compliance with application and plans.

Blasting and Fly-rock Management

- G3.** The developer is to ensure that all blasting complies with Australian and New Zealand Environment and Conservation Council (ANZECC) assessment criteria as outlined in "Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration – September 1990" and, AS 2187.2-1993 "Explosives – Storage Transport and Use Part 2: Use of Explosives".

Reason: To ensure that all blasting does not pose any risk to life or property of adjoining dwellings or residences.

- G4.** Prior to any blasting event occurring the developer is to notify Gunnedah Shire Council and all land holders and tenants within a 5 kilometre radius of the development site, of the date, time and location of the proposed blast. Notification is to be completed a minimum of 48 hours prior to any blast occurring.

Reason: To ensure surrounding land holders and occupants are notified in advance prior to any blast occurring.

- G5.** To minimise the potential for impacts from blasting, the mitigation measures outlined in Section 2.3.4 Blasting of Rock, Table 2.6, of the Environmental Impact Statement, prepared by Outline Planning Consultants Pty Limited, dated February 2018, shall be implemented during the extraction operations.

Reason: To ensure compliance with application and plans.

Noise Impacts

- G6.** To minimise the potential for noise impacts generated by the development, the mitigation measures outlined in Section 6.3, of the Noise and Vibration Impact Assessment, prepared by VIPAC Engineers and Scientists Limited, dated 4 July 2018, shall be implemented during the extraction operations.

Reason: To ensure compliance with application and plans.

Ground Water

- G7.** Should groundwater be intercepted at any stage during extraction operations, all works are to cease immediately and Council and the NSW Department of Industry - Water are to be notified immediately. No works will be permitted to recommence without the written authorisation of the NSW Department of Industry - Water.

Reason: To ensure compliance with application and plans.

Documentation

- G8.** A copy of all the approved documents related to this consent, shall be kept on site at all times and shall be made available upon inspection by Council or an authorised government agency.

Reason: To ensure all documents are available on inspection.

- G9.** An Annual Return detailing the amount of material extracted and area of extraction shall be provided to Council.

Reason: To ensure compliance with application and plans.

H. Continued Operations

Waste Disposal

- H1.** No general household waste or waste for either industrial premises is to be disposed of onsite. Waste is to be disposed of at an approved waste management facility directly or via licensed contractor.

Reason: To ensure waste is disposed of off-site in an appropriate manner.

Maintenance of Parking Areas

- H2.** All vehicular parking, manoeuvring and loading areas are to be maintained at all times.

Reason: To ensure maintenance of car parking areas.

Vehicle Movement

- H3.** All vehicular movement to and from the site shall be in a forward direction to ensure that the proposed development does not give rise to vehicle reversing movements on or off the Public Road with consequent traffic accident potential and reduction in road efficiency.

Reason: To ensure traffic safety.

Bushfire Protection

- H4.** The developer is to establish the quarry working area as an Inner Protection Zone (IPZ), in accordance with the NSW Rural Fire Service Planning for Bushfire Protection, 2006.

Reason: To ensure appropriate bushfire protection measures are implemented.

I. Completion of Extractive Industry Operations

- I1.** At the completion of extraction operations, the quarry operator will commission the completion of a Contamination Assessment Report and Site Validation Report for the site. Any recommended remediation actions are to be completed by the quarry operator and shall be identified within the report. The validation report is to specifically include, but not be limited to, testing of the site identified within the Stage 1 Contaminated Site Investigation, prepared by Geolyse, dated 16 October 2017, ref: 217448_REP_001B.docx, as being contaminated by the spilling of fuel or oil, noted on Drawing 2: Quarry Expansion Layout of this report.

Reason: To ensure compliance with Council's requirements.

- I2.** Any material used as fill during remediation works must be free of contaminants. A report is to be submitted to Council prior to the commencement of remediation works, providing details of fill including source of fill and potential contaminants within sourced soil.

Reason: To ensure sourced fill does not contain any potential contaminants.

J. General Terms of Approval – Environment Protection Authority

- J1.** The development shall be carried out in accordance with the General Terms of Approval issued by the Environmental Protection Authority, attached to this consent.

Reason: To ensure compliance.

Annexure 3 – General Terms of Approval – Environment Protection Authority

Administrative Conditions

NOTE: Definition of Terms Relating to Noise

- NSW Noise Policy for Industry - the document entitled “Noise Policy for Industry” published by the Environment Protection Authority in October 2017.
- Noise – “sound pressure levels” for the purposes of conditions L3.1 to L3.7.
- “Noise sensitive locations” includes buildings used as a residence, hospital, school, child care centre, places of public worship and nursing homes. A noise sensitive location includes the land within 30 metres of the building.

A1. Information supplied to the EPA

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the development application 2018/021 submitted to Gunnedah Shire Council on 15 March 2018;
- environmental impact statement titled, *Environmental Impact Statement - Proposed Extension to Existing Approved Hard Rock Quarry - North Aminya, Lot 50 DP751007 & Lot 2 DP1107747, No. 5255 Oxley Highway, Carroll, NSW 2340*, dated February 2018 relating to the development; and
- all additional documents supplied to the EPA in relation to the development, including
 - (i) Outline Planning Consultants Pty Ltd, *Letter to Gunnedah Shire Council, Response to Submissions: Exhibited EIS Proposed Expansion of Quarry at 'North Aminya', Lot 50 DP751007 & Lot 2 DP126172 No. 751007 Oxley Highway, Carroll, NSW, 23 August 2018*
 - (ii) VIPAC Engineers and Scientists, *Letter to Outline Planning Consultants, Attention Gary Peacock, Ref: 20E-17-0085-TRP-8550179-0, 13 November 2018*; and
 - (iii) VIPAC Engineers and Scientists, *EIS Expanded Quarry Operations at Gunnedah Air Quality Assessment, 16 November 2018*.

A2. Fit and Proper Person

A2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

Limit conditions

L1. Pollution of waters

L1.1 Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

L2. Waste

L2.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

L3. Noise limits

L3.1 Noise generated at the premises must not exceed the noise limits in Table 1.

NOTE 1: If the licensee and the receiver have written agreement, the noise limits will not apply.

NOTE 2: The locations referred to are at Figure 2– 2 Location of Quarry and Noise Sensitive Receivers - Noise and Vibration Impact Assessment in the EIS New Quarry at Gunnedah (Document No:20E-17-0085-TRP-458499-4-Draft) by Vipac Engineers and Scientists Limited, dated 04 July 2018.

TABLE 1 - NOISE LIMITS IN dB(A)

NOISE LIMITS			Noise Level in Decibels - dB(A) - Fast Response
Receiver Locality	Location due to Quarry	Lot and DP Details	DAY LAeq,15min
R1 5483 Oxley Highway	North	Lot 49/DP 751007	43
R2 5255 Oxley Highway	North East	Lot 52/DP 751007	40
R3 149 Kilphysic Road	South East	Lot 170/DP 751007	40
R4 113 Kilphysic Road	South	Lot 67/DP 751007	40
R5 112-130 Phillip Street	Carroll	Lot 155/DP 751007	40

S1 Carroll Public School 73-79 Phillip Street	Carroll	Lot [8 – 10/25] DP 758234	45 When-in-use (Noisiest 1-hour period)
RE1 Carroll Oval 82-100 Breeza Street	Carroll	Lot 26/DP 1141178	55 dB(A) (When-In-Use)

- L3.2** For Condition L3.1;
- Day is defined as the period from 7:00 am to 6:00 pm Monday to Saturday and 8:00 am to 6:00 pm Sunday and Public Holidays.
 - Evening is defined as the period 6:00 pm to 10:00 pm.
 - Night is defined as the period from 10:00 pm to 5:00 am Monday to Saturday and 10:00 pm to 8:00 am Sunday and Public Holidays.
- L3.3** The noise limits set out in condition L3.1 apply under all meteorological conditions, including inversion meteorological conditions determined by the on-site meteorological station or alternate representative meteorological station agreed to in writing by the EPA.
- L3.4** For the purposes of condition L3.3:
- (i) Data recorded by the on-site meteorological station identified as EPA Identification Point <X> must be used to determine meteorological conditions; and
 - (ii) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Fact Sheet D - Accounting for Noise-Enhancing Weather Conditions in the NSW Noise Policy for Industry.
- L3.5** To determine compliance:
- (a) with the LAeq(15 minute) noise limits in condition L3.1, the noise measurement equipment must be located:
 - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
 - within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
 - (b) with any L_{Amax} noise limits in condition L3.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.
 - (c) with the noise limits in condition L3.1, the noise measurement equipment must be located:
 - at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by conditions L3.5(a) or L3.5(b).
- L3.6** A non-compliance of condition L3.1 will still occur where noise generated from the premises exceeds the appropriate limit as measured:
- (a) at a location other than an area prescribed by conditions L3.5(a) and L3.5(b); and/or
 - (b) at a point other than the most affected point at a location.
- L3.7** For the purposes of determining the noise generated at the premises, the modification factors in **Fact Sheet C - Corrections for Annoying Noise Characteristics** of the NSW Noise Policy for Industry must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment. Noise from the facility shall exclude tonal, low frequency noise or any other annoying characteristic at the noise sensitive receiver locations. Non-tonal or broadband alarms, proximity alarms, reversing cameras, flashing lights or any combination of these shall be applied to dedicated site plant and all other vehicle accessing the facility.
- Hours of operation**
- L3.8** Quarrying operations are permitted 7:00am to 6:00pm Monday to Friday, 7:00am to 1:00pm Saturday with no quarry operation on Sundays or Public Holidays.
- L3.9** This condition does not apply to the delivery of material outside the hours of operation permitted by condition L3.8 if that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.
- L3.10** The hours of operation specified in conditions L3.8 may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

L4. Blasting

- L4.1** The blast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be accounted for in determining the limit has been exceeded.
- L4.2** The blast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this, are not to be accounted for in determining whether the limit has been exceeded.

Ground vibration level

- L4.3** Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be accounted for in determining whether the limit has been exceeded.
- L4.4** Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be accounted for in determining whether the limit has been exceeded.
- L4.5** To determine compliance with condition(s) L4.1 to L4.4 inclusive:
- Blast overpressure and ground vibration levels experienced at the following noise sensitive locations must be measured and recorded for all blasts carried out on the premises:
 - Receiver R2: 5255 Oxley Highway Lot 52/DP 751007
 - Instrumentation used to measure and record the blast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.

NOTE: A breach of the licence will still occur where blast overpressure or ground vibration levels from the blasting operations at the premises exceeds the limit specified in conditions L4.1 to L4.4 at any "noise sensitive locations" other than the locations identified in the above condition.

- L4.6** The blast overpressure and ground vibration levels in conditions L4.1 to L4.4 do not apply at noise sensitive locations that are owned by the licensee or subject to a private agreement, relating to blast overpressure and ground vibration levels, between the licensee and land owner.

Blasting hours

- L4.7** Blasting at the premises may only take place between 9:00am - 5:00pm Monday to Friday. Blasting is not permitted on weekends or public holidays.
- L4.8** Blasting outside of the hours specified in L4.7 can only take place with the written approval of the EPA.

Operating conditions

01. Odour

- 01.1** The POEO Act states that no offensive odour may be emitted from particular premises unless potentially offensive odours are identified in the licence and the odours are emitted in accordance with conditions specifically directed at minimising the odours are permitted.

02. Dust

- 02.1** The premises must be maintained in a condition which prevents or minimises the emission of air pollutants, including dust, from the premises.
- 02.2** Activities occurring at the premises must be carried out in a manner that will prevent or minimise the generation and emission of air pollutants including dust.
- 02.3** The proponent must develop and implement an air quality management plan prior to the commencement of project operations. As a minimum, the air quality management plan must include the following parts:
- Proactive and reactive management measures for all air emission sources;
 - Benchmark proactive and reactive management measures against industry best management practice;
 - Key performance indicator(s);
 - Monitoring method(s);
 - Location, frequency and duration of monitoring;
 - Record keeping;
 - Response mechanisms; and
 - Compliance reporting.

03. Stormwater/sediment control - Operation Phase

- 03.1** A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the

Stormwater Management Plan for the Protection of the Environment Operations Act 1997 catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* (available from the EPA).

O4. Noise

Blast management protocol

O4.1 A Blasting/Vibration Management Protocol must be prepared in relation to the development and implemented. The protocol must include, but need not be limited to, the following matters:

- (a) compliance standards;
- (b) mitigation measures;
- (c) remedial action;
- (d) monitoring methods and program;
- (e) monitoring program for flyrock distribution*;
- (f) measures to protect underground utilities (eg: rising mains, subsurface telecommunication and electric cables) and livestock nearby;
- (g) notification of procedures for neighbours prior to detonation of each blast;
- (h) measures to ensure no damage by flyrock to people, property, livestock and powerlines.*

* where applicable

Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the licence must be:

- (a) in a legible form, or in a form that can readily be reduced to a legible form;
- (b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- (c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

- (a) the time(s) at which the sample was collected;
- (b) the point at which the sample was taken; and
- (c) the name of the person who collected the sample.

M2. Blast Monitoring

M2.1 For the purpose of blast monitoring, the ground vibration or the overpressure must be measured at *Receiver R2*.

Note: *Measurement locations can be:*

- a) *At the residential boundary; or*
- b) *30 metres from residences in rural situations where the boundary is more than 30 metres from residences.*
- c) *Airblast overpressure levels should not be measured within 3.5 metres of any building.*
- d) *Ground vibration levels should not be measured with the longest dimension of the foundations of a building or structure away from such building or structure.*

M3 Requirement to Monitor Noise

M3.1 To assess compliance with Condition L3.1, attended noise monitoring must be conducted in accordance with Conditions L3.5 and:

- (a) at R2, R3, R4 and R5 as listed in Condition L3.1;
- (b) occur at the time of commencement of typical production activity;
- (c) occur during the day period as defined in Condition L3.2, for a minimum of 60 minutes duration for the day period for typical production activity.

M4 Requirement to monitor weather

M4.1 The proponent must monitor meteorological conditions listed in condition M4.2 at an onsite meteorological station or alternate representative meteorological station agreed to in writing by the EPA.

M4.2 The proponent must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1.

The proponent must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm/hour	continuous	1 hour	AM-4
Sigma theta	degrees	continuous	10 minute	AM-2 and AM-4
Siting				AM-1

Temperature at 2 metres	kelvin	continuous	10 minute	AM-4
Temperature at 10 metres	kelvin	continuous	10 minute	AM-4
Total solar radiation	watts per square metre	continuous	10 minute	AM-4
Wind Direction at 10 metres	degrees	continuous	10 minute	AM-2 and AM-4
Wind Speed at 10 metres	metres per second	continuous	10 minute	AM-2 and AM-4

Reporting conditions

R1 - Annual Return

R1.1 The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

R2 Noise Monitoring Report

R2.1 A noise compliance assessment report must be submitted to the EPA within 30 days of the commencement of typical production operations. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

- (a) an assessment of compliance with noise limits presented in Condition L3.1 as defined in M3.1 (a); and
- (b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition L3.1.