



NGH



Response to Submissions

Mt Bundarbo Quarry

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Project Number: 20-481



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1. Introduction

1.1 Background

1.1.1 Preparation of the Environmental Impact Statement (EIS)

An Environmental Impact Statement (EIS) was prepared to identify and assess the potential environmental impacts associated with the construction and operation of the proposed Mt Bundarbo Quarry (the proposal), Development Application DA2021/0133. NGH prepared the EIS on behalf of the Proponent, Bald Hill Quarry Pty Ltd (the Proponent).

The location of the development site is provided in Figure 1-1 and includes the footprints of the proposed pit, haul road and intersection upgrade. The Lot and Deposited Plan (DP) numbers for the proposal include:

- Lot 9 DP 439146 for an extension to the haul road / site access
- The following lots for extraction:
 - Lot 7002 DP 1031310 – Crown Reserve (trig station)
 - Part of Crown Reserve (undedicated) – paper road
 - Part of Lot 148 DP 753592
 - Part of Lot 11 DP 133540.

The site is located approximately 7.5 km southeast of Jugiong in the Hilltops Council Local Government Area (LGA). The site is approximately 700 m south-southeast of the existing quarry area and accessed off the Hume Highway north of the site.

Key components of the proposal include:

- A new 800 m section of haul road
- A new quarry footprint of approximately 8 ha
- Drill and blasting for extraction up to five to ten times a year
- Use of existing quarrying equipment for road construction and quarry operations.
- Haulage of extracted rock via the new and existing haul road to the existing processing plant at the Bald Hill Landfill site, located approximately 4 km north.

The proposal would include the current operating conditions of the North Ridge Quarry and Bald Hill Landfill including:

- Five full time staff, three casual, three maintenance staff and administration staff
- The same number of truck movements
- No additional permanent buildings or ancillary facilities
- No additional water use
- No new accesses to the local and regional road network
- Use of the on-site rock processing plant located adjacent to the Bald Hill Landfill
- Use of existing stockpile areas.

The proposal seeks approval for extraction of 150,000 tonnes per annum (tpa) with peak periods of 450,000 tpa over a period of 20 years. However, total extraction would not exceed 4 million tonnes of resource for the life of the project.

Key issues

The following environmental risks were considered to be key issues for detailed assessment and consideration of mitigation strategies within the EIS:

- Land Use.
- Biodiversity.
- Water use and quality (surface water and groundwater).
- Climate and air quality.
- Visual amenity
- Aboriginal heritage.
- Noise and vibration impacts.
- Traffic, transport, and road safety.

In addition, the following were identified as being environmental assessment issues of lower risk: topography, geology and soils, historic heritage, socio-economic and community, hazards, resource use and waste generation, and cumulative impacts.

Biodiversity, Aboriginal heritage, traffic, and air quality impacts were investigated by specialists.

1.1.2 Exhibition period and location

The EIS was placed on public exhibition in June/July 2021. It was exhibited online via the NSW Planning Portal.

Hard copies were available at the following Hilltops Council (Council) locations:

- Hilltops Council – Young Office, 189 Boorowa Street, Young NSW
- Hilltops Council – Boorowa Office, 6-8 Market Street, Boorowa NSW
- Hilltops Council – Harden Office, 3 East Street, Harden NSW

1.2 Purpose of this report

NGH has prepared this Response to Submissions (RTS) on behalf of Bald Hill Quarry Pty Ltd (BHQ) in response to Hilltops Council's letter that was received by email on 6 August 2021. The response to comment closed on 16 July 2021. The purpose of the RTS is to:

- Consider and respond to the matters raised in the submissions for the proposal
- Describe changes to the proposal, including a revised set of proposed mitigation measures
- Detail the additional studies completed to respond to matters raised.

1.3 How to read this report

Responses to agency / organisation comments – A summary of responses issued by government agencies, Council and Essential Energy are provided in Section 2.1. These responses are typically brief and are based on information from:

- The EIS
- Specialist studies
- Additional specialist studies, which are summarised in the response table in Section 2.1.3 of this report.

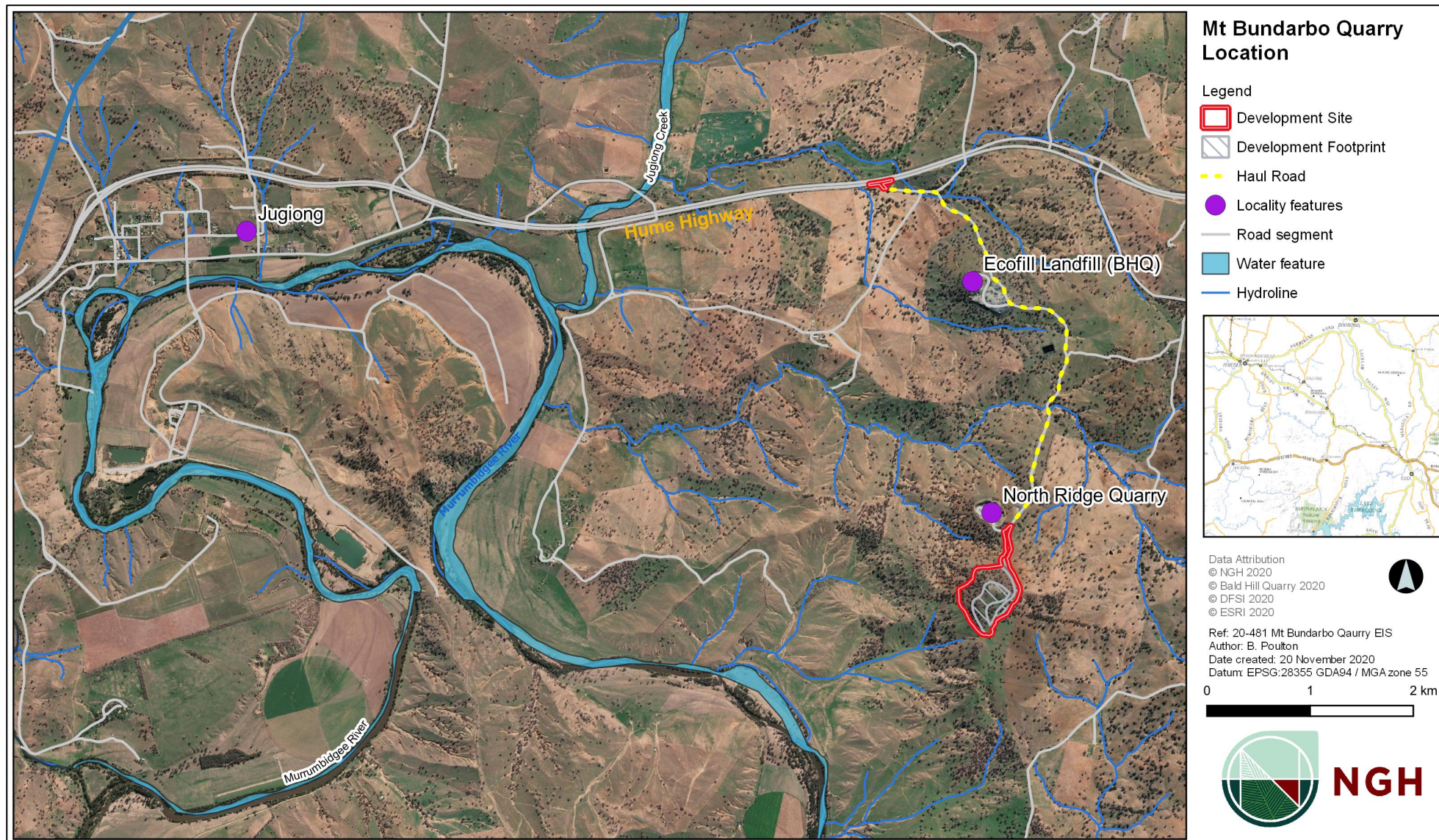


Figure 1-1 Proposal location

2. Response to submissions

No submissions were received from the public following the exhibition period of the proposal EIS. Seven submissions were received from agencies and one submission was received from an organisation. The submission summary received by Hilltops Council is provided in Table 2-1.

Table 2-1 Submission summary

Category	Number of submissions
Agency submissions	
<ul style="list-style-type: none">• Hilltops Council• Crown Lands• Environmental Protection Authority• Transport for New South Wales (TfNSW)<ul style="list-style-type: none">○ South-West Region• NSW Rural Fire Service• Department of Primary Industries (Agriculture)• Division of Resources and Geoscience	7
Organisation submissions	
Essential Energy	1

2.1 Submissions

The organisation and agency issues and responses are detailed in the Sections 2.1.1 to 2.1.8.

2.1.1 Hilltops Council

Issue	Response
1. Owners consent – provide evidence of land owners consent from DPIE Crown Lands for the proposed development.	BHQ submitted the completed form to DPIE Crown Lands, with acknowledgement of receipt on 31 August 2021.
2. Cost summary report – please clarify if the cost summary report is GST exclusive.	The cost summary report was excluding GST. The Proponent has provided this to Council, refer to Appendix A.1..
3. Contributions – provide an assessment against Council's Harden Contribution Plan for Other Developments.	The Proponent wishes to stay with Section 94 payments. The Proponent has communicated this to Council, refer to Appendix A.1.
4. SEPP extractive industries – provide an assessment against Part 3 of the SEPP relevant for new extractive industries particularly the resource recovery, transport and rehabilitation provisions. The EIS provides an assessment of compatibility with surrounding uses in the locality.	<p>The <i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i> (the Mining SEPP) is designed to provide for the proper management and development of mineral, petroleum and extractive material resources and establish appropriate planning controls to encourage ecologically sustainable development through environmental assessment and management.</p> <p>An assessment of the proposal against Part 3 of the SEPP relevant for extractive industries, particularly the resource recovery, transport and rehabilitation provisions are provided in Section 2.2.</p>

2.1.2 Department of Planning Industry and Environment – Crown Lands

Issue	Response
<p>Crown Land objects to the proposed development as it impacts Crown Land as described below. Crown land must not be occupied or used unless it is authorised by the Act (s. 1.15).</p> <p>Impacted Crown land: Lot 7002 DP 1031310 Reserve 40113 Trigonometrical</p>	BHQ submitted the completed form to DPIE Crown Lands which was acknowledge on the 31 August 2021. Receipt and progress of the licence was received on the 8 October 2021. .

Issue	Response
<p>Reserve TS6184 “Bundarbo”. The Department has not provided consent for this development application to be lodged as landowner under s49(1)(b) of the Environmental Planning and Assessment Regulation 2000.</p> <p>The proponent may apply for Landowners Consent (LOC) from the Department. Once the Department has reviewed the Landowners Consent application, a written response will be provided to advise whether consent is granted.</p>	

2.1.3 NSW Environmental Protection Authority (EPA)

Issue	Response
Noise and vibration	
<p>Annoying noise characteristics:</p> <p>The EIS does not include an independent Noise Impact Assessment (NIA) or an assessment of annoying characteristics in accordance with the Noise Policy for Industry (NPfI) Fact Sheet C. The NIA referred to within the EIS uses a Transport for NSW Noise Estimator tool, rather than an assessment undertaken by a suitably qualified person/s in accordance with the relevant guidelines.</p> <p>The EPA requires the proponent to undertake a NIA undertaken by a suitably qualified person/s. This assessment should include consideration of annoying characteristics in accordance with the NPfI Fact Sheet C. The assessment must include the details and calculations used to assess Annoying Characteristics in accordance with NPfI Fact Sheet C. The assessment must consider the total noise level emitted by the premises at sensitive receivers.</p>	<p>Noted.</p> <p>Five sensitive receivers (rural residences) are located within 3km of the proposed quarry boundary. The nearest receiver is a farmstead located about 1450m north-east of the quarry boundary.</p> <p>Existing noise sources include livestock, tractors, quad bikes, light vehicles and heavy vehicles, blasting. These noise sources originate from surrounding agricultural activities, Hume Highway road traffic noise (10,000 plus vehicles per day), landfilling operations and quarry operations from the North Ridge pit.</p> <p>SLR Consulting were engaged to provide a Noise and Vibration Impact Assessment for the proposal. The results are detailed below and the NVIA provided in Appendix B.</p>

Issue	Response
<p>Construction and operational noise:</p> <p>The EPA notes that there are no predicted exceedances of the project noise trigger levels. The EPA also notes reference to the Interim Construction Noise Guideline (ICNG) in the EIS. All activities should be assessed as operational noise in accordance with the NPfl as the ICNG does not apply to quarries.</p> <p>The EPA requires the proponent to:</p> <ol style="list-style-type: none"> 1. Justify consideration of the ICNG and demonstrate that there is a discernible difference in noise during construction and operation phases of the Project. In lieu of this, the proponent should revise the NIA to assess quarry operations at surface level against operational noise criteria in accordance with the NPfl; 2. Consider all feasible and reasonable noise mitigation measures to address any potential noise impacts from the premises. 	<p>The Noise and Vibration Impact Assessment (NVIA) (SLR, 2021) is provided in Appendix B.</p>
EIS inconsistencies	
<ol style="list-style-type: none"> 1. The description of the proposed development on page 3 of the EIS states the extracted peak demand to be up to 300,000 tpa. However, Section 1.2.3 states that the peak demand will be of up to 450,000 tpa and will not exceed 4 million tonnes of resource for the life of the project. 	<p>Noted.</p> <p>The correct description, which is also reflected in the revised SEARs is peak demand will be of up to 450,000 tpa and will not exceed 4 million tonnes of resource for the life of the project.</p>
<ol style="list-style-type: none"> 2. Section 1.2.3 of the EIS states that blasting for extraction will be five to ten times a year. However, Section 6.7.2 states that the proposed quarry would blast 2 to 5 times a year. 	<p>Noted.</p> <p>The correct blasting rate is five to ten times a year.</p>
<ol style="list-style-type: none"> 3. The traffic, transport, and road safety description on page 21 of the EIS states the site will generate up to 184 vehicle movements/day (additional 50 movements/day and 6 during peak hour). However, Section 6.9.1 	<p>Noted.</p> <p>The results of the Traffic Impact Assessment (TIA) indicate that the site is expected</p>

Issue	Response
<p>states that the Project would not result in additional traffic.</p> <p>The EPA requires clarification regarding these inconsistencies.</p>	<p>to generate up to 184 vehicle movements per day as part of the proposal (annual peak extraction limit of 450,000 tonnes), which is an increase of 50 vehicle movements per day and 6 vehicle movements during the peak hour.</p> <p>This TIA was prepared prior to the Modification approval for the Proponent's North Ridge quarry, which was to increase annual peak extraction from 300,000 tonnes to 450,000 tonnes. The additional traffic resulted from the 150,000 tonnes per annum (tpa) gap between current operations of 300,000 tpa and the proposed Mt Bundarbo quarry's 450,000 tpa.</p> <p>On the 23 June 2021 approval was received for the Modification to increase the North Ridge extraction from 300,000 tpa to 450,000 tpa. This approval is provided in Appendix C.</p> <p>As detailed in the EIS, the processing plant can only process a maximum of 2,000 tonnes per day. Noting the constraint of the processing plant and that North Ridge quarry has approval for peak extraction of 450,000 tpa, there would be no additional traffic generated as part of the proposal.</p>
<p>Water management</p>	
<p>Sediment and erosion control:</p> <p>The EPA recognises that the Proponent has detailed appropriate sediment and erosion controls, including but not limited to:</p> <ul style="list-style-type: none"> • Diversion and capture of runoff to a sediment dam, • Diversion of stormwater via drainage structures, • Rock armouring on culverts, • Installation of sediment fences, • Preservation and stabilisation of disturbed areas, drainageways and steep slopes, and • Regular inspections and maintenance of sediment controls. 	<p>Noted.</p>

Issue	Response
<p>Additionally, the EIS identified that no Acid Sulphate Soils or naturally occurring asbestos are present on the proposed Project site.</p> <p>The EPA reminds the proponent that it is an offence under section 120 of the POEO Act to pollute waters.</p>	
<p>Water requirements during construction and operation:</p> <p>The EPA notes that the water resources could pose an issue in times of drought when water demand is higher and surface water resources have evaporated.</p> <p>The EPA recommends that the Proponent develop a contingency plan that addresses the risk of depleted water resources.</p>	<p>Noted.</p> <p>Current quarry operations at the Proponent's North Ridge quarry indicate that rainwater collected in the quarry void is sufficient to supply the dust suppression and any other water requirements.</p> <p>The Proponent operates a groundwater bore (WAL 28736) with an annual extraction limit of 10 ML. During times of drought, this source can be drawn on. There has not been an instance where the Proponent has reached the annual extraction limit.</p> <p>The Proponent maintains a 100,000 L tank for fire fighting that is topped up with water from the groundwater bore.</p> <p>As a contingency, the Proponent can draw water under an agreement with a neighbour who operates with a water licence to draw water from the Murrumbidgee River. Another contingency is for the Proponent to request an increase to the current extraction limit on WAL 28736.</p>
Air quality	
<p>Dust management:</p> <p>The EIS identified that dust will be managed through mitigation measures which include but are not limited to:</p> <ul style="list-style-type: none"> • Dust suppression via wet suppression or chemical coating, • Covering loads and stockpiles, • Sealing of roads where required, 	<p>Noted.</p>

Issue	Response
<ul style="list-style-type: none"> Designated speed limit of the haul road, and Minimising or ceasing work during adverse windy weather. <p>The EPA recommends that all reasonable and feasible dust mitigation measures are implemented during construction and operation to prevent dust emissions.</p>	
Waste management	
<p>The EPA reminds the proponent that all waste should be classified in accordance with the NSW EPA's Waste Classification Guidelines and disposed of at a facility that can lawfully accept it.</p>	Noted.

2.1.4 Transport for New South Wales (TfNSW)

Issue	Response
<p>A discrepancy has been noted by TfNSW between the EIS and TIA. The TIA claims an increase of 50 vehicle movements per day due to the proposed development and an increase of 6 vehicle movements for the peak hour. The EIS claims that there will be no change to existing traffic generated by the site.</p>	<p>Noted.</p> <p>The results of the Traffic Impact Assessment (TIA) indicate that the site is expected to generate up to 184 vehicle movements per day as part of the proposal (annual peak extraction limit of 450,000 tonnes), which is an increase of 50 vehicle movements per day and 6 vehicle movements during the peak hour.</p> <p>This TIA was prepared prior to the Modification approval for the Proponent's North Ridge quarry, which was to increase annual peak extraction from 300,000 tonnes to 450,000 tonnes. The additional traffic resulted from the 150,000 tonnes per annum (tpa) gap between current operations of 300,000 tpa and the proposed Mt Bundarbo quarry's 450,000 tpa.</p> <p>On the 23 June 2021 approval was received for the Modification to increase the North Ridge extraction from 300,000 tpa to 450,000 tpa. This approval is provided in</p>

Issue	Response
	<p>Appendix C.</p> <p>As detailed in the EIS, the processing plant can only process a maximum of 2,000 tonnes per day. Noting the constraint of the processing plant and that North Ridge quarry has approval for peak extraction of 450,000 tpa, there would be no additional traffic generated as part of the proposal.</p>

2.1.5 NSW Rural Fire Service (RFS)

Issue	Response
General Conditions	
<p>1. A draft Fire Management Plan (FMP) shall be prepared for the proposed development and provided to the local NSW RFS District Office for comment. Any return comment from the District shall be adopted into an amended FMP. As a minimum, the FMP shall include:</p> <ul style="list-style-type: none"> • 24-hour emergency contact details including alternative telephone contact • Site infrastructure plan • Fire fighting water supply plan • Site access and internal road plan • Construction of asset protection zones and their continued maintenance • Location of hazards (physical, chemical, and electrical) that will impact on the fire fighting operations and procedures to manage identified hazards during the fire fighting operations • @ Mitigation measures designed to prevent a fire occurring within the site, and prevent a fire escaping the site and developing into a 	<p>A Fire Management Plan (FMP) will be prepared for the proposal with input from the RFS.</p> <p>The FMP has been added to the Safeguards and Mitigation Measures for the proposal. It is HA09 in Table 3-1.</p>

Issue	Response
bush/grassfire risk to the surrounding area <ul style="list-style-type: none"> Such additional matters as required by the NSW RFS District Office. 	
2. To allow emergency service personnel to undertake property protection activities, a minimum 10-metre defensible space, managed as an asset protection zone, shall be provided around all buildings and built assets and the outside perimeter of the development footprint.	<p>There is no built infrastructure as part of with this proposal. The proposal will use existing built infrastructure located in proximity to the processing area.</p> <p>An Asset Protection Zone (APZ) will be provided where it does not already exist around built infrastructure adjacent to the current processing area and landfill. However, an APZ at the top of the pit cannot be controlled. Disturbance will occur around the perimeter of the pit and a material bund will be constructed in some locations. Vegetation regeneration is likely to occur. However, this area becomes unstable and cannot be accessed again safely.</p> <p>NGH consulted with NSW RFS (refer to Appendix A.2) regarding this matter. It is agreed that where there are no built structures, a 10 m defensible space around the footprint of the pit is not required.</p> <p>The requirement of a 10m APZ around built structures has been added to the Safeguard and Mitigation Measures for the proposal. It is HA10 in Table 3-1.</p>
3. All internal roads shall comply with the design and construction specifications for property access outlined in Appendix 3 of Planning for Bush Fire Protection 2019.	<p>All internal roads will comply with the design and construction specifications for property access outlined in Appendix 3 of Planning for Bush Fire Protection 2019.</p> <p>This requirement has been added to the Safeguards and Mitigation Measures for the proposal. It is HA11 in Table 3-1.</p>
4. A minimum 20,000-litre water supply (tank) fitted with a 65mm Storz fitting shall be located adjoining the internal access road within the required asset protection zone.	<p>There is no built infrastructure as part of with this proposal. The proposal will use existing built infrastructure located in proximity to the processing area.</p> <p>A 100,000L static water supply exists in proximity to current operations and the existing built infrastructure.</p> <p>A small tank will be located at the proposal for dust suppression or for addition to the mobile processing plant.</p> <p>NGH consulted with NSW RFS (refer to Appendix A.2) regarding this matter. It is</p>

Issue	Response
	agreed that where there are no built structures proposed, an additional static water supply is not required. Noting that the 100,000L static water supply is located in proximity to existing built infrastructure.

2.1.6 NSW Department of Primary Industries – Agriculture

Issue	Response
DPI Agricultural has reviewed the material provided and has no further comment.	Noted

2.1.7 Geological Survey of NSW – Mining, Exploration & Geoscience

Issue	Response
MEG has reviewed the Environmental Impact Statement for the Mt Bundarbo Quarry particularly the resource assessment and is satisfied that the proponent has adequately assessed the resource to be extracted. MEG has no concerns with the proposed quarry.	Noted
MEG acknowledges the consultation that has already occurred in relation to a proposed biodiversity offset area surrounding the Bald Hill landfill site (former North Jugiong Quarry). MEG has no resource sterilisation concerns with the proposed offset area.	Noted

2.1.8 Essential Energy

Issue	Response
<p>Essential Energy notes that existing overhead powerlines are impacted by the proposed development, and it has safety concerns in relation to the proximity of the proposed development to its powerlines.</p> <p>Please have the Applicant provide a full site plan showing:</p> <ul style="list-style-type: none">• The location of the existing overhead powerlines and poles.• The location of the proposed quarry works and the distance (horizontal) to the overhead powerlines and poles.	<p>The location of the Essential Energy high voltage (HV) and low voltage (TR) network are provided in Section 2.3 and Figure 2-1.</p> <p>The proposal does not impact the current network.</p>

2.2 State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

The *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (the Mining SEPP) is designed to provide for the proper management and development of mineral, petroleum and extractive material resources and establish appropriate planning controls to encourage ecologically sustainable development through environmental assessment and management.

Part 3 of the Mining SEPP includes matters for consideration for development applications. The matters relevant to the proposal have been addressed in Table 2-2 below.

Table 2-2 Matters of consideration under Part 3 of the Mining SEPP

Provision	Comment
12 Compatibility of proposed mine, petroleum production or extractive industry with other land uses	<p>This EIS has considered the compatibility of the proposal with surrounding land uses. Refer to the environmental assessment in Section 6 of the EIS, and specifically to the following sections as they relate to compatibility of land use:</p> <ul style="list-style-type: none"> Land use impacts in Section 6.2 of the EIS Socio-economic and Community considerations in Section 6.12 of the EIS. <p>The full list of mitigation measures to manage impacts and minimise effects on other land uses and the public is provided in Section 8.2 of the EIS and Table 3-1 of this RTS.</p>
13 Compatibility of proposed development with mining, petroleum production or extractive industry	<p>The proposal is compatible with other extractive industries in the area. The proposal would extract the basalt resource but would not have a significant impact on other current or future extraction or recovery of minerals, petroleum, or extractive materials (including by limiting access to, or impeding assessment of, those resources).</p>
14 Natural resource management and environmental management	<p>The design and location of the proposal as outlined in the EIS has been an informed process (relying on specialist input where necessary) to avoid and minimise potential environmental impacts. The proposed quarry would be operated in an environmentally responsible manner. Refer to the environmental assessment in Section 6 of this EIS, and specifically to the following sections as they relate to the compatibility of the proposed land use:</p> <ul style="list-style-type: none"> Biodiversity in Section 6.3 of the EIS Water Use, Quality (Surface and Groundwater) and Hydrology in section 6.4 of the EIS Climate and air quality in Section 6.5 of the EIS. <p>The full list of mitigation measures to manage potential impacts and minimise effects on other land uses and the public is provided in Section 8.2 of the EIS and Table 3-1 of this document.</p>

Provision	Comment
<p>16 Transport</p>	<p>The proposal would include the transport of materials on public roads. A Traffic Impact Assessment (TIA) has been completed for the development and consultation has been undertaken with relevant referral bodies. The TIA is summarised in Section 6.9 of the EIS and provided in full in Appendix G of the EIS.</p> <p>No additional traffic is expected on public roads as a result of the proposal during to the constraint of the processing plant that would be used by the existing North Ridge quarry and the proposal. Both quarries would be approved for maximum extraction of 450,000 tpa (refer to responses in Section 2.1.3 and Section 2.1.4 of this RTS).</p> <p>The quarry would provide a source of superior aggregate for road construction and maintenance. The BHQ angular aggregate is ideal for concrete road pavements providing additional density and mechanical interlock. The BHQ aggregate is ideal for bitumen sealing of flexible pavements providing extended wear and grip. The proposed quarry would extend the operation and reduce the costs of road maintenance in the region by providing a superior source of materials in close proximity to the need.</p>
<p>17 Rehabilitation</p>	<p>Rehabilitation of the site is proposed. Refer to the project description, specifically Section 3.5, Section 6 and Section 7 of the EIS. The EIS addressed:</p> <ul style="list-style-type: none"> • The proposed end use and landform of the land once rehabilitated (including addressing any public use of the land post rehabilitation) • Waste management (including the potential for waste from rehabilitation) • The potential for contamination, specifically the management of potential fuels and lubricants is proposed. No other potential contamination is likely.

2.3 Essential Energy HV and TR network

The proposal does not impact the existing HV and TR network. The location of the Essential Energy HV and TR network are provided in Figure 2-1.

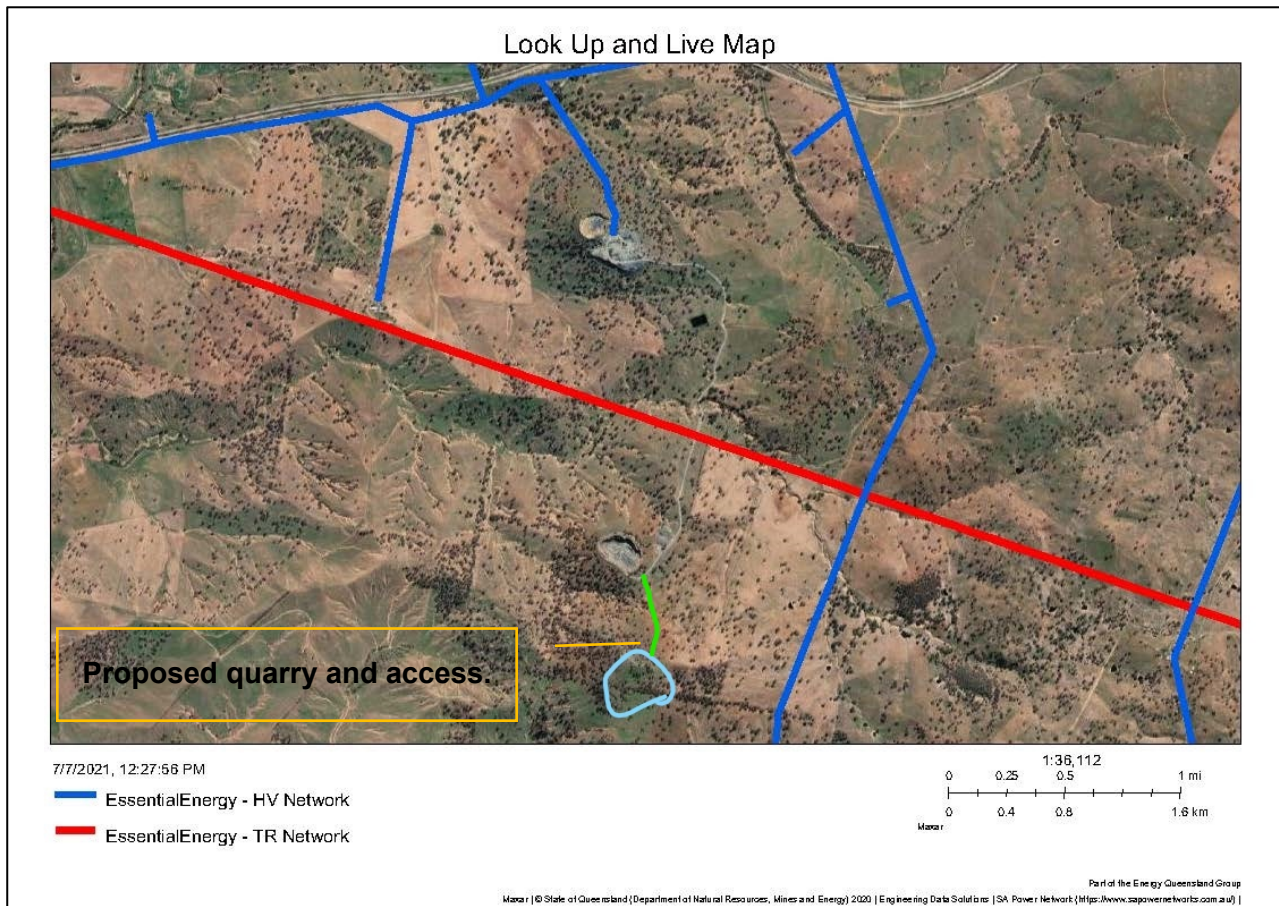


Figure 2-1 Essential Energy HV and TR network in proximity to the proposal

3. Updated mitigation measures

In response to submission received, this report proposes a number of changes to the safeguards and mitigation measures detailed in the EIS. Table 3-1 provides the full list of safeguards and mitigation measures with added measures highlighted in grey. Removed text from a mitigation measure will have a strikethrough and added text will be underlined.

*C = Construction Phase, O = Operational Phase and R = Rehabilitation Phase

Table 3-1 Updated safeguards and mitigation measures

No.	Safeguards and mitigation measures	C	O	R
Land Use				
LU1	Consultation with adjacent landholders will be ongoing to manage interactions between the quarry and other properties.	C	O	
LU2	<p>A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP) will be prepared, implemented and monitored during the construction and operation of the Proposal, in accordance with Landcom (2004), to minimise soil (and water) impacts. The SWMP and ESCP would include provisions such as:</p> <ul style="list-style-type: none"> At the commencement of the works, and progressively during construction, install the required erosion control and sediment capture measures. Runoff which has been captured on site should be managed to avoid any overflow. Captured waters should be reused where possible, evaporated or extracted from the site and disposed of elsewhere. Regularly inspect erosion and sediment controls, particularly following rainfall. Maintain a register of inspection and maintenance of erosion control and sediment capture measures. Ensure there are appropriate erosion and sediment control measures in place to prevent erosion and sedimentation occurring within stormwater paths and along roadsides during concentrated flows. Ensure that machinery arrives and leaves site in a clean, washed condition, free of fluid leaks and not tracking soil to and from nearby areas. Stockpile topsoil appropriately to minimise weed infestation, maintain soil organic matter, and maintain soil structure and microbial activity. Manage works in consideration of heavy rainfall events. Areas of unexpected/unintended soil disturbance to be rehabilitated promptly and progressively during construction. 	C	O	
LU3	<p>Detailed rehabilitation would be a section of the OEMP and would be prepared in consultation with NSW Department of Primary Industries and the landowner prior to decommissioning. The Rehabilitation section is to include:</p> <ul style="list-style-type: none"> Removal of gravel from internal access tracks where required, in consultation with landowner. Indicators and standards to indicate successful rehabilitation of disturbed areas. These indicators and standards should be applied to rehabilitation activities once the quarry is decommissioned. 			R

No.	Safeguards and mitigation measures	C	O	R
LU4	A Pest and Weed Management Plan would be prepared as part of the CEMP and OEMP to manage the occurrence of noxious weeds and pest species across the site during construction and operation. The plans must be prepared in accordance with Hilltops Council and NSW DPI requirements. Where possible integrate weed and pest management with adjoining landowners.	C	O	
LU5	The Proponent would consult with GSNSW in relation to biodiversity offset areas or any supplementary biodiversity measures to ensure there is no consequent reduction in access to prospective land for mineral exploration, or potential for sterilisation of mineral resources.	C		
LU6	Construction and operations personnel will drive carefully and below the designated speed limit of the haul road to minimise dust generation and disturbance to nearby farming enterprises.	C	O	
LU7	Grazing would continue within the development site and be used as an option to control weeds and grass growth, and to maintain agricultural production at the site.		O	
LU8	The Proponent would provide annual production data for the subject site to the NSW Division of Resources and Geoscience for the collection of construction material production data.		O	
Biodiversity				
BD1	Time works to avoid critical life cycle events: <ul style="list-style-type: none"> If clearing outside of this period cannot be achieved, pre-clearing surveys would be undertaken to ensure no impacts to fauna would occur (see below) vegetation clearance should be planned outside of the breeding season of the Brush-tailed Phascogale (April-June) and Superb Parrot (Sept to November). 	C		
BD2	Implement clearing protocols during tree clearing works, including pre-clearing surveys, and staged clearing, the presence of a trained ecological or wildlife handler: <ul style="list-style-type: none"> Ecologist to conduct a pre-clearing survey and pre-clearing checklist no more than 7 days prior to tree clearing If nesting/roosting fauna are observed during the pre-clearing survey, an ecologist or trained wildlife handler would be present during the felling of the tree to either relocate said fauna or take to nearest veterinary hospital or wildlife carer. Pre-clearing checklist Tree clearing procedure Tree-clearing procedure including relocation of habitat features to adjacent areas of Zone 2 (derived grassland) for habitat enhancement 	C		
BD3	Clearing protocols that identify vegetation to be retained, prevent inadvertent damage and reduce soil disturbance; for example, removal of native vegetation by chainsaw, rather than heavy machinery, is preferable in situations where partial clearing is proposed: <ul style="list-style-type: none"> Approved clearing limits to be clearly delineated with temporary fencing or similar prior to construction commencing. No stockpiling or storage within dripline of any mature trees to be retained; In areas to clear adjacent to areas to be retained, chainsaws would be used rather than heavy machinery to minimise risk of unauthorised disturbance; and 	C		

No.	Safeguards and mitigation measures	C	O	R
	<ul style="list-style-type: none"> Where trees are to be retained, an adequate protection zone (TPZ) will be provided around each tree for the duration of construction, where possible. Details for calculating TPZs are provided within Australian Standard 4970-2009 – Protection of trees on development site. 			
BD4	Noise barriers or daily/seasonal timing of construction and operational activities to reduce impacts of noise: <ul style="list-style-type: none"> Construction Environmental Management Plan will include measures to avoid noise encroachment on adjacent habitats such as avoiding night works as much as possible. 	C		
BD5	Light shields or daily/seasonal timing of construction and operational activities to reduce impacts of light spill: <ul style="list-style-type: none"> Avoid night works; and Direct lights away from vegetation. 	C	O	
BD6	Adaptive dust monitoring programs to control air quality: <ul style="list-style-type: none"> Daily monitoring of dust generated by construction activities; and Construction would cease if dust observed being blown from site until control measures were implemented; and All activities relating to the proposal would be undertaken with the objective of preventing visible dust emissions from the development site. 	C		
BD7	Hygiene protocols to prevent the spread of weeds or pathogens between infected areas and uninfected areas: <ul style="list-style-type: none"> Machinery would be cleaned prior to entering the site to ensure that weed seeds and propagules are not imported to the site. Weeds shall be managed according to the requirements of the Biosecurity Act; in that they are to be disposed of at a licenced waste management facility or similar. Weeds are not to be mulched and repurposed for any landscaping use. Any occurrences of pathogens such as Myrtle Rust and Phytophthora would be monitored, treated, and reported. 	C	O	
BD8	Staff training and site briefing to communicate environmental features to be protected and measures to be implemented: <ul style="list-style-type: none"> Site induction; and Toolbox talks. 	C		
BD9	Injury and mortality of fauna entering the proposal site during construction and road strike risk: <ul style="list-style-type: none"> If fauna are encountered during construction, allow fauna to leave an area without intervention as much as possible. The project manager and/or environment manager should ensure the contact details of the animal rescue agency/wildlife care group or vet are provided to the site manager, displayed in the site office and included in the Construction Environmental Management Plan (CEMP) or other relevant management plans for the project. 	C		
BD10	Sediment barriers and spill management procedures to control the quality of water runoff released from the site into the receiving environment: <ul style="list-style-type: none"> An erosion and sediment control plan would be prepared in conjunction with the final design and implemented; and Spill management procedures would be implemented. 	C		
BD11	Staff training and site briefing to communicate impacts of traffic strikes on native fauna:	C	O	

No.	Safeguards and mitigation measures	C	O	R
	<ul style="list-style-type: none"> Awareness training during site inductions regarding enforcing site speed limits; and Site speed limits to be enforced to minimise fauna strike. 			
BD12	<p>Clearing and rehabilitation protocols to ensure the protection of SAI entities:</p> <ul style="list-style-type: none"> Complete a Construction Environmental Management Plan (CEMP) to include the following: <ul style="list-style-type: none"> Ensure construction site has exclusion fencing to ensure no accidental vegetation removal occurs in the adjacent box-gum woodland. Ensure no stockpiling or storage of equipment, soil or rubbish occurs in the adjacent box-gum woodland. As part of a site induction, inform construction staff these areas are exclusion zones and therefore not to be disturbed. Place logs from trees that are to be removed in the development site in the Woodland areas to be retained. Complete a Rehabilitation Plan for the Woodland areas to manage: <ul style="list-style-type: none"> Weed control. Replanting or regeneration Re-location of hollows from tree removal Location of nest boxes Location of logs. 	C		
BD13	<p>Implementation of management plans:</p> <ul style="list-style-type: none"> Preparation and implementation of a Biodiversity Management Plan (BMP). Including fauna and flora management and relevant procedures and protocols. Preparation and implementation of Construction Environment Management Plan (CEMP). Preparation and implementation of Rehabilitation Plan (RP). 	C		

Water Use, Quality and Hydrology

No.	Safeguards and mitigation measures	C	O	R
WA1	<p>A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP) will be prepared, implemented and monitored during the construction and rehabilitation of the Proposal, in accordance with Landcom (2004), to minimise soil (and water) impacts. The SWMP and ESCP would include provisions such as:</p> <ul style="list-style-type: none"> At the commencement of the works, and progressively during construction, install the required erosion control and sediment capture measures. Runoff which has been captured on site to be managed to avoid any overflow. Captured waters will be evaporated or extracted from the site and disposed of elsewhere Regularly inspect erosion and sediment controls, particularly following rainfall. Maintain a register of inspection and maintenance of erosion control and sediment capture measures. Ensure there are appropriate erosion and sediment control measures in place to prevent erosion and sedimentation occurring within stormwater paths and along roadsides during concentrated flows. Ensure that machinery arrives and leaves site in a clean, washed condition, free of fluid leaks and not tracking soil to and from nearby areas Stockpile topsoil appropriately to minimise weed infestation, maintain soil organic matter, and maintain soil structure and microbial activity. Manage works in consideration of heavy rainfall events. <p>Areas of unexpected/unintended soil disturbance will be rehabilitated promptly and progressively during construction.</p>	Prior to and during construction	O	
WA2	<p>Best practice management measures to be employed where applicable to reduce the risk of erosion and sedimentation control:</p> <ul style="list-style-type: none"> Preserve and stabilise disturbed areas, drainageways and steep slopes. Minimise the extent and duration of disturbance. Install perimeter controls. Employ the use of sediment control measures to prevent off- and on-site damage. Inspect and maintain sediment and erosion control measures regularly. Control stormwater flows onto, through and from the site in stable drainage structures. Protect inlets, storm drain outlets and culverts. <p>Provide access and general construction controls.</p>	C	O	
WA3	<p>All chemicals and fuels used on-site must be stored and handled in accordance with:</p> <ul style="list-style-type: none"> The requirements of all relevant Australian Standards. The NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids. <p>In the event of an inconsistency, the most stringent requirement must prevail to the extent of the inconsistency.</p>	C	O	
WA4	<p>A protocol shall be developed in relation to discovering buried contaminants within the development site (e.g. pesticide containers, if any). It will include stop work, remediation and disposal requirements.</p>	C	O	

No.	Safeguards and mitigation measures	C	O	R
	If significant contamination is found on site during construction or operation activities, it must be reported in line with Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites (OEHL, 2011). Further action shall be undertaken when necessary in line with the Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015).			
WA5	Any area temporarily used during construction (laydown and trailer complex areas) to be restored to original condition or re-vegetated with native plants where possible.	C		
WA6	A Spill Response Management Plan will be prepared, implemented and monitored during the construction and operation of the Proposal.	C	O	
WA7	Vehicles, plant and equipment will be maintained to minimise leakages during construction and operation of the Proposal.	C	O	
Air Quality				
AQ1	General transport controls include: <ul style="list-style-type: none"> All loads leaving the site will be covered with a vehicle fitted tarpaulin system. A speed limit of 40 km/hr will be adopted on all unsealed roads across the site. Water cart spraying will be utilised on all unsealed roads at a rate of >2L/m²/hr where practical Wheel washing bay will be considered at the meeting point of sealed and unsealed roads. 	C	O	
AQ2	Dust suppression controls at crusher, screening and dumping areas include: <ul style="list-style-type: none"> Periodical water spraying. Minimising dust generating activities during periods of excessive wind. Reduction of rate of activity in response to excessive dust generation.		O	
AQ3	Dust suppression controls for quarry activities including blasting, drilling, stripping of overburden and on-site dumping to include: <ul style="list-style-type: none"> Periodical water spraying. Minimising dust generating activities during periods of excessive wind. Reduction of rate of activity in response to excessive dust generation. Locating and relocating high impact activities to less sensitive on-site areas where possible.		O	
AQ4	Stockpiles and exposed areas of soil and rock will be contained through wetting or covering with an appropriate seal if left for periods of time.	C	O	
AQ5	Monitor local weather conditions and manage the site if any conditions will exacerbate air quality (e.g. wind).	C	O	
AQ6	Fires and material burning are prohibited on the development site.	C	O	
AQ7	The single transportation route to the development site will be utilised to maximise use of sealed roads.	C	O	
AQ8	Vegetation skirting the site to be retained. Exposed areas that are not part of active operational areas will be revegetated as soon as practically possible.	C	O	

No.	Safeguards and mitigation measures	C	O	R
AQ9	Using technologies to optimise blast patterns for consistent energy distribution and reducing the explosive overconsumption.	C	O	
AQ10	All pumps and machinery are to use appropriately sized and high energy efficient motors to reduce the carbon footprint.	C	O	R
AQ11	Time switches and sensor lights are to be used across the Development site to maximise energy efficiency to reduce the carbon footprint.	C	O	R
AQ12	Variable speed drivers (VSD) are to be used on electric motors to maximise energy efficiency to reduce the carbon footprint.	C	O	R
AQ13	Fuel economy and energy consumption of vehicles are to be considered before purchasing new vehicles and machinery, regular servicing is to be undertaken.	C	O	R
Visual Amenity				
VA1	Dust to be controlled in response to visual cues. Refer to section 6.5.	C	O	
VA2	<p>Night lighting will be minimised to the maximum extent possible (i.e. manually operated safety lighting at main component locations). Lighting to be directed away from roads and residents so as not to cause light spill that may be hazardous to drivers.</p> <ul style="list-style-type: none"> • Comply with all relevant standards, codes of practice and policies. • Light spill is light that falls outside the area that is intended to be lit and can contribute to glare and waste energy. Spill light above the horizontal plane also contributes to artificial skyglow. All light fittings should be located, aimed or shielded to avoid spill. Measures to prevent spill include: <ul style="list-style-type: none"> ○ Installing light fittings with an opaque cover and flat glass, mounted horizontally on both axes. ○ Mounting lights under part of a building (including awnings, verandahs or roofs) so light is blocked above the horizontal plane. ○ Design buildings to internalise lights. • Wherever possible, light should be directed downwards. Mitigation measures include: <ul style="list-style-type: none"> ○ Installing direction fittings, such as floodlights or spotlights. ○ Use higher mounting heights that allow lower main beam angles that are closer to the vertical. ○ Lighting of all-night operations need to be downward facing, of a peach colour and shielded. • Operational light from the Proposal must be directed downwards, or inwards towards the work area. • Light fittings that are specifically designed to minimise light shining near to or above the horizontal plane should be used. • Energy efficient globes include LEDs and high-pressure sodium. <p>Where floodlights are required, wherever possible use fittings with asymmetric beams that permit horizontal glazing. These are to be kept at or near parallel to the surface being lit, usually the ground,</p>	C	O	R

No.	Safeguards and mitigation measures	C	O	R
	and should prevent light spill. An asymmetric beam also allows the light fitting to be mounted on the edge of an area and avoids the need for fittings to be tilted upwards. Flat glass light fittings should be installed with the glass horizontal to make efficient use of the brightest part of the beam and to eliminate light spill.			
V3	Bunding along the eastern boundary of the pit will be maintained and revegetated to screen views from sensitive receivers and maintain landscape character.	C	O	R
Noise and Vibration Impacts				
NV1	<p>The Operational Environmental Management Plan (OEMP) will include a section on Noise and Vibration Management (NVM) to manage noise and vibration emission from the site. The NVM section will include the following, as necessary:</p> <ul style="list-style-type: none"> • Notification procedures for the sensitive receivers identified in this report. • Complaints handling procedure and point of contact. • Noise monitoring program and implementation procedure. • Record of blasting dates, blast charges and locations. • Complaints registered (if not already included in the OEMP). • Map of on-site noise barriers/berms. 	C	O	R
NV2	<p>The blasting and extraction are restricted to the hours of operation. Audible work will be during standard working hours:</p> <ul style="list-style-type: none"> • Monday to Friday 7am to 6pm. • Saturday and Sunday 8am to 6pm. <p>No blasting work on Sundays and public holidays.</p>	C	O	R
NV3	Avoid dropping extracted material from excessive height into carry vehicles.	C	O	R
NV4	Keep noise generating equipment well maintained and lubricated.	C	O	R
NV5	<p>Plant and equipment to be operated in a quiet and efficient manner, including:</p> <ul style="list-style-type: none"> • Turning off plant and equipment that is not being used. • Ensuring plant is regularly maintained. <p>Repairing or replacing equipment that becomes noisy.</p>	C	O	R
NV6	All staff on-site to be informed, through toolbox meetings, training and education, of procedures to operate plant and equipment in a quiet and efficient manner.	C	O	R
NV7	Adjoining landowners to be notified of any blast 7 days <u>with a reminder 24 hours</u> prior to the blast event. Livestock to be relocated away from blasts as necessary.	C	O	R
NV8	<p>Blasting activities (excluding drilling and charging) are five to ten times a year during the following hours:</p> <ul style="list-style-type: none"> • Monday to Friday <u>only 10 am to 3 pm.</u> • Saturday and Sunday 8am to 6pm. <p>No blasting on Sundays or public holidays.</p>	C	O	R
NV9	Noise and vibration monitoring and validation of the initial blast for the new quarry is to occur at the nearest sensitive receiver to confirm noise and vibration levels.	C	O	R

No.	Safeguards and mitigation measures	C	O	R
NV10	Blast monitoring will be in accordance with the monitoring requirements for blasting activities outlined in the Australian and New Zealand Environment Council Technical Basis for Guidelines to Minimise Annoyance Due to the Blasting Overpressure and Ground Vibration (1990).	C	O	R
NV11	<p>The quarry operator is to keep a record of all complaints made in relation to noise arising from quarry operations. The record must include the following detail:</p> <ul style="list-style-type: none"> • The date and time of the complaint. • The method by which the complaint was made. • Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect. • The nature of the complaint. • The action taken by the quarry operator in relation to the complaint, including any follow-up contact with the complainant. <p>If no action was taken by the licensee, the reasons why no action was taken.</p>	C	O	R
Topography, Geology and Soils				
SO1	Clearly mark out areas of operation for construction and stripping purposes	C		
SO2	A Soil and Water Management Plan (SWMP) and Erosion and Sediment Control Plan (ESCP) would be prepared as a sub plan in the CEMP and OEMP, implemented and monitored during the construction and operation of the Proposal, in accordance with Landcom (2004) and DECC (2008), to minimise soil (and water) impacts. Refer to section 6.2.3 for details on what to include in the SWMP and ESCP.	C	O	
SO3	<p>Best practice management measures to be employed where applicable to reduce the risk of erosion and sedimentation control:</p> <ul style="list-style-type: none"> • Preserve and stabilise disturbed areas, drainageways and steep slopes. • Minimise the extent and duration of disturbance. • Install perimeter controls. • Employ the use of sediment control measures to prevent off- and on-site damage. Inspect and maintain sediment and erosion control measures regularly. • Control stormwater flows onto, through and from the site in stable drainage structures. Protect inlets, storm drain outlets and culverts. • Provide access and general construction controls. 	C	O	
SO4	<p>All chemicals and fuels used on-site must be stored and handled in accordance with:</p> <ul style="list-style-type: none"> • The requirements of all relevant Australian Standards. • The NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids. • In the event of an inconsistency, the most stringent requirement must prevail to the extent of the inconsistency. 	C	O	

No.	Safeguards and mitigation measures	C	O	R
SO5	A comprehensive Fire Management and Emergency Response (FMER) will be developed for the site and specifically address foreseeable on-site and off-site emergency incidents. The FMER will be contained within the BHQ Emergency Response Plan and will detail appropriate risk control measures that need to be implemented to safely mitigate potential risk to soil, health and safety of firefighters and first responders in the case of a hazardous spill.	C	O	
SO6	A Fire Management and Emergency Response will be developed and implemented during construction, operation and rehabilitation to prevent contaminants affecting adjacent surrounding environments. The FMER will include spill and contamination responses to: <ul style="list-style-type: none"> Manage the storage of any potential contaminants onsite. Mitigate the effects of soil contamination by fuels or other chemicals (including emergency response and EPA notification procedures and remediation). 	C	O	
SO7	A protocol will be developed in relation to discovering buried contaminants within the development site (e.g., pesticide containers, if any). It would include stop work, remediation and disposal requirements. If significant contamination is found on site during construction or operation activities, it must be reported in line with Contaminated Sites – Guidelines for Consultants Reporting on Contaminated Sites (OEHS, 2011). Further action should be undertaken when necessary in line with the Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 (EPA, 2015).	C	O	
SO8	Dust and noise controls shall be implemented during construction of the facility to ensure minimal impact to nearby receptors and ecosystems. Measures can include but are not limited to dust gauge monitoring, dust suppression techniques, ensuring machinery meets noise regulations etc.	C		
SO9	Any area temporarily used during construction (laydown and trailer complex areas) will be restored to original condition or re-vegetated with native plants where possible.	C		
Traffic, Transport and Road Safety				
TT1	The turn facilities are currently not line marked; line marking will be provided as part of the Proposal in accordance with the previously approved design provided within Appendix G.	Design		
Aboriginal Heritage				
AH1	Works within the Development site may proceed with caution.	C	O	R
AH2	Any proposed activity outside of the current assessment area shall also be subject to an Aboriginal heritage assessment.	C	O	R
AH3	If any items suspected of being Aboriginal in origin are discovered during works, all work in the immediate vicinity must stop and Heritage NSW must be notified. The find will need to be assessed and if found to be an Aboriginal object an Aboriginal Heritage Impact Permit (AHIP) may be required.	C	O	R
AH4	In the unlikely event that human remains are identified during works, all work must cease in the immediate vicinity and the area must be cordoned off. The Proponent must contact the local NSW Police	C	O	R

No.	Safeguards and mitigation measures	C	O	R
	who will make an initial assessment as to whether the remains are part of a crime scene, or possible Aboriginal remains. If the remains are thought to be Aboriginal, Heritage NSW must be notified.			
Historic Heritage				
HH1	Should an item of historic heritage be identified, the Heritage Division (DPIE) will be contacted prior to further work being carried out in the vicinity.	C	O	R
Socio-economic and Community				
SE1	<p>A Community and Stakeholder Engagement Plan (CSEP) will be prepared as a subplan in the CEMP and OEMP and will be implemented during construction to manage impacts to community stakeholders, including but not limited to:</p> <ul style="list-style-type: none"> • Protocols to keep the community updated about the progress of the project and project benefits. • Protocols to inform relevant stakeholders of potential impacts (haulage, noise etc.). • Protocols to respond to any complaints received. 	C	O	
SE2	Liaise with local industry representatives to maximise the use of local contractors, manufacturing facilities, materials.	C	O	
Hazards				
HA01	Update the BHQ Bushfire Emergency Response Plan as part of the Mine Safety Management Plan (MSMP) and Emergency Response Management Plan. The updated plan will be prepared in consultation with the local Rural Fire Service and details of the plan would be provided in the updated CEMP and OEMP Environmental Management Plan (EMP) for the project.			
HA02	Dangerous or hazardous materials will be transported, stored, and handled in accordance with AS1940-2004: The storage and handling of flammable and combustible liquids, and the ADG Code where relevant. All potential pollutants kept on-site will be stored in accordance with relevant HAZMAT requirements and bundled.		C	
HA03	All design and engineering will be undertaken by qualified competent persons with the support of specialists as required.		Design	
HA04	All electrical equipment will be designed in accordance with relevant codes and industry best practice standards in Australia.		Design	
HA05	<p>All chemicals and fuels used on-site must be stored and handled in accordance with:</p> <p>The requirements of all relevant Australian Standards; and The NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids. In the event of an inconsistency, the most stringent requirement must prevail to the extent of the inconsistency.</p>	C	O	R
HA06	Water for use in firefighting will be provided by the site water management system, to ensure there is sufficient water available on site for bushfire fighting purposes.	C	O	R
HA07	The haul road on the site provides access across the site for fire fighting vehicles. Water for use in firefighting will be provided by an extraction groundwater bore onsite. Firefighting equipment including fire extinguishers and hose reel (landfill shed only) will continue to be provided at all infrastructure areas and mobile	C	O	R

No.	Safeguards and mitigation measures	C	O	R
	equipment will be maintained in accordance with Australian Standards and WH&S guidelines.			
HA08	BHQ has a long history of safe operation of the Jugiong Quarry and implementation of appropriate measures on site for managing bushfire risk. BHQ will continue to implement the appropriate measure to reduce the risk of fire ignition and the spread of bushfires across the site in consultation with RFS.	C	O	R
HA09	<p>A draft Fire Management Plan (FMP) shall be prepared for the proposed development and provided to the local NSW RFS District Office for comment. Any return comment from the District shall be adopted into an amended FMP. As a minimum, the FMP shall include:</p> <ul style="list-style-type: none"> • 24-hour emergency contact details including alternative contact • Site infrastructure plan • Fire fighting water supply plan • Site access and internal road plan • Construction of asset protection zones and their continued maintenance • Location of hazards (physical, chemical, and electrical) that will impact on the fire fighting operations and procedures to manage identified hazards during the fire fighting operations • Mitigation measures designed to prevent a fire occurring within the site, and prevent a fire escaping the site and developing into a bush/grassfire risk to the surrounding area • Such additional matters as required by the NSW RFS District Office. 	C	O	R
HA10	To allow emergency service personnel to provide property protection activities, a minimum 10-metre defendable space, managed as an asset protection zone, shall be provided around all buildings and built assets.	C	O	R
HA11	All internal roads shall comply with the design and construction specifications for property access outlined in Appendix 3 of Planning for Bush Fire Protection 2019.	C	O	R
Resource Use and Waste Generation				
WM1	<p>A Waste Management Plan (WMP) will be developed as a subplan in the CEMP and OEMP and implemented during construction, operation, and rehabilitation to minimise wastes. It will include but not be limited to:</p> <p>Identification of opportunities to avoid, reuse and recycle, in accordance with the waste hierarchy.</p> <p>Spoil would be blended with the product that is suitable for sale and/or used as backfill in the sediment basin during staging of the quarry pit. Dust generated during operation of the quarry would be captured and used as a capping layer at Bald Hill Ecofill Landfill.</p>	C	O	R

No.	Safeguards and mitigation measures	C	O	R
	<p>General waste would be disposed of at the adjacent Bald Hill Ecofill Landfill.</p> <p>Quantification and classification of all waste streams.</p> <p>Provision for recycling management onsite.</p> <p>Provision of toilet facilities for onsite workers and how sullage will be disposed of (i.e., pump out to local sewage treatment plant).</p> <p>Tracking of all waste leaving the site.</p> <p>Disposal of waste at facilities permitted to accept the waste.</p> <p>Requirements for hauling waste (such as covered loads).</p>			
Closure and Rehabilitation				
CR1	<p>Consultation with adjacent landholders would be ongoing to determine the areas and degree of rehabilitation for aspects of the Proposal following closure.</p>		O	
CR2	<p>Development of the detailed Quarry Closure Plan, just prior to closure. The Quarry Closure Plan would include:</p> <p>Purpose and objectives of the Plan.</p> <p>Rehabilitation Management Plan.</p> <ul style="list-style-type: none"> ○ Rehabilitation and revegetation. ○ Topsoil management. ○ Surface preparation. ○ Scheduling of works. ○ Final landform. ○ Weed control. ○ Rehabilitation maintenance. ○ Rehabilitation monitoring. <p>Final Void Management.</p> <ul style="list-style-type: none"> ○ Void design criteria and specifications. ○ Void slope stability. ○ Control of surface inflow. ○ Monitoring and management. ○ Final void rehabilitation. <p>Quarry Closure and Decommissioning.</p> <ul style="list-style-type: none"> ○ Closure methodology – decommissioning of infrastructure, plant, buildings, roadways and hardstands. ○ Dams, diversions and surface water features. ○ Post mine land use. 		O	R

Appendix A Consultation

A.1 Hilltops Council

From: [Belinda Fourie](#)
To: [Nicola Smith](#)
Subject: FW: Request for further information
Date: Wednesday, 13 October 2021 5:02:18 PM
Attachments: [image001.png](#)
[Mt Bundarbo cost estimate_v2.pdf](#)
[landowners-consent-application-form.pdf](#)

Belinda Fourie
Work Health Safety and Environment Manager
Bald Hill Quarry Pty Ltd
Ph: 0490 552 596
[Email: safety@baldhillquarry.com.au](mailto:safety@baldhillquarry.com.au)



From: Belinda Fourie
Sent: Wednesday, 8 September 2021 11:04 AM
To: Andrew Raines <Andrew.Raines@hilltops.nsw.gov.au>
Cc: Samantha Carling <samantha.carling@hilltops.nsw.gov.au>
Subject: RE: Request for further information

Hi Andrew,

Much appreciated.

The costs were ex GST. Please see attached updated document.
The landowners consent form has been submitted and accepted by crownlands and they should issue the invoice on Thursday with a reference number.
In regards to contributions we would like to stay with Section 94.

Let me know if there is anything else the JRPP need.

Cheers,
Belinda

Belinda Fourie
Work Health Safety and Environment Manager
Bald Hill Quarry Pty Ltd
Ph: 0490 552 596
[Email: safety@baldhillquarry.com.au](mailto:safety@baldhillquarry.com.au)



From: Andrew Raines <Andrew.Raines@hilltops.nsw.gov.au>
Sent: Wednesday, 8 September 2021 10:25 AM
To: Belinda Fourie <safety@baldhillquarry.com.au>
Cc: Samantha Carling <samantha.carling@hilltops.nsw.gov.au>
Subject: RE: Request for further information

Good morning Belinda,

Thank you for providing an update on your application and response to our letter requesting information.

I'm pleased to confirm that the requested extension of time is granted. However, it would be of assistance if the cost summary report could be provided in advance to ensure the JRPP can complete their administration processes.

Kind regards,
Andrew

Andrew Raines
Senior Land Use Planner



Locked Bag 5
YOUNG NSW 2594
andrew.raines@hilltops.nsw.gov.au Phone 1300 445 586
Fax (02) 6386 0105

Boorowa Office – 6-8 Market St
BOOROWA

Harden Office – 3 East St HARDEN

Young Office – 189 Boorowa St YOUNG

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 Please consider the environment before printing this e-mail

From: Belinda Fourie <safety@baldhillquarry.com.au>
Sent: Wednesday, 8 September 2021 10:17 AM
To: Andrew Raines <Andrew.Raines@hilltops.nsw.gov.au>
Cc: Samantha Carling <samantha.carling@hilltops.nsw.gov.au>
Subject: RE: Request for further information

Hi Andrew,

I would like to request an extension for the request for further information for DA application 2021/0133 Mt Bundarbo project for delivery on Friday the 1 October?

Much appreciated,
Belinda

Belinda Fourie
Work Health Safety and Environment Manager
Bald Hill Quarry Pty Ltd
Ph: 0490 552 596
[Email: safety@baldhillquarry.com.au](mailto:safety@baldhillquarry.com.au)



From: Andrew Raines <Andrew.Raines@hilltops.nsw.gov.au>
Sent: Friday, 6 August 2021 4:18 PM
To: Belinda Fourie <safety@baldhillquarry.com.au>
Cc: Samantha Carling <samantha.carling@hilltops.nsw.gov.au>
Subject: RE: Request for further information

Good afternoon Belinda,

Please find attached a copy of Council's letter requesting further information on your development application. A copy has been uploaded to the NSW Planning Portal.

I also advise the Southern Region Joint Regional Planning Panel has been notified of your application. I anticipate the panel may wish to organise a site inspection in the coming month.

Kind regards,
Andrew

Andrew Raines
Senior Land Use Planner



Locked Bag 5
YOUNG NSW 2594
andrew.raines@hilltops.nsw.gov.au Phone 1300 445 586
Fax (02) 6386 0105

Boorowa Office – 6-8 Market St
BOOROWA

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 Please consider the environment before printing this e-mail

From: Belinda Fourie <safety@baldhillquarry.com.au>
Sent: Thursday, 5 August 2021 1:58 PM
To: Andrew Raines <Andrew.Raines@hilltops.nsw.gov.au>; Samantha Carling <samantha.carling@hilltops.nsw.gov.au>
Cc: John Wilkinson <john@baldhillquarry.com.au>; Tony Willsallen <tonywillsallen@gmail.com>
Subject: Request for further information
Importance: High

Hi Andrew,

Just following up as it has now been nearly 3 weeks since the public exhibition closed for Mt Bundarbo.

Does council need to compile the comments or can you send on any additional ones received so we can start our response? I have communication form 5-6 other departments through the portal.

We are keen to keep the assessment process moving. We also didn't receive the modification approval in the mail for North ridge.

Much appreciated,
Belinda

Belinda Fourie
Work Health Safety and Environment Manager
Bald Hill Quarry Pty Ltd
Ph: 0490 552 596
[Email: safety@baldhillquarry.com.au](mailto:safety@baldhillquarry.com.au)



A.2 NSW Rural Fire Service

From: [Anna Jones](#)
To: [Nicola Smith](#)
Cc: [Bradley Bourke](#); [Joanne Laundess](#)
Subject: RE: 20-481 - Mt Bundarbo Pit EIS - Bald Hill Quarry Jugiong
Date: Thursday, 14 October 2021 12:02:14 PM
Attachments: [image001.png](#)

Good morning Nicola,

Please see my comments in red below.

Anna Jones | A/Supervisor Development Assessment & Planning Officer | Planning & Environment Services
NSW RURAL FIRE SERVICE

From: Nicola Smith <nicola.s@nghconsulting.com.au>
Sent: Thursday, 14 October 2021 11:49 AM
To: Anna Jones <Anna.Jones@rfs.nsw.gov.au>
Subject: 20-481 - Mt Bundarbo Pit EIS - Bald Hill Quarry Jugiong

Hi Anna,

Thank you for your time this morning.

I had some queries around the general conditions provided by the RFS for Mt Bundarbo Quarry proposal Your reference: (CNR-23527) DA2021/0133 Our reference: DA20210613002419-Original-1.

Recommendations as discussed:

- (2) To allow emergency service personnel to undertake property protection activities, a minimum 10-metre defensible space, managed as an asset protection zone, shall be provided around all buildings and built assets and the outside perimeter of the development footprint. **The client can provide an APZ around existing built infrastructure where one does not exist. However, there are no built structures as part of this proposal and none in proximity to the pit footprint. As discussed, there is a static water supply in proximity to the built infrastructure. The perimeter of the pit footprint will invariably be disturbed land or in some locations, have an earthen / over burden bund around it. It's likely that there will be regeneration around the perimeter. However, once pit development occurs, these areas cannot be maintained due to safety (unstability of the perimeter edge).**
- **Where there are no built structures proposed at the site of the new pit it is agreed that a 10m defensible space around the pit is not required**
- A minimum 20,000-litre water supply (tank) fitted with a 65mm Storz fitting shall be located adjoining the internal access road within the required asset protection zone. There is no built infrastructure as part of this proposal. **The Proponent have an existing 100,000 L static water supply in proximity to existing operations including built infrastructure. As discussed, this would be sufficient and a tank is not required at the pit for fire-fighting purposes.**
- **Where there are no built structures proposed at the site of the new pit it is agreed an additional SWS is not required – if not already in place, the existing 100kL SWS should be fitted with appropriate fittings for fire-fighting use.**

Best regards,
Nicola

NICOLA SMITH
SENIOR ENVIRONMENTAL CONSULTANT
Master of Philosophy (Phys Geog), B. Sc.

Please note I do not work Mondays

T. 02 6923 1537 M. 0410 411 660

E. nicola.s@nghconsulting.com.au

35 Kincaid Street

(PO Box 5464) Wagga Wagga NSW 2650



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NGH acknowledges that we work on the traditional lands of First Nations people across Australia and recognises the enduring connection to the land. We pay our respects to elders, past present and emerging.

Appendix B Noise and Vibration Impact Assessment

Appendix C North Ridge Modification approval

JOHN WILKINSON
5423 HUME HIGHWAY
JUGIONG NSW 2726

**NOTICE OF DETERMINATION
OF APPLICATION TO MODIFY DEVELOPMENT CONSENT**
issued under Section 4.55 (1A) of the Environmental Planning and Assessment Act 1979

Applicant:	JOHN WILKINSON
Modification Application No:	T98/027.2
Development Consent No:	T98/027
Approved Development:	Extension of hard rock quarrying activities – new extraction site – ongoing use of existing processing plant – new raw feed haul route and product transportation
Description of Modification:	Modification to increase peak extraction and transport of quarry material from 300,000 tonnes per annum to 450,000 tonnes per annum.
Land to be Developed:	Lot 148 DP 753592
Property Address:	Bald Hill Quarry (North Ridge Quarry) Hume Highway Jugiong NSW 2726
Date Consent Modified:	23 June 2021
Determination:	Approved as detailed below

Modification Details:

The modification of Development Consent No: T.98/027 **granted** on 21 April 1999 (as amended by T98/027.1) has been determined in the following manner.

1. Amend condition no. i of the consent to reference the following drawings and documents:
 - a. Jugiong Quarry Review of Environmental Impacts for Modification, prepared by Bald Hill Quarry Pty Ltd, dated 23 September 2020;

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Harden NSW 2587

YOUNG OFFICE

189 Boorowa Street,
Young NSW 2594

- b. Bald Hill Quarry Transport Management Plan, prepared by Amber Organisation Pty Ltd, dated March 2021;
- c. Road Safety Audit, prepared by D-Tal Consulting Pty Ltd, dated February 2021;
- d. Bald Hill Quarry Modification Site Access / Hume Highway Intersection Proposed Design – 19m Articulated Vehicle, prepared by Amber Organisation Pty Ltd, dated 15 February 2021; and
- e. Bald Hill Quarry Modification Site Access / Hume Highway Intersection Swept Path Assessment (sheets 1 to 3), prepared by Amber Organisation Pty Ltd, dated 15 February 2021.

2. Insert the following additional conditions:

- a. Prior to truck movements associated with the development at the site exceeding 96 heavy vehicles per day, the intersection of the access road with the Hume Highway (HW2) shall be constructed and line marked as a two stage crossing on the Hume Highway with a Channelised Right Turn (CHR) lane and an Auxiliary Left Turn (AUL) lane. The design and construction of the intersection treatment shall be in accordance with the Austroads Guide to Road Design as amended by the Transport for NSW supplements for the posted speed limit and to cater for the largest size vehicle likely to access the site. The pavement standards are to be in accordance with the requirements of Transport for NSW for the proposed turning traffic.

Note: The Hume Highway is part of the State Road network. For works on the State Road network the developer is required to enter into a Works Authorisation Deed (WAD) with Transport for NSW before finalising the design or undertaking any construction work within or connecting to the road reserve. The applicant is to contact the Land Use Manager for the South West Region on Ph. 02 6923 6611 for further details.

- b. Prior to truck movements associated with the development at the site exceeding 96 heavy vehicles per day, all work required to address the recommendations of the Road Safety Audit, prepared by D-Tal Consulting Pty Ltd, dated February 2021, shall be completed to the satisfaction of Transport for NSW.

Note: Detail design plans including pavement design details will be submitted to Transport for NSW for approval prior to commencement of any work associated with the recommendations of the Road Safety Audit. An updated line marking and signposting plan shall be developed in consultation with Transport for NSW and submitted for approval.

- c. Prior to completing any line marking work a Road Dilapidation Survey shall be undertaken by a suitably qualified contractor to identify existing pavement issues. Any pavement work deemed necessary by the Road Dilapidation Survey shall be completed prior to the line marking upgrade.
- d. The person having the benefit of this consent is responsible for all public utility adjustment/ relocation works, necessitated by the proposed works and as required

by the various public utility authorities and/or their agents. Prior to works commencing within the road reserve the applicant must apply for and obtain approval under Section 138 of the Roads Act, 1993 from the relevant road authority.

- e. Any works associated with the development shall be at no cost to Transport for NSW and Hilltops Council.
- f. Access to the development site is restricted to vehicles with a maximum size up to general access (19 metres) vehicles. The transportation of materials/goods to or from the quarry site is restricted to general access vehicles.
- g. A maximum of 15 laden heavy vehicles are permitted to leave the quarry site via the Hume Highway in any given hour.
- h. A maximum of 150 laden heavy vehicles are permitted to leave the quarry site via the Hume Highway in any given day.
- i. The person having the benefit of this consent shall keep accurate records of the amount of material transported on the public roads and associated traffic movement numbers to and from of the subject site (on a monthly basis). These records shall be made available on the operators website at the end of each calendar year or at the request of either the Hilltops Council or Transport for NSW.
- j. Prior to truck movements associated with the development at the site exceeding 96 heavy vehicles per day, the person having the benefit of this consent shall prepare and implement a Transport Management Plan, in consultation with Hilltops Council and Transport for NSW, to outline measures to manage traffic related issues associated with the operation of the development and haulage of material. This plan shall focus on the management of traffic generated by the development, the potential impacts, the measures to be implemented, and the procedures to monitor and ensure compliance. As a minimum it shall address, but not necessarily be limited to, the following:
 - i. measures to ensure heavy vehicles adhere to the designated haulage route,
 - ii. measures to maximise the use of a low frequency (regular) trucking schedule rather than an intermittently-high frequency (campaign) trucking schedule,
 - iii. plans to address poor visibility due to adverse weather eg heavy rain periods, fog etc at the intersection of the site access road with the Hume Highway,
 - iv. contingency plans to address disruptions to haulage or closure of the haulage route,
 - v. measures to ensure that all loaded vehicles leaving the site are covered, and are cleaned of materials that may fall onto public roads,
 - vi. details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the quarry,
 - vii. measures to be employed to limit disruption to other motorists, emergency vehicles and school bus timetables,

- viii. a Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code,
- ix. the management of worker fatigue during trips to and from the site,
- x. appropriate vehicle maintenance and safety, and
- xi. procedures to provide for training and compliance with and enforcement of the plan.

The modified development consent conditions are attached with additional wording shown in **bold and italics** with deletions shown ~~struck through~~.

All other conditions remain as previously approved.

This modification does not alter the lapsing date of the consent. It remains as that shown on the original determination.


REVIEW OF DETERMINATION

Where Council is the consent authority, Section 8.2 of the *Environmental Planning and Assessment Act 1979*, provides that the applicant may request the Council to review the determination. A request for review cannot be made after the period within which any appeal may be made to the Court has expired if no appeal was made. There is no right to review a determination of a complying development certificate, designated development or Crown Development.

RIGHT OF APPEAL

Where an applicant is dissatisfied with this decision, Section 8.7 of the *Environmental Planning and Assessment Act 1979* provides a right to appeal the decision to the Land and Environment Court within a period of 6 months from the date the decision is notified or registered on the NSW Planning Portal or after the date of deemed refusal under Section 8.11.

Yours faithfully



Andrew Raines
SENIOR LAND USE PLANNER

**CONDITIONS OF CONSENT FOR APPLICATION NO. T98/0027 AS MODIFIED BY
APPLICATION NO. T98/027.2**

CONDITIONS OF CONSENT

i] That Development Application T.98/0027 is approved subject to compliance with the belowstated information and also subject to the following conditions:

Submitted Details

- Development Application No. T.98/0027; and
- Environmental Impact Statement [EIS] dated December 1998 [Ref: Report No. 490/1];and
- Notes Clarifying Matters to Harden Shire Council prepared January 1999 [Ref:Misc\490clarinf]; and
- Additional Information Requested by EPA prepared January 1999 [Ref: Misc\490addinf]; and
- Submission by applicant to EPA dated 26 February 1999; and
- Submission by applicant to NPWS dated 8 March 1999; and
- Tumut Brungle Local Aboriginal Lands Council - Aboriginal Community Consultant Report on Archaeological Assessment of a Proposed Extension to Quarrying Operations for Bald Hill Quarry.

except where amended by the following conditions of consent;

- a. Jugiong Quarry Review of Environmental Impacts for Modification, prepared by Bald Hill Quarry Pty Ltd, dated 23 September 2020;***
- b. Bald Hill Quarry Transport Management Plan, prepared by Amber Organisation Pty Ltd, dated March 2021;***
- c. Road Safety Audit, prepared by D-Tal Consulting Pty Ltd, dated February 2021;***
- d. Bald Hill Quarry Modification Site Access / Hume Highway Intersection Proposed Design – 19m Articulated Vehicle, prepared by Amber Organisation Pty Ltd, dated 15 February 2021; and***
- e. Bald Hill Quarry Modification Site Access / Hume Highway Intersection Swept Path Assessment (sheets 1 to 3), prepared by Amber Organisation Pty Ltd, dated 15 February 2021.***

[As amended by T98/027.2 on 23 June 2021]

Section A: Harden Shire Council Conditions of Consent:

Liaison Person

1. The applicant shall appoint a liaison person to represent the applicant and to liaise with the Council and staff on the operation of the quarry and implementation and monitoring of conditions of consent. The name of that person and when and where he may be contacted shall be notified to the Council within twenty eight (28) days of the date of consent.

General

2. This consent relates in addition to the extraction of basalt and brecciated basalt, to the progressive rehabilitation of the site in accordance with the EIS, other details as referred to above and all imposed conditions.
3. The applicant is to lodge a separate application for any alterations and/or expansion or intensification of the approved extraction and processing activities including hours of use other than those specified by the imposed conditions.

Duration of the Consent

4. ~~This consent is for a period of twenty (20) years from the date of consent, terminating on 31/4/2019. The applicant may, before this date, seek an extension or modification of the consent for the proposed remaining life of the operation, under section 96 of the Environmental Planning and Assessment Act 1979. The applicant will be required to submit a Review of Environmental Factors relative to the original Environmental Impact Statement, the annual Environmental Management Plan and evidence of sound management of the quarry, the environment, and all monitoring plans imposed by this consent.~~

This consent is for a period of twenty-five (25) years from the date of consent, terminating on 21/4/2024.

[As modified by T98/027.1 on 25 March 2020]

Extent of Consent

5. This consent extends only to the extraction of basalt and brecciated basalt from the North Ridge Quarry site to the following limits:
 - No part of the extraction perimeter rim of the North Ridge Quarry shall extend outside of RL 485 m and more particularly as shown on the diagram labelled final Pit on Figure 2.2 of the EIS; and
 - Quarrying operations shall extend no deeper than below RL 425 m and more particularly as shown on the diagram labelled Final Pit and Section A-A on Figure 2.2 of the EIS.

Entry

6. Council staff or authorised agents of Council may enter the site at all reasonable times to inspect the works and rehabilitation and any other operational aspects as necessary.

Operational

7. Where any condition required by any section of this consent is similar to or has like requirements to another and the standards between these differ, the requirement of the more onerous or restrictive condition, or part thereof, shall be taken as being the condition or part that the applicant shall be required to meet, unless otherwise stated or provided in writing by the Council.
8. The applicant shall make application to Council for Construction Certificates for all structures proposed in this application [i.e.: bridges, sheds etc.]. Such application shall contain full structural plans and specifications and further make nominations as to the prescribed certifying authority for inspection work of these structures.
9. Prior to works commencing, evidence shall be furnished to Council as to the cost of all construction and structural work proposed, and further, that the required premium has been paid to the Long Service Payments Corporation in accordance with section 80 [IOA] of the Environmental Planning and Assessment Act and also as required under section 34 Building and Construction Industry Long Service Payments Act 1986.
10. For the purposes of protection of persons and plant in the event of isolation during a fire event, a separate mobile water tank [minimum of 650 Litres capacity] and pump apparatus shall be sited in an easily accessible but protected location within the work area of the North Ridge Quarry.

Environmental Management Plan

11. The applicant is to submit to Council every twelve [12] months an Environmental Management Plan in which Council is to be satisfied that the following areas are contained and addressed prior to the plan being forwarded for each Government Agency's further satisfaction. The plan shall be initially prepared prior to works commencing in the first year of operations.
 - A. Environmental Monitoring Plan [Condition 3 EPA]
 - B. Erosion and Sediment Control Plan [Condition 4 EPA]
 - C. Air Emission Control Plan [Condition 5 EPA]
 - D. Annual Noise Compliance Monitoring and subsequent recommendations [Condition 12 EPA]

- E. Blast Monitoring program, results and recommendations [Condition 18 EPA]
- F. Site Rehabilitation Progress, Plans and recommendations [EPA and DLAWC]
- G. Statement as to Compliance with requirements of DLAWC for Water Bore License
- H. Statement of Compliance with requirements of DLAWC for Bridge Construction Permit
- I. Results of all required ground, surface, leachate or river/creek/stream water samples required to be undertaken by this consent, and whether they meet the required standards as set
- J. Emergency/contingency plans
- K. Any other details as proposed by the applicant, in the Environmental Management Plan, under the EIS

Road Network

- 12. The Developer shall be required to undertake a survey and design of the intersection with plans submitted to the Roads and Traffic Authority for approval. Such Design shall include full details of the proposed intersection complying with "Austroad Guide to Traffic Engineering Practice, Part 5 - Intersections at Grade" and shall incorporate acceleration and deceleration lanes in both directions of travel. This intersection upgrade shall be completed within nine [9] months of the commencement of the development.
- 13. The intersection of the site access road with the Old Hume Highway shall be upgraded in size and dimensions to a minimum standard being a perpendicular "T" intersection capable of sustaining traffic utilising the intersection in alternate directions simultaneously. Fencing shall be modified to incorporate the above and to allow reasonable site distances at this intersection.

Section 94 Contributions

- 14. The maintenance and upgrading of the old Hume Highway, described in the Development Application as a Local Road, be the responsibility of Bald Hill Quarry after Council completes minor works. This condition is imposed as a "work in kind" measure, in lieu of making a Section 94 contribution for this local road.

15. The applicant shall pay to Council a contribution, under Section 94 of the Environmental Planning and Assessment Act (1997) and in accordance with Council's Section 94 Contributions Plan No. 1 - Unpredictable Developments, at the rate shown in the table below, for all materials transported from the quarry

Location	Contribution[\$/tonne]
MR 381 to Albury St Intersection	\$ 0.719
MR 379 - from MR 84 to MR 78	\$ 1.002

Note: The figure stated for MR 379 does already include the contribution for MR 381 as stated.

16. The contribution will be calculated and paid quarterly from the date on which the development consent becomes effective. These quarterly payments shall be made within one (1) month of the completion of each quarter as measured in any given financial year.
17. Evidence of the tonnage of all material leaving the quarry and its destination is to accompany the Section 94 payment, so that the contribution can be verified.
18. Documentation is to be submitted at the end of each financial year, in the form of a of a statutory declaration from the Quarry Manager or the company Auditor detailing the tonnage of all material removed from the quarry during the year and its destination.
19. The contribution will be indexed and adjusted annually as from the date the consent becomes effective, in accordance with the Price Index of materials used in the building, other than house building [Cat No. 6407.01 or its future equivalent], applicable to each year ending 30th June for the previous twelve months for the duration of the consent.

Haul Road and Site Access Road Treatment

20. A) The proposed haul road shall meet the following minimum standards:
- 1) minimum 8 metres in width [table drain to table drain]
 - 2) minimum 2 coat bitumen and rock seal for whole length
 - 3) have sufficient passing bays to facilitate cyclical truck movements
 - 4) shall be maintained to a standard free from deterioration at all times

The proposed site access road shall meet the following minimum standards:

- 1) minimum 10 metres in width [table drain to table drain]
- 2) minimum 2 coat bitumen and rock seal for whole length
- 3) shall be maintained to a standard free from deterioration at all times

- B) The final climb of the haul road [adjacent the Dalre property] be moved to a minimum of 50 metres from the property boundary [parallel], as shown on the attached Harden Shire Council Diagram 'A', excepting the first bend immediately before the quarry keyhole.

Archaeological/ Heritage

21. During the excavations for the bridge foundations and the adjacent haul road top soil disturbance, Aboriginal Community Monitors shall be engaged to supervise works. Should any relics be discovered during these works, work shall cease, and the National Parks and Wildlife Service Zone Archaeologist is to be notified immediately.

Monitoring

22. A meeting shall be arranged by the applicant every six [6] months and shall have representatives of Harden Shire Council, Environment Protection Authority, Department of Land and Water Conservation, and the National Parks and Wildlife Service and other representatives as selected by the Council and the applicant, to monitor the development and assist in resolving any problems that may arise from time to time.
23. The total amount of material leaving the quarry is to be recorded. Records are to be kept of the load weight and total number of all loaded vehicles leaving the quarry per day. Vehicles are to be identified by make, type and registration number. These records are to be made available to Council on request and summary details of these logs shall be included in the Environmental Management Plan referred to in Condition (11) above.

Amenity

24. All vehicles operating on the project site [Bald Hill Quarry Stages 1 & 2 and Haul Road and Site Access Road] shall meet the requirements set under the Clean Air Act for emissions as though they were roadworthy and registrable. All vehicles shall be maintained such that these standards are met.

- a) ***Prior to truck movements associated with the development at the site exceeding 96 heavy vehicles per day, the intersection of the access road with the Hume Highway (HW2) shall be constructed and line marked as a two stage crossing on the Hume Highway with a Channelised Right Turn (CHR) lane and an Auxiliary Left Turn (AUL) lane. The design and construction of the intersection treatment shall be in accordance with the Austroads Guide to Road Design as amended by the Transport for NSW supplements for the posted speed limit and to cater for the largest size vehicle likely to access the site. The pavement standards are to be in accordance with the requirements of Transport for NSW for the proposed turning traffic.***

Note: ***The Hume Highway is part of the State Road network. For works on the State Road network the developer is required to enter into a Works Authorisation Deed (WAD) with Transport for NSW before finalising the design or undertaking any construction work within or connecting to the road reserve. The applicant is to contact the Land Use Manager for the South West Region on Ph. 02 6923 6611 for further details.***

- b) ***Prior to truck movements associated with the development at the site exceeding 96 heavy vehicles per day, all work required to address the recommendations of the Road Safety Audit, prepared by D-Tal Consulting Pty Ltd, dated February 2021, shall be completed to the satisfaction of Transport for NSW.***

Note: ***Detail design plans including pavement design details will be submitted to Transport for NSW for approval prior to commencement of any work associated with the recommendations of the Road Safety Audit. An updated line marking and signposting plan shall be developed in consultation with Transport for NSW and submitted for approval.***

- c) ***Prior to completing any line marking work a Road Dilapidation Survey shall be undertaken by a suitably qualified contractor to identify existing pavement issues. Any pavement work deemed necessary by the Road Dilapidation Survey shall be completed prior to the line marking upgrade.***
- d) ***The person having the benefit of this consent is responsible for all public utility adjustment/ relocation works, necessitated by the proposed works and as required by the various public utility authorities and/or their agents. Prior to works commencing within the road reserve the applicant must apply for and obtain approval under Section 138 of the Roads Act, 1993 from the relevant road authority.***
- e) ***Any works associated with the development shall be at no cost to Transport for NSW and Hilltops Council.***

- f) Access to the development site is restricted to vehicles with a maximum size up to general access (19 metres) vehicles. The transportation of materials/goods to or from the quarry site is restricted to general access vehicles.**
- g) A maximum of 15 laden heavy vehicles are permitted to leave the quarry site via the Hume Highway in any given hour.**
- h) A maximum of 150 laden heavy vehicles are permitted to leave the quarry site via the Hume Highway in any given day.**
- i) The person having the benefit of this consent shall keep accurate records of the amount of material transported on the public roads and associated traffic movement numbers to and from of the subject site (on a monthly basis). These records shall be made available on the operators website at the end of each calendar year or at the request of either the Hilltops Council or Transport for NSW.**
- j) Prior to truck movements associated with the development at the site exceeding 96 heavy vehicles per day, the person having the benefit of this consent shall prepare and implement a Transport Management Plan, in consultation with Hilltops Council and Transport for NSW, to outline measures to manage traffic related issues associated with the operation of the development and haulage of material. This plan shall focus on the management of traffic generated by the development, the potential impacts, the measures to be implemented, and the procedures to monitor and ensure compliance. As a minimum it shall address, but not necessarily be limited to, the following:**
 - i. measures to ensure heavy vehicles adhere to the designated haulage route,**
 - ii. measures to maximise the use of a low frequency (regular) trucking schedule rather than an intermittently-high frequency (campaign) trucking schedule,**
 - iii. plans to address poor visibility due to adverse weather eg heavy rain periods, fog etc at the intersection of the site access road with the Hume Highway,**
 - iv. contingency plans to address disruptions to haulage or closure of the haulage route,**
 - v. measures to ensure that all loaded vehicles leaving the site are covered, and are cleaned of materials that may fall onto public roads,**
 - vi. details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the quarry,**
 - vii. measures to be employed to limit disruption to other motorists, emergency vehicles and school bus timetables,**
 - viii. a Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and**

speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code,

- ix. the management of worker fatigue during trips to and from the site,***
- x. appropriate vehicle maintenance and safety, and***
- xi. procedures to provide for training and compliance with and enforcement of the plan.***

[As amended by T98/027.2 on 23 June 2021]

Section B: Environment Protection Authority General Terms and Conditions:

GENERAL

Works to be undertaken in accordance with the information supplied to the EPA

1. The development must be undertaken in accordance with the proposal contained on:
 - (a) the Development Application submitted to Harden Shire Council in December 1998
 - (b) the environmental impact statement relating to the development; and
 - (c) all additional documents supplied to the EPA in relation to the development including:

Additional information requested from the applicant and provided by the applicants consultant R.W. Corkery and Co. P.L on 8 February and 1 March 1999.

Obligation to prevent and minimise harm to the environment

2. All practicable measures must be taken to prevent and minimise harm to the environment as a result of the establishment, operation, and the rehabilitation of the quarry.

ENVIRONMENTAL PLANNING

Environmental Monitoring Plan

3. The applicant must prepare a comprehensive Monitoring Plan for the establishment and operation of the quarry. This Monitoring Plan must be submitted to the Environment Protection Authority at least 21 days prior to any construction of the quarry development.

Erosion and Sediment Control Plan

4. The applicant must develop a comprehensive Erosion and Sediment Control Plan [ESCP] for the quarry developed in consultation with the Environment Protection Authority and the Department of Land and Water Conservation, by suitably qualified and experienced persons. The ESCP must be submitted to the EPA at least 21 days prior to any construction of the quarry development.

AIR

5. The Applicant shall take all practical steps to manage the quarry's operations so that the ambient air quality goals for total suspended particulates [TSP] of $90 \mu\text{g}/\text{m}^3$ (annual average) and the dust deposition goal of $4 \text{ grams}/\text{m}^2 \cdot \text{month}$ (annual average) are not exceeded when measured at any monitoring location specified in the Monitoring Plan.
6. The applicant must prepare an Air Emission Control Plan (AECp) to the satisfaction of the Environment Protection Authority, to manage the quarry's contribution to Total Suspended Particulates and Dust Deposition. The AECp must be submitted to the EPA 21 days prior to any construction of the quarry development. The AECp must contain, but not be limited to, the following:
 - (a) Identify all potential sources of Dust Deposition and Total Suspended Particulates and detail the remedial action to be taken or management systems to be employed, to minimise emissions of these pollutants from all sources within the quarry including drills, blasting, disturbed areas, haul roads etc.
 - (b) Provide the quarry's ambient air quality monitoring plan for Dust Deposition, Total Suspended Particulates and meteorological data, identifying the:
 - Monitoring methodologies and standards that will be adhered to;
 - Locations where monitoring will be carried out; and
 - Detailed monitoring cycle and the duration of each monitoring cycle.
7. Activities occurring on the premises must be carried out in a manner that will minimise emissions of dust from the premises.
8. Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.
9. All unsealed trafficable areas, and stockpiled materials must be kept sufficiently wet, or maintained in such a condition, so as to prevent or minimise windblown or traffic generated dust.

NOISE

Noise Level Criteria

10. During operation of the quarry the maximum noise emission of 35 dB(A) day (7 am to 10 pm) and 35 dB(A) night (10 pm to 7 am) applies for prevailing meteorological conditions (winds less than 3 m/s) except under conditions of temperature inversions at the closest residences to the quarry.

Noise impacts that may be enhanced by temperature inversions shall be addressed by:

- (a) documenting noise reports received to identify any higher-level impacts or patterns of temperature inversions; and
- (b) where levels of noise reports indicate a higher level of impact then actions to quantify and ameliorate any enhanced impacts under temperature inversions conditions should be detailed in a noise management plan.

Definition; LA_i 10 % is the sound pressure level that is exceeded for 10 % of the time when measured over a 15-minute period.

- 11. During the night time period (10 pm to 7 am) maximum noise levels from the quarry (including haul truck operations) should not exceed an LA_i 10 % noise emission limit of 45 dB(A) at the closest residences to the quarry.

Noise Compliance Monitoring

- 12. Within 90 days of the commencement of normal operations a compliance test must be carried out by an accredited acoustic consultant indicating the level of noise emanating from the plant, equipment or process (LA_{max}, LA_i (1 minute), LA₁₀ T, LA_{eq} T) measured between 10 and 15 minutes (except where specifically indicated) and representative of the noisiest activity on the premises. In the case of operations, the compliance test must cover a minimum of one 24 hour period including day, evening, and night measurements with sampling periods each day, evening, or night period. The measurement or computation, unless otherwise specified must be carried out at the worst affected residential boundaries and or sensitive areas in the vicinity of the works. A minimum of two sites must be selected for noise measurements. The sites must be located at the two nearest affected residences or at any other position which is representative of an affected residence.

The detailed methodology, timing, time of day, atmospheric conditions together with the operating conditions of the plant, equipment or process under which the tests are made must be noted and reported. The results of the tests must be reported to the EPA within 28 days of the testing being completed.

Hours of Operation

- 13. The hours of operation shall be restricted to the following hours or until such time condition (14.) is satisfied:
 - (a) Haul Road Construction from 7.00 am to 8.00 pm Monday to Friday inclusive and 7.00 am to 8.00 pm Saturday.

- (b) Quarry activity in the North Ridge Quarry from 7.00 am to 6.00 pm Monday to Friday inclusive and 7.00 am to 6.00 pm Saturday.
 - (c) Raw Feed Haulage from 7.00 am to 10.00 pm Monday to Friday inclusive and 7.00 am to 7.00 pm Saturday.
 - (d) Processing and Product Dispatch from 7.00 am to 10.00 pm Monday to Sunday inclusive.
14. Hours of operation may be altered to reflect the hours of operation proposed in Table 2.6 of the Environmental Impact Statement titled Bald Hill Quarry Stage 2 "North Ridge Quarry" via Jugiong, only when the Noise Compliance Monitoring demonstrates compliance with the EPA's Noise level criteria and sleep arousal conditions, documented in the Environmental Noise Control Manual and the proponent obtains approval by Notice from the Environment Protection Authority and Council.

Blasting

15. The overpressure level from blasting operations on the premises must not:
- (a) Exceed 115 dB (Lin Peak) for more than 5 % of the total number of blasts over a period of 12 months; and
 - (b) Exceed 120 dB (Lin Peak) at any time,

When measured at the most affected point within 30 metres of any affected sensitive building such as a residence, school or hospital, or at any other point that is representative of an affected sensitive building.

Ground Vibration [ppv]

16. Ground Vibration peak particle velocity from the blasting operations on the premises must not:
- (a) Exceed 5 mm/s for more than 5 % of the total number of blasts over a period of 12 months; and
 - (b) Exceed 10 mm/s at any time,

When measured at any point within 1 metre of any affected residential boundary or other noise sensitive locations such as a school or hospital.

Time of Blasting

17. Blasting operations on the premises may only take place between 10.00 am and 4.00 pm Monday to Friday inclusive.

Blast Monitoring

18. Blasting monitoring for Ground Vibration Peak Particle Velocity and Blast Overpressure must be monitored for every blast at the Daire residence or at a representative location.

WATER

Pollution of Waters

19. Except as may be expressly provided in the license, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997 or Section 16 of the clean waters Act 1970 prohibiting the pollution of waters.

Erosion and Sediment Control

20. An Erosion and Sediment Control Plan (ECSP) as required by condition 4, must be prepared and implemented which describes the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during the construction and operation of the quarry proposal. The ECSP should be consistent with the requirements for such plans outlined in 'Managing Urban Stormwater: Soils and Construction - NSW Department of Housing.'
21. The haul road must be sealed at a minimum of 20 metres either side of creeks and watercourses and gradients greater than 10% slope.

Water Quality Monitoring

22. Water quality monitoring points must be proposed, and monitoring parameters nominated in the Monitoring Plan required by condition [3.]. The monitoring points should include Sawpit Creek and the discharge points from all nominated sediment and erosion control basins.

Bunding

25. An impervious bund must be established around all hydrocarbon storage tanks. The bund must have sufficient capacity to contain 110 % of the volume of the tank or the largest tank where groups of tanks are installed.

REHABILITATION

26. The progressive rehabilitation must be carried out in accordance with the information provided with the Development Application and to the satisfaction of the EPA and the Department of Land and Water Conservation. Details on the specific rehabilitation stages and time frames must be detailed in the Annual Environmental management Report.

REPORTING

Annual Report

27. The proponent must prepare and submit to the EPA annually, or at any such other time as specified by the EPA, an environmental report containing the results of all monitoring required by the EPA and an interpretation of those results or any other matter relating to the control of pollution or harm or possible harm to the environment, that may be specified in a license issued by the Environment Protection Authority

ENVIRONMENT PROTECTION AUTHORITY ADVICE TO APPLICANT:

This consent and general terms of approval from the Environment Protection Authority provide that a Pollution Control Approval may be issued for the North Ridge Quarry (Stage 2) and the current Pollution Control Approval (License No. 002552) may be amended should you apply to the Environment Protection Authority and commence prior to 1 July 1999. After this date a legislative change is proposed to occur and these licenses will fall under the Protection of the Environment Operations Act 1997, and this may affect or determine what appropriate licensing is required for this development.

You are required to contact the Environment Protection Authority for further information in this regard.

Section C: Department of Land and Water Conservation General Terms and Conditions

Part C.1 - Determination under the Water Act 1912

The Department of Land and Water Conservation proposes to grant a license under part 5 of the Water Act 1912 in relation to Development Application No. T.98 0027, Harden Shire Council, under the following General Terms of Approval.

General Terms of Approval

Conditions Statement referred to on 40AE304051 issued under Pan 5 of the Water Act 1912 on 24 September 1998.

In the following conditions relating to an approval under the Water Act, 1912;

"the Department" means the Department administering the Water Act, 1912;

"approval" means a license, permit, authority or approval under that Act;

"river" has the same meaning as in section 5 of the Water Act, 1912;

"work" means any structure, earthwork, plant, or equipment authorised under the approval to be granted, as defined in section 5 and 105 of the Water Act, 1912.

1. The license shall lapse if the work is not commenced and completed within three years of the date of issue of the license.
2. The licensee shall within two months of completion of the bore] or after issue of the license if the work is existing, furnish to the Department of Land and Water Conservation:-
 - a. Details of the work set out in the attached Form "A" [must be completed by a driller]
 - b. A plan showing accurately the location of the work, in relation to portion and property boundaries.
 - c. A one litre water sample for all licenses other than those for stock, domestic, test bores or farming purposes.
 - d. Details of any water analysis and/or pumping tests.
3. The licensee shall allow the Department of Land and Water Conservation or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the Department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention of pollution or contamination of the sub-surface water.
4. If during the construction of the work, saline or polluted water is encountered above the producing aquifer, such water shall be sealed off by:
 - a. Inserting the appropriate length(s) of casing to a depth sufficient to exclude the saline or polluted water from the work.
 - b. Cementing between the casings and the walls of the bore hole from the bottom of the casing to ground level.

Any departure from these procedures must be approved by the Department before undertaking the work.

- 5.A The Licensee shall notify the Department of Land and Water Conservation if a flowing supply of water is obtained. The bore shall then be lined with casing and cemented, and a suitable closing gear shall be attached to the bore head as specified by the Department of Land and Water Conservation.
- 5.B If a flowing supply of water is obtained from the work, the licensee shall only distribute water from the bore head by a system of pipelines and shall not distribute it in drains, natural or artificial channels or depressions.
6. If the work is abandoned at any time the licensee shall notify the Department of Land and Water Conservation that the work has been abandoned and shall seal off the aquifer by:
- a. Backfilling the work to the ground level with clay or cement after withdrawing the casing (lining); or
 - b. Such method as agreed to or directed by the Department of Land and Water Conservation.
7. Tailwater drain age shall not be allowed to discharge onto adjoining road, crown land, or other persons land, or into any river as defined under the Water Act, 1912, or any ground water aquifer, by surface or sub-surface drains or pipes or any other means.
8. Works used for the purpose of conveying, distributing or storing water from the work authorised by this license shall not be constructed or installed so as to obstruct the free passage of flood waters flowing in, to or from a river or lake.
9. During the first year of issue of this license the volumetric allocation is directly proportional from the date of issue of the license to the end of the irrigation year (June to July).
10. The Department of Land and Water Conservation shall have the right during the currency of this license to vary at any time the volumetric allocation, or the rate at which this allocation is taken.
11. The licensee shall install to the satisfaction of the Department of Land and Water Conservation in respect of location, type and construction, an appliance(s) to measure the quantity of water extracted from the works. The appliance(s) to consist of either a measuring weir or weirs with automatic recording order, or meter of meters of the "dethridge" type, or such other class of meter or means of measurement as may be approved by the Department of Land and Water Conservation. The appliance(s) shall be maintained in good working order and condition. A record of all water extracted from the works shall be kept and supplied to the Department upon request. The licensee when requested must supply a test certificate as to the accuracy of the appliance(s) furnished either by the manufacturer or by some person duly qualified.

12. The allocation has been determined for the total area of the land described in the license. In the event of part of the land being disposed of, the allocation will be subject to review.
13. During the month of July each year the licensee shall furnish to the Department of Land and Water Conservation on a form which will be provided, a return showing the meter reading of the hours pumped, the extraction rate for each month during the previous twelve months, and if an irrigation license, the area of each crop type irrigated and the method of application of the water, regardless of the number of times such areas were actually watered.
14. Location of land on which the water may be used:

PORTION: Lots 7, 8, 9, 11, 12, 178 & Por. 43 and 148
PARISH: Birrema
COUNTY: Harden
15. The volume of groundwater extracted from the works authorised by this license shall not exceed 17 Megalitres in any 12-month period commencing 1st July.
16. The water extracted under this approval shall be used for dust suppression, sand and gravel washing, and as a water supply for the on-site amenities. Any proposed change in purpose will require a replacement license to be issued.

Part C.2 Determination under the Rivers and Foreshores Improvement Act 1948

The Department of Land and Water Conservation proposes to grant a 3A permit to construct a bridge over Sawpit Creek as part of Development Application T.98/0027, Harden Shire Council, under the following General Terms of Approval.

General Terms of Approval

The following General Terms of Approval are required to be carried out for the construction of the bridge over Sawpit Creek, at Lot 178 in DP753592, Parish Birrema, County Harden.

1. The location and nature of the operation as shown on plan number 980901 and BR1298-01 retained in the office of the Department of Land and Water Conservation [DLWC] shall not be altered [copy supplied to Bald Hill Quarry Pty Ltd].

2. Operations shall not take place on the stream bank at a level below the high bank shown on plan number 980901. Vegetation growing along the toe and face of the stream bank below the high bank level shall be maintained and not damaged.
3. Topsoil shall be removed from the area to be disturbed on top of the bank and stockpiled away from the stream. The topsoil shall be spread over the area where operations have been completed. The topsoil surface shall be re-grassed and maintained to prevent erosion. Revegetation shall include the species listed in the EIS or as modified by National Parks and Wildlife Service or Department of Agriculture advices.
4. Sediment control measures must be installed with the aim of preventing soil erosion and sediment movement from the construction area, from entering Sawpit Creek. The sediment control standard will be set by DLWC.
5. All run off from the construction site and approach roads shall be conveyed to the base of the stream bank by a concrete lined channel with appropriate erosion control and drop structures.
6. If in the opinion of any responsible officer of the Department of Land and Water Conservation, any works being carried out in such a manner as it may damage or detrimentally affect the stream, or damage or interfere in any work, construction along that section of the said stream shall cease forthwith upon written or oral direction of such officer.
7. No interference shall be made to the flow of water in the stream.
8. If the operation will involve the installation of any pumping plants or the construction of any dams, levees, cuttings, diversion channels or the like, on defined watercourses, application must be made to this Department to have such works licensed under the provisions of Part 2 or 8 of the Water Act, 1912. Any license issued may be conditional on the observance of the Clean Waters Act 1970 and regulations thereunder.
9. A copy of this letter of permission must be displayed at the site office at all times or alternatively made available to Departmental Officers on request.
10. The Department shall be notified of any changes in design of the bridge structure or changes to the construction methods.
11. The rehabilitation of the bridge construction site to the satisfaction of the Department is the responsibility of the permit holder and the owner or occupier of the land.

12. This permit does not give the permit holder the right to occupy any land without the owners consent nor does it relieve the permit holder of any obligation which may exist to also obtain from Local Government and other authorities which may have some form of control over the work and/or activities proposed to be undertaken.
13. This permit is not transferable to any person or company and does not allow operations at any other site.
4. This permit is issued with the proviso that operations shall be carried out on freehold land. Should operations be on Crown Land, this permit is rendered null and void.
15. This permit expires on the 31 January 2000, or at a later date agreed to by DLWC.
16. This permit does not become valid until the owner and operator both sign the acceptance form sent directly to them by the Department and a copy is returned to the Department of Land and Water Conservation at Leeton, New South Wales.

Section C.3 Department of Land and Water Conservation **General Conditions**

General Conditions

The following conditions are imposed to ensure that the least adverse environmental impacts result from the proposed development.

1. No new dams (clean water storage's) are to be built in association with Development Application T.98/0027 at Bald Hill Quarry during the current embargo. If the embargo is removed, the owners will be subject to the new rules at that time. This does not effect sediment control structures licensed by the Environment Protection Authority.
2. All works involving soil or vegetation disturbance shall be undertaken with erosion control measures which aim to prevent soil erosion and the entry of sediments into any river, stream, lake, water body, wetland or groundwater system, to DLWC's standards and as per the EIS. All permanent and temporary erosion and sediment control measures are to be installed before each stage of work commences.
3. The destruction of trees or native vegetation shall be restricted to the minimum extent necessary to complete the works.

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4. All rock gabion work is to have the recommended filter fabric placed underneath the gabions to prevent soil or sediment from eroding beneath the gabions.
 5. The Soil and Water Management Plan produced for Bald Hill Quarry (per the EIS) is to be implemented before the earthworks are undertaken, where practical, or in accordance with any time frames established by the Environment Protection Authority. Sediment dams are to be constructed before any of the clearing of the North Ridge Quarry site commences. Sediment dams are to be constructed per the EIS and in accordance with all conditions imposed by the Environment Protection Authority.
 6. Where the proposed new haul road has a gradient of greater than 10 % slope, the surface of the road is to be stabilised with a bitumen surface, to prevent erosion of the road surface and subsequent pollution of water courses. All unused or unnecessary tracks around the project site are to be rehabilitated and revegetated.
 7. The topsoil stockpile shall not be mixed with other overburden products. The topsoil stockpile location shall have easy access and be protected from erosion. Topsoil stockpiles shall be sown to a pasture grass mix if it is to be stored longer than two weeks. Topsoil stockpiles shall have a maximum depth of 1.5 metres and 3H:1V batters.
 8. If rubbish, fuels and oils, etc. are to be stored in the quarry pit area, they are to be stored in accordance with EPA and Council's guidelines. Contamination of soils and ground water by these substances is to be avoided. Any contamination of soils or ground water is to be reported to Council, EPA and DLWC immediately.
 9. All areas of tree establishment are to be fenced with a suitable fence that can keep stock, rabbits, hares, kangaroos etc., out of the fenced area and all stock etc. are to be removed from these areas. Fencing should include the area of rehabilitation of the steep batter at the main plant site.

Rehabilitation should include the use of native trees, shrubs and grasses common to the local area. Local White Box species should dominate the planting, with a small percentage of Kurrajongs being planted.

Tree planting associated with the new quarry site and haul road should be completed within two years of the DA approval by council. In the second, third and fourth year of operation, all tree losses in the fenced areas should be replanted (tree replacements (tube stock) are to be planted each year in early Autumn).

The minimum area of tree planting at North Ridge should be 25 metres [width] by approximately 500 metres [around perimeter of quarry pit], to compensate for tree clearing at this site. This should allow a minimum of three rows of trees and up to five rows at 2.5 metre spacings to be planted. Some bird nesting boxes and loose rock piles should also be established at this site.

The tree planting beside the haul road should be a minimum of two rows with 2.5 metre spacings, for the distance shown on the plans in the EIS.

Tree planting is important as this will help balance any increased ground water recharge that may occur in the new quarry pit.

Fencing at the steep batter rehabilitation area, should include an area below the batter which will form a buffer zone in which any sediments escaping from the batter area can be trapped. The buffer zone should be for a distance of at least 100 metres below the toe of the batter.

An area of 30 ha below the steep batter should also be fenced and stock excluded, to allow tree regeneration [see attached map]. The above buffer zone could be included in this area to save fencing costs. This area should be fenced when rehabilitation work commences on the steep batter.

10. If groundwater is encountered during the operation of the quarry such that de-watering is necessary, the operator is to consult with the Region Hydrogeologist of the Department of Land and Water Conservation before any de-watering is undertaken.
11. At the end of the quarry life, the pit floor should be covered with overburden material to a minimum depth of 20cm, to allow establishment of trees and grasses. A sump should be created in one corner of the pit floor to collect water runoff. The sump should have a minimum capacity of 500 m³. Remaining rehabilitation should be as per the EIS.
12. When conditions are excessively dusty at the quarry site and the quantity of water is not adequate [e.g.: drought, bore failure etc.] to suppress dust, then the quarry shall cease operations until dust suppression can again be adequately carried out.
13. An independent analysis of the drainage water that is produced from the overburden stockpile [i.e., below the steep batter rehabilitation area] should be carried out after 12 months and the report sent to the Council and DLWC [may effect water quality in the area]. If the results prove unsatisfactory further conditions will be required to amend the problem or the operations may be suspended until the problem is resolved. The report should include pH, EC, sulphides, metals, contaminants (oils etc.) etc.
14. An independent analysis of the water that collects in the new quarry pit is to be carried out after 12 months and the report sent to Council and DLWC. The report should include pH, EC, sulphides, metals, contaminants (oils etc.) etc.

15. The rehabilitation of the steep batter on the southern side of the processing plant and stockpile area, should commence once the DA is approved. Revegetation of this area should be done progressively and in stages [eg begin at one end of the batter and revegetate a 50 metre section as a test area. Progressively revegetate the remaining batter learning from previous successes or failures]. Any land slips that occur or other unforeseen moderate to severe problems will require the immediate attention and advice of Council, DLWC and EPA.

Sediment fencing should be placed at the toe of the above batter and directed towards the existing sediment dam. This sediment dam will need to be enlarged to a minimum of 800 m³ to allow for the increase in sediment as a result of revegetation activities. If sediment fencing proves inadequate at this site, a rock diversion bank approved by Council and DLWC is to be used. See point 19 below for description of additional sediment dam requirements.

16. Annual reporting to Council and DLWC should continue until otherwise agreed to by Council and DLWC. Reporting once every two years can then commence.

17. A legally binding agreement between Council and the applicants for the purpose of site rehabilitation shall be entered into prior to commencement of works. All legal costs involved in this agreement shall be borne by the applicants. A bond shall be paid to ensure rehabilitation of the quarry site is implemented. Site rehabilitation is to be carried out in accordance with the EIS Soil and Water Management Plan and the Department Consent Conditions. Rehabilitation is to be carried out to the satisfaction of Council and Department of Land and Water Conservation.

The bond amount should be determined by Council. A minimum bond of \$25,000 is recommended to cover seed, fertiliser, fencing, shaping of area, etc.

18. Where the proposed new haul road crosses major drainage lines, a bitumen surface is required across the drainage line crossing and for a distance of 20 metres each side of the drainage line [required to reduce sediment laden run off entering local drainage lines].

19. Additional sediment dams are required to cater for increased sediment flows from the rehabilitation work proposed on the steep batter at the processing plant site. The existing sediment dam needs to be a minimum of 600 m³, with 800 m³ being the preferred size [ref. "Managing Urban Stormwater, Soils and Construction etc" - 3rd Ed]. The two other drainage lines that drain from the batter area require sediment dams a minimum of 200 m³ each. Emergency outlets for these three sediment dams should be a level sill construction discharging over a stable grassed area, with a minimum level width of 3 metres. Storage excavations should be below top water levels. The length to width ratio of each sediment dam should be greater than 2:1, to allow settlement of sediments before outletting from the dams. If this cannot be achieved, then the storage volume of the dam should be increased by a minimum of 200 m³. Sediment fencing below the batter should have outlets that discharge into each of the drainage lines that have sediment dams in them (sediment fencing tends to act as a diversion bank which requires safe outletting).
20. Overburden that is to be placed over the steep batter area should be suitable for supporting long term vegetation (grasses and trees).
21. The whole area of batter rehabilitation should be fenced to exclude stock, vermin and native grazing animals.
22. Rehabilitation of the steep batter should commence in the first year of the Development Application being approved

REASONS FOR CONDITIONS BEING IMPOSED

Conditions have been imposed to:

- i] ensure the proposed development:
 - (a) achieves the objectives of the Environmental Planning and Assessment Act;
 - (b) complies with the provisions of all relevant environmental planning instruments;
 - (c) is consistent with the aims and objectives of Council's Development Control Plans, Codes and Policies.
- ii] Ensure that the relevant public authorities and the water supply authority have been consulted and their requirements met or arrangements made for the provision of services to the satisfaction of those authorities.

- iii] Meet the increased demand for public amenities and services attributable to the development in accordance with Section 94 of the Environmental Planning and Assessment Act 1979.
- iv] Ensure the protection of the amenity and character of land adjoining and in the locality of the proposed development.
- v] Minimise any potential adverse environmental, social or economic impacts of the proposed development.
- vi] Ensure that all traffic, carparking and access requirements arising from the development are addressed.
- vii] Ensure the development does not conflict with the public interest.