JOINT REGIONAL PLANNING PANEL
(Hunter and Central Coast)

Council Assessment Report

Panel Reference	2017HCC007
DA Number	42409/2012
Local Government Area	Central Coast Council
Proposed Development	INTEGRATED/ DESIGNATED Sand Quarry Section 96 (AA) - Allow the Importation of Excavated Natural Material for use in construction of noise bunds
Street Address	LOT: 2 DP: 362339, 620 Wisemans Ferry Road, Somersby
Applicant	Down To Earth Geotechnical & Environmental
Owner	Lawson Quarries Pty Ltd & M Haugh
Date of DA Lodgement	11/10/2016
Number of Submissions	First notification period: 128 Second notification period: 64
Recommendation	Refusal
Regional Development Criteria (Schedule 4A of the Act)	Extractive Industry - Designated Development
List of all relevant s79C(1)(a) matters	• Environmental Planning & Assessment Act 1979 – Section 79C • Environmental Planning and Assessment Regulation 2000 • Protection of the Environment Operations Act 1997 • Roads Act 1997 • Rural Fires Act 1997 • Water Management Act 2000 • State Environmental Planning Policy (State and Regional Development) 2011 • Sydney Regional Environmental Plan (SREP) No 8 (Central Coast Plateau Areas) • Sydney Regional Environmental Plan (SREP) No 9 - Extractive Industry (No 2-1995) • Sydney Regional Environmental Plan (SREP) No 20 -

	Hawkesbury-Nepean River (No 2 - 1997) • State Environmental Planning Policy (SEPP) No. 55 – Remediation of Land • Gosford Local Environmental Plan 2014 • Gosford Development Control Plan 2013
List all documents submitted with this report for the Panel's consideration	1. Covering Letter, dated 7 July 2017: • Includes Traffic Management Plan prepared by s/b/m/g, dated 26 June 2017 • Includes updated Fill Calculation Plan 2. Court Order DA 42409 3. Approved Plans DA 42409
Report prepared by	A Stuart
Report date	14 September 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 summarised, in the Executive Summary of the assessment report?	**Yes**
Clause 4.6 Exceptions to development standards If a written request for a contravention to a development standard (clause 4.6 of the LEP) has been received, has it been attached to the assessment report?	**Not Applicable**
Special Infrastructure Contributions Does the DA require Special Infrastructure Contributions conditions (S94EF)?	**Not Applicable**
Conditions Have draft conditions been provided to the applicant for comment?	**N/A**

Title: Development Application No. 42409/2012 Part 3, Proposed Section 96 (AA) - Allow the importation of Excavated Natural Material on Lot 2 DP 362339, 620 Wisemans Ferry Road, Somersby

Department: Environment and Planning

Central Coast Council

Report Purpose

To enable the determination of a development application.

Applicant	Down To Earth Geotechnical & Environmental
Owner	Lawson Quarries Pty Ltd & M Haugh
Application Number	42409/2012 Part 3
Description of Land	Lot 2 DP 362339, 620 Wisemans Ferry Road, Somersby
Proposed Development	INTEGRATED/DESIGNATED Sand Quarry Section 96 (AA) - Allow the importation of Excavated Natural Material for use in construction of noise bunds
Zoning	RU1 Primary Production
Site Area	157,600m^2
Existing Use	Extractive Industry
Value of Works	Not specified

Summary

The subject modification application has been received pursuant to Section 96(AA) of the *Environmental Planning and Assessment Act 1979* (the Act). The application seeks to amend the terms of the Court issued consent for a quarry operation at 620 Wisemans Ferry Road, Somersby. The Land and Environment Court determination of the original application (DA 42409/2012) allows for 2 to 3 million tonnes of sand resource extraction from the site. The conditions require noise bunds to be constructed along the property boundaries (see Stage 1 plan). The bunds were intended to be constructed of a mix of material from onsite and VENM sourced from the off-site.

The application does not seek approval to alter the approved use of site. Approval is sought to enable to the use of Excavated Natural Material (ENM), in addition to Virgin Excavation Natural Material (VENM) for the initial earthworks on the site.

The balance of material sourced on-site and off-site which is needed to construct the noise bunds has been detailed in the Traffic Management Plan prepared by s|b|m|g Planning dated 26 June 2017. This plan confirms the quantity of fill to be imported to the site is approximately 330,000 tonne of ENM and VENM material. In line with the conditions of the Court issued consent, the noise bunds are to be constructed within a 4 week period. As such, there are a substantial amount of truck movements proposed within a restricted construction period.

Within Schedule 3 of the *Environmental Planning and Assessment Regulation 2000,* extractive industries are a type of designated development. The approved development fell within and

was assessed against the parameters of Clause 19 – Extractive Industries. The subject modification application is assessed in consideration of Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*, including Part 2 Are Alterations or Additions Designated Development. Concerns remain as to whether the amended development will significantly increase the environmental impacts of the total development.

The approved use is also a *Scheduled Activity* under Act and required an Environment Protection Licence (EPL). The subject proposal will require an amendment to the EPL and as such the matter was referred to the Environmental Protection Authority (EPA) for review pursuant to Section 91 of the Act. The EPA has since provided General Terms of Approval as they relate to the subject modification application.

Council has sought additional information from the Applicant in regard to the Traffic Management Plan and impacts related to the quantity of material to be imported to the site however, this has not yet been provided. On the basis that the quantity of fill and associated impacts have not been adequately addressed, the application is recommended for refusal.

Submissions	First notification period: 128 Second notification period: 64
Disclosure of Political Donations & Gifts	No
Site Inspection	Undertaken

Recommendation

A Joint Regional Planning Panel, as the consent authority, refuse the Section 96 (AA) Part 3 application to modify Development Consent No 42409/2012 on LOT: 2 DP: 362339, 620 Wisemans Ferry Road, Somersby for the following reasons:

Insufficient Information

1. Insufficient information to complete the assessment and determination of the proposed modifications, namely in relation to:

    a. The Traffic Management Plan, prepared by s/b/m/g, dated 26 June 2017, relating to the importation of fill, being ENM or VENM, does not:

        i. Identify the anticipated time period associated with the importation of 9422 truckloads (approx. 330 000 tonne of material) to the subject site during the 4 week construction period established by Section 4 of Development Consent No. 42409.

        ii. Consider the impact on the surrounding road network as a result of importing 9422 truckloads of fill during the 4 week construction period established by Section 4 of Development Consent No. 42409.

    b. The amenity impacts to residential properties in close proximity to the site as a

result of importing 9422 truckloads of fill during the 4 week construction period established by Section 4 of Development Consent No. 42409.

c. Any environmental impact as a result of importing 9422 truckloads of fill during the 4 week construction period established by Section 4 of Development Consent No. 42409.

d. There is insufficient area on site to build the noise bund located adjacent to the southern boundary. No information has been presented to Council confirming the extent of construction work in the existing excavation pit and associated environmental impact.

Particulars

(i) Section 79C and 96AA of the Environmental Planning and Assessment Act 1979;
(ii) Clause 54 of the Environmental Planning and Assessment Regulation 2000;
(iii) Schedule 3, Clauses 35 and 36 of the Environmental Planning and Assessment Regulation 2000;
(iv) State Environmental Planning Policy No. 55 – Remediation of Land
(v) The Protection of the Environment Operations Act 1997;
(vi) NSW Industrial Noise Policy;
(vii) Clause 1.2(2)(i) (Aims of Plan) and Clause 2.3 (2) (Zone Objectives) of the Gosford Local Environment Plan 2014; and
(viii) Section 3.11.3 (Objectives) and 3.11.8.4 (a and b) (Pollution Control) of Gosford Development Control Plan 2013.

B The applicant be advised of the decision and of their right to appeal in the Land and Environmental Court under Section 97 of the Environmental Planning and Assessment Act 1979.

C The objectors be notified of the decision.

D The External Referral Authorities be notified of the decision.

Assessment

This application has been assessed using the heads of consideration specified under Section 79C of the Act, Council policies and adopted Management Plans.

Background

Development Consent No. 15525

On 9 February 1979 the former Gosford Council granted consent to Development Application No. 15525 for an extractive industry, which then became operational.

Development Consent No. 26467

In 2004, an application was made seeking to redevelop and operate the existing quarry over a period of twenty years in four stages. Council considered this application at its meeting on 13 June 2006 and granted deferred commencement consent subject to conditions. This consent was later modified by Council on 17 September 2007.

The consent lapsed on 20 June 2011 as conditions of deferred commencement had not been complied with by this date.

Development Consent No. 42409

In June 2012, an application was made seeking approval for the extraction, processing and sale of up to 150,000 tonnes per annum of construction sand. It was, therefore, a Designated Development in accordance with Part 4 of the Act requiring the preparation of an Environmental Impact Statement (EIS) in accordance with requirements issued by the Director-General of the Department of Planning and Infrastructure.

The development application was determined by the Joint Regional Planning Panel by way of refusal on 18 July 2013 for the following reasons:

1. *The Development Application contains inadequate information to assess air quality impacts, and impact on adjoining resident/human health, particularly by PM2.5 and PM10 crystalline silica.*
2. *The Development Application contains inadequate information to assess the impact on groundwater resources.*
3. *The impact of the proposal on an Aboriginal artefact and potential impact on Aboriginal Cultural Heritage.*
4. *The potential impact of the proposal on the amenity of adjoining and nearby residents, particularly in relation to air quality impacts.*
5. *The Development Application has not satisfactorily addressed Clause 7(2) of Sydney Regional Environmental Plan No 8 in relation to future suitable agricultural land uses.*
6. *The proposal is inconsistent with the objectives of the 1(a) Zone, particularly objective (f).*
7. *It is not clear whether the Director General's environmental assessment requirements have been complied with by the applicant, particularly in relation to community consultation.*

The above determination was appealed, wherein consent was later granted by the Land and Environmental Court, Proceedings No. 10021 of 2014 on 18 June 2014 (Attachment A). This consent was later modified (condition 2.12) by Council on 26 February 2016.

The subject Section 96(AA) application was lodged on 11 October 2016 and seeks to enable the use of ENM in addition to VENM for the initial earthworks on the site. The application has quantified the amount of off-site material proposed to be brought onto the site, to use in the construction of the bunds. Under the previous consent, this was not specified and was to be comprised of a mix of on-site and off-site VENM material.

On 17 March 2017, the Applicant formally amended the proposal so as to also include increasing the height of the approved acoustic bunds onsite. Furthermore, in order to maintain site vegetation, it was proposed to relocate the approved acoustic mounds directly adjacent to the southern boundary on site, a further ten metres north.

On 6 June 2017, Council received confirmation that the subject modification application had been amended so as to delete any changes to the location of the noise bunds as originally approved.

On 12 July 2017, Council received a Traffic Management Plan (TMP), prepared by s/b/m/g, dated 26 June 2017, relating to the importation of fill, being ENM or VENM. It was contended in this TMP that 9422 truckloads (approx. 330 000 tonne of material) will be required to construct the acoustic bunds. However, the time frame over which the importation of fill via 9422 truck movements will occur was not addressed.

Further, Council's Engineers have confirmed that the truck movement calculation should be based on 32 tonnes per truck load. On this basis, 10313 loads would need to enter and leave the site during the construction phase.

The Land and Environment Court Proceedings No. 10021 of 2014 and associated court order did not specifically identify the quantity of material required for importation to complete the earthworks. However, Condition 4.2 was originally imposed to ensure construction works likely to generate noise exceeding the operational noise exposure targets set in the quarry management plan by more than 10dBA was to occur during a four week period (subject to weather):

4.2 Construction work likely to generate noise exposure at the residences listed in clause 2.8 of this consent that exceeds the operational noise exposure targets set in the quarry management plan by more than 10dBA shall be identified prior to the start of the construction period. This work shall be conducted over a 4 week period subject to weather. The dates of this period shall be agreed between the Council and the operator of the quarry and if no agreement, as specified by Council.

The occupants of these residences shall be advised of the likely noise exposure during this period prior to it beginning. All reasonable efforts shall be made to minimise the extent and intensity of the noise exposure.

It was previously determined that the construction of the acoustic bunding on site, would breach noise restrictions for the four week construction period.

Based on the approved hours of construction (Condition 11.1 (7)), there are 61 hours permitted for the importation of fill per week, being 244 hours over a 4 week period. This is based on 7am to 6pm (11 hours) Monday to Friday and 7am to 1pm (6 hours) Saturday. This results in a proposed traffic movement of 42 trucks per hour entering the site and 42 trucks per hour leaving the site on the identified route from the M1.

In view of the above, in correspondence dated 14 July 2017, the applicant was requested to submit additional information within 14 days addressing the following:

(b) Submit an Amended Traffic Management Plan confirming the anticipated time period associated with the importation of fill.

The existing condition of affected roadways and ability of Wisemans Ferry Road to accommodate the proposed traffic generation must be addressed.

A delivery schedule is required for the importation of fill.

(c) Submit an Acoustic Report identifying the predicted noise generation associated with truck movements and the proposed importation of fill.

Any Acoustic Report submitted must reference the delivery schedule required for the importation of fill as detailed pursuant to point (i) above. Evidence must be provided demonstrating the associated noise impacts of this schedule will not exceed the operational noise exposure targets identified in Condition 4.2.

In the event the delivery schedule for the importation of fill exceeds those targets identified in Condition 4.2, further investigation are requires as per point (iii) below.

The requested Acoustic Report must be prepared in accordance with the NSW EPA's New South Wales Industrial Noise Policy (2000).

(d) The Applicant is requested to further investigate truck movements associated with the importation of fill and the associated building of the acoustic bunds having regard to the required four (4) week construction period, pursuant to Condition 4.2 of the Consent.

It may be necessary to extend the construction period identified in Condition 4.2 to accommodate predicted noise generation that exceeds the operational noise exposure targets set in the quarry management plan by more than 10dBA.

To date, Council has not received a response and cannot indefinitely defer the application for no valid reason.

It is concluded the quantity of fill and associated impacts has not been adequately addressed by the Applicant despite being given many opportunities to do so.

Site & Surrounds

The site is located on the eastern side of Wisemans Ferry Road near the intersection of Lackersteens Road and about 6km north-west of Gosford. The M1 Freeway is located about 300m from the rear (eastern) boundary of the site. The site has a frontage to Wisemans Ferry Road of 237.7m, a southern (side) boundary of 643.2m, an eastern (rear) boundary of 281.8m, and a northern (side) boundary of 113.4m, 80.4m with adjoining lots (628 and 630 Wisemans Ferry Road) and 376.9m with an adjoining road reserve.

The previous extractive operations are generally located on the eastern half of the site, with an access driveway from Wisemans Ferry Road to the excavation area. The western side of the site currently contains tree cover/vegetation adjoining Wisemans Ferry Road, with some

trees/vegetation on the south-west and north-west corners. The site varies in elevation from about RL 263m AHD at Wisemans Ferry Road to about RL 211m - 216m AHD on the excavated areas to about RL 204 at the eastern boundary.

Figure 1: Aerial Photo (site shown edged blue)

The land to the east is owned by the Department of Industry and Investment, zoned RU2 – Rural Landscape. Land to the north and north-west includes rural dwelling houses and a 20m wide road reserve. Land to the west on the opposite side of Wisemans Ferry Road includes dwelling-houses and a reception centre. Land to the south contains a number of rural dwelling-houses, some of which are accessed by a driveway adjoining the southern boundary of the quarry site. The site is generally located in a rural area with surrounding and nearby development ranging from dwelling-houses on small rural lots to agricultural use.

The Somersby Public School is located about 1.7km to the north of the site.

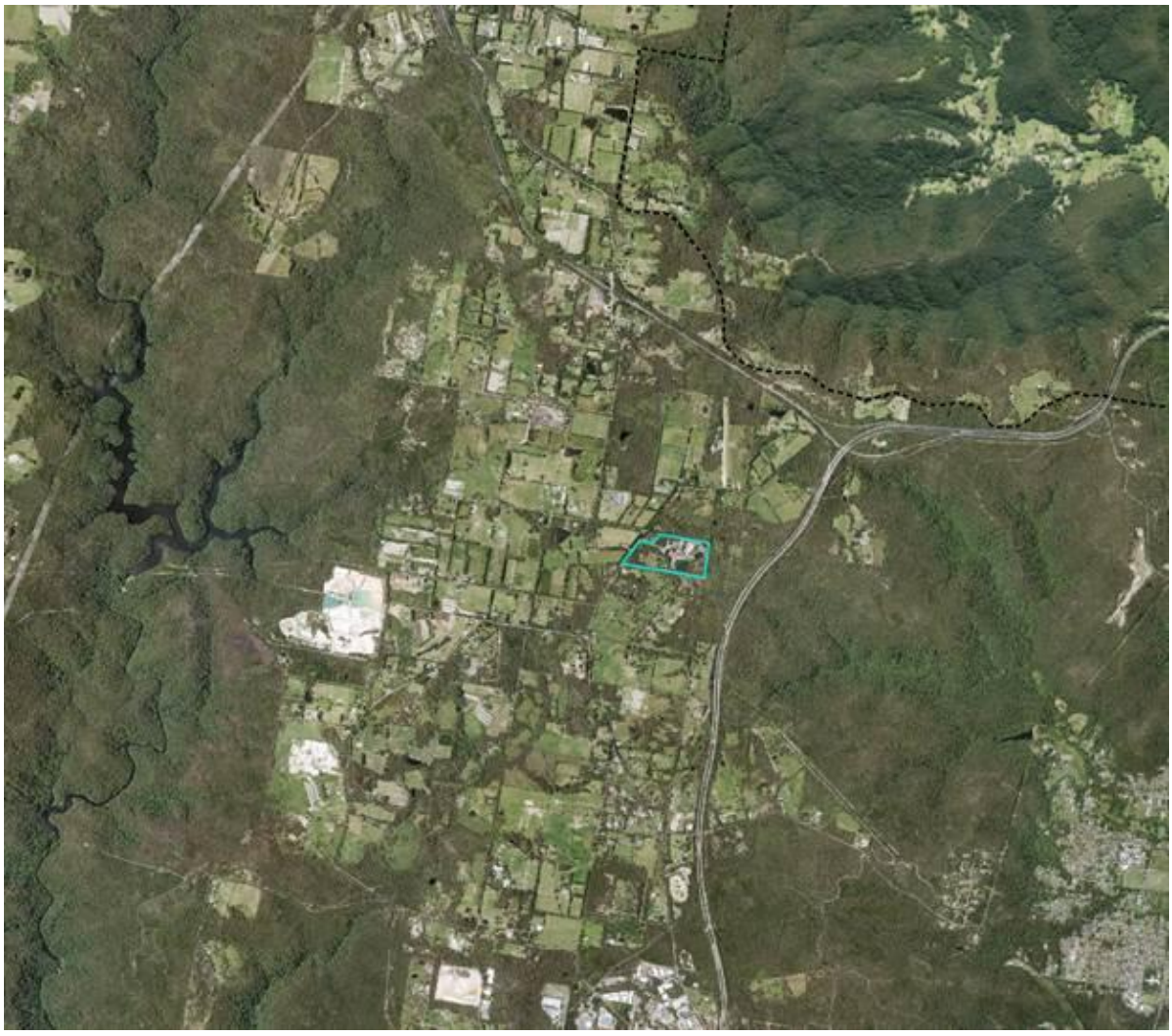


Figure 2: Site context plan

The site is identified as "bushfire prone land" on Council's bushfire maps, being located in a Buffer and Category 2 zone Some commercial and industrial developments (buildings of Class 5-8 and 110B of the BCA) on bush fire prone land will need to comply with the aims and objectives of *Planning for Bush Fire Protection 2006* in relation to matters such as access, water and services, defendable space, emergency planning and landscaping/vegetation management. The subject proposal does not propose any change layout of the quarry as previously approved. In this regard, no further assessment is warranted with regard to *Panning for Bush Fire Protection 2006*.

The Proposed Modification

The applicant is seeking to modify the consent for Development Application 42409/2012 under section 96AA of the EP&A Act by:

- Approval is only sought under the subject modification application to enable the use of Excavated Natural Material, in addition to Virgin Excavation Natural Material for initial earthworks on the site.

- On 12 July 2017, Council received a Traffic Management Plan (TMP), prepared by s|b|m|g Planning dated 26 June 2017, relating to the importation of fill, being ENM or VENM. It was

contended in this TMP that 9422 truckloads (approx. 330,000 tonne of material) will be required.

- As mentioned earlier, Council Engineers calculate that 10,313 loads will be entering and leaving the site. The time frame for the proposed importation of fill via truck movements has not been addressed by the applicant.

Approved Development – DA 42409/2012

Approval was originally granted via Development Consent 42409/2012 (Land and Environmental Court Proceedings No. 10021 of 2014) for an estimated 2 to 3 million tonnes of resource extraction. The approval allows up to 150,000 tonnes p.a. of washed and screened and unwashed sand to be extracted over a period of up to 20 years.

The approved development is summarised as follows:

1 Preliminary Work and the Construction Period

Preliminary work will be that work necessary to establish the quarry's operation. It will involve, principally, fencing and site security, protection for hollow bearing trees and other significant vegetation, construction of noise barriers, access to Wisemans Ferry Road, construction of a temporary internal access road, construction of the wheel wash and the reinstatement of the sand processing plant.

A major part of the preliminary work will be the improvement of the intersection between the access road and Wisemans Ferry Road to a design and specification approved by the former Gosford City Council and the Roads and Maritime Services. To date, approval under the Roads Act has not been sought for civil works within the Wisemans Ferry Road reserve.

The NSW Industrial Noise Policy allow for a 26 week construction period during which noise exposure may exceed the noise exposure targets set down for the project by 10dBA. There is a period of 4 weeks during which noise exposure may exceed noise exposure targets by up to 20dBA.

The noise assessment prepared as part of the EIS predicted that some construction work might generate noise exposure at adjacent residences above the normal limits allowed by the NSW Industrial Noise Policy. Work that might exceed the noise targets by more than 10dBA is conditioned to be performed during the designated 4 week construction period. This work will include the construction of:

- Noise barriers
- The junction of the access road and Wisemans Ferry Road
- The internal access road
- The wheel wash

Other preliminary work necessary to establish the quarry's operation will continue throughout the 26 week construction period but must not exceed 10dBA above targets. This work will include:

- Construction of the perimeter fence and other site security
- Protection for hollow bearing trees and other significant vegetation
- Earthworks to clean up the operational areas and obtain materials for the construction of noise barriers
- Earthworks to adjust and construct drains and sediment control infrastructure
- Construction of a temporary internal access roads to the sand processing plant and the quarry floor
- The reinstatement of the sand processing plant
- Preliminary rehabilitation work to the former settling pond.

2 Staging of the Quarry's Operation

The quarry will be developed and operated in the five stages described below:

Stage 1 *(*Years 1 and 2*)* of the quarry's operation will begin at the end of the construction period described above. It will involve quarry establishment works, a reinstatement of the quarrying and sand processing operation and a substantial start to the rehabilitation program. Sand processing will be a screening process. Sand washing will not begin until *Stage 2*.

The principal activities will be to:

1) Decommission and rehabilitate the two former tailings ponds at the eastern end of the property.

2) Clean up *Cell 1* and *Cell 2* and establish a quarry floor at a nominal RL (relative level) of 216 metres AHD.

3) Tidy up and consolidate plant and product stockpiles in the area of Cell 3.

4) Clean up cells 3 and 4 as needed.

5) Establish a new tailings pond in a former quarry cell to the east of Cell 1.

6) Establish or restore the basic infrastructure for sediment control and water management.

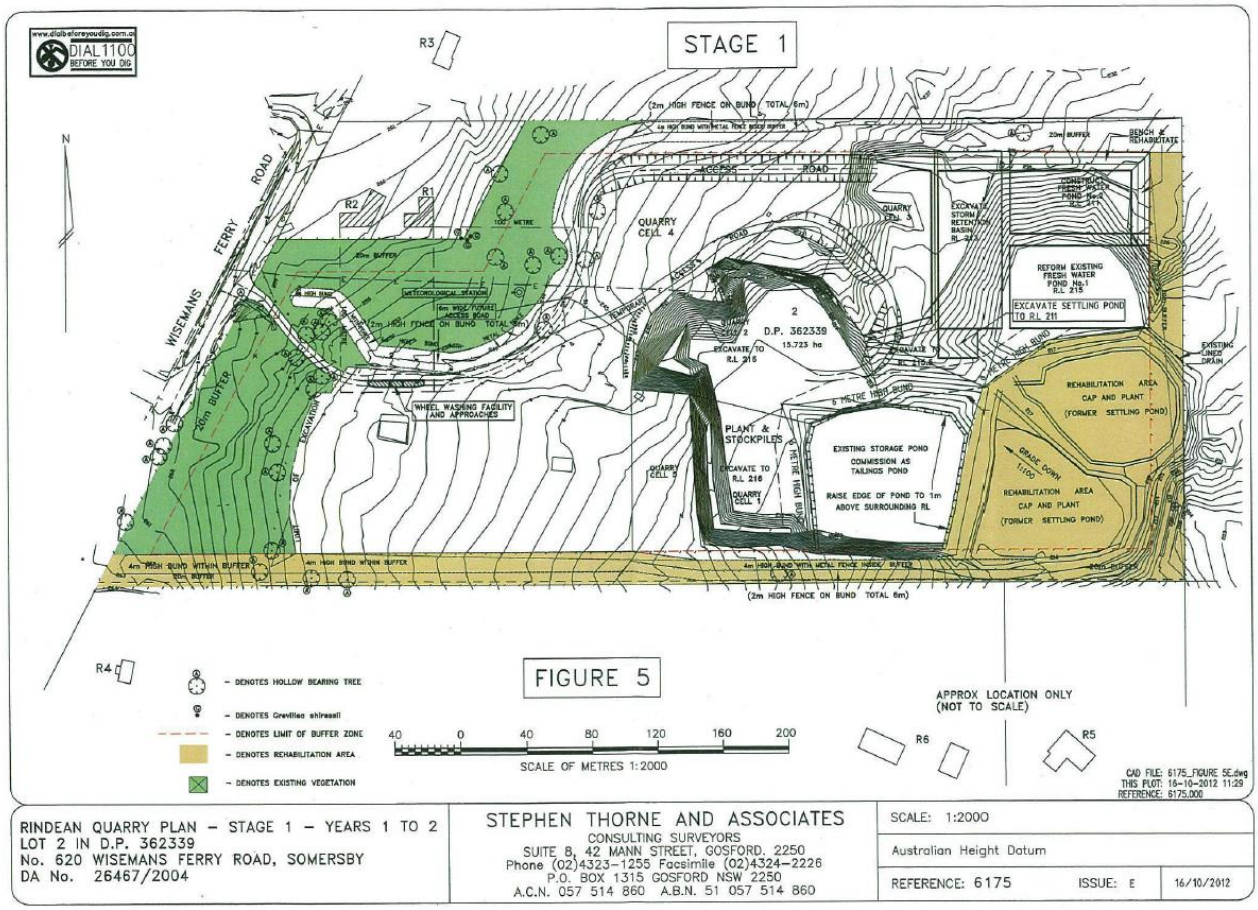
7) Construct a new fresh water pond in the north eastern corner of the property and prepare the area for rehabilitation. Viable vegetation in the corners of the property will be retained.

8) Excavate storm water retention basin.

9) Plant endemic species to establish initially an under story and in time a tree cover on embankments in the south-eastern corner of the site to stabilise the area and create a visual barrier to quarrying operations, and

10) Demolish the fibro house within the quarry property to allow quarrying operations to extend to the west. Bench the high wall in this area to profiles consistent with good quarrying practice (Cell 5).

The Noise Impact Assessment (October 2012) identifies that acoustic mounding and fencing along the side boundaries is to be constructed during Stage 1.



Stage 1 plan

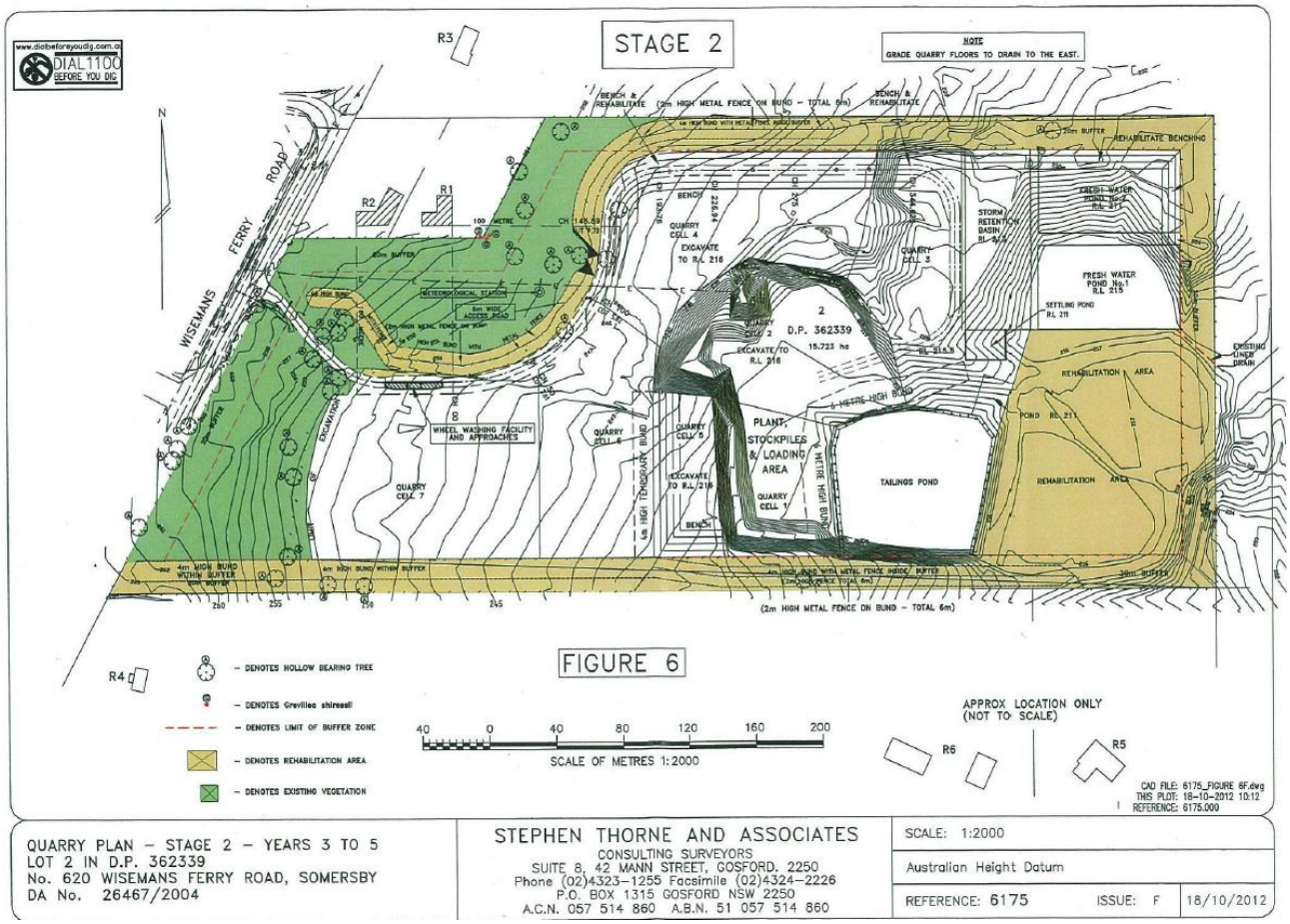
Stage 2 (Years 3 to 5) will see the beginning of significant restructuring of the quarrying operation, the quarrying and preparation for rehabilitation of disturbed areas along the northern boundary of the property and the expansion of the rehabilitation program. The principal activities will be to:

1) Realign and regrade the access road to a new alignment adjacent to the northern boundary of the property. The road surface will be lowered, extended and constructed with a constant grade of less than 1 in 10. The regrading and lowering of the road surface and the construction of bunds will reduce the exposure of adjacent properties to truck noise.

2) Relocate the plant and product stockpiles into *Cell 2* in the centre of the property.

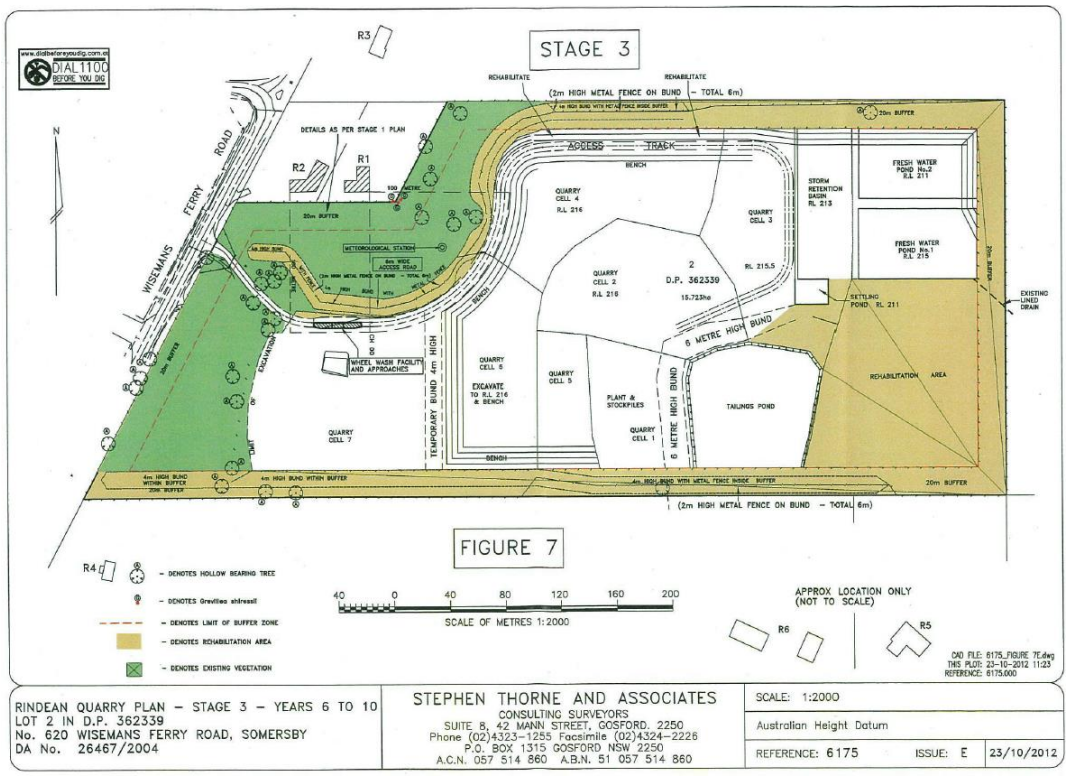
3) Quarry and bench to final levels for rehabilitation *Cell 3* and *Cell 4* along the northern boundary of the property.

4) Complete the rehabilitation of the eastern side of the property by continuing the work in the south-eastern corner started in Stage 1 and extending it into the north-eastern corner.



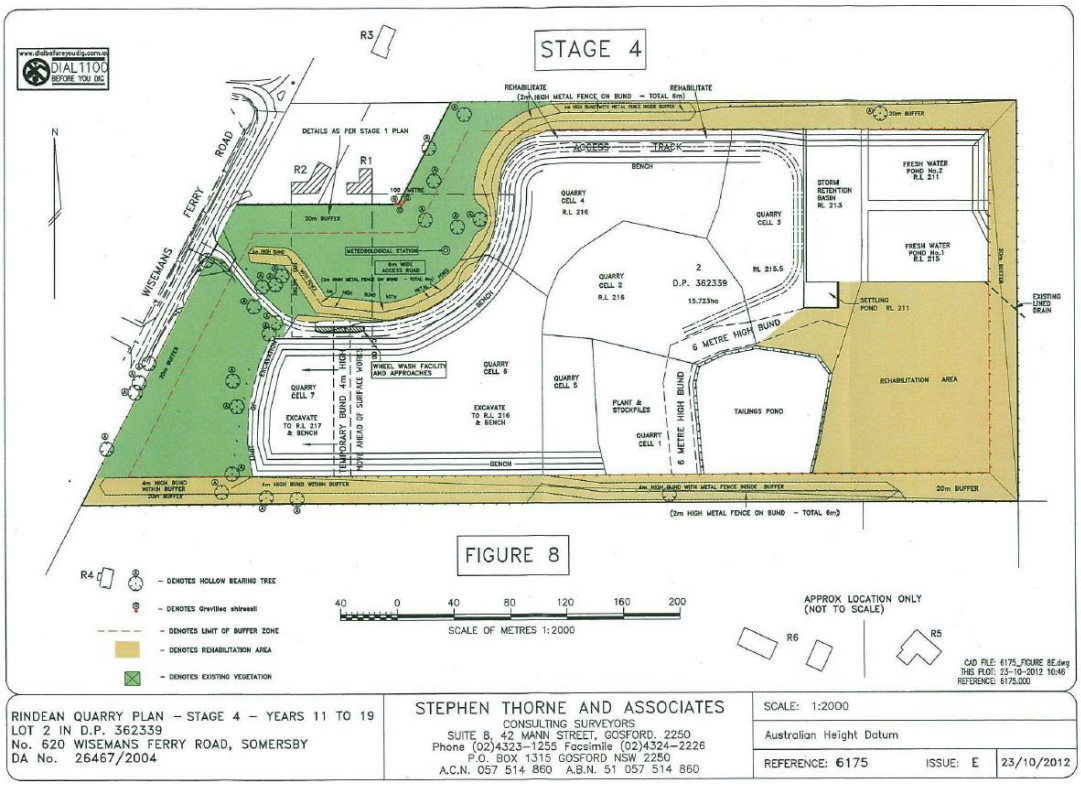
Stage 2 plan

Stage 3 (Years 6 to 10*)* will involve a significant expansion of the rehabilitation program into Cells 3 and 4 and an expansion of the quarrying operation westwards towards Wisemans Ferry Road into *Cell 6*. Topsoil and overburden from *Cell 6* will be used for rehabilitation.



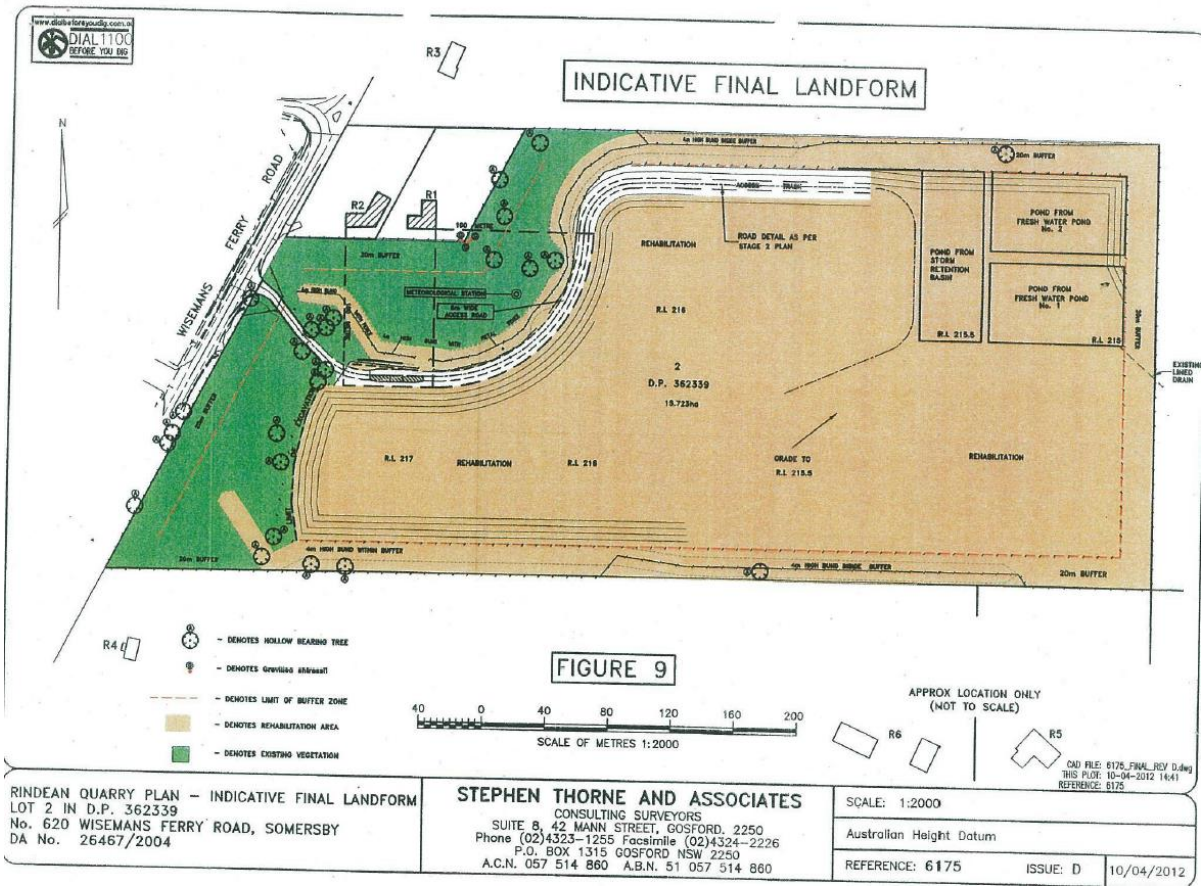
Stage 3 plan

Stage 4 (Years 11 to 19) will involve a progressive extension of the quarrying operation towards Wisemans Ferry Road and the possible establishment of new tailings and fresh water dams. Areas no longer used would be decommissioned and rehabilitated progressively.



Stage 4 plan

Stage 5 (Year 20) will involve the decommissioning and removal of all plant and equipment, the final rehabilitation of the site to the rehabilitation plan and the final inspection of the site by the Council and other relevant authorities. .



Stage 5 (final) plan

Public Submissions

The modification application was exhibited on two occasions. Both times the notification was undertaken in accordance with Division 5 Public participation designated development of the EP&A Regulation 2000 (Clauses 77-81).

128 public submissions were received in relation to the original notification of the modification application.

Following further amendment to the subject modification application, the matter was again notified, wherein a total of 64 submissions were received. A total of 192 submissions have been considered.

A summary of issues raised in the submissions is detailed below.

NOTE: Issues raised in submissions received at Council as they relate to compliance matters on the subject site, the relocation of the acoustic bunds, the day to day operation of the approved quarry have not been addressed below as they do not relate to the subject modification application.

This is not a minor modification to the Consent Orders, it is a major modification and the development is not the same as the development that was originally approved.

Comment: Section 96 AA of the Act provides that a consent authority may, on application being made by the applicant, modify a development consent if it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted.

The modification application seeks only to change the material type and confirms the quantity of off-site sourced materials. The use and operations remain the same as previously approved. As such, the application is considered substantially the same.

As per the Land and Environment Court mediation in 2014, 4 weeks was negotiated to minimise the impact on residents. The original EIS stated soil was to be predominantly sourced from the site. Now more soil than what is required is being imported.

Comment: It is agreed that Condition 4.2 of the consent allows a 4 week period (subject to weather) where the noise exposure targets can be exceeded by more than 10dBA which would minimise the length of time that neighbours are exposed to noise levels without a noise berm. In regard to the construction of the noise bunds, they were always proposed to be constructed of materials from on and off-site.

Section 4.7 (Source of Materials) within Volume 1 of the Environmental Impact Statement the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012, states the following:

"The amount of overburden and coarse reject material available immediately will not be sufficient for initial earthworks because of the requirement to construct all establishment works, where noise goals might be exceeded, within the first 26 weeks. Some clean virgin material from excavation sites will, therefore, be imported to make up the shortfall."

Section 2.3.2 (Construction of Bunds) of the Draft Management Plan (Stages 1 and 2, Years 1 to 5), within Volume 3 of the Environmental Impact Statement Volumes 1, 2 and 3, for the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012, states the following: -

"There will be insufficient overburden in stockpiles and in-situ on the site for the construction of the bunds and the capping of the old tailings pond at the eastern end of the site. It will be necessary, therefore, to import some clean material for the construction of bunds".

Having regard to Section 4.7 (Source of Materials) and Section 2.3.2 (Construction of Bunds) contained within the Environmental Impact Statement, for the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012, Council considers development consent was granted via proceedings No. 10021 of 2014 to permit the importation of Virgin Excavated Natural Material (VENM) for the construction of the noise bunds and the capping of the old tailings pond at the eastern end of the site.

However, the Land and Environment Court Proceedings No. 10021 of 2014 and associated court order did not specifically mention the quantity of material required for importation to complete the earthworks.

It is considered the quantity of fill and associated impacts has not been adequately addressed by the applicant.

Condition 4.7 of the Consent Order requires a Construction Traffic Management Plan (CTMP) to be prepared to ensure that minimum impact to the operations of the road network is caused during construction activities. The CTMP shall be submitted to Council for approval prior to any construction activities occurring on the site.

Comment: First works have commenced on site, however the construction phase has not. Conditions previously imposed as they relate to construction period remain unchanged. The CTMP has not yet been provided to Council for approval.

Adverse impact to air quality / dust.

Comment: Issues relating to the importation of ENM in addition to VENM have been reviewed by Councils Environmental Officer, wherein the proposed modification is supported subject to the screening of incoming loads and the testing of materials in accordance with the *ENM Order and Exemption 2014*. The EPA has also provided a number of consent conditions (General Terms of Approval) relating to the importation of ENM. It is not considered that the addition of ENM will alter air quality or dust impacts.

Conditions relating to the quarry Management Plan (which includes air quality, stabilisation and sediment control standards) remain unchanged.

The Company that owns the quarry also owns the NATA registered soil testing facility. The information supplied to support the application was written by a Company with a vested interest in the quarry.

Comment: Development Consent No. 42409 contains conditions that must be adhered to throughout all stages of the quarries operation. These remain unchanged. Council cannot direct/ or restrict any company or organisation from providing evidence demonstrating compliance with conditions of development consent, or providing supporting information associated with the subject modification application.

Wisemans Ferry Road cannot support the required truck movements.

Comment: Section 3.7 (Safety) within Volume 1 of the Environmental Impact Statement the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012, states the following: -

"The risks associated with heavy traffic entering Wisemans Ferry Road from the quarry have been assessed by traffic engineers and road works for the intersection of Wisemans Ferry Road and the access road designed … The design involves, among other things, setting the gate further into the property to allow for the length of a truck-trailer

combination and improved road verges. All heavy vehicles leaving the site will be required pass through a wheel wash to remove quarry debris. All vehicles will be required to stop before entering Wisemans Ferry Road.

Wisemans Ferry Road has been used extensively for heavy traffic hauling sand from this and other quarries and servicing the needs of rural properties for many years. The contribution that an operating Rindean Quarry would make to the traffic load and traffic risks in the longer term is assessed in Section 5.10."

Section 5.10.3 (Impact Assessment) within Volume 1 of the Environmental Impact Statement the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012, states the following: -

"Until December 2003 when the previous quarry operation ceased, between five and ten loads of sand per week day were hauled from the quarry. This involved 10 to 20 tuck movements through the quarry gate. Some quarry traffic occurred on Saturday mornings.

Overall, the noise impacts of truck movements are likely to be similar to or slightly greater than those of the past. The new quarry operation is expected to create up to 10 loads per week-day at a production rate of 75,000 tonnes per annum and 20 loads per week-day at the maximum production rate of 150,000 tonnes per annum. This will involve 20 and 40 truck movements through the gate respectively. Saturday morning movements are expected to be approximately half of the week-day rate.

Trucks will operate with greater frequency than prior to December 2003, although the majority of trucks in future can be expected to be modern, larger and quieter vehicles. Improvements to the access road will mean less chassis noise from empty vehicles. Other vehicular traffic into the quarry will be relatively infrequent and of significantly lesser impact. The local road network has adequate physical capacity to cater for the additional traffic (pers. comm. A. Snelson, Gosford City Council).

The spread of vehicle movements across the day is also likely to be similar to past operations. There will be a peak in the earlier part of the morning with a lower frequency of movements through the rest of the day. This pattern will be driven by market demand.

On leaving the quarry, most trucks are expected to turn right on to Wisemans Ferry Road as this provides the most direct route to the F3 Freeway. Some with Somersby industrial area and Gosford destinations will turn to the left.

The increase in traffic on local roads will be incremental and relatively small. The increase is likely to be between 20 and 30 movements per day at full production above the pre-December 2003 movement rate. A dilapidation report for the road was prepared for and is held by the Gosford City Council.

Access to the quarry will be improved during the construction period. The improvements will include (Figures 11, 12 and 14):

- *strengthening of the Wisemans Ferry Road shoulder and sealing of the access road from the road shoulder, including the fillets;*

- *construction of a drive-through wheel wash approximately 75 metres inside the gate and sealing of the access road to prevent sand and clay being carried on to the Wisemans Ferry Road;*
- *installation of a new gate to deter unauthorised after hours access. The gate will be set back from the road to allow clearance for a truck trailer combination to stop with ample clearance; and*
- *installation of stop signs at the quarry entrance for traffic leaving the quarry."*

The applicant has been asked to provide details of the quantity of material to be brought onto the site for the construction of the noise mounds. The Traffic Management Plan prepared by s|b|m|g Planning dated 26 June 2017 confirms that 330,000 tonne of material is to be brought onto the site. Council's Engineers have confirmed that this is equivalent to 10,313 truck loads.

When combined with the 4 week noise exceedance window (61 hours per week totalling 244 hours) this is equivalent to 42 trucks entering and leaving the site per hour (a total of 84 truck movements per hour).

It is considered the quantity of imported fill and associated impacts on the surrounding road network during the construction period has not been adequately addressed by the Applicant.

The Traffic Management Plan in the EIS states only 20 loads per day maximum is allowed. This is based on 30 tonnes per load.

Comment: The Traffic Management Plan in the EIS, refers to the operating of the quarry when extracting, not in the initial construction phases. Section 3.8 (Transport) within Volume 1 of the Environmental Impact Statement the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012, states the following: -

"For an annual production of 75,000 tonnes per annum, an average of 10 full load deliveries (approximately 30 tonnes each) would be made per day or approximately one per hour. At full production of 150,000 tonnes per annum the averages would be 20 loads per day or two per hour. The transport of product will continue throughout the day although the frequency of despatches is likely to be greater in the early part of the operating day to meet the demands of markets and to accommodate road congestion. Deliveries to the site will be few, the principal ones being diesel fuel, other consumable products and materials for rehabilitation."

As detailed elsewhere in this report, inadequate information has been provided with regard to the impacts of truck movements during the construction period.

The Traffic Management Plan in the EIS, provides for a maximum of 20 trucks a day (30 tonnes per load). So how does the current operator intend to bring in 140,000 cubic metres of soil which equates to over 5,000 truckloads of soil in 4 weeks? Apart from the fact that Wisemans Ferry Rd is inadequate to take this many trucks in such a short period of time (4 weeks), there is no mention of 5000 truckloads in the EIS or Quarry Management Plan for this many trucks.

Comment: As detailed elsewhere in this report, inadequate information has been provided with regard to truck movements during the construction period.

Request the soil closest to dwellings is sourced from the Quarry or be imported VENM for the safety of our family (certified by an independent certifier).

Comment: Appropriate conditions are recommended to ensure the screening of incoming loads and the testing of materials in accordance with the *ENM Order and Exemption 2014*. To specifically require VENM and not ENM in some areas is not considered warranted.

Landfill is prohibited.

Comment: "Fill" is defined within GLEP 2014 as:

"means the depositing of soil, rock or other similar extractive material obtained from the same or another site, but does not include:

1. *the depositing of topsoil or feature rock imported to the site that is intended for use in garden landscaping, turf or garden bed establishment or top dressing of lawns and that does not significantly alter the shape, natural form or drainage of the land, or*
2. *the use of land as a waste disposal facility."*

Fill, as defined above is prohibited in the RU1 Primary Production Zone. However, the subject importation of fill is ancillary to an approved and permissible use, being an extractive industry, and in this regard, the subject modification is considered permissible.

No mention of how they intend to build the Southern bund (East) where there is approx. 4-5m of land to build an 18m wide earth bund. This land runs along the current 30m deep excavation pit which might be why the quarry requires the huge quantity of soil. However, there are no supporting documents mentioning filling in the existing excavation pit to build the Southern (east) bund wall.

Comment: The width of the acoustic bunds as approved will remain at 12.4 metres.

At its most narrow junction, a width of approximately 7.5 metres exists between the sites southern boundary fence and the existing excavation pit.

Given the above, it would appear there is inadequate area to build the noise bund in this location and extensive filling and shoring of the adjoining excavation pit would be required. The applicant has advised that some filling to the quarry wall will be required to support the bund in this location. Refer to Figure 3.

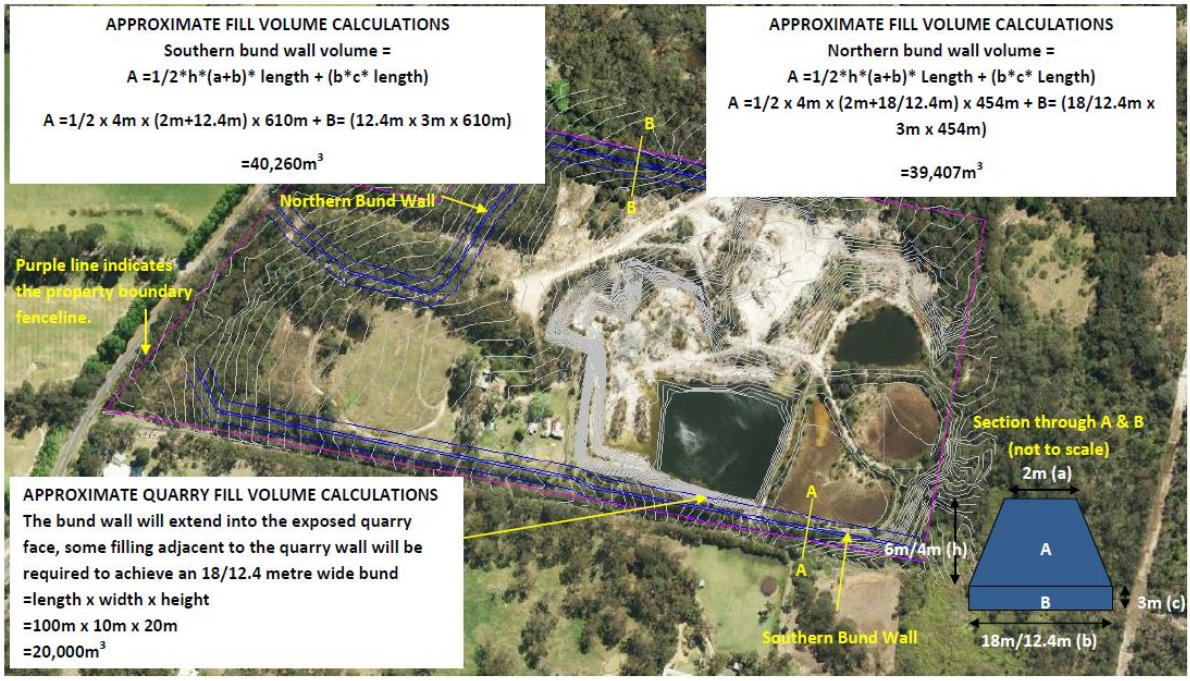


Figure 3: Approximate Fill Volume Calculation Plan

Insufficient information has been provided with regard to the extent of fill required in this location and associated construction work.

Issue: The bus stop where school children are dropped off each afternoon is just across the road from the Quarry entrance.

Comment: Condition 10.6 of the consent remains in place:

"10.6 Prior to commencement of extraction operations, the Applicant shall seek the approval of the Local Traffic Committee, and, if approved, relocate the bus stop at the quarry operator's cost."

Any safety or usability issues will be addressed before the commencement of extraction operations.

Issue: Will Council guarantee each truck load contains only ENM and no illegal materials?

Comment: In the event the subject application is favourably determined, appropriate conditions will be imposed to ensure the screening of incoming loads and the testing of materials in accordance with the *ENM Order and Exemption 2014*.

Issue: Will Council make sure that the allowed operating hours is compatible with the needs of the surrounding residents and their children?

Comment: The hours are as determined by the General Terms of Approval as issued by the EPA.

In QLD, similar importation of so called 'clean' soil has resulted in the simultaneous importation of weeds seeds. This has resulted in an ongoing and expensive weed management programme paid for by the local council who allowed this project to go ahead.

Comment: Rehabilitation on the site is to be maintained as per development consent conditions 7.1 and 7.2 which reflect those requirements as detailed in the EIS. Section 4 .4 (A Rehabilitation Plan) within Volume 1 of the Environmental Impact Statement the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012, states the following: -

"A Rehabilitation Strategy and Landscape Management Plan was prepared in compliance with the consolidated conditions of consent and approved by the Gosford City Council 2011. That plan, which describes the philosophy, strategy and methodology for rehabilitation and landscape management, will guide the future rehabilitation and vegetation management for the life of the quarry. It forms part of the quarry management plan (Volume 3, Part 6.3).

Rehabilitation and landscape management planning is based on advice from an independent specialist in native flora revegetation (Global Soils). Detail of that advice is contained in the Rehabilitation Strategy and Landscape Management Plan. Other specialists will be engaged, as required, to guide the implementation of the rehabilitation program, monitor the effectiveness of rehabilitation and to advise on the need for changes to the program when and where necessary."

If the soil is contaminated this could pollute the waterways of the Central Coast and get into the drinking supply.

Comment: Council's mapping indicates that the subject site does not fall within the Mooney Dam drinking water catchment. The site drains to the east and is within the Narara Creek Catchment which is not utilised for drinking water.

Potential impacts to groundwater and surface water from the quarry operations were discussed within the Environmental Impact Statement and assessed by the Court.

The proposed earthen noise bunds will be constructed from Excavated Natural Material (ENM) and Virgin Excavated Natural Material (VENM). ENM is naturally occurring rock and soil including sandstone, shale and clay that has been excavated from the ground and contains at least 98% (by weight) natural material. It does not include any material from a contaminated site, acid sulphate soils or material that contains asbestos. In accordance with the ENM Order and Exemption (2014), before being transported to the site, ENM must be sampled, tested and contain contaminant levels less than the adopted criteria. This is to ensure that the material is clean and suitable for use as engineering fill.

Any potential impacts to downstream surface waters would be limited to sediment leaden runoff from the bunds during earthworks. These impacts will be mitigated via erosion and sediment controls and the bunds will be permanently stabilised with grass or vegetation to minimise erosion.

CONSIDERATION

Pursuant to Section 96 AA (1) EP&A Act 1979, the consent authority is required to have regard to the following matters:

(a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and

(b) it has notified the application in accordance with:

(i) the regulations, if the regulations so require, and
(ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and

(c) it has notified, or made reasonable attempts to notify, each person who made a submission in respect of the relevant development application of the proposed modification by sending written notice to the last address known to the consent authority of the objector or other person, and

(d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.

In determining an application for modification of a consent under this section, the consent authority must also take into consideration such of the matters referred to in section 79C (1) as are of relevance to the development the subject of the application.

Response

- Is the proposed development as modified substantially the same development approved by Council?

Section 96 AA of the EP&A Act 1979 provides that a consent authority may, on application being made by the applicant, modify a development consent if it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted.

The proposed modifications to the bund construction material can be approved under Section 96AA of the EP&A Act 1979 as the bunds were subject of and approved within the original application. However, concern remains with regard to the quantity of imported fill and associated truck movement and related impacts.

- Whether the application was notified in accordance with the relevant regulations and any submissions were made concerning the proposed modification.

The development was notified in accordance with the provisions of Division 5 Public Participation – designated development of the EP&A Regulation and GDCP 2013. The proposal was notified between 4 November 2016 and 5 December 2016. A notification was sent to those persons who made a submission to the original development application in accordance with S96 AA of the EP&A Act 1979.

The proposal was further notified between 31 March 2017 and 2 May 2017 in accordance with the provisions of Division 5 Public Participation – designated development of the EP&A Regulation and GDCP 2013.

Following this notification period, the applicant amended the proposal so as to revert back to that previously notified between 4 November 2016 and 5 December 2016.

In view of the above, it is considered the proposal has been notified in accordance with S96 AA of the EP&A Act 1979, Division 5 Public Participation – designated development of the EP&A Regulation and GDCP 2013.

128 submissions were received in relation to the first exhibition and 64 in response to the second exhibition period. The issues raised in these submissions are addressed elsewhere in this report.

- Any relevant considerations under Section 79C (1) of the EP&A Act 1979.

It is considered that the proposed modifications may have a significant impact upon the properties in the near vicinity of the site and along the identified truck route. This is discussed in detail throughout this report.

Further consideration is provided below with regard to the relevant planning provisions.

Applicable Planning Controls:

The following planning policies and control documents are relevant to the development and were considered as part of the assessment.

- Environmental Planning & Assessment Act 1979 – Section 79C
- Environmental Planning and Assessment Regulation 2000
- Protection of the Environment Operations Act 1997
- Roads Act 1997
- Rural Fires Act 1997
- Water Management Act 2000
- State Environmental Planning Policy (State and Regional Development) 2011
- Sydney Regional Environmental Plan (SREP) No 8 (Central Coast Plateau Areas)
- Sydney Regional Environmental Plan (SREP) No 9 - Extractive Industry (No 2-1995)
- Sydney Regional Environmental Plan (SREP) No 20 - Hawkesbury-Nepean River (No 2 - 1997)
- State Environmental Planning Policy (SEPP) No. 55 – Remediation of Land
- Gosford Local Environmental Plan 2014
- Gosford Development Control Plan 2013

Draft Environmental Planning Instruments:

No draft Environmental Planning Instruments apply to this application.

State Environmental Planning Policies:

Sydney Regional Environmental Plan No 8 (Central Coast Plateau Areas) (SREP 8)

SREP 8 aims to provide environmental protection for the Central Coast plateau areas and provide a basis for evaluating competing land uses. SREP 8 seeks to encourage use of land of high agricultural capability for that purpose and as much as possible and direct development for non-agricultural purposes to land of lesser agricultural capability.

The SREP also aims to protect regionally significant mining resources and extractive materials, enable development of extractive industries in specified locations, protect natural ecosystems and opportunities for wildlife movement and discourage rezoning that would permit rural-residential development.

The subject land is not identified as a resource of regional significance, however, an extractive industry is permissible with consent.

Prior to quarrying operations, the site was classified as agricultural class 3-4, which is suitable for crops and pasture. However the site is no longer suitable for agricultural use due to past quarrying operations. Once the quarry operations are completed, rehabilitation of the land could return to agricultural capability.

Sydney Regional Environmental Plan No 9 - Extractive Industry (No 2-1995) (SREP 9)

SREP 9 aims to facilitate the development of extractive resources in proximity to the population of the Sydney Metropolitan Area by identifying land which contains extractive material of regional significance. SREP 9 also includes restrictions on development in the vicinity of extractive resource sites. These provisions are designed to avoid sterilisation of quarry resources and prevent new development, such as residential land use too close to a quarry, which might result in restrictions on quarry operations as a result of dust, noise and other quarry impacts.

Sydney Regional Environmental Plan No 20 - Hawkesbury-Nepean River (No 2 - 1997) (SREP 20)

SREP 20 applies to land which falls within the catchment of the Hawkesbury-Nepean River. The subject site is not located within a catchment area, however is located directly east of the Mooney Dam Catchment (Figure 3).

Figure 3: Mooney Dam Catchment

The subject land drains to Narara Creek which drains into Brisbane Waters.

The potential relocation of the bus stop and road shoulder works may result in disturbance of land which falls to the west however, this impact is considered minimal.

Issues relating to managing any impact to ground water were considered originally by the NSW Office of Water, wherein specific conditions were imposed, and remain in place.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

SEPP 55 aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. Under Clause 7 of SEPP 55, it must be considered as to whether the land is contaminated, and if so, is it satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out.

The site has been mapped on Council's internal use mapping as being potentially contaminated as 'Mining and extractive industries' are listed as a potentially contaminating activity under the SEPP 55 Planning Guidelines (see Figure 4). The site is not listed as significantly contaminated under the *Contaminated Land Management Act 1997* and is not subject to any Orders or Notices under this Act which is administered by the NSW EPA.

Figure 4: Contaminated land

Further consideration is provided below pursuant to Clause 7 within SEPP:

(1) A consent authority must not consent to the carrying out of any development on land unless:

(a) it has considered whether the land is contaminated, and

Response:
The contamination status of the land has not been investigated however the current and previous land use activities have the potential to cause land contamination.

(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and

Response:
The proposal is not for a change in use of the land and the land is considered suitable for the ongoing use.

VENM is not classified as 'waste' under the *Protection of the Environment Operations Act 1997* (POEO Act) and ENM is an exempt type of 'waste' that is permitted to be used as engineering fill due to it being tested and confirmed to not contain any contaminants of concern for human health or the environment.

Furthermore, the areas of the approved bunds have not been actively quarried, so would be unlikely to be contaminated. Any potential contamination would be in areas of active quarrying, chemical storage or machinery re-fuelling.

However, it is noted a section of southern (east) bund wall will be located partly in an existing excavation pit. It is anticipated that extensive filling and shoring of the adjoining excavation pit would be required. In this regard, a Stage 1—Preliminary Investigation in accordance with Section 3.4.1 of the SEPP 55 Planning Guidelines is considered appropriate. The main objectives of a preliminary investigation are to identify any past or present potentially contaminating activities, provide a preliminary assessment of any site contamination and, if required, provide a basis for a more detailed investigation.

(c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

Response:
The land will be remediated following completion of the extractive industry – at the end of the quarry lifespan.

Gosford Local Environmental Plan 2014

Permissibility
The subject site is zoned RU1 Primary Production under GLEP 2014.

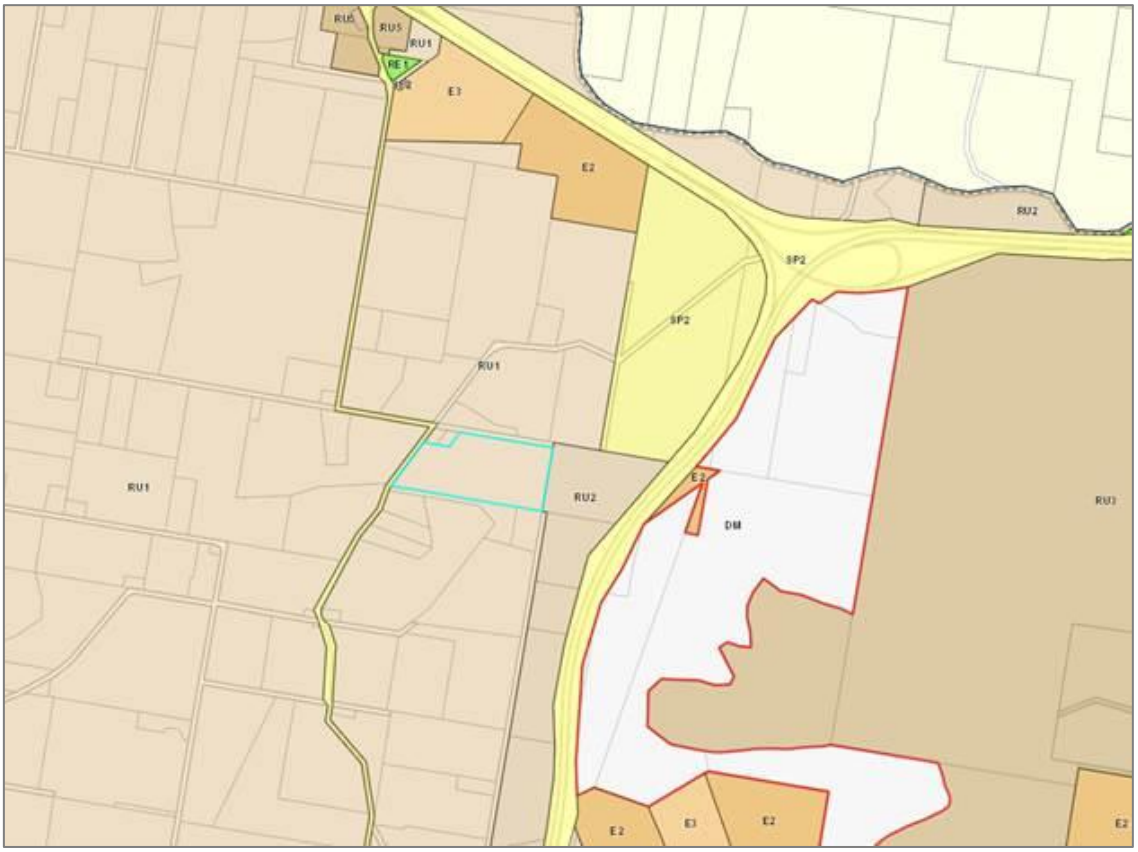


Figure 5: GLEP 2013 Zoning extract – showing site is zone RU1 Primary Production (site shown edged in blue)

The proposed development is defined as extractive industries, which is permissible in the zone with consent.

Zone RU1 Primary Production

The objectives for the RU1 Primary Production are:

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To ensure that development is compatible with the desired future character within the zone.*
- *To protect biodiversity, water catchments, water quality, soil conditions and important ecosystems, such as streams (and associated riparian areas), sedgelands, estuaries and wetlands, from inappropriate development and land management practices.*
- *To ensure that the plateau remains free from land uses that may sterilise sustainable primary production and natural resource use and to minimise potential incompatible land uses.*

Due to the environmental and amenity impacts detailed throughout this report, the proposed development is considered incompatible with the immediate context, and does not promote or reinforce the desired future character of the zone. Further, it does not minimise conflict with land uses in the zone.

Environmental Planning and Assessment Regulation 2000

The approved development fell within the parameters of Clause 19, Schedule 3 of the *Environmental Planning and Assessment Regulation 2000,* wherein certain extractive industries are considered designated development.

Clause 35 & 36 within Schedule 3 (Part 2 Are alterations or additions designated development?) identifies the following: -

> *35 Is there a significant increase in the environmental impacts of the total development?*
>
> *Development involving alterations or additions to development (whether existing or approved) is not designated development if, in the opinion of the consent authority, the alterations or additions do not significantly increase the environmental impacts of the total development (that is the development together with the additions or alterations) compared with the existing or approved development.*
>
> *Note. Development referred to in this clause is not designated development for the purposes of section 77A of the Act. This means that section 98 of the Act (Appeal by an objector) will not extend to any such development even if it is State significant development.*
>
> *36 Factors to be taken into consideration*

In forming its opinion as to whether or not development is designated development, a consent authority is to consider:

(a) the impact of the existing development having regard to factors including:

(i) previous environmental management performance, including compliance with the conditions of any consents, licences, leases or authorisations by a public authority and compliance with any relevant codes of practice, and
(ii) rehabilitation or restoration of any disturbed land, and
(iii) the number and nature of all past changes and their cumulative effects, and

(b) the likely impact of the proposed alterations or additions having regard to factors including:

(i) the scale, character or nature of the proposal in relation to the development, and
(ii) the existing vegetation, air, noise and water quality, scenic character and special features of the land on which the development is or is to be carried out and the surrounding locality, and
(iii) the degree to which the potential environmental impacts can be predicted with adequate certainty, and
(iv) the capacity of the receiving environment to accommodate changes in environmental impacts, and

(c) any proposals:

(i) to mitigate the environmental impacts and manage any residual risk, and
(ii) to facilitate compliance with relevant standards, codes of practice or guidelines published by the Department or other public authorities.

In consideration of Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*, including Clause 35 and 36, and the extent of information supporting the subject modification application, concerns remain as to whether the amended development will significantly increase the environmental impacts of the total development.

The relevant issues with regard to the subject modification application are addressed in detail below.

Importation of ENM

Issues relating to the importation of ENM have been reviewed by Councils Environmental Officer, wherein the proposed modification is supported subject to the screening of incoming loads and the testing of materials in accordance with the *ENM Order and Exemption 2014*. The EPA has also provided a number of consent conditions relating to the importation of ENM.

With regard to the use of ENM and rehabilitating the site to enable opportunities for agriculture following cessation of the extractive industry, the NSW Department of Primary Industries (NSW DPI) provided the following comments:-

"The main concerns for NSW DPI include any possible implications to Agri-Business as a consequence of the sourcing the ENM, and how the ENM will be used as part of the site rehabilitation. In this regard please note previous advice from NSW DPI in response to the 2012 DA application. Specifically, the land was previously assessed as agricultural land class 3-4 – depth to rock being 0.5 to 1m and suitable for crops and pasture (equivalent to agriculture land suitability class 3 - attachments). Rehabilitation of the site should provide the option for returning the landscape to enable opportunities for agriculture.

NSW DPI recommends that Central Coast Council (CCC) request the applicant provide detail on the type and source location of the ENM, and how it will be used for rehabilitation with particular attention to the reinstatement of topsoil that is consistent with the previous landform as described above. This will allow NSW DPI to undertake a proper review of the proposal."

On 12 July 2017, the additional information received at Council as requested and referred to NSW DPI for comment.

On 7 August 2017, comments were received from NSW DPI, wherein it was advised that the proposals Fill Importation Protocol needs to include monitoring for any biosecurity animal or plant material hazards. Furthermore, that the final landform of the topsoil material needs to be of sufficient depth to enable drainage for plant growth. Given the recommendation of this report, this additional information was not requested. It is also noted that, these matters could be addressed via the imposition of appropriate conditions of development consent.

Acoustic Bunds

The Environmental Impact Statement Volumes 1, 2 and 3, for the Rindean Quarry Somersby, prepared by Coastplan Consulting, dated May 2012 did not consider noise/ traffic impacts associated with truck movements on public roads as part of bund construction/rehabilitation works, as the specific details on where material would be sourced to construct bunds was not provided.

However, during the assessment of the original development application, it is noted a Site Noise Management Plan (SNMP) was submitted that aimed to minimise the disturbance to the local community. The noise levels during Stage 1 site re-establishment were predicted to exceed the project specific assessment criteria and predicted to occur during the construction of the boundary noise mounding. With the mounds constructed, modelling has shown that the noise levels can be controlled and satisfy the recommended project specific noise criteria.

The SNMP also assessed the proposals projection to generate four truck movements per hour on Wisemans Ferry Road. Road noise traffic was modelled and the predicted noise levels satisfied the noise criteria for external noise exposure. Notwithstanding this, it was unclear how many truck movements were proposed per hour for the importation of material and it may vary during the construction works.

On 6 June 2017, Council received confirmation that the subject modification application had been amended so as to delete any changes to the location of the noise bunds as originally approved.

Given the extent of fill required has been clarified by the subject modification, the applicant was requested to provide additional details of truck movements as they relate to the importation of fill.

On 12 July 2017, Council received a Traffic Management Plan (TMP), prepared by s/b/m/g, dated 26 June 2017, relating to the importation of fill, being ENM or VENM. It was contended in this TMP that 9422 truckloads (approx. 330 000 tonne of material) will be required. However, the time frame for the proposed importation of fill via 9422 truck movements was not addressed.

Council's Engineers have confirmed that the truck movement calculation should be based on 32 tonnes per truckload. On this basis, 10,313 loads would need to enter and leave the site during the construction phase.

The additional information received at Council on 12 July 2017, was referred to NSW Road and Maritime Services (NSW RMS) for comment. Comments remain outstanding from NSW RMS, however issues with regard to the management of these truck movements remain unresolved.

Whilst remaining unchanged, the location and size of the approved noise bunds has also been queried by the community. It is also noted that the applicants most recent fill calculation plan, provided at Figure 2 of this report, identifies acoustic bunds to a width of 12.4 and 18 metres, heights of 4 metres and 6 metres, and a peak width of 2 metres.

For clarification purposes, Consent Condition 4.3 refers to two site plans showing the location of the noise bunds and the approved Environmental Impact Statement includes a plan and design of the noise bunds. All three documents and the wording of Consent Condition 4.3 contain slightly different design/configuration of the bunds.

Development Consent Condition 4.3 states:

4.3 Acoustic barriers shall be constructed at locations and with heights of 4 metres or 6 metres as identified plans numbered 6175 for stages 1 to 4 of the quarry's operation, with the exception that the southwestern bund is to be constructed in accordance with plan 6175 issue D (figure 5).

1) An acoustic barrier may be of a trapezoidal earthen construction, a barrier fence or a combination of an earthen mound topped by a barrier fence. Any trapezoidal form shall have a minimum crest width of one metre. The mounds and barrier fences shall be constructed according to sound engineering and acoustic practice.

2) The acoustic mounds shall be stabilised in accordance with the Rehabilitation and Landscape Management Plan. For every existing tree greater than 3m in height removed within the acoustic bund wall area, three advanced native trees as determined by the landscape architect are to be replaced.

3) The landscaping and tree planting of the acoustic mounds shall be maintained for the life of the quarry.

4) Across the southern boundary of the quarry, the height of the bund can be reduced and the height of the barrier fence commensurately increased if necessary to maintain native vegetation.

5) If the height of the barrier fence exceeds two metres it is to be vegetated, or vegetation planted on the external side of the fence to mitigate its visual impact to the landscape architect's requirements.

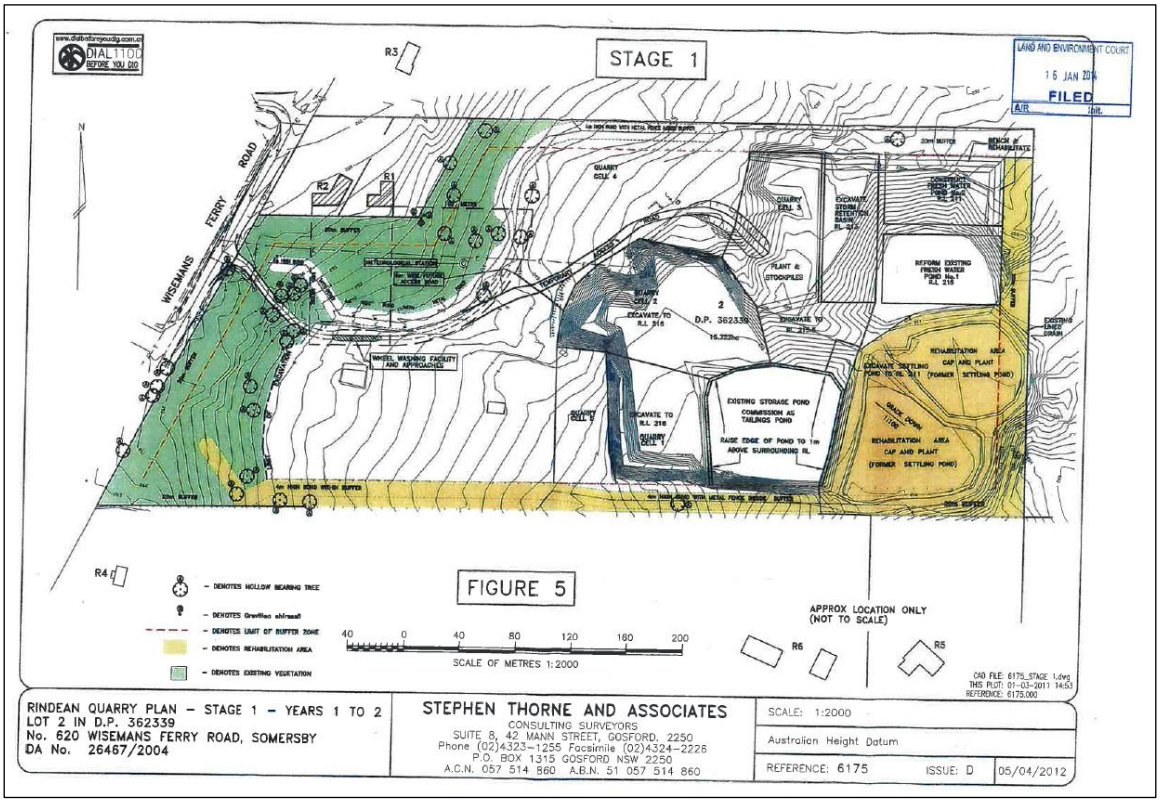


Figure 6: Site Plan 6175 Issue D showing location of southern noise bund

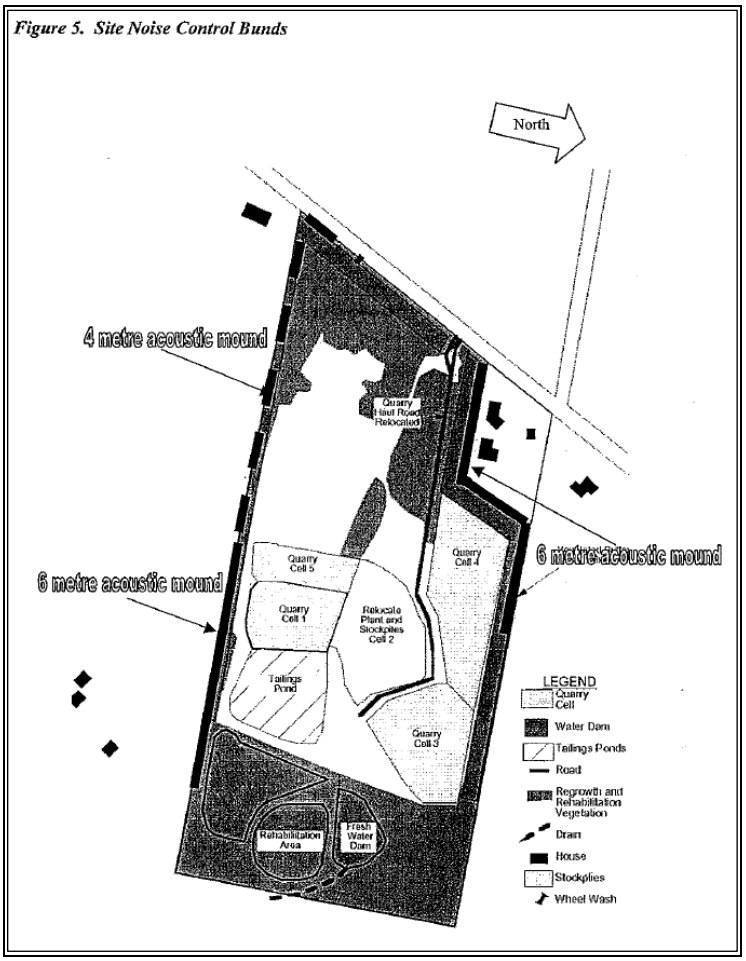


Figure 7: Plan of noise bunds from EIS

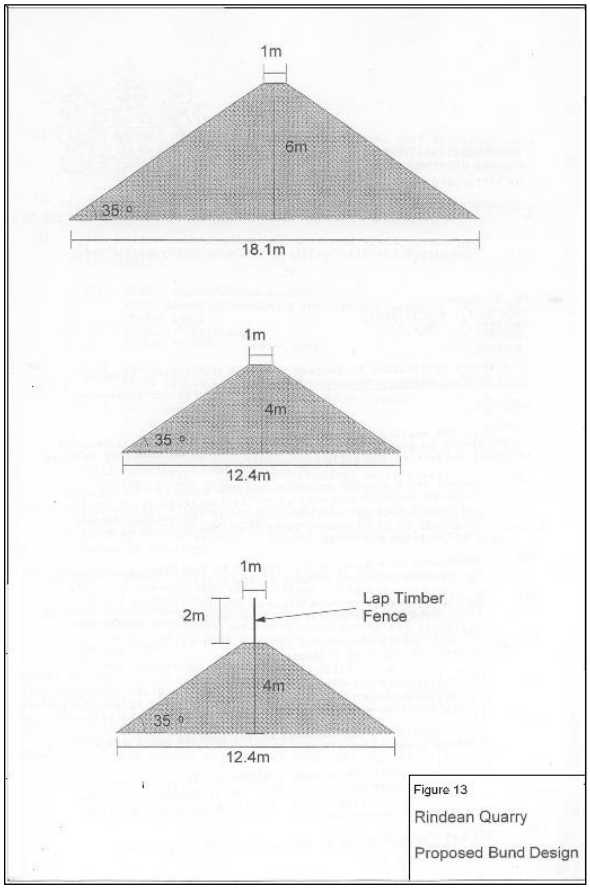


Figure 8: Design of noise bunds from EIS

It is confirmed the court granted approval for 4 metre high, 12.4m wide bunds at the base, with a 1m wide peak and with 2m high fencing on top. The location of the approved noise bunds is as the attached court approved plans, with the exception of the south western bund which has been approved as per Figure ## of this report.

The applicant contends, the southern bund wall would require 40,260m^3 and the northern bund wall would require 39,407m^3. This is in addition to the 20,000m^3 for the rehabilitation, this equates to approximately 100,000m^3, as per the amended calculation plan. It is pertinent to note that the amount of soil required is an estimate only and will be subject to variations depending on the depth of stable substrate and compaction specifications of the material used. Notwithstanding this, no objection is raised to the importation of ENM and VENM for construction of noise bunds in accordance with the court approval.

However, at its most narrow junction, a width of approximately 7.5 metres exists between the sites southern boundary fence and the existing excavation pit (see figure 4)

Given the above, it would appear there is inadequate area to build the noise bund wall in this location and extensive filling and shoring of the adjoining excavation pit would be required. The applicant has advised that some filling to the quarry wall will be required to support the bund in this location. It is concluded insufficient information has been provided with regard to the extent of fill required in this location and no details have been provided to confirm how the construction work will be undertaken.

It is noted that it might be sufficient to have a lower more narrow bund in that area in order to reduce the filling of the excavation pit, however, any amendment to the size and location of the noise bund would need to be sought pursuant to a Section 96AA modification application and be supported by an accompanying acoustic assessment.

As no such amendment has been proposed, this has not been considered in this assessment.

Gosford Development Control Plan 2013

Chapter 2.1: Character

The subject site is located in Somersby (Agricultural Plateau & Hillsides), wherein the existing character identifies that the quarrying of hard rock and sands occurs on a number of former agricultural properties. The desired character of the area is quoted in part below:-

> *"These areas should remain productive rural landscapes that accommodate broad-hectare agricultural or livestock activities, together with a scattering of residential and small-scale tourist activities that do not interfere with the preferred primary-productive uses. Future development and land management, including major developments such as extractive industries, should not compromise scenically-distinctive qualities of backdrops to Gosford City's major tourist routes."*

It is not considered that the importation of ENM as well as VENM for the initial construction phase of the project will compromise the scenically distinctive qualities of the area. In fact upon cessation of the quarries use, being approximately 20 years, the land will be rehabilitated in accordance with the requirements of the original development consent, wherein agricultural uses will be viable.

Chapter 2.2: Scenic Quality

The subject site is contained within the Plateau geographic unit, and the Kulnura – Somersby, landscape unit. It is not considered that the importation of ENM as well as VENM for the initial construction phase of the project will compromise the scenically distinctive qualities of the area.

Section 3.11.8.4: Pollution Control

This provision states the following:

a. *Noise*
   Any premises, machinery, or activity shall not give rise to an offensive noise to either residential or other industrial premises, and shall comply with the requirements of the Industrial Noise Policy of the Department of Environment and Climate Change. Noise should not be transmitted to adjoining incompatible land uses or be permitted to invade into areas within developments that require low noise levels. Where this is likely to be an issue, or where requested by the Council, an acoustic consultant's assessment and report is to be submitted.
b. *Air*
   Premises must comply with the requirements of the Protection of Environment Operations Act, 1997 and regulate the control of air impurity emissions as defined

It is considered that the pollution controls measures, identified above, have not be adequately addressed by the applicant.

Insufficient information has been provided to verify the noise and air quality impacts of importing 330,000 tonnes of material onto the site.

Likely Impacts of the Development (s79c (1)(b))

a) Context and Setting

The subject proposal supports the approved and permissible use of an extractive industry. However, concerns remain with regard to how the construction of the acoustic bunding will occur.

b) Built Environment

Insufficient information has been provided with regard to the extent of fill required adjacent to the southern site boundary and associated construction work.

c) Access and Transport

The quantity of imported fill and associated impacts on the surrounding road network and properties in the near vicinity of the site during the construction period has not been adequately addressed.

d) Natural Environment

In the event outstanding issues associated with truck movements during the construction period and the quantity of fill are addressed, it is considered that the development will not result in unacceptable impacts on the natural environment.

Suitability Of The Site For The Development (s79c (1)(c))

The development is considered to be in accordance with the desired future character of the area as envisaged by the GDCP 2013. However, concerns remain with regard to how the construction of the acoustic bunding will occur.

The Public Interest (s79c (1)(e))

If undertaken accordance with the General Terms of Approval as stated by the Environmental Protection Authority, it is considered the ability of the quarry to utilise ENM, as well as VENM, in the initial construction phase of the quarries operation will be in the public's interest.

The impacts of trucking 330,000 tonnes of material onto the site within a 4 week construction period window (resulting in 84 truck movements per hour) have not been adequately addressed. Community submissions confirm that concerns remain about the amenity, air quality, traffic and safety impacts of the proposal.

Planning Agreements

The proposed development is not subject to a planning agreement / draft planning agreement.

Development Contribution Plan

The proposed development is a development type that is not subject to S94 development contributions under the Contribution Plan. Therefore, no contributions are applicable.

Referrals

Internal Referral Body	Comments
Environmental Officer	Support the proposed modification to import ENM/ VENM. However, the extent of construction work/ fill in the existing excavation pit and associated environmental impact needs to be addressed by the applicant.
Traffic Engineer	Not supported, due to unresolved issues relating to truck movements.

External Referral Body	Comments
Roads and Maritime Services (RMS)	Although referred the matter for review, formal comments were not received from the RMS. However, it is noted that no objection was raised from RMS with regard to the original application.
Environment Protection Authority (EPA)	General Terms of Approval received.
Department of Primary Industries (Water) (DPI)	Although referred the matter for review, formal comments were not received from DPI (Water).
Department of Primary Industries (Agriculture) (DPI)	Comments were received at Council from NSW DPI on 7 August 2017. In the event the application was recommended for approval, it is considered the matters raised by DPI could be addressed via the imposition of appropriate conditions.

Political Donations

During assessment of the application there were no political donations were declared by the applicant, applicant's consultant, owner, objectors and/or residents.

Financial Impact

The recommendation does not impact on Council's financial position.

CONCLUSION

The proposal involves modifications to Development Application No. 42409/2012 to allow the importation of ENM on Lot 2 DP 362339, 620 Wisemans Ferry Road, Somersby.

Whilst the importation of ENM and VENM is supported in principle, environmental and amenity concerns remain with regard to anticipated truck movements. In addition, there is insufficient area on site to build the noise bund located adjacent to the southern boundary and extensive filling and shoring of the adjoining excavation pit would be required. Inadequate information has been provided with regard to the extent of fill required in this location and no information has been presented to Council confirming the extent of construction work in the existing excavation pit and associated environmental impact. Any associated environmental impact could be addressed through a Stage 1—Preliminary Investigation in accordance with Section 3.4.1 of the SEPP 55 Planning Guidelines.

In view of the above consideration, the subject modification application is recommended for refusal.

It is pertinent to note that the issue relating to the importation of fill to build the acoustic bunds and compliance with Condition 4.2 of the Consent will be required to be addressed prior to the construction period commencing on site regardless of the outcome of this subject modification application. However, it is considered the Applicant has been given adequate time to address concerns raised by Council with regard to the quantity of imported soil and associated truck movements and to further defer the matter is unwarranted.

Supporting Documents for Binding with consent

Covering Letter, dated 7 July 2017, ECM Doc No 24706999:

- Includes Traffic Management Plan prepared by s/b/m/g, dated 26 June 2017
- Includes updated Fill Calculation Plan

Attachments:

A Court Order DA 42409-2012

B Approved Plans DA 42409-2012

C Draft Conditions without Prejudice

ATTACHMENT A

Court Order DA 42409-2012

ATTACHMENT B

Approved Plans DA 42409-2012

ATTACHMENT C

Draft Conditions without Prejudice

Proposed Conditions of Consent Part 3:

1.. APPROVED PLANS AND SUPPORTING DOCUMENTATION

1.1. The development shall be carried out generally in accordance with:

a) the plans and supporting documents listed below (1.2) as submitted by the applicant; and
b) the conditions of this consent.

1.2. If there is any inconsistency between the documents referred to in this condition and the other conditions of this consent then the other conditions of this consent prevail to the extent of the inconsistency.

Supporting Documentation

Document	Title	Date
-	Environmental Impact Statement Volumes 1, 2 and 3, for the Rindean Quarry Somersby, prepared by Coastplan Consulting	May 2012
8151	Rindean Sand Quarry – Air Quality Assessment	17/7/2013
RGA Ref: 10509-601/1	Update of 2004 Hydrogeological Investigation	April 2014
-	Covering Letter	7 July 2017

Plans by Stephen Thorpe & Associates

Drawing	Description	Sheets	Issue	Date
6175	Quarry Plan Stage 1	1	E	16/10/2012
6175	Quarry Plan Stage 2	1	F	18/10/2012
6175	Quarry Plan Stage 3	1	E	23/10/2012
6175	Quarry Plan Stage 4	1	D	23/10/2012
6175	Indicative Final Landform	1	D	10/4/2012

2.. PRINCIPAL CONDITIONS

2.1. The operation of the quarry shall be carried out in accordance with the quarry management plan as approved by the Gosford City Council (the Council) from time to time.

2.2. A copy of the quarry management plan shall be kept on site for the duration of quarry's operation and be made available for inspection upon request by an authorised office of the Council.

2.3. The perimeter buffer areas and the limits of extraction shall be in accordance with the drawings numbered 6175 for stages 1 to 4 of the quarry's operation and recorded in the quarry management plan. Resource extraction is not to occur within:

1) a line 100 metres radius from any residence not associated with the quarry;
2) a line 20 metres from the northern and southern property boundaries; and
3) a line approximately 50 to 80 metres from the western boundary, as shown in Drawings 6175 for stages 1 to 4

2.4. The buffer areas will be maintained as areas of native vegetation. The acoustic bunds, the wheel wash and the access road may be constructed within the buffer areas in accordance with the quarry management plan.

2.5. Within the area of extraction the following excavation depths shall apply:

1) for the eastern section of the quarry across the areas identified as quarry cells 1, 2 and 3 no sand extraction is to occur below RL 215m AHD, except for the construction of a storm water retention basin, the depth of which shall not extend below RL 213m AHD, and freshwater ponds 1 and 2, and the depth of which shall not extend below RL 211m AHD;
2) for the central section of the quarry across the area identified as quarry cell 6 no sand extraction is to occur below RL 216m AHD; and
3) for the western section of the quarry across the area identified as quarry cell 7 no sand extraction is to occur below RL 217m AHD.

2.6. The hours of operation during the construction period shall be 7.00am to 5.00pm Monday to Friday and 7.00am to 1.00pm on Saturdays. No activities are to be undertaken on Sundays and public holidays except as allowed under Conditions 2.8 and 2.9.

2.7. The hours of operation after the commencement of sand extraction shall be 7.00am to 6.00pm Monday to Friday and 7.00am to 1.00pm on Saturdays. Resource extraction by ripping shall be limited to the hours of 8.00am and 3.00pm Monday to Friday. Saturday operations shall be limited to the loading and transport of product and the transport of material within the quarry and as allowed under Conditions 2.8 and 2.9.

No activities are to be undertaken on Sundays and public holidays except as allowed under Conditions 2.8 and 2.9.

2.8. Maintenance and pollution control activities may be undertaken outside the hours specified in Conditions 2.6 and 2.7 hours provided they are not audible at the residences at:

R1 630 Wisemans Ferry Road;
R2 628 Wisemans Ferry Road;
R3 2 Lackersteens Road;
R4 590 Wisemans Ferry Road
R5 596 Wisemans Ferry Road; and
R6 600 Wisemans Ferry Road.

2.9. The following activities may be carried out at the premises outside hours specified in Conditions 2.6 and 2.7:

1) the delivery of materials as requested by police or other government authorities for safety reasons; and
2) emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

In such circumstances the Applicant shall notify EPA and affected adjoining residents prior to undertaking the works, or within a reasonable period thereafter in the case of an emergency.

2.10. The maximum extraction is 150,000 tonnes of product sand per year (to commence from the date of consent) from the site.

2.11. Sand extraction under this consent is authorised for 20 years from the date that extraction is physically commenced.

2.12 The applicant must provide the Council with a bond, as security for compliance with the conditions of the consent, in the form of a bank guarantee for a face value of $250,000 within 28 days of physical commencement of the consent or prior to commencement of the Construction period, whichever comes first.

On each 10 year anniversary of this consent, the applicant must provide the Council with a replacement bond, as security for compliance with the conditions of the consent, in the form of a bank guarantee for a face value calculated in accordance with the relevant formula below:

<u>First ten year anniversary</u>

$250,000 + (average CPI x 10 years) = Replacement Bond Amount.

<u>Subsequent ten year anniversaries</u>

Replacement Bond Amount* + (average CPI x 10 years) = Replacement Bond Amount.

(*) being the immediately preceding Replacement Bond Amount.

Any bank guarantee provided by the applicant to the Council under this consent must not have an expiry date and be in a form acceptable to the Council.

If, at the end of the quarry's operation, the site is restored in the manner set down in the quarry management plan, the bond will be released to the applicant by Council,

In the event of a failure by the applicant to comply with the rehabilitation requirements of the quarry management plan, any costs incurred by the Council for the reasonable restitution of the site will be deducted from the bond. Any residual money from the bond after reasonable costs have been deducted will be payable to the applicant. If the costs of restitution are greater that the value of the bond, the Council may recover the additional costs and the costs of recovery from the applicant.

2.13. All other existing development consents for quarry operations that apply to the site are to be surrendered to the relevant consent authority within 3 months of the development authorised by this consent being physically commenced.

3.. FIRST WORKS

3.1. A prominent sign shall be erected at the quarry gate. The sign shall indicate:

a) the name of the business being conducted;
b) the name of the principal contact and telephone number at which that person may be contacted both during and outside of working hours; and
c) that unauthorised entry to the site is prohibited.

The sign shall be removed when the quarry operation had finished and the site had been rehabilitated.

3.2. The applicant shall establish and subsequently maintain and monitor a meteorological station in the vicinity of the development, to the satisfaction of the EPA.

The meteorological station shall as a minimum, be suitable to monitor the parameters specified in the air quality management plan. Monitoring of all parameters must commence prior to earthmoving activities being undertaken on the site. A copy of the monitoring report to be submitted to Council annually.

3.3. A 2 metre high security fence and security gate shall be erected around the property boundary. The fenced shall be continuous except for a main gate and emergency access

gates. At 50 metre intervals along the security fence signs shall be erected cautioning the presence of the open quarry with potential near vertical drops.

3.4. A registered surveyor shall record on the survey plan of the quarry the footprint of the approved sand extraction area, the locations of the hollow bearing trees identified as trees to be retained in the quarry management plan and the location of the meteorological station. A copy of this survey plan is to be submitted to the Council prior to the commencement of any earth works.

3.5. Prior to the commencement of any earthworks on site a coloured security web fence is to be placed around hollow bearing trees that are to be retained. Such fences shall be retained for the life of the quarry.

3.6. Upon completion of the safety fencing, a registered surveyor shall advise the Council by letter that the fences have been erected in accordance with these conditions.

3.7. Sediment control measures shall be installed sufficient to prevent contamination of run-off water from the site during construction.

4.. CONSTRUCTION PERIOD

4.1. The Council shall be advised of the starting date for and the expected duration of construction works (the construction period). Construction works are works associated with the construction and stabilising of the acoustic bunds, construction of the revised access from Wisemans Ferry Road, construction of the wheel wash and sealing of the access road. These works shall be completed during the construction period.

4.2. Construction work likely to generate noise exposure at the residences listed in clause 2.8 of this consent that exceeds the operational noise exposure targets set in the quarry management plan by more than 10dBA shall be identified prior to the start of the construction period. This work shall be conducted over a 4 week period subject to weather. The dates of this period shall be agreed between the Council and the operator of the quarry and if no agreement, as specified by Council.

The occupants of these residences shall be advised of the likely noise exposure during this period prior to it beginning. All reasonable efforts shall be made to minimise the extent and intensity of the noise exposure.

4.3. Acoustic barriers shall be constructed at locations and with heights of 4 metres or 6 metres as identified plans numbered 6175 for stages 1 to 4 of the quarry's operation, with the exception that the southwestern bund is to be constructed in accordance with plan 6175 issue D (figure 5).

6) An acoustic barrier may be of a trapezoidal earthen construction, a barrier fence or a combination of an earthen mound topped by a barrier fence. Any trapezoidal form

shall have a minimum crest width of one metre. The mounds and barrier fences shall be constructed according to sound engineering and acoustic practice.

7) The acoustic mounds shall be stabilised in accordance with the Rehabilitation and Landscape Management Plan. For every existing tree greater than 3m in height removed within the acoustic bund wall area, three advanced native trees as determined by the landscape architect are to be replaced.
8) The landscaping and tree planting of the acoustic mounds shall be maintained for the life of the quarry.
9) Across the southern boundary of the quarry, the height of the bund can be reduced and the height of the barrier fence commensurately increased if necessary to maintain native vegetation.
10) If the height of the barrier fence exceeds two metres it is to be vegetated, or vegetation planted on the external side of the fence to mitigate its visual impact to the landscape architect's requirements.

4.4. A coloured mesh safety fence shall be erected along the perimeter of areas where quarrying has created near vertical drops of more than 3 metres.

4.5. The applicant must upgrade Wisemans Ferry Road in accordance with the plans/specifications approved by the road authority in the vicinity of the quarry entry road. The required works are to be designed are as follows:

1) Rural Basic Right-turn treatment (BAR) intersection in Wisemans Ferry Rd at the access to the development, in accordance with Austroads "Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections."
2) Provision of double barrier line at the quarry access and extended to Lackersteens Road to prohibit overtaking of turning vehicles.
3) Provision of truck turning signs on Wisemans Ferry Road.
4) Installation of stop signs at the quarry entrance and Wisemans Ferry Road for traffic leaving the quarry.
5) The signage and line marking plan shall be approved by the Council Traffic Committee.

The pavement depths must be determined in accordance with Council's specifications and the following traffic loadings:

Name of Street	Traffic Loading (ESAs)
Wisemans Ferry Road	1×10^7
Quarry Access Vehicle Crossing	1×10^7

4.6. All work required to be carried out within a public reserve must be approved separately by Council, under Section 138 of the Roads Act 1993.

4.7. A Construction Traffic Management Plan (CTMP) shall be prepared to ensure that minimal impact to the operation of the road network is caused during construction activities. The CTMP shall be submitted to the Council for approval prior to any construction activities occurring on the site.

4.8. A drive through wheel wash shall be constructed adjacent to the access road in the location identified in drawing number 6175 for Stage 1 of the quarry's operation.

4.9. The access road shall be sealed from Wisemans Ferry Road to a point to the east of the wheel wash identified in the quarry management plan.

4.10. An impervious bund wall and floor is to be erected around any fuel tank on site. The bunded area shall have a capacity in excess of 110% of the total fuel storage to contain the fuel in the event of accidental spillage.

4.11. An application shall be submitted under the provisions of Section 68 of the *Local Government Act 1993* for a permit to install an on-site sewage management system.

4.12. If permitted by the landowners to do so, a dilapidation report shall be prepared by a suitably qualified person to establish a baseline condition for the houses located on the properties identified in drawing 6175 for Stage 1 of the quarry's operation;

R1	630 Wisemans Ferry Road
R2	628 Wisemans Ferry Road
R3	2 Lackersteens Road
R4	590 Wisemans Ferry Road
R5	596 Wisemans Ferry Road
R6	600 Wisemans Ferry Road

A copy of the report must be provided to the landholder and the Council within 14 days of it being received by the quarry operator.

4.13. Any Fill Importation Protocol must include monitoring for any biosecurity animal or plant material hazards.

4.14. The final landform of the topsoil material for the bund walls needs to be of sufficient depth to enable drainage for plant grown.

5.. QUARRY MANAGEMENT PLAN

5.1. The applicant shall prepare a Quarry Management Plan. The quarry management plan shall be the document which shall guide the operations of the quarry and against which the operations of the quarry will be assessed.

5.2. The Quarry Management Plan shall be submitted to and approved by the Council prior to the commencement of sand extraction.

5.3. The quarry management plan may be amended from time to time as a result of periodic reviews, or to facilitate compliance with these conditions, or to take into consideration actual site conditions, or as a result of monitoring of impacts.

5.4. A review of the performance of the quarry and the quarry management plan shall be conducted no later than 3 months before the end of each of Stages 1, 2, 3 and 4 of the quarry's operation in accordance with the requirements set down in the quarry management plan.

5.5. The quarry management plan, amended as required as a result of the review, shall be submitted to the Council for approval 3 months prior to the start of the subsequent stage. The Council will not unreasonably delay giving approval.

5.6. The quarry management plan shall incorporate steps to implement the conditions of this consent relating to operational matters as well as all regulatory and licensing requirements including those of the Council and the other government agencies with authority over the quarry's operations.

5.7. The Quarry Management Plan shall include:

1) a statement of the environmental principles and strategies that will be adopted in the quarry's operation;
2) a plan of the approved quarry site design and layout;
3) a copy of the registered survey plan for the quarry;
4) documentation defining and illustrating the various stages of operation from Stage 1 through to decommissioning and the completion of the rehabilitation;
5) a statement of the roles, responsibilities, authorities and accountabilities of all key personnel involved directly in the management of the quarry;
6) a schedule of monitoring, auditing and reporting documents;
7) an erosion and sediment control plan;
8) a ground water monitoring and management plan which takes into account the recommended conditions of consent issued by the NSW Office of Water (Schedule 4);
9) a surface water monitoring and management plan, including a plan for the management of stormwater, which takes into account the General Terms of Approval issued by the Environment Protection Authority (Schedule 3);
10) an air quality management plan which takes into account the General Terms of Approval issued by the Environment Protection Authority;
11) a noise management plan which takes into account the General Terms of Approval issued by the Environment Protection Authority;
12) a rehabilitation and landscape management plan including details of the rehabilitation to be achieved for proceeding from one stage to the next.
13) a traffic management plan;
14) a community relations plan.

5.8. The management plans required under this consent shall, where applicable;

1) provide detailed baseline data;
2) identify the predicted environmental risks and impacts of quarry operations and measures to monitor and counteract these risks and impacts;
3) identify statutory requirements, limits, performance measures and criteria and the measures that will be taken to ensure compliance;
4) identify performance indicators and the measures and criteria against which environmental management may be judged;
5) describe contingency measures to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
6) include a program to investigate and implement ways to improve the environmental performance of the project over time;
7) a protocol for managing and reporting and:
   - incidents;
   - complaints;
   - non-compliances with the conditions of this approval and statutory requirements; and
   - exceedances of the impact assessment criteria and/or performance criteria; and
8) a protocol for periodic review of the plan.

5.9. Groundwater monitoring shall be conducted in accordance with the schedule set down in the quarry management plan. Base line data for bores at houses R1 to R6, inclusive shall be established by measuring:

a) water levels over a sufficient period of time (minimum 2 seasons) to determine or predict natural climatic variations;
b) sustainable yields of each bore;
c) water quality for each bore;

if no continuing consent is provided by the land owner or occupier of any bore site to undertake these measures, or if there is interference with the measurement instrumentation to such an extent as to frustrate paragraphs (a), (b) and (c) above the obligation for that bore site to do so ceases.

In the event the yield or the quality of the water from the bores is adversely impacted by the operation of the quarry, then the operator shall make good the equivalent yield and quality in an appropriate way.

5.10. The groundwater management plan will include "make good" provisions for bores affected by the quarry's operation in accordance with Schedule 4 and the quarry management plan.

5.11. The noise management plan shall set down the noise exposure limits at premises listed in the plan and the conditions for noise management and monitoring. Noise monitoring shall be conducted at the sites listed in and in accordance quarry management plan.

5.12. The air quality management plan for the quarry shall be submitted to the Environment Protection Authority in conjunction with the application for an Environment Protection Licence under the *Protection of the Environment Operations Act 1997*.

5.13. The air quality management plan shall be implemented prior to the commencement of any dust generating activitie4s at the site.

5.14. The former quarry tailing pond in the South-Eastern corner of the site shall be rehabilitated prior to or at the end of Stage 1.

6.. QUARRY OPERATIONS

6.1. Quarry operations will be conducted in the stages and in the manner described in the quarry management plan.

6.2. No work is to commence on Stage 3 of the proposed quarry until an Aboriginal Assessment Permit under Section 90 of the *National Parks and Wildlife Act 1974* is obtained from the Office of Environment and Heritage to relocate the Aboriginal object identified on the site. Until such Aboriginal Heritage Impact Permit is obtained, the part of the site that contains the Aboriginal object is to be fenced to prevent access.

6.3. There shall be no blasting conducted, no sue of a crusher (other than crushing, including crushing by bulldozer trucks or screening in the course of processing the material), no percussive impact breaking nor percussive impact ripping equipment used at the premises.

6.4. The form and dimensions of the benches and batters within the quarry shall be in accordance with requirements to the Department of Trade and Investment for mine safety. A geotechnical engineer shall be consulted as required to advise on the long term stability of the quarry faces and benches.

6.5. The quarry operation shall comply with all relevant requirements of work health and safety legislation.

6.6. The quarry operator shall take all necessary measures to prevent damage to trees and root systems during site works and construction activities, including work associated with the provision of water, sewerage and stormwater drainage services. In particular, structures, excavations or works that will alter soil levels are not permitted within three (3) metres of the trunks of tress identified in the survey plan unless they are part of the approved development.

6.7. Sediment shall be removed from the erosion and sediment control basin when the basin's capacity is reduced by 50%.

6.8. The quarry operator shall apply a recycling target of not less than 50% of the process water used on site.

6.9. The quarry operator shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set by the Environment Protection Authority.

6.10. The quarry operator shall implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational and traffic noise generated by the project. Noise mitigation measures shall include, as necessary; relocating, modifying or stopping operations to achieve compliance with the relevant conditions of consent.

6.11. Any activity carried out in or on the premises must be carried out by such practical means as to prevent dust or minimise the emission of dust to the air.

6.12. Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.

6.13. All trafficable areas and vehicle manoeuvring areas within the premises must be maintained, at all times, in a condition that will minimise the emission of dust to the air, or emission from the premises of wind-blown or traffic generated dust. A water truck shall be available on site at all times for the purpose of dust suppression. Chemical dust suppressants shall not be used without the approval of the EPA.

6.14. The quarry operator must not cause or permit the emission of offensive odour beyond the boundary of the quarry.

6.15. Activities must be carried out in a competent manner. This includes:

1) the processing, handling, movement and storage of materials and substances used to carry out the activity;
2) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

6.16. The quarry operator must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises except as expressly permitted by a license.

6.17. All plant and equipment installed at the premises or used in connection with the activity;

a) must be maintained in proper and efficient manner.
b) Operated in a proper and efficient manner.

Any equipment not meeting these requirements shall be removed from the operation or barred from the quarry until the defects are repaired.

6.18. All practicable measures shall be taken to prevent or minimise any off-site lighting impacts from the development. All external lighting associated with the development shall comply with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting.

6.19. Loading and unloading operations associated with the quarry shall be confined to within the property.

6.20. Sufficient parking will be provided on-site for all quarry-related traffic.

6.21 All loaded vehicles entering or leaving the site shall have their loads covered at all times unless carrying plant or machinery.

6.22. All loaded vehicles leaving the site are to use the wheel washing facility so that they are cleaned of material that may be deposited on public roads.

6.23. The quarry operator shall:

1) maintain a record of the weight and type of each load of product transported from the site and the registration number and time of departure of each loaded vehicle;
2) record in aggregate the weight and type of products despatched and vehicle movements in the Annual Audit Report (AEMR); and
3) provide annual production data to the Mineral Resource Division of the Department of Primary Industries.

6.24. The proponent shall maintain, and implement necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises in accordance with the requirements in Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) and POEO Regulations. The plan shall be part of the quarry management plan. The incident response plan shall document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with the activities that occur at the premises and which are likely to cause harm to the environment.

6.25. Any relocation, or alteration, of any utilities or any existing services made necessary as a result of this development is to be carried out at no cost to Council. Arrangements shall be made with the authority concerned. These services may include stormwater, telephones, electrical cables and power poles, gas, water mains (hydrants, stop valves, stop cocks), sewer mains and manholes, parking signs, street signs and traffic signals.

6.26. Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation to the development, Section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in connection with the carrying of the development.

6.27. The quarry operator must, for the life of the life of the quarry comply with any licence or approval from the NSW Office of Water to extract groundwater.

7.. REHABILITATION

7.1. A program of progressive rehabilitation shall be maintained throughout the life of the quarry in accordance with the EIS.

7.2. All requirements for rehabilitation shall be set down in the quarry management plan and progress reported in annual audit reports.

8.. MONITORING, AUDIT AND REPORTING

8.1. The monitoring, audit and reporting requirements and schedule shall be set down in the quarry management plan.

8.2. An independent audit of the quarry's operation shall be conducted annually in accordance with the requirements recorded in the quarry management plan. A copy of the report shall be provided to Council and EPA.

8.3. In the years in which it is conducted, the review of the quarry's operation referred to in clause 5.4 of this consent will replace the annual audit.

8.4. Any detected non-compliance with-performance criteria and measures shall be recorded and the Council advised as required by the quarry management plan.

9.. COMMUNITY RELATIONS

9.1. The quarry operator shall maintain a complaints register which shall record the nature of the complaint, the response to the complaint, the date on which the complaint was received and the date on which the response was delivered.

9.2. The quarry operator shall, from the end of December 2014, maintain a public web site in which shall be recorded:

1) a copy of this consent and a schedule of current statutory approvals and licences fro the project;
2) the quarry management plan;
3) annual audit reports.

10.. PROTECTION OF PUBLIC ASSETS

10.1. A pavement report for works with a public road reserve shall be prepared by a practising Geotechnical Engineer. This report must be submitted with the engineering plans and approved by Council under the Roads Act, 1993.

10.2. A dilapidation report must be submitted to Council prior to extraction of sand, and/or approval of engineering plans under the Roads Act. The report must document and provide photographs that clearly depict any existing damage to the road, kerb, gutter, footpath, driveways, street trees, street signs or any other Council assets across the Wisemans Ferry Road frontage of the site.

10.3. A security deposit of $5,500.00 indexed annually must be paid into Council's trust fund prior to the commencement of sand extraction. The payment of the security deposit is required to cover the cost of repairing damage to Council's assets that may be caused as a result of the development. The security deposit shall be increased in accordance with the CPI increase prior to the commencement of each stage of the quarry. Such deposit will be refunded upon the completion of the project if no damage is caused.

10.4. Works within the road reserve that required approval under the Roads Act are to be completed in accordance with the Council's 'Civil Construction Specification', 'GCC Design Specification for Survey, Road and Drainage Works' and Policy 'D6.46 Erosion Sedimentation Control', and documentary evidence for the acceptance of such works obtained from the Roads Authority prior to the commencement of extraction.

Note: A maintenance bond shall be paid on completion of the works in accordance with Section 1.07 Maintenance of the 'Civil Construction Specification'.

10.5. Any damage not shown in the dilapidation report submitted to the Council before the site works commence, will be presumed to have been caused as a result of the site works unless it can be established to the contrary. Any such damage found to be caused by site works shall be rectified at the quarry operator's or contractor's expense prior to commencing sand extraction.

10.6 Prior to commencement of extraction operations, the Applicant shall seek the approval of the Local Traffic Committee, and, if approved, relocate the bus stop at the quarry operator's cost.

11.. GENERAL TERMS OF APPROVAL

11.1. **DELETED**

11.1 The general terms of approval issued by the Environment Protection Authority on 4 May 2014 and included in Schedule 3 form part of this consent, except as modified by the additional general terms of approval issued by the Environmental Protection Authority on 11 May 2017:

1) The proponent is permitted to import Virgin Excavated Natural Material (VENM) and Excavated Natural Material (ENM) to the Premises for the purpose of constructing acoustic bunds and for rehabilitation purposes in accordance with condition 4.3 of Land and Environment Court Consent Order for DA 42409/2012, as modified by Central Coast Council on (insert consent date).

2) The proponent must engage a suitably qualified professional to develop a Quality Assurance / Quality Control Plan for the importation of the VENM / ENM and oversee the land application of the material in accordance with the plan.

3) The Quality Assurance / Quality Control Plan must outline the methods and protocols to be adopted by the licensee to ensure all material imported to the site is classified as VENM or ENM and must include provisions for linking truck movements with the source of the material, certification for the material, controls prior to tipping at the premises, records to be made or received at the time of receipt of material including records relating to any rejected load, retention of records, and environmental controls in place to minimise any potential environmental impacts from the land application of the material.

   This Quality Assurance /Quality Control Plan must be supplied to the EPA (by email at hunter.region@epa.nsw.gov.au) prior to any importation of VENM or ENM onto the premises.

4) All VENM and ENM received at the premises must be tipped from the transporting vehicle into a suitably bunded area, inspected and left in that bunded area for a period of no less than twenty four hours before being applied to the land.

5) ENM can only be received at the premises if it has been supplied in accordance with the excavated natural material order 2014 ("the Order") made under clause 93 of the Protection of the Environment Operations (Waste) Regulation 2014. The Licensee is required to be satisfied at the time of receipt of each load or consignment that each load or consignment of ENM has been supplied in accordance with the Order.

6) ENM cannot be received from any other waste processing facility.

7) VENM and ENM can only be received at the premises at the following times:

   a) between the hours of 7:00am and 6:00pm Monday to Friday;
   b) between the hours of 7:00am and 1 :OOpm Saturday; and
   c) no VENM or ENM can be received by the premises on Sundays or Public Holidays.

8) Prior to any wastes rejected by the Quality Assurance Program leaving the premises, the proponent must obtain from the owner of such wastes details of where that waste will be disposed legally.

9) The proponent must notify the EPA and Central Coast Council within 30 minutes of any rejected waste load leaving the premises, including the name and registration number of waste supplier, why the waste load was rejected, and the proposed fate of that load of waste.

10) Any load of waste that is received at the premises, which does not comply with the types of waste allowed to be received at the premises, and has not been returned to the supplier, must be immediately stockpiled separately at the premises and labelled denoting it is waste for disposal. The EPA must be notified within 24 hours of receipt of any such load of waste, including details of why the waste is not permitted to be received and actions the licensee will take to lawfully dispose of such wastes.

11) All stock piles of accepted VENM and ENM must have appropriate dust suppression and mitigation controls in place.

12) All stock piles of rejected waste must have appropriate dust suppression and mitigation controls in place.

These general terms of approval must be complied with unless otherwise prescribed in an Environment Protection Licence issued by the Environment Protection Authority.

11.2. If there is any inconsistency between this consent and the requirements of the General Terms of Approval, the General Terms of Approval shall prevail.

12.. RECOMMENDED CONDITIONS OF CONSENT RELATING TO GROUNDWATER

12.1. The Recommendation Conditions of Consent issued by the New South Wales Office of Water on 5 May 2014 and included in Schedule 4 form part of this consent and must be complied with unless otherwise amended by the Office of Water.

12.2. If there is any inconsistency between this consent and the requirements of the NSW Office of Water, the conditions of the NSW Office of Water shall prevail.

Schedule 3
General Terms of Approval
Issued by the Environment Protection Authority on 4 May 2014

General

Except as provided by these conditions of approval below, the works and activities must be undertaken in accordance with "*Rindean Quarry Somersby, New South Wales*" (EIS), dated May 2012.

Surface Water

1) The following points referred to in the table below are identified for the purposes of monitoring and/or setting of limits for the emission of pollutants to water from the point.

WATER			
Identification no.	**Type of Monitoring Point**	**Type of Discharge Point**	**Description of Location**
1	Discharge quality monitoring	Discharge to waters	The discharge point from Fresh Water Pond, as shown on *<licensee to provide figure or reference map>*

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

3) For each monitoring/discharge point or utilisation area specified in the table above the concentration of a pollutant must not exceed the concentration limits specified for that pollutant in the table below.

POINT 1		
Pollutant	**Units of measure**	**100 PERCENTILE LIMIT**
Suspended Solids	mg/L	40
Oil and Grease	mg/L	5 and/or none visible
pH	pH units	6.0 – 8.0

4) Prior to the project commencing and then every five years thereafter the proponent must engage a suitably qualified person to undertake an assessment of the unnamed creek receiving waters from the treatment dams and diversion flows to map any existing erosion and identify any additional erosion or induced erosion associated with the Project. Within 60 days of completing this assessment the proponent must supply a report to the EPA that identifies the results of the investigations and includes actions that will be taken to remedy any induced erosion as a result of the Project.

5) For each monitoring/discharge point or utilisation area specified below (by a point number) the concentration of each pollutant specified in Column 1 must be monitored by sampling and obtaining results by analysis. Specified opposite in the other columns are the sampling method and units of measure to be used and the frequency with which samples are to be taken.

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Suspended Solids	mg/L	Special Frequency 1	Grab sample
Turbidity	ntu	Special Frequency 1	Probe
pH	pH units	Special Frequency 1	Probe
Oil and grease	visible	Special Frequency 1	Visual observation

Note: For the purposes of the table above 'Special Frequency 1' means:

(a) within 12 hours prior to any controlled discharge; and
(b) weekly during any discharge.

Bunding

6) All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.

7) Bunds must:

a) have walls and floors constructed of impervious materials;
b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
c) have floors graded to a collection sump; and
d) not have a drain valve incorporated in the bund structure, or be constructed and operated in a manner that achieves the same environmental outcome.

Waste

8) The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence.

Hours of operation

9) Unless otherwise specified by any other condition of this licence, all activities are:

a) restricted to between the hours of 7:00am and 6:00pm Monday to Friday;
b) restricted to between the hours of 7:00am and 1:00pm Saturday; and
c) not to be undertaken on Sundays or Public Holidays.

Maintenance activities may be undertaken outside these hours provided it is not audible at nearby residential receptors.

Noise

10) Noise generated at the premises must not exceed the noise limits in the table below.

Table 2-2

Location	Daytime $L_{Aeq\ (15\ minutes)}$ Noise Limits dB(A)
R1 - 630 Wisemans Ferry Road	50
R2 - 628 Wisemans Ferry Road	49
R3 - 2 Lackersteens Road	51
R4 - 590 Wisemans Ferry Road	50
R5 - 596 Wisemans Ferry Road	47
R6 - 600 Wisemans Ferry Road	49

11) For the purpose of condition 10:

- Daytime is defined as the period from 7am to 5pm Monday to Friday, and 7am to 1pm Saturday.

12) The noise limits set out in condition 10 apply under all meteorological conditions except for the following:

a) Wind speeds greater than 3 metres/ second at 10 metres above ground level.
b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres /second at 10 metres above ground level; or

c) Stability category G temperature inversion conditions.

13) For the purposes of condition 12:

a) Data recorded by a weather station installed on site must be used to determine meteorological conditions; and
b) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.

14) To determine compliance with the Leq (15 minute) noise limits in condition 10, the noise measurement equipment must be located:

- approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or

- within 30 metres of a dwelling facade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable

- within approximately 50 metres of the boundary of a National Park or a Nature Reserve.

15) A non- compliance of condition 10 will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by conditions 14; and/or
- at a point other than the most affected point at a location.

16) For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Requirements to Monitor Noise

17) To assess compliance with Condition 10, attended noise monitoring must be undertaken in accordance with Condition 14 and:

a) at each one of the locations listed in Condition 10;
b) occur annually in any reporting period;
c) occur during each day period as defined in Condition 11 above for a minimum of 1.5 hours during the day; and
d) occur for three consecutive operating days.

Note: The EPA will consider this frequency of monitoring, upon request, after the first three years of monitoring.

Reporting Conditions

Noise Monitoring Report

18) A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the yearly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

a) An assessment of compliance with noise limits presented in Condition 10; and
b) An outline of ay management actions taken within the monitoring period to address any exceedances of the noise limits contained within Condition 10.

Air
Air Quality Management Plan

19) For all emission sources at the site the proponent must prepare an air quality management plan that includes, but is not limited to:

a) Key performance indicator(s) that are quantifiable, measurable and auditable;
b) Monitoring method (s);
c) Location, frequency and duration of monitoring;
d) Record keeping;
e) Response mechanisms,; and
f) Compliance reporting.

20) The air quality management plan must include measures that:

a) represent both proactive and reactive management;
b) are linked to particulate readings obtained at the ambient air quality monitors;
c) are benchmarked against international best management practice for the control of fugitive particle emissions; and
d) achieve emission controls equal to or greater than the control efficiencies included in the project air quality assessment, *Rindean Sand Quarry - Air Quality Assessment (7* August 2013) Pacific Environment Limited.

21) The air quality management plan must be submitted to the Environment Protection Authority (EPA) in conjunction with the application for an Environment Protection Licence under the *Protection of the Environment Operations Act* 1997 for the project.

22) The air quality management plan must be implemented prior to the commencement of any dust generating activities at the site.

23) Requirements to monitor ambient particulate matter

a) The licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method. units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Point 2 and Point 3

Parameter	Units of measure	Frequency	Averaging Period	Method
PM_{10}	Micrograms per cubic metre	continuous	1-hour	AS 3580.9.8 - 2008

Note: The number and location of PM_{10} monitors must be approved by the EPA prior to the installation of the monitoring equipment. The EPA is of the view monitoring should occur at two locations; one location generally consistent with Residential Receptors 1-3 and another site at Receptor 4, as shown in the report titled "Rindean Sand Quarry - Air Quality Assessment" prepared by Pacific Environment Limited and dated August 2013.

Note: The method must be approved by the EPA prior to the installation of the monitoring equipment.

Note: The calibration, quality assurance, quality control and audit program must be approved by the EPA prior to the installation of the monitoring equipment.

Note: The extent of monitoring conducted will be reviewed by the EPA, upon request, after three full years of monitoring data has been obtained.

b) Monitoring of all parameters listed in Condition 2(a) Column 1 must commence prior to earth moving activities being undertaken at the site.

24) **Reporting of ambient PM_{10} levels greater than criteria**

The licensee must, within 7 days of recording a PM_{10} value greater than the 24 hour EPA impact assessment criteria, provide a written report to the EPA that details:

- the instantaneous values reported during that day;
- the 24 hour average for that day;
- activities that were being conducted at the premises on that day, including the location of extraction activities and an estimation of the tonnage of material transported off-site;
- The weather data, and in particular hourly average wind direction and strength, obtained from the on-site weather station; and
- any other factors (eg bushfires) that might have contributed to the elevated reading, including justification as to why these factor(s) might have contributed to the result.

Operating Conditions

25) Activities must be carried out in a competent manner. This includes:

a) The processing, handling, movement and storage of materials and substances used to carry out the activity; and
b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

26) All plant and equipment installed at the premises or used in connection with the activity:

a) Must be maintained in a proper and efficient condition; and
b) Must be operated in a proper and efficient manner.

General Dust Conditions

27) All areas in or on the premises must be maintained in a condition that prevents or minimises the emission of dust to the air.

28) Any activity carried out in or on the premises must be carried out by such practical means as to prevent dust or minimise the emission of dust to the air.

29) Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.

30) All trafficable areas and vehicle manoeuvring areas in or on the premises must be maintained ,at all times, in a condition that will minimise the emission of dust to the air, or emission from the premises of wind-blown or traffic generated dust.

Blasting

31) There must be no blasting conducted at the premises.

Potentially Offensive Odour

32) The proponent must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Stormwater Management

33) Stormwater management measures must be prepared and implemented to mitigate the impacts of stormwater run-off from and within the premises in a manner that is consistent with the guidance contained in *Managing Urban Stormwater: Soils and Construction: Volume* 2C *Unsealed Roads and Volume 2E Mines and Quarries* (OECCW 2008).

Emergency Management

34) The proponent must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises in accordance with the requirements in Part 5.7 A of the *Protection* of *the Environment Operations (POEO) Act* 1997 and POEO regulations. The proponent must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.

Meteorological monitoring

35) a) The proponent must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm/hour	continuous	1 hour	AM-4
Sigma theta	degrees	continuous	10 minute	AM-2 and AM-4
Siting				AM-1
Temperature at 2 metres	kelvin	continuous	10 minute	AM-4
Temperature at 10 metres	kelvin	continuous	10 minute	AM-4
Total solar radiation	watts per square metre	continuous	10 minute	AM-4
Wind Direction at 10 metres	degrees	continuous	10 minute	AM-2 and AM-4
Wind Speed at 10 metres	metres per second	continuous	10 minute	AM-2 and AM-4

Note 1: Sampling methods as defined in the *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

Note 2: The location of meteorological monitoring must be confirmed and approved by the EPA prior to earth moving activities being undertaken at the site

b) Monitoring of all parameters listed must commence prior to earth moving activities being undertaken at the site.

Schedule 4
Conditions of Consent Recommended by the NSW Office of Water

Groundwater management plan

1) Within 6 months of the date of consent, the applicant must update the groundwater management plan for the quarry to reflect the requirements of these conditions to the satisfaction of the NSW Office of Water.

Model refinement and assessment

2) Prior to the commencement of Stage 2, the applicant must:

   a) Update the existing groundwater model with all available monitoring data collected in accordance with the schedule in Table 1.
   b) Assess and categorise the groundwater model against the Australian Groundwater Modelling Guidelines (2012) and have the model peer reviewed by an appropriately qualified consultant and determined as fit for purpose.
   c) Determine the predicted extent of drawdown area of influence during and post· quarry operations.
   d) Identify all bores in the area predicted as being affected by drawdown of 2m or greater as a result of quarry operations.
   e) Undertake an audit of all bores identified in 2(d) to determine bore depth and water level.
   f) Determine maximum predicted groundwater seepage rates (ML/y) into the quarry footprint as follows:
      i) seepage into quarry footprint during stage 2 and post-operations should operations cease at the end of stage 2.
      ii) seepage into quarry footprint during stages 2 and 3 and post-operations should operations cease at the end of stage 3.
      iii) seepage into quarry footprint during stages 2, 3 and 4 and post-operations should operations cease at the end of stage 4.
      iv) seepage into quarry footprint during stages 2. 3, 4 and 5 and post-operations (i.e. as per quarry plan outlined in EIS).
   g) Obtain sufficient licensed entitlement to account for predicted seepage calculated in accordance with 2(f)(i).

3) Prior to commencement of each subsequent stage (3,4 ,5):

   a) Update the groundwater model with all available monitoring data collected in accordance with the schedule in Table 1.
   b) Update the predicted extent of drawdown during and post- quarry operations.
   c) Identify all bores predicted as being affected by drawdown of 2m or greater as a result of quarry operations.
   d) Undertake an audit of any bores identified in 3(c) not previously audited in accordance with 2(e) to determine bore depth and water level.

e) Determine maximum predicted groundwater seepage rates into the quarry footprint at the end of each remaining stage in accordance with the process outlined in 2(f).
f) Obtain sufficient licensed entitlement to account for predicted seepage calculated in accordance with 3(e) for the stage to be commenced.

4) Prior to the surrender of consent for operations, the applicant must:

a) Update the groundwater model with all available monitoring data collected in accordance with the schedule in Table 1.
b) Update the predicted extent of drawdown post-quarry operations.
c) Identify all bores predicted as being affected by dra'Ndown of 2m or greater.
d) Undertake an audit of any bores identified in 4(c) not previously audited in accordance with 2(e) *or* 3{d) to determine bore depth and water level.
e) Determine maximum predicted groundwater seepage rates into the quarry footprint post-operations.
f) Obtain sufficient permanent licensed entitlement to account for the maximum predicted seepage calculated in accordance With 4(e).

5) The bore audits required under 2(e), 3(d) and 4(d) are to include all bores approved and constructed prior to the date of consent.

Impact mitigation measures ("make good" provisions)

6) Impacts to the utility of nearby groundwater bores as a result of quarry operations are to be addressed as follows:

a) in respect to the groundwater bores located at R1 (identified as groundwater bore GW031948) and R2 (identified as groundwater bore GW057452) during the first six months of commencement of operation of the quarry during Stage 1 the applicant shall redrill at their expense the depth of the groundwater bores to a depth to reproduce the water saturation zone thickness to the historical thickness prior to the commencement of the quarry operation. Please note the thickness of the water saturation zone may have 10 be increased or other steps to be taken to lessen the impact such as the installation of additional rainwater tanks for R1 and R2, at the expense of the applicant if as a result of the groundwater monitoring program the impacts upon the adjacent groundwater resource are greater than 10% variation of the predicted amounts.

b) in respect 10 the groundwater bore located at R3 (identified as groundwater bore GW051 268) during the first six months of commencement of operation of the quarry during Stage 2 the applicant shall redrill at their expense the depth of the groundwater bore to a depth to reproduce the water saturation zone thickness to the historical thickness prior to the commencement of the quarry operation. Note the thickness of the water saturation zone may have to be increased or other steps to be taken to lessen the impact such as the installation of addition rainwater tanks for R3, at the expense of the applicant if as a result of the ground water monitoring program the impacts upon the adjacent groundwater resource are greater than 10% variation of the predicted amounts.

c) in respect to the groundwater bore located at R4 (identified as groundwater bore GW072503) during the first six months of commencement of operation of the quarry during Stage 4 the applicant shall redrill at their expense the depth of the groundwater bore to a depth 10 reproduce the water saturation zone thickness to the historical thickness prior to the commencement of the quarry operation. Please note the thickness of the water saturation zone may have to be increased or other steps to be taken to lessen the impact such as the installation of addition rainwater tanks for R4, at the expense of the applicant if as a result of the ground water monitoring program the impacts upon the adjacent groundwater resource are greater than 10% variation of the predicted amounts.

d) for all other bores identified in accordance with 2(d) or 3(c):

i) where groundwater monitoring results indicate quarry operations are likely to have resulted in an adverse impact on the utility of a bore the applicant shall, at their cost, undertake appropriate measures as agreed with the owner of the bore to restore the bore utility or provide a comparable water supply,

ii) where the applicant and the owner of the bore are unable to agree upon appropriate measures as required under 6(d)(i), Council shall determine the measures to be implemented in consultation with the NSW Office of Water.

e) for all other bores Identified in accordance with 4(d):

i) assess the predicted Impact to the bore as a result of groundwater drawdown post-quarry operations.

ii) where impact identified in 6{e)(i) is likely to have an adverse impact on the utility of the bore the applicant shall, at their cost, undertake appropriate measures as agreed with the owner of the bore to restore the bore utility *or* provide a comparable water supply.

iii) where the applicant and the owner of the bore are unable to agree upon appropriate measures as required under 6(e){ii), Council shall determine the measures to be implemented in consultation with the NSW Office of Water.

Groundwater Dependent Ecosystems

7) The applicant must prepare and implement a monitoring program for the adjacent groundwater dependent ecosystems (Sandstone Hanging Swamps/Coastal Upland Swamp EEC), to:

a) Identify their level of groundwater dependence;
b) Monitor their long-term condition and viability; and
c) Determine and implement any reasonable and feasible measures to mitigate adverse impacts during and post- quarry operations.

Annual review

8) The annual audit report identified in section 4.6 of the groundwater monitoring and management plan dated April 2012 is to include all previous groundwater monitoring results, an assessment of any trends evident in the monitoring results, an evaluation of the results against the impacts predicted by the groundwater model, description and evaluation of any refinements made to the groundwater model, an assessment of impacts to adjacent groundwater dependent ecosystems and an assessment as to whether the operation is likely to have had an adverse impact on third party bores, the nature of this impact and proposed "make good" measures to mitigate any impact in accordance with (6).

Table 1. Groundwater monitoring schedule

Bores	Schedule
5 bores on site (BH1-BH5)	• Water level o At commencement of operations o Quarterly for two years from commencement of operations o Six monthly thereafter • Quality o At commencement of operations o Six monthly for two years from commencement of operations o Annually thereafter
4 adjacent bores (R1-R4)	• Water level and quality o At commencement of operations o Six monthly for two years from commencement of operations o Annually thereafter • Yield at commencement of operations and at two yearly intervals thereafter (subject to owners consent)
3 bores at 600 m from quarry	• Water level and quality o At commencement of operations o Six monthly for two years from commencement of operations o Annually thereafter • Yield at commencement of operations and at two yearly intervals thereafter (subject to owners consent)
Additional bores where monitoring indicates potential adverse impact	As determined in consultation with Council and the NSW Office of Water