

COUNCIL ASSESSMENT REPORT

Panel Reference	2017NTH007
DA Number	DA2017/0177
LGA	Clarence Valley Council
Proposed Development	Extractive Industry (hard rock quarry) – stage 2
Street Address	Boundary Creek Forest Road, Nymboida
Applicant/Owner	Applicant: Greensill Bros P/L (c/o GeoLINK) Owner: Unwin Gaine Cartmill
Date of DA lodgement	24 March 2017
Number of Submissions	Nil
Recommendation	That Development Application DA2017/0177 (JRPP reference No. 2017NTH007) for an extractive industry (hard rock quarry - stage 2) on lot 20 DP46031, lot 48 DP752839, and lot 50 DP46031, be approved subject to the imposition of advices and conditions contained in Schedule 1 to this report.
Regional Development Criteria (Schedule 4A of the EP&A Act)	Schedule 4A of the EP&A Act, Clause 8 Particular Designated Development - Development for the purposes of an extractive industry, which meets the requirements for designated development under clause 19 of Schedule 3 to the <i>Environmental Planning and Assessment Regulation 2000</i>
List of all relevant s79C(1)(a) matters	<ul style="list-style-type: none"> • State Environmental Planning Policy No. 33 – Hazardous and Offensive Development • State Environmental Planning Policy No. 44 – Koala Habitat Protection • State Environmental Planning Policy No. 55 – Remediation of Land • State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 • State Environmental Planning Policy (Rural Lands) 2008 • State Environmental Planning Policy (State and Regional Development) 2011 • Clarence Valley Local Environmental Plan 2011 • Clarence Valley Council Rural Zones Development Control Plan 2011
List all documents submitted with this report for the Panel's consideration	<ul style="list-style-type: none"> • Proposed plans (with Council notes added in red) • Request to amend the application dated 4 July 2017 • NSW EPA response dated 16 May 2017 • DPI Water General Terms of Approval received 2 August 2017 • RMS response dated 26 April 2017 • Development consent and approved plans for DA2014/0024 (as modified by MOD2015/0008) (being stage 1)
Report prepared by	Sarah Sozou, Development Planner, Clarence Valley Council
Report date	2 August 2017

Summary of s79C matters Have all recommendations in relation to relevant s79C matters been summarised in the Executive Summary of the assessment report?	Yes
Legislative clauses requiring consent authority satisfaction Have relevant clauses in all applicable environmental planning instruments where the consent authority must be satisfied about a particular matter been listed, and relevant recommendations summarized, in the Executive Summary of the assessment report? <i>e.g. Clause 7 of SEPP 55 - Remediation of Land, Clause 4.6(4) of the relevant LEP</i>	Yes
Clause 4.6 Exceptions to development standards If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?	Not Applicable

Special Infrastructure Contributions Does the DA require Special Infrastructure Contributions conditions (S94EF)? <i>Note: Certain DAs in the Western Sydney Growth Areas Special Contributions Area may require specific Special Infrastructure Contributions (SIC) conditions</i>	Not Applicable
Conditions Have draft conditions been provided to the applicant for comment? <i>Note: in order to reduce delays in determinations, the Panel prefer that draft conditions, notwithstanding Council's recommendation, be provided to the applicant to enable any comments to be considered as part of the assessment report</i>	Yes

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Executive Summary

Clarence Valley Council received Development Application, DA2017/0177, from Greensill Bros P/L (c/o GeoLink) for an extractive industry (hard rock quarry - stage 2) on lot 20 DP46031, lot 48 DP752839, and lot 50 DP46031 on 24 March 2017.

The application forms Stage 2 of a staged development approval under s83B of the *Environmental Planning and Assessment Act 1979* (the EP&A Act). Development Application DA2014/0024 (as modified by MOD2015/0008) approved Stage 1 of the quarry and granted a concept approval for Stage 2 of the quarry, subject to further development consent. This application now seeks approval for Stage 2 of the quarry.

The key elements of the proposed development are:

- The hard rock quarry will form Area 2 (also referred to as 'Stage 2' in this report) of the Mt Zion Quarry (Area 1 approved under separate application – DA2014/0024), and quarrying of Area 2 will not commence until Area 1 has been exhausted.
- Extraction of hard rock material (argillite) using blasting and mechanical excavation methods.
- Extraction of up to 200,000 tonnes of material per annum.
- Crushing, screening / sorting and stockpiling of material on-site prior to transporting off-site.
- A quarry footprint area of 5ha for Area 2 (note: total quarry area is 10.02ha).
- Re-location and construction of approved site offices and amenities for the site.

If this application is approved, the two development consents over the land will not operate concurrently due to the staging proposed, as such the maximum annual extraction rate will not exceed 200,000 tonnes for the full life of the quarry (Area 1 and 2).

The proposed development constitutes 'regional development' requiring referral to the Joint Regional Planning Panel (Northern Region) (JRPP) for determination as an extractive industry which meets the requirements for designated development under clause 19 of Schedule 3 to the *Environmental Planning and Assessment Regulation 2000*. While Council officers are responsible for the assessment of the DA, the JRPP is the authority to determine the application.

The subject site is zoned RU2 Rural Landscape under the Clarence Valley Local Environmental Plan 2011 (LEP). Extractive industries are not permissible using the provisions of the LEP, however, are permissible with development consent under the provisions of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. The SEPP takes precedence over the LEP.

A detailed assessment has been undertaken against the provisions of the LEP, other relevant Environmental Planning Instruments and the Clarence Valley Council Rural Zones Development Control Plan 2011 (DCP). A detailed assessment is contained in the s79C assessment forming part of this report (see section 4.1). However, a summary of the relevant clauses that list matters the consent authority must be satisfied with as set out in the relevant instruments is contained in the below table.

Environmental Planning Instrument	Clause	Summary / Recommendations
SEPP No. 44 – Koala Habitat Protection	Clause 7: Step 1—Is the land potential koala habitat?	Satisfactory evidence has been provided to determine that the land is potential koala habitat.
	Clause 8: Step 2—Is the land core koala habitat?	Satisfactory evidence has been provided to determine that the land is not core koala habitat. As such, a Koala Plan of Management is not required to be prepared in

		accordance with SEPP 44.
SEPP No. 55 – Remediation of Land	Clause 7: Contamination and remediation to be considered in determining development application	Satisfactory evidence has been provided to determine that the subject land has not been used for any known activities or purposes (i.e. land still largely in natural state), it is unlikely to be contaminated and is considered suitable for the proposed development.
Clarence Valley Local Environmental Plan 2011	Clause 7.7: Drinking water catchment	Satisfactory evidence has been provided to determine that the development will be managed to avoid any adverse impact on water quality and flows. It is recommended that a condition be applied to address treatment and discharge standards of groundwater and stormwater entering the quarry.
	Clause 7.8: Essential services	Satisfactory evidence has been provided to determine that suitable arrangements are proposed for adequate supply of water and electricity for the development, that sewage disposal and stormwater drainage can be managed on-site, and that there is suitable road access to service the land.

The development complies with the standards and requirements of the LEP and DCP and is consistent with the relevant objectives.

The DA was referred to NSW Environmental Protection Authority, Department of Primary Industries Water and the Roads and Maritime Services, all of which raised no objection to the proposal subject to conditions of consent.

The DA was notified to adjoining and nearby property owners and advertised between 31 March 2017 and 9 May 2017, in accordance with requirements of the *Environmental Planning and Assessment Regulation 2000* and Council's DCP. No submissions to the application were received during the exhibition period.

Overall, the development is considered satisfactory with regard to key issues, including soil and water management, biodiversity, traffic and transport, noise, vibration and blasting, air quality, and waste management, subject to the imposition of suitable conditions of consent to satisfactorily control and enable function of the development. The proposed development has been assessed against the relevant matters for consideration pursuant to Section 79C of the EP&A Act, including suitability of the site and the public interest, and is considered satisfactory.

It is recommended that the proposed development be approved subject to the advices and conditions listed in Schedule 1 to this report.

Section 1: Recommendation

That Development Application DA2017/0177 (JRPP reference No. 2017NTH007) for an extractive industry (hard rock quarry - stage 2) on lot 20 DP46031, lot 48 DP752839, and lot 50 DP46031, be approved subject to the imposition of advices and conditions contained in Schedule 1 to this report.

The recommendation is provided for the following reasons:

- The proposal is considered to be generally consistent with the provisions of relevant environmental planning instruments, the Clarence Valley Local Environmental Plan 2011 and the Clarence Valley Rural Zones Development Control Plan 2011.
- The development is considered to promote the orderly and economic use and development of land.
- The site is considered suitable for the proposed development.
- Approval of the development is considered to be in the public interest.

Section 2: Site Description & Location

The subject land is identified as Lot 48 DP752839, Lot 50 DP752839 and Lot 20 DP46031, Boundary Creek Forest Road, Nymboida. The site is located approximately 11km south-west of the Nymboida Township by road. The site has a total area of 254 hectares.

The site consists predominately of moderately to steeply sloping land with several hills/ridgelines and valleys/gullies, including a gully between quarry Areas 1 and 2. The site is located in a rich natural area with Hortons Creek Nature Reserve approximately 840m to the south; Boundary Creek State Forest approximately 2.5km to the west, and Chaelundi National Park approximately 5km to the north-west. The two nearest dwellings are located 2km and 3.3km to the east of the quarry.

The quarry site predominately contains native vegetation of varying densities. Quarrying of the land identified as Area 1 (to the east of Area 2) commenced operations under DA2014/0024 in June 2017. The lot also supports other rural uses, including private native forestry, and bushland.

The site contains 29ha of Endangered Ecological Community (EEC) *Lowland Rainforests in NSW North Coast and Sydney Bioregions*. The footprint of the quarry has been located so that it does not extend into the EEC. Approximately 114ha of land containing high biodiversity values within the subject lots has been secured through a trust agreement with the Nature Conservation Trust to offset clearing for both Areas 1 and 2 of the quarry. The offset will remain in perpetuity and is identified on the title of the land.

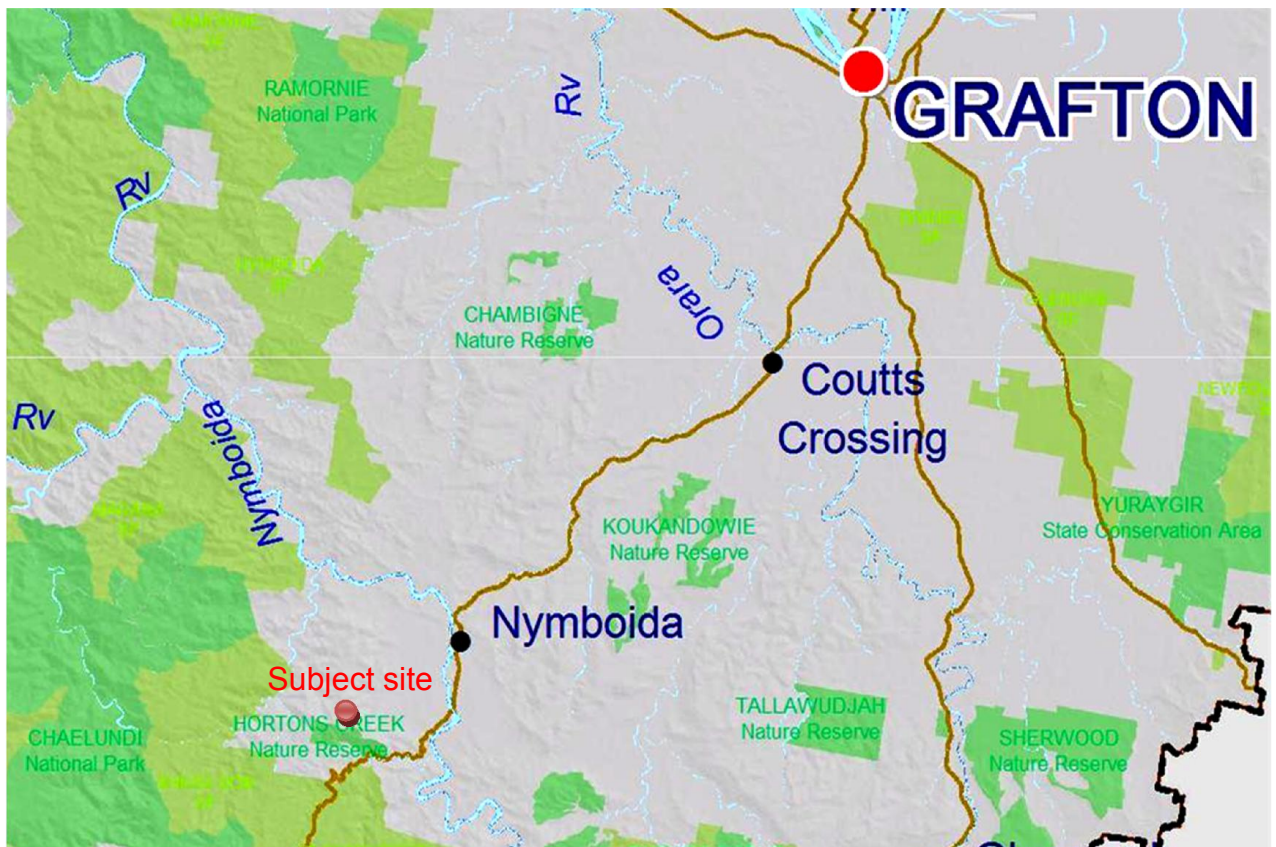


Figure 1: Locality Map – approximate location of quarry site (Source: CVC GIS)

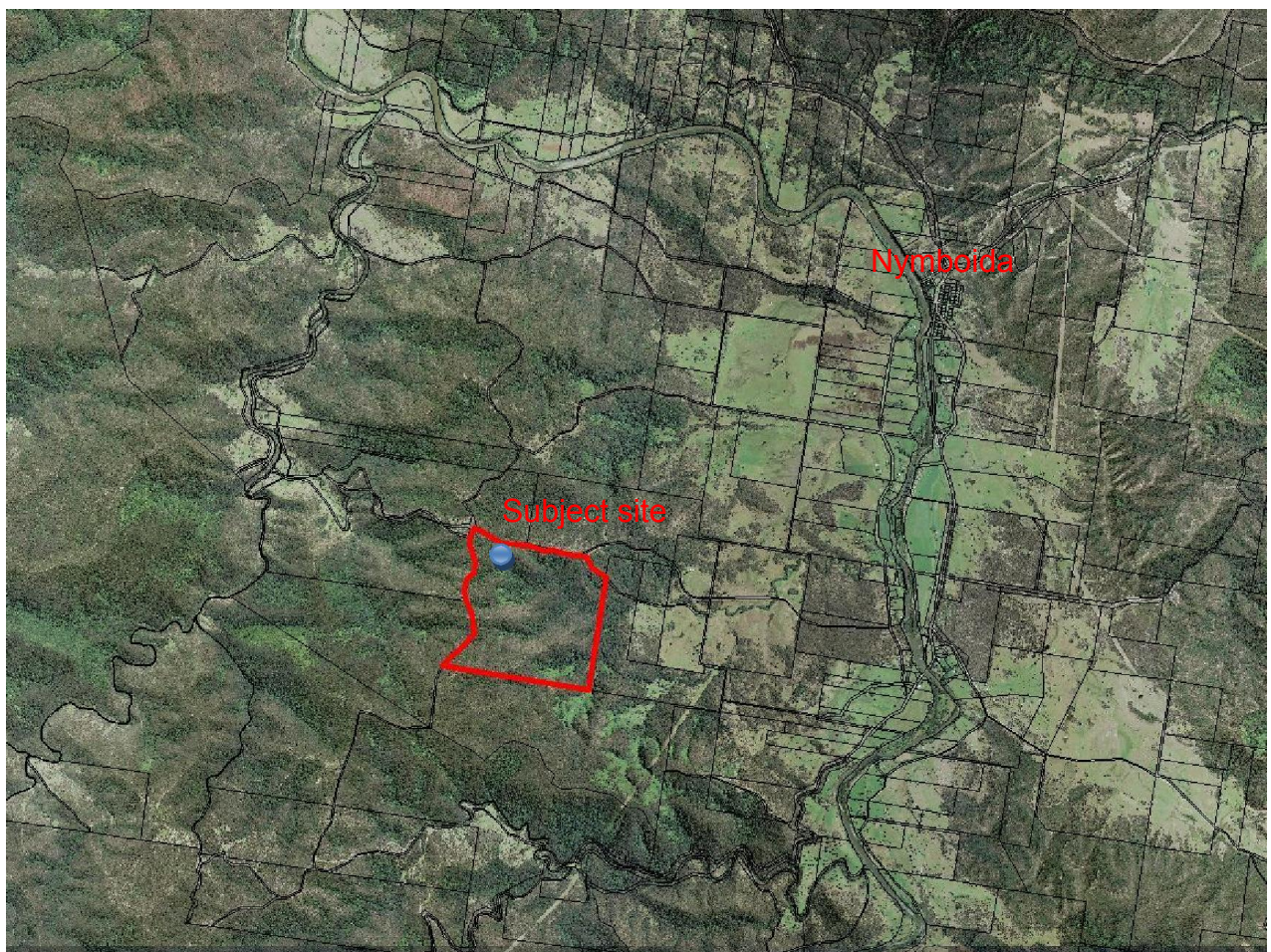


Figure 2: Aerial Photograph (Source: CVC GIS)

Section 3: Details of Proposal

Background

Area 1 of the Mt Zion Quarry was approved on 22 December 2014 under DA2014/0024 and modified on the 21 October 2015 under MOD2015/0008, by the Joint Regional Planning Panel. DA2014/0024 was a staged development approval under s83B of the Environmental Planning and Assessment Act 1979 (the EP&A Act). Under that application operational consent was issued for Area 1 (to extract up to 200,000 tonnes of hard rock) and concept approval issued for Area 2, with Area 2 being subject to further development consent including consideration of geotechnical investigations (resource definition). Quarrying of material from Area 1 commenced in June this year.

Current proposal

This application now seeks approval for Stage 2 (i.e. Area 2) of the quarry. The application has been supported with an addendum to the original EIS submitted with DA2014/0024 (as modified by MOD2015/008). The addendum addresses items not originally assessed in the original EIS for Area 2, which essentially relate to geotechnical investigations (resource definition and ground water management), and minor amendments to the quarry proposal (including additional ecological, bushfire and effluent disposal considerations). The original EIS (attached to the addendum EIS) contained a comprehensive assessment of Area 1, and addressed all other statutory, environmental, social, economic matters for Area 2 of the quarry. Both the addendum and original EIS are considered in the assessment of this application.

The key elements of the proposed development are:

- The hard rock quarry will form Area 2 of the Mt Zion Quarry, and quarrying of Area 2 will not commence until Area 1 has been exhausted.
- Extraction of hard rock material (argillite) using blasting and mechanical excavation methods.
- Extraction of up to 200,000 tonnes of material per annum.
- Crushing, screening / sorting and stockpiling of material on-site prior to transporting off-site.
- A quarry footprint area of 5ha for Area 2 (note: total quarry area is 10.02ha).
- Re-location and construction of site offices and amenities (differs from that approved under DA2014/0024).
- Amended internal access arrangements (differs from that approved under DA2014/0024).

If this application is approved, the two development consents over the land will not operate concurrently due to the staging proposed, as such the maximum annual extraction rate will not exceed 200,000 tonnes for the full life of the quarry (Area 1 and 2).

Two dominant units of material will be extracted, one being an extremely weathered to moderately weathered argillite rock to a depth of 9m, which is considered overburden. The other material is a slightly weathered to fresh argillite at a depth of at least 60m, which is considered a resource for quality road base, concrete and drainage rock use.

The DA seeks approval for an alternate location for the site office and on-site waste water disposal system to that approved under DA2014/0024. The site office, amenities and parking area proposed will service both quarry Areas 1 and 2. The location of the site office approved by Stage 1 is not an ideal location in terms of effluent disposal, gradient and restricting access from Area 1 to Area 2. The new location is to the north-west of Area 2, as shown on the proposed plan. As quarrying of Area 1 has commenced, the applicant is proposing (in agreement by Council) to construct the office and amenities building as soon as possible, whilst utilising temporary facilities for Area 1 in the interim. The applicant is proposing to lodge a Construction Certificate (CC) for the office and amenities building, and parking area (and corresponding on-site waste water management system application – i.e. s68 application) within three (3) months of this application being determined. The facilities approved under the CC will then be constructed within three (3) months of the CC & s68 approval being issued.

The internal access arrangements are also proposed to be amended to service the new site office / amenities and Area 2. Currently there are two access points from Boundary Creek Forest Road servicing Area 1. The western access point is designated as a light vehicle access only, which was intended to service the original site office, and a heavy vehicle access point to the east of that provides direct access to the quarry floor. The access point locations and arrangements off Boundary Creek Forest Road are unchanged. The proposal is to continue to utilise the western access point for staff vehicles and other light vehicles, with a new internal road to be constructed to connect it to the site office to be constructed. All heavy vehicles will continue to utilise the heavy vehicle access point, so heavy vehicles accessing Area 2 in the future will pass through Area 1.

All other aspects of the quarry for Area 2 is as proposed and approved under DA2014/0024, including haulage routes, traffic movements, hours of operation, and rehabilitation.

The main haulage route is along Boundary Creek Forest Road, Boundary Creek Road, Armidale Road, Lilypool Road, Swallow Road, and Tyson Street to the Pacific Highway at South Grafton. Haulage is to be undertaken by truck and trailer with a 27-32 (average 30) tonne payload with a maximum of 302 haulage days per annum (including Saturdays and excluding public holidays and Sundays). The average daily truck movements are anticipated at 22 loads (or 44 movements), with a maximum of 50 daily truck loads (or 100 movements).

Upgrading of Boundary Creek Forest Road (including the Copes Creek crossing) and Boundary Creek Road (including its intersection with Armidale Road) has been completed in accordance with DA2014/0024 to ensure the roads are suitable for the haulage of material. No further road upgrading is proposed or required under this application, as the maximum extraction rate and truck movements for approved Area 1 and Area 2 are the same and the areas will not be quarried concurrently. The applicant has entered into a maintenance agreement with Council to maintain Boundary Creek Forest Road as part of Area 1 operations. A similar maintenance agreement will also apply to quarry operations for Area 2.

The approved hours of operation under DA2014/0024 differed to that proposed in the original EIS. The approved operating hours limit quarrying of Area 1 to between 7.00am and 5.00pm Monday to Friday, and between 8.00am and 1.00pm on Saturday. The hours of operations apply to quarrying, processing of material and transport of material along Boundary creek Forest Road and Boundary Creek Road. No quarrying, processing or transportation is permitted on Sundays or public holidays except for emergency purposes. Conditions of consent are proposed to restrict the hours of operation for Stage 2 to that approved under DA2014/0024.

Clearing of 5ha of native vegetation is required to quarry Area 2. The majority of the vegetation to be removed is open Spotted Gum / mixed eucalypt forest (dry sclerophyll forest). A detailed flora and fauna assessment was provided as part of the original EIS, and has been amended under this application to address the new office footprint previously not considered. Under DA2014/0024 a biodiversity offset was proposed to address clearing required for both Areas 1 and 2 and included retaining over 100ha of vegetation on-site in perpetuity to maintain biodiversity values in the locality. A Biodiversity Offset Management Plan has been prepared and a Trust Agreement (forming a restriction on the title) with the Nature Conservation Trust has been entered into to finalise creation and secure the offset in perpetuity. The total offset area is 114.8ha, although only 101.2ha was required to be provided under DA2014/0024.

At the closure of the quarry the site buildings will be decommissioned and removed. The future land use of the quarry is to return the site to native vegetation. The final landform will comprise generally sloping free-draining platforms surrounded by stepped benches and batters. A rehabilitation plan for the quarry includes erosion control, revegetation of local plant species, creation of quarry benches to facilitate vegetation growth, a weed and pest management plan, integrated water management plan and a maintenance program.

Section 4: Statutory Development Assessment Framework

Extractive Industries that obtain or process for sale, or reuse, more than 30,000 cubic metres of extractive material per year, or that disturb or will disturb a total surface area of more than 2 hectares are declared to be Designated Development under Clause 19, Schedule 3 of the Environmental Planning & Assessment Regulation 2000 (the EP&A Regulation). As such, this development is declared to be Designated Development.

The development is listed as development for which Regional Panels are authorised to exercise the consent authority functions of councils under Schedule 4A of the EP&A Act, Clause 8, as an extractive industry which meets the requirements for designated development.

The application forms Stage 2 of a staged development approval under s83B of the EP&A Act. Development Application DA2014/0024 (as modified by MOD2015/0008) approved Stage 1 of the quarry and granted a concept approval for Stage 2 of the quarry, subject to further development consent. This application now seeks approval for Stage 2 (identified as Area 2) of the quarry.

The application is Integrated Development under s91 of the EP&A Act and requires the approval of the:

- NSW Environmental Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997*, and
- Department Primary Industries Water (DPI Water) under the *Water Management Act 2000*.

Council has received responses from the above State authorities, which are attached and will be incorporated into the draft conditions of any consent to be issued.

The Roads and Maritime Service (RMS) was notified of the development in accordance with clause 16(3) of the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. The response from the RMS is discussed in this report under section 4.1.

4.1: S79C Assessment

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

- (a) the provisions of:
- (i) any environmental planning instrument,

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

The proposed development is permissible with consent using the provisions of Clause 7(3) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*. Clause 7(3)(a) states that development for the purposes of an extractive industry may be carried out on land on which development for the purposes of agriculture or industry is permitted (with or without consent).

The subject land is zoned RU2 Rural Landscape under the provisions of *Clarence Valley Local Environmental Plan 2011*. All types of agriculture are permitted with or without consent on the subject land and therefore, an extractive industry is permitted subject to the submission and approval of a Development Application using the provisions of the SEPP.

Before determining an application for the purposes of an extractive industry, the consent authority must take into consideration the matters listed under the SEPP.

Clause 12 Compatibility of proposed mine, petroleum production or extractive industry with other land uses as follows:

(a)(i) consider the existing uses and approved uses of land in the vicinity of the development,

The surrounding land uses are predominately natural bushland with rural dwellings. The nearest dwelling is 2km from the quarry site. Smaller rural lots with dwellings are located along Boundary Creek Road. Hortons Creek Nature Reserve, Boundary Creek State Forest, and Chaelundi National Park are all within approximately 5km of the site. The site or adjoining lands are not identified as State Significant Farmland.

(a)(ii) consider whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development,

The original EIS details proposed buffers that will minimise potential impacts on adjoining land uses. *Living and Working in Rural Areas 2007* as a guide recommends minimum buffers for extractive industries. The recommended buffer distance to rural dwellings of 1000m (for quarries with blasting) is achieved for the development with the closet dwelling being 2km away. A land use conflict risk assessment has been provided in section 15.5 of the original EIS. The potential impacts to adjoining uses are likely to be noise, dust and traffic movements from quarry operations. With implementation of the proposed mitigating measures in the EIS and imposition of the draft conditions of consent, the development is unlikely to have a significant impact on the current and preferred land uses in the vicinity of the development.

(a)(iii) consider any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses,

The Soil & Water, Biodiversity, Traffic & Transport, Noise, Vibration & Blasting, Air Quality, and Waste Management assessment in the original EIS all recommend measures to avoid and minimise potential impacts of the development. Through the EPA licence requirements and draft conditions imposed by Council on the development, it is unlikely that there will be substantial incompatibility issues with the development and adjoining land uses. Quarrying of Area 1 of the Mt Zion quarry has commenced, and to date there have not been any known complaints made to Council regarding impacts on adjoining land uses. The extraction rates and traffic movements for Area 1 and 2 are the same, and quarrying of Area 2 is not proposed to commence until Area 1 is exhausted. It is considered that the operational impacts from both stages will fundamentally be the same.

(b) evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a)(i) and (ii)

The expansion of the quarry will result in benefits to the local and regional economy and will continue to generate employment opportunities. The capital investment of the quarry (Areas 1 and 2) was estimated at \$1.2million and it is anticipated that the quarry will generate up to 10 full time equivalent jobs, as well as stimulating indirect employment by sub-contractors gaining employment. The economic benefits of the development and indirect multiplier effects will stimulate the local and regional economies. The implementation of the conditions contained within the draft schedule, will mitigate the quarry impacts on adjoining land uses.

(c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph a(iii)

The measures proposed by the applicant to avoid and minimise any potential incompatibility measures have been evaluated and where appropriate, have been imposed as conditions of consent.

Clause 13 Compatibility of proposed mine, petroleum production or extractive industry with other land uses:

The consent authority must also take into consideration Clause 13 of the SEPP if the subject land is:

- 13(1) (a) *in the vicinity of any existing mine, petroleum production facility or extractive industry*
(b) *identified on a map (being a map that is approved and signed by the Minister and copies of which are deposited in the head office of the Department and publicly available on the Department's website) as being the location of State or regionally significant resources of minerals, petroleum or extractive materials, or*
(c) *identified by an environmental planning instrument as being the location of significant resources of minerals, petroleum or extractive materials*

The land is not located in the near vicinity of competing extractive industries and is not identified by an environmental planning instrument as being the location of significant resource materials.

Clause 14 Natural resource management and environmental management

Before granting consent for development for the purposes of an extractive industry, the consent authority must consider whether or not the development should be issued subject to the imposition of conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following:

- a) *that impacts on significant water resources, including surface and groundwater resources are avoided, or are minimised to the greatest extent practicable,*

Impacts on water resources has been assessed and detailed in Section 4.3 and Appendix F of the addendum EIS, as well as Part 6: Soil and Water and Appendix J: Geological Drilling and Groundwater Assessment of the original EIS.

The proposed quarry is located in the upper reaches of the catchment of Copes Creek, which is a tributary of the Nymboida River. Several ephemeral gullies traverse the site and flow into Copes Creek. The quarry site is located at the top of the ridge and does not receive surface flows from upslope areas.

For Area 2, testing revealed groundwater levels fluctuated between 13m to 19.4m (approximately RL 464m to RL457m) below surface level (being approximately RL475). The quarry resource has been encountered at a depth of at least 60m below surface level. As such, it is expected that the quarry extraction would intercept groundwater. Testing of the groundwater found elevated levels of iron, aluminium and manganese, and as such, groundwater flows in to the quarry will need to be contained and treated prior to discharge into the surrounding surface water environment.

The addendum EIS states that significant groundwater recharge to the nearby surface water systems from the site only occurs following large rainfall events and is unlikely to consistently contribute to the surface water system and associated groundwater receiving environments located downstream from the site.

The potential impacts from the quarry on water resources include contamination from erosion and sedimentation, increased surface water runoff from increased surface areas not covered by vegetation and groundwater contamination from spills of fuel or hazardous materials. A Soil and Water Management Strategy has been developed in accordance with *Managing Urban Stormwater: Soils and Construction: Volume 2E Mines and Quarries*. The mitigating measures proposed ensure that no significant impacts result from the quarry operations. The operational soil and water

management controls, including sediment and erosion controls, will be required to be detailed and submitted in the Plan of Management for the quarry, to be reviewed annually, which the quarry will be required to operate in accordance with.

The DPI Water provided General Terms of Approval for the proposal, including measures relating to groundwater management, which will form part of the consent.

b) that impacts on threatened species and biodiversity are avoided, or are minimised to the greatest extent practicable,

An Ecological Assessment forming part of the original EIS and an Addendum to that report dated 3 November 2014 submitted with DA2014/0024 assessed the impacts of the proposal (including clearing of 10.12ha of vegetation for Areas 1 and 2) on threatened species and biodiversity. Those assessments stated that:

- The site contains a dry rainforest EEC and the quarry design has been proposed to avoid and minimise impacts on the community on-site. No threatened flora species were identified during the surveys, however, 8 were identified as potentially occurring on the property. Ten (10) threatened fauna were identified during surveys and a further 14 were considered to potentially occur on-site.
- The proposal would pose a number of negative (incremental and cumulative) impacts and contribute to recognised Key Threatening Processes. However, the applicant has proposed a biodiversity offset strategy and other mitigating measures to minimise the impact on the local population/occurrence of any threatened species or EEC.

In response to the proposal, condition 56 of DA2014/0024 required a biodiversity offset totalling 101.2ha to be secured on the land in perpetuity. The offset was determined at a ratio of 10:1 (protected to removed). This condition addressed offsetting for clearing associated with Areas 1 & 2. A biodiversity offset of just over 114ha has now been created on the land under a Trust Agreement with the Nature Conservation Trust (including a restriction on the title). The offset method is considered satisfactorily.

The addendum EIS submitted with the application included an additional Ecological Assessment to address any additional threatened species or communities occurring within Area 2 that have been listed since preparation of the original EIS, as well additional clearing (approx. 500m²) required for the new site office location. That assessment stated:

- Two additional threatened flora species that have been listed were considered and the assessment determined that the habitat at the property is generally unsuitable for the species.
- Since the original EIS, two fauna species identified at the property have been listed as threatened species. Ten additional threatened fauna species that have been listed have also been considered. A seven part test was undertaken for the species likely to occur on the site. The seven part test concluded that *"it is considered unlikely that the local population of any of the subject species would be placed at significant risk of extinction of the proposal"*. One of the fauna species, the Greater Glider, is listed as vulnerable under the EPBC Act. An assessment under that Act was prepared and concluded that *"the proposal would have no significant impact on the Greater Glider and hence referral to the Minister for the Environment and Energy is not required"*.
- The new site office location does not comprise an EEC or provide potential habitat for threatened flora species. The loss of vegetation would not represent a significant increase in vegetation removal from the original proposal as the new site office location will eliminate the need to remove vegetation at the approved site office location.

- The assessment concluded that the proposal represents a negligible additional loss of habitat to that considered in the original EIS, and no amendment to the approved biodiversity offset is required.

c) that greenhouse gas emissions are minimised to the greatest extent possible

A greenhouse gas (GHG) emissions report was submitted in the original EIS supporting DA2014/0024. Overall, the greenhouse emissions generated from the development is considered to be minimal for both National and State emission levels. Notwithstanding this, the cumulative impacts of GHG emissions are acknowledged by the applicant and mitigating measures are proposed to ensure efficient use of fossil fuel on-site and in associated operations.

Clause 15 Resource recovery

Due to the type of material, being hard rock, to be extracted and the efficient extraction processing methods, minimal resource waste is anticipated. Some mulch from clearing and overburden sourced for the quarry establishment processes should be stored on-site and re-used as part of the rehabilitation plans. The rehabilitation plan to be submitted with the Plan of Management for the quarry is to address how much material is to be stored on-site for rehabilitation.

Clause 16 Transport

The applicant has proposed a principal haulage route, as detailed above, which includes use of Armidale Road (a classified regional road under Council's control) and various local roads. A Traffic Impact Study, including a Road Safety Audit was submitted in the original EIS.

Road upgrading works to Boundary Creek Forest Road and Boundary Creek Road were required as part of the consent issued under DA2014/0024 to ensure it is suitable for the proposed traffic movements. Those works have now been undertaken in accordance with Council and RMS requirements. As the traffic movements under the current proposal are the same as that approved for the quarry under DA2014/0024, no additional upgrading works are required.

The application was referred to the Roads and Maritime Services (RMS) under the requirements of this clause. The RMS raised no objection to, or any additional requirements for, the proposed development, and stated that the conditions applied under DA2014/0024 addressed the impacts of the development on the classified road network.

Some conditions of consent are still proposed relating to transport. Preparation and implementation of a 'Traffic Management Plan and Truck Driver Code of Practice' is necessary to address a variety of matters including consideration of potential risk areas along the haulage route, such as the transport of children to school.

The quarry operator has entered into a road maintenance agreement with Council under the approved quarry operations and they are responsible for maintaining the sections of Boundary Creek Forest Road and Boundary Creek Road utilised as a haulage route. A condition will be applied to this consent to require a similar agreement to be entered into for Area 2.

The quarry operator has also agreed to pay an annual road maintenance contribution for the other roads forming part of the haulage route under the control of Clarence Valley Council (including Armidale Road, Swallow Road, Lilypool Road and Tyson Street). The contribution has been calculated based on the number and weight of trucks, the length of road and the current cost of maintaining it.

Conditions of consent are also proposed to limit noise generated from trucks transporting material, as detailed in the noise assessment submitted in the original EIS. A condition is also proposed to limit the maximum daily vehicle movements to that proposed in the application.

Clause 17 Rehabilitation

Rehabilitation works will be undertaken in accordance with the Quarry Closure and Rehabilitation Plan prepared by GeoLINK. A summary of the rehabilitation proposal is provided above. Further details of the rehabilitation proposed will be submitted with the Plan of Management prior to any works commencing on the site. Suitable conditions of consent will be applied to require the submission of detailed rehabilitation plans and to ensure the quarry is rehabilitated in accordance with the approved plans.

State Environmental Planning Policy (State and Regional Development) 2011

The proposed development is classified as regionally significant development under Schedule 4A (clause 8 - as an extractive industry which meets the requirements for designated development) of the EP&A Act and is subject to the provisions of Part 4 of the *State Environmental Planning Policy (State and Regional Development) 2011*.

Regional panels are authorised to exercise the decision making functions of Councils to which Part 4 of the SEPP applies (including staged development application under the EP&A Act).

State Environmental Planning Policy (Rural Lands) 2008

The Rural Lands SEPP applies to the subject land given its RU2 Rural Landscape zone under the provisions of the Clarence Valley Local Environmental Plan 2011.

The subject land and surrounding lands have limited agricultural productive potential due to the poor soil structure and steep slopes / terrain of the land. A land use conflict risk assessment, under section 15.5 of the original EIS, focuses on adjoining / nearby land uses. The potential impacts to adjoining uses are likely to be noise, dust and increased traffic movements from the quarry operations. It concluded that with implementation of the proposed mitigating measures in the EIS, the development is unlikely to have a significant impact on the current and preferred land uses in the vicinity of the development.

The proposed development is not inconsistent with the rural planning principles and will result in positive economic benefit to the local economy and adverse social impacts can be mitigated through the imposition of appropriate conditions of consent.

State Environmental Planning Policy 33 – Hazardous and Offensive Development

Extractive Industries have the potential to be hazardous or offensive development through the nature of their operations. If measures are not implemented to reduce impacts from the proposed development, the extractive industry could be considered to be a potentially offensive industry which is defined under the SEPP as follows:

“potentially offensive industry means a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.”

Without employing measures to ensure that the development minimises any impacts, and in particular noise, the development has the potential to be an offensive industry. The proposed

development is Integrated Development and requires licensing from the Environment Protection Authority (EPA), which is in place for Area 1. The EPA raised no objection to this proposal. Through implementation and compliance with the EPA licence, and draft conditions of consent, the impacts of noise and potential pollution to the surrounding area are minimised through:

- restricted hours of operation and blasting times,
- restriction on noise emissions from the site and noise compliance monitoring,
- implementation of stormwater and erosion and sedimentation controls, and
- monitoring and recording of complaints including an annual return to the EPA.

The quarry proposes to store a limited amount of fuel (less than 10,000L) on site for machinery. All fuel storage will be within a separate bunded area where no other flammable materials will be stored. Transport of small quantities of fuel would also be required. The storage and transport of the proposed amount of fuel would not trigger the quarry being defined as a potentially hazardous or offensive industry.

A condition of consent is also proposed to ensure that any on-site maintenance of machinery (including mechanical or washing) is undertaken in a manner that results in suitable disposal of waste water / materials.

No storage of explosives is proposed on-site.

A full set of conditions is contained in the draft schedule at the end of this report. Compliance with the conditions will minimise the impacts to the surrounding area and in turn the extractive industry is not likely to be classified as a potential hazardous or offensive industry.

State Environmental Planning Policy 44 – Koala Habitat Protection

The Ecological Assessment Report dated 10/08/2013 and the Addendum to that report dated 26/11/2014 prepared by GeoLINK forming part of the original EIS, included an assessment in accordance with the provisions of SEPP 44. The reports determined that the subject land is identified as potential Koala habitat. The survey results did not identify any areas of core Koala habitat and therefore, a Koala Plan of Management is not required.

Some limitations were identified with the survey, including previous fires. However, given the survey efforts undertaken (including additional surveys in October 2014) and the presence of Brushtail Possums, some evidence of Koala occurrence is likely to have been detected if the survey areas were subject to moderate to high levels of Koala usage.

State Environmental Planning Policy 55 – Remediation of Land

Clause 7: Contamination and remediation to be considered in determining development application

The subject land has not been used for any known activities or purposes, including any uses listed in Table 1 to the contaminated land planning guidelines, and the land is still largely in its natural state. It is unlikely that the land is contaminated, and a detailed investigation under the provisions of the SEPP 55 is not required. The land is considered suitable for the proposed development.

Clarence Valley Local Environmental Plan 2011

The subject land is zoned RU2 Rural Landscape under the provisions of the *Clarence Valley Local Environmental Plan, 2011* (LEP). Extractive industries are not permissible using the provisions of the LEP, however, as discussed above, are a permissible development using the provisions of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*. The SEPP takes precedence over the LEP.

The LEP requires the consent authority to have regard for the objectives of the zone when determining a development application in respect of land within the zone. The objectives of the zone are;

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To maintain the rural landscape character of the land.*
- *To provide for a range of compatible land uses, including extensive agriculture.*
- *To provide land for less intensive agricultural production.*
- *To prevent dispersed rural settlement.*
- *To minimise conflict between land uses within the zone and with adjoining zones.*
- *To ensure that development does not unreasonably increase the demand for public services or public facilities.*
- *To ensure development is not adversely impacted by environmental hazards.*

The proposal is not inconsistent with the objectives of the zone as it does not interfere with agricultural potential of the land or surrounding land. The implementation of the conditions contained within the draft schedule will help minimise the potential land use conflicts. No unreasonable demand will be placed on public services or public facilities. Boundary Creek Forest Road and Boundary Creek Road have been upgraded to service the development and the quarry operator will pay an annual contribution for the maintenance of Council roads. The development does not contribute to disperse rural settlement.

Clause 4.3: Height of buildings

There is no maximum building height for the land shown on the height of buildings map. No detailed plans for the site office and amenities building has been submitted with the DA, however, the buildings are still considered to achieve compliance with this clause.

Clause 5.9: Preservation of trees or vegetation

Development consent is required under this clause to seek approval to remove native trees and vegetation for the development. Approval is sought for the removal of approximately 5ha of vegetation for Area 2. The impacts and offsets of removing the vegetation were considered under DA2014/0024. As part of that approval, the clearing for Area 1 and 2 of the quarry has been offset by the creation of a biodiversity offset (totalling 114ha) to be retained in perpetuity.

As part of this application, the applicant has submitted an addendum Ecological Assessment to consider any additional threatened species and communities that could be located within Area 2 that have been listed since the preparation of the original EIS, and the clearing required for the amended site office location. That assessment concluded that due to the negligible vegetation/habitat loss required for the proposed new location of the facilities (i.e. clearing at the old site office location now not required) no amendment to the approved biodiversity offset is considered necessary.

Clause 5.10: Heritage conservation

The applicant is not seeking approval to alter a heritage item, move / impact on an Aboriginal object, or alter a building, work, relic or tree within a heritage conservation area, as such development consent under this clause is not required.

Clause 7.2: Earthworks

(3) Before granting development consent for earthworks, the consent authority must consider the following matters:

- (a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,*
- (b) the effect of the proposed development on the likely future use or redevelopment of the land,*

- (c) the quality of the fill or the soil to be excavated, or both,*
- (d) the effect of the proposed development on the existing and likely amenity of adjoining properties,*
- (e) the source of any fill material and the destination of any excavated material,*
- (f) the likelihood of disturbing relics,*
- (g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.*

The proposed quarry is not considered to have a detrimental effect on existing drainage patterns or soil stability of the locality. The quarry site is located at the top of a ridgeline and does not receive significant surface water flows from upslope areas. The future landform of the site will be altered, however, the site will be rehabilitated to reinstate the native vegetation at the end of the quarry life. The quality of the material to be extracted is suitable for various infrastructure projects in the region. The development is unlikely to disturb relics, however appropriate conditions will be applied regarding action to be taken if relics are recovered. The likely impacts on watercourses, drinking water catchments and environmental sensitive areas are minimal and can be adequately managed and / or mitigated.

Clause 7.7: Drinking Water Catchment

(3) Consent must not be granted to the carrying out of development on land to which this clause applies unless the consent authority:

- (a) has taken into consideration whether there will be any adverse impact on drinking water quality and flows having regard to the following:*
 - (i) whether there is sufficient distance between the proposed development and waterways that feed into the water supply catchment,*
 - (ii) the on-site use, storage and disposal of any chemicals on the development site,*
 - (iii) the treatment, storage and disposal of wastewater and solid waste generated or used on the development site,*
 - (iv) any other potential adverse impacts on the water quality and quantity within the catchments, and*
- (b) is satisfied that:*
 - (i) the development is designed, sited and will be managed to avoid any adverse impact on water quality and flows, or*
 - (ii) if that impact cannot be avoided, after having taken into consideration feasible alternatives, the development is designed, sited and will be managed to minimise that impact, or*
 - (iii) if that impact cannot be minimised, the development will be managed to mitigate that impact.*

The quarry site is mapped within the Drinking Water Catchment Map of the LEP. The quarry site is located within the Copes Creek catchment, which is a tributary to the Nymboida River. The proposed collection and management of stormwater runoff from the quarry site is proposed in accordance with the 'Blue Book'. Stormwater runoff within the quarry will be drained to stormwater collection sumps to facilitate settlement of suspended sediment prior to reuse or discharge (subject to quality testing and treatment if required). The existing EPA licence for quarry operations (that will extend to Area 2) includes requirements and criteria for water quality and monitoring. Erosion and sedimentation controls will be implemented to divert clean runoff around the quarry.

Council's Water Cycle section provided comments on the groundwater assessment submitted in the addendum EIS for Area 2. Their comments stating that the volume of ground water entering the quarry to be dewatered and treated could be high and could have elevated levels of iron, aluminum and manganese. They advised that treated and released water is to be suitable for drinking water in accordance with the Australian Drinking Water Guideline levels, so that discharge and treatment methods do not pose health risks or risks to drinking water quality. Council will need further information regarding the treatment (including chemicals used) and sampling regime of groundwater

to be reused and / or released prior to any dewatering commencing. A condition is proposed to require this information to be submitted to Council for approval.

Chemicals and fuels used for quarry operations will be required to be stored in a bunded area with the ability to contain any spillage. Waste water will be required to be managed on-site in accordance with Council's On-site Waste Water Management Strategy.

The proposed quarry operations have been designed to ensure that there is no significant impact on water quality or quantity within the drinking water catchment.

Clause 7.8: Essential Services

Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the proposed development are available or that adequate arrangements have been made to make them available when required:

- (a) the supply of water,*
- (b) the supply of electricity,*
- (c) the disposal and management of sewage,*
- (d) stormwater drainage or on-site conservation,*
- (e) suitable road access.*

On-site collection and management of water, sewer and stormwater is proposed for the development. Electricity to site offices will be provided by on-site generators. Access to the site is via Boundary Creek Forest Road and Boundary Creek Road, both Council owned roads. The roads have now been upgraded to ensure that they are suitable to service the development. The quarry operator will maintain these roads under a maintenance agreement with Council. Suitable arrangements are proposed for adequate supply of water and electricity for the development, sewage disposal and stormwater drainage can be managed on-site, and there is suitable road access to service the land.

- (ii) any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the draft instrument has been deferred indefinitely or has not been approved),**

Nil

- (iii) any development control plan,**

Rural Zones Development Control Plan

There are no specific requirements for extractive industries under the Rural Zones DCP. The development was notified in accordance with Part B of the DCP which is discussed under S79C(d) of this report. The proposed development is not inconsistent with the objectives of the plan.

- (iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and**

Nil

- (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates,**

Extractive industries that obtain or process for sale, or reuse, more than 30,000 cubic metres of extractive material per year, or that disturb or will disturb more than 2 hectares are declared to be Designated Development under Clause 19 Schedule 3 of the EP&A Regulations.

The proposed development was publically notified in accordance with Part 6, Division 5 of the Regulations.

The General Terms of Approval have been sought from the relevant public authorities and are contained within the Draft Schedule of Conditions.

(v) any coastal zone management plan (within the meaning of the [Coastal Protection Act 1979](#)),

The subject land is not affected by any coastal zone management plan.

(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.

Traffic

The Traffic Impact Assessment (in the original EIS) concluded that the roads within the haulage route (detailed above) are suitable for the increased traffic generated by the development. The carriageway widths of Boundary Creek Forest Road and Boundary Creek have now been widened to support the transport of quarry material.

The quarry operator has entered into a road maintenance agreement with Council for the operator to regularly maintaining the sections of Boundary Creek Forest Road and Boundary Creek Road utilised as a haulage route to a suitable standard. A similar agreement will continue / be in place for Area 2 operations. The quarry operator will pay an annual road maintenance contribution for Armidale Road, Swallow Road, Lilypool Road and Tyson Street. This will offset the impact of additional heavy vehicle use of these roads.

Preparation of a 'Traffic Management Plan and Truck Driver Code of Practice' is necessary to address a variety of matters including consideration of potential risk areas along the haulage route, such as school zones. Truck drivers will be required to comply with this Plan.

Noise & Dust

The proposal has the potential to impact on the desirable rural characteristics of the local areas near the quarry site and along the haulage route. The closest dwelling to the proposed quarry is 2km and a total of 8 dwellings are located within 5km of the quarry site. The relatively isolated location of the quarry limits the number of dwellings subject to potential negative impacts from quarry operations. There are, however, a number of dwellings located along the main haulage route at Nymboida and Coutts Crossing villages.

The original EIS included a noise (operational and traffic), vibration and blasting assessment. Mitigating measures are necessary for quarry operations (on-site operations) to achieve compliance with the background noise levels of L Aeq (15 min) of 35 dBA at the closest dwellings, in accordance with the Industrial Noise Policy. The traffic noise assessment determined that the heavy vehicle noise generated by the haulage of material along Boundary Creek Forest Road and Armidale Road is likely to be below the limits identified in the EPA NSW Road Noise Policy (RNP). The draft conditions of consent limit operational and traffic noise, and vibration and blasting to the acceptable levels identified in the original EIS.

Since preparation of the original EIS and determination of DA2014/0024, a Noise and Vibration Management Plan and Draft Blast Management Plan for the quarry have been approved by Council. Conditions of consent are proposed to ensure the quarry operates in accordance with the approved management plans (as amended subject to regular review).

There is the potential of dust generation impacting on residents along Boundary Creek Forest Road and Boundary Creek Road. An air quality assessment submitted with the original EIS assessed the

impacts of dust emissions at two receivers (one being the dwelling located closest to the road with a setback of 60m). The assessment was prepared in accordance with the NSW EPA 'Approved Methods of Modelling and Assessment of Air Pollutants in NSW' and it determined that the predicted dust emissions for the quarry comply with the air quality criteria for each relevant dust metric. Conditions of consent are proposed regarding dust management.

Soil and Water

Erosion and Sedimentation controls will be implemented to divert clean runoff around the quarry. Stormwater runoff within the quarry area will be drained to stormwater collection sumps to facilitate settlement of suspended sediment prior to reuse or discharge. Discharging will be subject to quality testing and treatment as required by the EPA licence.

Groundwater entering the quarry will also need to be collected and treated prior to re-use or release into the environment. As the quarry is located within a drinking water catchment, the treatment method proposed is to be provided to Council for approval. The water will need to be treated to meet levels in the Australian Drinking Water Guidelines.

Biodiversity

The original and addendum Ecological Assessments identified impacts associated with the proposed development (Areas 1 and 2), including the removal of 10.12ha of native vegetation. Several safeguards have been proposed to mitigate the impacts of the proposal on local biodiversity, including safeguards for design features, rehabilitation, habitat protection and clearing protocols.

A biodiversity offset of 114ha has now been secured under a Nature Conservation Trust Agreement in accordance with Council's Biodiversity Offset Policy. The offset includes:

- a ratio of 10:1 (protected to removed),
- like for like outcome for the vegetation communities to be protected,
- removal of RAMA's and amending the existing PNF (Private Native Forestry) on the land to remove logging approved in the offset area.

The offset is considered a net vegetation gain as the habitat protection area will be retained in perpetuity and results in removal of the approval to log in these areas, improving the biodiversity values of the locality. The offset results in protection of like for like vegetation on the property which is preferred to other agreements for protecting vegetation off-site.

The site is located within the centre of a regionally significant wildlife corridor and spans approximately half the width of that corridor. The like for like vegetation protected under the offset will contribute to maintaining wildlife connectivity for the locality.

An assessment under SSA of the EP&A Act was undertaken to determine the impact of the proposal on known and potentially occurring threatened species and EEC. The assessment (including the addendums) concluded that it is unlikely that the proposal would result in a significant impact on the local population/occurrence of any threatened species or EEC, as a result of the biodiversity offset strategy and other mitigating measures.

Economic

The quarry is likely to have positive direct and indirect impacts on the local and regional economies from the ongoing financial expenditure and employment generation over the life of the quarry.

Summary

The development has the potential for various environmental, social and economic impacts, including noise, traffic, dust, vegetation removal, which have been discussed in detail above. However, through the mitigating measures proposed and the implementation of conditions contained in the draft schedule, the potential negative impacts from the proposed extractive industry will be minimised.

Quarrying of Area 1 of the Mt Zion quarry has commenced, and to date there have not been any known complaints received by Council regarding impacts. The extraction rates and traffic movements for Area 1 and 2 are the same, and quarrying of Area 2 is not proposed to commence until Area 1 is exhausted (which has an estimated life of 10 to 15 years). As such, the development will be a continuation of the existing quarry operations and the two consents over the land will not operate concurrently. It is considered that the operational impacts from both stages will fundamentally be the same.

(c) the suitability of the site for the development,

The site is not subject to flooding. The site is bushfire prone and the bushfire risk for the office building has been suitably addressed in the Addendum EIS. The biodiversity impacts from undertaking extensive clearing have been adequately offset in accordance with Council's adopted policies. The site is considered suitable for the continued quarry operations subject to the imposition of conditions contained in the attached Schedule.

(d) any submissions made in accordance with this Act or the regulations,

The proposed development was advertised and notified in accordance with the provisions of the Act, Regulations and Council's DCP. No submissions to the application were received during that time.

(e) the public interest.

The proposed development complies with the relevant legislation and local policies ensuring that the public interest is maintained. Through the imposition of the conditions contained within the draft schedule, potential impacts from the development to the surrounding environment will be minimised to ensure quarry operations are sustainable. The development is considered to promote the orderly and economic use and development of land.

4.2: External Agency Consultation / Comments

Agency	Consultation / Comment
NSW EPA	<ul style="list-style-type: none"> • Integrated development under s91A(2) of the EP&A Act. • NSW EPA response dated 16 May 2017. • No objection to development, and no specific conditions applied as development can operate under existing Environmental Protection Licence (EPL No.20650)
DPI Water	<ul style="list-style-type: none"> • Integrated development under s91A(2) of the EP&A Act. • DPI Water General Terms of Approval received 2 August 2017
RMS	<ul style="list-style-type: none"> • Notified in accordance with clause 16(3) of SEPP (Mining, Petroleum Production and Extractive Industries) 2007. • RMS response dated 26 April 2017. • No objection to development or any additional requirements.

4.3: Internal Officer Consultation / Comments

Officer	Consultation / Comment
Development Engineer	<ul style="list-style-type: none"> • Comment provided: <i>“This development is an expansion of the previously approved DA2014/0024, as modified under MOD2015/0008. As such, the impact of the development will be largely the same as addressed in those previous development consents, other than the additional duration of operation (i.e. the same impacts for a longer period). From an engineering perspective, since the proposed extraction rate is the same as that proposed for Area 1 of the quarry, the operational requirements that were and are required for the operation of the quarry Area 1 will remain applicable for the proposed Area 2. Most of the requirements to establish access have been implemented and will require ongoing maintenance throughout the life of the quarry.”</i> • Advices and conditions proposed – see Schedule 1.
Building Surveyor	<ul style="list-style-type: none"> • Comment provided: <i>“As stage 2 involves a relocation of the amenities, the Building Conditions 45-54 placed on the original consent DA2014/0024 (as modified by Mod2015/0008), will need to be re-applied to this consent for stage 2. Additional bushfire conditions are also added.”</i> • Conditions proposed – see Schedule 1.
Natural Resource Management Officer (Ecology)	<ul style="list-style-type: none"> • No comments provided other than concerns raised with illegal clearing on the adjoining Crown Road Reserve. This is a separate matter and is not for consideration as part of this DA. • Conditions proposed – see Schedule 1.
Environmental Health Officer	<ul style="list-style-type: none"> • Comment provided: <i>“Noise conditions from previous consent still apply.”</i> • Conditions proposed – see Schedule 1.
Environmental Officer	<ul style="list-style-type: none"> • No comments provided. • Conditions proposed – See schedule 1.
Water Cycle Section	<ul style="list-style-type: none"> • Comments provided to the effect that: the volume of ground water to be dewatered and treated could be high and could have elevated levels of iron, aluminum and manganese. Treated and released water is to be suitable for drinking water in accordance with the Australian Drinking Water Guideline levels. Discharge and treatment methods are not to pose health risks or risks to drinking water quality. Council will need further information regarding the treatment (including chemicals used) and sampling regime of groundwater to be reused and / or released. • Conditions proposed – see Schedule 1.

Schedule 1: DA2017/0177 - Draft Advices and Conditions

ADVICES

1. No building construction is to be commenced until a Construction Certificate has been issued.
2. Prior to work commencing on a development the applicant must give notice to Council of their intention to commence work. Such notice shall be in the form of a Notice of Commencement form and must be submitted to Council at least two (2) business days before work commences.
3. All building and construction work, which includes subdivision and civil works, which cost \$25,000 or more require the payment of the long service levy prior to a Construction Certificate being issued. The levy is required under the Building and Construction Industry Long Service Payments Act 1986. The total value of works must be included on the Construction Certificate Application form.
4. Effective measures are to be taken to prevent any nuisance being caused by noise, vibration, smell, fumes, dust, smoke, waste water products and the like at all times.
5. It is the developer's responsibility to make satisfactory arrangements with other property owners affected by the development, and to meet all costs associated with the development.
6. This application is integrated development under section 91 of the Environmental Planning and Assessment Act 1979 seeking General Terms of Approval under the *Protection of the Environment Operations Act 1997*. The NSW Environment Protection Authority (EPA) response, dated 16 May 2017, stated that no General Terms of Approval will be provided as the quarry can operate under the existing Environmental Protection License (EPL No. 20650). A copy of the NSW EPA response is attached to this development consent for your information.
7. The applicant is advised that Council may carry out periodic inspections of the premises to ensure that the conditions of this consent are being complied with. In accordance with the provisions of Section 118G of the *Environmental Planning and Assessment Act 1979*, if as a result of any such inspection Council requires work to be carried out on or in the premises then Council may charge a fee to recover the costs of that inspection. The appropriate fee will be as specified in Council's current adopted fees and charges.
8. The biodiversity offset on the land is to be managed in accordance with the Nature Conservation Trust Plan of Management dated September 2015, and the corresponding restriction on the title of the land (including the Trust Agreement dated 8 October 2015).
9. The quarry operator may not:
 - Encroach upon the Crown Road adjoining Lot 48 DP752839;
 - Remove any vegetation from the Crown Road;
 - Stockpile any materials, equipment, or machinery on the Crown Road;
 - Direct Stormwater discharges onto the Crown Road; or
 - Use the Crown Road as an Asset Protection Zone.

CONDITIONS

1. The development being completed in conformity with the Environmental Planning & Assessment Act, 1979, the Regulations thereunder, the Building Code of Australia (BCA) and being generally in accordance with plans titled 'Quarry Footprint' and 'Amendments to Quarry Layout', dated 21/03/17, two (2) sheets, prepared by GeoLink, as amended in red or where modified by any conditions of consent.

This consent grants approval to quarry hard rock from Area 2 only, as indicated on the approved plan. Area 1 on the plan is to operate under separate development consent (DA2014/0024 as modified).

2. Staging of the quarry is to be undertaken in accordance with the staging shown in the approved plans. Quarrying of material from Area 2 (shown as Stage 4) is not to commence until quarrying of Area 1 (shown as Stages 1, 2 and 3) has concluded and final rehabilitation works for Area 1 have commenced.

To clarify, this condition does not restrict the immediate construction of the office / amenities building.

3. Compliance with the conditions and advice of NSW DPI Water, as contained in their letter reference number 30ERM2014/0099, consisting of seven (7) pages as attached to this Notice of Determination.
4. Submission of a Plan of Management prepared by a suitably qualified and experienced person/s to Council for approval prior to the commencement of quarrying under this Notice of Determination. The Plan of Management is to include, but is not limited to, the following details:

- Operating details including: numbers, type and location (if fixed plant) of plant and machinery; numbers of employees on-site and off site; stockpile and overburden storage areas; vehicle storage and refuelling areas; and fuel storage areas.
- An operational erosion and sediment control plan. The plan is to identify the sedimentation/storage ponds at each proposed stage of the quarrying operations. That is, as quarry expansions are proposed, any necessary relocation of sedimentation structures should be identified on the plan. The dimensions, capacity and anticipated levels of waste water within these structures should be included in this detail.
- A water quality monitoring program which assesses the quality of discharged water from the sedimentation ponds as they occur. Details of measures for drainage or pumping from the ponds after storm events are to be provided, including the time taken for ponds to empty.
- Any proposal for the re-use of wastewater from the dams is to be provided. Such water could be used for water of access roads and exposed areas to avoid dust nuisance.
- A ground water treatment and sampling plan.
- Details of dust mitigation measures and monitoring program.
- Full quarry rehabilitation details, including details of topsoil and overburdened to be stored on-site, finished landforms, plantings, and commencement and completion of each stage of rehabilitation proposed.
- Details of the method of weighing extracted material. A schedule is to be included which allows for the annual update of the rates of extraction. This will ensure monitoring of the amount of material extracted and enable Council to calculate the contributions for Council road maintenance.
- A waste management plan, including measures to optimise the efficiency of

resource recovery and the reuse or recycling of material.

5. The establishment, operation and management of the development is to comply with the approved Plan of Management at all times.
6. An annual update of the Plan of Management is to be submitted to Council by 31 July each year. This update is to include a plan and statement demonstrating compliance with this consent and the Plans of Management. Specifically, the statement is to include:
 - a. A site plan showing:
 - The extraction area at the date of report
 - The areas intended for extraction in the next twelve (12) months
 - Sediment ponds
 - Stockpile sites
 - Overburden storage sites
 - Erosion controls in place at the time of the report
 - Rehabilitated areas
 - b. Written details addressing:
 - State of compliance with each condition of consent and the Plan of Management at the time of the report.
 - The stage of the quarry and quantity of material extracted in the immediately preceding twelve (12) months
 - The stage of the quarry and quantity of material proposed to be extracted in the next twelve (12) months
 - Results from all monitoring programs for the preceding twelve (12) months
 - Sedimentation ponds constructed during the preceding twelve (12) months or proposed to be constructed in the next twelve (12) months
 - Rehabilitation works that have occurred in the preceding twelve (12) months or proposed to be undertaken in the next twelve (12) months
 - Records of any complaints received in the immediately preceding twelve (12) months
7. Development consent is given to extract a maximum of 200,000 tonnes of material per annum. The total amount of material to be extracted for Area 2 is not to exceed 3.25 million tonnes.
8. Quarry truck movements for haulage purposes are not to exceed a maximum of 100 movements (i.e. 50 trips) per day, on permitted operational days.
9. The area of the quarry (i.e. Area 2) shall not exceed 5ha as shown in the approved plan. All blasting, crushing, screening, stockpiling and loading is to be undertaken within this area.
10. The quarry/extraction area is to be defined on the ground by the establishment of permanent survey marks located and shown on a plan by a registered surveyor and submitted to Council, prior to commencement of works.
11. All vehicles associated with the use of the premises, including employees' vehicles, are to be parked within the confines of the site at all times.

12. A sign must be erected on the subject land in a prominent position visible from the entrance of the property during quarrying operations. The sign is to:
 - State that unauthorised entry to the quarry work area is prohibited; and
 - Show the name of the person in charge of the quarry operations and a contact number for that person.
13. Accurate records of quantities extracted are to be kept, maintained and available for inspection by authorised Council officers on request. The method of recording and the location where records are to be kept are to be outlined in the Plan of Management.
14. Should any Aboriginal relics or artefacts be uncovered during works on the site, all work is to cease and the Director-General of the NSW Office of Environment and Heritage shall be contacted immediately and any directions or requirements of that Department complied with.
15. No advertising sign is to be erected, painted or displayed without approval from Council.

ENGINEERING

16. Prior to commencement of quarry operations, the applicant shall submit a 'Traffic Management Plan and Truck Driver Code of Practice' for assessment and approval by Council. The plan and the code of practice shall document:
 - a) The road maintenance program
 - b) Surrounding environment, existing conditions and road safety
 - c) Existing private property driveways and farm access points
 - d) Dust suppression methods including water supply management, monitoring, reporting, source, licencing, drought management
 - e) Noise suppression methods including monitoring and reporting
 - f) Road inspection activities to be implemented for the life of the quarry
 - g) Approved haulage routes highlighting specific locations for consideration such as school zones, school bus routes, residential areas or potential risk locations (including map).
 - h) Induction process for staff and sub contractors outlining clear expectations and consequences for any breach of the code
 - i) Instruction on all operational and safety requirements related to the quarry operations

Note:

The Traffic Management Plan and Truck Driver Code of Practice (Rev2) dated December 2015 applying to Area 1 of Mt Zion Quarry may be used as a basis for preparing the plan for Area 2.

17. The quarry is to operate in accordance with the approved Traffic Management Plan and Truck Driver Code of Practice.
18. All quarry trucks exiting the site shall do so via a weighbridge, or all trucks are to be loaded by a machine with scales to enable accurate records of loads.
19. Prior to commencement of quarry operations for Area 2, the applicant shall enter into a legally binding road maintenance agreement with Clarence Valley Council for all utilised sections of Boundary Creek Road, Boundary Creek Forest Road and the interface with the Armidale Road - Boundary Creek Road intersection that are utilised by the applicant. This agreement shall be for the life of the quarry.

20. Payment to Council of a road maintenance contribution per annum for the use of Council's roads by extractive industry trucks at a rate of \$0.05 per tonne of material extracted (maximum annual rate is \$10,000).
- NB
1. The contribution rate that will apply at the time the contribution is being paid will be adjusted in accordance with changes in the Consumer Price Index from the date of this consent up to the date the contribution is payable.
 2. The contributions are to be paid to Council on an annual basis. The amount will be determined by the extraction amounts specified in the Plan of Management and revised annually by the operator, with Consumer Price Index adjustments also being applied.
21. All internal quarry roads shall be constructed to consider all design service vehicles used in the quarry operations and be wide enough to facilitate 2 way traffic, unless alternate routes are determined which will ensure vehicles do not pass in opposite directions.
22. The adequacy of parking, driveways, and vehicular accesses for the development must be demonstrated by the submission of standard scale plans with manoeuvring paths shown in accordance with AS2890. The parking area plans must be approved by Council or accredited private certifier as part of the Building Construction Certificate. The works are to be completed in accordance with the approved plans prior to issue of the Occupation Certificate.
23. Grades and paths of travel for persons with disabilities are to be provided from carparking bays through to the main entrance of the site office / amenities building in accordance with AS2890, AS1428.1 and the Building Code of Australia.
24. Any fill earthworks related to building construction or internal roads to be undertaken on the site must be carried out in accordance with the placement and compaction of fill described in AS 3798.
25. The western site access must only be utilised for light vehicle access to the site amenities and office. No heavy vehicles are to enter the site via this access. Signage advising this vehicular access limitation for this driveway is to be installed and maintained in position.
26. If a driveway gate is proposed for the quarry at any location, it shall be set back so that the largest design service vehicle using the access can stand clear of Boundary Creek Forest Road.
27. During dry weather, standard dust suppressions methods are to be used as often as is necessary to ensure that adjoining properties are not adversely affected by undue dust.
28. All trucks carrying quarry or crusher products from the site shall ensure their loads are fully covered by a suitable material to prevent spillage or dust falling from the truck.

BUILDING

29. A Construction Certificate Application for the office / amenities building and parking area is to be lodged with Council or a Private Certifying Authority within three (3) months of determination of this application.

The structures approved under the Construction Certificate are to be constructed and an Occupation Certificate issued within three (3) months of the Construction Certificate being issued.

30. A Construction Certificate shall be obtained in respect of the office and amenities buildings prior to their installation/placement on site.
31. The buildings are not to be occupied or used until such time as an Occupation Certificate has been issued.
32. Prior to commencement of works, a sign must be erected in a prominent position on any work site on which work is being carried out:
 - a Stating that unauthorised entry to the work site is prohibited, and
 - b Showing the name of the person in charge of the work site and a telephone number at which that person may be contacted outside of working hours, and
 - c Showing the name, address and telephone number of the principal certifying authority for the work, and

Any such sign is to be removed when the work has been completed.

33. The facility shall be provided with sanitary facilities and a water supply of appropriate quantity and quality to satisfy sanitary and drinking water requirements for staff. Details of how this is to be achieved are to be submitted to Council for consideration and approval prior to any works commencing on the site.
34. Access to the buildings for disabled persons shall be provided and constructed in accordance with the requirements of Part D3 of the Building Code of Australia and AS 1428.1-2009.
35. Accessible facilities for the use of the disabled shall be provided as specified in Clause F2.4 of the Building Code of Australia and shall be constructed to the requirements of AS 1428.1-2009.
36. Car parking spaces for people with disabilities are to be provided as required by Part D3.5 of Building Code of Australia.
37. In a building required to be accessible, braille and tactile signage complying with Specification D3.6 of the Building Code of Australia and incorporating the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1-2009 must identify each sanitary facility; space with a hearing augmentation system and door with a required 'exit' sign.
38. The Construction Certificate plans shall detail dimensional compliance with the requirements of AS 1428.1-2009 for access and facilities.
39. An On-Site Wastewater Management (OSM) Application is to be lodged with Council demonstrating how wastewater will be disposed and treated on-site. An approval from Council (in accordance with s68 of the *Local Government Act 1919*) for the proposed OSM system is to be granted prior to issue of the Construction Certificate. The OSM system is to be installed in accordance with the approval prior to issue of the Occupation Certificate for the buildings.

40. The following Asset Protection Zones (APZ) shall be established around the office / amenities buildings at the commencement of the building works and maintained for the life of the building in accordance with the requirements of the NSW Rural Fire Service document titled 'Planning for Bushfire Protection 2006'.

North: 30m / boundary
South: 30m
West: 20m / boundary
East: 30m

The APZ shall have a tree canopy cover of less than 15%; have no trees within 10 metres of the building; all trees shall have their lower limbs removed to a height of two metres and ground litter is to be kept to a minimum. The APZ shall be provided prior to the commencement of any building works within the APZ area.

41. A water storage tank dedicated for bushfire fighting purposes with a minimum capacity of 20,000 litres is to be installed. A suitable connection for the Rural Fire Service must be made available. In general a 65mm stortz outlet with a gate or ball valve shall be provided. Above ground tanks are to be manufactured out of concrete or metal. Plastic tanks are not to be used.
42. An Emergency and Evacuation Plan shall be prepared for the quarry for the purpose of bushfire protection in accordance with the RFS Guide to a Developing a Bushfire Evacuation Plan (RFS2004). A copy of that plan is to be submitted to Council prior to quarry operations commencing.

ECOLOGY

43. The applicant is to develop a detailed rehabilitation plan for the life of the quarry. The rehabilitation plan is to be included in the Plan of Management.
44. Removal of native vegetation approved under this application is to be undertaken in accordance with the recommendations of the Ecological Assessment and Addendum Ecological Assessments submitted with the application. This includes staging vegetation removal, methods of vegetation removal and works to be undertaken by a qualified ecologist.

No native vegetation is to be removed from the site, with the exception of that identified for removal in the application.

45. Written notice is to be provided to Council at least two (2) weeks prior to removing any vegetation approved under this consent. The notice is to detail the areas to be cleared, timing of works and name and contact details of the any qualified ecologist/persons supervising the clearing work. A pre-inspection may be carried out by Council of the proposed area to be cleared, and the area to be cleared is to be clearly marked on-site prior to the Council inspection.
46. Necessary sediment and erosion control methods are to be in place prior to any clearing works commencing. The controls are to remain in place until clearing works are complete.
47. Council is to be notified on completion of vegetation clearing and may undertake an inspection to ensure clearing has been undertaken in accordance with this consent.

ENVIRONMENTAL HEALTH

Hours of Operation

48. Hours of operation, including but not limited to quarrying, processing or movement of heavy vehicles along Boundary Creek Forest Road and Boundary Creek Road, are restricted to times between 7:00am and 5:00pm Monday to Friday, and between 8:00am and 1:00pm on Saturday.
49. There is to be no quarrying, processing or transportation on Sundays or statutory public holidays except for emergency purposes; for example, but not limited to, sudden damage to public infrastructure or any damage posing an immediate risk to life or property.

The quarry operator is to inform Council on the first working day following the emergency that trucks were carrying quarry products outside the approved hours for emergency purposes.

Noise Limits

50. Noise from the premises must not exceed an $L_{Aeq(15\text{ min})}$ of 35 dBA at the nearest residential receiver who has not given written permission for an exceedance of this condition including under adverse meteorological conditions.
51. Quarry operations are to be undertaken in accordance with the Noise Management Plan prepared by Wilkinson Murray Pty Limited, dated 14 July 2015, and as subsequently amended and approved by Council.
52. Traffic noise shall not exceed an $L_{Aeq(1\text{ hour})}$ of 55 dBA (external) for any resident who has not given written permission for an exceedance located along Boundary Creek Forest Road and Boundary Creek Road (measured 1 metre from the façade and 1.5 metres above the floor of any residential receiver).
- Traffic noise shall not exceed an $L_{Aeq(15\text{ hour})}$ of 60 dBA (external) for any resident who has not given written permission for an exceedance located along Armidale Road (measured 1 metre from the façade and 1.5 metres above the floor of any residential receiver).
53. Noise mitigation efforts and best practice noise management protocols must be implemented to reduce the noise generated by heavy vehicular traffic as is considered reasonable and feasible.

Blasting & Vibrations

54. Residential receivers shall be notified of forthcoming blasts at least 24 hours in advance unless otherwise indicated by the resident in writing.
55. Blasting shall not be conducted outside of the hours of 9:00 am to 3:00 pm on Monday to Friday and shall not be conducted on weekends or public holidays. (Where compelling safety reasons exist, Council may permit a blast to occur outside the above mentioned hours. Prior written notification of any such blast must be made to Council.)
56. Blasting events are limited to once per day except for minor blasts such as required to clear crushers and feed chutes.

57. Blasting amenity level criteria at any point within 1 metre of any affected residential boundary or other noise sensitive location must not exceed:
- a. A ground vibration peak particle velocity of:
 - i. 5mm/sec for more than 5% of the total number of blasts in an annual period;
 - ii. And 10mm/sec at any time;
 - b. An overpressure of:
 - i. 115dB (Lin Peak) for more than 5% of the total number of blasts in an annual period;
 - ii. And 120dB (Lin Peak) at any time.
58. Quarry operations are to be undertaken in accordance with the Draft Blast Management Plan prepared by Civil Blast, dated 20 January 2015, and as subsequently amended and approved by Council.

Noise, Blasting & Vibration Compliance and Monitoring

59. Council, having reason to believe an exceedance has occurred of the noise, blasting or vibration limits as identified in the conditions of this consent, may request the quarry operator undertake compliance monitoring. The monitoring is to be conducted by suitably qualified persons in accordance with relevant standards / guidelines current at the time of monitoring. The monitoring results are to be submitted to Council for review within 30 days of the request.
60. The quarry operator must operate a telephone complaints line during the approved hours of operation for the purpose of receiving complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant. The quarry operator must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint. A legible record of all complaints is to be made available to Council on request and included in the annual update of the Plan of Management. The record must include details of the following:
- a. The date and time of the complaint;
 - b. The method by which the complaint was made;
 - c. Any personal details of the complainant which were provided by the complainant or, if not such details were provided, a note to that effect;
 - d. The nature of the complaint;
 - e. The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant;
 - f. And if no action was taken by the licensee, the reasons why no action was taken.

ENVIRONMENT

61. Drainage berms are to be constructed so as to direct clean run-off around the quarry area. All run-off from disturbed areas, including access roads, is to be diverted into sedimentation dams. The design and location of these features is to be incorporated into the Plan of Management and revised as required.
62. Storage of hazardous materials, including fuels, oils and chemicals are to be contained in a roofed and bunded area with the bund to have a capacity of 110% of the largest container.

63. If the quarry machinery is to be serviced/maintained on site, prior to commencing quarry activities, the following information/plans shall be provided detailing:
- a. the measures to be implemented to prevent discharge of waste liquids/pollutants to the environment.
 - b. details of the storage of hazardous materials.
 - c. that the refuelling of machinery is conducted in a manner whereby any leaks or spills are captured and discharge to the environment is prevented.
 - d. how wastewater will be managed if machinery is washed on site.

This information is also to be detailed in the Plan of Management for the quarry. The quarry is to operate in accordance with the plans/documents approved by Council.

64. An operational plan detailing the proposed methods for groundwater treatment must be submitted for Council approval prior to any groundwater treatment works for Area 2. The operational plan must detail any chemicals to be used for treatment as well as proposed sampling regime for analysis prior to release or reuse of the groundwater. Detailed records of the amount of groundwater treated and methods of treatment are to be kept. The quality of discharged groundwater shall be within the thresholds of the Australian Drinking Water Guidelines.

This information is also to be detailed in the Plan of Management for the quarry.

REASONS

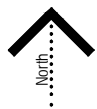
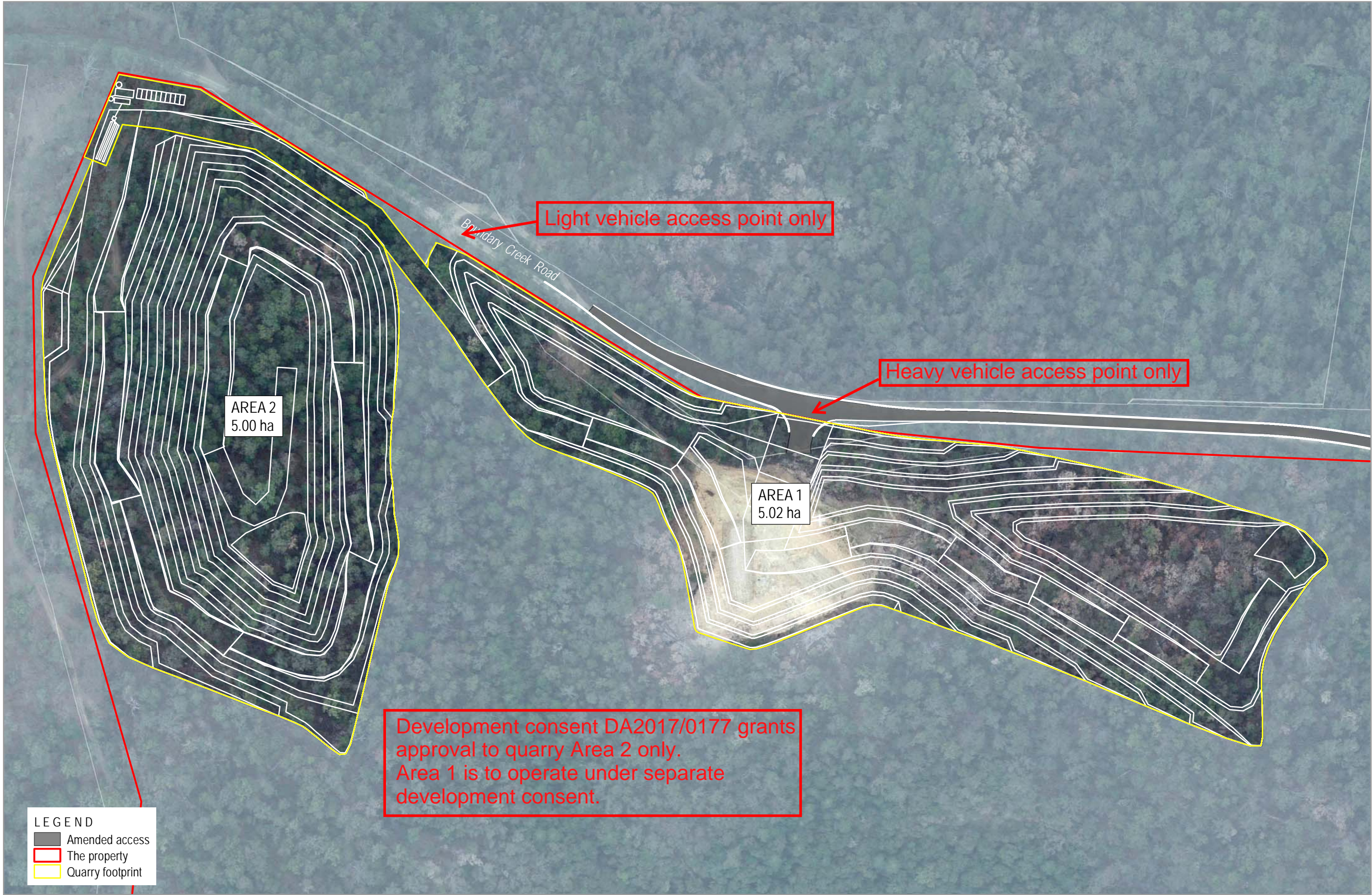
1. To ensure that the development complies with Council's Local Environmental Plan and any Development Control Plan that may be applicable to the proposed development.
2. To ensure that the surrounding environment is not detrimentally affected as a result of the development.
3. To comply with legislative requirements.
4. To ensure works are completed to an appropriate standard and documented.

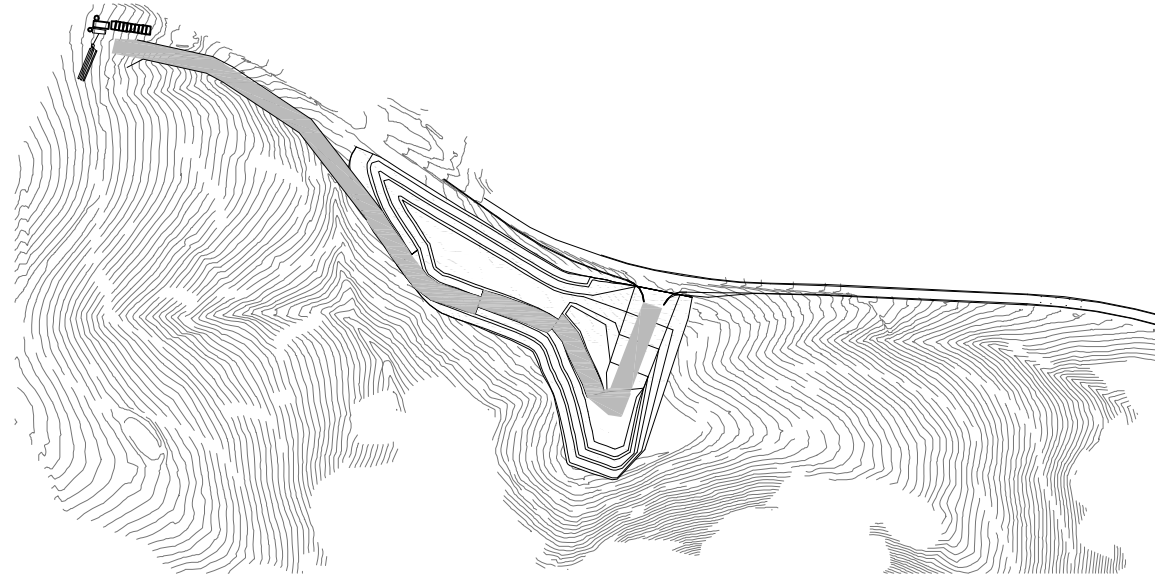
Attachments

1. Proposed plans (with Council notes added in red)
2. Request to amend the application dated 4 July 2017
3. NSW EPA response dated 16 May 2017
4. DPI Water General Terms of Approval received 2 August 2017
5. RMS response dated 26 April 2017
6. Development consent and approved plans for DA2014/0024 (as modified by MOD2015/0008) (being Stage 1)

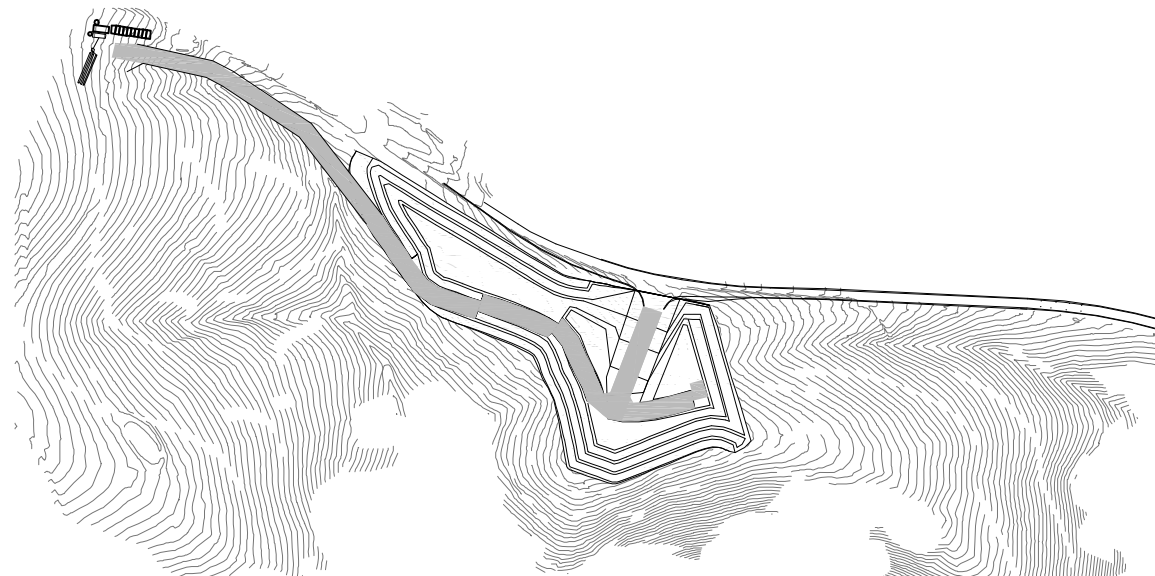
Information shown is for illustrative purposes only

Drawn by: RE Checked by: SJW Reviewed by: SJW Date: 21/03/17
Source of base data: Bothamley and O'Donohue

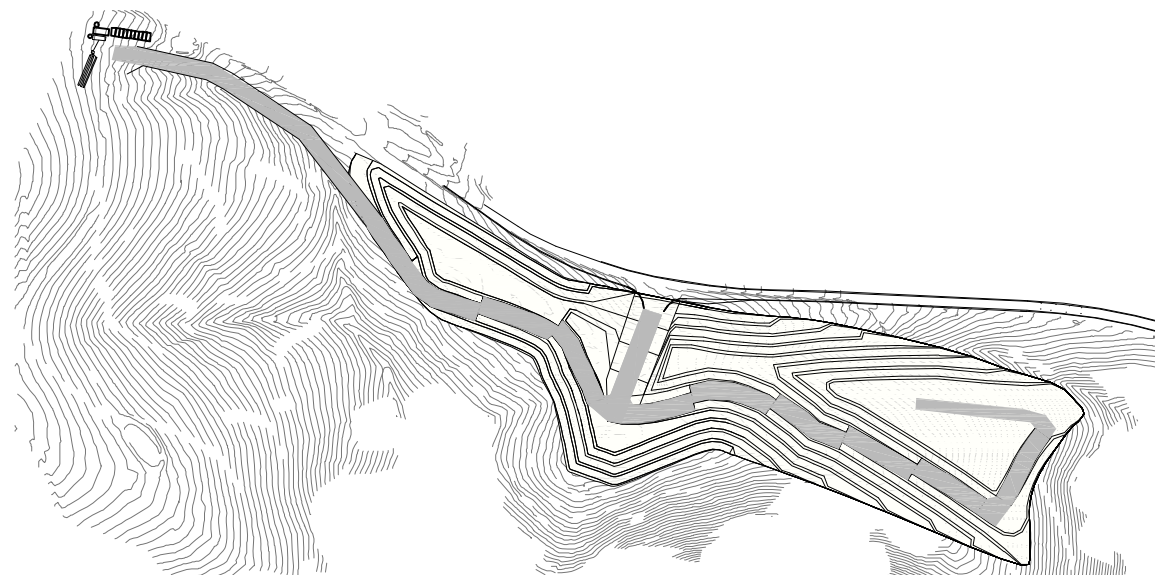




Stage 1 - Not approved under this consent



Stage 2 - Not approved under this consent



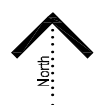
Stage 3 - Not approved under this consent



Stage 4 - Approved under this consent (i.e. Area 2)
- Quarrying of this area is not to commence until quarrying of stages 1, 2, and 3 (i.e. Area 1) has concluded and final rehabilitation works for Area 1 have commenced



On-Site Facilities



0 100

GeoLINK
environmental management and design



4 July 2017
Ref No: 1935-1140

General Manager
Clarence Valley Council
Locked Bag 23
GRAFTON NSW 2460

Attention: Sarah Sozou

Dear Sarah

DA2017/0177 - Mt Zion Quarry, Nymboida Mt Zion Quarry – Proposed Amendments to the Development Application

I refer to our recent discussions regarding access to and the timing of construction of the site office amenities for the Mt Zion Quarry, Nymboida. We have discussed this matter with the proponent's representative, Mrs Lorna Greensill, who has instructed us to amend DA2017/0177 which is currently being assessed by Council.

Mrs Greensill has requested that we amend the DA, pursuant to Clause 55 of the Environmental Planning and Assessment Regulations 2000, as follows:

- The access to the site office amenities by staff vehicles and other associated light vehicles for the Mt Zion Quarry will be via the existing access to the property. All heavy vehicles such as trucks and quarry machinery will access the site via the main quarry access approved under DA2014/0024 and MOD 2015/008; and
- The applications for the Construction Certificate (CC) for the office and amenities building and the Local Government Approval (LGA) for the onsite sewage management system to be lodged within three months of the determination of DA2017/0177 and the construction of the facilities occur within three months of the CC and LGA being issued by Council.

Please feel free to contact me on 6651 7666 if you have any further questions.

Yours sincerely
GeoLINK

A handwritten signature in blue ink, appearing to read "Simon Waterworth".

Simon Waterworth
Director/Town Planner

ABN 79 896 839 729
ACN 101 084 557

Return address:
PO Box 1446
COFFS HARBOUR
NSW 2450

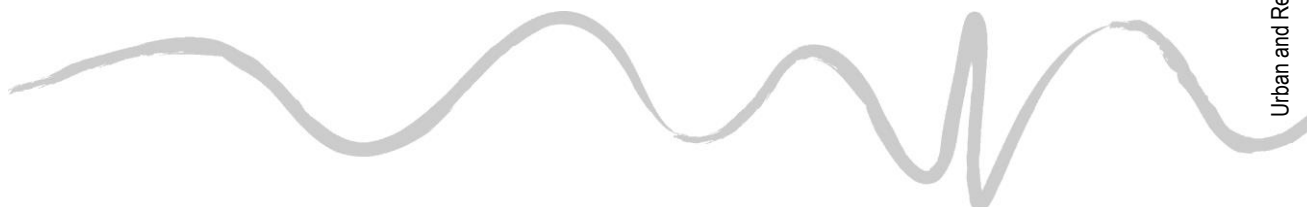
LENNOX HEAD
T 02 6687 7666
F 02 6687 7782

COFFS HARBOUR
T 02 6651 7666

ARMIDALE
T 02 6772 0454

LISMORE
T 02 6621 6677

www.geolink.net.au



Protection of the Environment Operations Act 1997

General Terms of Approval - Issued



Notice No: 1552119

General Manager
Clarence Valley Council
Locked Bag 23
Grafton NSW 2460

Attention: Sarah Sozou

Notice Number 1552119
File Number EF14/752
Date 16-May-2017

Re: DA2017/0177 - Greensill Bros Pty Ltd, Mount Zion Quarry, Nymboida - Stage 2

Issued pursuant to Section 91A(2) Environmental Planning and Assessment Act 1979

I refer to the development application, DA2017/0177 and accompanying information received by the Environment Protection Authority (EPA) on 3 April 2017.

The EPA notes that the proponent holds an Environment Protection Licence (EPL No. 20650) for the site subject to the current DA. The conditions of this EPL reflect the EPA's assessment of the Integrated Development Referral from Clarence Valley Council (DA2014/0024) and the EPA's General Terms of Approval (GTA) provided to Council in April 2014.

Given that this DA does not raise any new issues that would necessitate a variation in the EPL, the EPA will not be providing any GTA in response to this referral.

If you have any questions, or wish to discuss this matter further please contact Scott Ensbey on 66402522.

Yours sincerely


.....
Janelle Bancroft
Acting Unit Head
North - North Coast
(by Delegation)



**Department of
Primary Industries**
Office of Water

Contact: Vanessa Sultmann
Phone: 02 6676 7382
Fax: 02 6676 7388
Email: Vanessa.Sultmann@water.nsw.gov.au
Our ref: 30 ERM2014/0099
Our file: 9057686
Your ref: DA2017/0177

The General Manager
Clarence Valley Council
Locked Bag 23
Grafton NSW 2460

Attention: Sarah Sozou

Dear Sir/Madam

Re: Integrated Development Referral – General Terms of Approval
Dev Ref: DA2017/0177
Description of proposed activity: Extractive Industry – Hard Rock Quarry
Site location: Boundary Creek Road, Nymboida

I refer to your recent letter regarding an integrated Development Application (DA) proposed for the subject property. Attached, please find the Office of Water's General Terms of Approval (GTA) for works requiring a controlled activity approval under the *Water Management Act 2000* (WM Act), as detailed in the subject DA.

Please note Council's statutory obligations under section 91A (3) of the *Environmental Planning and Assessment Act 1979* (EPA Act) which requires a consent, granted by a consent authority, to be consistent with the general terms of any approval proposed to be granted by the approval body.

If the proposed development is approved by Council, the Office of Water requests that these GTA be included (in their entirety) in Council's development consent. Please also note the following:

- The Office of Water should be notified if any plans or documents are amended and these amendments significantly change the proposed development or result in additional works on waterfront land (which includes (i) the bed of any river together with any land within 40 metres inland of the highest bank of the river, or (ii) the bed of any lake, together with any land within 40 metres of the shore of the lake, or (iii) the bed of any estuary, together with any land within 40 metres inland of the mean high water mark of the estuary).
- Once notified, the Office of Water will ascertain if the amended plans require review or variation/s to the GTA. This requirement applies even if the proposed works are part of Council's proposed consent conditions and do not appear in the original documentation.
- The Office of Water should be notified if Council receives an application to modify the development consent and the modifications change any activities on waterfront land.
- The Office of Water requests notification of any legal challenge to the consent.

As the controlled activity to be carried out on waterfront land cannot commence before the applicant applies for and obtains a controlled activity approval, the Office of Water recommends the following condition be included in the development consent:

“The Construction Certificate will not be issued over any part of the site requiring a controlled activity approval until a copy of the approval has been provided to Council”.

The attached GTA are not the controlled activity approval. The applicant must apply (to the Office of Water) for a controlled activity approval **after consent** has been issued by Council **and before** the commencement of any work or activity on waterfront land.

Finalisation of a controlled activity approval can take up to eight (8) weeks from the date the Office of Water receives all documentation (to its satisfaction). Applicants must complete and submit (to the undersigned) an application form for a controlled activity approval together with any required plans, documents, the appropriate fee and security deposit or bank guarantee (if required by the Office of Water) and proof of Council's development consent.

Application forms for the controlled activity approval are available from the undersigned or from the Office of Water's website:

www.water.nsw.gov.au [Water licensing](#) > [Approvals](#) > Controlled activities

The Office of Water requests that Council provide a copy of this letter to the applicant.

The Office of Water also requests that Council provides the Office of Water with a copy of the determination for this development application as required under section 91A (6) of the EPA Act.

The EIS indicates the likelihood of groundwater interception in connection with quarrying activities. This interception of groundwater requires a licence under the Water Act 1912 (W Act).

Attached, please find the Office of Water's General Terms of Approval (GTA) for works requiring a licence under the W Act as detailed in the subject EIS.

Yours Sincerely



Patrick Pahlow
Senior Water Regulation Officer
Office of Water - Water Regulation, North/North Coast

General Terms of Approval

for work requiring a controlled activity approval
under s91 of the Water Management Act 2000

Our Reference:	30 ERM2014/0099	File No: 9057686
Site Address:	Boundary Creek Road, Nymboida	
DA Number:	DA2017/0177	
LGA:	Clarence Valley Council	

Number	Condition
Plans, standards and guidelines	
1	These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to DA2017/0177 and provided by Council. Any amendments or modifications to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified the NSW Office of Water must be notified to determine if any variations to these GTA will be required.
2	Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from the NSW Office of Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the river identified.
3	The consent holder must prepare or commission the preparation of: (i) Works Schedule (ii) Erosion and Sediment Control Plan (iii) Soil and Water Management Plan
4	All plans must be prepared by a suitably qualified person and submitted to the NSW Office of Water for approval prior to any controlled activity commencing. The plans must be prepared in accordance with the NSW Office of Water's guidelines located at www.water.nsw.gov.au/Water-Licensing/Approvals/default.aspx (i) In-stream works (ii) Watercourse crossings
5	The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to the NSW Office of Water.
Rehabilitation and maintenance	
6	The consent holder must carry out a maintenance period of two (2) years after practical completion of all controlled activities, rehabilitation and vegetation management in accordance with a plan approved by the NSW Office of Water.
7	The consent holder must reinstate waterfront land affected by the carrying out of any controlled activity in accordance with a plan or design approved by the NSW Office of Water.
Reporting requirements	
8	The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the NSW Office of Water as

www.water.nsw.gov.au

Room 2, 135 Main Street MURWILLUMBAH 2484 : PO Box 796 MURWILLUMBAH NSW 2484
t + 61 2 66767380 | f + 61 2 66767388 | e information@water.nsw.gov.au | ABN 72 189 919 072
170912

Our Reference: 30 ERM2014/0099

File No: 9057686

Site Address: Boundary Creek Road, Nymboida

DA Number: DA2017/0177

LGA: Clarence Valley Council

Number	Condition
	required.
Security deposits	
9	N/A
Access-ways	
10	N/A
11	N/A
Bridge, causeway, culverts, and crossing	
12	N/A
13	The consent holder must ensure that any bridge, causeway, culvert or crossing does not obstruct water flow and direction, is the same width as the river or sufficiently wide to maintain water circulation, with no significant water level difference between either side of the structure other than in accordance with a plan approved by the NSW Office of Water.
Disposal	
14	The consent holder must ensure that no materials or cleared vegetation that may (i) obstruct flow, (ii) wash into the water body, or (iii) cause damage to river banks; are left on waterfront land other than in accordance with a plan approved by the NSW Office of Water.
Drainage and Stormwater	
15	The consent holder is to ensure that all drainage works (i) capture and convey runoffs, discharges and flood flows to low flow water level in accordance with a plan approved by the NSW Office of Water; and (ii) do not obstruct the flow of water other than in accordance with a plan approved by the NSW Office of Water.
16	The consent holder must stabilise drain discharge points to prevent erosion in accordance with a plan approved by the NSW Office of Water.
Erosion control	
17	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by the NSW Office of Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.
Excavation	
18	The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by the NSW Office of Water.
19	N/A
Maintaining river	
20	The consent holder must ensure that (i) river diversion, realignment or alteration does not result from any controlled activity work and (ii) bank control or protection works maintain the existing river hydraulic and geomorphic functions, and (iii) bed control structures do not result in river degradation

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t + 61 2 66767380 | f + 61 2 66767388 | e information@water.nsw.gov.au | ABN 72 189 919 072
170912

Our Reference: 30 ERM2014/0099

File No: 9057686

Site Address: Boundary Creek Road, Nymboida

DA Number: DA2017/0177

LGA: Clarence Valley Council

Number	Condition
	other than in accordance with a plan approved by the NSW Office of Water.
21	N/A
River bed and bank protection	
22	N/A
23	N/A
Plans, standards and guidelines	
24	N/A
25	N/A
26	N/A
27	N/A
END OF CONDITIONS	

General Terms of Approval

for work requiring a licence
under Part 5 of the Water Act 1912

30 ERM2014/0099

File No: 9057686

Boundary Creek Road, Nymboida

DA2017/0177

Clarence Valley Council

Condition

1. Before commencing any works or using any existing works for the purpose of dewatering an approval under Part V of the Water Act 1912 must be obtained from the Department. The application for the approval must contain sufficient information to show that the development is capable of meeting the objectives and outcomes specified in these conditions.
2. An approval will only be granted to the occupier of the lands where the works are located, unless otherwise allowed under the Water Act 1912.
3. When the Department grants an approval, it may require any existing approvals held by the applicant relating to the land subject to this consent to be surrendered or let lapse.
4. All works subject to an approval shall be constructed, maintained and operated so as to ensure public safety and prevent possible damage to any public or private property.
5. All works involving soil or vegetation disturbance shall be undertaken with adequate measures to prevent soil erosion and the entry of sediments into any river, lake, waterbody, wetland or groundwater system.
6. The destruction of trees or native vegetation shall be restricted to the minimum necessary to complete the works.
7. All vegetation clearing must be authorised under the Native Vegetation Conservation Act 1997, if applicable.
8. The approval to be granted may specify any precautions considered necessary to prevent the pollution of surface water or groundwater by petroleum products or other hazardous materials used in the construction or operation of the works.
9. A license fee calculated in accordance with the Water Act 1912 must be paid before a license can be granted.
10. The water extracted under the approval to be granted shall be used for the purpose of dewatering and for no other purpose. A proposed change in purpose will require a replacement license to be issued.
11. Works for construction of a bore must be completed within such period as specified by the Department.
12. Within two months after the works are completed the Department must be provided with an accurate plan of the location of the works and notified of the results of any pumping tests, water analysis and other details as are specified in the approval.

www.water.nsw.gov.au

Room 2, 135 Main Street MURWILLUMBAH 2484 : PO Box 796 MURWILLUMBAH NSW 2484
t + 61 2 66767380 | f + 61 2 66767388 | e information@water.nsw.gov.au | ABN 72 189 919 072
170912

Boundary Creek Road, Nymboida

DA2017/0177

Clarence Valley Council

Condition

13. The Department has the right to vary the volumetric allocation or the rate at which the allocation is taken in order to prevent the overuse of an aquifer.
14. The licensee must allow authorised officers of the Department, and it's authorised agents reasonable access to the licensed works with vehicles and equipment at any time for the purposes of:
 - 1 -inspecting the said work
 - 2 -taking samples of any water or material in the work and testing the samples.
15. The licensee shall within 2 weeks of being notified install to the satisfaction of the Department 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 recorder, or meter or meter(s) of measurement as may be approved by the Department. 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.
16. The authorised work shall not be used for the discharge of polluted water into a river or lake otherwise than in accordance with the conditions of a licence granted under the protection of the Environment Operations Act 1997. A copy of the licence to discharge is to be provided to the Department.
17. The maximum term of this licence shall be five (5) years.
- ~~18. The volume of groundwater extracted from the work authorised by this licence shall not exceed 5 megalitres/year for the term of the licence.~~
19. The authorised work shall not be used for the discharge of water unless the ph of the water is between 6.5 and 8.5, or the water has been treated to bring the ph to a level between 6.5 and 8.5 prior to discharge, or the water is discharged through the council's sewerage treatment system.
20. The work shall be managed in accordance with the constraints set out in a Dewatering Management Plan approved by the Department.
21. The retention or holding pond must be lined with an impermeable material (such as clay or geotextile) to prevent seepage, leakage or infiltration of treated water.

END OF CONDITIONS

File No: NTH14/00015
Your Ref: GD17/0177 CVC.1878211

General Manager
Clarence Valley Council
Locked Bag 23
GRAFTON NSW 2460

Attention: Sarah Sozou – Development Planner

Dear Sir / Madam,

Development Application 2017/0177 – Extension of Hard Rock Quarry (Stage 2) – Lot 20 DP 46031, Pt Lot 48 DP 752839 & Pt Lot 50 DP 752839 Boundary Creek Road, Nymboida

I refer to your letter of 30 March 2017 requesting comment from Roads and Maritime Services in relation to the abovementioned development application.

Roles and Responsibilities

The key interests for Roads and Maritime are the safety and efficiency of the road network, traffic management, the integrity of infrastructure and the integration of land use and transport.

Armidale Road forms part of MR74 which is a classified (Regional) road. In accordance with Section 7 of the *Roads Act 1993* (the Act) Clarence Valley Council is the Roads Authority for this road and all other public roads in the subject area. Roads and Maritime's concurrence is required prior to Council's approval of works on this road under Section 138 of the *Roads Act 1993*.

In accordance with Clause 16 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*, Roads and Maritime is given the opportunity to review and provide comment on the subject development application.

Roads and Maritime Response

RMS has reviewed the information provided and has no objections to or any additional requirements for the proposed development. Conditions 19 – 34 of Council's Notice of Determination dated 20 January 2015 are considered to address the impacts of the development on the classified road network.

All works on Armidale Road will need to be designed and constructed in accordance with the current Austroads Guidelines, Australian Standards and RMS Supplements.

Upon determination of the application, it would be appreciated if Council could forward a copy of the Notice of Determination for our records. If you have any further enquiries regarding the above comments please do not hesitate to contact Matt Adams, Acting Manager Land Use Assessment on (02) 6640 1362 or via email at: development.northern@rms.nsw.gov.au

Yours faithfully



26 April 2017

for Monica Sirol
Network & Safety Manager, Northern Region

2 November 2015

Reference: GD14/0024
Contact: Sarah Sozou
Your Reference: 1935-1048

Geolink
PO Box 1446
COFFS HARBOUR NSW 2450

**Notice of Determination of Application to Modify Development Consent
under Section 96(2) of the *Environmental Planning and Assessment Act*
1979**

Application No:	MOD2015/0008
Development Application No:	DA2014/0024
Development Proposal:	Modification to DA2014/0024 conditions (extraction rates, creek crossing and site access)
Property Address:	Boundary Creek Road NYMBOIDA NSW 2460
Legal Description:	Lot 20 DP 46031; Part Lot 48 DP 752839; & Part Lot 50 DP 752839

Pursuant to Clause 122 of the *Environmental Planning & Assessment Regulation 2000* notice is hereby given of the determination of your application of 12 March 2015 under section 96(2) of the *Environmental Planning and Assessment Act 1979* to modify the abovementioned Development Application.

The Application was determined by the Joint Regional Planning Panel (JRPP) at their Meeting of 21 October 2015. The JRPP granted consent to the modification. This section 96 modification varies your previous approval by the following:

- Alter the staging of extraction and permit the maximum extraction of 200,000 tonnes being extracted from the commencement of quarrying.
- Provide an alternative creek crossing (splash crossing) for Copes Creek on Boundary Creek Forest Road.
- Provide an additional access to the quarry for heavy vehicles and subsequent amendments to the quarry layout plan.

The following conditions of consent have been amended to reflect the approved modifications:

- **Condition 2** – modified to refer to the revised quarry plan (dated 17 July 2015) and addendum EIS (dated 22 July 2015).
- **Condition 4 & 5** – modified to refer to the amended / revised General Terms of Approval from the NSW Office of Water and Fisheries NSW, respectively.
- **Condition 9** – modified to remove reference to the staged extractions and set a maximum extraction rate of 200,000 tonnes per annum.
- **Condition 10** – modified to refer to the revised quarry plan (dated 17 July 2015).

- **Condition 19** – modified to include additional requirements for the quarries heavy vehicle access and option of installing a splash crossing at Copes Creek.
- **Condition 29** - modified to remove reference to the staged extractions.

A modified Notice of Determination and modified approved plans are herewith attached.

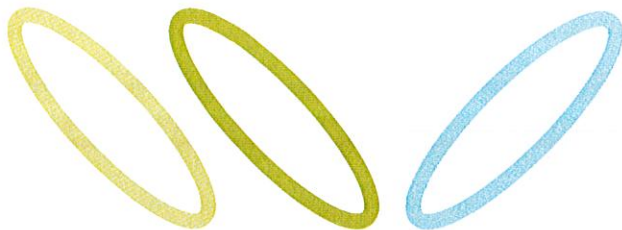
This modification is conditional upon compliance with all other conditions of consent issued under DA2014/0024.

The Act provides that where the applicant is dissatisfied with the determination of the application, an appeal may be lodged with the Land and Environment Court.

Yours faithfully



Sarah Sozou
Development Planner



20 January 2015

Reference: GD14/0024 CVC:1418955

Contact: Sarah Ducat

Your Reference: 1935-1048

Greensill Bros Pty Ltd
C/- Geolink
PO Box 1446
COFFS HARBOUR NSW 2454

NOTICE OF DETERMINATION OF APPLICATION

Pursuant to Section 81(1)(a) of the Environmental Planning and Assessment Act, 1979

Application No: DA2014/0024 & **MOD2015/0008**
Applicant: Greensill Bros Pty Ltd
Owner: Unwin Gaine Cartmill
Property Address: Boundary Creek Forest Road NYMBOIDA NSW 2460
Legal Description: Lot 20 DP 46031, Part Lot 48 DP 752839, & Part Lot 50 DP 752839
Development Proposal: Extractive industry hard rock quarry (Staged Development)

DEVELOPMENT CONSENT

Pursuant to Section 81(1)(a) of the Environmental Planning and Assessment Act, 1979, notice is hereby given that Council has considered your application for the subject Development. The subject determination is an **"operational"** consent which is effective from the date appearing on the bottom of each page of the formal notice.

The Development Application has been determined by:

Consenting to the development with conditions.

Determination of the application was made:

By the Joint Regional Planning Panel at their Meeting of 22 December 2014 **and modified by the Joint Regional Planning Panel at their Meeting of 21 October 2015.**

Determination Date:

22 December 2014 **and modified by MOD2015/0008 on 21 October 2015**

Approved Plans and Documentation

THE DEVELOPMENT SHALL COMPLY WITH THE PLANS LODGED WITH THE APPLICATION AND AS MAY BE AMENDED BY THE FOLLOWING CONDITIONS OF CONSENT AND/OR BY AMENDED PLANS AND DETAILS.

Consent Validation Date: 20 January 2015

DA Consent: DA2014/0024

Modified by MOD2015/0008 on 21 October 2015

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Locked Bag 23 GRAFTON NSW 2460

DEFINITIONS

Applicant means Greensill Bros Pty Ltd or any party acting upon this consent.

NRDC means Northern Rivers Design and Construction Manual

The current engineering standards are:

- a The Northern Rivers Local Government Development and Design Manual (AUS-SPEC)
- b The Northern Rivers Local Government Construction Manual (AUS-SPEC)
- c The Northern Rivers Local Government Handbook of Stormwater Drainage Design

The current version of NRDC can be obtained from the Clarence Valley Council webpage.

Civil Works includes -

- a Earthworks
- b Roadworks
- c Drainage, including WSUD components
- d Structures
- e Parking areas
- f Provision of Services

NATA means National Association of Testing Authorities

RMS means Roads and Maritime Services

WAD means Works Authorisation Deed

ADVICE TO APPLICANT

Council in determining the subject application requests you to take note of the following advice and where pertinent to convey the advice to future owners or tenants:

1. No building construction is to be commenced until a Construction Certificate has been issued.
2. Prior to work commencing on a development the applicant must give notice to Council of their intention to commence work. Such notice shall be in the form of a Notice of Commencement form and must be submitted to Council at least two (2) business days before work commences.
3. It is the developer's responsibility to make satisfactory arrangements with other property owners affected by the development, and to meet all costs associated with the development.
4. All building and construction work, which includes subdivision and civil works, which cost \$25,000 or more require the payment of the long service levy prior

to a Construction Certificate being issued. The levy is required under the Building and Construction Industry Long Service Payments Act 1986. The total value of works must be included on the Construction Certificate Application form.

5. The applicant is to submit road, stormwater drainage and intersection design plans including unsealed gravel pavement designs for Boundary Creek Road and Boundary Creek Forest Road upgrade works, for assessment by Council. No construction works on public roads are permitted without the approval of Council under the NSW Roads Act 1993. All design and construction shall be in accordance with NSW Roads & Maritime Services (RMS) and Clarence Valley Council engineering standards and construction specifications (NRDC).
6. The name of the person/s responsible for the civil work design is to be submitted to Council for approval prior to approval of the Engineering Design Plans. Details of qualifications, accreditations and insurances must also be submitted. Three copies of the engineering plans are required in hardcopy and one electronic copy in PDF format saved at the original drawing size.
7. The Applicant is responsible for ensuring that all necessary inspections are undertaken during the course of the work to enable the relevant certifications to be submitted. The applicant shall ensure that their consultants set up a program of hold points or events for inspection and that the inspections are undertaken.
8. The Earthworks Management Plan must include;

An initial site inspection report. This report should include:

- a Inspection and verification of an appropriate preparation of the foundation for placement of fill, including the provision of surface drainage arrangements and a geotechnical assessment of factors that can influence the site. This is to be provided by a competent Geotechnical Authority.
- b Certification that the land created by the development will be suitable for its intended purpose (e.g. residential, commercial or industrial buildings) including any parts of the land that will be left in its natural state or modified by the development.
- c Identify any problem areas on or adjacent to the development land (e.g. potential land slip areas, hanging swamps, very high water tables, salt affected land, highly eroded sites etc) and advise if engineering solutions, acceptable to Council, are available to enable structures to be built on the affected parts of the land.

Where relevant to the project, the following will also be required

- a Details on the selection of fill type(s), the source/s of the fill, including suitability for the intended use, its appropriate handling, placement and compaction, and the area of the development to be filled including depth to be filled.
- b Any conditions on the use of the material and a report from a registered NATA laboratory on the key geotechnical properties used in the

- assessment of each fill type.
- c Measures proposed to prevent adverse impact to adjoining properties and to local drainage. Provision is to be made for the mitigation of and free passage of surface stormwater away from affected sites. These measures are to be acceptable to Council.

The following information will be required for earth works undertaken:

- a Details of geotechnical laboratory and in situ (principally dry density assessment) testing for each fill type and specified volume of placed fill including records of the date and time of all testing, the source of material tested in the laboratory, and the spatial distribution and reduced level of in situ tests. The latter must be correlated with results from the laboratory testing of similar material.
- b Recorded dates of placement and survey data recording the aerial extent of fill and the reduced level prior to construction and at completion.
- c Certification of the completed earthworks (including cut, fill, earth retaining structures as far as the geotechnical aspects) that the work is suitable for the intended use.
- d Certification that excavated materials have been reused or disposed of in accordance with the Protection of the Environment Operations Act 1997 and copies of receipts for disposal where relevant.

The Earthworks Management Plan must include details of how the works will comply with the Protection of the Environment Operations Act 1997.

The Earthworks Management Plan must provide a concept for the full site including staged works.

The Earthworks Management Plan must be compatible with the works plans and Stormwater Management Plan.

- 9. Effective measures are to be taken to prevent any nuisance being caused by noise, vibration, smell, fumes, dust, smoke, waste water products and the like at all times.
- 10. It is the developer's responsibility to make satisfactory arrangements with other property owners affected by the development, and to meet all costs associated with the development.

CONDITIONS OF CONSENT

- 1. The Development has been determined as a Staged Development under Section 83B of the Environmental Planning & Assessment Act 1979. This consent grants operational approval to extract material from Area 1 and a concept approval to extract material from Area 2.

Area 2 may not be cleared or quarried, without further development approval. A separate Development Application, and necessary supporting information (including geotechnical investigations), is to be submitted to Council to seek approval to quarry Area 2.

2. The development being completed in conformity with the Environmental Planning & Assessment Act, 1979, the Regulations thereunder, the Building Code of Australia (BCA) and being generally in accordance with the following documents and plans:
1. Amended Quarry Footprint Plan ~~12 November 2014~~ **17 July 2015** prepared by GeoLINK
 2. Environmental Impact Statement 17 January 2014 prepared by GeoLINK
 3. Traffic Impact Assessment (second issue) prepared by GeoLINK & Road Safety Audit June 2014 prepared by Roadnet
 4. Addendum Ecological Assessment (second issue) 26 November 2014 prepared by GeoLINK
 5. **Addendum Environmental Impact Statement (second issue) 22 July 2015 prepared by GeoLINK.**

Or where modified by any conditions of consent.

[Modified by MOD2015/0008 on 21 October 2015]

3. Compliance with the conditions and advice of the NSW Environment Protection Authority, as contained in their letter dated 1 April 2014, consisting of 10 pages, and as attached to this Notice of Determination.
4. Compliance with the conditions and advice of the NSW Office of Water, as contained in their letter dated 10 March 2014, consisting of 7 pages, and **as amended by their letter dated 24 September 2015, consisting of 3 pages**, as attached to this Notice of Determination.
- [Modified by MOD2015/0008 on 21 October 2015]**
5. Compliance with the conditions and advice of the Fisheries NSW, as contained in their letter dated ~~14 February 2014~~ **28 July 2015**, consisting of 2 pages, and as attached to this Notice of Determination.
- [Modified by MOD2015/0008 on 21 October 2015]**
6. Submission of a Plan of Management prepared by a suitably qualified and experienced person/s to Council for approval prior to the commencement of quarrying under this Notice of Determination. The Plan of Management is to include, but is not limited to, the following details:
- Operating details including: numbers, type and location (if fixed plant) of plant and machinery; numbers of employees on-site and off site; stockpile and overburden storage areas; vehicle storage and refuelling areas; and fuel storage areas.
 - A plan identifying the sedimentation/storage ponds at each proposed stage of the quarrying operations. That is, as quarry expansions are proposed, any necessary relocation of sedimentation structures should be identified on the plan. The dimensions, capacity and anticipated levels of waste water within these structures should be included in this detail.
 - A water quality monitoring program is to be implemented which assesses the quality of discharges from the sedimentation ponds as they occur. Details of measures for drainage or pumping from the ponds after storm events are to be provided, including the time taken for ponds to empty.

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- Any proposal for the re-use of wastewater from the dams is to be provided. Such water could be used for water of access roads and exposed areas to avoid dust nuisance.
 - Noise and Vibration Management Plan (as required by conditions of this consent) including noise mitigating and monitoring measures.
 - Blast Management Plan (as required by conditions of this consent) including a monitoring program of ground vibration and airblast overpressure for blasting activities. Details to be recorded include MIC, airblast and vibration level and distance at which monitoring of the blast are conducted.
 - Details of dust mitigation measures and monitoring program.
 - Full quarry rehabilitation details, including details of commencement and completion of each stage of rehabilitation proposed.
 - Details of the method of weighing extracted material. A schedule is to be included which allows for the annual update of the rates of extraction. This will ensure monitoring of the amount of material extracted and enable Council to calculate the contributions for Council road maintenance.
 - A waste management plan, including measures to optimise the efficiency of resource recovery and the reuse or recycling of material.
7. The establishment, operation and management of the development is to comply with the approved Plan of Management at all times.
8. An annual update of the Plan of Management is to be submitted to Council by 31 July each year. This update is to include a plan by a registered surveyor and statement demonstrating compliance with this consent and the Plans of Management. Specifically, the statement is to include:
- a. A site plan by a registered surveyor showing:
- The extraction area at the date of report
 - The areas intended for extraction in the next twelve (12) months
 - Sediment ponds
 - Stockpile sites
 - Overburden storage sites
 - Erosion controls in place at the time of the report
- b. Written details addressing:
- State of compliance with each condition of consent and the Plan of Management at the time of the report.
 - The stage of the quarry and quantity of material extracted in the immediately preceding twelve (12) months
 - The stage of the quarry and quantity of material proposed to be extracted in the next twelve (12) months
 - Results from all monitoring programs for the preceding twelve (12) months
 - Sedimentation ponds constructed during the preceding twelve (12) months or proposed to be constructed in the next twelve (12) months
 - A staged rehabilitation plan for the life of the quarry
 - Records of any complaints received in the immediately preceding twelve (12) months

9. Development consent is given to extract the following maximum annual and total amounts of material:

Area	Stage	Total BCM	Bank Cubic Meters Per Annum	Tonnes Per Annum
4	1A	40,000	8,000	20,000
4	1B	70,000	28,000	70,000
4	2	150,000	60,000	150,000
4	3	400,000	80,000	200,000
2	4	Between 800,000,– 1,300,000	80,000	200,000

Development consent is given to extract a maximum of up to 200,000 tonnes of material per annum. The total amount of material to be extracted for Area 1 is 1.65 million tonnes and Area 2 is 3.25 million tonnes.

Note: Area 2 is subject to further development consent prior to commencing quarrying of this area.

[Modified by MOD2015/0008 on 21 October 2015]

10. The area of the quarry shall not exceed 9.97 ha as shown in the Amended Quarry Footprint Plan prepared by GeoLINK dated 12 November 2014 **17 July 2015**. All blasting, crushing, screening, stockpiling and loading is to be undertaken within this area.
- [Modified by MOD2015/0008 on 21 October 2015]***
11. The quarry/extraction area is to be defined on the ground by the establishment of permanent survey marks located and shown on a plan by a registered surveyor and submitted to Council, prior to commencement of works.
12. All vehicles associated with the use of the premises, including employees' vehicles, are to be parked within the confines of the site at all times.
13. A sign must be erected on the subject land in a prominent position visible from the entrance of the property during quarrying operations. The sign is to:
- State that unauthorised entry to the quarry work area is prohibited; and
 - Show the name of the person in charge of the quarry operations and a contact number for that person.
14. Accurate records of quantities extracted are to be kept, maintained and available for inspection by authorised Council officers on request. The method of recording and the location where records are to be kept are to be outlined in the Plan of Management.
15. An additional assessment is to be undertaken to confirm, if possible, the location and impact of the development on any item of Aboriginal Cultural Heritage, including items listed as occurring within the site or within proximity

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of the site as registered in the Aboriginal Heritage Information Management System (AHIMS). This search is to include the quarry footprint area and areas subject to road upgrading works required by this consent.

Management strategies for any Aboriginal objects/sites identified during this assessment shall be detailed, including measures to protect these items to avoid any impact or harm. If impact or harm cannot be avoided, an Aboriginal Heritage Impact Permit may be required from the Office of Environment and Heritage (OEH) for the works.

This assessment, in addition to any approval required from OEH, is to be submitted to Council prior to quarry operations or road works commencing.

16. Should any Aboriginal relics or artefacts be uncovered during works on the site, all work is to cease and the Director-General of the NSW Office of Environment and Heritage shall be contacted immediately and any directions or requirements of that Department complied with.
17. No advertising sign is to be erected, painted or displayed without approval from Council.
18. The quarry operator may not:
 - Encroach upon the Crown Road adjoining Lot 48 DP752839;
 - Remove any vegetation from the Crown Road;
 - Stockpile any materials, equipment, or machinery on the Crown Road;
 - Direct Stormwater discharges onto the Crown Road; or
 - Use the Crown Road as an Asset Protection Zone.

ENGINEERING

Roadworks

19. Design plans and documentation for the following works are required to be assessed and approved by Council. The works shall then be constructed by the applicant and approved by Council prior to commencement of quarry operations:
 - a) The location of the existing Boundary Creek Road and Boundary Creek Forest Road formations, with respect to the public road reserve boundaries, is to be determined by survey. Any road works shall be undertaken within the surveyed road reserve or the road reserve boundaries are to be adjusted with the written agreement of the owners of any affected properties. Revised survey plans will be required to be approved and registered with NSW Land and Property Information.
 - b) The road section known as Boundary Creek Forest Road that provides access to the quarry site from the existing Council maintained Boundary Creek Road section, is to be constructed as a 6m wide unsealed gravel carriageway with 0.5m wide shoulders (minimum).
 - c) The **proposed heavy vehicle** quarry ingress / egress driveway off

Boundary Creek Forest Road shall be designed as a basic left-turn treatment (BAL) into the property and basic right-turn treatment (BAR) out of the property in accordance with Austroads and NRDC.

- d) ~~If a gate is~~ **driveway gates are** proposed for the quarry, ~~it~~ **they** shall be set back so that the largest **design** service vehicle **utilising the driveway** can stand clear of Boundary Creek Forest Road.
- e) All Unsealed gravel pavements are to be designed for the in-situ subgrade conditions and design traffic.
- f) Stormwater drainage culvert road crossings are to provide a minimum 1 in 5 year Average Recurrence Interval (ARI) immunity against flood and drainage flows.
- g) ~~The existing causeway at Copes Creek, on Boundary Creek Forest Road, is to be upgraded to a culvert crossing that provides a minimum 1 in 20 year Average Recurrence Interval (ARI) road immunity against flood and drainage flows. Water depth markers and road edge guide posts are to be provided. Copes Creek is a third order stream. Comments and approval for any construction works are required from the NSW Department of Primary Industries – Fishing and Aquaculture.~~

The existing causeway at Copes Creek, on Boundary Creek Forest Road, is to be upgraded to either a culvert crossing that provides a minimum 1 in 20 year Average Recurrence Interval (ARI) road immunity against flood and drainage flows or a concrete 'Splash Crossing' designed in accordance with the NSW Department of Primary Industries – Fishing and Aquaculture documents 'Policy and Guidelines For Fish Friendly Waterway Crossings' and 'Why Do Fish Need To Cross The Road? Fish Requirements For Waterway Crossings (Fairfull and Witheridge 2003)'.

A 'Splash Crossing' design must incorporate a reinforced concrete slab suitable for the design traffic loading, environmental flow conditions and fish passage requirements. Road-user warning signage, water depth markers and reflectorised road edge guide posts are to be installed as required by Council. Two coat 14/7mm bitumen sealing of the gravel pavement (in accordance with NRDC) and turfing of the table drains must be provided for 50m either side of the proposed 'Splash Crossing'.

Detailed sedimentation and erosion control plan, specific to the construction works, is required in accordance with the NSW 'Blue Book'.

- h) The section of Boundary Creek Road, extending from the 'Armidale Road – Boundary Creek Road' intersection to 'Boundary Creek Road - Boundary Creek Forest Road' intersection, is to be constructed as a 7m wide carriageway with minimum 0.5m wide shoulders.

- i) Armidale Road – Boundary Creek Road intersection is to be constructed as an 'Austroads' basic right and left turn (BAL & BAR) complying intersection. The bitumen sealed gravel pavement is to be designed for the in-situ subgrade conditions and design traffic. Bitumen sealing shall comprise emulsion or cutback primer plus 2 coat 14 / 7 mm seal. The design plans shall include details of linemarking, signage and road furniture and consider the 'RoadNet' Road Safety Audit Report (dated 13 June 2014) recommendations.
- j) A report, addressing items 1 to 5 in Appendix A of the Road Safety Audit prepared by Roadnet (dated 13 June 2014), detailing how they are to be managed and / or implemented is to be submitted by the applicant for the approval of Roads & Maritime Services and Council.
- k) Certification from the supervising professional engineer or registered land surveyor, that all works have been constructed in accordance with the Council approved plans and specifications are required.
- l) All quarry trucks exiting the site shall do so via a weighbridge to be installed prior to commencement of quarrying activities, or all trucks are to be loaded by a machine with scales to enable accurate records of loads.
- m) The existing site access road must be utilised for light vehicular access to the administration building car park area only. The access must be upgraded to comply with AS2890 and NRDC. Signage advising the vehicular access limitations for this driveway is to be installed.**

[Modified by MOD2015/0008 on 21 October 2015]

- 20. The developer must bear any costs relating to alterations and extensions of existing roads, drainage and services for the purposes of the development.
- 21. The developer must design all civil works, in accordance with NRDC, and construct these works in accordance with the approved, dated and stamped engineering plans; and NSW Roads Act 1993 Approval issued by Council. This work must be done under the supervision of a suitably qualified and experienced engineer or land surveyor approved by Council.
- 22. The supervising engineer / surveyor must arrange for the hold point inspection, and accompany Council or accredited Private Certifier on the inspection unless alternative arrangements are made. Where Council is the Certifying Authority for civil engineering works the applicant must give Council one (1) business day's notice to permit hold point inspections of the following components of the construction process:
 - a Roadworks
 - i stripping with erosion controls in place
 - ii subgrade
 - lii subbase (at discretion of Development Engineer)
 - iv completion of pavement ready for sealing
 - v final including stormwater

- b Stormwater
 - i Prior to backfilling of trenches
 - ii In accordance with the submitted and Council approved stormwater drainage construction, inspection, testing, establishment and staging management plan for WSUD components

Plus any other part of the works specific to the development that the Development Engineer may request.

- 23. A Construction Management Plan must be submitted to and approved by Council prior to the issue of the NSW Roads Act 1993 Approval. The plan must document the proposed method of work within the construction site boundaries and road reserve with regard to the health and safety of the public and affect on the road reserve. If any part of the road reserve or public land is proposed for long term (exceeding 24 hours) inclusion in the construction site boundaries this area must be identified in the Construction Management Plan. The road reserve is classed as the property boundary to opposite property boundary and includes roadway, nature strip and footpath.
- 24. A Traffic Management Plan must be submitted with the Construction Management Plan for approval by Council prior to the issue of the NSW Roads Act 1993 Approval. The plan must show the proposals for reducing any impact of the construction site on the adjacent traffic network. This plan will include traffic management of short term activities such as delivery of materials; accessing, exiting and parking in and near the work site by cranes, concrete agitator trucks; tradesmen work vehicles and the like.
- 25. For any part of the site that comes under the jurisdiction of another Government department, a Controlled Activity approval (or similar approval) may be required. Any such approval must be obtained and provided to Council prior to issue of the NSW Roads Act 1993 Approval.

Traffic Management Plan and Truck Driver Code of Practice

- 26. Prior to commencement of quarry operations, the applicant shall submit a 'Traffic Management Plan and Truck Driver Code of Practice' for assessment and approval by Council. The plan and the code of practice shall document :
 - a) The road maintenance program
 - b) Surrounding environment, existing conditions and road safety
 - c) Existing private property driveways and farm access points
 - d) Dust suppression methods including water supply management, monitoring, reporting, source, licencing, drought management
 - e) Noise suppression methods including monitoring and reporting
 - f) Road inspection activities to be implemented for the life of the quarry
 - g) Approved haulage routes highlighting specific locations for consideration such as school zones, school bus routes, residential areas or potential risk locations (including map).
 - h) Induction process for staff and sub contractors outlining clear expectations and consequences for any breach of the code
 - i) Instruction on all operational and safety requirements related to the

quarry operations

27. The quarry is to operate in accordance with the approved Traffic Management Plan and Truck Driver Code of Practice.

Road Maintenance Agreement and Contribution

28. Prior to commencement of quarry operations, the applicant shall enter into a legally binding road maintenance agreement with Clarence Valley Council for all utilised sections of Boundary Creek Road, Boundary Creek Forest Road and the interface with the Armidale Road - Boundary Creek Road intersection that are utilised by the applicant. This agreement shall be for the life of the quarry.
29. Payment to Council of a road maintenance contribution per annum for the use of Council's roads by extractive industry trucks at a rate of \$0.05 per tonne of material extracted (**maximum annual rate is \$10,000**). ~~The maximum annual contribution rates for each stage are:~~

Stage	Maximum extraction rate	Maximum annual rate
Stage 1A	20,000 tonnes	\$1,000
Stage 1B	70,000 tonnes	\$3,500
Stage 2	150,000 tonnes	\$7,500
Stage 3	200,000 tonnes	\$10,000
Stage 4	200,000 tonnes	\$10,000

NB

1. The contribution(s), as assessed, will hold for a period of 12 months from the date of this approval. Contributions not received by Council within 12 months of the date of this determination will be adjusted in accordance with the movement in the Consumer Price Index.
2. The contributions are to be paid to Council on an annual basis. The amount will be determined by the extraction amounts specified in the Plan of Management and revised annually by the operator.

[Modified by MOD2015/0008 on 21 October 2015]

Internal access and parking

30. Prior to commencement of quarry operations, internal quarry roads shall be constructed in accordance with the Private Native Forestry Code of Practice for Northern NSW (DECC, 2008), consider all design service vehicles used in the quarry operations and be wide enough to facilitate 2 way traffic, unless alternate routes are determined which will ensure vehicles do not pass in opposite directions.
31. Car parks, driveways and vehicular accesses for the development must be provided in accordance with the requirements of the RMS, Austroads, AS2890 and NRDC.
32. Driveways are to be constructed in accordance with NRDC standard drawings. Design calculations for access culverts must be provided where

culverts are required.

33. Prior to the commencement of quarry operations, the adequacy of parking, car parks, driveways, garages and vehicular accesses for the development is to be demonstrated by the submission of standard scale plans with manoeuvring paths shown in accordance with AS2890. This must clearly demonstrate that the parking area will function as intended. The parking area plans are to be submitted and approved by Council or accredited private certifier.
34. Grades and paths of travel for persons with disabilities are to be provided from carparking bays through to the main entrance of the building. Access provisions are to be in accordance with AS1428.1 and the Building Code of Australia.

Stormwater

35. All stormwater falling on the property is to be collected within the property and discharged in accordance with the relevant parts of the applicable Clarence Valley Council Development Control Plans and NRDC.
36. The Stormwater Management Plan for the roadworks, site, and any adjacent areas affected by the development shall be submitted for assessment and approval by Council prior to issue of the NSW Roads Act 1993 Approval.

Detailed stormwater control design plans, including downstream infrastructure necessary for the system to operate, must be submitted for assessment and approval by Council or accredited private certifier prior to issue of the NSW Roads Act 1993 Approval.

37. Prior to the endorsement of constructed works by Council and the commencement of quarry operations, submission of 'Work as Executed' Plans and asset register records for all public road and drainage works for the development, to the satisfaction of Council, is required. This shall include certification from the supervising professional engineer or land surveyor, that the works have been constructed in accordance with the approved plans and specifications.

Earthworks

38. Detailed plans of earthworks including an Earthworks Management Plan must be submitted to Council or accredited private certifier for assessment and approval prior to the issue of a NSW Roads Act 1993 Approval.

The earthworks Management Plan is to be prepared in accordance with Council's guidelines. The guidelines are listed in the Advices section of this Notice.

39. Any fill earthworks to be undertaken on the site must be carried out in accordance with the placement and compaction of fill described in AS 3798, and NRDC.

Erosion & Sediment Control

40. Erosion and Sediment Control is to be implemented in accordance with the relevant parts of the applicable Council Development Control Plans and NRDC. Sediment and erosion control plans are required for all construction works. These are to be prepared in accordance with NRDC and the NSW Landcom 'Blue Book' guidelines and submitted for assessment and approval by Council, prior to the commencement of construction.
41. A detailed Erosion and Sediment Control Management Plan for any construction works must be submitted for assessment and approval by Council, prior to issue of a NSW Roads Act 1993 Approval. This shall be compatible with the Stormwater Management Plan and must include procedures for clean-up and restoration of public / private property and infrastructure, affected by any construction operations. All such remedial works are to be completed to the satisfaction of Council.
42. The applicant must ensure that vehicles or plant associated with the works do not adversely impact on the roadways to such an extent that cause them to become untrafficable for other road users particularly during wet weather. Any such damage is to be rectified by the contractor immediately.
43. During dry weather, standard dust suppressions methods are to be used as often as is necessary to ensure that adjoining properties are not adversely affected by undue dust.
44. All trucks carrying quarry or crusher products from the site shall ensure their loads are fully covered by a suitable material to prevent spillage or dust falling from the truck.

BUILDING

45. A Construction Certificate shall be obtained in respect of the office and amenities buildings prior to their installation/placement on site.
46. The buildings are not to be occupied or used until such time as an Occupation Certificate has been issued.
47. Prior to commencement of works, a sign must be erected in a prominent position on any work site on which work is being carried out:
 - a Stating that unauthorised entry to the work site is prohibited, and
 - b Showing the name of the person in charge of the work site and a telephone number at which that person may be contacted outside of working hours, and
 - c Showing the name, address and telephone number of the principal certifying authority for the work, and

Any such sign is to be removed when the work has been completed.

48. The facility shall be provided with sanitary facilities and a water supply of appropriate quantity and quality to satisfy sanitary and drinking water requirements for staff. Details of how this is to be achieved are to be

submitted to Council for consideration and approval prior to any works commencing on the site.

49. Access to the buildings for disabled persons shall be provided and constructed in accordance with the requirements of Part D3 of the Building Code of Australia and AS 1428.1-2009.
50. Accessible facilities for the use of the disabled shall be provided as specified in Clause F2.4 of the Building Code of Australia and shall be constructed to the requirements of AS 1428.1-2009.
51. Car parking spaces for people with disabilities are to be provided as required by Part D3.5 of Building Code of Australia.
52. In a building required to be accessible, braille and tactile signage complying with Specification D3.6 of the Building Code of Australia and incorporating the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1-2009 must identify each sanitary facility; space with a hearing augmentation system and door with a required 'exit' sign.
53. The Construction Certificate plans shall detail dimensional compliance with the requirements of AS 1428.1-2009 for access and facilities.
54. An On-Site Wastewater Management (OSM) Application is to be lodged with the Construction Certificate demonstrating how wastewater will be disposed and treated on-site. The system will need to be installed in accordance with the approval prior to issue of the Occupation Certificate for the buildings.

Note: The proposed pump-out system is not in accordance with Council's On-site Wastewater Management Strategy.

ECOLOGY

55. Removal of native vegetation approved under this application is to be undertaken in accordance with the recommendations of the Ecological Assessment and Addendum Ecological Assessment submitted with the Application. This includes staging vegetation removal, methods of vegetation removal and works to be undertaken by a qualified ecologist.

No native vegetation is to be removed from the site, with the exception of that identified for removal in the application.

56. A Biodiversity Offset is to be provided in accordance with the Addendum Ecological Assessment November 2014 and Council's Adopted Biodiversity Offset Policy.

A Biodiversity Offset Management Plan shall include details of the method of offsetting proposed and an ongoing Vegetation Management and Monitoring Plan. This Plan is to be submitted to Council for approval prior to commencing quarry operations.

The Biodiversity Offset, totalling 101.2 ha, is to be secured in perpetuity, in accordance with the approved Biodiversity Offset Management Plan, prior to

commencing quarry operations. No vegetation removal on the site is to occur until the Biodiversity Offset has been secured.

57. The applicant is to develop a staged rehabilitation plan for the life of the quarry. Rehabilitation of each stage is to be undertaken prior to commencing extraction from the subsequent stage. The rehabilitation plan is to be included in the Plan of Management.

ENVIRONMENTAL HEALTH

Hours of Operation

58. Hours of operation, including but not limited to quarrying, processing or movement of heavy vehicles along Boundary Creek Forest Road and Boundary Creek Road, are restricted to times between 7:00am and 5:00pm Monday to Friday, and between 8:00am and 1:00pm on Saturday.
59. There is to be no quarrying, processing or transportation on Sundays or statutory public holidays except for emergency purposes; for example, but not limited to, sudden damage to public infrastructure or any damage posing an immediate risk to life or property.

The quarry operator is to inform Council on the first working day following the emergency that trucks were carrying quarry products outside the approved hours for emergency purposes.

Noise Limits

60. Noise from the premises must not exceed an $L_{Aeq(15\text{ min})}$ of 35 dBA at the nearest residential receiver who has not given written permission for an exceedance of this condition including under adverse meteorological conditions.
61. Noise from the premises is to be measured at the most affected residential receiver who has not given written permission for an exceedance to determine compliance with the conditions herein at least annually and at any time where Council requests it having reason to believe an exceedance has occurred based on complaints. The results are to be supplied to Council for review within 30 days of the request. Noise measurement must not take place under the following conditions:
- a. Wind speeds greater than 3 metres/second at 10 metres above ground level; or
 - b. Temperature inversion conditions up to 3°C/100m and wind speeds greater than 2 metres/second at 10 metres above ground level; or
 - c. Temperature inversion conditions greater than 3°C/100m.
62. A Noise and Vibration Management Plan is to be prepared by a qualified noise consultant in accordance with section 4 of the Noise, Vibration, Blasting and Air Quality Report dated 28 November 2013 by Wilkinson Murray Pty Ltd. The report is to determine how compliance with the limits set herein ($L_{Aeq(15\text{ mins})} = 35\text{ dB(A)}$) will be achieved by quarry operations. The report is to detail noise mitigation measures and monitoring programmes.

The report must be submitted to Council for approval and installation of mitigation works is required prior to commencement of extraction activities. Quarry operations are to be undertaken in accordance with the Plan approved by Council.

Traffic Noise

63. Traffic noise shall not exceed an $L_{Aeq(1 \text{ hour})}$ of 55 dBA (external) for any resident who has not given written permission for an exceedance located along Boundary Creek Forest Road and Boundary Creek Road (measured 1 metre from the façade and 1.5 metres above the floor of any residential receiver). Traffic noise shall not exceed an $L_{Aeq(15 \text{ hour})}$ of 60 dBA (external) for any resident who has not given written permission for an exceedance located along Armidale Road (measured 1 metre from the façade and 1.5 metres above the floor of any residential receiver).
64. Noise mitigation efforts and best practice noise management protocols must be implemented to reduce the noise generated by heavy vehicular traffic as is considered reasonable and feasible.
65. Road traffic noise shall be evaluated within one year of commencement of quarry operations and ten years of commencement of quarry operations and shall compare the road traffic noise levels as if the project had not proceeded (the 'no build option'). This report must be provided to Council within 60 days of the completion of year one and year ten.

Blasting & Vibrations

66. Residential receivers shall be notified of forthcoming blasts at least 24 hours in advance unless otherwise indicated by the resident in writing.
67. Blasting shall not be conducted outside of the hours of 9:00 am to 3:00 pm on Monday to Friday and shall not be conducted on weekends or public holidays. (Where compelling safety reasons exist, Council may permit a blast to occur outside the above mentioned hours. Prior written notification of any such blast must be made to Council.)
68. Blasting events are limited to once per day except for minor blasts such as required to clearing crushers and feed chutes.
69. Blasting amenity level criteria at any point within 1 metre of any affected residential boundary or other noise sensitive location must not exceed:
 - a. A ground vibration peak particle velocity of:
 - i. 5mm/sec for more than 5% of the total number of blasts in an annual period;
 - ii. And 10mm/sec at any time;
 - b. An overpressure of:
 - i. 115dB (Lin Peak) for more than 5% of the total number of blasts in an annual period;
 - ii. And 120dB (Lin Peak) at any time.

70. A Blast Management Plan is to be prepared by a qualified noise consultant in accordance with section 5 of the Noise, Vibration, Blasting and Air Quality Report dated 28 November 2013 by Wilkinson Murray Pty Ltd. This includes details of monitoring each blast for ground vibration and air blast overpressure, MIC and an accurate distance at which monitoring of the blasts is conducted.

This Plan is to be submitted to and approved by Council prior to commencing quarrying. Quarry operations are to be undertaken in accordance with the Plan approved by Council.

71. This monitoring data recorded in accordance with the approved Blast Management Plan must be reviewed by a suitably qualified consultant after 12 months from the operation of the quarry. This review must use the data collected from the blasts to refine the site law. This review must indicate if air blast and ground vibrations are within acceptable criteria as per the ANZEC Guidelines for the nearest receiver. It must also determine a maximum instantaneous charge (MIC) to be used at the site and make any other recommendations to minimise blasting impacts.

A report of this review must be supplied to Council for assessment and approval within 60 days of the completion of one year of quarry operations. Quarry operations are to be undertaken in accordance with the Report approved by Council.

Noise, Blasting & Vibration Compliance and Monitoring

72. Compliance noise monitoring shall be conducted by qualified persons within 30 days of commencement of the extraction to establish if compliance has been achieved at all potentially affected residences. The report must be submitted to Council within 60 days of commencement of extraction activities.
73. For the purposes of monitoring for compliance with the noise limit conditions of the consent to operate, noise emitted from the premises must be measured at 30 metres from the nearest residential receiver over a period of 15 minutes using the "FAST" response on the sound level meter. A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the NSW Industrial Noise Policy.
74. The quarry operator must operate a telephone complaints line during the approved hours of operation for the purpose of receiving complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant. The quarry operator must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint. A legible record of all complaints is to be made available to Council on request and included in the annual update of the Plan of Management. The record must include details of the following:
- a. The date and time of the complaint;
 - b. The method by which the complaint was made;
 - c. Any personal details of the complainant which were provided by the complainant or, if not such details were provided, a note to that effect;

- d. The nature of the complaint;
 - e. The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant;
 - f. And if no action was taken by the licensee, the reasons why no action was taken.
75. The applicant is advised that Council may carry out periodic inspections of the premises to ensure that the conditions of this consent are being complied with. In accordance with the provisions of Section 118G of the Environmental Planning and Assessment Act, if as a result of any such inspection Council requires work to be carried out on or in the premises then Council may charge a fee to recover the costs of that inspection. The appropriate fee will be as specified in Council's current adopted fees and charges.

ENVIRONMENT

76. Drainage berms are to be constructed so as to direct clean run-off around the quarry area. All run-off from disturbed areas, including access roads, is to be diverted into sedimentation dams. The design and location of these features is to be incorporated into the Plan of Management and revised as required.
77. If the quarry machinery is to be serviced/maintained on site, prior to commencing quarry activities, the following information/plans shall be provided detailing:
- a. the measures to be implemented to prevent discharge of waste liquids/pollutants to the environment.
 - b. that the storage of hazardous materials, including fuels, oils and chemicals are contained in a roofed and bunded area with the bund to have a capacity of 110% of the largest container or other acceptable means of containment.
 - c. that the refuelling of machinery is conducted in a manner whereby any leaks or spills are captured and discharge to the environment is prevented.
 - d. how wastewater will be managed if machinery is washed on site.

This information can be detailed in the Plan of Management for the quarry. The quarry is to operate in accordance with the plans/documents approved by Council.

REASONS

- 1. To ensure that the development complies with Council's Local Environmental Plan and any Development Control Plan that may be applicable to the proposed development.
- 2. To ensure that the surrounding environment is not detrimentally affected as a result of the development.

3. To comply with legislative requirements.
4. To ensure works are completed to an appropriate standard and documented.

RIGHT OF APPEAL AND VALIDITY OF CONSENT

Section 97 of the Act provides that you have a right of appeal to the Land and Environment Court against Council's decision in the matter, exercisable within 6 months after receipt of this notice.

Section 98 of the Act provides that any person who makes a submission in writing objecting to the proposal and who is dissatisfied with the decision may appeal to the Land and Environment Court, exercisable within 28 days of the date of this notice.

Consent becomes effective from the consent validation date. Section 95 of the Act provides for the period of validity of consent, and it is the applicant's responsibility to ensure that commencement of the development is carried out within the prescribed period. The consent period for this application will be five (5) years.

If you require any further information in regard to this notice of determination please contact Sarah Ducat of Council's Environment, Development and Regulated Services section on (02)6645 0202.

Yours faithfully



Sarah Ducat
Development Planner

