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Environmental Assessment

Modification of Development Consent 10639 of 2005 (LEC)
Albion Park Quarry – Increased Production Limit

Lot 1 in Deposited Plan 858245 and
Lot 23 in Deposited Plan 1039967

Dunsters Lane
Croom

November 2013

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Subject		Environmental Assessment
In respect of		Modification of Development Consent 10639 of 2005(LEC) Albion Park Quarry – Increased Production Limit
Property		Lot 1 in Deposited Plan 858245 and Lot 23 in Deposited Plan 1039967 Dunsters Lane, Croom
Prepared for		Cleary Bros (Bombo) Pty Limited
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EXECUTIVE SUMMARY

Cleary Bros (Bombo) Pty Limited ("Cleary Bros") is applying to modify the Quarry Development Consent (i.e. Amended Consent) relative to the annual quarry material production limit for export from its Albion Park Quarry from 600,000 tonnes per annum to 900,000 tonnes per annum (*Condition 8 LEC 10639 of 2005 Mod 1*).

The reason for the Application is the increasing demand for quarry products both within the Sydney and Illawarra Regions as a result of continuing growth.

Demand for product from quarries in the Illawarra Region in particular has been exacerbated by the reduction in available supply, including the reduction in alternative products such as slag due to the recent closure of a Blast Furnace by BlueScope Steel Limited at its Port Kembla facility.

The application can be processed as a Modification of Consent and determined in accordance with Part 3A of the Act and, in particular, s.75W. In this regard, it has been shown that the proposed modification will not "radically transform" the Amended Consent which is the performance criteria required for the use of s.75W.

The increase in the annual quarry material production limit will necessitate additional blasting, rock crushing / blending, earth moving and truck movements. However, it must be noted that busy operational days for the existing Quarry operation currently equate to an annual production rate of approximately 1, 380, 000 tpa should these day rates be sustained all year. The proposed increase in the approved annual extraction rate from 600, 000 tpa to 900, 000 tpa will primarily be achieved through increased utilisation of current operational lulls.

The likely impacts to be associated with the increased production rate relate to noise, blasting and vibration, air quality, traffic management and water consumption. All of these likely impacts have been assessed by appropriate expert consultants and it has been concluded that all impacts can be managed within the current development controls and performance criteria contained within the Amended Consent and Quarry Environmental Management Plan. *Table 4.1* provides a comparison of the controls and performance criteria for the approved development and the modification being sought (refer to *Section 4.1* of this report). Accordingly, there are no further measures proposed to minimise, manage and monitor these impacts.

The increase in the annual quarry material production limit can be achieved by modifying Condition 8 of the Amended Consent without the need to alter any other terms of the Amended Consent or operational characteristics.

Therefore it is considered that the modification sought will be environmentally sustainable.

1.0 Introduction

1.1 Background

Martin Morris & Jones Pty Limited (MMJ Wollongong) has been engaged by Cleary Bros to prepare an Environmental Assessment for a proposed Modification of Development Consent Application ("The Application") for its Albion Park Quarry. The application seeks an increase in the material production limit presently applying to the quarry from 600,000 tonnes to 900,000 tonnes per annum.

Cleary Bros has extracted and processed hard rock from its quarries in the Albion Park area since the middle of last century. In May 2005, the Minister for Infrastructure and Planning granted development consent (No. 466-11-2003) for Cleary Bros to extend quarrying into a new area, about 400 metres south-east of the previously operating quarry ("Quarry Consent"). The Minister also granted consent for a haul road linking the quarry extension with the existing quarry. The Minister was the consent authority at the time, as the proposal was considered *"State Significant Development"* under provisions (since repealed) of the *Environmental Panning & Assessment (EP&A) Act 1979*.

The Quarry was appealed to the NSW Land & Environment Court (LEC) (Proceedings No. 10639 of 2005). In February 2006, the Court approved the Quarry Consent subject to conditions. The Development Consent issued by the LEC for the quarry operation is attached as *Appendix 1* and describe the approved development as *"Extension of hard rock quarry"* and *"the extension to an existing hard rock quarry at Lot 1 in DP 858245 and Lot 23 in DP 1039967, Dunsters Lane, Croom"*. The conditions of consent attached to the Court's determination in Annexure A provided for a maximum limit of material production of 400, 000 tonnes per annum (Condition 8).

In November 2008, a Modification of Consent application (*Section 96AA* of the *EP&A Act 1979*) was submitted to the Department of Infrastructure, Planning & Natural Resources, seeking an increase in the approved material production limit from 400,000 tonnes to 800,000 tonnes per annum. On 30 June 2009, an Amended Consent (10639 of 2005 MOD 1) was granted which deleted Condition No. 8 of the Court's determination and replaced it with the following condition:

> *"8. The production of quarry products from the quarry shall not exceed 600,000 tonnes per annum."*

This Amended Consent is attached as *Appendix 2*.

The quarry has now been operational for the past 5 years. The quarry has operated consistent with the Amended Consent and in accordance with the Albion Park Quarry Environmental Management Plan.

In this regard, an annual Environmental Management Report is prepared and submitted to the Director-General as required which is also available for public scrutiny through the Cleary Bros website.

1.2 Conceptual Framework

This Environmental Assessment (EA) provides a description of the subject site, an identification of the modification sought by this application, and an assessment / management of the perceived impacts of this modification for relevant matters. Further, this assessment has been aided by the following specialist consultants:-

- SLR Global Environmental Solutions: noise, air quality and blasting assessment;
- GTA Consultants: traffic impact;
- Perram & Partners environmental impact;
- Sandra Duggan SC statutory planning; and
- Cleary Bros: quarry industry specialists.

A pre-lodgement meeting for this proposal was held with the Department of Planning & Infrastructure (DPI) on 19 October 2011, and the advice provided has assisted in the preparation of the application documentation.

2.0 Site Characteristics

2.1 Property Description

The site to which the 2005 Quarry Consent applies is situated to the south of Albion Park Rail, and is described as follows:-

- Lot 1 in Deposited Plan 858245: approved/operating quarry activities and ancillary works;
- Lot 23 in Deposited Plan 1039967: processing plant, product storage and sale, site entrance.

The location of these allotments is identified within *Figure 1.*

2.2 Environmental Characteristics

The following information (where relevant) has been partly extracted from the "Quarry Environmental Management Plan" (QEMP) for Cleary Bros' Albion Park Quarry (Perram & Partners 2008) which is attached as *Appendix 3*. This QEMP describes construction and operational activities with the extension of the quarry that have the potential to impact on the environment. The objectives of the QEMP are as follows:-

- present the environmental management strategy for the hard rock quarry extension;
- detail practices, procedures, work methods and other requirements necessary for the operation to achieve environmental goals specified by the development consent and environmental protection license;
- include within a single document, all the regulatory environmental requirements for operating the site.

As mentioned previously, the quarry activities within Lot 1 in Deposited Plan 858245 have been operational for the past 5 years, which has altered the topography of the site since that time.

2.2.1 Topography & Drainage

The quarry is located near the crest of the Wentworth Hills in the upper catchment of the Minnamurra River. The land has an altitude ranging from 70 metres AHD in the south, to 140 metres AHD in the north. The extraction area is a natural amphitheatre with two spurs extending towards the south along its eastern and

western boundaries. Steep slopes drop from the spur lines to watercourses, draining to an unnamed creek flowing through the 40-hectare property. The creek is outside the extraction area. Two gauges have been installed to measure flow in the watercourse draining the site and in the unnamed creek upstream of the site drainage.

2.2.2 Geology & Soils

R W Corkery & Co Pty Ltd investigated the geology of the site in 1997 drilling 21 boreholes. Rock strata belong to the Bumbo Latite, referred to as basalt, occurring as two distinct flows separated by tuffaceous agglomerate and overlain by weathered latite and soil. Sandstone underlies the lower basalt flow.
Soil terrain mapping shows the dominant soil type to be a friable reddish brown sandy clay loam topsoil over a subsoil comprising a reddish brown sandy clay or light medium clay. The soils are deep, well structured and free draining but with low fertility. They are strongly acidic with a low to moderate cation exchange capacity and exhibit moderate to high erodibility.

2.2.3 Climate

A weather station was established at the Quarry in 2004. While records are being accumulated from this source, the nearest source of climatic information is Kiama Bowling Club, approximately 9km south-east of the site. Records have been kept from this recording station since 1897. *Table 2.1* presents a summary of significant data from Meteorological Station No. 068038, Kiama Bowling Club.

Table 2.1 TEMPERATURE, RAINFALL, HUMITY AND WIND SPEED

Item	J	F	M	A	M	J	J	A	S	O	N	D	Year
Temperature Mean Daily Max Temp. (°C)	25	24.9	24.1	22.1	20.1	17.6	16.8	18.1	19.8	21.7	22.5	23.8	21.1
Mean Daily Min. Temp (°C)	17.5	17.7	16.4	14.1	12.2	9.3	8.4	8.8	10.6	12.4	14.3	16.3	12.8
Rainfall Mean Monthly Rainfall (mm)	111	119	145	132	121	126	87.6	77.4	75.2	86.7	86.8	94.4	1261
Mean No. of Rain days	12.2	11.7	12.7	11.2	10.8	9.8	8.6	8.5	9.2	10.7	11	11.3	127.6
Humidity Mean 9am Rel. Humidity (%)	72	74	71	69	70	65	63	59	60	64	68	70	66
Mean 3pm Rel. Humidity (%)	67	70	67	67	65	58	58	55	58	63	65	66	63
Wind Mean 9 am Wind Speed (km/hr)	8.2	8.1	8	8.1	8	10	10.1	9.3	10	9.8	9.1	9.1	9

Mean 3pm Wind Speed (km/hr)	10.8	10.7	10.3	9.1	8.5	9	9.6	11.2	11.7	10.8	11.3	11	10.3

Note: 1. Monthly rainfall entries rounded to three significant figures
2. Consistent with current data from annual Environmental Management Report

Wind Data

A wind rose from the Albion Park meteorological station included in the Quarry EIS shows predominance for westerlies, occurring some 30 per cent of the time and being more than twice as common as winds from other directions. Northerlies, north-easterlies and southerlies are the next most common. Westerly winds also show the highest proportion of strong winds, followed by north-easterlies and southerlies, which show a roughly equal proportion of strong winds. (A meteorological monitoring station was established on the project site and provides hourly average wind speed and direction data).

2.2.4 Hydrogeology

The lattie has low horizontal permeability, except in fractured zones. Groundwater seepage occurs through the intervening agglomerate layer and along the contact surface between the volcanic rock and underlying sandstone. Seepage through the agglomerate layer is collected in existing farm dams. There may also be lateral movement of groundwater from the west following the easterly dipping bedding planes (Golder 1998).

Golder Associates has installed and developed three boreholes on the site for monitoring groundwater levels and quality. Test results are provided within the annual Albion Park Quarry Environmental Management Report.

2.2.5 Surrounding Land Use

The "Belmont" homestead and residue farmland are immediately east of the extractive area. This property forms part of CB's holdings in the area. The balance of the property to the south of the extraction area is partly forested and is being revegetated and restored to native bushland as part of the quarry project.

Land immediately west of the site is owned by Rinker Australia Pty Ltd (now Holcim Australia Pty Ltd) and is being quarried up to the site boundary. Holcim also owns the properties to the south of the site which are also partly quarried. A dairy farm occupies the hill top to the north of the site, referred to as the Figtree Hill land. The farm agists cattle on various adjoining paddocks owned by the quarry companies.

The nearest residences are located on the dairy farm at the crest of the ridge. *"The Cottage"* and *"The Hill"* are approximately 375 metres and 460 metres respectively from the nearest part of the extractive area.

2.2.6 Natural Vegetation & Fauna

Kevin Mills & Associates identified five vegetation communities on the site, being:

- Rainforest – mainly in the valley below the extraction area with some small patches on the eastern slope within the quarry. This is an endangered ecological community under the *Threatened Species Conservation Act 1995*;

- Open Forest – mostly cleared with scattered remnants remaining. The remnants are part of the Illawarra Lowlands Grassy Woodland community, which is also an endangered ecological community under the *Threatened Species Conservation Act 1995;*

- Lantana shrubland – occurs mostly on the edges of forested areas;

- Sedgeland/Rushland – small patches in farm dams within the quarry area; and

- Non-native grassland – most of the land to be quarried.

There are several plant species of conservation importance in the area, but no threatened fauna species were recorded in the area. Fig trees are to be included in the revegetation plans to maintain habitat for the Grey-headed Flying-fox. An ecological and rehabilitation monitor assessment is provided within the annual Albion Park Quarry Environmental Management Report.

2.2.7 Archaeology & Heritage

Two surveys of Aboriginal archaeology have found no artefacts in the extractive area. A subsequent survey of the access road route in 2007 also found no artefacts. The Wentworth Hills have a long history of dairy farming and quarrying. The house on the neighbouring dairy farm, *"The Hill"* is a listed heritage item, but will not be physically affected by the project. A heritage management plan has been prepared for the project with archival recording of the "Kyawana" ruin and "Belmont" house having been undertaken. These structures are not listed heritage items and are not physically affected by the project.

2.3 Planning Controls

At the time the original Development Consent was issued by the Minister for Infrastructure and Planning (May 2005) and the determination by the Land and Environment Court (February 2006), the site was controlled by *Shellharbour Rural Local Environmental Plan 2004 (LEP)* within which it was zoned:-

- "part 1(x) Extractive Industry Zone"; and

- "part 1(r1) Rural Landscape Zone".

The bulk of the quarry site was zoned 1(x), whilst a narrow strip along the eastern side of the quarry was zoned 1(r1). The land use controls applicable to the 1(x) zone permit *"extractive industries"*, however this land use was generally prohibited within the 1(r1) zone. *Statement Environmental Planning Policy (SEPP) (Mining, Petroleum and Extractive Industries) 2007* provided the mechanism whereby development consent for quarrying within the 1(r1) zone was issued.

These planning controls were also in place at the time the Amended Consent was issued on 30 June 2009.

On 5 April 2013, the planning controls for the City of Shellharbour were generally replaced by *Shellharbour Local Environmental Plan 2013* within which the land is zoned:-

- Part Zone RU1 Primary Production;
- Part Zone RU2 Rural Landscape;
- Part Zone E2 Environmental Conservation; and
- Part Zone E3 Environmental Management.

In this regard, the quarry workings within the site are contained to those parts zoned RU1 and RU2 with the quarry haul road encroaching within the zone E3 land.

The land use planning controls applicable to Zone RU1 permit "extractive industries", however, this land use is generally prohibited within the other zones abovementioned. Notwithstanding this, these current zoning controls are similar to the controls applicable within *Shellharbour Rural LEP 2004*, which were in place at the time the original Development Consent was granted. Again, the provisions of *SEPP (Mining, Petroleum and Extractive Industries) 2007* are also applicable in this instance.

As mentioned within Section 1.1, both DA-466-11-2003 and the Development Consent were approvals granted by the Minister and the Court on appeal as State Significant Development for the purposes of *s.76A(8)(c)* of the *EP&A Act*. This development was also classified as designated development pursuant to the provisions of *s.77* of the *EP&A Act*.

Section 76A(8) was repealed on 1 August 2005 with the introduction of what became known as Part 3A which dealt with Major Infrastructure and Other Projects. The Development Consent was from that date taken to be an approval granted pursuant to Part 3A and Part 3A applied to the Development Consent as if it were a Project Approval granted pursuant to *Part 3A: EP&A Act*, *Schedule 6 clause 88*. The Development Consent was modified pursuant to Part 3A and became the Amended Consent.

On 27 June 2011 Part 3A of the *EP&A Act* was repealed. Pursuant to *clause 3 Schedule 6A* of the *EP&A Act,* Part 3A continues to apply to the Amended Consent. *Clause 12 of Schedule 6A* (and *clause 8J* of the *Environmental Planning and Assessment Regulation*) specifically continues to the operation of the Part 3A modification power in what was *s.75W* of Part 3A.

The Amended Consent is therefore a consent to which the provisions of Part 3A continue to apply and may be modified in accordance with the provisions of Part 3A. *Section 75W* relevantly provides:

> *"Modification of Minister's approval*
> *75W. (1) In this section:*
>
> *"Minister's approval" means an approval to carry out a project under this Part, and includes an approval of a concept plan.*
>
> *"modification of approval" means changing the terms of a Minister's approval, including:*
>
> *(a) revoking or varying a condition of the approval or imposing an additional condition of the approval; and*
>
> *(b) changing the terms of any determination made by the Minister under Division 3 in connection with the approval."*
>
> *(2) The proponent may request the Minister to modify the Minister's approval for a project. The Minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.*
>
> *(3) The request for the Minister's approval is to be lodged with the Director-General. The Director-General may notify the proponent of environmental assessment requirements with respect to the proposed modification that the proponent must comply with before the matter will be considered by the Minister.*
>
> *(4) The Minister may modify the approval (with or without conditions) or disapprove of the modification.*

(5) The proponent of a project to which section 75K applies who is dissatisfied with the determination of a request under this section with respect to the project (or with the failure of the Minister to determine the request within 40 days after it is made) may, within the time prescribed by the regulations, appeal to the Court. The Court may determine any such appeal.

(6) Subsection (5) does not apply to a request to modify:

(a) an approval granted by or as directed by the Court on appeal, or
(b) a determination made by the Minister under Division 3 in connection with the approval of a concept plan.

(7) This section does not limit the circumstances in which the Minister may modify a determination made by the Minister under Division 3 in connection with the approval of a concept plan."

3.0 Modification Proposal

3.1 Purpose

The Application seeks to modify the Amended Consent applying to the extension of the existing hard rock quarry at Lot 1 in DP 858245 and Lot 23 in DP 1039967, Dunsters Lane, Croom by increasing the quarry material production limit from 600,000 tonnes per annum to 900,000 tonnes per annum. This may be achieved by amending *Condition 8* of the Amended Consent to be:-

> *"8. The production of quarry products from the quarry shall not exceed 900,000 tonnes per annum."*

The changes to quarry operations to increase production include an increase in the extraction rate, an increase in transport movements (both internal and external) and an increase in processing hard rock to market demand. The resultant environmental impacts considered in this EA are noise, blasting and vibration, air quality, traffic management and water consumption. *Table 4.1 : Comparison of Development Criteria* (refer to *Section 4.1* of this report) clearly shows that the majority of the matters required for environmental assessment for this modification will not be changed, should support for the modification be forthcoming.

3.2 Need

The production of hard rock from the Albion Park quarry has historically fluctuated according to market demand. The current annual production limit of 600,000 tonnes per annum equates to a monthly average of 50,000 tonnes. During the decade of 2000 – 2010, the actual monthly production ranged from less than 20,000 tonnes to approximately 90,000 tonnes associated with market demand and with no detrimental environmental effect.

In more recent times, Cleary Bros has experienced an increase in demand for quarry products and predicts that this demand increase will continue for the foreseeable future. Factors contributing to this demand increase are primarily related to market conditions and reduction in available resources to meet these conditions as discussed below.

The additional quarries located at Albion Park, Bass Point, Dunmore and Bombo, together with processed steel blast furnace slag produced at Port Kembla, provide hard rock and recycled material to produce rock and coarse aggregates for the Illawarra, South Coast, and Sydney market. Quarry operators, Boral Limited, Hanson, and Holcim Australia Pty Ltd also provide aggregates to their concrete and road sealing plants throughout the Sydney metropolitan area.

The Illawarra Region has been experiencing unprecedented growth in the commercial and public infrastructure development markets in recent years and this is likely to continue. Projects such as the $330m shopping development at Shellharbour, the Port Kembla Harbour development and the Princes Highway upgrade north of the Jervis Bay intersection and north of Milton, have already generated additional demand for quarry resources. Further extensive development outside the Region at Port Botany also sourced hard rock resources from The Albion Park area. Other current and programmed major works also include the Crown Central GPT project (Wollongong), Shellharbour Marina construction, Princes Highway upgrades (ie. south Kiama to Toolijoola, and south Nowra to BTU Road), as well as the South Coast rail line upgrade. Additionally, further residential growth is predicted with greenfields developments at Shell Cove, Flinders, West Dapto and Camden. All these projects are reliant on availability of competitively priced quarry products.

The closure of the 'No.5 blast furnace' at BlueScope's Port Kembla facility, has significantly reduced the availability of slag for processing/production of coarse aggregate and road base. Previously in excess of one million tonnes of this product was provided to the market annually. Correspondence from the NSW Department of Trade & Investment (Resources & Energy) attached as *Appendix 4* confirms that an increase in quarry production can address the shortfall now bought about by the BlueScope closure. The future production of slag aggregates and road base is uncertain from the BlueScope source, however, it is clear that the quarries are now responding to the reduction in supply of this material, which is estimated in excess of 600,000 tonnes per annum. For Cleary Bros to adequately respond to the increasing growth in market demand for quarry products, it will be necessary to increase the annual production limit from 600,000 tonnes per annum to 900,000 tonnes per annum as proposed.

At the time of seeking consent for the Quarry, it was not Cleary Bros' intention that production be limited. The Environmental Impact Statement exhibited in 2003 the (Perram & Partners 2003) addressed production capacity in the following terms:

> *"The proposed quarry extension will be worked at the same rate as would have occurred had the existing Cleary Bros' quarry had ongoing reserves of hard rock. The rate of extraction will be governed by market conditions, varying up or down from year to year with the level of local construction activity, and with an underlying trend in line with economic growth in the Sydney and Illawarra regions.*
>
> *Accordingly, the application seeks approval for a continuation of market-driven production. Cleary Bros expects the current production rate of up to 400,000 tonnes of hard rock per annum to be maintained for the foreseeable future."*

The specialist reports in the original EIS (Perram & Partners – October 2003) including noise, air quality, traffic and blasting were completed on the basis of a peak production of 86,500 tonne/month. This is equivalent to an annual production rate of 1,038,000 tonnes.

The 2003 EIS prediction was sustained until 2007 when market demand led to increased quarry product sales. In order for Cleary Bros to continue to supply rock in response to market demand, it became necessary to vary the production limit included in the development consent.

The current restriction of 600,000 tonnes per annum imposed by the consent is causing difficulties for Cleary Bros in supplying its customers. The likely impact of supply not meeting demand may result in unreasonably escalating prices. This would increase construction costs across a wide range of commercial and public infrastructure projects.

4.0 Environmental Review

4.1 Planning Considerations

As detailed in *Section 2.3* of this Assessment, the proposed Modification of Consent application may be considered and determined in accordance with the provisions of *s.75W* of the *EP&A Act*, as applicable.

The language of *s.75W* does not contain and express limitation on the power to amend an approval.

However, in Williams v Minister for Planning (2009) 164 LGERA 204 Justice Biscoe of the Land and Environment Court held at [57] that: …*a modification of approval in s.75W means changing the terms of an existing approval without radical transformation.* His Honour went on to describe the test of what comprised a *radical transformation* by reference to changes to both the description of the development if modified [58] and the nature and extent of the changes brought about by such a modification [62]. His Honour's analysis indicates that it was required that both a qualitative and quantitative analysis of the consequences of a modification was required to determine if there was a radical transformation.

The proposed modification seeks to increase the annual limit of quarry material production, whilst maintaining the operational characteristics of the development as approved with minimal change. The modified development is considered not to be a *"radical transformation"* of the existing Amended Consent for the following reasons:-

1. The Development Consent granted consent to development as *"Extension of hard rock quarry"* and *"the extension to an existing hard rock quarry at Lot 1 in DP 858245 and Lot 23 in DP 1039967, Dunsters Lane, Croom"*. The Modification Application does not alter that description as the development even as a modification continues to be development for the purpose of a hard rock quarry.

2. The modified development applies to the same approved development site being Lot 1 in Deposited Plan 858245 and Lot 23 in Deposited Plan 1039967.

3. The approved quarry extraction area of approximately 17 hectares will not be altered.

4. The total extraction capacity of the quarry will be maintained at the estimated 16.5 million tonnes of material as approved.

5. The operational characteristics of the quarry will generally remain constant with minimal change as discussed later in this EA (ie. extraction methods, transport management, hours of operation, amelioration measures, services and the like);

6. No changes to the existing development consent will be required, apart from an amendment to *Condition 8* (as aforementioned); and

7. It will be shown that environmental impacts of the modification will be acceptable.

Clauses 6 and *7* of *Schedule 2* to the *EP&A Regulation 2000* identify the form and content that is required within an Environmental Impact Statement (EIS) associated with "designated development". An appropriate EIS (Perram and Partners – October 2003) accompanied the original development application as required and the proposed modification has been assessed relative to those matters for consideration contained within the EIS for the approved development, which are summarised within the following table.

TABLE 4.1 : COMPARISON OF DEVELOPMENT CRITERIA

CRITERIA	APPROVED LIMIT (consent condition)	NATURE OF CHANGE	PREDICTED LEVEL IF MODIFICATION IS APPROVED	CHANGE/NO CHANGE TO LIMIT
Development Site	Lot 1, D.P. 858245	No change	Nil	Nil
Quarry Extraction Area	16.96 Ha	No change	Nil	Nil
Total Extraction Capacity	16.5 million tonnes	No change	Nil	Nil
Quarry Lifespan	30 years	Possible reduction	Within consent period (see Note 1)	Nil
Topography Geology and Soils Climate Hydrology and Flooding		No change	Nil	Nil
Water Quality	As defined in Schedule 4 Cl.13	No change	Within objective levels identified in consent	Nil
Noise	Schedule 4 Cl.4-9 The Hill 35dBa Cody res 35dBa The Cottage 35dBa Greenmeadows 41dBa	Additional utilisation of existing plant, equipment & transport vehicles	Predicted Original EIS / Current / Mod. The Hill 38 / 34 / 34 Cody res 52 / 45 / 45 The Cottage 48 / 34 / 34 Greenmeadows 41 / 36 / 36	Nil
Blasting & Vibration	Schedule 4 Cl.10-15 115dB (95% of annual blasts) 120dB (at any time) 5mm/s (95% of annual blasts) 10mm/s (at any time) 1 blast per day (max)	Additional blasts	Modification 112.3dB 2.72mm/s < 1 blast per day (max)	Nil
Air Quality	Schedule 4 Cl.16-20 Dust Deposition <4g/m²/month (annual average) <10g/m²/month (PM_{10}) 24hr <50mg/m³	Additional utilisation of existing plant, equipment & transport vehicle	Dust Deposition Current: 2.1g/m²/m, 2.7g/m²/m Mod.: <4g/m²/m, <10g/m²/m 30mg/ m³	Nil
Transport/Traffic	Schedule 4 Cl.46 Site access via East West link roundabout.	Additional truck movements to/from quarry	No change to current level of service at East West link roundabout. Site access is via roundabout	Nil
Flora/Fauna	Schedule 4 Cl.34-38	No change	No change	Nil
Landscape & Visual Characteristics	Schedule 4 Cl.54-57	No change	No change	Nil
Indigenous & Non-Indigenous Heritage	Schedule 4 Cl.51	No change	No change	Nil
Socio-Economic	No Limitation	(2) Additional employees	Increased employment	N/A

Note 1: The quarry life span was estimated at 30 years. This equates to an average annual extraction rate of 550,000 tonnes. An increase in the extraction rate to 900,000 tpa may potentially reduce the quarry life span. However, it must be noted that this application to modify the Amended Consent does not seek to extend the quarry life span and accordingly, an increase in the annual production rate will not require an amendment to the period of approval.

As can be seen from the above, the Modification Application (apart from the change to the material production limit per annum) does not alter or vary any other terms of the consent. In particular, the development even after modification will continue to operate in accordance with the terms of the consent. Further, it will be shown that, notwithstanding the increase in the annual limit of material production, all constraints on the performance of the development will be met without any change.

Therefore, it is considered that the Modification Application is capable of being characterised as a development which by modification does not radically transform the Amended Consent, which is the performance criteria required for the use of *s.75W*. As such, the application can be determined in accordance with the provisions of *s.75W*.

The land use planning provisions now applying to the site under *Shellharbour LEP 2013* are similar to those provisions that were applicable to the site at the time the consent was issued and subsequently amended. As this proposed modification does not seek to alter any of the physical characteristics of the approved development (i.e. extent of extraction area, access, provision of services and the like), the provisions of *Shellharbour LEP 2013* and relevant *SEPPs* will not be compromised. In this regard, the Amended Consent is a lawful consent and the Modification Application can be determined under the provisions of the Act as detailed above.

4.2 Air Quality

In 2002, SLR Consulting (formerly Heggies Pty Ltd) was commissioned to prepare an air quality impact assessment for the initial quarry extension proposal (Report 10-1676-R1, dated 23 October 2002) as part of the Environmental Impact Assessment. As part of that assessment, atmospheric dispersion modelling was performed based on an extraction rate of 400, 000 tpa. The results of the dispersion modelling indicated that all relevant air quality assessment goals would be complied with for the life of the operation. Approval for the increase in the extraction rate at the Albion Park hard rock quarry, with a maximum annual extraction limit of 400, 000 tpa, was granted in February 2006.

In 2004, SLR consulting was commissioned to conduct an additional dispersion modelling investigation (Report 10-1676-R2, dated 31 May 2004) to determine the air quality impact of increasing the extraction rate of the quarry operation to 500, 000 tpa. The results of the dispersion modelling indicated that, while maximum off-site incremental concentrations were predicted to increase, all relevant air quality assessment goals would be complied with if the annual extraction increased to 500, 000 tpa.

In 2008, SLR Consulting was again commissioned to conduct additional atmospheric dispersion modelling for another increase in the extraction rate at the Albion Park rock quarry, to determine the level of air quality impact associated with increasing the extraction rate to 800, 000 tpa. Using resources not available at the time of the previous two assessments, including site specific meteorological and air quality monitoring data, the results of the dispersion modelling indicated that all relevant air quality assessment goals would be complied with for the life of the operation.

SLR Consulting has again been commissioned to conduct additional atmospheric dispersion modelling for an increase in the annual extraction rate at the Albion Park hard rock quarry. The objective of the assessment is to assess the potential air quality impacts associated with increasing the extraction rate to 900, 000 tpa. The report and findings of this assessment are attached as *Appendix 5*.

The proposed increase in annual extraction rate is relatively minor (12.5%) compared to that assessed in the previous assessment at 800,000 tpa (Heggies, 2008) and no major changes in the infrastructure or local topography (such as new stockpiles or bunds) will be required for the proposed annual production rate increase. The local meteorology and dispersion patterns of relevant pollutants are therefore likely to be similar. Given this, additional modelling to quantify the incremental and cumulative impacts at surrounding areas for the proposed operations is not considered to be warranted and a semi-quantitative assessment has been performed instead.

Particulate emissions for the existing and the proposed scenario have been estimated based on the operational data and the latest emission factors available from the National Pollutant Inventory (NPI) and USEPA AP42 documents. To estimate the incremental off-site impact for the proposed operation, the predicted results from the 2008 assessment were scaled based on the ratio of the estimated particulate (TSP and PM_{10}) emissions for the proposed increased annual production rate with that presented in the previous 2008 assessment (Heggies, 2008). Ambient monitoring data collected in recent years (2010 to present) were also used to estimate the conservative background level for each pollutant of interest (TSP, PM_{10} and dust deposition).

Data collected since the commencement of the new quarry operations in 2005 from dust monitors, a High Volume Air Sampler (HVAS), and a weather monitoring station (all strategically located within the site), were provided to reconcile with previous atmospheric dispersion modelling and also the adopted objective criteria identified in the Quarry Environmental Management Plan (QEMP). The air quality criteria for the quarry operations is identified in condition 16 of the Amended Consent. The long term Impact Assessment Criteria for deposited dust is <4g/m^2/month (average exceedance taken over a 12 month period) and for an event <10g/m^2/month.

It must be emphasised that there are no major changes in the infrastructure or local topography (ie. stockpiles) required for an increase to 900,000 tpa. As indicated in Table 9 of the air quality assessment report (reproduced below), the comparison in the operating parameters for the extraction rates of 800, 000 tpa and 900, 000 tpa indicate a reduction of 22% (ie. – 22%) in the PM10 emission rate and 23% (ie. – 23%) in the TSP emission rate. These reductions are due to:

a. An over estimation of the number of blasts per annum in the Heggies 2008 assessment.
b. The 2008 assessment included dust generated during the construction phase of the new quarry (ie. haul roads, bund walls, initial soil/overburden stripping etc.).

Table 9 Comparison of the Operating Parameters and Estimated Emission Rate

Activity	Unit	Scenario 1*	Scenario 2	Scenario 3	Difference[1]	Difference[2]
Extraction rate	tpa	800,000	600,000	900,000	50%	13%
Hours of operation	per annum	3,025	3,025	3,025	0%	0%
Disturbed area	ha	2.55	1.91	2.87	50%	13%
Number of blasts	per annum	750	250	250	0%	-67%
Number of Drill holes	per annum	1,570	1,178	1,766	0%	-67%
Hauling	VKT/hr	5.47	4.1	6.2	51%	13%
Grading	km/week	11	2.2	2.2	0%	-80%
Scraper	days/annum	275	10	10	0%	-96%
PM_{10} emission rate	**kg/annum**	**25,679**	**13,958**	**19,968**	**43%**	**-22%**
TSP emission rate	**kg/annum**	**44,778**	**23,925**	**34,382**	**44%**	**-23%**

* based on the emission rate presented in the previous assessment (Heggies 2008)
[1]Difference between the proposed and current operation
[2]Difference between the proposed operation and the scenario assessed in the previous assessment (Heggies 2008)

The new quarry site works have now been completed and on-going works will include maintenance grading of the haul road and stripping as required to expose product prior to blasting. Provision for these works has been made in the revised assessment for the quarry production increase proposal.

The incremental and cumulative annual average dust deposition for each of the established receptors is identified in Table 10 of the report. The comparisons between the estimated 800, 000 tpa, the estimated 900, 000 tpa and the actual recorded results of 600, 000 tpa indicates that there will be a small increase in dust deposition for the proposed 900, 000 tpa compared with the current recorded emissions at receptors 1,2 and 3. It is also noted that for 900, 000 tpa the estimated cumulative dust at all receptors is below the

OEH nuisance criteria of 4 g/m^2/month (ie. maximum of 3 g/m^2/month at receptors 1 and 2, and less for receptors 3-6 inclusive).

The SLR report adopts the following conclusion:-

> *" Potential dust emissions from the proposed operation were estimated based on the most recent version of NPI and AP42 documents. The emission sources included in the inventory covered bulldozer, scaper and grader operations, excavators, haul trucks, blasting and wind erosion. Since no significant changes in the local meteorology or dispersion pattern are anticipated due to the proposed annual production rate increase, air quality impacts at surrounding residential receptors for the proposed production rate increase were predicted by scaling the model predictions for 800, 000 tpa extraction scenario (Heggies 2008) by the ratio of estimated particulate emissions.*
>
> *AUSPLUME V6 was used to predict the incremental impact at surrounding areas in the 2008 study. Ambient monitoring data from on-site dust monitors were used to establish the background dust depiction level (g/m^2/month) and particulate (PM_{10}) monitoring data from nearest OEH monitoring site at Albion Park South were used to conservatively estimate the background PM_{10} concentration level ($\mu g/m^3$).*
>
> *Based on the assumptions outlined in the report, the predicted incremental and cumulative impact at the surrounding sensitive receptors areas complies with the relevant OEH guidelines. Therefore, based upon the assumptions outlines in this assessment, it is considered to be reasonable to conclude that the proposed increase in the extraction rate from 600,000 tpa to 900,000 tpa will not cause any exceedances of relevant OEH air quality criteria in the surrounding areas."*

It is therefore concluded that the increase in the material production rate from 600, 000 tpa to 900, 000 tpa will be appropriate relative to air quality. Accordingly, there are no further measures required to minimize, manage or monitor the air quality within the locality as a result of an increase in the material production rate to 900, 000 tpa.

4.3 Noise & Blasting

In 2002, SLR Consulting (formerly Heggies Pty Ltd) was commissioned to prepare a noise and blasting impact assessment for the extension of quarrying operations at the site (Quarry Extension) and the findings were presented in the Report 30-1079-R1, dated 12 November 2002 (Quarry Extension NIA), as part of the Environmental Impact Assessment (EIA). As part of that assessment, noise modelling was performed based on an extraction rate of 400, 000 tpa. The results of the noise modelling indicated that noise assessment

goals would be exceeded at the surrounding residences, however the Proponent made a number of commitments to mitigate the noise emissions.

In 2006, SLR Consulting was engaged to prepare the Noise Monitoring Programme (NMP) and Blast Management Plan (BMP) for the Albion Park Quarry Extension in accordance with the requirements of Schedule 4, Condition 7 and Schedule 4, Conditions 14 and 15 of the Consent.

In 2008, SLR Consulting was commissioned to undertaken a noise study for an increase in the extraction rate at the Albion Park hard rock quarry, to determine the level of noise impact associated with increasing the extraction rate to 800, 000 tpa. The findings of the assessment are presented in Report 30-2138-R1 dated 30 October 2008 (2008 Modification). The proponent was granted approval to increase the extraction rate to 600, 000 tpa.

Cleary Bros now proposed to increase the extraction rate of Albion Park Quarry from the approved rate of 600,000 tpa to 900,000 tpa.

Accordingly, SLR Consulting has now been engaged to undertake a noise and blasting impact assessment of the environmental emissions likely to be associated with the increased extraction rate at the quarry. The report on the findings of this assessment is attached as *Appendix 6*.

The proposed increase in annual extraction rate is relatively minor (12.5%) compared to that assessed for the 2008 Modification and no major changes in the infrastructure or local topography (such as new stockpiles or bunds) will be required for the proposed annual production rate increase. The local meteorology, topographic shielding and noise emissions are therefore likely to be similar. Given this, additional modelling to quantify the incremental and cumulative impacts at surrounding areas for the proposed operations is not considered to be warranted and a semi-quantitative assessment has been performed instead.

A long history of noise monitoring and site attended noise audits, together with recent meteorological conditions, were utilised in order to determine the existing ambient noise levels and noise contributions created from current site activities. The proposed increased annual production rate and associated results were then measured against the current performance standards and required legislative noise goals, which revealed likely comparable conditions with the current site operations. In this regard, a summary of findings in the report concluded:-

> *"…The quarry is currently operating with an approved annual extraction rate of 600,000 tpa and the Proponent is seeking approval to increase the extraction rate to 900,000 tpa.*

Busy operational days for the existing Albion Park Quarry operations currently equate to an annual production rate of approximately 1,380,000 tpa. The proposed increase in the approved annual extraction rate of 600,000 tpa to 900,000 tpa would primarily be achieved through increased utilisation of current operational lulls.

Accordingly, the noise and blasting emissions from the Modification to all surrounding receivers are expected to be comparable to the existing emissions from the Albion Park Quarry.

Operating Noise Impact Summary

The noise assessment has found that the calculated daytime LAeq(15minute) intrusive noise emission level at all the potentially noise affected residences comply with the Consent noise limits. The noise emissions at all receivers are expected to remain unchanged and the current performance is expected to continue ie typically 4 dBA below Consent criteria at all receivers.

Road Traffic Noise Impact Summary

The existing access road off East-West Link Road would remain the primary access to the quarry site. The typical daily maximum operational workforce traffic and traffic associated with deliveries along public roads would not change due the Modification. The overall traffic noise level contribution, including the Albion Park Quarry operations, would remain well below the corresponding noise limit of 60 dBA LAeq(15hour).

Cumulative Noise Summary

As the on-site mobile fleet numbers are expected to remain unchanged, the estimated daytime amenity noise level will remain below the INP's acceptable amenity criteria of 55 dBA LAeq(11hour) during the daytime period.

Blasting Impact Summary

The blast design parameters and management practices remain generally unchanged. The modification would not increase the blast frequency, of one blast per day, that is currently permitted in the Consent and there is no change in the extent of operation.

Accordingly, blasting impacts associated with the Modification would continue to be maintained within the Consent and EPL Conditions (for the existing operation) of 115 dBA airblast and 5 mm/s ground vibration (with an allowance 5% exceedance in a 12 month period) at the closest most affected residences surrounding the site. "

As noted above, busy operational days (ie. up to 5,000 tonnes per day) for this quarry equates to an annual production rate of approximately 1,380,000 tonnes. Therefore, the production increase will not extend the operating hours of the quarry beyond the permissible hours as defined within the development consent. The proposed increase in material production to 900,000 tpa will be achieved by utilising the existing plant and equipment more consistently during the approved operating hours.

It is noted that the environmental monitoring records (refer to AQEMP) show that the objective levels for noise, vibration and dust have not been exceeded.

The operating noise, road traffic and blasting impacts summarised in the SLR assessment report indicates that expected emissions generated by a proposed quarry material production increase from 600,000 tpa to 900,000 tpa will meet the existing objectives set by the original consent conditions and create no additional impact on the sensitive noise receivers. As such, this proposed increase will be appropriate.

Again as applicable to the preceding air quality assessment, there are no further measures required to minimise, manage or monitor the impacts of noise and blasting within the locality as a result of an increase in the material production rate of 900, 000 tpa.

4.4 Traffic Management

In 2006 approval was granted to the Quarry to produce up to 400, 000 tonnes per annum (tpa) of hard rock from the site. The application for the approval was supported by a traffic impact assessment prepared by Masson Wilson Twiney Pty Ltd (April 2003). The assessment included consideration of the then recently opened East-West Link Road connecting Croome Road with the Princes Highway at the 'Oak Flats Interchange'.

In 2009 approval was granted to the Quarry to increase production levels from 400, 000 tpa to 600, 000 tpa. The application for the increase was supported by a traffic statement prepared by Masson Wilson Twiney (September 2008) which considered the traffic implications associated with a Quarry production level of 800, 000 tpa.

The current modification application proposes that the production level be increased to 900, 000 tpa.

GTA Consultants has been commissioned by Cleary Bros to undertake a traffic impact assessment for the proposed increased production level. In particular, this assessment has considered the implications of the proposed annual increase in production levels with regard to:

- the existing and potential future daily traffic generation characteristics of the Quarry;

- the operation of the surrounding road network; and
- functional capacity of the East West Link Road.

The report on the findings of this assessment is attached as *Appendix 7*, which addresses the anticipated transport implications of the proposed material production limit increase including consideration of the following:

- existing traffic conditions surrounding the site
- existing traffic generation
- the traffic generating characteristics of the increased production
- suitability of the proposed access arrangements for the site
- the transport impact of the proposed increased production levels on the surrounding road network.

In summary, the Traffic Impact Assessment identifies the following:-

- the local road network adjacent to the site is dominated by the East-West Link Road which was constructed and opened in late 2007 with the purpose of providing a major collector road connection between Croome Road and the Princes Highway (thereby relieving the traffic demands on the Prince Highway / Tongarra Road intersection to the north).

- The East-West Link is currently constructed as a two lane road with a dedicated marked cycle lane and wide sealed shoulder lane on both sides of the road. It is currently carrying in the order of 10, 000 – 11, 000 vehicles per day which is consistent with the roads intended function.

- Two roundabout intersections have been constructed along the East-West Link road to facilitate access to the residential / industrial estates to the north and to the quarries to the south. These intersections are operating at a level of Services B (SIDRA analysis) and therefore are operating well and have spare capacity to accommodate as increase in traffic volumes.

- The Albion Park Quarry is accessed from the intersection of the East-West link and Colden Drive. The East-West Link provides a direct link between the Quarry and the existing arterial road network. As such, it provides direct access to the Princes Highway via a grade separated interchange from which some 95% of the Quarry traffic enters / leaves the site.

- Minimum heavy vehicle roads associated with the quarry operation are within the nearby key roads network during the AM and PM peak periods.

- With regard to the potential traffic implications of Quarry operations to the surrounding road network, it is the volume of traffic generated on a daily and more importantly hourly basis that determines the extent of impact and not annual production.

- Traffic generation potential of the Albion Park Quarry is determined by:-

    - production capacity and ability to load trucks with material for export;
    - haulage fleet characteristics; and
    - market demand.

- Current Quarry activities on a busy day generates 5, 018 tonnes of material within 137 trucks with a peak operating day in October 2012 generating some 196 truck movements. This represents the movement of 5, 482 tonnes of quarry production material.

- The peak Quarry day hourly flows at the nearby intersections have been analysed using the SIDRA INTERSECTION software as aforementioned and found to operate at a Level of Services B.

- An increase in the material production rate to 900, 000 tpa as proposed will not change the existing peak operating traffic conditions. It is not proposed to increase the Quarry's capacity nor the Quarry's capacity to load trucks and essentially the increase in annual production levels allows the Quarry to operate within more busy days per year than currently occur.

- Application of the current busy days production rate for a 5 ½ day working week and 50 weeks of production per year equates to an annual material production level of 1, 380, 000 tpa to 1, 508, 000 tpa.

- The average daily production level for a 900, 000 tpa production limit would be approximately 3,275 tonnes per day.

The Traffic Impact Assessment provides the following conclusion:-

> *"In summary, the proposed increase in the annual quarry production will not require any variation to the consent condition relating to Transport (Sch.4 Cl.46) as quarry access will continue via the East West Link Rd. Further, it is proposed that there will be no noticeable change to the peak operating periods of the Cleary Bros Albion Park Quarry with regards to traffic generation.*

The analysis presented in this report has concluded that the existing (and thus proposed) Quarry traffic generation can be adequately accommodated by the surrounding road network which is operating satisfactorily with good levels of service and significant spare capacity.

Thus the proposed increase to annual production levels from 600,000 tpa to 900,000 tpa is considered acceptable with regard to road network operation."

Accordingly, the existing and proposed quarry traffic generation can be adequately accommodated by the surrounding road network, which is operating satisfactorily and with good levels of service already (ie. significant spare capacity). As such, the proposed increased annual production rate from 600,000 tpa to 900,000 tpa is considered acceptable with regard to traffic generation and road network operation.

Based on these findings, there are no further measures required to minimise, manage or monitor the impacts of traffic management within the locality should the proposed measures in material production rate be implemented.

The Traffic Impact Statement has considered the impacts upon the surrounding road network as required. However, in a broader context, it should be noted that a primary catalyst for the requested increase in the annual production rate at the Albion Park Quarry is the now reduced availability of alternate products within the Region. In this regard, the closure of the No. 6 Blast Furnace at the BlueScope Port Kembla plant has stopped the production of an alternate product generated from steel blast furnace slag (see NSW Trade & Investment Resources and Energy correspondence at *Appendix 4).*

Accordingly, any increase in the transportation of quarry products will be offset by the reduction in the transportation of slag products which were previously providing in excess of 1,000,000 tpa for the construction industry.

4.5 Water Consumption

A Water Management Plan was prepared for inclusion in the Quarry Environmental Plan (QEMP), which generally comprises:-

a) Water Balance;
b) Erosion and sediment control;
c) Surface water monitoring;
d) Ground water monitoring; and
e) An integrated water management strategy (if the water balance shows a potential demand for water above which can be collected on site from rainfall).

This Water Management Plan is Appendix G within the QEMP attached as *Appendix 3* to this report

Water required for dust suppression and landscape irrigation for the quarry extension is to be sourced from a water storage facility located at the low end of the quarry site and its' catchment area. During initial establishment of the quarry including stripping of soil/overburden, construction of the haul road and quarry bund walls it was necessary to source additional water from the existing quarry dam.

As the new quarry is being developed the new storage facility has provided sufficient water to meet the requirements to suppress dust and for irrigation.

Water for dust suppression on the quarry extension haul road was estimated on the application rate of two litres per square metre per hour for nine hours per day over 238 non rain days per year.

Cleary Bros operate a fleet of six CAT 773 dump trucks which have a capacity to transport in excess of 18,000 tonnes of material per week from the quarry face to the processing plant while operating within nine hours per day.

This equates to in excess of 900,000 tonnes per year. Although adequate water storage exists it is unlikely that there will be additional demand with the increase in haulage.

Water for dust suppression for the existing processing plant/haul roads/stockpiles is sourced from the existing quarry dam, which has a capacity of 24 mega litres.

The existing processing plant consumes 11 mega litres per year for spraying conveyors, stockpiles and the manoeuvring areas around the stockpiles. It is estimated that a further 10 mega litres per year is used on the existing haul roads not including the new haul road to the quarry extension.

It is proposed to maintain the current stockpile levels. A fifty percent increase in plant operations may increase water demand on conveyors and the truck/plant manoeuvring areas to a conservative 17 mega litres per annum. The estimated annual water demand for the proposed increase in quarry production for the processing plant and haul roads is 27 mega litres which is 3 mega litres greater than the current storage capacity of the dam. The decile 1 annual rainfall (10% driest) recorded at Kiama is 825mm. This rainfall will adequately replenish the dam to meet the water requirements for the quarry operation. Monitoring the quarry water balance will continue in accordance with the QEMP.

The 2010/2011 and the 2011/2012 quarry annual environmental report indicate that there has been a surplus of available water during these periods.

It is concluded that there is adequate water storage capacity to meet the requirements for dust suppression and irrigation with an increase in annual quarry production to 900,000 tonnes.

4.6 Other

There are no other matters required to be considered for this proposal.

The operational and environmental characteristics associated with the approved development will generally not be altered as a result of this application. This proposed application is merely a modification of the annual production rate, and it is considered the impacts associated with this increase will be negligible in relation to that which has already been approved by the DPI.

In general, the proposed development should be in keeping with current community expectations for the appropriate use of available land, and will help maintain a suitable land use outcome for Cleary Bros.

5.0 Conclusion

This application seeks DPIs support in relation to a proposed Modification of Development Consent for the Cleary Bros Albion Park Quarry. This modification seeks an increase to the quarry production limit from 600,000 tonnes to 900,000 tonnes per annum.

The provisions of *s.75W* of the *EP&A Act* enable the proposed modification to be approved by the DPI. It is considered that the proposed modification will generally have no notable environmental impact, and will not alter the character of the approved development.

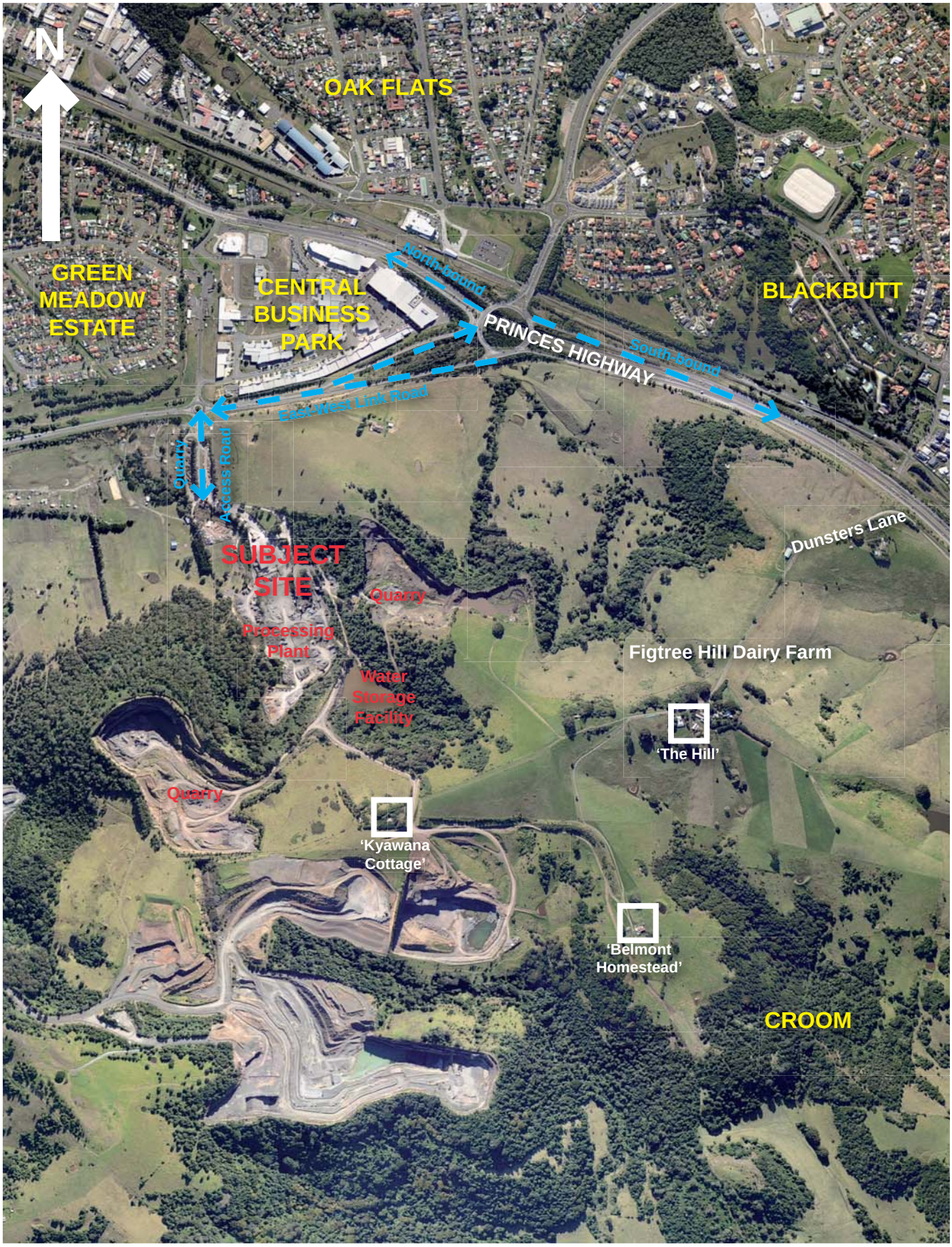
A review of those matters required to be considered for this modification has shown that:-

- the modified development is substantially the same development as that for which consent was originally granted, thereby maintaining the acceptable environmental impact assessment associated with the original proposal;
- the perceived traffic impacts associated with the modification will be negligible;
- the proposed modification will appropriately manage the impacts of air quality;
- the noise and blasting resulting from the proposed modification will be comparable to current site emissions, and will appropriately meet the required legislative noise goals;
- the matter of water consumption is not a prohibiting factor for the proposed modification;
- the proposed modification should be in keeping with current community expectations for the appropriate use of the subject land; and
- the proposed modification should be environmentally sustainable.

It has been shown that all likely impacts for the increase in material production rate from 600, 000 tpa to 900, 000 tpa can be managed within the current development controls and performance criteria contained within the Amended Consent and the QEMP. As such, there are no further measures proposed to minimise, manage and monitor these impacts.

It is therefore concluded that the proposed modification can be justified relative to environmental impact and public benefit, and thus, the DPI is respectfully requested to favourably consider this application at the earliest convenience.

FIGURES:



Martin Morris & Jones

title : LOCATION PLAN

property : Cleary Bros Albion Park Quarry

date : November 2013 scale : reduced figure : 1