MIDCOAST council

Forster office
4 Breese Parade | PO Box 450
Forster NSW 2428

21 May 2019

Anthony Barnes
Planning NSW

Ref: PK 13364
Your ref: SSD 17_8795
Enquiries: Robyn Shelley

Dear Anthony,

Karuah South Quarry

Thank you for the opportunity to provide expert advice in relation to the above proposal.

The Environmental Impact Statement has been considered by Council staff. Their comments are as follows:

Natural Systems (Water Quality).

The environmental management plan for the site does not clearly outline the responsibilities and position for the management and maintenance of the sediment ponds to ensure that the procedures proposed will be implemented. It is recommended that the environmental management plan includes monitoring of rainfall and careful management of basin water levels to ensure that there is enough capacity in the sediment basins prior to rain.

Natural Systems (Ecology) - Memo dated 15 may 2019 attached.

Engineering Development Officer - Memo including conditions attached.

Environmental Health (Noise & Vibration & Air Quality) - Memo including conditions attached.

As discussed, due to time constraints, a report for the proposal has not been submitted to Council and we would appreciate the opportunity to provide additional information/discussion after our Councillors have had the opportunity to consider the matter.

Please contact me on 7955 7319 should you have any further enquiries.

Yours sincerely

Robyn Shelley
Senior Assessment Planner

MIDCOAST council

Internal Memo

Ecological review of the proposed Karuah South Quarry Project SSD 8795

Prepared by Mat Bell (Senior Ecologist)
15 May 2019

Background

This memo has been prepared in response to a request from the Department of Planning and Environment (dated 15 April 2019) seeking expert advice on the proposed Karuah South Quarry Project, including advice on recommended conditions (should the proposed quarry be approved).

This submission relates to biodiversity and ecological matters and has been prepared by Council's Senior Ecologist.

I have previously submitted comments on the key issues and assessment requirements for the proposal in an internal memo dated 2 July 2010.

The Proposal

The proposal is described in the *Environmental Impact Statement for the Karuah South Quarry* prepared by R. W Corkery & co Pty Ltd (2019) and the *Biodiversity Development Assessment Report* prepared by Ecoplanning Pty Ltd (2019). The Biodiversity Development Assessment Report is hereafter referred to as the "*BDAR*".

The proposed quarry is located on part of Lot 11 DP1024564 61 Blue Rock Close, Karuah. The subject land is 38.78-hectares in size and zoned RU2 under Great Lakes LEP 2014. The subject land contains part of the existing Karuah Quarry.

The proposed quarry is located south of the existing Karuah Quarry and has a direct impact area of 16.36-hectares. The information provided with the application indicates that 11.59-hectares of the quarry footprint area contains native vegetation.

The proposal involves the extraction of material over a 25-year quarry life with on-site processing in a quarry infrastructure and stockpiling area and transportation via Blue Rock Close to the Pacific Highway.

Four (4) native plant community types are present in the quarry footprint area, namely:

- PCT 1590 Spotted Gum – Broad-leaved Mahogany – Red Ironbark shrubby open forest (1.14-hectares to be removed)
- PCT 1567Tallowwood – Brushbox – Sydney Blue Gum moist shrubby tall open forest on foothills of the Lower North Coast (7.45-hectares to be removed)

- PCT 1527 Bangalow Palm – Coachwood – Sassafras gully warm temperate rainforest on the central coast (0.47-hectares to be removed)
- PCT 1550 Small-fruited Grey Gum – Turpentine – Tallowwood moist open forest on foothills of the Lower North Coast (2.53-hectares to be removed)

The Bangalow Palm – Coachwood – Sassafras gully warm temperate rainforest on the central coast is regarded as an Endangered Ecological Community (EEC) in NSW and a Critically Endangered Ecological Community (CEEC) at a national level.

The mitigation measures proposed in the Biodiversity Development Assessment Report included pre-clearing biodiversity protocols, retaining areas of vegetation and fauna habitat on the site, the preparation and implementation of a biodiversity management plan and satisfying the offset requirements.

The southern part of the adjacent Lot 12 DP1024564 is an established biodiversity offset area for the existing Karuah Quarry.

It was reported that the following threatened species have been previously recorded on or near the quarry footprint area:

- *Tetratheca juncea*
- *Grevillea parviflora* subsp *parviflora*
- *Asperula asthenes*

- Koala
- Brush-tailed phascogale
- Grey-headed flying-fox
- Eastern freetail-bat
- Greater broadnosed-bat
- Eastern false pipistrelle
- Eastern bentwing-bat
- Little bentwing-bat
- Stephens banded snake
- Glossy black-cockatoo
- Powerful owl
- Varied sitella

However, the following additional threatened fauna species have also been recorded on/ near the subject land:

- Squirrel glider (RPS 2013)
- Long-nosed potoroo (Gunninah Environmental Consultants, 1999)
- White-bellied sea-eagle (Conacher Environment Group, 2012)

The current surveys for the proposed Karuah South Quarry project area identified only the koala, eastern bentwing-bat, little bentwing-bat and little eagle on the land and did not identify any threatened plant species.

The BDAR identified the following offsetting requirements for the proposal:

- A total of 24 credits for PCT 1590
- A total of 176 credits for PCT 1567
- A total of 15 credits for PCT 1527

- A total of 59 credits for PCT 1550
- A total of 345 credits for the koala

The total value of the credit obligations for offsetting was identified in the BDAR as $588,280.17.

An area of land in the south-east corner (Yalimbah Creek) would be retained, as well as the land north of the existing Karuah Quarry.

Forty-three (43) existing hollow-bearing trees would be removed for the proposal.

Ecological Assessment

The subject land sits within a landscape that obviously contains a valuable hard rock resource, but which also contains significant biodiversity values. These biodiversity values include the known habitat of one (1) Endangered Ecological Community, three (3) threatened flora and fifteen (15) threatened fauna species. For some of these threatened species, such as the koala, there have been recurrent sightings over many years potentially indicating a relatively stable, resident population. The land also contains regionally-significant vegetation community types and land of value for faunal connectivity.

Having reviewed the supplied BDAR, I believe that there are some significant constraints with respect to the provision of a satisfactory and adequate biodiversity assessment report and which, in my opinion, should constrain a positive determination of the proposal. Further, there are inadequacies in respect of other required ecological assessments and considerations.

The concerns I have in relation to the BDAR and the proposal are:

1. The BDAR does not appear to me to fully satisfy the requirements of the biodiversity assessment method and the biodiversity offset scheme.

   The credit calculations appear to be significantly inadequate to properly offset all impacts on all relevantly-affected plant community types and threatened species.

   Many species credit species that are either known or are likely to occur in the area of the clearing and development, such as glossy black-cockatoo, brush-tailed phascogale, squirrel glider, etc, are not subject to offsetting in the current proposal. This is not appropriate.

2. The BDAR does not give a proper consideration for the likely indirect effects of the quarry proposal on adjoining natural areas and habitats of ecological significance. The quarry proposal, including the processing areas, immediately adjoin an existing conservation offset area, which was established under a previous development consent and which is managed for biodiversity protection purposes (refer map below):

Location of the Karuah South Quarry proposal adjoining an existing conservation area (from RPS 2013)

The BDAR states "*it is considered unlikely that the project would have inadvertent impacts which would reduce viability of any adjacent native vegetation or habitat due to edge effects, noise, dust or light spill, or disturbance to breeding habitats*" (pg. 4-73). There is no scientific evidence or justification for this statement, which summarily dismisses the edge effects of this type of development, and which would have negative influence on surrounding vegetation and habitat, including an existing conservation area. The BDAR is inadequate in respect of the description, type, assessment and management of the likely edge effects of this type of development on surrounding habitat.

3. The BDAR, in my opinion, is not based on complete and accurate field survey effort and understates the significance of the habitat to be removed for wildlife connectivity and its contribution to the area of habitat necessary for local populations of some threatened species needed to maintain their lifecycles.

   The BDAR argues that the Pacific Highway and Blue Rock Close isolates the habitat of the project area to the south, but is not cognisant of the presence of a fauna underpass/ culvert under the highway west of, but in the vicinity of the subject land, which may permit some inter-connectivity of habitat for local wildlife. Secondly, I am not convinced that the habitat to be removed would not be critical to the survival of the local population of koalas and potentially other affected threatened species.

   There is a question as to the adequacy of the field investigations conducted and the findings of the biodiversity investigation. Of the three threatened flora species and fifteen threatened fauna species known to occur on the subject land and its vicinity, the current BDAR surveys detected no threatened plants and only four (4) of the known threatened animals of that local landscape. Trapping effort in the field survey was particularly scant. The field surveys on which the BDAR are based thus appear to be inadequate and lead to a general under-stating of the biodiversity significance of the land that is to be modified for the proposal.

   The inadequacy of the survey effort leads to uncertainty with respect to the status of threatened species populations and the importance of the habitat on the subject lands, in my opinion.

For instance, *Asperula asthenes* was not detected during the BDAR field surveys. It is however known and described on the adjacent Lot 12, where ERM 2002 said "*an extensive population of this species was detected in the moist open forest habitat... The minimum extent of the local population is approximately 4.5-hectares... This local population is likely to extend into adjacent moist open forest habitat south-west of the study area, which could not be inspected during the current survey due to site access constraints.*" The habitat so described sits on the subject land for this quarry proposal and so there is evidence that *Asperula asthenes* was present on that land. The plan from ERM 2002 is provided below.

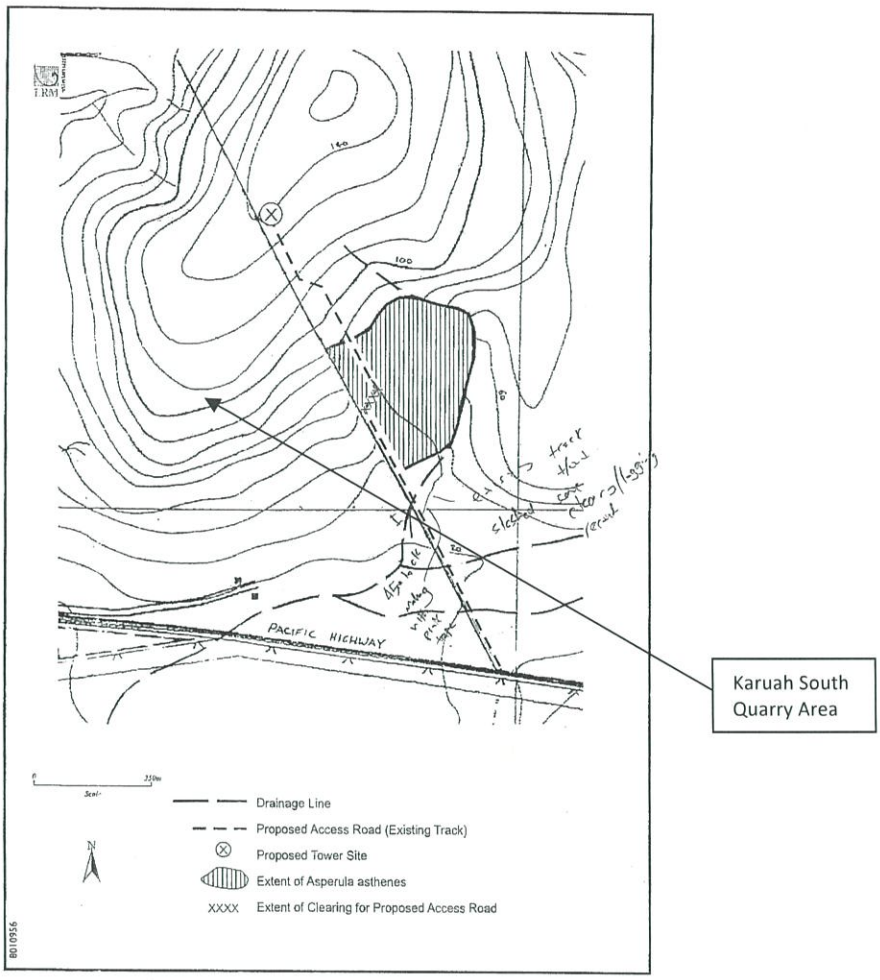

Figure 4.1 APPROXIMATE MINIMUM EXTENT OF THE LOCAL POPULATION OF ASPERULA ASTHENES

Population of Asperula asthenes adjacent to the Karuah South Quarry proposal (from RPS 2013)

To my knowledge, this area comprises the known south-eastern limit of *Asperula asthenes* distribution and thus is of special significance.

The project affects mesic and rainforest communities, which are not well represented elsewhere in this habitat patch and the loss of such may therefore result in a serious effect on species dependent on these moist forest communities, such as the stephens banded snake. This resident species would not be able to readily migrate to suitable local habitats in the event that the proposed operation proceeds.

In 2012, a smaller proposal (removal of 9-hectares of native vegetation) on the same land was assessed by Graham A Brown & Associates and by Conacher Environment Group, who concluded:

- The proposal required referral to the Commonwealth in relation to the Interim Koala Referral Advice for Proponents in relation to the koala and impacts on koala habitat, and
- Potential and core koala habitat was identified on the site and *"the subject site and surrounding areas are likely to support a resident population of koalas"*.

I agree with the former assessment, a referral to the Commonwealth Environment Minister appears required for this proposal due to the fact that it removes koala habitat, isolates koala habitat, increases threats to koalas and causes stress to koala populations. The BDAR, in my opinion, understates the type, nature and significance of threats to koalas and other threatened species.

There is significant concern with respect to the findings of the field surveys based on the total available knowledge for threatened biodiversity in this area. The BDAR has not appropriately credited and reflected on this knowledge or used this knowledge to inform its findings. This is not appropriate.

There appears to be a scientific argument that there would be impacts from this proposal that would critically affect the survival of local populations of certain threatened species. The BDAR appears inadequate in this report.

4. The BDAR does not appear to properly assess the implications of cumulative ecological impacts in this landscape associated with a sequence of cumulative approvals for quarrying development.

The concerns I have in relation to the other assessment elements of the proposal are that:

1. In my previous commentary in relation to the proposal (memo dated 2 July 2010) I noted a range of ecological issues concerning the subject land and the quarry project. A number of these do not appear to have been adequately investigated or discussed. The ecological assessment appears to deal only with the Biodiversity Conservation Act 2016 methods, but does not discuss other pertinent instruments and statutes, such as:

    - s4.15 of the Environment Planning and Assessment Act 1979, and
    - s4.1 of the Great Lakes Development Control Plan 2014

2. There is no clarification in the proposal that any required offsets established for the project would be sourced locally. This is an important issue for local communities and there appears much suitable lands

Concluding Remarks

This is a significant proposal that will cause the clearing and loss of a relatively large area of important native vegetation and affect local populations of a number of threatened species.

This correspondence highlights that there are outstanding and pertinent ecological concerns.

I bring the technical issues to the attention of the Department of Planning and Environment in their assessment of the proposal.

It is important that the Department considers appropriately the issues raised in this correspondence. In doing so, it should also seek the views of agency experts as part of this process.

It is my opinion that the biodiversity assessment submitted in support of this proposal does not presently demonstrate compliance with the relevant requirements. In this manner, it should not allow for a positive determination of the development proposal at the present time.

It is a concern that cumulative quarrying proposals are being advanced in this local landscape in the absence of a strategic framework. These developments, cumulatively, have the potential to fragment habitats and contribute to local wildlife extinctions, biodiversity loss, environmental pollution and amenity loss. The biodiversity assessment for the proposed Karuah South Quarry does not consider or reflect on these cumulative impacts adequately.

In this memo, I argue that the development should not be positively determined because the biodiversity impacts are significant and unreasonable and that assessment has been inadequate for a range of reasons.

Should the Department however consider the development to be approvable, I would ask for the full range of biodiversity consent conditions to be applied. The recent consent for the Karuah East Quarry provides a useful template for satisfactory conditions. However, one special condition that I would ask to be applied would be the need to deliver all required offsets within the affected locality (defined as a 10-kilometres radius) of the subject land and that the finalisation of all spatial, temporal and administrative details associated with the offsets includes input, review and acceptance by a convened Agency Panel that includes MidCoast Council.

If any matters raised in this memo require clarification or further comment, please contact the author.

References:

Conacher Environment Group (2012) *Biodiversity Assessment Report Kiely's Quarry Project Lot 11 DP1024564 61 Blue Rock Close Karuah*

Ecoplanning Pty Ltd (2019) *Biodiversity Development Assessment Report*

Gunninah Environmental Consultants (1999) *Proposed Hardrock Quarry Lots 221 & 222 DP573153 Karuah, GReat Lakes Shire. Flora and Fauna Assessment*

RPS Australia East Pty Ltd (2013) *Terrestrial Ecology Survey and Assessment Report – Karuah East Quarry, Karuah, NSW*

R. W. Corkery & Co Pty Ltd (2019) *Environmental Impact Statement for the Karuah South Quarry*

MIDCOAST council

Internal Referral Advice

ENGINEERING - General

SECTION ONE - DEVELOPMENT DETAILS

DA No.	SSD17-8795	**Assessing Officer**	
Development Description	Quarry	**Date Referred**	
Property Address	Karuah South - Lot 11 DP 1024564 - 61 Blue Rock Close, Karuah		

SECTION TWO - PRELIMINARY ASSESSMENT

Documents Considered	**Comments**
☒Statement of Environmental Effects ☐Design Plans ☐Bushfire Assessment Report ☒Traffic Impact Assessment ☐Flood Study ☐Geotech Study ☒Stormwater Strategy ☒Previous Development Approvals Karuah-East SSD MP09-0175 Mod 1(draft) ☐Other_____ <<Tick all documents reviewed>>	The traffic is estimated at 123 loads comprising of a variety of truck sizes (rigid, rigid with bogie, semitrailers etc) and 30 light vehicles for a total153 out trips On page 3-15 of the EIS the applicant states that "*A permit under Section 138 of the Roads Act would be required to undertake the proposed construction of the Quarry entrance. Mid Coast Council would be the issuing authority for the required permit.* The road entrance exits onto Blue Road Close. Blue Road Close is RMS controlled land/road and previously constructed under the approval of the RMS On page 3-9 of the EIS, the applicant has stated the RMS has requested a traffic and transport study to identify both during the construction and operation stages Identify the road network infrastructure upgrades that are required to maintain the 'existing levels of service'

Aspects of Developments	**Specialist referral has been provided**
☐Flooding	☐ Yes ☒No
☐Onsite detention required	☐ Yes ☒No
☐Stormwater design	Quarry site only - Water quality shouldl address these issues
☒Traffic impact	☒ Yes ☐No
☐Road design	☒ Yes ☐No - Note -RMS road

☒Driveway access	☒ Yes	☐No - RMS road
☐Carparking design	☐ Yes	☒No
☐Asset implications	☐ Yes	☒No
☒Fill/excavation/road haulage required	☐ Yes	☒No Ongoing haulage levy condition will be imposed
☐Groundwater issues (basements)	☐ Yes	☒No
☐Coastal hazards	☐ Yes	☒No
☒Utilities/easement issues	☐ Yes	☒No
☐Other_____		
<<Tick all applicable aspects considered>>	<Tick if specialist referral advice is required >	

Site Inspection

Has site inspect been undertaken: DATE <<insert date of inspection>>	☐ Yes ☒ No
Photos taken	☒ Yes ☐ No
Photos location	☐ Registered in ECM ☐ Network drive: <<insert drive/folder>>

SECTION 3: ASSESSMENT

Site History:

Previous Quary approval

Stormwater & Flooding

NA - Site is not identified as being flood prone

The OEH has stated (Table 2.2 of the EIS)

i) Emergency management, evacuation and access, and contingency measures for the development considering the full range of flood risk (based upon the probable maximum flood or an equivalent extreme flood event) These matters are to be discussed with and have the support of Council and the SES.

j) Any impacts the development may have on the social and economics costs to the community as consequence of flooding

Comment

The applicant has indicated clean water diversion drains along the eastern and western boundaries of both stages of the quarry. There is a proposed water extraction area along the northern side of the cuttings/stages where the stormwater will be drained to a sump, for later use for dust suppression and crushing operations (P5-38 Vol 2 Specialist reports)

There are various watercourses marked as blue lines that are located on the property. Three of the watercourses that are adjacent to the development converge as Yalimbah Creek and form a third order watercourse.

With the concentrated flows and the steep terrain, scour protection along/within the diversion drains and at their outlets, will be required.

Details have not been submitted indicating the location of the proposed infrastructure in relationship to this creek system. (eg

Conditions

☐No conditioned required

☐Standard Conditions Applied

☒Modified Conditions

office, staff amenities, access road including whether the resultant fill batters from the access road will extend into the creek) The applicant has not discussed this *probable maximum flood* in the Specialist reports or the EIS However, the proposed development is located adjacent to Yalimbah Creek, Details are not provided to the proximity of the proposed infrastructure will be constructed to these water courses which has a steep gradients and a limited catchment area. Downstream of the development, Yalimbah Creek crosses under The Pacific Highway upgrade, which comprises of predominately engineered stormwater drainage infrastructure which should have been designed/constructed by the RMS to discharge the localised 1 in 100 year AEP flood Yalimbah Creek The levels of the proposed infrastructure of the development are indicated at 30m AHD, 28m AHD & 26m AHD and are well above any probable maximum flood mainstream flood levels from Port Stephens. The issue of a probable maximum flood affecting this development is not warranted A condition will be imposed to ensure there is adequate distance from he internal road to Yalimbah Creek. Note: The other watercourses are located further to the north of the proposed quarry development and drain in a westerly direction, so will not affect this development	
Onsite detention/Stormwater Design NA - OSD not required for this proposal Note: The applicant will be capturing and retaining a portion of the stormwater runoff from the catchment area of the site, to be later used for dust suppression and crushing operations	Conditions ☒No conditioned required ☐Standard Conditions Applied ☐Modified Conditions Applied
Traffic Impact NA - RMS road	Conditions ☐No conditioned required ☐Standard Conditions Applied ☒Modified Conditions
Access (Internal and External) /Road Design Details of the internal access road have not been provided. It is estimated that a gradient in excess of 10% may result. The extent of the batters that will support the access road have not been shown The traffic is estimated at 123 loads and 30 light vehicles (153 out trips) On page 3-15 of the EIS the applicant states that "*A permit under Section 138 of the Roads Act would be required to undertake the proposed construction of the Quarry entrance. Mid Coast Council would be the issuing authority for the required*	Conditions ☐No conditioned required ☐Standard Conditions Applied ☒Modified Conditions Applied

permit.
The road entrance exits onto Blue Road Close.
Blue Road Close is RMS controlled land/road and previously constructed under the approval of the RMS

Andersite Road, Blue Rock Close and part of the realigned The Branch Lane are located with RMS land. So this road system is RMS controlled
RMS have requested information and should comment

Notwithstanding the applicant's consultant has identified sight distance issue for vehicles exiting from Andersite Road with south bound vehicles along The Branch Lane
Vegetation would need to be removed up to 10m back from the edge of the road carriageway of the first curve of The Branch Lane, located north of the intersection of Andersite Road
As well the consultant has identified line marking in The Branch Lane has faded and needs to be reinstated

Notes:

- The Branch Lane has a 60 Kph speed limit with a speed advisor signs of 45Kph for the curves. As a minimum a sight distance for the SISD - 60 Kph should be adopted and a required sight distance of 123m
- On page 3-9 of the EIS, the applicant has stated the RMS has requested a traffic and transport study to identify:
  - Issues for both during the construction and operation stages;
  - The road network infrastructure upgrades that are required to maintain the 'existing levels of service'

Some conditions have been recommended
The RMS will need to review the traffic and transport study and impose the appropriate conditions for any further road upgrades

Car Parking - Design/Spaces Provided

The applicant's traffic consultant has identified that 30 vehicle spaces are to be provided onsite (refer p3-70; *5.2 Parking Provision* of the *Traffic and Transport Assessment*)

☐No conditioned required
☐Standard Conditions Applied
☒Modified Conditions Applied

Comment
Council does not have a guide for the number of car spaces required for a quarry. Details of a car parking area have not been provided, however considering the remoteness of the location an dno public transport, provision of a suitability located car parking area that will provide a minimum of 30 vehicle spaces within the development. (minimum 10 spaces sealed, including one space for a person with a disability)

Car parking spaces in accordance with AS 2890.1 and AS 2890.6
Provision for an area /s for the site trucks and earthmoving machinery

Asset implications/Services

N/A - No assets or services will be affected by the proposal

☒No conditioned required
☐Standard Conditions Applied
☐Modified Conditions Applied

Earthworks - Excavation & Fill

Erosion & Sediment Control
Water quality conditions by Natural Systems

Road Haulage calculations: - condition of consent

☐No conditioned required
☐Standard Conditions Applied
☒Modified Conditions Applied

Coastal Hazards

N/A - Land not subject to coastal hazards

☒No conditioned required
☐Standard Conditions Applied

	☐Modified Conditions Applied
Easements & Restrictions on Title	
N/A - No easements or restrictions applicable to the proposal	☒No conditioned required ☐Standard Conditions Applied ☐Modified Conditions
Groundwater	
Water Management - The quarry is within a sensitive catchment of Yalimbah Creek which drains to is a SEPP 14 wetland which is a part of Karuah Nature Reserve drains into Number One Cove/ Port Stephens. Water management needs to be addressed in terms of the cumulative impact on the local estuary. Other State government authorities DPI-Crown Lands and Water Division; EPA and OEH have identified water related matters for consideration (refer to table A2.2 Appendix 2 of the EIS)	☐No conditioned required ☐Standard Conditions Applied ☒Modified Conditions
Other Comments:	

Information Adequate		
Has suitable engineering reports/plans been provided? The location and gradients of the access road and the resultant batters are not shown/detailed. It is unclear whether the road construction will extent into Yalimbah Creek	☐ Yes	☒ No
Is further information required	☒ Yes	☐ No

SECTION 4 - RECOMMENDATION/GENERAL COMMENTS

The proposal is supported subject to conditions detailed below.

Date completed	18/05/2019
Responsible Officer	Geoff Dowling

SECTION 5 - CONDITIONS

Engineering conditions are located:

☐ In Pathway

☒ Listed below

Note some of the engineering conditions below have been taken from a previous approved Karuah-East SSD MP09-0175 Mod 1(draft)

It is recommended that the developer is required to comply with the following conditions:

General Conditions

1. Adjustment to utility services

All adjustments to existing utility services made necessary by the development are to be undertaken at no cost to Council.

Reason: To ensure utility services are remain in a serviceable condition

PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION WORK
The following conditions must be satisfied prior to the demolition of any building.

Demolition Two dwellings on lot???

PRIOR TO THE RELEASE OF THE CONSTRUCTION CERTIFICATE
The following conditions must be complied with prior to the issue of any construction certificate

2. Erosion and sediment control plan

Prior to the release of the construction certificate, an Erosion and Sediment Control Plan (ESCP) / Soil and Water Management Plan (SWMP) must be submitted and approved of by Mid-Coast Council. The ESCP must provide for the various stages including the: -

a) The initial stripping of ground surfaces and the importation of fill material.
b) Earthworks on the site.
c) The infrastructure works. Including the internal road construction and the construction of all swales to divert stormwater around the development.

The plan/s for the demolition and each stage shall detail all required erosion and sediment control measures of the development and must be prepared in accordance with the guidelines and recommendations contained in The Blue Book ("*Landcom. 2004. Managing Urban Stormwater: Soils and Construction. 4th Edition*").

The plan is to include a master concept SWMP for the full development site (to ensure suitable overlap of 'stages').
Details must include how the stormwater runoff for the completed stage/s is kept separated from the construction works still being undertaken.

Sediment basins shall be: -

- designed and operated in accordance with the 5 day, 80th percentile design rainfall depth for Nelson Bay;
- Fully operative prior to commencement of earthworks (earthworks other than clean water diversion and site access works).

The final plan shall include a signed and dated Statement of Compliance stating (in full):

a. This plan has been developed, certified and signed off by an appropriately qualified and experienced professional in erosion and sediment control;
b. The plan has been prepared following the guidelines and recommendations contained in The Blue Book "Landcom. 2004. Managing Urban Stormwater: Soils and Construction. 4th Edition";
c. The plan and associated documents, calculations and drawings, have been

prepared to a standard which, if properly implemented, will achieve the water release criteria of 50mg/L of total suspended solids (TSS); for all active discharges from the premises in all rainfall events up to and including the 5-day, 80th percentile design rainfall depth for Nelson Bay .

All erosion and sediment controls shall be appropriately managed throughout the development to minimise the risk of pollution until the land is rehabilitated as per The Blue Book - "Landcom. 2004. Managing Urban Stormwater: Soils and Construction. *4th Edition*".

Any pollution from site shall be cleaned up immediately and appropriate repairs made to onsite controls.

A site weather station is to be established with rainfall results recorded daily. Records shall be readily made available for Council inspection.

The ESCP shall recommend: -

- Required stormwater diversion works external to each stage of the development site during and after rainfall.
- The management of construction traffic.
- The civil construction works are:
    - confined to the footprint of each stage (except for the required stormwater diversion works): and
    - Completed within 6-month period from the initial commencement of any fill importation or earthworks (except for the assemblage of the manufactured dwellings) Alternatively the 85th percentile design rainfall depth for Nelson Bay must be used instead of the 80th percentile

All erosion and sediment controls shall be appropriately managed throughout the development to prevent pollution until the land is rehabilitated as per Managing Urban Stormwater- Soils and Construction, Landcom, 2004.

Any pollution from site shall be cleaned up immediately and appropriate repairs made to onsite controls.

Reason: To ensure amenity, suitable construction standard and protect the environment from the effects of erosion and sedimentation.

3. Public safety requirements

All care is to be taken to ensure the safety of the public in general, road users, pedestrians and the adjoining property while the development is being constructed. Public liability insurance cover, for a minimum of $20 million, is to be maintained for the duration of the construction of the development.

Reason: To ensure public health and safety during the construction of the development.

4. Water management

Prior to the release of the construction certificate, the Proponent must prepare a Water Management Plan for the project to the satisfaction of Council and the Planning Secretary. This plan must:

a) be prepared by suitably qualified and experienced person/s;
b) be submitted to Council and the Planning Secretary for approval prior to the commencement of construction activities;

c) include:-

i. a Site Water Balance that includes details of:
   - sources and security of water supply, including contingency planning;
   - water use on site; and
   - measures that would be implemented to minimise use of clean water and maximise recycling of dirty water on the site;

ii. a Surface Water Management Plan, that includes:
   - baseline data on surface water flows and quality in the watercourses that could be affected by the project;
   - a detailed description of the surface water management system on the site, including the design objectives and performance criteria for the:
     - clean water diversions;
     - erosion and sediment controls including scour protection both along the clean water diversion drains and their outlets, the base of the access road batter (to ensure scour protection from the adjacent Yalimbah Creek;
     - water storages (including Maximum Harvestable Rights requirements); and
     - control of water pollution from areas of the site that have been rehabilitated;
   - surface water impact assessment criteria, to be developed following analysis of baseline data, including trigger levels for investigating any potentially adverse surface water quality impacts;
   - a program to monitor:
     - any surface water discharges;
     - the effectiveness of the water management system;
     - surface water flows and quality in local watercourses; and
     - ecosystem health of local watercourses; and
   - an assessment of appropriate options to improve storage and retention times in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom);

iii. a Groundwater Monitoring Program that includes:
   - baseline data of groundwater levels surrounding the site;
   - groundwater impact assessment criteria, to be developed following analysis of baseline data, including trigger levels for investigating any potentially adverse groundwater impacts; and
   - a program to monitor and/or validate the impacts of the project on groundwater resources; and

iv. a Surface and Ground Water Response Plan that describes the measures and/or procedures that would be implemented to:
   - respond to any exceedances of the surface water impact assessment criteria and groundwater impact assessment criteria; and
   - Mitigate and/or offset any adverse impacts on surface water and groundwater resources located within and adjacent to the site.

Reason: To ensure proper management of water

5. Traffic management plan

Prior to the release of the construction certificate, traffic management plans including measures to be employed to control traffic of construction vehicles during construction of

- the access road;
- the truck and earthmoving machinery.

That are associated with the development.
These plans must be undertaken by an accredited person trained in the use of the current version of *RTA Traffic Control at Work Sites manual.*

All traffic control plans for the works within this development site is to be in accordance with the requirements of the Roads and Traffic Authority's Manual, *Traffic Control at Work Sites Version 2*, and Australian Standard AS 1742.3: *Manual of uniform traffic control devices - Traffic control for works on roads.*

All recommendations for the traffic control plan by this engineer are to be installed, inspected and maintained to the engineer's satisfaction during the construction works.

The plan must: -

- Incorporate measures to ensure that motorists using the roads adjacent to the development, residents and pedestrians in the vicinity of the development are subjected to minimal time delays due to construction on the site or adjacent to the site.
- Address the management of construction traffic site and include measures for Erosion and Sediment Control during and after rainfall.
- Ensure the adjacent residents are not adversely affected by vibration with the earthworks machinery and truck movements within the development site.

Construction and/or demolition works, including deliveries on or to the site must not unreasonably interfere with the amenity of the neighborhood and must occur only in accordance with the following:

Monday to Friday, from 7 am to 6 pm.

Saturday, from 8 am to 1 pm.

No construction and/or demolition work, including deliveries are to take place on Sundays & Public holidays.

Any works undertaken during school holiday periods, must be: -

- Confined within the building footprint and within the construction site fence line.
- Undertaken with a minimum number of:
    - trades/workers on the site
    - trade's/worker's ute/van deliveries - kept to a minimum
- No major truck deliveries (eg requiring semi-trailers for delivery of the earthmoving equipment or the like)

The traffic control plan must be prepared by an accredited person trained in the use of the current version of *RTA Traffic Control at Work Sites manual.*

The Construction traffic management plan must be implemented prior to the commencement of work.

Reason: To ensure public safety during the construction of the development.

6. Engineering construction plans - construction work

Prior to the issue of the construction certificate, the certifying authority shall approve the internal works for road pavement, footings, structures and other required civil works as designed by a suitably experienced and qualified certified:-

- Engineer or surveyor, whose qualifications are acceptable for membership of the Institution of Engineers and Surveyors, Australia.
- Geotechnical engineer for all pavements, fill areas & batters etc.

The works must include the following:

a) Blue Rock Close:- with road markings and advance warning signage, to the satisfaction of RMS and Council.

b) upgrading the Blue Rock Close/Andersite Road intersection with appropriate road markings, pavement thickening (where required) and advance warning signage, to the satisfaction of RMS;
c) upgrading the Branch Lane/Andersite Road intersection with appropriate road markings and advance warning signage, to the satisfaction of the RMS and Councill;
d) Along the southern side of The Branch Lane, 50m north of Andersite Road, removing vegetation and regrading for approximately 10m from the road carriageway. (to increase the available sight distance of vehicles exiting from Andersite Road so there is at least a clear SISD of 123m).
e) Constructing the internal site access road within Lot 11 DP 1024564,
   i. The road and associated batters are not to extend into Yalimbah Creek or other watercourses
   ii. Appropriate sealed pavement, linemarking and signage, details in accordance with AS 2890.2 and as shown on Figure 2.4.Quarry entrance in the report Karuah South Quarry: Traffic and Transport Assessment dated Nov 2018.
   iii. Suitable turning area for all trucks to be able to exit the site in a forward direction.
   iv. Minimum of 30 on-site parking spaces for all project-related traffic, at least one car space is to be for a person with a disability. Vehicle access and parking spaces sealed in accordance with AS 2890.1, AS 2890.2 & AS 2890.6, to the satisfaction of Council and the Planning Secretary.
   v. Suitable parking provided for the:
      (a) Queuing and loading areas for the transportation trucks; and
      (b) Eartmoving machinery and all internal trucks/vehicles
   vi. provision of a suitable located and sealed car parking area that will provide a minimum of 30 vehicle spaces, including one space for a person with a disability within the development, in accordance with AS 2890.1 and AS 2890.6; and
   vii. Installing a suitably designed and constructed wheel-wash facility, located near to the start of the internal seal access road (within the site).
   viii. The clean water diversion swales/mounds are to be designed and constructed with suitable materials to prevent scour, both along the length of the swales/mounds and where they will discharge into the water courses.

The Proponent must nominate suitability qualified and experienced superintendent for the supervision of the works.
The licensed contractor is to have all engineering works inspected by the Proponent's superintendent at appropriate holding points.

Details to approved and constructed to the satisfaction of RMS and Council;
Note: Works undertaken on any of the exterior roads of the development are to be approved of by the RMS under the WAD process.

The works must be completed to either prior to the issue of an occupation certificate or the transport of any materials from the development site. All works are to be undertaken by the Proponent at their own cost,

Reason: To ensure a suitable design standard and amenity

7. Monitoring of Product Transport - Records

The Proponent must:
(a) keep accurate records of:
   - the amount of quarry products transported from the site (per calendar month and year); and
   - the number of laden truck movements from the site (per hour, day, week, calendar month and year); and
(b) publish these records on its website quarterly.

Reason: To ensure accurate records of materials

PRIOR TO THE COMMENCEMENT OF WORK
The following conditions must be satisfied prior to the commencement of any subdivision work.

8. Site access

Public access to the site and building works, materials and equipment on the site is to be restricted, when building work is not in progress or the site is unoccupied. The public safety provisions must be in place prior to the commencement of any demolition, excavation or building works and be maintained throughout construction.

Reason: To ensure public health and safety during the construction of the development.

9. Installation of approved erosion & sediment control measures

Prior to the commencement of work, erosion and sedimentation controls must be installed in accordance with the approved plans for the associated portion of the works and are to be maintained for the duration of each construction stage of those works until stabilised/ vegetated.

Reason: To protect the environment from the effects of erosion and sedimentation.

CONDITIONS TO BE SATISFIED DURING DEVELOPMENT WORK
The following conditions must be complied with during any development work.

10. Site access

Public access to the site, materials and equipment on the site is to be restricted, when building work is not in progress or the site is unoccupied. The public safety provisions must be in place prior to the commencement of any excavation works and be maintained throughout construction.

Reason: To ensure public health and safety during the construction of the development.

11. Superintentant

The applicant shall engage a superintendent for the overall supervising of the construction works. Details of the name and contact phone number are to be submitted to Mid-Coast Council for liaising with Council.
Council is to be notified at least 48hrs prior to the commencement of construction of the bridge/culvert across the watercourse and/or the installation of the sediment/pollution control.

Reason: To ensure all civil works are constructed to a suitable standard and for public safety.

12. Maintenance of erosion and sediment control measures in accordance with approved plan

Erosion and sediment control measures must be maintained at all times in accordance with the approved erosion and sediment control plan until the site has been stabilised by permanent vegetation cover or hard surface.

Reason: To protect the environment from the effects of erosion and sedimentation.

13. Management of Site - Erosion Prevention and Sediment Control

All disturbed areas shall be revegetated or rehabilitated as soon as practical, and no later than the timeframes specified in *Managing Urban Stormwater: Soils and Construction "The Blue Book" 4th Edition, Landcom, 2004.*

Reason: To protect the environment from the effects of erosion and sedimentation.

14. Dust Suppression

During the extraction, removal, and transportation of any material associated with the works, the person having the benefit of the consent shall ensure that airborne dust is contained within the work site or transport vehicles, and does not impact on the amenity of the surrounding environment.
Effective environmental controls and practices including a water truck (or equivalent) shall be implemented and maintained to the satisfaction of Council.
Works are to include:

i. regular watering of dust prone areas such as the access road loading and quarry areas
ii. Cease operation during periods of high wind/s.
iii. Erection of shade cloth (or similar) to intercept wind/dust.
iv. Trucks entering and leaving the site are to be suitably covered at all times, except during loading and unloading.
v. Regular clean up of any spillages.

Reason: To maintain amenity during construction of the development.

15. Topsoil and Stockpiles of Materials

Topsoil shall only be stripped from approved areas. It may be stockpiled onsite for re-use during site rehabilitation and landscaping. Stockpiles of any material including but not limited to, soil, sand, aggregate, and spoil, stored on the site that is capable of being moved by water shall be stored clear of any drainage line or easement, natural watercourse, footpath, kerb, and/or road surface. Suitable erosion and sediment controls shall be installed. The stockpile shall be treated so its surface is resistant to water and wind erosion. No stockpiles shall be located on the public footpath or road reserve without prior written approval from Council.

Reason: To protect the environment from the effects of erosion and sedimentation.

16. Comply with traffic management plan

The approved traffic management plan must be implemented and maintained for the duration of the development works for each stage.

Reason: To ensure public safety during the construction of the development.

PRIOR TO THE ISSUE OF A FINAL OCCUPATION CERTIFICATE
The following conditions must be satisfied prior to the commencement of construction of any dwelling or building

17. Completion of all works

Prior to the issue of a final occupation certificate or commencement of any haulage of quarry materials from the site, the applicant shall:-

a) Seal all driveways, car parking and vehicular manoeuvring areas with concrete or equivalent to Council's satisfaction. Details of the pavement are to be submitted with the application for a construction certificate;
b) Fully line mark the parking and manoeuvring areas, including the use of one way directional arrows.
c) Erect signs near the front vehicular access point indicating that on-site parking is available.

Reason: To ensure compliance with the conditions of consent, protect the environment and amenity.

ONGOING USE
The following conditions must be satisfied during the ongoing use of the development.

18. DEVELOPER CONTRIBUTIONS

In accordance with the Mid-Coast Council Section 94 Contributions Plan, a monetary contribution towards the cost of reconstruction of roads within the Mid-Coast Council Local Government Area shall be paid to Council with respect to quarry materials dispatched from the development site and the distance of the delivery travel within the Council road network (not including Andersite Road and Blue Rock Close)

Each six months from the date of completion of the works, the operator of the quarry shall forward to Council a record of quarry materials dispatched from the site. The record shall indicate the weight for the preceding six months. The operator of the quarry materials shall also forward the amount payable with respect to that record.

The amount payable shall be payable per tonne of quarry materials dispatched from the and the rate shall be based on Council's Fees and Charges rate for the financial year starting 1st July 2019 and indexed in accordance with the Contributions Plan per financial year thereafter.

Reason: Maintenance and repair of public assets

19. Operating Conditions

The Proponent must ensure that all project-related heavy vehicles:
(a) enter and exit the site in a forward direction; and
(b) exit the site with loads covered.

Reason: Road safety and amenity

Karuah South Quarry

A noise and vibration impact assessment has been undertaken for the Project by Spectrum Acoustics Pty Ltd, Report No. 958/02, dated December 2018.

Project Noise Trigger Levels

The Project Noise Trigger levels are equal to or below the recommended amenity noise level for a rural residential area during the day period as set out in Table 2.2 of the NSW Environment Protection Authority's Noise Policy for Industry. The Project Noise Trigger Levels appear to be consistent with the area and are not predicted to be exceeded at non-project-related residences.

However, it is proposed that product dispatch will occur from 5am which is outside the 'daytime' period as defined in the Noise Policy for Industry. The report states that the morning shoulder periods normally have higher background level than the daytime background level. However, this is not reflected in the noise data charts in annexure 1 - especially between 5am and 5:30am. It is recommended that further justification for the use of 'daytime' period amenity noise level be completed for the 'shoulder period' between 5am and 7am.

Traffic Noise Impact Assessment

Vehicle movements associated with the quarry have been assessed in reference to the NSW Noise Policy for Industry while the vehicles are on-site and not on a public road. Once off-site and on the public road network, emissions have been assessed in accordance with the Department of Environment, Climate Change and Water NSW 'Road Noise Policy' (2011).

Residence R16 has been identified as the residence most impacted by vehicle noise. A predicted night-time road noise level of 43 dB(A),$L_{eq(1hour)}$, has been presented Spectrum Acoustics, which is significantly below the night-time road traffic noise assessment critera of 55 dB(A),$L_{eq(1hour)}$.

CONDITIONS - NOISE ONGOING

Noise Criteria

Received noise levels at any premises must not exceed the Trigger Levels/PNTLs listed in Table 7 of the Noise and Vibration Impact Assessment (Part 2) prepared by Spectrum Acoustics Pty Ltd, Report No. 958/03, dated December 2018.

Reason: To protect the amenity of residential premises.

Noise Mitigation Measures

Noise mitigation measures included in the modelling scenarios (Part 4) of the Noise and Vibration Impact Assessment prepared by Spectrum Acoustics Pty Ltd, Report No. 958/03, dated December 2018 must be implemented prior to each stage of the development.

Reason: To protect the amenity of residential premises.

Hours of Operation

Activity	Days*	Hours
Extraction and processing operations	Monday - Friday	7:00am - 6:00pm
	Saturday	7:00am - 1:00pm
Blasting	Monday - Friday	10:00am - 4:00pm
Transport operations	Monday - Friday	5:00am - 6:00pm
	Saturday	5:00am – 1:00pm
Maintenance**	Monday - Saturday	24hrs
* Excluding public holidays (no work permitted) **Activities only permitted if not audible at privately-owned residences / receivers between 6:00pm and 7:00am.		

Reason: To protect the amenity of residential premises.

An Air Quality Impact Assessment has been prepared for the Karuah South Quarry by Northstar Air Quality Pty Ltd (dated December 2018, Report No. 958/03).

The Air Quality Impact Assessment states that it has assessed the current environment including the Karuah East and the Karuah Quarry and the potential future environment, including the proposed Karuah Red Quarry. The 'worst-case' operations under the current proposal identified by Northstar are operations at a throughput of 3,000t per day during Stage 1C and Stage 2B. The AQIA states that this is conservative and represents a 3.7 times increase over average proposed Stage 1C operations and 1.8 times increase over proposed Stage 2B operations.

The Air Quality Impact Assessment largely focuses on the emission and dispersion of particulate matter, including total suspended particulates (TSP), particulate matter less than 10µg in diameter (PM_{10}) and particulate matter less than 2.5µg in diameter ($PM_{2.5}$). Nitrogen dioxide emissions associated with blasting and diesel fumes are also discussed. Impact assessments from the project have been assessed following the establishment of background air quality (including the impacts of the Karuah, Karuah Red and Karuah East Quarry).

An emission inventory (incorporating best practice management measures) has been developed and emissions modelled using the NSW Environment Protection Authority CALPUFF modelling system, which involves meteorological and geophysical influences. The Air Quality Impact Assessment indicates project and cumulative compliance for all air quality criteria at all receivers (not associated with quarrying operations), with the exception 24hour PM_{10} at receiver 16 during Stage 1C of operations.

Predicted results show that the greatest risk associated with the proposed development in combination with other developments is likely 24hr PM_{10}, with emissions just meeting criteria of 50µg/m^3 at many surrounding residential properties. The broad range of health effects associated with poor air quality are widely documented and recognised. In relation to particulate matter, the World Health Organisation (2005) maintain that there is no evidence of a safe level of exposure or threshold below which no adverse health effects occur. In this regard, the World Health Organisation (2005) encourages the setting of standards to achieve the lowest concentration possible in the context of local constraints, capabilities and public health priorities.

Therefore, given the potential impact of up to four operational quarries in the area, it is essential that best management practices and monitoring is implemented to reduce the risk to surrounding residents. While an air quality management plan, blast management plan, real-time air monitoring and the establishment of a weather monitoring station has been proposed, details provided in the Air Quality Impact Assessment are limited. Rather, it is proposed that further detail in relation to these matters would be provided post determination.

Matters identified for further consideration following review of the Air Quality Impact Assessment include:

Cumulative Quarrying Activities

It should be noted that the results and information presented in the Air Quality Impact Assessment is contingent on the operations and timings of up to three additional quarries in the vicinity (including the Karuah Quarry, Karuah East Quarry and the potential Karuah Red Quarry). Requirements for additional assessment should be imposed by the Department should there be any alteration to the timings or assumptions assessed in the current Air Quality Impact Assessment, which may result in a change to predicted air quality impacts.

Company-Owned Residences
The Air Quality Impact Assessment reports that cumulative annual and 24hr PM_{10}, $PM_{2.5}$ and dust air quality standards are likely to exceed air quality criteria at some resource company-owned residences at various stages during operations.

It is recommended that should air quality monitoring indicate that resource company-owned residences experience emissions above air quality standards that they not be permitted to be used for residential purposes.

Haul Roads
Wheel generated particles on unpaved roads have been ranked as the highest source generator of TSP and PM_{10} (and second highest source of $PM_{2.5}$) associated with coal mining activities by Katestone Environmental Pty Ltd in their *'NSW Coal Mining Benchmarking Study: International Best Practice Measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining'* (NSW Benchmarking Study) (June 2011).

The Air Quality Impact Assessment has considered wheel generated dust, and has factored in a control rate of 90%, relying on water as a suppressant for the site establishment stage. There are numerous factors to consider when addressing haul road dust emissions (including road design, composition of road construction materials, road maintenance, vehicle size, vehicle speed and travel frequency) and the 90% control rate should be justified for this project.

RECOMMENDED CONSENT CONDITIONS

Some conditions of consent have been recommended below in relation to air quality and noise impacts. However, as the quarry would be classed as a "Scheduled Premises" under the Protection of the Environment Operations Act 1997, the EPA would be best placed to provide a greater number of conditions to ensure consistency with the sites Environment Protection Licence.

AIR QUALITY PRIOR TO THE COMMENCEMENT OF WORKS

1. Air Quality Management Plan
The Applicant shall prepare and implement an Air Quality Management Plan and Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:
(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval;
(b) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
(c) describe the proposed air quality management system; and
(d) include an air quality monitoring program that:

- uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development against the air quality criteria in this consent;
- adequately supports the proactive and reactive air quality management system;
- evaluates and reports on:
  - the effectiveness of the air quality management system; and
  - compliance with the air quality operating conditions; and
- defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

Reason: to protect public health.

AIR QUALITY ONGOING

Premises Maintenance
All trafficable areas, product storage areas, overburden areas, vehicle manoeuvring areas and stripped areas must be maintained at all times in a condition that will minimise the generation or emission of wind-blown or traffic generated dust.

Reason: to protect public health.

Minimisation of Dust
Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission of traffic generated or wind-blown dust.

Reason: to protect public health.

Meteorological Monitoring
For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that:

a. complies with the requirements of *Australian Standard (AS) 3580.1.1:2016 Methods for sampling and analysis of ambient air, Part 1.1: Guide to siting air monitoring equipment*; and
b. complies with the requirements of *Australian Standard (AS) 3580.14-2011 Method for sampling and analysis of ambient air – meteorological monitoring for ambient air quality monitoring applications.*

Reason: to assist monitoring and reporting.

Concurrent Blasting
Blasting must not be permitted to be undertaken within the same twenty-four (24) hour period as the Karuah Quarry, Karuah East Quarry or Karuah Red Quarry.

Reason: to protect public health and safety.

Best Practice Mitigation Measures
All reasonable and feasible best practice air quality mitigation measures as included in the Air Quality Impact Assessment prepared by Northstar Air Quality Pty Ltd (dated December 2018, Report No. 958/03) must be implemented. Mitigation measures include (but are not limited to):

- paving around the process plant;
- regularly watering haul roads and exposed areas;
- installing screening and water sprays at the material processing facility;
- minimising pre-strip;
- implementing water spraying during drilling;
- installing fencing, bunding and/or shelterbelts around exposed areas.

Reason: to protect public health and safety.

MIDCOAST council

Internal Referral Advice

ENGINEERING - General

SECTION ONE - DEVELOPMENT DETAILS			
DA No.	SSD17-8795	**Assessing Officer**	
Development Description	Quarry	**Date Referred**	
Property Address	Karuah South - Lot 11 DP 1024564 - 61 Blue Rock Close, Karuah		

SECTION TWO - PRELIMINARY ASSESSMENT	
Documents Considered	**Comments**
☒Statement of Environmental Effects ☐Design Plans ☐Bushfire Assessment Report ☒Traffic Impact Assessment ☐Flood Study ☐Geotech Study ☒Stormwater Strategy ☒Previous Development Approvals Karuah-East SSD MP09-0175 Mod 1(draft) ☐Other_____ <<Tick all documents reviewed>>	The traffic is estimated at 123 loads comprising of a variety of truck sizes (rigid, rigid with bogie, semitrailers etc) and 30 light vehicles for a total153 out trips On page 3-15 of the EIS the applicant states that "*A permit under Section 138 of the Roads Act would be required to undertake the proposed construction of the Quarry entrance. Mid Coast Council would be the issuing authority for the required permit.* The road entrance exits onto Blue Road Close. Blue Road Close is RMS controlled land/road and previously constructed under the approval of the RMS On page 3-9 of the EIS, the applicant has stated the RMS has requested a traffic and transport study to identify both during the construction and operation stages Identify the road network infrastructure upgrades that are required to maintain the 'existing levels of service'

Aspects of Developments	**Specialist referral has been provided**
☐Flooding	☐ Yes ☒No
☐Onsite detention required	☐ Yes ☒No
☐Stormwater design	Quarry site only - Water quality shouldl address these issues
☒Traffic impact	☒ Yes ☐No
☐Road design	☒ Yes ☐No - Note -RMS road

office, staff amenities, access road including whether the resultant fill batters from the access road will extend into the creek) The applicant has not discussed this *probable maximum flood* in the Specialist reports or the EIS However, the proposed development is located adjacent to Yalimbah Creek, Details are not provided to the proximity of the proposed infrastructure will be constructed to these water courses which has a steep gradients and a limited catchment area. Downstream of the development, Yalimbah Creek crosses under The Pacific Highway upgrade, which comprises of predominately engineered stormwater drainage infrastructure which should have been designed/constructed by the RMS to discharge the localised 1 in 100 year AEP flood Yalimbah Creek The levels of the proposed infrastructure of the development are indicated at 30m AHD, 28m AHD & 26m AHD and are well above any probable maximum flood mainstream flood levels from Port Stephens. The issue of a probable maximum flood affecting this development is not warranted A condition will be imposed to ensure there is adequate distance from he internal road to Yalimbah Creek. Note: The other watercourses are located further to the north of the proposed quarry development and drain in a westerly direction, so will not affect this development	
Onsite detention/Stormwater Design	Conditions
NA - OSD not required for this proposal Note: The applicant will be capturing and retaining a portion of the stormwater runoff from the catchment area of the site, to be later used for dust suppression and crushing operations	☒No conditioned required ☐Standard Conditions Applied ☐Modified Conditions Applied
Traffic Impact	Conditions
NA - RMS road	☐No conditioned required ☐Standard Conditions Applied ☒Modified Conditions
Access (Internal and External) /Road Design	Conditions
Details of the internal access road have not been provided. It is estimated that a gradient in excess of 10% may result. The extent of the batters that will support the access road have not been shown The traffic is estimated at 123 loads and 30 light vehicles (153 out trips) On page 3-15 of the EIS the applicant states that "*A permit under Section 138 of the Roads Act would be required to undertake the proposed construction of the Quarry entrance. Mid Coast Council would be the issuing authority for the required*	☐No conditioned required ☐Standard Conditions Applied ☒Modified Conditions Applied

	☐Modified Conditions Applied
Easements & Restrictions on Title	
N/A - No easements or restrictions applicable to the proposal	☒No conditioned required ☐Standard Conditions Applied ☐Modified Conditions
Groundwater	
Water Management - The quarry is within a sensitive catchment of Yalimbah Creek which drains to is a SEPP 14 wetland which is a part of Karuah Nature Reserve drains into Number One Cove/ Port Stephens. Water management needs to be addressed in terms of the cumulative impact on the local estuary. Other State government authorities DPI-Crown Lands and Water Division; EPA and OEH have identified water related matters for consideration (refer to table A2.2 Appendix 2 of the EIS)	☐No conditioned required ☐Standard Conditions Applied ☒Modified Conditions
Other Comments:	

Information Adequate	
Has suitable engineering reports/plans been provided? The location and gradients of the access road and the resultant batters are not shown/detailed. It is unclear whether the road construction will extent into Yalimbah Creek	☐ Yes ☒ No
Is further information required	☒ Yes ☐ No

SECTION 4 - RECOMMENDATION/GENERAL COMMENTS
The proposal is supported subject to conditions detailed below.

Date completed	18/05/2019
Responsible Officer	Geoff Dowling

SECTION 5 - CONDITIONS
Engineering conditions are located: ☐ In Pathway ☒ Listed below

Note some of the engineering conditions below have been taken from a previous approved Karuah-East SSD MP09-0175 Mod 1(draft)

prepared to a standard which, if properly implemented, will achieve the water release criteria of 50mg/L of total suspended solids (TSS); for all active discharges from the premises in all rainfall events up to and including the 5-day, 80th percentile design rainfall depth for Nelson Bay .

All erosion and sediment controls shall be appropriately managed throughout the development to minimise the risk of pollution until the land is rehabilitated as per The Blue Book - "Landcom. 2004. Managing Urban Stormwater: Soils and Construction. *4th Edition"*.

Any pollution from site shall be cleaned up immediately and appropriate repairs made to onsite controls.

A site weather station is to be established with rainfall results recorded daily. Records shall be readily made available for Council inspection.

The ESCP shall recommend: -

- Required stormwater diversion works external to each stage of the development site during and after rainfall.
- The management of construction traffic.
- The civil construction works are:
    - confined to the footprint of each stage (except for the required stormwater diversion works): and
    - Completed within 6-month period from the initial commencement of any fill importation or earthworks (except for the assemblage of the manufactured dwellings) Alternatively the 85th percentile design rainfall depth for Nelson Bay must be used instead of the 80th percentile

All erosion and sediment controls shall be appropriately managed throughout the development to prevent pollution until the land is rehabilitated as per Managing Urban Stormwater- Soils and Construction, Landcom, 2004.

Any pollution from site shall be cleaned up immediately and appropriate repairs made to onsite controls.

Reason: To ensure amenity, suitable construction standard and protect the environment from the effects of erosion and sedimentation.

3. Public safety requirements

All care is to be taken to ensure the safety of the public in general, road users, pedestrians and the adjoining property while the development is being constructed. Public liability insurance cover, for a minimum of $20 million, is to be maintained for the duration of the construction of the development.

Reason: To ensure public health and safety during the construction of the development.

4. Water management

Prior to the release of the construction certificate, the Proponent must prepare a Water Management Plan for the project to the satisfaction of Council and the Planning Secretary. This plan must:

a) be prepared by suitably qualified and experienced person/s;
b) be submitted to Council and the Planning Secretary for approval prior to the commencement of construction activities;

All traffic control plans for the works within this development site is to be in accordance with the requirements of the Roads and Traffic Authority's Manual, *Traffic Control at Work Sites Version 2*, and Australian Standard AS 1742.3: *Manual of uniform traffic control devices - Traffic control for works on roads*.

All recommendations for the traffic control plan by this engineer are to be installed, inspected and maintained to the engineer's satisfaction during the construction works.

The plan must: -

- Incorporate measures to ensure that motorists using the roads adjacent to the development, residents and pedestrians in the vicinity of the development are subjected to minimal time delays due to construction on the site or adjacent to the site.
- Address the management of construction traffic site and include measures for Erosion and Sediment Control during and after rainfall.
- Ensure the adjacent residents are not adversely affected by vibration with the earthworks machinery and truck movements within the development site.

Construction and/or demolition works, including deliveries on or to the site must not unreasonably interfere with the amenity of the neighborhood and must occur only in accordance with the following:

Monday to Friday, from 7 am to 6 pm.

Saturday, from 8 am to 1 pm.

No construction and/or demolition work, including deliveries are to take place on Sundays & Public holidays.

Any works undertaken during school holiday periods, must be: -

- Confined within the building footprint and within the construction site fence line.
- Undertaken with a minimum number of:
    - trades/workers on the site
    - trade's/worker's ute/van deliveries - kept to a minimum
- No major truck deliveries (eg requiring semi-trailers for delivery of the earthmoving equipment or the like)

The traffic control plan must be prepared by an accredited person trained in the use of the current version of *RTA Traffic Control at Work Sites manual*.

The Construction traffic management plan must be implemented prior to the commencement of work.

Reason: To ensure public safety during the construction of the development.

6. Engineering construction plans - construction work

Prior to the issue of the construction certificate, the certifying authority shall approve the internal works for road pavement, footings, structures and other required civil works as designed by a suitably experienced and qualified certified:-

- Engineer or surveyor, whose qualifications are acceptable for membership of the Institution of Engineers and Surveyors, Australia.
- Geotechnical engineer for all pavements, fill areas & batters etc.

The works must include the following:

a) Blue Rock Close:- with road markings and advance warning signage, to the satisfaction of RMS and Council.

Reason: To ensure accurate records of materials

PRIOR TO THE COMMENCEMENT OF WORK
The following conditions must be satisfied prior to the commencement of any subdivision work.

8. Site access

Public access to the site and building works, materials and equipment on the site is to be restricted, when building work is not in progress or the site is unoccupied. The public safety provisions must be in place prior to the commencement of any demolition, excavation or building works and be maintained throughout construction.

Reason: To ensure public health and safety during the construction of the development.

9. Installation of approved erosion & sediment control measures

Prior to the commencement of work, erosion and sedimentation controls must be installed in accordance with the approved plans for the associated portion of the works and are to be maintained for the duration of each construction stage of those works until stabilised/ vegetated.

Reason: To protect the environment from the effects of erosion and sedimentation.

CONDITIONS TO BE SATISFIED DURING DEVELOPMENT WORK
The following conditions must be complied with during any development work.

10. Site access

Public access to the site, materials and equipment on the site is to be restricted, when building work is not in progress or the site is unoccupied. The public safety provisions must be in place prior to the commencement of any excavation works and be maintained throughout construction.

Reason: To ensure public health and safety during the construction of the development.

11. Superintentant

The applicant shall engage a superintendent for the overall supervising of the construction works. Details of the name and contact phone number are to be submitted to Mid-Coast Council for liaising with Council.
Council is to be notified at least 48hrs prior to the commencement of construction of the bridge/culvert across the watercourse and/or the installation of the sediment/pollution control.

Reason: To ensure all civil works are constructed to a suitable standard and for public safety.

12. Maintenance of erosion and sediment control measures in accordance with approved plan

Erosion and sediment control measures must be maintained at all times in accordance with the approved erosion and sediment control plan until the site has been stabilised by permanent vegetation cover or hard surface.

Reason: To protect the environment from the effects of erosion and sedimentation.

17. Completion of all works

Prior to the issue of a final occupation certificate or commencement of any haulage of quarry materials from the site, the applicant shall:-

a) Seal all driveways, car parking and vehicular manoeuvring areas with concrete or equivalent to Council's satisfaction. Details of the pavement are to be submitted with the application for a construction certificate;
b) Fully line mark the parking and manoeuvring areas, including the use of one way directional arrows.
c) Erect signs near the front vehicular access point indicating that on-site parking is available.

Reason: To ensure compliance with the conditions of consent, protect the environment and amenity.

ONGOING USE
The following conditions must be satisfied during the ongoing use of the development.

18. DEVELOPER CONTRIBUTIONS

In accordance with the Mid-Coast Council Section 94 Contributions Plan, a monetary contribution towards the cost of reconstruction of roads within the Mid-Coast Council Local Government Area shall be paid to Council with respect to quarry materials dispatched from the development site and the distance of the delivery travel within the Council road network (not including Andersite Road and Blue Rock Close)

Each six months from the date of completion of the works, the operator of the quarry shall forward to Council a record of quarry materials dispatched from the site. The record shall indicate the weight for the preceding six months. The operator of the quarry materials shall also forward the amount payable with respect to that record.

The amount payable shall be payable per tonne of quarry materials dispatched from the and the rate shall be based on Council's Fees and Charges rate for the financial year starting 1st July 2019 and indexed in accordance with the Contributions Plan per financial year thereafter.

Reason: Maintenance and repair of public assets

19. Operating Conditions

The Proponent must ensure that all project-related heavy vehicles:
(a) enter and exit the site in a forward direction; and
(b) exit the site with loads covered.

Reason: Road safety and amenity

Robyn Shelley

From: Prue Tucker
Sent: Wednesday, 15 May 2019 7:45 AM
To: Robyn Shelley
Cc: Gerard Tuckerman
Subject: Water quality comments South Quarry Project SSD8795

Good Morning Robyn
Gerard and I have had a look at the water quality aspects of the documents provided. It appears that the applicant has addressed all of the water quality requirements for this development the only area for comment is outlined below:

Within the environmental management plan for the site they will need to clearly outline the responsibilities and position responsible for management and maintenance of the sediment ponds to ensure that the procedures that they have proposed will be implemented. It is recommended that the environmental management plan include monitoring of rainfall and careful management of basin water levels to ensure that there is enough capacity in the sediment basins prior to rain.

Please ECM this email as I was unsure where to save it
Thank you
Prue

Prue Tucker
Water Quality & Estuary Management Program Coordinator

MIDCOAST council
We deliver benefits for our community in a way that adds value and builds trust

Direct 02 65917374
Prue.Tucker@MidCoast.nsw.gov.au
www.midcoast.nsw.gov.au or follow us