Joint Regional Planning Panel (Southern)

JRPP No.	2016STH014
DA No.	5.2016.57.1
Local Government Area	Yass Valley
Proposal	Extending the operational life of the Bogo Quarry for 30 years including: • Increase in the approved production level of hard rock products • Importation, placement and operation of mobile concrete and asphalt plants • Construction of a southern earth bund and to plant a perimeter tree screen
Property	Lot 1 DP 1205646 and Part Lot 115 DP 876302, 134 Paynes Road, Bookham
Applicant	Bogo Operations Pty Ltd
Number of Submissions	Departments – 6 Submissions
Regional Development Criteria (Schedule 4A EP&A Act 1979)	**Section 8 Particular Designated Development** Development for the purposes of: (a) extractive industries, which meet the requirements for designated development under clause 19 of Schedule 3 to the *Environmental Planning and Assessment Regulation 2000*.
List of All Relevant s79C(1)(a) Matters	- SEPP State and Regional Development 2011 - SEPP Rural Lands 2008 - Infrastructure SEPP 2007 - SEPP 33 – Hazardous and Offensive Development - SEPP 44 – Koala Habitat Protection - SEPP 55 – Remediation of Land - SEPP Mining, Petroleum and Extractive Industries 2007 - Yass Valley Local Environmental Plan 2013
List of all documents submitted with this report for the Panel's consideration	Attachment A - Environmental Impact Statement and Appendices, prepared by R. W. Corkery & Co Pty Limited dated March 2016. Attachment B - Draft Conditions Attachment C - State Agencies Responses Attachment D – Applicant's Response to Submissions including: (i) A Consolidated Response to Submissions prepared by Corkery & Co Pty Limited dated August 2016 (ii) Letter of Advice and Plan of Management, prepared by Biosis Pty Ltd dated 1 September 2016. (iii) Email from Mr Nathan Garvey dated 11 July 2016 regarding Yass Daisy
Recommendation	Approval subject to conditions in Attachment B
Report prepared by	Muzaffar Rubbani
Report date	3 May 2017

Executive Summary

The site is on land located approximately 20km west of Yass near the intersection of Paynes Road and Hume Highway.

Development Consent is sought to:

- Extend the operational life of the quarry up to 2046
- Increase the maximum approved production limit of 200,000 tonnes per annum to 500,000 tonnes per annum (with average of 250,000 tonnes per annum to 350,000 tonnes per annum)
- Adjust the limit of extraction area (quarry footprint)
- Import, place and operate a mobile concrete batching plant
- Import, place and operate a mobile asphalt plant
- Construct southern earth bund
- Plant perimeter tree screen
- Rehabilitate the site at the end of operational life of the quarry

The proposal also involves the importing, placing and operating of (on campaign basis):

- a mobile asphalt plant (with a capacity to produce up to 1,000 tonnes of asphalt per day and maximum annual production of 50,000t) and
- a mobile concrete batching plant (with a capacity of 40m^3 per hour or up to 400m^3 of concrete per day)

A copy of the supporting Environmental Impact Statement (EIA) and plans is included in Attachment A.

The extractive industry development is classified as Designated Development in accordance with the *Environmental Planning & Assessment Regulation 2000 (EP&A Reg 2000)*.

The development is also classified as 'Integrated' by virtue of the need to secure an EPA amended licence under the provisions of the *Protection of the Environment Operations Act 1997 (POEO Act 1997)*.

Schedule 4A *Environmental Planning and Assessment Act 1979 (EP&A Act 1979)* identifies developments for which a Joint Regional Planning Panel (JRPP) is authorised to exercise the Consent Authority function of Council. Designated Development for extractive industry is nominated as a matter for referral to the JRPP.

The application was notified in accordance with the Act and the Regulation from 6 April 2016 up until 9 May 2016 during which time no submissions were received from the general public. Six government agencies made submissions.

The application has been assessed against s79C *EP&A Act 1979* and is considered to be an acceptable form of development on the site having regard to the matters discussed in this report. The application is recommended for conditional approval subject to the draft conditions in Attachment B.

1. Application Overview

1.1 Site Description

The site is located approximately 20km to the west of Yass township and about 5 km east of Bookham near the intersection of Paynes Road and Hume Highway. The site has a long history of quarry activity that dates back to 1981.

The site comprises of two titles of land Lot 1 DP 1205646 (134 Paynes Road Bookham) and Lot 115 DP 876302 (9 Paynes Road Bookham) with a combined area of 104ha. The land is located at the corner of Paynes Road and the Hume highway (refer Figure 1).

The quarry and operations of the proposed mobile concrete and asphalt plants are confined within the boundaries of Lot 1 DP 1205646, whilst two dams that are part of the drainage system are located on part of Lot 115 DP 876302.

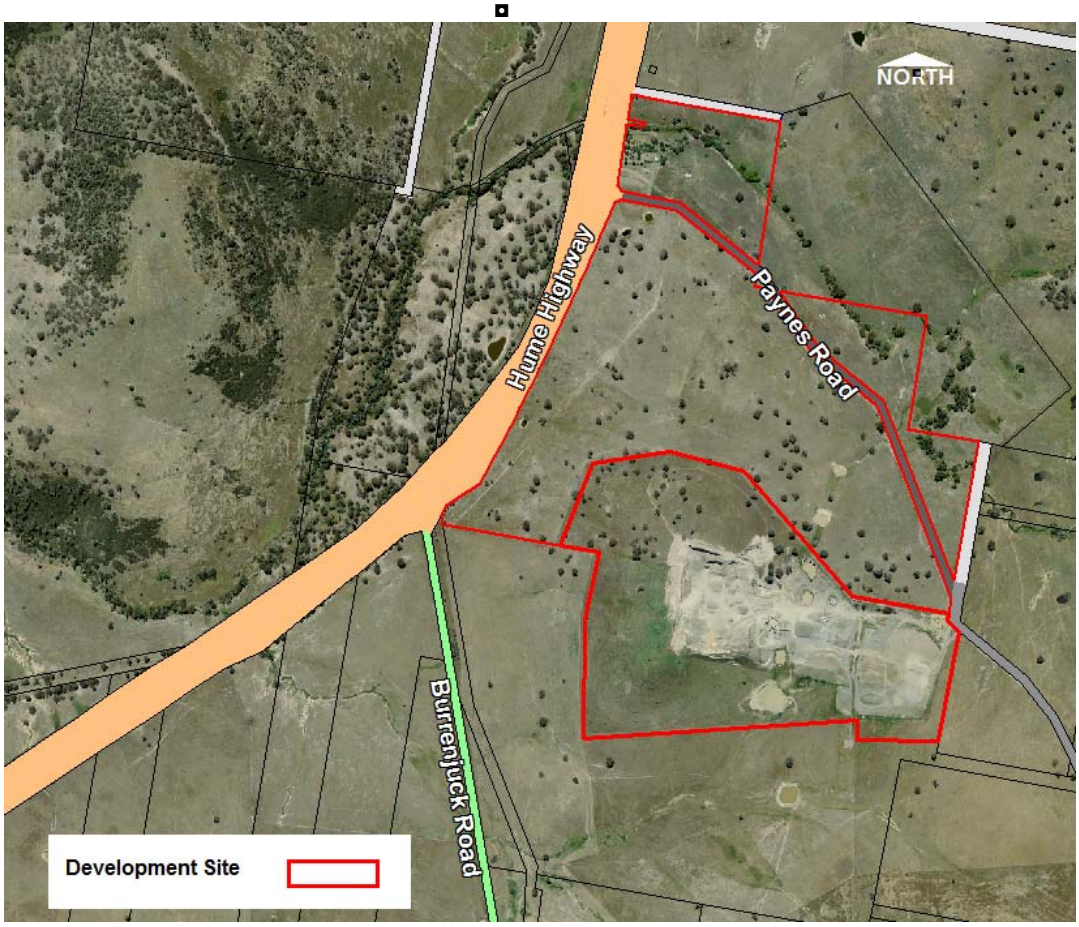

Figure 1 – Location Map

The Bogo Quarry site is surrounded by sprawling hills including the locally significant Bald Hill, Black Ridge and Sugarbag Hill. The small hill within the site has steep natural slope towards south and west whereas slope to the north is slightly gentler. The eastern side of the hill contains an extraction area that has significantly modified with extraction occurring between 560AHD and 600AHD.

The topography within the site rises slightly to southeast with lowest elevation being at the centre of the site where a weighbridge, site office, processing plant is currently located.

The improvements on the site include office/weighbridge, workshop and fuel store, extraction area, internal road network, processing plant, pre-coat plant, stockpiling areas, water supply and sediment dams, and pad for asphalt plant (see Plate 1).

Plate 1 - Bogo Quarry

Most of the land is treeless and supports short exotic grassland. The original woodland appears to have been cleared long ago, followed by a long period of grazing and pasture improvement. There are scattered native and exotic trees on the land. There are small patches of native vegetation with predominantly native grassy ground layer, four potential habitat trees without visible hollows and one threatened ecological community (i.e. White Box, Yellow Box, Blakely's Red Gum Woodland or Box Gum Woodland).

1.2 History/Background

Bogo Quarry has been operative since commencement of hard rock extraction from the site by NSW Department of Main Roads.

In January 1981 NSW Department of Main Roads lodged a Development Application with the then Yass Shire Council for the establishment of a road base gravel quarry

on the subject land for the construction and maintenance of Hume Highway for a period of 10 years.

In February 1981, Yass Shire Council granted approval for the extraction of road base gravel from the subject land.

In June 1995, the former Yass Shire Council received a Development Application accompanying with an EIS for the continued operation and extension of approved Bogo hard rock quarry extraction area.

On 3 July 1996, Land & Environment Court granted Development Consent No 96/067 for the continued operation and extension of extraction area footprint of Bogo Hard Rock Quarry.

On 5 December 1996, an application to modify the Development Consent No 96/067 was lodged with the Yass Shire Council.

In December 1999, the then Yass Shire Council approved a modification to Development Consent No 96/067B which granted approval for the extension of quarry's operational life to enable it to operate for a further 20 years up to 20 Mach 2019.

In 2008, Yass Valley Council granted approval for the operation of a Mobile Asphalt Plant for a period of 6 months.

In 2009, Yass Valley Council again granted approval for the operation of a Mobile Asphalt Plant for 6 months.

In 2015, Yass Valley Council granted approval for the operation of a Mobile Asphalt Plant for 3 months only.

There have been several Consents granted to carry out the existing developments/activities on site in relation to extraction of hard rock and asphalt manufacturing.

If the current proposal is approved a condition to voluntarily surrender all the existing Development Consents should be included in any approval that issues.

1.3 The Proposal

The proposal seeks an extension of the operational life of the Bogo Quarry for 30 years including the:

- Increase in the approved production level of hard rock products
- Importation, placement and operation of mobile concrete and asphalt plants
- Construction of a southern earth bund and to plant a perimeter tree screen

A copy of the supporting EIS and plans is included in Attachment A.

Specifically, the proposal includes:

- Extension of the operational life of the quarry up to 2046 (for 30 years)
- Increase the maximum approved production limit of 200,000 tonnes per annum to 500,000 tonnes per annum (with average of 250,000 tonnes per annum to 350,000 tonnes per annum)
- Adjust the limit of extraction area (quarry footprint)
- Import, place and operate a mobile concrete batching plant
- Import, place and operate a mobile asphalt plant
- Construct southern earth bund
- Plant perimeter tree screen

- Rehabilitate the site at the end of operational life of the quarry

Production Rates for Quarry Products, Concrete and Asphalt Plants
The current maximum approved production limit under existing approval (Development Consent No 96/67B) is 200,000 tonnes per annum. The Applicant has sought to increase the maximum approved production to 500,000 tonnes per annum with an average of 250,000 tonnes to 350,000 tonnes coupled with the introduction of asphalt manufacturing and concrete batching activities on campaign basis in conjunction with local/regional infrastructure/construction projects.

The mobile concrete batching plant will have a production of capacity of 40m^3 per hour or up to 400m^3 of concrete per day. The mobile asphalt plant will have a capacity to produce up to approximately 1,000 tonnes of asphalt per day. However, the Applicant has proposed 300 tonnes-500 tonnes/day production of asphalt with a maximum annual production of 50,000 tonnes.

The concrete and asphalt plants when not in use will either be stored on site or dismantled and taken off site as and when required.

Hours of Operation
The current approved hours of operation for Bogo Quarry are:

- 7.00 am - 10.00 pm Monday to Saturday
- 8.00 am - 10.00 pm Sunday

Increased hours of operation are sought i.e.

Table 1 – Proposed Hours of Operation

Activity	Day	Time
Extraction Operation-Drilling	Monday to Saturday Sunday	7.00 am to 6.00 pm None
Blasting	Monday to Saturday Sunday	9.00 am to 5.00 pm None
Extraction Activities	Monday to Saturday Sunday	5.00 am to 10.00 pm None
Processing	Monday to Saturday Sunday	5.00 am to 10.00 pm 8.00 am to 10.00 pm
Asphalt Plant	Monday to Saturday Sunday	5.00 am to 10.00 pm 8.00 am to 10.00 pm
Concrete Batching Plant	Monday to Saturday Sunday	5.00 am to 6.00 pm 8.00 am to 6.00 pm
Product Transportation	Monday to Saturday Sunday	24 hours 24 hours
Maintenance	Monday to Saturday Sunday	24 hours 24 hours

Traffic Movement
All the quarry products including concrete and asphalt products are proposed to be transported from the site via general access vehicles (19 metre truck and dog combination or 19 metre semi-trailer).

All the trucks will use Paynes Road for approximately 1.4km to where it meets Hume Highway and then travel either east or west on the highway depending on the product destination.

The existing internal road network will provide link between each plant/operational areas with the use of one-way/loop roads wherever possible (see Figure 2). Traffic directional signs are proposed to be installed to separate asphalt and concrete trucks from all other quarry traffic during various campaign production periods.

Figure 2 - Quarry Site Layout

Presently, an average of 36 truck movements (i.e. 18 un-laden arriving and 18 laden trucks leaving the site) is generated by the existing quarry. The current approval limits dispatching to no more than 8 truckloads in any one hour. No change in this restriction is proposed.

A maximum of 240 truck movements (or 120 loads) per day are expected to be generated when asphalt, concrete and quarry operations are underway.

For quarry operations there would be:

- An average of 104 truck movements (52 loads) for quarry aggregate
- A maximum of 200 truck movements (100 loads) for quarry operations

The Applicant has proposed to utilise following types of vehicles for the transportation of quarry products from the site:

- Semi-trailer and rigid trucks
- 19m mini B-doubles
- 25m B-doubles; and
- Truck and dog trailers

Raw Materials for Asphalt and Concrete Manufacturing and Storage
The raw material required for the production of asphalt primarily include coarse aggregates, fine aggregates (sand), fly-ash, and bitumen. The coarse aggregates will be obtained from the quarry operations stockpiles whereas fine aggregates (sand) will be acquired from local sources.

The pneumatic tankers would be used to transport fly-ash to the site and 17m high silos (with a storage capacity of 50 tonne) would be used for the storage of fly-ash on site.

Bitumen is proposed to be stored in mobile bunded 72 tonne and 12 tonne bitumen storage tank.

The raw materials required for the manufacturing of pre-mixed concrete consist of coarse aggregates, fine sand, manufactured sand (<5mm), and cement/fly-ash. The coarse aggregates and manufactured sand (<5mm) will be sourced from the quarry operations whilst fine sand and cement/fly-ash will be obtained from offsite sources.

These raw materials would be delivered to site in fully sealed pneumatic tankers.

Cement and fly-ash will be stored in two silos each with a storage capacity of 50t.

Buildings
The existing site office, weighbridge and amenities on site will remain. No additional buildings are proposed.

Extraction and Blasting Practices
The continuation of current conventional extraction methods is proposed i.e.

(i) Progressive removal by excavator of topsoil and thin layer of subsoil prior to extraction
(ii) Topsoil would be stockpiled within current disturbance footprint. Topsoil would be stored in windrow structures no greater than 2m in height and slope not greater than 2:1 (H:V)
(iii) Silt stop fence would be installed down slope of these topsoil stockpiles
(iv) A portion of the overburden excavated from advancing quarry face would be used for progressively constructing the southern bund.
(v) Extraction of hard rock resource using drill and blast methods

Southern Bund Construction
An earthen bund which would be progressively built along southern boundary of the site in order to minimise the visibility of the extraction area and processing operations from Burrinjuck Road and areas to the south. This bund will also provide sound attenuation for the sound generated by operations at the quarry and mobile plant pads.

At the western end of the wall, it would be 8m high and as the natural topography rises to the east along southern site boundary the height of the southern bund wall will be reduced to 5m. The batters would be 2H:1V covered with soil and would be vegetated to stabilise the surface and minimise the potential erosion.

Fuel Storage
Existing on site tanks would be used for the storage of diesel fuel to be used in the operation of mobile equipment. Diesel for the operation of asphalt plant burner would be stored in double skinned tank with a capacity of 38,000L.

Rehabilitation
Ultimately site rehabilitation is to provide grazing land typical of the local type by:

- Decommissioning/dismantling of various plants following the end of quarry life
- Erection of perimeter tree screen
- Rehabilitation of extraction faces and benches
- Rehabilitation of the extraction area
- Rehabilitation of stockpile area and plant foot prints outside the extraction area

1.4 Resources/Extraction Area Layout

Figure 3 details the extraction area and rock domain boundaries.

The estimated quantity of resources available within each domain is as follows:

Table 2 - Estimated Quantity of Resources within Bogo Quarry Extraction Area

Domain	Resource Type		Total (tonnes)
	Unaltered Hard Ignimbrite (tonnes)	Weathered / Weak Ignimbrite (tonnes)	
1	1,800,000		1,800,000
2		1,150,000	1,150,000
3	730,000		730,000
4		800,000	800,000
5	500,000		500,000
Total	**3,030,000**	**1,950,000**	**4,980,000**

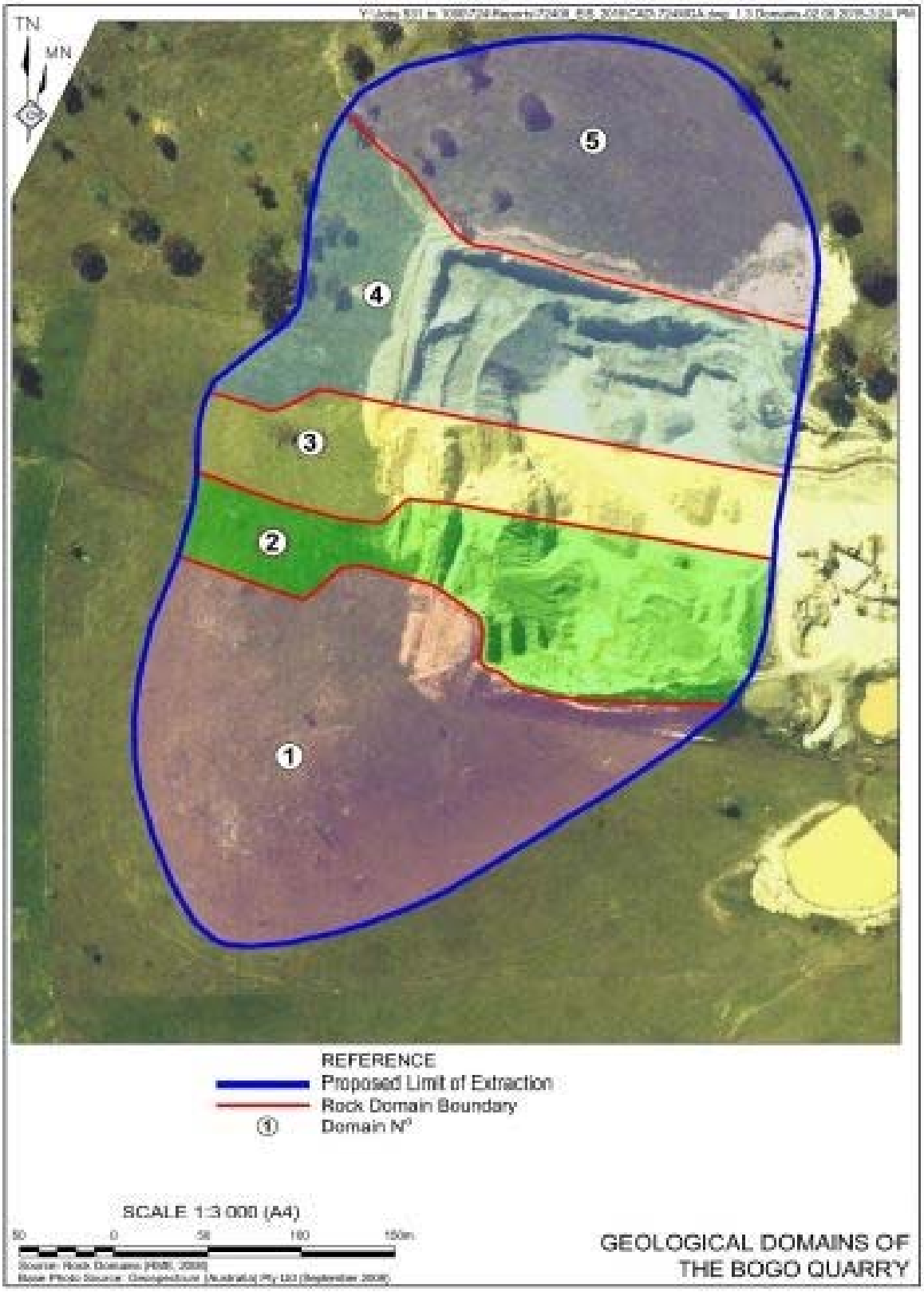

Figure 3 – Quarry Resources

1.5 Products

The quarry products include:

- 20mm road base, namely DGB20HD, DGB20 and DGS20 as road construction material
- >26 mm non-specific road base: used in the construction of roads specifically as subgrade road base material, drainage and erosion control
- 5mm, 7mm, 10mm, 14mm and 20mm aggregates used in the manufacture of concrete and asphalt
- <5mm quarry fines used for blending to produce sand and soil landscaping products
- Stabilised road bases consisting of 20mm road base with addition of a chemical additive to increase the strength of the product
- Pre-coated 7mm, 10mm, 14mm aggregate (for spray seal applications)
- Hard rock coated with bitumous emulsion for use in the hot mix or asphalt applications

All extracted material is used in the production of these products. No waste rock material accumulates on site.

1.6 Amendments to the Proposal

Flora and Fauna
The Flora and Fauna Assessment Report was prepared in 2009. The Office of Environment & Heritage reviewed the information and indicated that biodiversity and Aboriginal cultural heritage issues were not adequately assessed. The Applicant submitted further information in relation to Yass Daisy and Aboriginal Cultural Heritage to address the inadequacies in the original report.

Traffic
Transportation of quarry products is proposed to be undertaken using a variety of vehicle types including:

- Semi-trailer and rigid trucks
- 19m mini B-doubles
- 25m B-doubles
- Truck and dog trailers

The separation between north bound and south bound carriageways at the median crossover for Paynes Road is 12.4m which is not adequate for B Doubles. Roads & Maritime Services (RMS) recommended to restrict the haulage vehicles to a length comparable to a general access vehicle (19m truck and dog combination or 19m semi-trailer). Alternatively, should the use of B Double be retained then major upgrade works would be required to median crossover to accommodate the length of such vehicles.

The Applicant is prepared to accept the condition that requires transportation of products to and from the site to vehicles of 19m or less and B Doubles would not be used as haulage vehicles. This advice from the Applicant was submitted to the RMS.

1.7 Consultation

The following stakeholders were consulted during the assessment of the proposed development:

- Roads & Maritime Services
- Environment Protection Authority
- Department of Planning & Environment

- Office of Environment and Heritage
- Department of Industry Division of Resources & Energy
- South East Local Land Services
- NSW National Parks & Wildlife
- Office of Crown Lands
- Department of Primary Industries Office of Land & Natural Resources
- Department of Primary Industries Office of Water
- Department of Primary Industries Office of Agriculture
- Onerwal Local Aboriginal Land Council
- Buru Ngunnawal Aboriginal Corporation

2. S79C Assessment

In determining this application, the Consent Authority must take into consideration the following matters as listed under s79C *EP&A Act 1979* which are of relevance to the development.

The proposal is a Designated Development. In accordance with clause 80(9)(b) *EP&A Reg 2000* the public submissions received as part of the exhibition period was forwarded to the Department of Planning & Environment on 10 May 2016 and the Consent Authority may determine the application.

Under Schedule 4A *EP&A Act 1979* the proposal is Regional Development for which the JRPP is authorise to exercise the Consent Authority functions of Council.

The proposal is also Integrated Development under s91 of the *EP&A Act 1979* because it requires an approval under the *POEO Act 1997*. The EPA's General Terms of Approval have been provided and are included in the recommended Consent conditions.

2.1 Any environmental planning instrument

2.1.1 SEPP State and Regional Development 2011

The proposed extractive industry development is Designated Development as per Schedule 4A of the *EP&A Act 1979* and therefore deemed to be Regional Development. Under clause 21 of *SEPP (State & Regional Development) 2011* the JRPP is the Consent Authority.

2.1.2 SEPP Rural Lands 2008

Primary industries include agriculture, fisheries, mineral, petroleum and extractive industries. These activities generally occur in rural areas.

This SEPP sets out the planning principles to assist in the proper management, development and protection of rural lands for the purpose of promoting the social, economic and environmental interests. Extractive resources are part of the value of rural land where the resource occurs and needs to be protected and managing just are other forms of primary industries need protecting and proper management.

The site has been used for extractive industry purposes for some time. The ongoing use of the site for this purpose will allow the existing resource to continue to be accessed and used.

The impacts in relation to the land use are assessed in relation to other planning instruments in Section 2.6.

The site will ultimately be rehabilitated to allow agricultural use on site at the conclusion of the operational life of proposed development.

2.1.3 Infrastructure SEPP 2007

Clause 101 of the SEPP relates to development with frontage to classified road whilst Clause 104 and Schedule 3 relate to traffic generating developments.

As a traffic generating development abutting a classified road the proposal was referred to RMS for comment.

The RMS have recommended the length of haulage vehicles be limited due to the existing constraints with the median break at the Paynes Road and Hume Highway intersection.

2.1.4 SEPP 33 – Hazardous and Offensive Development

SEPP 33 does not apply to the extractive industry component of the proposal (as 'extractive industry' is excluded from the definition of 'industry' and is separately defined) i.e.

'industry means any of the following:

(a) general industry,
(b) heavy industry,
(c) light industry,

but does not include:
(d) rural industry, or
(e) extractive industry, or
(f) mining.'

According to the Department of Planning & Environment publication *Applying SEPP 33 Guidelines (2011),* the operation of concrete and asphalt plants may fall under the definition of 'potentially offensive industry'.

Clause 13 SEPP 33 prescribes the matters that must be considered by the Consent Authority before granting Consent for development on land that is considered to be potentially hazardous or potentially offensive development i.e.

'(a) current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development, and

The proposed development is not identified as hazardous or offensive development in any circulars or guidelines published by the Department of Planning. As such, this clause does not apply.

(b) whether any public authority should be consulted concerning any environmental and land use safety requirements with which the development should comply, and'

The following public authorities were consulted:

- Roads & Maritime Services
- Environmental Protection Agency
- Department of Planning & Environment
- Office of Environment and Heritage
- Department of Industry Division of Resources & Energy
- South East Local Land Services
- National Parks & Wildlife
- Office of Crown Lands
- Department of Primary Industries Office of Land & Natural Resources
- Department of Primary Industries Office of Water
- Department of Primary Industries Office of Agriculture

Suitable conditions can be included in any Consent that may issue to incorporate the comments of the public authorities (including EPA requirements).

(c) in the case of development for the purpose of a potentially hazardous industry—a preliminary hazard analysis prepared by or on behalf of the applicant, and

The proposed development is not identified as potentially hazardous development. As such, this clause does not apply.

(d) any feasible alternatives to the carrying out of the development and the reasons for choosing the development the subject of the application (including any feasible alternatives for the location of the development and the reasons for choosing the location the subject of the application), and

The alternatives for the location of the proposed development may include:

- Establish and develop a new hard rock extractive industry and associated concrete and asphalt manufacturing in an alternate location within Yass Valley LGA
- Reopen and expand an existing inactive hard rock quarry elsewhere within Yass Valley LGA
- Redevelop and expand an existing active hard rock quarry elsewhere within Yass Valley LGA

The financial constraints associated with the alternatives of a new or existing active/inactive hard rock quarry are significant.

The majority of the raw materials for asphalt and concrete manufacturing are available at the site making it an ideal location for the proposed development.

The Bogo Quarry site has been selected for asphalt and concrete plants due to the availability of the rock resource. New asphalt and concrete operations at alternative extractive industry sites are dependent upon there being a suitable resource at these sites.

Any alternate location for the mobile asphalt and concrete plants away from the raw material will increase transport movements on the road network and reduce the efficiency brought about by co-location the activities.

(e) any likely future use of the land surrounding the development.'

The surrounding development is predominantly rural lots with agricultural pursuits (eg grazing).

The operation of the proposed asphalt and concrete plants in accordance with EPA requirements is not expected to have a significant adverse impact on the surrounding land uses.

The likelihood of lifestyle/rural residential style development occurring on the land surrounding the development is restricted by the zoning of the land and the minimum lot size of 40ha.

2.1.5 SEPP 44 – Koala Habitat Protection

The vegetation assessment and the supplementary biodiversity information did not identify any koala feed trees as listed under Schedule 2 SEPP 44. The site does not support potential koala habitat and therefore no further assessment is required.

2.1.6 SEPP 55 – Remediation of Land

Under Clause 7 SEPP 55, a Consent Authority is unable to grant Consent unless it has considered whether the land is contaminated and if so, whether it is satisfied the land is suitable in its contaminated state, or can be remediated to be made suitable for the purposes in which the development is proposed to be carried out.

Extractive industry are listed in Table 1 of *Managing Land Contamination Planning Guidelines SEPP 55-Remediation of Land* as an activity that may cause contamination.

The hard rock quarry has been in operation on the site since granting of the initial Consent in 1981. The Applicant has sought:

- An extension of the operational life of the quarry up to 2046 (for 30 years)
- An increase in the production levels
- Introduction of mobile asphalt and concrete plants

The subject land is currently used for quarry purposes and is considered suitable for the proposed development. No remediation works are required to be carried out as part of this development.

However the developer/quarry operator is required to rehabilitate the site at the end of quarry's operational life. Rehabilitation of the site can be included in any approval that may issue to ensure the site returns to an agricultural use or regenerated native vegetation.

2.1.7 SEPP Mining, Petroleum and Extractive Industries 2007

Clause 7(3) of this SEPP indicates that extractive industry is permissible with the Development Consent as the proposal is for the purposes of an extractive industry on the land over which development for the purpose of agriculture or industry may be carried with or without Development Consent.

Clause 7(4) deals with co-location of industry. Activities for the processing of extractive material or concrete works (that produce only premixed concrete or bitumen premix or hot mix) may also be carried out with Consent.

Part 3 *SEPP Mining, Petroleum and Extractive Industries 2007* contains specific provisions that need to be considered when assessing a Development Application for an extractive industry i.e.

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

The site and the land surrounding the site is zoned RU 1 Primary Production and is located in an area which is predominantly used as rural grazing land. Primary industries include agriculture, fisheries, forestry, mineral, petroleum and extractive industries. The RU1 Primary Production zone provides for these activities.

Due to relatively large distances between existing dwellings in the area and the quarry site and with the implementation of several mitigation measures it is considered that any potential impacts with existing and future land uses in the area will be minimised.

Clause 13: Compatibility of proposed development with mining, petroleum production or extractive industry

The subject land has not been identified as a location of State or regionally significant mineral resources, petroleum or extractive materials. However it has been operating as an extractive industry since the 1980's.

The proposal is not expected to have a significant impact on surrounding land uses due to separation distances to existing dwellings and the existing landscape character of the site. In addition a tree screen planting around the perimeter of the site and erection of an earthen bund (along southern property boundary) are proposed in order to minimise the visual impacts.

Clause 14: Natural resource management and environmental management

The site is located within Stony Creek Catchment which flows into Bogolong Creek and then Jugiong Creek.

The proposed works and management procedures to be undertaken will assist in minimising the impacts on water resources, threatened species and biodiversity.

Implementing erosion and sediment control measures and water quality monitoring of the onsite settlement dams will minimise the impacts on water resources.

The *Flora & Fauna Report* indicates minimal impact on the biodiversity values of the site.

The EPA and OEH requirements can be incorporated into any approval that may issue.

Clause 15: Resource recovery

The proposal details methods to minimise waste generation and increase efficiency based on best practice.

The extension of the operational life of quarry with increased annual production rate and introduction of asphalt and concrete plants will not only enable continued extraction of hard rock but also result in efficient resource recovery to meet market demands for aggregates.

Co-locating asphalt and concrete plants at the site of raw materials is more efficient than separate sites which would involve increased transport costs.

All extracted material is used in the production of products. No waste rock material accumulates on site.

Clause 16: Transport

The access to and from the site is only via Paynes Road off Hume Highway and there are no alternate transport options available to the site. Therefore, products from the site will be transported using public roads Paynes Road and Hume Highway.

No truck movements associated with the proposed development will occur on roads in residential areas or roads near to schools, hospitals or churches.

The RMS did not object the development provided the length of haulage vehicles was limited to general access vehicles 19m or less than 19m due to

the constraints of less space in the Hume Highway median break.

A driver's code of conduct is proposed to ensure:

- All the vehicles entering and exiting the site are roadworthy
- Drivers act in safe and courteous manner
- Trucks leaving the site do not form a convoy on the roads

In addition there will be a limit of no more than 8 laden vehicles will be leaving the site during any one hour.

Clause 17: Rehabilitation

To allow agricultural use at the conclusion of the proposed works, the site rehabilitation will involve:

- Decommissioning/dismantling of various plants following the end of quarry life
- Erection of perimeter tree screen
- Rehabilitation of extraction faces and benches
- Rehabilitation of the extraction area
- Rehabilitation of stockpile area and plant foot prints outside the extraction area

The proposal involves progressive stabilization and rehabilitation to create a final slope with average gradient of approximately 1:3 (V:H) in order to achieve a landform suitable for agricultural use.

A plan of rehabilitation that identifies the tentative final land form of the land and end use of the site for agricultural/grazing purposes once rehabilitated has been submitted. Management strategies for waste generation and remediation process of any soil contaminated by the development are outlined. To this end, operational safeguards, controls and management measures have also been stipulated to ensure public safety and site security.

2.1.8 Yass Valley Local Environmental Plan 2013 (YV LEP 2013)

Zoning

The site is zoned RU1 – Primary Production (refer Figure 4)

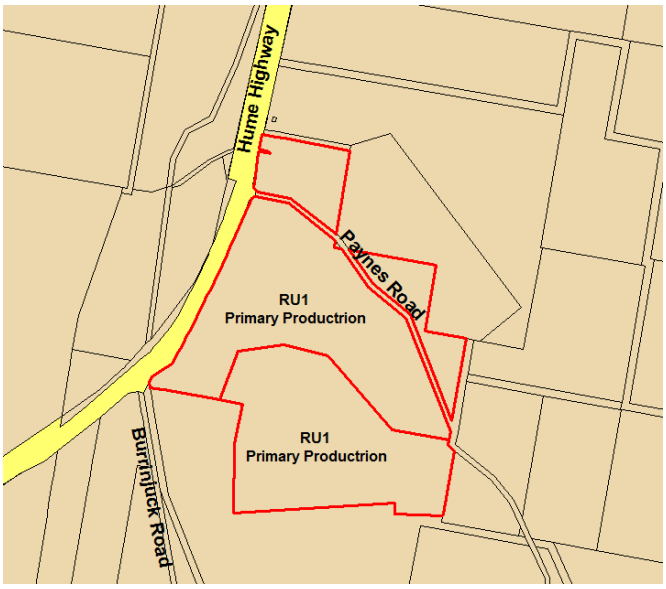

Figure 4 – Zoning Map

Clause 1.4 provides definitions of terms used in the *YV LEP 2013*. The quarry/hard rock extraction component of the proposed development is best characterised as 'extractive industry' whilst operation of mobile asphalt and concrete batching plant is considered as an ancillary use to the 'extractive industry'.

Extractive industries are permitted with Consent in RU1 Primary Production Zone.

The objectives of the RU1 Primary Production Zone are to:

- 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 protect and enhance the biodiversity of Yass Valley.
- To protect the geologically significant areas of Yass Valley.
- To maintain the rural character of Yass Valley.
- To encourage the use of rural land for agriculture and other forms of development that are associated with rural industry or that require an isolated or rural location.
- To ensure that the location, type and intensity of development is appropriate, having regard to the characteristics of the land, the rural environment and the need to protect significant natural resources, including prime crop and pasture land.
- To prevent the subdivision of land on the fringe of urban areas into small lots that may prejudice the proper layout of future urban areas.

Extractive industries are a form of primary industry. The proposed development is considered to be consistent with the objectives of the zone as the site will be used for the purposes of primary industry (i.e. quarrying and processing/manufacturing of products from extractive material). The proposed development is considered unlikely to adversely affect other rural land uses in the vicinity.

The proposal would not fragment or alienate resource lands.

The remediation works proposed will result in the quarry activities affected areas being recovered for future agricultural use.

Tree Preservation

Clause 5.9 YV LEP 2013 refers to the preservation of trees or vegetation and indicates that approval is required for vegetation removal. Consent has been sought to remove 0.05ha of poor condition Box Gum Woodland comprising of four habitat trees including small areas of predominantly native ground layer in association with the development.

It is important to note that these trees do not form part of the Aboriginal object.

OEH indicate the loss of the woodland area will have minimal impact on the biodiversity values, however it is considered appropriate that any approval that may issue include a requirement for site revegetation and planting with Box Woodland species.

Heritage

An assessment of the potential impacts of the proposed development on the Aboriginal cultural heritage and non-Aboriginal cultural heritage values has been undertaken in line with OEH guidelines.

The site is not within a Heritage Conservation Area nor does it contain any listed items of heritage significance. However there are Aboriginal sites at the property.

OEH has identified five Aboriginal sites within the boundary of Bogo Quarry (refer Figure 5).

Figure 5 - Known Aboriginal Sites

For four sites the Applicant has not proposed relocation or demolition or alteration of the Aboriginal objects located on the site but proposes to erect a fence around the objects to avoid any inadvertent impact/damage as part of management/mitigation measures.

One of the Aboriginal sites is within the extraction area. However OEH does not require an Aboriginal Heritage Impact Permit given the location of the site cannot be confirmed.

Given harm to the confirmed Aboriginal sites can be avoided and as an Aboriginal Heritage Impact Permit is not required to be obtained, disturbance can be minimised. However, should any Aboriginal objects are to be relocated, demolished or altered, a separate Consent, a revised Aboriginal Cultural Heritage Assessment Report and an Aboriginal Heritage Impact Permit would need to be obtained. Any approval that may issue can be conditioned accordingly.

Council's Heritage Advisor has not raised any concerns.

Earthworks
The following earthworks are proposed:

- Construction/excavation of a level hardstand area (this was completed for asphalt plant under previous approval)
- Formation and surfacing of the operational areas around each plant with compacted road base

- Utilisation/modification to existing drainage and sediment control infrastructure directing water to the quarry sediment control system

The impacts associated with the 'earthworks' can be effectively managed through the implementation of soil and water management measures as proposed. The following measures to minimise the impacts on the drainage pattern and soil stability are minimal:

- Diverting surface water flows away from the active areas of disturbance
- Controlling the flow of surface water over areas of disturbance
- Direct the runoff from the disturbed areas to detention structures
- Use silt-stop fencing and straw bale to prevent the sediment movement

Biodiversity

Figure 6 details the potential biodiversity affecting the site.

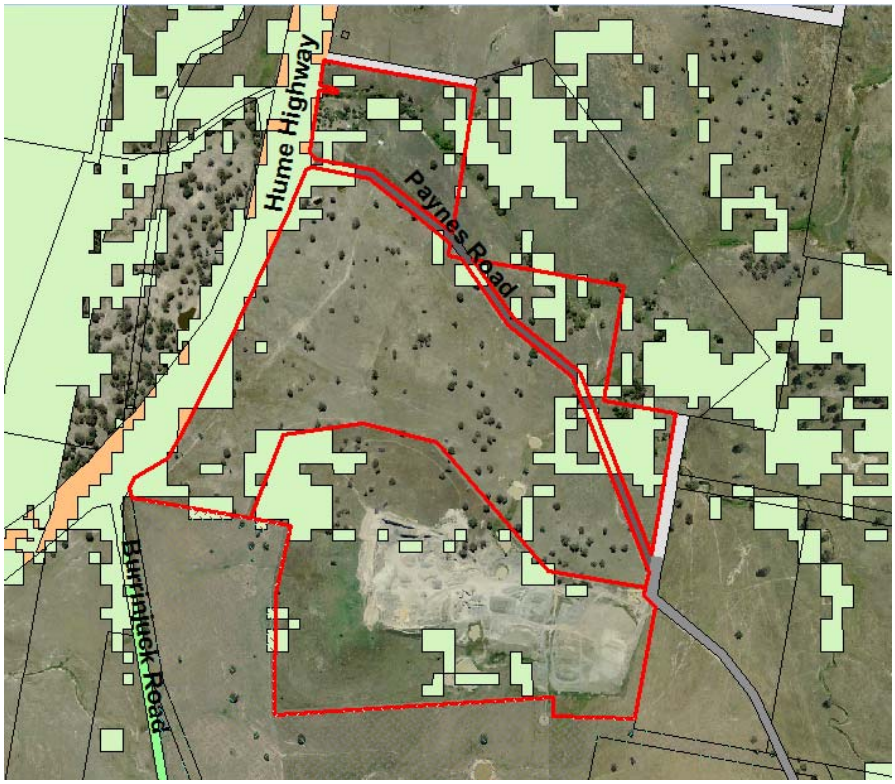

Figure 6 – Natural Resource Biodiversity Map

The vegetation on the site is highly modified by past and ongoing disturbances including vegetation clearing, grazing and pasture improvement. The vegetation on site mainly consists of cleared, exotic pasture with scattered trees, remnants of the native vegetation community White Box Yellow Box Blakely's Red Gum.

The key ecological values present on the site are:

- 0.05 ha of remnant native vegetation in small patches of paddock trees with a predominantly native grass ground layer
- Four potential habitats but without visible hollows
- One Threatened Ecological Community White Box-Yellow Box-Blakely's Red Gum Woodland (Box Gum Woodland)

Box-Gum Woodland
The gentler topography across this part of the region supported Yellow Box *Eucalyptus melliodora*, White Box *Eucalyptus albens,* Blakely's Red Gum *Eucalyptus blakelyi* woodland, known as Box- Gum Woodland. The original vegetation covering the project area was of Box–Gum woodland, as demonstrated by the remnant trees that exist on and surrounding the land. This woodland would have had a grassy understorey. The Box-Gum woodland is the listed White Box-Yellow Box-Blakely's Red Gum Woodland community listed under the *Threatened Species Conservation Act 1995.*

The stand of trees does not meet the minimum requirements for the White Box – Yellow Box - Blakely's Red Gum woodland and derived native grassland set out in the Commonwealth document White Box-Yellow Box-Blakely's Red Gum grassy woodlands and derived native grasslands (Department of Environment & Heritage, 2006). This being the case, there was no need to refer the proposal to the Commonwealth for assessment.

Yass Daisy
The occurrence of Yass Daisy within the site area is likely to be low as to the majority of the site does not provide suitable habitat due to past grazing practices and widespread disturbance. The EIS indicates Yass Daisy was not observed/recorded on the site following a thorough survey during flowering period.

Flora and Fauna Assessment
A Flora and Fauna Assessment of the site has been undertaken and confirms that the vegetation on site is almost entirely exotic.

The Flora and Fauna Assessment submitted in support of the proposed development indicates no flora species or endangered populations listed under the *Environment Protection & Biodiversity Conservation Act 1999* and *Threatened Species Conservation Act 1995* were identified during field surveys. Similarly, no threatened fauna were identified, nonetheless a small number of fauna predominantly birds were detected during field survey. The low fauna diversity can be attributed to the modified landscape and lack of significant habitat due to past clearing practices.

The Flora and Fauna Assessment has made the following conclusions and recommendations:

- Overall the proposal is unlikely to result in significant adverse impact on any threatened species populations or ecological communities
- Whilst 0.05ha of Box Gum Woodland ecological endangered community (EEC) will be required to be cleared as a result of proposed development, however this EEC is highly fragmented and in poor condition with predominantly high presence of exotic species and weedy grassland currently being utilised for grazing
- Only four large and mature Box Gum Woodland trees will be removed which do not appear to contain hollows
- Other patches of Box Gum woodland occurring on the site will not be disturbed
- The proposal will result in removal of 1.27 ha of predominantly exotic grazed pasture/grass land
- The principal measure to reduce the impacts of the proposed development on biodiversity values is to restrict the removal of native vegetation and habitat to within the footprint of proposed development activities, apply current best practice sedimentation and siltation measures to manage runoff and to manage weeds

A wildlife ecologist or an experienced wildlife carer is proposed to be present when any of the habitat trees are felled. An appropriate condition can be included in any approval that may issue.

To offset the loss of trees that are to be cleared as the extraction area advances, the Applicant has proposed to plant and maintain the local indigenous trees and shrubs.

Groundwater Vulnerability

The site is identified as being subject to groundwater vulnerability (refer Figure 7).

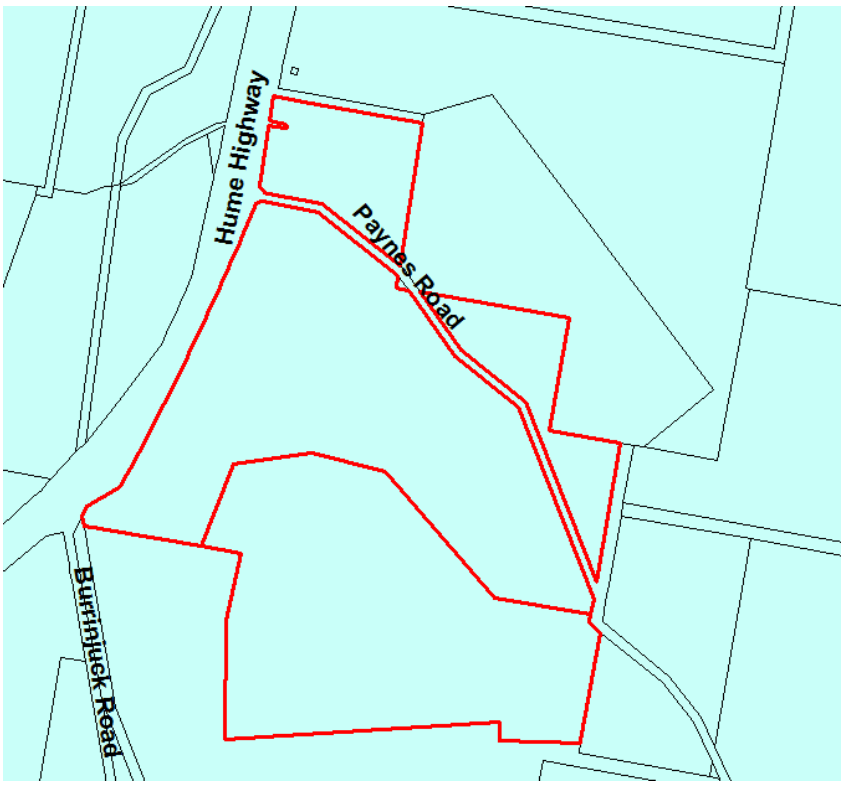

Figure 7 – Riparian Lands, Watercourses & Groundwater Vulnerability Map

The potential for on or off-site groundwater contamination is proposed to be managed by:

- Diverting surface water flows away from the active areas of disturbance
- Controlling the flow of surface water over areas of disturbance
- Managing the use, storage and in the event of a spillage control and cleanup of hydrocarbons

The location of various structures and controls nominated including the relevant design features for surface water management are shown in Figure 8.

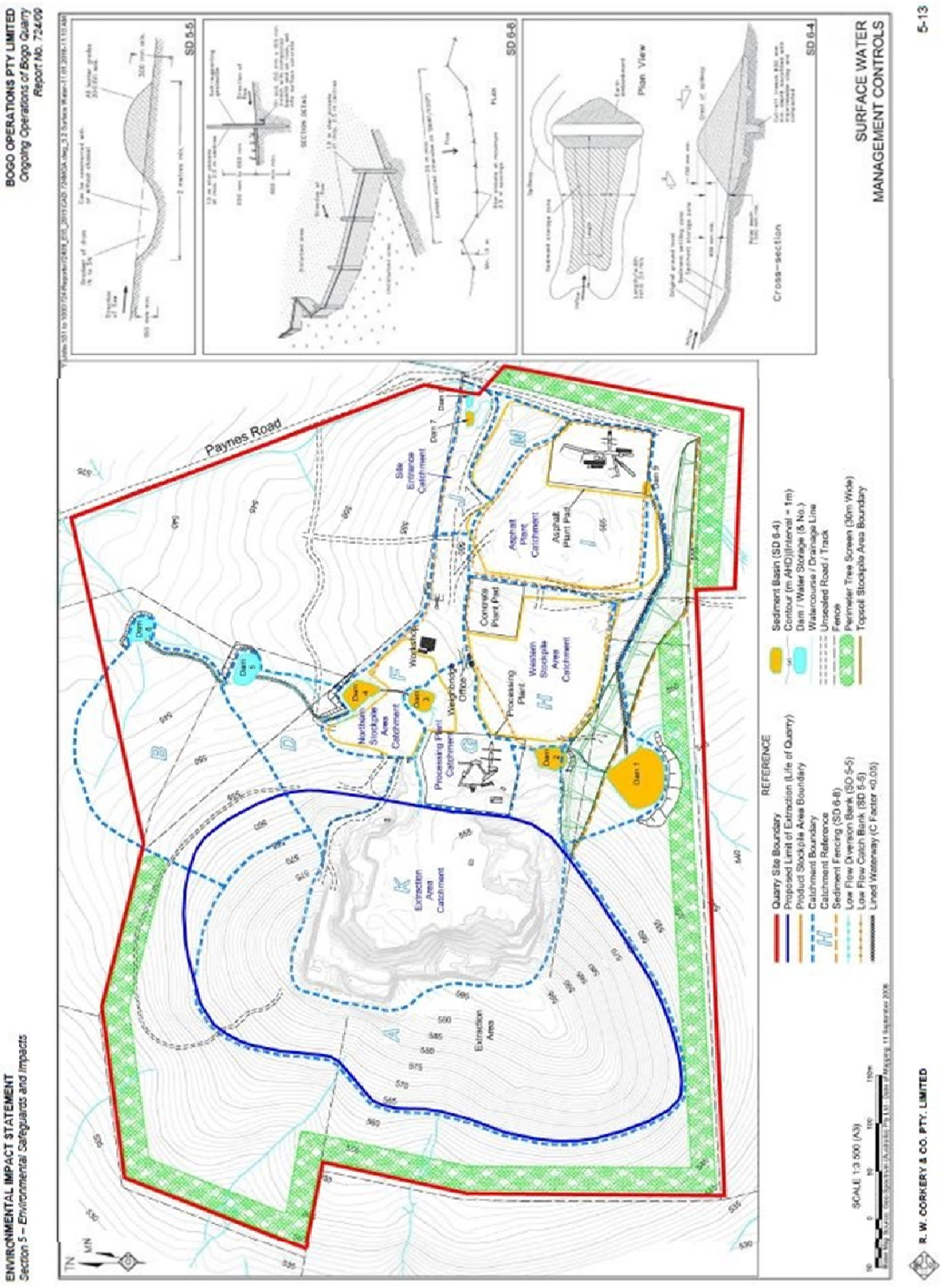

Figure 8 – Surface Water Management Controls

Groundwater contamination could occur if the proposed surface water management controls are not implemented in a manner that prevents seepage.

Despite the low risk to groundwater, the Applicant has proposed that a continued surface water quality monitoring program would be implemented to ensure that the surface water management system is effective and properly maintained. Samples would be undertaken following the first substantial rainfall

event resulting in visible runoff from the site every six months. The samples would be analysed for pH, electrical conductivity, suspended solids, oil and grease.

The Office of Water has raised no concerns and provided no specific conditions. The EPA has provided General Terms of Approval that prescribes concentration limits of oil and grease, pH and total suspended solids pollutant must not exceed the specified concentration limits for these pollutants in order to avoid any adverse impacts to the surface water runoff and ground water environment.

It is therefore considered that the proposed development can be managed to mitigate any potential impacts

Natural Resources

The site is not identified as being affected by a watercourses or riparian environments identified in the *YV LEP 2013*.

The drainage line traversing the site is ephemeral and is not significant in terms of fish or aquatic organism passage.

The implementation of surface water management strategy together with the EPA's General Terms of Approval would reduce the potential impacts on surface water and it is not anticipated that the development would lead to any adverse impacts on the riparian environment.

The site is not identified as being affected by salinity.

A small patch of the site identified as containing highly erodible soils is located within the floor of the existing quarry. There are two other small areas of land located in the southwestern corner of the site being identified as containing highly erodible soils (refer Figure 9).

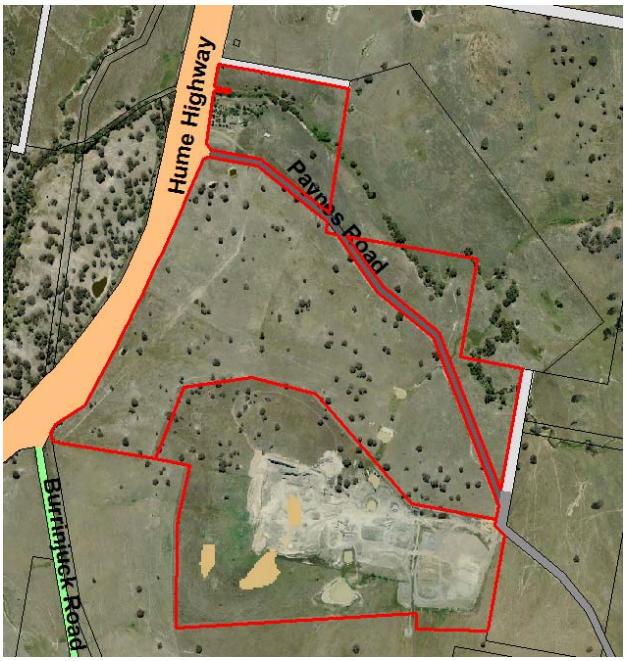

Figure 9 – Natural Resources Land Map – Highly Erodible Soils

The EIS indicates the site soils are likely to be moderately to highly erodible. This means if exposed to overland flow it would be likely to erode. Accordingly appropriate stripping and stockpiling control and procedures are required to prevent the formation of erosion gullies as a result of proposed development.

Surface water management controls effectively contribute towards soil erosion controls are proposed. A range of surface water management/drainage control measures including divert water around disturbed areas and direct runoff from disturbed areas to sediment dams and use silt stop fence and straw bales where appropriate are proposed.

The soil and water management measures proposed are considered appropriate to prevent soil erosion.

2.2 Any draft planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority

No draft-planning instrument applies to the proposed development.

2.3 Any Development Control Plan

Development Control Plan – Community Consultation
Council's *Community Consultation DCP* applies to the proposed development. The notification requirements in this plan are less prescriptive than those in the *Environmental Planning & Assessment Act 1979* and the *Environmental Planning & Assessment Regulation 2000.*

Given that the application is for Designated Development it was formally notified and advertised in accordance with the requirements of the Act and Regulation. The application was advertised and notified for a period in excess of 30 days on-site, in the local newspaper (i.e. Yass Tribune) and on Council's website from 6 April 2016 up until 9 May 2016. The proposal was also notified to approximately 160 nearby properties within a radius of 4km of the site. No submissions were received during public exhibition period.

Heavy Haulage Section 94 Contributions
The proposed development is subject to Council's *Heavy Haulage Section 94 Contributions Plan 2006*. This plan provides necessary framework for the efficient and equitable determination and collection of contributions towards the maintenance, upgrade and construction of roads utilised by the heavy vehicles associated with the development. To this end, the contributions will only be sought where a nexus can be established between heavy vehicle usage resulting from the development and need for new roads or additional maintenance. Moreover, the plan also provides exemptions, in that it does not apply to National Highways and State Roads within the Local Government Area.

The Applicant has proposed to continue maintenance of Paynes Road to the life of quarry/proposed development as required under the previous approval for the extraction of hard rock quarry. Additionally, the EIS indicates that the heavy vehicles associated with the proposed development would be using Paynes Road, Hume Highway and Barton Highway. Both the Hume and Barton Highways are State Roads so plan does not apply. As the Applicant is willing to continue maintenance of Paynes Road, a section 94 Contributions is not required.

2.4 Any planning agreement that has been entered into under section 93f, or any draft planning agreement that a developer has offered to enter into under section 93f

No planning agreements are applicable to the proposal.

2.5 The regulations (to the extent that they prescribe matters for the purposes of this paragraph) that apply to the land to which the development application relates

The proposal does not involve the demolition of any structures and as such, the regulation do not prescribe any matters that are of relevance to this application with the exception of public notification which require specific consideration in the assessment of this application.

2.6 The *likely impacts of that development*, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality.

Context and Setting

The land surrounding the proposed development is predominantly characterised by rural agricultural lots with agricultural pursuits with existing dwellings.

In a broader landscape context, the site sits on the eastern side of a small hill located at a distance of about 900m directly south of the Paynes Road and Hume Highway intersection. The locally significant Bald Hill is at a distance of about 1km to the south, Black Ridge is located approximately 2.5km to the east and the sprawling Sugarbag Hill is at a distance of about 4km south-southeast of the Bogo Quarry site (refer Figure 10).

All the dwellings on adjoining or nearby properties are located at least 1.4km or more from the quarry. The closest dwelling is 1.4km north of the quarry which is related to quarry. Any existing impacts on these dwellings is likely to continue for a further 30 years.

With limits on future development in the RU1 Primary Production Zone new impacts are unlikely.

Given the scale of the proposed development it cannot be screened to remove it completely from the landscape. As the site has been used as hard rock quarry in the past for more than 36 years it is considered unlikely that the scenic qualities, character and features of the broader landscape will be adversely impacted. This impact will also be reduced by the erection of perimeter tree screen and southern berm.

The planting of tree and shrub species for a perimeter tree screen is proposed and will include Yellow Box (*Eucalyptus melliodora),* Red Box (*Eucalyptus polyanthemos)* and Blakely's Red Gum (*Eucalyptus blakelyi).*

On this basis, the proposed development is not considered likely to have a significant adverse impact on context and setting of the locality.

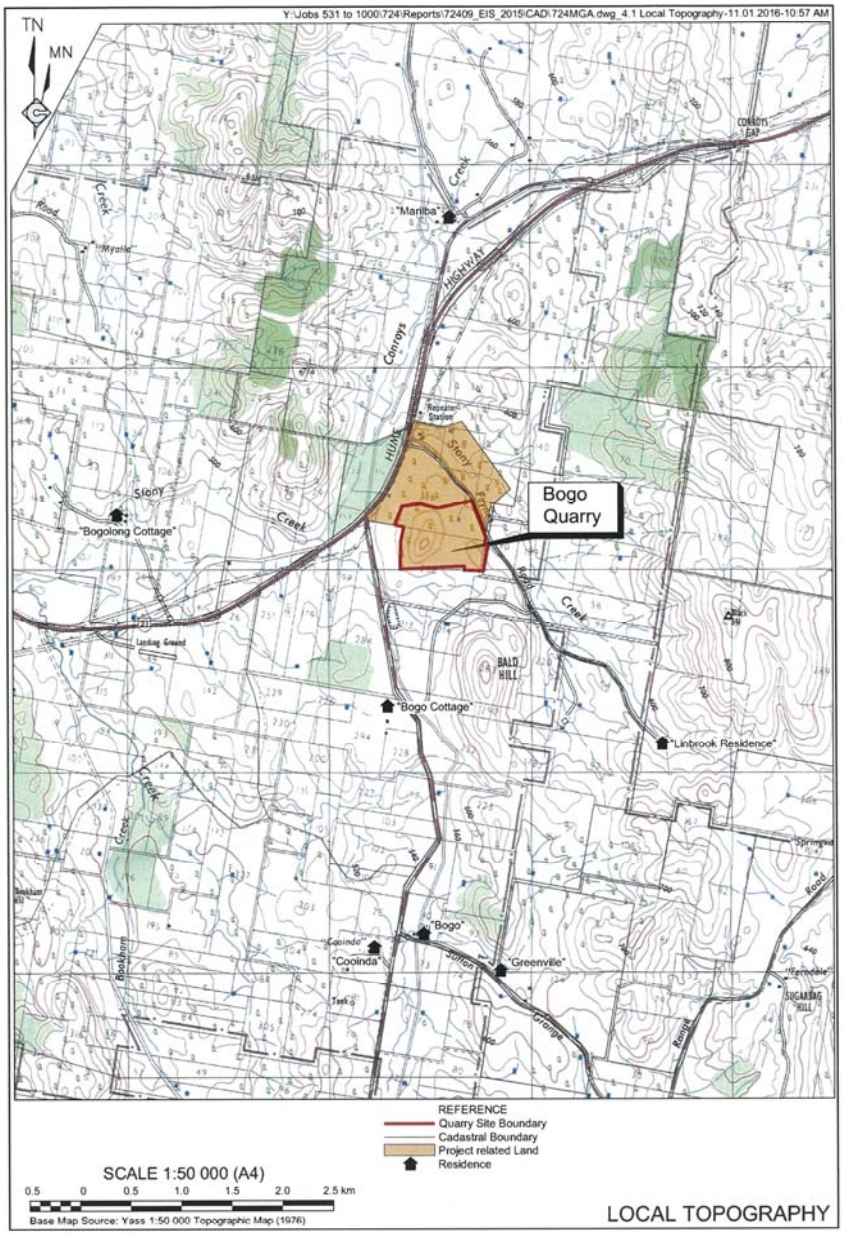

Figure 10 – Site Context

Access, Traffic and Transport

Access to the proposed development will be via Paynes Road, which in turn accesses directly onto Hume Highway.

The proposed development is anticipated to generate an additional 104 average truck movements (or 52 loads) per day onto Paynes Road and then onto Hume Highway when only the quarry is in operation. On a peak busy day when quarry, asphalt and concrete plants all are operational traffic generated form the development is expected to be maximum of 240 truck movements (or 120 loads) per day. It is proposed to

continue to limit the previously approved truck movements per hour requirement (i.e. no more than a total of 8 laden vehicles will be leaving the site during any one hour).

Hume Highway is capable of catering for the increased traffic volumes, however Paynes Road needs upgrading. Road upgrades and ongoing maintenance of Paynes Road is required to achieve a standard to minimise the impacts of the proposed development on public road network and to ensure traffic safety and efficiency.

The quarry operators will continue to maintain Paynes Road as part of proposed development up for the operational life of the quarry.

In addition a traffic management plan and drivers' code of conduct are proposed for transportation of material from the site.

The proposed location of perimeter tree screen down the slope from the quarry appears will not aid to screen the quarry from Hume Highway. In this regard, the quarry needs to be staged and operated so that the working face of the quarry and disturbed surface is not visible from the carriageway of Hume Highway.

The following Consent conditions can be included in any approval that may issue to address the traffic issues:

1. *Works associated with the proposed development shall be at no cost to Yass Valley Council and NSW Roads and Maritime Services.*

2. *Engineering drawings associated with the upgrade of Paynes Road from the Hume Highway to the Quarry entrance shall be submitted to Council's Engineering Department for approval in accordance with Council's Roads Standards Policy RD-POL-09 and Council's Design and Construction Specification – Ausspec#1.*

   Upgrade works shall be designed to at least category Local-Minor per Council's Roads Standards Policy, prepared by an appropriately qualified engineer and detail how the road will be rehabilitated to address localised failures, edge breaks and strengthened to manage the increased heavy vehicle loads

3. *Prior to works commencing within the road reserve of a public road approval is required under s138 Roads Act 1993 from the road authority (Council) however for works within the road reserve of the Hume Highway (HW2) concurrence from Roads and Maritime Services is required prior to the issue of that approval. The developer is responsible for all public utility adjustment/relocation works, necessitated by the proposed works and as required by the various public utility authorities and/or their agents."*

4. *Access to Paynes Road and the development site is restricted to general access vehicles only. The transportation of materials/goods to or from the quarry site is restricted to general access vehicles with a length ≤ 19m.*

5. *A maximum of 8 laden vehicles are permitted to leave the quarry site via the Hume Highway in any given hour.*

6. *The quarry shall be operated so that the working face of the quarry and the disturbed area of the quarry is not visible from the carriageway of the Hume Highway.*
7. *The traffic management plan and drivers code of conduct for the transportation of material from the quarry site should be prepared in*

consultation with Yass Valley Council and NSW Roads and Maritime Services.

8. *The Applicant shall keep accurate records of the amount of extracted material and process material transported on the public roads and associated traffic movement numbers to and from of the subject site (on a monthly basis). These records shall be made available at the request of either the Yass Valley Council or Roads and Maritime Services.*

9. *The Applicant shall prepare and implement a Transport Management Plan, in consultation with Council and Roads and Maritime Services, to outline measures to manage traffic related issues associated with the operation of the development and haulage of material. This plan shall focus on the management of traffic generated by the development, the potential impacts, the measures to be implemented, and the procedures to monitor and ensure compliance. As a minimum it shall address, but not necessarily be limited to, the following:*

    - *Measures to ensure heavy vehicles adhere to the designated haulage route*
    - *Measures to maximise the use of a low frequency (regular) trucking schedule rather than an intermittently-high frequency (campaign) trucking schedule*
    - *Plans to address poor visibility due to adverse weather eg heavy rain periods, fog etc at the intersection of Paynes Road with the Hume Highway*
    - *Contingency plans to address disruptions to haulage or closure of the haulage route,*
    - *Measures to ensure that all loaded vehicles leaving the site are covered, and are cleaned of materials that may fall onto public roads*
    - *Details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with truck movements to and from the quarry*
    - *Measures to be employed to limit disruption to other motorists, emergency vehicles and school bus timetables*
    - *A Driver Code of Conduct to address such items as; appropriate driver behaviour including adherence to all traffic regulations and speed limits, safe overtaking and maintaining appropriate distances between vehicles, etc and appropriate penalties for infringements of the Code*
    - *The management of worker fatigue during trips to and from the site*
    - *Appropriate vehicle maintenance and safety*
    - *Procedures to provide for training and compliance with and enforcement of the plan*

Public Domain: Site Design and Internal Design

The proposed design/layout of the quarry, subject to the proposed conditions, has taken into account the site constraints and has been assessed as being capable of being approved.

Public Domain: Hours of Operation
The currently approved hours of operation for the quarry are:

- 7.00am – 10.00pm Monday to Saturday
- 8.00am to 10.00pm Sunday

An increase in the hours of operation has been sought (refer section 1.3).

The proposal involves some operations/activities that will be carried out beyond that previously approved together with product transportation and maintenance are proposed during any time Monday to Sunday.

The EPA has recommended following hours of operation.

Table 3 – Hours of Operation

Activity	Day	Time
Blasting	Monday to Friday Saturday, Sunday and Public Holidays	9.00 a.m. to 5.00 p.m. None
Extraction	Monday to Saturday Sunday	5.00 a.m. to 10.00 p.m. None
Processing	Monday to Sunday	5.00 a.m. to 10.00 p.m.
Product transportation and maintenance	Monday to Sunday	Any time.

The EPA indicate the above hours do not apply to the delivery of material outside of these hours of operation if that delivery is required by police or other authorities for safety reasons, and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is required to be provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.

The EPA has indicated that the hours of operations may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

Public Domain: Light Spillage
The potential sources of light emissions/spillage are extraction and processing operations areas, haul truck lights, fixed lights on mobile plants such as bulldozer, excavators and loaders, lighting at the maintenance workshop, lighting at loading & unloading areas, portable generator towers (if any) and lighting for security and safety purposes.

The potential recipients of light emissions from the subject site would be people living in nearby private residences, and passers-by on Paynes Road and Hume Highway.

Direct views of the lighting can be avoided by careful placement and orientation of individual lights.

No mitigation measures to reduce the potential light impacts on the surrounding area are proposed however this can be address by Consent conditions through a requirement for a lighting management plan (including monitoring of light emissions, review of complaints and detailing any corrective action taken).

Public Domain - Visual Impact and Visual Effectiveness of Berm

As can be seen in Plate 2, the pictures provided by Cr Geoff Frost, JRPP Panel Member, the activities within the quarry site area can be visible to varying degrees to the south of the site, Burrinjuck Road.

Plate 2 – Quarry Visibility

The assessment of the visual landscape indicates the views to the quarry from outside vantage points are obscured to a very limited extent by intervening topography and stockpiles or advancing face of the extraction area. Erection of southern earth bund and perimeter tree screen (see Figure 12) in order to minimise the visual impact is recommended.

The proposed location of the perimeter tree screen down the slope from the quarry will be most effective towards the end of and beyond the quarry's operational life.

The proposed southern earth bund is to be constructed using overburden material from the advancing face of extraction area supplemented by virgin excavated natural material (VENM). The bund will ultimately be effective in shielding extraction area, sections of the processing plant and concrete plant from views from Burrinjuck Road. The southern bund will be constructed progressively and would achieve its full height in a period of about 5-10 years. The bund will be revegetated with cover crop of grass to blend in to the landscape. The bund will also provide a sound attenuation for sound generated by the quarry and mobile plant operations.

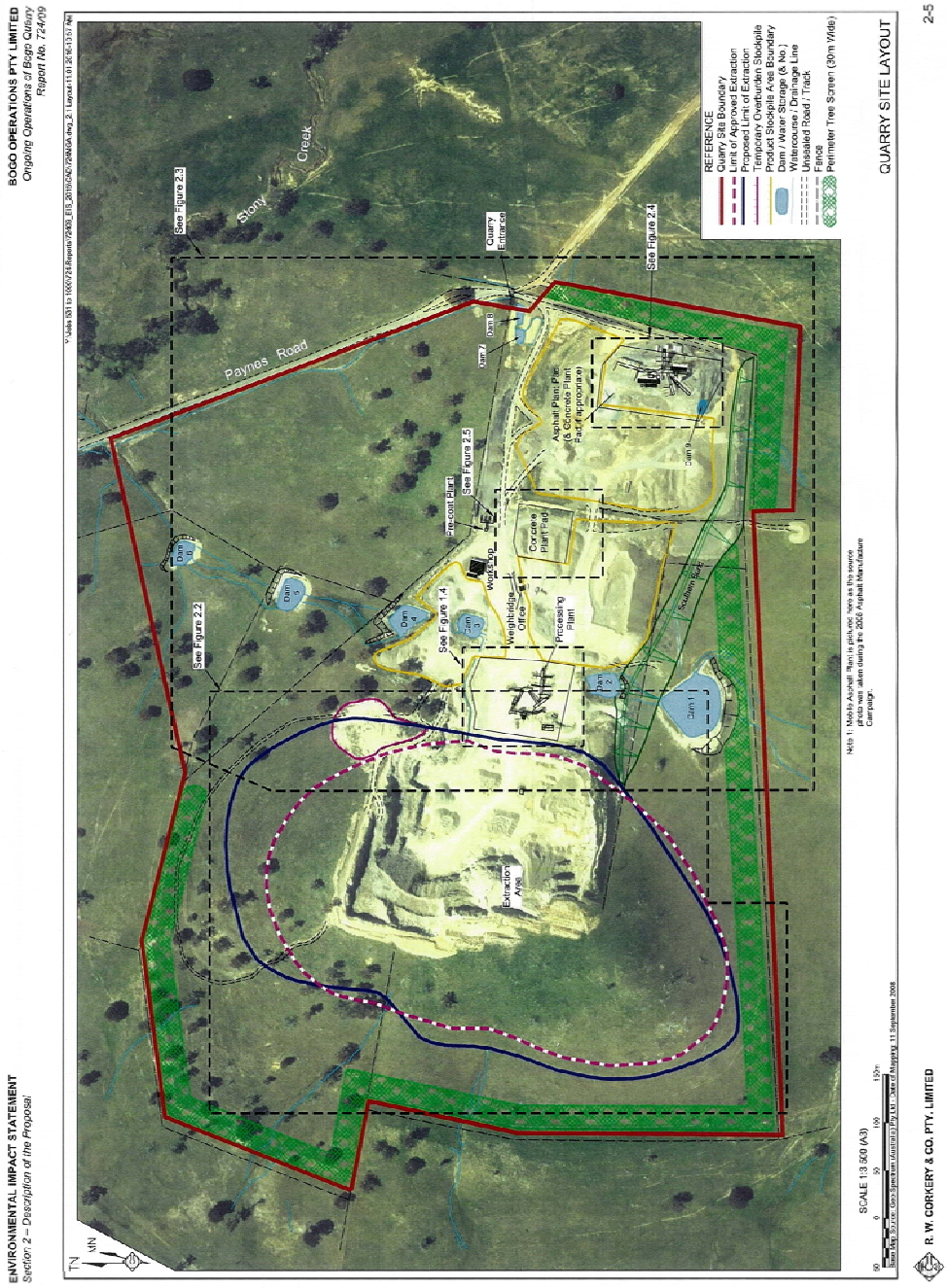

Figure 12 – Quarry Site Layout

It is considered appropriate that the quarry be operated in such a way that the working face of the quarry and the disturbed area of the quarry are not visible from the carriageway of the Hume Highway and Burrinjuck Road. An appropriate requirement to this effect can be included in any approval that may issue.

Council's Parks & Garden staff recommend the planting of a thicker buffer of trees along the site perimeter consisting of 5 rows of trees at 8m intervals between trees in order to have a better buffer effect or lessen the visual impact of the quarry from the highway and Burrinjuck Road.

Utilities
All essential services are either available or can be extended to the site. The Applicant is responsible for the provision or extension of the essential services.

Water - Surface Water/Drainage
Water for the proposed development would be provided through surface water harvesting utilising existing settlement pits and dams.

NSW Department of Primary Industries Water (DPI Water) has raised no concerns and provided no specific conditions.

The EPA has provided General Terms of Approval that prescribes concentration limits of oil and grease, pH and total suspended solids. The surface water runoff leaving the site must not exceed the specified concentration limits for these pollutants in order to avoid any adverse impacts to the surface water runoff and groundwater environment. To this end, the Applicant has proposed a continued surface water quality monitoring program in order to ensure water discharged from the site is of an acceptable quality and has no potential to impact the water quality downstream.

Noise
No noise or vibration complaints have been received by Council, the EPA or quarry operator regarding on-site operations or traffic to and from Paynes Road/Hume Highway, it is considered that the existing Bogo Quarry operations are unobtrusive sources of noise at the local level.

There are no sensitive locations such as schools, churches or hospitals are located near the site.

Five residences/noise receivers or potentially affected noise receivers or sensitive receivers have been identified ranging in distances from the quarry of 1.4km (for the closest receiver) to 3.8km i.e.

Table 4 – Sensitive Residences Location

Residence	Ownership	Approximate Distance from Site
R1 – “Bogolong Cottage”	Refax Pty Ltd	2.9km west of quarry site
R2 - “Marilba”	Marilba Pastoral Co Pty Ltd	2.9km west of quarry site
R3 - “Linbrook”	Linbrook Pty Ltd	2.9km southeast of quarry site (at the end of Paynes Road)
R4 - “Cooinda”	R T Walker	3.8km south of quarry site
R5 – “Bogo Cottage”	Bogo Pty Ltd	1.4km south of quarry site
R6 – “Bogo”	Bogo Pty Ltd	3.6km south of quarry site

The Noise and Blasting Assessment report assessed noise impacts in accordance with the EPA *Industrial Noise Policy*. The report provides details of existing background noise levels, establishes noise criteria, identifies potential noise emission sources and provides results of noise modelling of the potential noise levels that may be experienced at the sensitive receivers within 4km radius of the quarry site.
The noise report was completed with the retention of sound power levels from the previous Bogo Quarry EIS report due to the fact that there is no change in the

equipment. Consequently, no noise testing of background levels was carried out and reliance was made on default background noise levels.

A background noise level of 30dB(A) have been adopted consistent with the noise level for a quiet countryside (as per EPA *Noise Control Guide for Local Government)*. The adoption of conservative background noise level of 30dB(A) is adequate.

The EPA has indicated a limit of 35dB(A) LAeq(15 minute) or the average noise level over any 15 minute period during day, evening and night for all receivers except for the closest residence. For this site the limit is 36dB(A) LAeq(15 minute). The EPA has provided General Terms of Approval specifying the criterion of 35dB(A) & 36dB(A) is not to be exceeded.

These requirements are considered sufficient to ensure the proposed development would not unacceptably impact on any dwellings located on nearby adjoining properties.

A condition can also be included in any approval that may issue prohibiting the use of a rock breaker and any heavy equipment that when operating could exceed a noise level of 35dB(A).

Blasting and Vibration

Hard rock extraction is proposed to use Drill and Blast methods. The currently approved blasting frequency of 12 times a year is proposed to continue. Each blast would yield approximately 20,000 tonne to 60,000 tonne depending upon location within the extraction area.

The blast design, loading and firing would be undertaken by a contractor or a suitably qualified and experienced blasting engineer holding a shot firer's certificate issued by NSW Department of Industry (Division of Resources & Energy).

As per current practice, all blast holes will be drilled into the rock in a designated and predetermined pattern, angle, spacing and depth and initiated in a sequence to reduce ground vibration. The holes would be filled with:

- Partially with explosives comprising a primer at the base
- Bulk explosive
- Stemming comprising of 10mm or similar aggregate onto top 3m of each hole above the bulk explosive to minimise air blast

The impacts (including emission levels) associated with the blasting are assessed against the human comfort/annoyance criteria of Australia New Zealand Environment Conservation Council (ANZECC), *Australian Standard AS 2187.2-1993 (Explosives—Storage, transport and use Part 2: Use of explosives)* and *Orica Explosives Blasting Guidelines* applicable to blasting to a free face in hard and highly structured rock. The predicted levels of blast emissions for the nearest potentially affected residences are as follows:

Table 5 – Predicted Level of Blast Emissions

Residence	Distance from the Blast (m)	PVS Ground Vibration (mm/s)	Max PVS Ground Vibration (mm/s)	Peak Airblast (dB Linear)	Max Peak Airblast (dB Linear)
R1 – "Bogolong Cottage"	2,890	0.2	5.0	107	115
R2 - "Marilba"	2,950	0.2	5.0	107	115
R3 - "Linbrook"	2,910	0.2	5.0	107	115
R4 - "Cooinda"	3,790	0.1	5.0	105	115
R5 – "Bogo Cottage"	1,450	0.6	5.0	115	115

The predicted levels comply with the ANZECC human comfort criteria. The EPA has recommended conditions requiring compliance with the ANZECC human comfort criteria relating to this blasting.

To ensure no safety risks are posed by fly rock during blasting operations on private properties and public roads, it is considered that for any Consent that may issue should contain following conditions:

1. Blasting is not to take place outside of the approved hours of operation.
2. No fly rock is to travel past the property boundary
3. The sensitive receivers/residences identified in the EIS i.e. within 4km radius of the quarry site shall be provided following information prior to undertaking any blast:
    - A schedule of planned blast event
    - The likely blast location, date and time for the scheduled blasting event
    - Contact information should the residents have any further queries or concerns
    - Should the blasting schedule is changed, all the residents be advised prior to implementation of the revised schedule.
4. A notice shall be installed at the site entrance when the blasting is planned indicating the schedule, and date & time of blasting operation.
5. All blasts shall be monitored by the quarry operator to ensure compliance with ground vibration and airblast overpressure to ensure compliance with ANZECC human comfort criteria. A copy of the blast monitoring data shall be submitted to Yass Valley Council and NSW EPA annually.

Flora and Fauna

The most majority of the site is cleared farmland. Adjustment of the quarry footprint requires removal of 1.27 ha of predominantly exotic grazed pasture/grass land and 0.05ha of Box Gum Woodland ecological endangered community (EEC) comprising of four habitat trees including small areas of native ground cover. The supporting Flora and Fauna Assessment provided describes this EEC on the site is highly fragmented and is in poor condition due to presence of predominantly exotic species and weedy grassland being used for grazing purposes.

The Flora and Fauna Assessment has determined that the impact of the proposed development on native flora and fauna is minimal and the tests of significance undertaken under section 5A of the Act indicate that the proposal is not considered likely to have a significant effect on threatened species, populations or communities listed under the *Threatened Species Conservation Act 1995* and the *Environment Protection & Biodiversity Conservation Act 1999*, or their habitats, and the preparation of a Species Impact Statement (SIS) is not warranted.

The Flora and Fauna Assessment and subsequent additional information submitted in relation to biodiversity was referred to OEH. OEH has recommended following condition:

- The White Box Yellow Box Blakely's Red Gum Woodland (Box Gum Woodland) must be identified on Figure 5.3 – Quarry Site Vegetation, including the habitat and hollow bearing trees in the study area.

An updated Figure 5.3 of the EIS was again referred to the OEH however this did not show any hollow bearing trees. OEH has recommended that the previously recommended condition continue to be included in any approval that may issue.

The assessment indicates that the site has low fauna diversity is due to the modified landscape and lack of significant habitat features on the site resulting from past clearing. Given the fragmented landscape and the presence of pest fauna species, the site is likely used for dispersal and foraging purposes by fauna species (mainly birds).

It is considered that the proposal is unlikely to result in significant impact to any threatened species, populations or ecological communities.

Heritage

The proposed development was assessed for its impact on both Aboriginal and Non-Aboriginal cultural heritage and included investigations of relevant databases recording of Aboriginal sites, objects and places, and contacts were made with the Yass Onerwal Local Aboriginal Land Council, Buru Ngunawal Aboriginal Corporation and OEH.

The development history of the property along with its landscape and ecological description was also reviewed in conjunction with a site survey undertaken by a consultant archaeologist and representatives of the Onerwal Local Aboriginal Land Council and Buru Ngunawal Aboriginal Corporation.

The Cultural Heritage Assessment Report was referred to OEH for comments. In response, the OEH was not satisfied with the report and requested a revised assessment that complies with the current legislative requirements. OEH reviewed the revised information and have provided recommended Consent conditions.

The Onerwal Local Aboriginal Land Council and Buru Ngunawal Aboriginal Corporation, who were consulted as part of this assessment and also took part in the site survey carried out as part of EIS preparation, indicated no issues or further requirements for the planned development of the property.

The following mitigation measures have been proposed in relation to both Aboriginal and Non-Aboriginal cultural heritage in order to ensure ongoing protection:

- Complete registration of recorded sites with OEH and an Aboriginal Heritage Information Management System (AHIMS) site card be completed. Only three out of five Aboriginal sites could be relocated. It is important to note that site cards for these sites have been prepared and lodged with Aboriginal Heritage Information Management System (AHIMS).
- High visibility coloured pegs have been erected around the extent of the Aboriginal sites except for IF1 being located outside of the quarry area. Fencing is also not possible for IF2 site due to fact that location of the site cannot be confirmed and as such it cannot be recorded on AHIMS.
- Should any previously unrecorded or un-anticipated Aboriginal cultural object(s) are identified during any works, the works must be ceased and OEH must be notified of the find.
- In consultation with OEH, local Aboriginal representative body and a qualified archaeologist, a management strategy should be developed to manage the identified Aboriginal object(s). This may include to apply for an Aboriginal Heritage Impact Permit (AHIP).

These measures can be included in any Consent that may issue.

Other Land Resources
The proposal is located on land which has historically been used as a quarry and is unlikely to impact on other land resources in the locality.

Soils
The EIS indicates that the general soil profile of the site is likely to be moderately to highly erodible and the soil cover over site is minimal and if it is exposed or stockpiled it would erode due to overland flow of the surface water runoff. As such, appropriate erosion and sediment control measures are required to be placed to prevent the formation of erosion gullies.

A range of water management and drainage control measures have been proposed in order to prevent soil erosion. These include:

(i) Diversion the water via banks or drains around the disturbed area
(ii) Directing the runoff from the disturbed areas to detention structures. Use silt-stop fencing and straw bale to prevent the sediment movement.
(iii) Soil stockpiles aligned generally parallel with the contour in low mounds not exceeding 2m in height.
(iv) Construction of diversion embankment to isolate stock piles from upslope runoff.
(v) Silt-stop fencing positioned down slope of stockpile until adequate level of stabilisation is achieved.
(vi) Soil stockpiles to be retained in excess of 3 month and sown with a cover crop to stabilise the soil surface and continue biological activity within the soil.

The proposed measure for erosion and sedimentation control are considered adequate and if implemented would prevent the formation of erosion gullies.

Site Rehabilitation
The proposed rehabilitation aims to return the quarry operations and processing areas to the creation of a landform suitable for grazing purposes typical of the local area.

Blast design is to be adjusted when approaching the final perimeter of the extraction area to create a final slope with average gradient of 1:3 (V:H). The final perimeter would be created with variable elevations to create a natural non-geometric or flat landform when seen from outside of the extraction area. This will be achieved by:

- Restoration blasting
  Terminal faces would be blasted to leave 0.5m of blasted rock over the final slope. A slope gradient of 1:3 would be created by varying the drill depths prior to blasting. The blasted rock would be shaped using bulldozer and then subsoil and topsoil be placed over the slope and then area will be seeded with pasture

- Placement of imported VENM/ENM/overburden placement
  As each face become terminal, imported VENM/ENM may be placed against or tipped over the terminal to create a gradient of about 18^0 after which subsoil and topsoil material will be placed and area will be seeded.

The floor within the extraction area will be created at an elevation of 545AHD (see Figure 13) with a gentle fall to the south. The resultant dam would be created with gentle side slopes to allow stock safe access to water within the dam.

The final floor of the extraction area will retain approximately 0.5m of blasted rock to enhance water infiltration where required. The substrata above the blasted rock would comprise of approximately 0.3m of subsoil material and 0.15m of topsoil. The final floor will be seeded and tree plantation will be done around the dam.

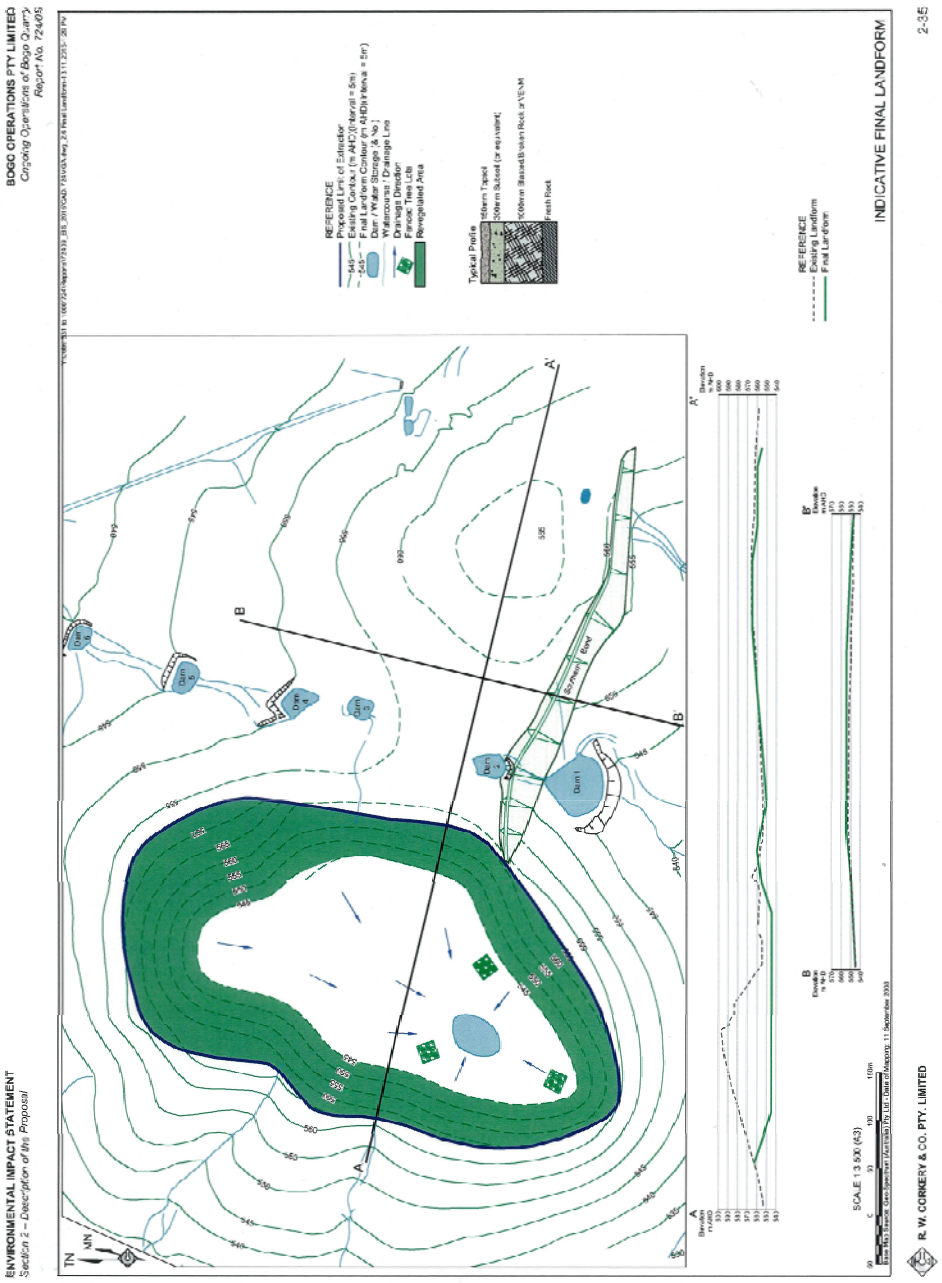

Figure 13 – Indicative Final Landform

All plant, equipment and footings from each plant sites, if not suitable for future uses, will be removed from the site. All stockpiles will be sold and area graded to provide appropriate drainage. The subsoils and topsoil will be spread and the area will be seeded. Sediment dams will be retained as stock dams with selected sheds and hardstand areas and access roads.

A review of the status of rehabilitation progress is to be carried out on annual basis to identify the need to undertake any remedial/maintenance work. An internal account is to be established by the operator to set aside 20c per tonne to fund the rehabilitation activities.

The proposed rehabilitation activities are considered adequate to create the final landform that is suitable of agricultural use/grazing purposes typical of the local area.

To ensure the rehabilitation is completed a condition legally binding agreement between Yass Valley Council and the Bogo Quarry Pty Ltd for the purpose of site rehabilitation can be included in any approval that may issue. All legal costs involved in this agreement shall be borne by the Applicant.

Air and Microclimate
Potential sources of air contamination are:

- Particulate matter (dust) generated during drilling, blasting, transfer of blasted rock to processing plant, processing, delivery of raw material, dispatch of products, from stockpiles and hardstand areas.
- Odour, nitrogen dioxide, sulphur dioxide and greenhouse gases emitted during blasting, operation of asphalt plant, and vehicle and mobile equipment exhaust fumes.

The proposal is supported by an Air Quality Assessment Report which includes dispersion modelling. The report indicates that particulate matter concentrations will be within the EPA criteria for nearby properties i.e.

Table 6 – Predicted Incremental PM_{10} Concentrations

Residence	Predicted Maximum 24-Hour Average PM_{10} ($\mu g/m^3$)	Maximum allowable 24-Hour Average PM_{10} ($\mu g/m^3$)	Predicted Annual Average PM_{10} ($\mu g/m^3$)	Maximum allowable Annual Average PM_{10} ($\mu g/m^3$)
R1 – "Bogolong Cottage"	4.4	50	0.4	30
R2 - "Marilba"	4.1	50	0.1	30
R3 - "Linbrook"	4.7	50	0.6	30
R4 - "Cooinda"	2.0	50	0.1	30
R5 – "Bogo Cottage"	6.7	50	0.3	30

The Ambient Air Quality National Environment Protection Measure (NEPM) for particulate matter concentration as follows:

- 24 hour maximum: 25$\mu g/m^3$
- Annual average: 8$\mu g/m^3$

These concentrations are generally associated with combustion engines. The report indicates that the proposal will have significantly smaller lower levels of emissions given the mix of sources at the site.

The NSW EPA criteria for dust deposition is:

- 2g/m^2/month (annual mean) incremental
- 4g/m^2/month (annual mean) total

The modelling indicates the dust deposits will be within the EPA criteria i.e.

Table 7 – Predicted Dust Deposition Concentrations

Residence	Dust Deposition (g/m^2/month)
R1 – "Bogolong Cottage"	<0.1
R2 - "Marilba"	<0.1
R3 - "Linbrook"	<0.1
R4 - "Cooinda"	<0.1
R5 – "Bogo Cottage"	<0.1

The following measures are proposed to minimise dust dispersion:

- Trucks entering and leaving the site that are carrying the loads must be covered at all time except during loading and unloading.
- Soil stockpiles retained for more than 3 months would be sown with sterile cover corp.
- Exposed areas which are not part of active operational areas would be progressively revegetated.
- Soil stripping would be undertaken when there is sufficient soil moisture to prevent significant dust lift off.
- Dust sprays would continue to be used within the crushing and screening plant locations
- Exhaust from earthmoving equipment would be diverted away from ground surface so as not to generate dust.
- Front end loader would continue to be fitted with appropriate exhaust controls
- Cement/fly ash silos would be filled using an enclosed pneumatic transfer system
- Cement/fly ash would be fitted with high level alarms interlocked with filling line.
- Asphalt plant would be fitted with a bag house to control solid particles
- Bitumen and asphalt storage tanks would be thermostatically controlled to prevent overheating and associated odour emission.
- Water sprays would be installed at the point of discharge of aggregates onto the batching conveyor.
- A conveyor scraper would be installed to clean the return side of conveyors
- Routine clean-up of any spillage resulting from delivery of raw materials and placement.

With air quality limits set by the EPA together the mitigation measures proposed it is considered that the impacts of the proposed development will be acceptable

Hazards
The site is not identified as being bushfire prone land by the NSW Rural Fire Service (RFS). A bushfire assessment and referral to the RFS was not required.

The site is identified as a 'Groundwater vulnerability' which has been discussed in relation to the *YV LEP 2013* (refer Section 2.1.8).

Measures proposed to manage ground water contamination are considered to be satisfactory.

Waste Production and Management
Waste produced during quarry, asphalt and concrete plant operations can be categorised into two types i.e. production waste and non-production waste.

(1) Hard Rock Quarry
(a) Production Waste

Very little waste will be generated during extraction or processing activities associated with the quarry. All the materials extracted would have a use.

(b) Non Production Waste

Oil and grease collected from routine maintenance of mobile plants, the processing plants and power generating equipment would be stored in leak proof containers within existing workshop awaiting collection by licensed recycling contactor.

All paper, food wastes and general wastes and maintenance consumables such as grease cartridges would be stored in appropriate containers for disposal at licensed waste facility. Moreover, all recyclable materials would be placed in separate containers for delivery at appropriate facility.

(2) Asphalt plant waste

(a) Production Waste

(i) Disposal of waste bitumen:

Any spilled bitumen waste will be allowed to cool, and then collected and reused in the plant feed.

Any waste asphalt generated during commissioning or daily operation will be used to seal areas around the quarry site and internal and access roads.

(ii) Pre-spraying and washing out trucks:

Trucks will be pre-sprayed and washed out using citrus based non-toxic slip agents with an automatic sprayer operated by an electric pump within the nominated pad area. The runoff water from this area will drain into existing drainage and sediment control network.

All wastewater from the plant will be directed to existing drainage and sediment control network

(b) Non-production Waste

Oil and grease collected from routine maintenance of mobile plants would be stored in leak proof containers within existing workshop awaiting collection by licensed recycling contactor. All hydrocarbon storages will be visually inspected regularly for spilled materials and cleaning.

All paper and general waste and maintenance consumables such as grease cartridges would be collected in appropriate containers for disposal with waste generated within the quarry.

(3) Concrete Batching Plant Waste

(a) Production Waste

(i) Solid Waste:

Solid waste from concrete batching plant will be:

- Coarse and fine aggregates
- Cement from daily truck washouts
- Solidified concrete removed from inside of the transit mixers

Any water runoff at the batching plant and spill material will be directed to a wedge pit which will be cleaned regularly. The area for the placement of material from wedge pit would be periodically relocated as the extraction area is developed.

Solid wastes from truck washouts and the wedge pit will be blended with the blasted rocks and then back into the crushing plant for recycling and use in the crushed rock and road base products.

(ii) *Liquid Waste:*
Liquids from the wedge pit would be directed to quarry sump or dam via connection to existing drainage system.

(b) *Non-production Waste*
Oil and grease collected from routine maintenance would be stored in leak proof containers within the existing workshop awaiting collection by licensed recycling contactor.

On this basis it is considered that the solid and liquid waste management practices proposed in relation to the development are adequate in order to prevent any adverse impact on the surrounding environments.

Processing and Stockpiling
The processing of the blasted rock at increased rate of production is proposed to be achieved through the use of existing fixed processing plants. Some refurbishment to the existing plants would be carried out in order to achieve a higher level of efficiency and meet the peak demand.

A mobile processing plant will be brought and operated within the footprint of the extraction area. This mobile processing plant will be in use during the refurbishment of the existing processing plant and in peak demands when it will be run in connection with exiting fixed processing plant. However, an existing stand-alone aggregate pre-coating plant to manufacture pre-coated sealing aggregates would continue without any alterations to the pre-coating plant or operation.

The applicant has proposed three stockpiled areas northern, central and eastern (see Figure 11) The sized, blended and pre-coated products would be transported from the processing plants and stockpiled in northern, central and eastern stockpiles areas prior to dispatch.

Some of the increase in hard rock production would be used directly in the production of asphalt and pre-mixed concrete which would not require material to be stockpiled on site.

Energy
The development is not expected to use excessive energy consumption in its operations.

Safety Security and Crime Prevention
Site access is restricted to authorise persons and is controlled 24 hours. This will remain unchanged.

Workcover requirements deal with operational safety and on-site safety. This arrangement provides adequate site safety and security.

It is not anticipated that the proposal will create any additional safety, security or crime risk for the locality.

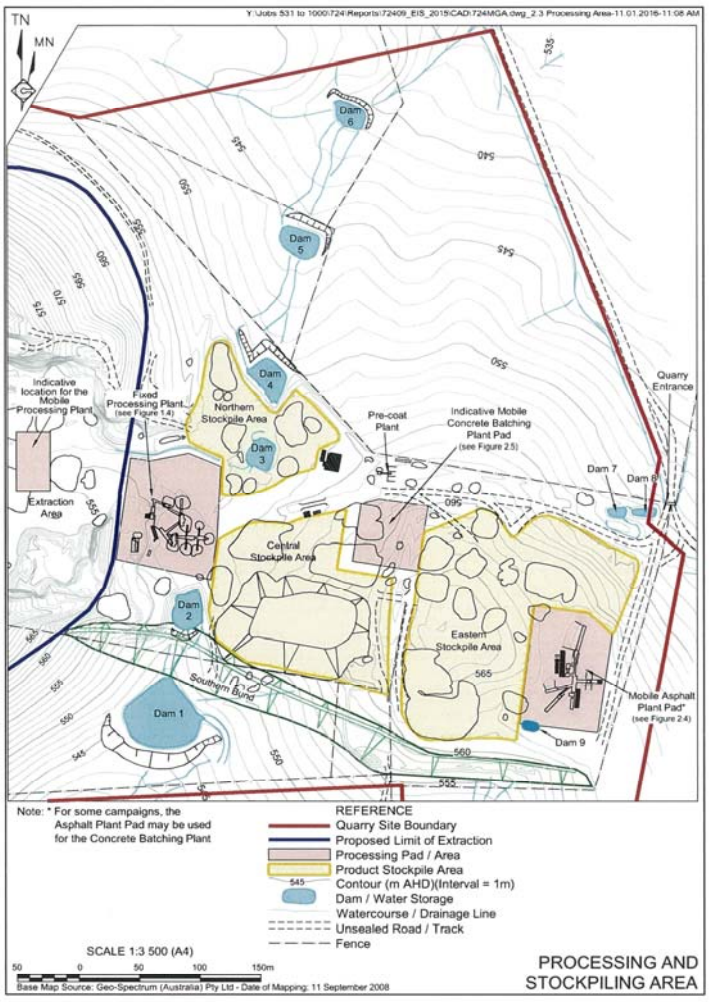

Figure 11 – Proposed Processing and Stockpiling Area

Economic and Social Impacts

No significant adverse social impacts are anticipated as a result of the proposed development.

The proposed development would contribute to growth in the region including providing full-time and part jobs for the continued ongoing operation of the quarry and processing activities.

Although the proposed development will directly create additional employment on a small scale, however it has the potential to indirectly support or create employment opportunities on a much larger scale in road and infrastructure construction locally and regionally.

The proposed development by virtue of its size, scale and potential multiplier effects is considered likely to stimulate further economic development in the region.

Cumulative Impacts

The proposal is consistent with the relevant heads of consideration. The proposal continues the operation of the existing quarry at the site. Increased production can be managed by limits on vehicle length and dispatches, compliance with EPA requirements and construction of a berm along with perimeter tree planting.

The development is unlikely to cause negative cumulative impacts in the locality. The cumulative impacts are considered to be acceptable.

2.7 The suitability of the site for the development

The site is currently zoned RU1 Primary Production and the proposal is consistent with the objectives of this zone and with surrounding development.

It is considered that the attributes of the site are generally conducive to the proposed development. There are no constraints preventing the orderly development of the site in the manner proposed or its ability to subsequently function as agricultural land.

The relevant matters relating to the suitability of the site have been considered in the assessment of the proposal. There are no major physical constraints, environmental impacts, natural hazards or exceptional circumstances that would hinder the suitability of the site for the proposed development. The site is therefore considered suitable for the development subject to the recommended Consent conditions.

2.8 Any submissions made in accordance with this Act or the Regulations

2.8.1 Public Submissions

No submissions were received from the general public.

2.8.2 Submissions from Public Authorities

The comments provided by each agency are contained in Attachment C. The following table details the responses received from public authorities:

Table 8 – Government Agency Responses

Government Agency	Comment
Environment Protection Authority (EPA)	The EPA advise that an Environment Protection Licence 4219 (EPL) was issued to Bogo Operations Pty Ltd previously for the extractive industry for the site. The EPA indicate the EPL can be varied to accommodate the proposed expansion of Bogo Quarry subject to a number of additional and varied EPL conditions. General Terms of Approval (GTA's) were issued on 26 May 2016 (Notice No. 1540974). The GTA's issued have been included in the draft conditions of consent.
Department of Primary Industries Water (DPI Water)	The DPI Water advise that no approvals are required under *Water Management Act 2000.* The DPI Water requested should the proposed development be varied DPI Water is to be notified.
Department of Primary Industries – Agriculture (DPI Agriculture)	The DPI Agriculture advise it has no objections or comments to provide on the proposed development.
Department of Industry (Division of Resources & Energy)	The Department of Industry (Division of Resources & Energy - Geological Survey of NSW) advise the proposal only seeks a minimal modification to the quarry's approved extraction footprint. The Department has no resource related concerns with the proposal.

NSW Roads & Maritime Services (RMS)	The RMS raised concerns about the available separation between north bound and south bound carriageway on Hume Highway at the median break for Paynes Road being 12.4m and between the central north and south bound through lanes on the highway is 20.4m. RMS indicated that: • If the proposal used B-Double as haulage vehicles, the upgrade to the Hume Highway/Paynes Road intersection/median break to accommodate the length of such vehicles is required. • The location of vegetation buffer down the slope from the quarry will not aid to screen the quarry from Hume Highway. It would be appropriate that quarry be staged and operated so that working face of the quarry and disturbed face is not visible from Hume Highway. • A Traffic Management Plan and Drivers Code of Conduct be prepared in consultation with relevant road authorities (i.e. Council and RMS). A road maintenance plan for Paynes Road be prepared and agreed upon between the applicant and Council.
NSW Office of Environment & Heritage (OEH)	OEH criticised the Flora and Fauna Assessment undertaken and indicated further information is required to be submitted in relation to Yass Daisy and White Box Yellow Box Blakely's Red Gum Woodland (Box Gum Woodland). After reviewing the supplementary information OEH recommends the following condition: 1. *White Box Yellow Box Blakely's Red Gum Woodland (Box Gum Woodland) must be identified on Figure 5.3- Quarry Site Vegetation, including the habitat and hollow bearing trees in the study area.* OEH also criticised the Heritage Assessment undertaken indicating that the Cultural Heritage Assessment Report does not address the Environmental Assessment Requirements and the information submitted is not compliant with the legislative changes that occurred in 2010 including Aboriginal consultation and suggested a further assessment be undertaken. After reviewing the revised Cultural Heritage Assessment Report OEH recommends the following conditions: 1. *Harm to the recorded Aboriginal sites (AHIMS # 51-1-0042, # 51-4-0352 and # 51-4-0353) must be avoided. The locations of these sites must be marked on all construction and constraints maps as 'no go' areas.* 2. *If these Aboriginal sites will be impacted in future, the applicant must submit an Aboriginal heritage Impact Permit (AHIP) application to OEH for determination.*

	3. *All current and future operators of the quarry must be made aware that all Aboriginal objects and places are protected in NSW under National Parks & Wildlife Act 1974. It is an offence to harm an Aboriginal object or place without an approval issued by the Office of Environment and Heritage (OEH).* 4. *If any previously unrecorded or unanticipated Aboriginal object(s) are encountered all ground surface disturbance in the area of the finds must stop immediately and OEH must be notified. If objects cannot be avoided, the proponent must apply for an AHIP.* 5. *If any suspected human remains are discovered during any activity, you must:* *(a) Immediately cease all work at that location and not further move or disturb the remains* (b) *Notify the NSW Police and OEH's Environmental Line on 131 555 as soon as practicable and provide details of the remains and their location. Work is not to recommence at that location until authorised in writing by OEH.*

Applicant's Response to Submissions

The Applicant was given an opportunity to address the issues and concerns raised by the public agencies. The response is provided in the Attachment D to this report.

2.9 The public interest

The proposal has been assessed against the relevant heads of consideration applying to the site. As demonstrated throughout this report the proposal will enable continued use of the site for extractive industry purposes with an increase in extraction and production without significant impact on surrounding land uses.

It is considered that the proposal is in the public interest.

3. Conclusion

In accordance with Schedule 4A of the *EP&A Act 1979* the application is referred to the JRPP for determination.

The development has been assessed in accordance with s79C of the *EP&A Act 1979* and the Yass Valley LEP 2013. The proposed extractive industry is permissible in the RU1 Primary Production zone (with Consent) and consistent with the zone objectives.

The proposal is Designated Development and is supported by an EIS.

No submissions were received from the general public following public exhibition of the proposal however six submissions were received from public authorities. Matters raised in submissions have been addressed in the report and draft conditions (where relevant).

This report indicates that the application is considered satisfactory subject to the imposition of the recommended conditions to ensure that the development proceeds in an acceptable manner.