

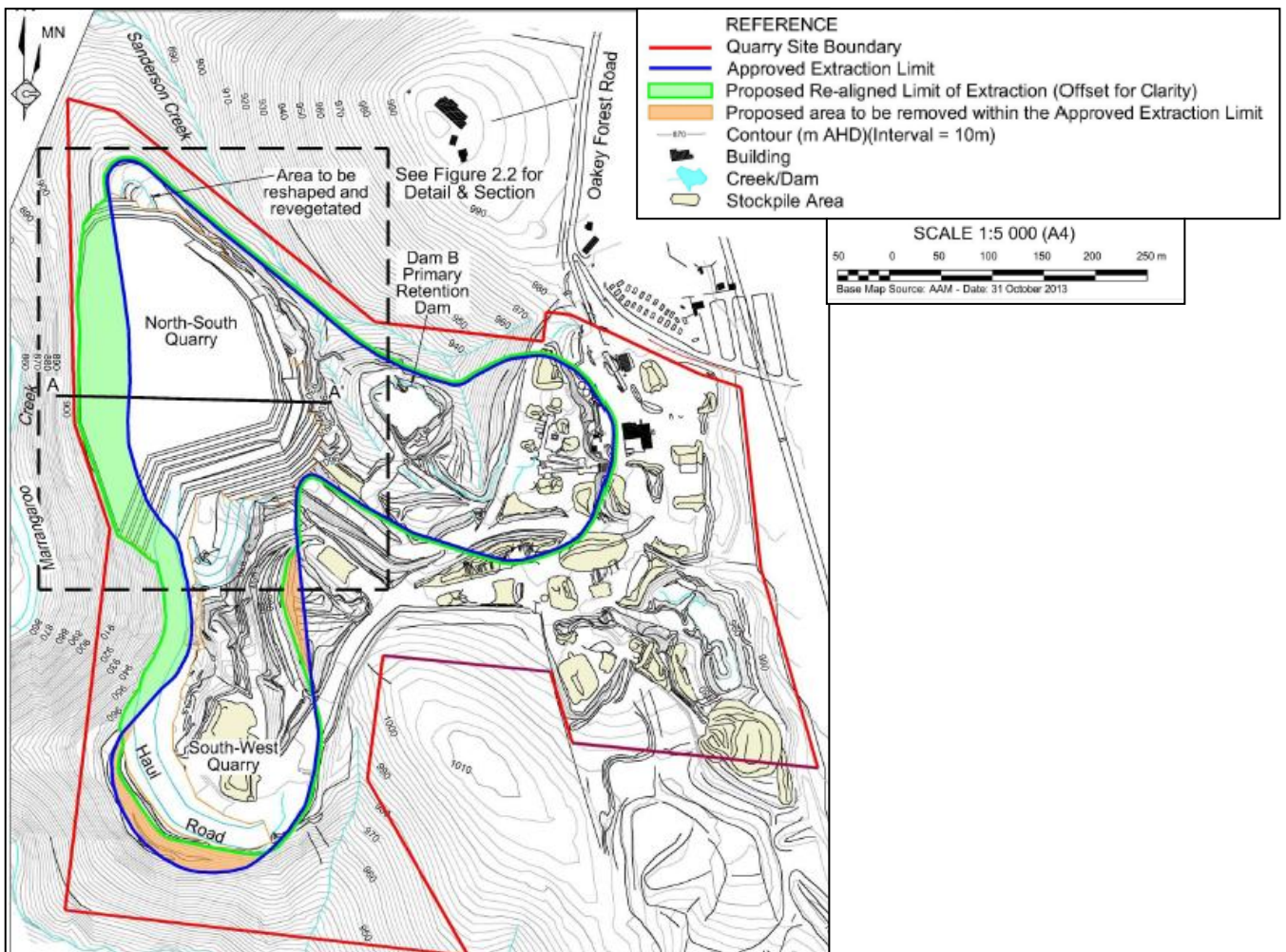
MODIFICATION OF CONSENT REPORT 090/95DA (S96043/14) – PROPOSED S96 MODIFICATION OF METROMIX QUARRY FOR REALIGNMENT OF WESTERN EXTRACTION BOUNDARY TO INCLUDE 1.2HA BEING 1.2MT OF RESOURCE & CHANGE OF CONDITION- 122 OAKLEY FOREST ROAD MARRANGAROO

1. PROPOSAL

Council is in receipt of a modification of development consent 090/95DA from William Sanderson seeking to realign the western extraction boundary to include 1.2ha being 1.2Mt of resource. There only other change proposed is to allow a three (3) yearly review by a qualified botanist/ bush regenerator rather than one (1) each year.

The original approved was completed under delegation by Council as a Designated Development and Integrated Approval through Sydney Water, Freight Rail, Total Catchment Management, Roads & Traffic Authority, Department of Land & Water Conservation, NSW National Parks & Wildlife and Soil Conservation Services for the continued use of the Quartzite Quarry in 1995. This was then modified in 2004 to increase the transportation hours.

The quarry is owned by Metromix Pty Limited and approved for 220,000t per year of product and utilises drilling & blasting, load & haul, and crushing & screening operations. The proposal is to change the extraction area due to more recent studies being undertaken in relation to the location of the quartzite. The plan below shows the proposed extraction boundary change:



Metromix proposes to re-align the boundary of the extraction area within the Marrangaroo Quarry to cover an additional 1.8 million tonnes of quartzite from the western boundary and North-South Quarry (green areas above). Two areas (orange in above) of 0.6ha are to be removed from the extraction area. This means the overall extraction area will increase from 14.6ha to 15.8ha and is the increased areas accounts for approximately 22% of the total resource within the proposed extraction limit. The approval of 1.2 ha or 1.2 million tonnes of resource would increase the life of the mine for an additional 6 years. This increase would allow an overall life of the quarry for approximately 32 years.

In relation to the proposal to allow the revelation monitoring to be undertaken on a three yearly basis rather than once a year, this is proposed due to the successful results. This would still be reviewed through the AEMR process.

The application will be assessed under Section 96 1(2) of the *Environmental Planning and Assessment Act 1979* and as Modification to Designated Development as per Clause 4 (Schedule 3 for extractive industries) under the *Environmental Planning and Assessment Regulations 2000*.

2. SUMMARY

To assess and recommend determination of Section 96 Modification of Consent No. S96043/14 of 090/95. Recommendation will be for approval subject to conditions.

3. LOCATION OF THE PROPOSAL

Legal Description : Lot 126 DP751651, Lot 98 DP 751651, Lot 1 DP577347, Lot 21 DP715095, Lot 2 DP909029 & Lot 68 DP813538

Property Address : 122 OAKEY FOREST ROAD MARRANGAROO NSW 2790

4. DETAILS OF CURRENT APPROVAL

The original approved was completed under delegation by Council as Designated Development and Integrated Approval through Sydney Water, Freight Rail, Total Catchment Management, Roads & Traffic Authority, Department of Land & Water Conservation, NSW National Parks & Wildlife and Soil Conservation Services for the continued use of the Quartzite Quarry in 1995 (ongoing operations for development that was originated in 1912). This was then modified in 2004 to increase the transportation hours.

The quarry is approved for 220,000t per year of product and utilises drilling & blasting, load & haul, and crushing & screening operations. The site contains stockpiles that do not exceed 70,000t with maximum heights of 6m. The product is transported off site by trucks with 85- 90% go right to Lithgow and 10-15% turn left towards Wallerawang & Bathurst. Traffic movements include 12 to 20 light vehicles per day with ma maximum of 250 trucks per day. The quarry employees 11 persons at the site with the hours of operation as follows:

Hours of Operation

| Activity | Hours | Days* |
|---|-------------------|--------------------|
| Extraction | 7:00am to 5:00pm | Monday to Saturday |
| Processing | 7:00am to 5:00pm | Monday to Saturday |
| Sales | 7:00am to 5:00pm | Monday to Friday |
| | 7:00am to 2:00pm | Saturday** |
| Maintenance | 7:00am to 5:30pm | Monday to Friday |
| | 7:00am to 12 noon | Saturday |
| | 24 hours | Monday to Sundays# |
| * Public holidays excluded. | | |
| ** Occasional Saturdays only. | | |
| # Maintenance is rarely undertaken beyond normal hours but is sometimes required at short notice for short periods and then, it is required to be inaudible at nearby residences. | | |

There is an estimate of 5.3 million tonnes remaining within the current approved limit of extraction and an average production level of 200,000t per year, it is estimated that the Marrangaroo Quarry would continue for approximately 26 years without this modification.

5. PERMISSIBILITY

The development was originally permissible in the zone under Clause 9 of Council's current LEP which indicates that an extractive industry is permissible in the zoning. This permissibility is not proposed to change as part of this modification. It is considered that the proposal is consistent with the aims and objectives of 1(a) General Rural.

5.1 POLICY IMPLICATIONS (OTHER THAN DCP's)

Nil.

5.2 FINANCIAL IMPLICATIONS (eg Section 94)

Section 94 Contributions

Section 94 Contributions for Coal Related Development was assessed as part of the original Development Application through a condition of consent. These contributions are not proposed to be changed as part of this proposal.

The existing contributions were imposed as a condition of consent as part of the original approval:

30. That payment of Section 94 Contributions of \$2,760 shall be paid at the completion of each financial year.

5.3 LEGAL IMPLICATIONS

5.3.1 Environmental Planning and Assessment Act 1979- Section 96 (1)

- (1) **Modifications involving minor error, misdescription or miscalculation***
A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify a development consent granted by it to correct a minor error, misdescription or miscalculation. Subsections (1A), (2), (3), (5), (6) and (7) do not apply to such a modification.

Comment:

Not applicable in this instance.

5.3.2 Environmental Planning and Assessment Act 1979- Section 96 (1A)

- (1A) **Modifications involving minimal environmental impact***
A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:
- (a) it is satisfied that the proposed modification is of minimal environmental impact, and*
 - (b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and*
 - (c) it has notified the application in accordance with:*
 - (i) the regulations, if the regulations so require, or*

- (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
 - (d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.*
- Subsections (1), (2) and (5) do not apply to such a modification.*

Comment:

Not applicable in this instance.

5.3.3 Environmental Planning and Assessment Act 1979- Section 96 (2)

(2) Other modifications

A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

- (a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and*
- (b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 5) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and*
- (c) it has notified the application in accordance with:*
 - (i) the regulations, if the regulations so require, or*
 - (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
- (d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.*

Subsections (1) and (1A) do not apply to such a modification.

Comment:

The development is substantially the same development given the change is for the extraction boundary only of 1.2ha and no other modification is proposed. The extractive industry will operate in the same manner, with an increase in extractive material an operation life. The original consent was approved by delegation from Council and integrated approval from other government agencies, and therefore the modification will be assessed in the same manner.

The development is considered to have an impact on the environment and therefore, is to be assessed under Section 96 (2). The modification related to extractive industries and therefore requires assessment by many government bodies in relation to effects on the environment and amenity in general. It is expected that the potential impacts on the environment and amenity can be minimised through amendment and additional condition of consent. The proposed modification has been sent to Sydney Catchment Authority, NSW Department of Planning & Infrastructure, Roads and Maritime Services, Environment Protection Authority, NSW Trade & Investment, National Parks & Wildlife Services, NSW Office of Water and surrounding landowners for comments, which are detailed further in this report.

5.3.4 Environmental Planning and Assessment Act 1979- Section 96 (3)

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

Any Environmental Planning Instruments

LITHGOW CITY LOCAL ENVIRONMENTAL PLAN 1994

The original application was assessed in accordance with the provisions of Lithgow's Local Environmental Plan 1994, and was found to be compliant. The modification does not require any further assessment under the LEP.

| LEP 1994 – Compliance Check | | |
|-----------------------------|---|-------------------|
| | Clause | Compliance |
| 9 | 1(a) zoning table | Yes |
| 11 | General Considerations for development in rural zones | Yes |

STATE ENVIRONMENTAL PLANNING POLICIES

The original application was assessed in accordance with the provisions of the relevant SEPP's, and was found to be compliant. An additional assessment has been undertaken for the modification.

State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011

| SEPP(Sydney Drinking Water Catchment) 2011 – Compliance Check | | |
|---|--|-------------------|
| | Clause | Compliance |
| 10 | Development consent cannot be granted unless neutral or beneficial effect on water quality | Yes |
| 11 | Development that needs concurrence of the Chief Executive | Yes |

Comment: The development was referred to the Sydney Catchment Authority for assessment under this SEPP. The comments from this referral are detailed later in this report. The SCA have confirmed that the development can achieve a neutral or beneficial effect on water quality subject to conditions of consent and therefore the application complies with the SEPP.

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

| SEPP (Mining, Petroleum Production and Extractive Industries) 2007 – Compliance Check | | |
|---|--|-------------------|
| | Clause | Compliance |
| 7 | Development permissible with consent | Yes |
| 12AA | Significance of resource | Yes |
| 12AB | Non-discretionary development standards for mining | Yes |
| 12 | Compatibility of proposed mine, petroleum production or extractive industry with other land uses | Yes |
| 13 | Compatibility of proposed development with mining, petroleum production or extractive industry | NA |
| 14 | Natural resource management and environmental management | Yes |
| 15 | Resource recovery | Yes |
| 16 | Transport | Yes |
| 17 | Rehabilitation | Yes |
| 18A | Designated Development | Applies |

Comment:

The development for the extractive industry is considered permissible with consent as per Clause 7 as it is carried out on land for the purpose of agriculture and is not within an environmental conservation zone.

This operation was included in a recent Mineral Resource Audit by Trade & Investment- Resource & Energy for the Lithgow LGA which was conducted in accordance to Section 117(2) Direction 1.3 – Mining, Petroleum Production and Extractive Industries under the *Environmental Planning and Assessment Act 1979*. It was found that the resource of silica is only 1 of 2 known within NSW and is therefore a significant resource. Department of Trade & Investment also stated: “The building and construction industries in NSW require ongoing replacement of supplies as sources are exhausted”. This quarry uses blasting techniques to produce quartzite (silica) for metallurgical use in steel-making and as hard rock aggregate which has economic benefits for the region and State. The mine currently employs 11 full time people, with run on effect to other businesses and residents of the area with minimal capital investment required for this modification. The modification would allow for employment for an addition 6 years of operation.

It is considered that the size and quality of resource to be recovered as part of this modification is significant being 0.5Mt of high grade quartzite and 0.7Mt of quartzite, being an overall 1.2Mt of high quality rock as a result of the modification. The development will not impact on existing infrastructure and minimal adjoining resources. Some industries are currently dependent on these resources and additional will benefit those industries and surrounding areas.

In relation to the development standards for mining or extractive industries, these would be covered by licencing by the EPA under the *Protection of the Environment Operations Act 1997*. The EPA was given opportunity to provide comment of the proposed modification which it was indicated the current EPA Licence 1464 did not require variation. Additionally, Sydney Catchment Authority and NSW Office of Water have assessed the proposal in relation to effects on water resources with no objection to the proposal subject to conditions of consent.

The approved uses surrounding this land are for extractive industries, agriculture, forest, recreational and residential types. The extractive industry is existing and the extension to the west (further from recreational and residential) will be of lesser impact to the existing surrounding land uses. The extractive industry has existing in the locality for many years (since 1912) with minimal impact on the surrounding land uses during this time, with this not expected to change as a result of the modification. The residential land uses and recreation land uses are still growing and is an indication that the extractive industry is not impeding on those uses. The mine is an important quartzite resource as there are minimal areas within NSW for this type of product. The operation also employs local residents and the products are used by surrounding businesses which is beneficial to the surrounding areas. It is considered that the incompatibility to other land uses of the proposal will be minimised by the existing and proposed conditions of consent.

The natural resources management and environmental management will be ongoing with the operations of the site. Council has sought recommendations from a number of authorities dealing in these matters with no concerns raised subject to conditions of consent and other licencing. It is considered that the development meets the requirements of Clause 14.

The efficiency of the resource recovery is considered suitable due to the methods employed for extraction. This type of extraction optimises the resource recovered and minimises waste material by reusing the overburden/unusable products elsewhere onsite for rehabilitation. It is considered that there is minimal wasted materials onsite and the development complies with Clause 15.

Given that the transportation for the proposal is not seeking to change, it is considered that the current arrangements are satisfactory even though it utilises public roads. However, the 6 years extension of time for the operations means ongoing traffic for those additional years that was not previously addressed. The Roads and Maritime Services have addressed this issue in their correspondence and suggested that a condition be imposed restricting the maximum number of road haulage movements per day be 250 or 125 trips. It is considered that limiting the truck movements in addition to the limited time s if movements will reduce traffic issues. The RMS will be provided with a copy of the determination for their records.

The development currently works under a rehabilitation plan and the addition disturbed land is to be included within these requirements. However, conditions of consent will be amended to include the rehabilitation plans final land form and use proposals.

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

Draft Lithgow Local Environmental Plan 2013 (Draft LEP 2013) applies to the land which proposes to change the zoning to E4 Environmental Living in which the exhibited draft prohibits extractive industries within this zone.

However, an amendment (proposed by a public submission) was supported by Council allowing the area known to be Metromix Quarry to be rezoned as RU1. This then made extractive industries permissible under the RU1 Primary Production zone. Therefore, it would be considered that the development is consistent with the amended Draft LEP 2013.

Any Development Control Plan

Nil applicable.

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?

Nil.

Any matters prescribed by the regulations that apply to the land

The Modification is considered to be Designated Development as per Clause 4 (Schedule 3 for extractive industries) under the *Environmental Planning and Assessment Regulations 2000* below:

4 What is designated development?

- (1) *Development described in Part 1 of Schedule 3 is declared to be designated development for the purposes of the Act unless it is declared not to be designated development by a provision of Part 2 or 3 of that Schedule.*
- (2) *Part 4 of Schedule 3 defines certain words and expressions used in that Schedule.*
- (3) *Part 5 of Schedule 3 prescribes how certain distances are to be measured for the purposes of that Schedule.*

- (4) Schedule 3, as in force when a development application is made, continues to apply to and in respect of the development application regardless of any subsequent substitution or amendment of that Schedule, and the application is unaffected by any such substitution or amendment.
- (5) References in subclause (4) to Schedule 3 include references to Schedule 3 to the Environmental Planning and Assessment Regulation 1994.

Schedule 3

19 Extractive industries

- (1) Extractive industries (being industries that obtain extractive materials by methods including excavating, dredging, tunnelling or quarrying or that store, stockpile or process extractive materials by methods including washing, crushing, sawing or separating):
- (a) that obtain or process for sale, or reuse, more than 30,000 cubic metres of extractive material per year, or
- (b) that disturb or will disturb a total surface area of more than 2 hectares of land by:
- (i) clearing or excavating, or
- (ii) constructing dams, ponds, drains, roads or conveyors, or
- (iii) storing or depositing overburden, extractive material or tailings, or

It is considered that the development has been assessed and complies with the provisions of the regulations.

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

Noise/Vibrations/Blasting

There have been no issues raised in relation to noise and vibrations with the exiting works of the quarry in the last five years. Operations have moved further away from residents areas and the monitoring of blasting is showing compliance with EPA guidelines and licencing. It is considered that the modification will not affect the noise, vibration or blasting of the site as it is continuing away from the existing residential area and no change in extraction methods are proposed. Any noise complaints received are investigated by the quarry.

Impacts from blasting would continue to be controlled through the implementation of the following management controls:

- The burden distance and stemming length would continue to be carefully selected and then implemented precisely to ensure that explosion gases are almost completely without energy by the time they emerge into the atmosphere.
- Charges would continue to be set in carefully designed sequences and with inter-row delays so as to consistently detonate and provide good progressive release of burden.
- Appropriate materials, e.g. 10mm aggregates, would be used for stemming.
- The maximum weight of explosive detonated in a given delay period (the maximum instantaneous charge (MIC)) would be limited to conservative and proven levels.
- Drilling would continue to be undertaken sufficiently in advance to attempt to avoid blasting on days of adverse weather conditions.

Flora

Much of the Quarry Site is classified as 'Cleared and Severely Disturbed Lands', however there are areas of Tableland Slopes Brittle Gum, Tableland Apple Box and Tableland Riparian Scrub Complex within NSW Department of Environment & Conservation 2006. There are no found Endangered Ecological Communities (EEC) within the area to be disturbed as per the Environment Protection and Biodiversity

Conservation Act 1999 (EPBC Act) or the Threatened Species Conservation Act 1995 (TSC Act). There are low likelihoods of Threatened Species (TS) within the study area under both of these Acts. Existing safeguards and controls would continue to be implemented for this modification including:

- Emphasis on progressive rehabilitation, particularly direct transfer of soil material and vegetation matter, where possible;
- Identification and Inspection of hollow-bearing trees prior to clearing
- Clearing strictly controlled to contain disturbances within the proposed extension area'
- Extraction of material as proposed so as to maintain internal drainage and avoid impact downslope.

It is considered that the modification will have minimal effects on flora given minimal EEC and TS within the area and ongoing rehabilitation to be undertaken.

Fauna

A total of 68 fauna species were detected during a field investigation as part of an investigation for this modification proposal, comprising of; 3 frog species, 4 reptile species, 42 bird species and 21 mammals and a further 41 fauna species expected to occur in the area. Of the species detected, the following are listed as vulnerable on the TSC Act or endangered on the EPBC Act:

- Gang-gang Cockatoo
- Powerful Owl
- Eastern Bentwing Bat
- Yellow-bellied Sheath-tail Bat
- Greater Broad-nosed Bat
- Eastern False Pipistrelle
- Spotted-tailed Quoll
- Large-eared Pied Bat

A Seven Part Test assessment has been completed for impacts on these fauna species and it was concluded that the proposed modification would unlikely have an effect on the species or their habitats.

In addition to these species the Purple Copper Butterfly, listed as endangered under the TSC Act and vulnerable under the EPBC Act has also been recorded in the Study Area. Based upon the results of the Assessment the short term nature of the potential impacts and consideration of the potential indirect impacts upon its habitat, it is expected that the Proposal would not have significant impact upon the Purple Copper Butterfly or identified habitat.

The land is not potential or core Koala habitat as defined by State Environmental Planning Policy No. 44. Therefore a plan of management for Koala need not be prepared and minimal impacts are expected.

Given that the small area of habitat affected for these species and their occurrence in both local area and wider region is considered unlikely that there would be a significant effect on these species, or their habitats. Therefore a Species Impact Statement was not required for this application. Additionally, the Commonwealth Department of Environment determined (27 August 2014) that the Proposal is not a controlled action and therefore does not require further assessment or approval under the EPBC Act.

Dust

Over the past 5 years there have been minimal complaints made in relation to dust issues. The EPA have ensured that compliance with the guidelines are ongoing with monitoring being undertaken at 3 locations. Onsite dust suppression methods have been employed using water sourced from storage dams to a 11,000Litre truck and sprayed on haul roads and stockpile areas. The processing and crushing operations also use a wet screening method which means the product is wetter and minimises dust further in this process. Table 8.1 of the SOEE shows that since 2003 the deposited dust gauges for the operation have reported compliance with the average 4g/m²/month requirement of the EPA. These results will be reported in the AEMR supplied to Council and authorities until operation ceases.

Dust will be continually controlled through the following controls:

- Regular watering of active haul roads and hardstand areas as dictated by climatic conditions;
- Use of misting sprays on the crushing and screening plant;
- Use of four dust extraction units on the crushing and screening plant
- Fitting of exhaust controls and proper maintenance of earthmoving equipment and onsite vehicles to reduce greenhouse and particulate emissions;
- Covering of all product loads; and
- Progressive rehabilitation of disturbed areas.

Traffic

Given that the transportation for the proposal is not seeking to change, it is considered that the current arrangements are satisfactory even though it utilises public roads. However, the 6 years extension of time for the operations means ongoing traffic for those additional years that was not previously addressed. The Roads and Maritime Services have addressed this issue in their correspondence and suggested that a condition be imposed restricting the maximum number of road haulage movements per day be 250 or 125 trips. It is considered that limiting the truck movements in addition to the limited times of movements will reduce traffic issues. The RMS will be provided with a copy of the determination for their records.

Visual

The Quarry site is not visible from any surrounding residence however, some of the west-facing extraction faces within the North-South Quarry and South-West Quarry are visible from vantage points near Mt Lambie which is located approximately 10km away. It is considered that the modification visual impacts are minimal.

Water

The Sydney Catchment Authority, NSW Office of Water and Environment Protection Authority have all assessed the proposal in relation to effects on water resources with no objection to the proposal subject to conditions of consent. It is considered that the modification will be incorporated into existing onsite water management plans for the duration of the operations, including storage, reuse and sedimentation controls.

Existing monitoring of the licenced discharge point from the spillway of Dam B will be ongoing and reported in the AEMR's.

Soils

The development is for extractive industries and therefore would have a considerable impact on the soils given the mass movement. However impacts off site will be reduced by implementing stringent sedimentation and erosion controls for the entire operation. An assessment by Sydney Catchment Authority has also provided that additional conditions of consent be imposed to reduce soil movements.

Rehabilitation monitoring

The proposal seeks to vary a condition of consent for the revegetation monitoring to only occur every 3 years instead of every year. It is considered that given minimal changes would occur over one year in relation to rehabilitation that this may be supported by Council. However in addition to the monitoring by a bush regenerator or qualified botanist the operator/applicant should be required to undertake photographic monitoring at one point on each rehabilitation site each year for reference in the AEMR. This will allow all authorities to quickly reference changes within these areas and a historical documentation.

The development currently works under a rehabilitation plan and the addition disturbed land are to be included within these requirements. However, conditions of consent will be amended to include the rehabilitation plans final land form and use proposals.

Bushfire

A Bush Fire Management Plan (BFMP) is currently being prepared for the Quarry Site and will formally assess the risk associated with bush fires. It is considered that with the implementation of a BFMP in accordance with the Planning For Bushfire Protection 2006 guide that the proposal will reduce bushfire risks.

Surrounding Landuses:

The approved uses surrounding this land are for extractive industries, agriculture, forest, recreational and residential types. The extractive industry is existing and the extension to the west (further from recreational and residential) will be of lesser impact to the existing surrounding land uses. The extractive industry has existing in the locality for many years (since 1912) with minimal impact on the surrounding land uses during this time, with this not expected to change as a result of the modification. The residential land uses and recreation land uses are still growing and is an indication that the extractive industry is not impeding on those uses. The mine is an important quartzite resource as there are minimal areas within NSW for this type of product. The operation also employees local residents and the products are used by surrounding businesses which is beneficial to the surrounding areas. It is considered that the incompatibility to other land uses of the proposal will be minimised by the existing and proposed conditions of consent.

Socioeconomic

Given the proposal would not change the production levels of the existing quarry or the number of employees associated with the operations the socioeconomic aspects would be positive. This is due to the quarry continuing to operate for an additional 6 years is the modification to include 1.2ha into the extraction area is approved. This provides greater long-term employment for the area and job security for the existing workforce which is beneficial for the surrounding areas.

Aboriginal heritage

An assessment on potential impacts of Aboriginal Heritage was undertaken by Niche Environment & Heritage which identified no Aboriginal archaeological sites within the proposed extension area. Based on the desktop assessment and visual inspection undertaken by Niche, it is considered that the likelihood of Aboriginal archaeological sites being located within the proposed extension area is limited due to the geology, topography and surrounding disturbed landscape, and no further archaeological assessment is required for works to continue.

However, Metromix ensures that employees and contractors are aware of their obligations under the *National Parks and Wildlife Act 1974* and, should any suspected relic be uncovered during the extraction-related activities, works in the area surrounding the relic would cease and the OEH and the Local Aboriginal Land Council contacted.

Waste

This type of extraction optimises the resource recovered and minimises waste material by reusing the overburden/unusable products elsewhere onsite for rehabilitation. Additional waste materials such as tyres, oil grease, scrap metal, general waste and paper are all disposed of at a licenced facility. Wastewater from onsite ablution facilities is controlled by an existing septic tank and transpiration bed suitable for 15 persons. It is considered that all waste is disposed of in a manner satisfactory to Council.

The Suitability of the site for the development

The original application was assessed in terms of site suitability and was found to be suitable. Given the modification is proposed in the vicinity of an existing Quarry the land is considered suitable given the existing disturbance and existence of resource. It is considered that the development does not require any further assessment of suitability as extractive industries is reliant on the location of the resource.

Any submissions made in accordance with this Act or the Regulations

The development is substantially the same development given the change is for the extraction boundary only of 1.2ha and no other modification is proposed. The extractive industry will operate in the same manner, with an increase in extractive material an operation life. The original consent was approved by delegation from Council and integrated approval from other government agencies, and therefore the modification will be assessed in the same manner. The proposed modification has therefore been sent to Sydney Catchment Authority, NSW Department of Planning & Infrastructure, Roads and Maritime Services, Environment Protection Authority, NSW Trade & Investment, National Parks & Wildlife Services, NSW Office of Water with their comments and recommendations detailed below.

SYDNEY CATCHMENT AUTHORITY

Requirements dated 2/2/2015

The subject property is located within the Warragamba catchment which forms part of Sydney's water supply. A Statement of Environmental Effects (SEE) prepared by R.W. Corkey & Co Pty Ltd (dated September 2014) has been considered in the assessment of the modification application.

The SCA's review of the SEE identified the following deficiencies:

- the construction of internal roads necessitates the removal of the existing water storage capacity in the South-West Quarry. The SEE states that the storage capacity of Dam B is twice the capacity required to contain runoff from a 1:50 year storm event within its catchment, however, no information on existing or proposed storage volumes has been provided

- the SEE provides contradictory statements/information (pages 30 to 32) which do not provide confidence in the information contained in the SEE, for example:
 - the existing and proposed level of extraction to 940m AHD lies above the regional groundwater level, however, Figure 2.2 (page 20) suggests that the existing and proposed extraction level is 905m AHD
 - the groundwater table is generally within 10m of the land surface. According to Figure 2.2, the land surface is at 920m AHD suggesting that the groundwater table is located at 910m AHD which is above the proposed extraction depth of 905m AHD
 - the baseflows in adjacent creeks is supported by groundwater seepage and less than 10% of water pumped from the sumps appears to be derived from groundwater seepage, and
 - the regional groundwater table is likely to be at a level below the basal sump within the North-South Quarry and given that the proposed extension area does not involve extraction below current sump level, the proposed extraction will have negligible effect on groundwater inflows.

- the SEE does not provide any information on surface water investigations and monitoring undertaken for the assessment, including baseline water quality monitoring for Marangaroo and Sanderson Creeks

- the SEE does not provide any information on groundwater investigations and monitoring, including for groundwater quality or depths; quantification of groundwater inflows and does not address impacts on the baseflows of Marangaroo and Sanderson Creeks.

The SCA has addressed the above issues through the conditions below. Notwithstanding above the SCA considers that the proposed modification may be able to achieve a neutral or beneficial effect on water quality provided appropriate conditions are included in any development consent and are subsequently implemented. The Chief Executive therefore does not object to the modification subject to the following conditions being imposed. This advice replaces the SCA's previous concurrence advice to Council (dated 10 June 2003).

1. The clearing, site preparation and extraction activities shall be undertaken in a manner to ensure that sediment laden water is prevented from entering Marrangaroo Creek and does not cause any adverse effect on the water quality of the creek.

2. All existing water runoff control works, consisting of sediment dams, diversion banks and in-line sediment traps shall be retained and maintained.

3. No water shall be discharged into the catchment of Marrangaroo Creek at any stage during the extension of the quarry other than via the licensed discharge point.

4. The Operational Environmental Management Plan for the site shall be reviewed, and updated in consultation with the Sydney Catchment Authority within six months of this modification approval and shall include but not limited to:
 - a detailed site plan
 - an assessment of water quantity and quality impacts on Marrangaroo and Sanderson Creeks and associated ecosystems from the proposed modification including

- impacts on baseflows
 - impacts on water quality
- existing and proposed surface water monitoring programs
- details on the location and nature of stormwater management structures such as pits, pipes, sediment dams, diversion banks, in-line sediment traps, and others
- an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, including the frequency of such activities
- the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and procedures for managing and notification of water quality emergencies, and
- checklists for recording inspections and maintenance activities.

Reason for Conditions 1 to 4 – To ensure stormwater management on a site generating high turbidity is undertaken in a manner and with management structures that ensure a neutral or beneficial effect on water quality and are sustainable over the longer term.

5. The existing Soil and Water Management Plan shall either be upgraded or a new plan prepared for all works as part of the extraction and rehabilitation by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" – Volume 1, and the requirements outlined in DECC's Soils and Construction: Managing Urban Stormwater Volume 2E Mines and Quarries (2008), and shall be to the satisfaction of Council and the Sydney Catchment Authority.
6. Effective erosion and sediment controls shall be installed prior to any construction activity, and shall prevent sediment of contaminated water leaving the site or entering any natural or constructed drainage system. The control shall be regularly maintained and retained until works have been completed and groundcover established.

Reason for Conditions 5 & 6 – To manage adverse environmental and water quality impacts during the construction phase of the development so as to minimise the risk of erosion, sedimentation and pollution within or from the site during this phase.

7. The annual monitoring report shall be provided to the Sydney Catchment Authority for comment.

Reason for Condition 7 – To ensure that the SCA is aware of the outcomes of water quality monitoring activity and is satisfied that the site's operations have a neutral or beneficial effect on water quality.

The SCA would appreciate receiving a copy of Council's determination of the application for modification of consent.

Requirements dated 25/2/2015

I refer to Council's letter received on 23 February 2015 providing additional information incorporating a revised Section 4 of the Statement of Environmental Effects and a letter to Council from R.W. Corkery & Co. Pty Ltd (dated 18 February

2015) with a request to amend Condition 4 of Water NSW advice to Council dated 2 February 2015.

Water NSW has reviewed the additional information and agrees to amend Condition 4, dot points 3 and 4. This advice replaces Condition 4 of Water NSW's previous advice to Council. All other conditions in Water NSW's previous advice to Council (dated 2 February 2015) still apply.

8. The existing Soil and Water Management Plan shall either be upgraded or a new plan prepared for all works as part of the extraction and rehabilitation by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" – Volume 1, and the requirements outlined in DECC's Soils and Construction: Managing Urban Stormwater Volume 2E Mines and Quarries (2008), and shall be to the satisfaction of Council and Water NSW. The Soil and Water Management Plan shall include but not be limited to:
 - a detailed site plan
 - detailed design of the stormwater management structures and discharges of these structures
 - implementation of a surface water monitoring program for Marrangaroo and Sanderson Creeks as specified below:
 - the program shall commence 6 months prior to any extraction activities, and shall continue for 12 months once extraction activities have commenced
 - monitoring shall include water quality and a quantitative assessment of flows as specified in Section 4.5 of the revised Statement of Environmental Effects (dated 18 February 2015).
 - details on the location, procedures and recurrence of the surface water monitoring programs
 - details on the location and nature of stormwater management structures such as pits, pipes, sediment dams, diversion banks, and in-line sediment traps
 - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, including the frequency of such activities
 - the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and procedures for managing and notification of water quality emergencies, and
 - checklists for recording inspections and maintenance activities.

NSW DEPARTMENT OF PLANNING & INFRASTRUCTURE

No submission was received in response to Council's referral.

ROADS AND MARITIME SERVICES

The proposal involves a realignment of the western extraction boundary at an existing quartzite quarry which will provide an additional 1.2 million tonnes of quarry material, thus extending operations at the site. No alterations or changes are proposed to road haulage operations which are restricted by conditions 2 and 3 of Development Consent No.090/95DA.

Currently, the maximum number of daily heavy vehicle movements associated with the quarry is 250. Access to the quarry is obtained via the intersection of Oakey Forest Road and the Great Western Highway (HW5). This intersection includes deceleration left and right turn lanes for traffic exiting the highway and entering Oakey Forest Road and is located near an active rail crossing. Whilst the intersection currently provides a good level of service, given the proposed modification will extend quarry operations at the site for an undefined period, it is important that appropriate conditions are put in place to ensure traffic generated from the quarry does not cause the intersection to fail during future peak haulage campaigns.

In accordance with Clause 16 of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*, Roads and Maritime recommends that conditions 2 & 3 of Development Consent No.090/95DA remain in any modified consent issued in relation to this development. Further, Roads and Maritime requests that an additional condition be imposed restricting quarry related road haulage operations to a maximum 250 movements/125 trips per day.

Comment:

The following condition is to be implemented as a result of the above response:

- Quarry related road haulage operations are not to exceed a maximum of 250 movements/ 125 trips per day.

ENVIRONMENT PROTECTION AUTHORITY

The EPA has reviewed the "Statement of Environmental Effects for the Re-alignment of Extraction Boundary at Marrangaroo Quarry" (September 2014) and has not identified any significant issues relevant to EPA's area of statutory responsibility or interest given the noise, air, land and water issues are not expected to change significantly and will still be regulated by the conditions stipulated by environmental protection licence 1464 (the licence) without variation.

NSW TRADE & INVESTMENT

The building and construction industries in NSW require ongoing replacement of supplies as sources are exhausted. The expansion of existing quarries, subject to environmental assessment, helps to ensure a continued supply of material for a range of building and construction uses in NSW. Marrangaroo Quarry represents an important source of hard rock aggregate products for the local and Greater Sydney area and also silica for metallurgical use in steel making.

The Marrangaroo Quarry was included in the Mineral Resource Audit which was recently completed for Lithgow City Council, a copy of which was first forwarded to council in August 2012 with an updated version provided in September 2014. The MRA was conducted in accordance to Section 117 (2) Direction 1.3 – Mining, Petroleum and Extractive Industries under the *Environmental Planning & Assessment Act 1979*.

GSNSW has reviewed the *Statement of Environmental Effects* for the re-alignment of the extraction boundary at the Marangaroo Quarry, specifically relating to the resource assessment. GSNSW has no resource-related issues in regard to the proposed modification.

NATIONAL PARKS & WILDLIFE SERVICES

No submission was received in response to Council's referral.

NSW OFFICE OF WATER

I refer to Council's letter dated 10 October 2014 advising of the proposed modification or amendment to a development proposal for the site at 122 Oakey Forest Road Marrangaroo.

The Office of Water has reviewed documents for the above S96 Modification of Designated Development Consent and considers that, for this instance, no further assessment \ comments by this agency are necessary.

PUBLIC SUBMISSIONS

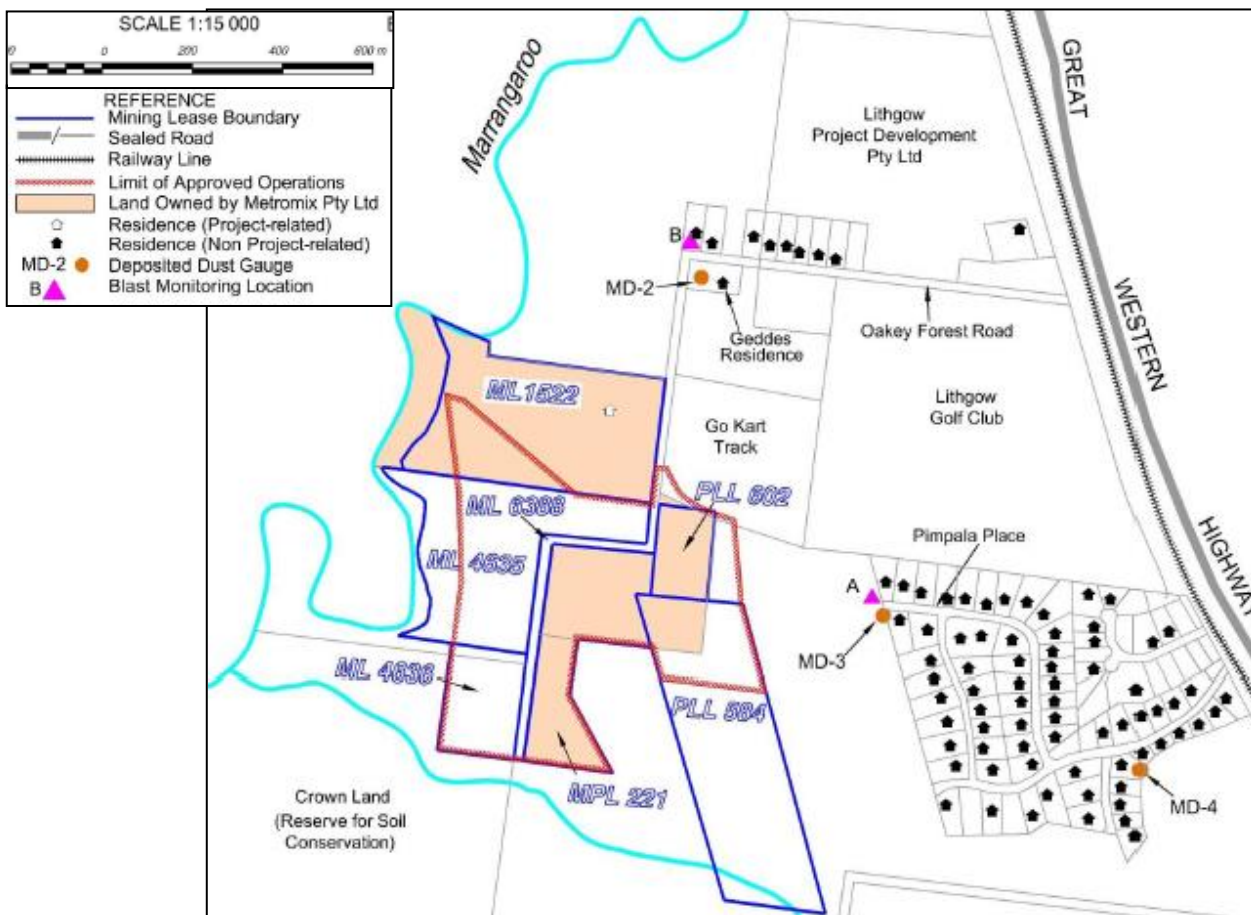
The development was also notified to the surrounding landowners, members of the public who previously made submission and advertised for a period of 30 days. The concerns raised in the submission received on the proposed modification are summarised below:

- 1 Residents will be subjected to additional respirable dust created. The dust is not only unsightly and uncomfortable when present in homes and surroundings but being respirable present's health hazards in the form of pneumoconiosis after prolonged exposure. Metromix analysis states the quartzite contains 93-98% SiO₂ (Silica) so the airborne dust consists of the same, thus being detrimental to residents health as the fine particles are carried through the air and present a real possibility of depositing in the lungs of any person exposed unprotected to the dust.
- 2 Metromix have not fulfilled all their undertakings/obligations as presented in their submitted "Statement of Environmental Effects for the Continued Operation of the Marrangaroo Quartzite Quarry" (SOEE Marrangaroo Quarry), presented as their case for continued operation, to the Lithgow Council in 1995 and as outlined in Lithgow Council document "Draft Conditions of Consent" Point 1, (Dated November 2995). Council have been remiss in not ensuring that all such undertakings/ obligations have been implemented given they approved continued extended operations and given the close proximity of the Council developed Marrangaroo Fields residential estate, residents of whom Council have "duty of care" obligations. Metromix undertakings/obligations not fulfilled include but not limited to the following:
 - a. Relocation of the processing plant after 15 years to a location 'within the South West Quarry area'. This plant relocation should have occurred 2010/2011 and would have reduced dust problems encountered by residences in close proximity to the processing plant. The Metromix Company lists this as an objective for Compliance with the EPA for onsite activities and transportation in Tale 4.1 yet has not implemented this relocation.
 - b. Metromix show little regard to the "SOEE Marrangaroo Quarry" by blasting on any day that suites rather than adhering to the undertakings to "program to avoid cloudy days for blasting". This has however happened on a number of occasions.

- c. Dust suppression during present plant operations, notable when processing plant is operating, is almost non-existent. Dust misting sprays on the processing plant referred to in the "SOEE Marrangaroo Quarry", if used, are totally inadequate with dust plume evident over the quarry and the Marrangaroo area whilst ever the processing plant is operating. It is obvious that containment of dust levels to the quarry is not being addressed, and could be eliminated by the relocation of the plant.
- d. What safeguards are in place to ensure acceptable air quality and dust admissions are maintained around the quarry. Little dust monitoring has occurred since 1994. Does Council receive regular reports on dust monitoring?

Comments:

Over the past 5 years the Quarry has only received 3 complaints directly relating to dust issues. This is not consistent with the submission regarding ongoing issues with dust to residents. Additionally, the Annual Environmental Management Reports supplied by Metromix contain the information on dust monitoring for the year. Below is a map showing the dust monitoring locations.



For points 1, 2 (c) & (d) as shown above there are 3 locations for dust monitoring as per the EPA licence requirements. The annual average deposited dust levels at MD-2, MD-3 and MD-4 were all below the $4g/m^2/month$ guideline level recommended by the EPA. Dust control measures involve use of water for suppression of dust generated from quarrying operations. Water sourced from the storage dams is used to suppress dust generated from quarrying operations.

Water sourced from storage dams is used to suppress dust generated from haul roads and stockpile areas. Dust suppression in these areas are currently undertaken using the 11,000 litre water truck.

The EPA has provided a statement that 'over the past 5 years there was only one anonymous complaint received for dust dating to 9 August 2012.' It was advised that it was investigated but not fully substantiated as dust suppressions were being deployed on site. However, at the time of the complaint the quarry suspended operations at the quarry. No other complaints have been received over the past five years by the EPA on any matters regarding the Quarry, other than recently (3/2/2015- dust issues) which found the quarry to be complaint in relation to dust which was dealt with by the EPA. The extraction areas of the quarry have also moved further away from residential areas over time which may attribute to less concerns being raised over the last five years. Additionally, there has never been an exceedance in relation to dust for this development.

In relation to 2(a) although the movement of the processing plant was approved as part of the original SOEE to happen within 15 years this has not occurred. This is due to the ongoing operations complying with all criteria set by the EPA including noise, blasting and dust issues. There was an upgrade undertaken on the processing plant in 2004 which implemented wet screening processes. As a result the stockpiled products contain more moisture and therefore less opportunity for dust issues. Again, there has been minimal complaints regarding the quarry and the operations have complied with EPA requirements. It has been advised that the progression and sequence of the extraction has changed since first proposed in 1995 to better optimise extraction and minimise overburden.

Additionally, a more recent discovery of the listed Purple Copper Butterfly at the northern boundary North-South Quarry, the location of the long-term haul road is now proposed to be located through the South-West Quarry and not in the area occupied by the butterfly. Therefore the South-West Quarry, originally the preferred area for the relocation of the processing plant, no longer provides a suitable area.

Monitoring is continuing while the quarry is operational as per EPA licencing and it is not considered that the [processing plant will require relocation. It is also considered that the condition relating to reporting of dust should be changed to coincide with the AEMR.

For 2(b) the blasting is undertaken on suitable days as per licencing requirements and no concerns have been previously raised with Council, the EPA or the Metromix Quarry. The development continues to comply with the EPA licencing requirements for blasting.

Amendments to conditions as below:

22. The applicant/operator shall undertake a dust monitoring programme in the locality to determine the effectiveness of dust controls used on the development site. The applicant/operator shall consult with the Environmental protection Authority and Council with respect to the monitoring locations and duration of monitoring. Results of dust monitoring shall be submitted, together with related data on wind direction, velocity and precipitation in the Annual Environmental Management Report. Any changes to the operation of the quarry deemed necessary as a result of dust monitoring to be notified to Council and implemented accordingly.

27. The applicant to submit to Council and associated authorities an Annual Environmental Management Report covering all matters in compliance with this consent; works rehabilitation, production and management undertakings set out in the Statement of Environmental Effects dated June 1995, Statement of Environmental Effects dated April 2003 and Statement of Environmental Effect dated September 2014. The Report shall detail the performance of the development and the effectiveness of environmental controls.
28. The Annual Environmental Management Report shall be prepared each year and shall be submitted the following year during the life of the development, with the first report to be submitted by 31 December 1997.

The public interest

The original application was assessed in terms of the public interest. The proposed modification does not change whether the development is within the public interest.

5.3.5 Environmental Planning and Assessment Act 1979- Section 96 (4)

- (4) *The modification of a development consent in accordance with this section is taken not to be the granting of development consent under this Part, but a reference in this or any other Act to a development consent includes a reference to a development consent as so modified.*

Comment:

Noted.

5.3.6 Environmental Planning and Assessment Act 1979- Section 96 (5)

(5) *Threatened species*

Development consent of the kind referred to in section 79B (3), or in respect of which a biobanking statement has been issued under Part 7A of the Threatened Species Conservation Act 1995, is not to be modified unless:

- (a) *in the case of development referred to in section 79B (3)—the requirements of section 79B (3)–(7) have been complied with in relation to the proposed modification as if the application for the proposed modification were an application for development consent, or*
- (b) *in the case of development in respect of which a biobanking statement has been issued under Part 7A of the Threatened Species Conservation Act 1995—the applicant has made an application for modification of the biobanking statement in relation to the proposal and a new biobanking statement has been issued or the consent authority is satisfied that the modification will have no impact on biodiversity values (within the meaning of that Act).*

Comment:

There is no biobanking statement issued under the *Threatened Species Conservation Act 1995* in relation to this development and therefore the abovementioned clause does not apply.

6. DISCUSSION AND CONCLUSIONS

The application has been thoroughly assessed under Section 96 (2) of the *Environmental Planning and Assessment Act 1979* and is appropriate for recommendation of approval subject to conditions.

7. ATTACHMENTS

Schedule A- Conditions of consent.

8. RECOMMENDATION

THAT the Section 96 Modification of Consent application S96043/14 associated with 090/95DA be approved subject to the following amendments addition following conditions and outlined in Schedule A:

Amended Conditions:

- 1 Development to be carried out generally in accordance with the Statement of Environmental Effects dated June 1995, Statement of Environmental Effects dated April 2003 and Statement of Environmental Effect dated September 2014 except as may be amended or specified by the following conditions. Where these Statements of Environmental Effects contradict one other the latest version will prevail.
11. Revegetation monitoring to be undertaken by qualified botanist or bush regenerator at least a three yearly basis and the methods and results presented in the Annual Environmental Management Report. Additional to this, photographic monitoring (at least one control point for each rehabilitation area) should be included each year within the annual report.
15. The applicant shall consult with the Soil Conservation Service, Department of Mineral Resourced and Council with regard to progressive and final implementation of rehabilitation works. Such works to be carried out to the satisfaction of these Authorities and include final land form and use.
22. The applicant/operator shall undertake a dust monitoring programme in the locality to determine the effectiveness of dust controls used on the development site. The applicant/operator shall consult with the Environmental protection Authority and Council with respect to the monitoring locations and duration of monitoring. Results of dust monitoring shall be submitted, together with related data on wind direction, velocity and precipitation in the Annual Environmental Management Report. Any changes to the operation of the quarry deemed necessary as a result of dust monitoring to be notified to Council and implemented accordingly.
- 27 The applicant to submit to Council and associated authorities an Annual Environmental Management Report covering all matters in compliance with this consent; works rehabilitation, production and management undertakings set out in the Statement of Environmental Effects dated June 1995, Statement of Environmental Effects dated April 2003 and Statement of Environmental Effect dated September 2014. The Report shall detail the performance of the development and the effectiveness of environmental controls.
- 28 The Annual Environmental Management Report shall be prepared each year and shall be submitted the following year during the life of the development, with the first report to be submitted by 31 December 1997.

Additional:

- The clearing, site preparation and extraction activities shall be undertaken in a manner to ensure that sediment laden water is prevented from entering Marrangaroo Creek and does not cause any adverse effect on the water quality of the creek.
- All existing water runoff control works, consisting of sediment dams, diversion banks and in-line sediment traps shall be retained and maintained.
- No water shall be discharged into the catchment of Marrangaroo Creek at any stage during the extension of the quarry other than via the licensed discharge point.
- The Operational Environmental Management Plan for the site shall be reviewed, and updated in consultation with the Sydney Catchment Authority within six months of this modification approval and shall include but not limited to:
 - a detailed site plan
 - an assessment of water quantity and quality impacts on Marrangaroo and Sanderson Creeks and associated ecosystems from the proposed modification including
 - impacts on baseflows
 - impacts on water quality
 - existing and proposed surface water monitoring programs
 - details on the location and nature of stormwater management structures such as pits, pipes, sediment dams, diversion banks, in-line sediment traps, and others
 - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, including the frequency of such activities
 - the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and procedures for managing and notification of water quality emergencies, and
 - checklists for recording inspections and maintenance activities.
- The existing Soil and Water Management Plan shall either be upgraded or a new plan prepared for all works as part of the extraction and rehabilitation by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" – Volume 1, and the requirements outlined in DECC's Soils and Construction: Managing Urban Stormwater Volume 2E Mines and Quarries (2008), and shall be to the satisfaction of Council and the Sydney Catchment Authority.
- Effective erosion and sediment controls shall be installed prior to any construction activity, and shall prevent sediment of contaminated water leaving the site or entering any natural or constructed drainage system. The control shall be regularly maintained and retained until works have been completed and groundcover established.
- The annual monitoring report shall be provided to the Sydney Catchment Authority for comment.

- The existing Soil and Water Management Plan shall either be upgraded or a new plan prepared for all works as part of the extraction and rehabilitation by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom’s Soils and Construction: Managing Urban Stormwater (2004) manual - the “Blue Book” – Volume 1, and the requirements outlined in DECC’s Soils and Construction: Managing Urban Stormwater Volume 2E Mines and Quarries (2008), and shall be to the satisfaction of Council and Water NSW. The Soil and Water Management Plan shall include but not be limited to:
 - a detailed site plan
 - detailed design of the stormwater management structures and discharges of these structures
 - implementation of a surface water monitoring program for Marrangaroo and Sanderson Creeks as specified below:
 - the program shall commence 6 months prior to any extraction activities, and shall continue for 12 months once extraction activities have commenced
 - monitoring shall include water quality and a quantitative assessment of flows as specified in Section 4.5 of the revised Statement of Environmental Effects (dated 18 February 2015).
 - details on the location, procedures and recurrence of the surface water monitoring programs
 - details on the location and nature of stormwater management structures such as pits, pipes, sediment dams, diversion banks, and in-line sediment traps
 - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, including the frequency of such activities
 - the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and procedures for managing and notification of water quality emergencies, and
 - checklists for recording inspections and maintenance activities.

- Quarry related road haulage operations are not to exceed a maximum of 250 movements/ 125 trips per day.

Report prepared by: Jessica Heath Supervisor: Paul Cashel

Dated:..... Dated:.....

Signed:..... Signed:.....

REASONS FOR CONDITIONS

The conditions in Attachment 1 have been imposed for the following reasons:

- To ensure compliance with the terms of the relevant Planning Instruments
- To ensure no injury is caused to the existing and likely future amenity of the neighbourhood
- Due to the circumstances of the case and the public interest.
- To ensure that adequate road and drainage works are provided.
- To ensure access, parking and loading arrangements will be made to satisfy the demands created by the development.
- To ensure the structural integrity of the development.
- To ensure the protection of the health and safety of the occupants of the development.
- To protect the environment.
- To prevent, minimise, and/or offset adverse environmental impacts.
- To ensure lots are adequately serviced.
- To ensure there is no unacceptable impact on the water quality.
- To ensure adequate soil conservation and protect against movement of soil and sediments.

Schedule A

Conditions of Consent (Consent Authority) and General Terms of Approval (Integrated Approval Body)

Please Note: It should be understood that this consent in no way relieves the owner or applicant from any obligation under any covenant affecting the land.

- 1 **Development to be carried out generally in accordance with the Statement of Environmental Effects dated June 1995, Statement of Environmental Effects dated April 2003 and Statement of Environmental Effect dated September 2014 except as may be amended or specified by the following conditions. Where these Statements of Environmental Effects contradict one other the latest version will prevail.**
- 2 The rate of production from the total operation shall not exceed 220,000 tonnes per annum.
- 3 Hours of operation will be confined to 7.00am -5.00pm Monday to Saturday for quarrying and processing activities. Sales and Transportation will be confined to 7.00am-6.30pm Monday to Friday and 7.00am to 2.00pm Saturdays. Maintenance to be confined to the normal operating hours except as provided for in the Statement of Environmental Effects-
 - (a) Trucks are not to proceed past the Oakey Forest Road Rail Siding before 7.00am.
- 4 The applicant/operator shall obtain all necessary approvals from the Environment Protection Authority and ensure all appropriate measures are taken to minimise any impacts from air, water and noise pollution resulting from the development. All licensing and other requirements of the EPA shall be complied with.
- 5 Stockpiled quartzite to be removed from the old railway siding adjacent to Oakey Forest Road. The site is to be left in a neat and tidy state. Stockpiling of quartzite in this location to cease.
- 6 The applicant/operator shall ensure that all loads leaving the quarry are adequately covered.
- 7 The applicant/operator shall ensure that loads requiring adjustment are attended to within the development site. The Oakey Forest Road rail siding is not to be used for this purpose.
- 8 The applicant/operator shall consult with Freight Rail regarding the possibility of rail haulage of products to the metropolitan Sydney area.
- 9 The applicant/operator shall comply with the requirements of the Council concerning means to prevent and fight bushfires. Council's Fire Control Officer is to be contacted with regard to such.
- 10 All cleared native vegetation to be used either as brush matting, mulch or biomass. This is to be used as ground cover on areas to be revegetated.

11. **Revegetation monitoring to be undertaken by qualified botanist or bush regenerator on at least a three yearly basis and the methods and results presented in the Annual Environmental Management Report. Additional to this, photographic monitoring (at least one control point for each rehabilitation area) should be included each year within the annual report.**
12. The applicant to consult with the Soil Conservation Service during topsoil stripping and stockpiling in respect to erosion protection and long term viability of the stockpiled where immediate reuse is not possible.
13. The applicant to consult with the Soil Conservation Service prior to construction of runoff diversion, erosion and sediment control works and sediment dams. Such works are to be constructed to capacities and standards satisfactory to the Service.
14. **The applicant shall consult with the Soil Conservation Service, Division of Resource & Energy and Council with regard to progressive and final implementation of rehabilitation works. Such works to be carried out to the satisfaction of the Division of resource and Energy and include final land form and use.**
15. Soil erosion control structures will be required to be maintained in the rehabilitation areas until evidence of soil stability is provided.
16. Soil & Water management at the development site is to be effected as outlined in the Statement of Environmental Effects.
17. Ongoing and final landform rehabilitation to be effected as outlined in the State.
18. Applicant to identify in the rehabilitation plan areas requiring rehabilitation for nature conservation purposes with the management objective for these areas to be clearly defined.
19. Fencing of rehabilitation areas to be undertaken where appropriate.
20. Bunded fuel storage area to be appropriately roofed.
21. Drainage of the south west quarry haul road is required to be diverted into the site water management system.
22. **The applicant/operator shall undertake a dust monitoring programme in the locality to determine the effectiveness of dust controls used on the development site. The applicant/operator shall consult with the Environment Protection Authority and Council with respect to the monitoring locations and duration of monitoring. Results of dust monitoring shall be submitted, together with related data on wind direction, velocity and precipitation in the Annual Environmental Management Report. Any changes to the operation of the quarry deemed necessary as a result of dust monitoring to be notified to Council and implemented accordingly.**

23. Controlled blasting shall be undertaken at the site, with blasting to be avoided where practical in high wind conditions or on overcast days. All blasting to comply with standards and guidelines of the Environmental Protection Authority. Residents who wish to be notified of imminent blasts shall be notified by the applicant/operator.
24. If any additional loading are to be placed on the septic tanks installed at the site, then a water balance report shall be undertaken and the results applied to Australians Standard 1547 to ensure that the effluent is adequately disposed of.
25. Installation of a truck wheel wash bat at the exit from the quarry. Such to be incorporated into the water management system for the site.
26. Oakey Forest Road to be upgraded to a formation width of 8m with a two coat sealed pavement width of 6m except as provided by condition 16(b). Pavement design shall be in accordance with NAASRA 1987 Pavement Design with recommendations from an approved NATA registered Soil Testing Laboratory or Practising Engineer. The section of Oakey Forest Road currently within the Crown Road Reserve shall be constructed within such Reserve prior to dedication to Council. All works to be undertaken at full cost of the applicant/operator and shall be constructed in accordance with the above requirements within two years of the date of this consent.
 - a. The last 400m of Oakey Forest Road (currently unsealed) running in a north south direction and the quarry access to the new wash bay to be sealed within 12 months of the date of this consent. The remainder of Oakey Forest Road running in the east west direction to be upgraded in accordance with the above requirements within 2 years of the date of this consent.
 - b. Council will consider a lesser formation width on specific sections of road where it facilitates the retaining of trees. No trees shall be removed as a result of roadwork without the approval of Council.
27. **The applicant to submit to Council and associated authorities an Annual Environmental Management Report covering all matters in compliance with this consent; works rehabilitation, production and management undertakings set out in the Statement of Environmental Effects dated June 1995, Statement of Environmental Effects dated April 2003 and Statement of Environmental Effect dated September 2014. The Report shall detail the performance of the development and the effectiveness of environmental controls, particularly those identified in the Soil and Water Management Plan.**
28. **The Annual Environmental Management Report shall be prepared for each calendar year (or otherwise agreed) and shall be submitted the following year during the life of the development, with the first report to be submitted by 31 December 1997.**
29. **The applicant to undertake further detailed environmental assessment of quarrying activities in the north east quarry prior to work commencing in this area. Such to be submitted to Council, the Environmental Protection Authority and the Division of Resource and Energy for approval, prior to extraction commencing in this area.**
30. That payment of Section 94 Contributions of \$2,760 shall be paid at the completion of each financial year.

31. That all residents along Oakey Forest Road be provided a copy of the Metromix- Marrangaroo Quarry Code of Conduct for Truck Driver. (NB. An additional item shall be included in the Code of Conduct to the effect that headlights must be turned on during periods of poor visibility).
32. That appropriate heavy vehicle advisory signage shall be displayed along Oakey Forest Road, indicating that this is a heavy haulage route. This shall be at full cost to the Applicant.
33. That the Applicant shall install line marking along the full length of Oakey Forest Road, this shall include both edge lines and centre line delineation. Reflective pavement markers and guide posts shall be installed along the entire length of Oakey Forest Road, at full cost to the applicant. This work shall be completed on conjunction with Council's next line marking campaign or 1 May 2004 whichever occurs sooner.
34. Signs shall be erected within the quarry displaying to drivers that compressions braking is prohibited along the full length of Oakey Forest Road and that truck speeds be limited to 40km/h.
35. **The clearing, site preparation and extraction activities shall be undertaken in a manner to ensure that sediment laden water is prevented from entering Marrangaroo Creek and does not cause any adverse effect on the water quality of the creek.**
36. **All existing water runoff control works, consisting of sediment dams, diversion banks and in-line sediment traps shall be retained and maintained.**
37. **No water shall be discharged into the catchment of Marrangaroo Creek at any stage during the extension of the quarry other than via the licensed discharge point.**
38. **The Operational Environmental Management Plan for the site shall be reviewed, and updated in consultation with the Sydney Catchment Authority within six months of this modification approval and shall include but not limited to:**
 - **a detailed site plan**
 - **an assessment of water quantity and quality impacts on Marrangaroo and Sanderson Creeks and associated ecosystems from the proposed modification including**
 - **impacts on baseflows**
 - **impacts on water quality**
 - **existing and proposed surface water monitoring programs**
 - **details on the location and nature of stormwater management structures such as pits, pipes, sediment dams, diversion banks, in-line sediment traps, and others**
 - **an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, including the frequency of such activities**

- the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and procedures for managing and notification of water quality emergencies, and
 - checklists for recording inspections and maintenance activities.
39. The existing Soil and Water Management Plan shall either be upgraded or a new plan prepared for all works as part of the extraction and rehabilitation by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" – Volume 1, and the requirements outlined in DECC's Soils and Construction: Managing Urban Stormwater Volume 2E Mines and Quarries (2008), and shall be to the satisfaction of Council and the Sydney Catchment Authority.
40. Effective erosion and sediment controls shall be installed prior to any construction activity, and shall prevent sediment of contaminated water leaving the site or entering any natural or constructed drainage system. The control shall be regularly maintained and retained until works have been completed and groundcover established.
41. The annual monitoring report shall be provided to the Sydney Catchment Authority for comment.
42. The existing Soil and Water Management Plan shall either be upgraded or a new plan prepared for all works as part of the extraction and rehabilitation by a person with knowledge and experience in the preparation of such plans. The Plan shall meet the requirements outlined in Chapter 2 of NSW Landcom's Soils and Construction: Managing Urban Stormwater (2004) manual - the "Blue Book" – Volume 1, and the requirements outlined in DECC's Soils and Construction: Managing Urban Stormwater Volume 2E Mines and Quarries (2008), and shall be to the satisfaction of Council and Water NSW. The Soil and Water Management Plan shall include but not be limited to:
- a detailed site plan
 - detailed design of the stormwater management structures and discharges of these structures
 - implementation of a surface water monitoring program for Marrangaroo and Sanderson Creeks as specified below:
 - the program shall commence 6 months prior to any extraction activities, and shall continue for 12 months once extraction activities have commenced
 - monitoring shall include water quality and a quantitative assessment of flows as specified in Section 4.5 of the revised Statement of Environmental Effects (dated 18 February 2015).
 - details on the location, procedures and recurrence of the surface water monitoring programs
 - details on the location and nature of stormwater management structures such as pits, pipes, sediment dams, diversion banks, and in-line sediment traps
 - an identification of the responsibilities and detailed requirements for the inspection, monitoring and maintenance of all stormwater management structures, including the frequency of such activities

- **the identification of the individuals or positions responsible for inspection and maintenance activities including a reporting protocol and hierarchy, and procedures for managing and notification of water quality emergencies, and**
 - **checklists for recording inspections and maintenance activities.**
43. **Quarry related road haulage operations are not to exceed a maximum of 250 movements/ 125 trips per day.**