

Hawkesbury River Environment Centre and Neville Diamond v Planning NSW and
Dixon Sand (Penrith) Pty Ltd

Land and Environment Court Proceedings No 10206 of 2003

CONDITIONS OF CONSENT

SCHEDULE 1

Development Application:	DA No. 250-09-01, lodged with the then Department of Urban Affairs and Planning on 21 September 2001;
Applicant:	Dixon Sand (Penrith) Pty Ltd ("the Applicant");
Consent Authority:	The Minister for Infrastructure and Planning;
Land:	Lots 1 and 2, DP 547255, and Lots 29 and 196, DP 752025, Old Northern Road, Maroota, Baulkham Hills Shire local government area;
Proposed Development:	The operation of an extractive industry on Lots 1 and 2, DP 547255, and Lots 29 and 196, DP 752025; the continued use of the existing central processing plant on Lot 196 DP 752025; and water management and rehabilitation operations over Lots 1 and 2, DP 547255, and Lots 29 and 196, DP 752025, as described more particularly in Annexures "B" and "C".
State Significant Development	The proposed development is within a class of development classified as State Significant development by virtue of a declaration made by the then Minister for Urban Affairs and Planning on 3 August 1999 under section 76A of the <i>Environmental Planning and Assessment Act</i> ;
Integrated Development	The proposed development requires an additional approval from the EPA under the <i>Protection of the Environmental Operations Act 1997</i> . Consequently it is classified as integrated development under section 91 of the <i>Environmental Planning and Assessment Act 1979</i> .
Designated Development	The proposed development would involve sand extraction and processing above the threshold in Schedule 3 of the <i>Environmental Planning and Assessment Regulation 2000</i> . Consequently it is classified as designated development under clause 4 of the <i>Environmental Planning and Assessment Regulation 2000</i> .
BCA Classification:	This consent does not provide for construction of any buildings or structures.

This instrument includes changes made by DA 250-09-01 Mod 1 in February 2006 (marked in blue)

This instrument includes changes made by DA 250-09-01 Mod 2 in August 2008 (marked in red)

This instrument includes changes made by DA 250-09-01 Mod 3 in September 2012 (marked in green)

This instrument includes changes made by DA 250-09-01 Mod 4 in July 2015 (marked in purple)

SCHEDULE 2

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In this consent, except in so far as the context or subject-matter otherwise indicates or requires the following terms have the meanings indicated:

Annual Review	The review required by condition 7.2 of schedule 2
Act	<i>Environmental Planning and Assessment Act, 1979</i>
AHD	Australian Height Datum
Applicant	Dixon Sand (Penrith) Pty Ltd
BCA	Building Code of Australia
Council	The Hills Shire Council
DA	Development Application
Department	Department of Planning and Environment
Development	The development as described in the documents listed in condition 1.2
DRE	Division of Resources and Energy within the NSW Department of Trade and Investment, Regional Infrastructure and Services
Dust	Any solid material that may become suspended in air or deposited
EA	Environment assessment
EIS	Environmental Impact Statement for the development titled <i>Maroota Quarry Extension – Environmental Impact Statement for Dixon Sand (Penrith) Pty Ltd</i> (one volume), dated August 2001 and prepared by Environmental Resources Management Australia Pty Ltd
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act, 1997</i>
Feasible	Feasible relates to engineering considerations and what is practical to build
GTA	General Terms of Approval
Material Harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning, or delegate
Mod 4	Modification Application DA 250-09-01 Modification 4
MTSGS	<i>Maroota Tertiary Sands Groundwater Source</i>
MTSGS buffer	A zone of 100 m width from the edge of the mapped extent of the MTSGS and shown in the figure in Annexure F
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
Operation	Any activity that results in the production, or intended production, of quantities of quarry products to be

	transported off site including clearing, stripping, sand extraction and processing, and overburden emplacement.
POEO Act	<i>Protection of the Environment Operations Act, 1997</i>
Quarrying Operations	Removal of overburden and extraction, processing, handling, storage and transportation of extractive materials on site
Reasonable	Reasonable relates to the application of judgment in arriving at a decision; taking into account mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Regulation	<i>Environmental Planning and Assessment Regulation, 2000</i>
RMS	NSW Roads and Maritime Services
SEE	Statement of Environmental Effects
Secretary	Secretary of the Department, or nominee
Site, project site	the land to which this consent applies

1. GENERAL

Obligation to Minimise Harm to the Environment

- 1.1 In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the development.

Scope of Development

- 1.2 Incorporates EPA General Term of Approval. The Applicant shall carry out the development generally in accordance with:
- aa) Environmental Impact Statement prepared by Southern Environmental Pty Limited, dated 1 June 1999, lodged with Council on 30 August 1999, and supplementary information received by Council on 22 November 1999, 4 January 2000 and 21 January 2000;
 - a) development application No.250-09-01, lodged with the then Department of Urban Affairs and Planning on 21 September 2001;
 - b) The extract from Chapter 2 and Chapter 5 of the *Maroota Quarry Extension – Environmental Impact Statement for Dixon Sand (Penrith) Pty Ltd* (one volume), dated August 2001 and prepared by Environmental Resources Management Australia Pty Ltd (ERM) forming Annexure “B” to this consent.
 - c) Statement of Environmental Effects (SEE) titled *Sand Quarry on Lots 29, 196, 1 & 2 Old Northern Road, Maroota, Section 96 Consent Modification*, dated July 2005 and prepared by Environmental Resource Management (Australia) Pty Limited;
 - d) the material contained in Annexure “C” being:
 - (i) ERM Figures 1-4 in relation to the staging of rehabilitation works;
 - (ii) ERM Figures 5 and 6 in relation to the final landform; and
 - (iii) SEE Figure 1.3 in relation to the final landform;
 - e) Modification Application 250-09-01 Mod 2 and the accompanying Statement of Environmental Effects titled “*Section 96 Modification for Dixon Sand Pty Ltd*” and dated August 2007;
 - f) letters regarding the modification application 250-09-01 Mod 2 from Environmental Resources Management Australia to the Department dated 1 April 2008 and 29 May 2008;
 - g) Modification Application 250-09-01 Mod 3 and the accompanying Environmental Assessment titled *Environmental Assessment Section 75W Modification DA 250-09-01 Dixon Sand (Penrith) Pty Ltd Old Northern Road Maroota* (2 volumes), prepared by Nexus Environmental Planning Pty Ltd and dated 8 December 2011; response to submissions prepared by from Nexus Environmental Planning Pty Ltd dated 17 July 2012; and the figure in Annexure E;
 - h) Modification Application 250-09-01 Mod 4 and the accompanying Environmental Assessment titled *Environmental Assessment Section 75W Modification (4) DA 250-09-01 Dixon Sand (Penrith) Pty Ltd Old Northern Road Maroota* (2 volumes), prepared by Nexus Environmental Planning Pty Ltd and dated 25 October 2013; response to submissions prepared by Nexus Environmental Planning Pty Ltd dated 13 March 2014; letter prepared by Australian Groundwater Technology dated 21 January 2015; and reports prepared by Cumberland Ecology and dated 10 June 2014 and 30 April 2015, and
 - i) conditions of this consent.
- 1.3 If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail over all other documents to the extent of any inconsistency.

- 1.3A Extraction beneath 15.24 m below original ground level on Lot 196 DP 752025 is restricted to within the hatched area shown in the figure in Annexure E and to a depth not greater than 127.5 m Australian Height Datum.
- 1.3B Extraction on Lot 29 DP 752025 is limited to a depth not greater than 15.24 m below original ground level.
- 1.3C Extraction on Lots 1 and 2 DP 547255, with the exception of the MTSGS buffer zone, is limited to a depth not greater than 170 m AHD in the east, grading to 153 m AHD in the west, and as shown conceptually in Annexure F.
- 1.3D The Applicant shall ensure that no extraction occurs within 2 metres of the highest recorded wet weather groundwater level within the MTSGS buffer.

Surrender of Development Consent 796/00/HE

- 1.4 Deleted.

Period of Approval

- 1.5 This consent provides approval for quarry operations on the site until 24 May 2022 and for the:
- continued use of processing facilities, haul roads, water management, weighbridge, offices, and associated infrastructure on site;
 - transport of extracted sand and concrete product to the site, and sand product from the site; and
 - decommissioning of equipment, rehabilitation and revegetation of the site, for a period of twenty-five (25) years from the commencement of the development consent for the Haerses Road quarry (DA 165-7-2005).

Limits on Production

- 1.6 The combined production of quarry products from the site (Lots 196 and 29 DP 752025, and Lots 1 and 2 DP 547255, Old Northern Road, Maroota) and from the Haerses Road sand quarry shall not exceed 495,000 tonnes per annum.
- 1.7 Processing of extracted sandstone on the site shall not exceed 1750 tonnes per day.
- 1.8 The Applicant shall provide annual production data to the DRE using the standard form for the purpose.

Provision of Documents

- 1.9 Where practicable, the Applicant shall provide all draft documents and reports required to be submitted to the Secretary under this consent in an appropriate electronic format. Final approved documents shall be provided in hard copy format. Provision of documents and reports to other parties, as required under this consent, shall be in a format acceptable to those parties and shall aim to minimise resource consumption.
- 1.10 Nothing in this consent prevents the Applicant from combining reporting requirements under this consent with identical or similar reporting requirements for submission to another relevant party.

Access to Information

- 1.11 The Applicant shall:
- make the following information publicly available on its website:
 - all documents listed in condition 1.2;
 - current statutory approvals for the project;
 - approved strategies, plans or programs;

- a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
 - a complaints register, updated on a quarterly basis;
 - minutes of CCC meetings;
 - copies of **Annual Reviews** for the past 5 years;
 - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the **Secretary**; and
- (b) keep this information up-to-date, to the satisfaction of the **Secretary**.

Dispute Resolution

- 1.12 In the event that a dispute arises between the Applicant and a public authority other than the Department, in relation to a specification or requirement applicable under this consent, the Applicant shall refer the matter to the **Secretary**, and if not resolved, to the Minister, whose determination of the dispute shall be final and binding on all parties. For the purpose of this condition, "public authority" has the same meaning as provided under section 4 of the Act.

Participation in Cumulative and Regional Studies

- 1.13 The Applicant shall provide all existing relevant information to assist the **Secretary** in any cumulative/regional studies related to extractive industry activities.

Fit and Proper Person

- 1.14 The Applicant must, in the opinion of the **EPA**, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

Rehabilitation Bond

- 1.15 Prior to commencement of operations on Lots 1 and 2 DP 547255, the Applicant shall provide a Rehabilitation Bond in the sum of \$255,000 in the form of an insurance bond or bank guarantee acceptable to the **Secretary** from any bank licensed pursuant to the *Banking Act 1959 (Cth)*. The Rehabilitation Bond shall be made in favour of the Minister administering the *Environmental Planning and Assessment Act 1979* to ensure completion of the rehabilitation and landscaping works at the site. The sum of the Rehabilitation Bond is calculated based on \$3.00 per square metre for a maximum exposed area of 8.5 ha. Should progressive **Annual Reviews** or Independent Environmental Audits determine that the exposed, non-rehabilitated, area on the site is greater than 8.5 ha, the **Secretary** may direct the Applicant to increase the value of the Rehabilitation Bond at the rate of \$3.00 per square metre in excess of 8.5 ha.

The **Secretary** may at any time, and without notice to the Applicant, demand all or part of the monies available under the Rehabilitation Bond if, in the **Secretary's** opinion, the Applicant has failed to make satisfactory progress on the Rehabilitation and landscaping of the site. The **Secretary** shall apply the monies to ensure that the actions specified in the documents listed in condition 1.2 and/or any approved Site Environmental Management Plan are achieved.

The Rehabilitation Bond will be released when the Applicant submits documentation prepared by a qualified landscape and rehabilitation consultant certifying that the final rehabilitation has been completed in accordance with the conditions of this consent and/or any approved Site Environmental Management Plan to satisfaction of the **Secretary**.

1.15A The Applicant shall:

- (a) by 31 December 2012, lodge with the Department an additional Rehabilitation Bond in a form suitable to the Department for the amount of \$327,000, to supplement the bond provided under condition 1.15; and
- (b) prior to any vegetation clearing associated with Mod 4, lodge with the Department an additional Rehabilitation Bond in a form suitable to the Department for the amount of \$130,500, to supplement the bond under conditions 1.15 and 1.15A(a).

Note: The provisions of condition 1.15 relating to the release of the Rehabilitation Bond and the demand of monies available under the Rehabilitation Bond shall also apply to the Rehabilitation Bond required under this condition.

2. COMPLIANCE

- 2.1 The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.
- 2.2 Prior to commencement of operations on Lots 1 and 2, DP 547255, the Applicant shall commission an independent person(s) or organization(s), approved by the **Secretary**, to certify in writing to the satisfaction of the **Secretary**, that the Applicant has complied with all conditions of this consent applicable prior to that event.
- 2.3 Notwithstanding condition 2.2 of this consent, the **Secretary** may require an update report on compliance with all, or any part, of the conditions of this consent. Any such update shall meet the requirements of the **Secretary** and be submitted within such reasonable period as the **Secretary** may agree.
- 2.4 Any compliance report or compliance update required under condition 2.2 or 2.3 of this consent shall be made available for public inspection on request.
- 2.5 The Applicant shall comply with any reasonable requirement/s of the **Secretary** arising from the Department's assessment of:
 - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this consent; and
 - (b) the implementation of any actions or measures contained in these documents.

3. ENVIRONMENTAL PERFORMANCE

Setbacks and Buffer Zones

- 3.1 Prior to commencement of operations on Lots 1 and 2, DP 547255, the Applicant shall engage a registered surveyor to mark out buffer zones and setbacks generally in accordance with the provisions of Baulkham Hills Development Control Plan 500 relating to extractive activities at the date of this consent. In this regard, a buffer zone shall be established which excludes areas from extraction between the quarry and nearby landuses or sensitive environmental areas. The boundary of the buffer zone(s) shall be located:
 - a) Not less than 250 m from the boundary of Maroota Public School (Lot 78 DP 752025);
 - b) Not less than 10 m from the boundary of Lot 117 DP 752025;
 - c) Not less than 50 m from the existing house on Lot 1 DP 547255;
 - d) Not less than 50 m from the *Kunzea rupestris* plant species on Lot 29 DP 752025;
 - e) Not less than 10 m from the western boundary of Lot 196 DP 752025; and
 - f) Not less than 100 m from the mapped extent of the MTSGS, with the exception of the area shown in thick grey edging in the figure in Annexure F in the north of Lot 1 DP 547255.

A survey plan of the buffer zone and setback boundary shall be submitted to the [Secretary](#) for approval at least one month prior to the commencement of operations on Lots 1 and 2, DP 547255. Once approved, the surveyed boundary and buffer zone shall be fenced to prevent vehicles and unauthorized persons entering the area(s). No works or operations on Lots 1 and 2, DP 547255 shall occur on the site until the approved boundary has been fenced.

Air Quality Impacts

Location of monitoring/discharge points

- 3.2 Incorporates an [EPA](#) General Term of Approval. The following points referred to in the table below are identified for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

ID Number	Type of Monitoring Point	Type of Discharge Point	Description of Location
1	Ambient air monitoring	-	To be determined between EPA and the Applicant

Air Quality Standards/Goals and Performance Criteria

- 3.3 The Applicant shall ensure that dust emissions from the development do not cause exceedences of the following ambient air quality standards/goals at affected residences and Maroota Public School:

Table 1 Particulate Matter Criteria

Pollutant	Standard/Goal	Agency
Total Suspended Particulate Matter (TSP)	90ug/m3 (annual mean)	NH & MRC
Particulate Matter < 10um (PM10)	30 ug/m3 (annual mean)	NSW EPA
Particulate Matter < 10um (PM10)	50ug/m3 (24 hr average)	NSW EPA

Table 2 NSW EPA Amenity Based Criteria for Dust Fallout

Pollutant	Averaging Period	Maximum Increase in Deposited Dust Level	Maximum Total Deposited Dust Level
Deposited dust	Annual	2 g/m2/month	4 g/m2/month Note: dust is assessed as insoluble solids as defined by AS 3580.10.1-1991 (AM-19)

Dust Emissions

- 3.4 Incorporates an [EPA](#) General Term of Approval. The site must be maintained in a condition which minimizes or prevents the emission of dust from the site, including the prompt and effective rehabilitation of all disturbed areas.

- 3.5 To prevent dust emissions from vehicles the Applicant shall ensure that all vehicles entering or leaving the site, carrying a load that may generate dust, are covered to prevent dust emissions at all times, except during loading and unloading. Vehicles leaving the site carrying a load that may generate dust are to be covered prior to final weighing.
- 3.6 The Applicant shall install, operate, and maintain dust control measures and/or equipment on the following areas at the site:
- All processing equipment;
 - Internal haul roads and disturbed areas;
 - Truck loading areas; and
 - All stockpiles including raw material, product, topsoil, and overburden.
- 3.7 A mobile water tanker equipped with a pump and sprays must be provided to suppress dust from unsealed roads when in use.
- 3.8 Haul roads must be surfaced in selected hard, non-friable material. Soft mudstone, claystone and shale must not be used.

Soil and Land Management

3.9 *(deleted)*

- 3.10 The Applicant shall minimise the removal of trees and other vegetation from the project site, and restrict any clearance to the areas occupied by quarrying activities, processing plant, and those areas necessary for fire control.
- 3.11 Any topsoil removed during operations must be stockpiled for use in the rehabilitation of the site. Topsoil should not be mixed with other overburden products. The topsoil stockpile location should have easy access and be protected from erosion. The topsoil stockpiles shall be sown with appropriate vegetation to stabilise the soil if they are to be stored for longer than six months. Topsoil stockpiles must have a maximum depth of 1.5 metres.
- 3.12 The Applicant shall complete rehabilitation and revegetation works of extracted strips to a point requiring only ongoing monitoring and management before commencement of works on the extraction strip following the next strip in the extraction sequence. Strips 5 and 6 shall be rehabilitated before the end of the period of approval for extraction under condition 1.5. In this regard, strips shall be rehabilitated in the following sequence:

Strip to be rehabilitated	Before event
1	Commencement of operations on strip 3
2	Commencement of operations on strip 4
3	Commencement of operations on strip 5
4	Commencement of operations on strip 6
5	End of period of approval (condition 1.5)
6	End of period of approval (condition 1.5)

- 3.13 The Applicant shall undertake all rehabilitation works and construction of the final landform of the eastern highwall of the quarry within 250m of Maroota Public School in school holiday periods only.
- 3.14 The Applicant shall implement appropriate measures, in consultation with **DRE** and Maroota Public School, to ensure public safety and restrict unsupervised access of school children to the quarry site. Those measures may include the erection of safety fencing around the highwall of the quarry or at the school boundary as well as the fencing referred to in condition 3.1.

- 3.15 The Applicant shall regularly consult with adjoining property owners to ensure property management issues including maintenance of common fences, weed control measures, and bushfire management are coordinated. Details of consultation are to be reported in the [Annual Review](#).
- 3.16 The Applicant shall establish a riparian zone, revegetated with local native species, along the entire length of the reconstructed ephemeral waterway on the quarry extension site. The riparian zone shall be no less than 20m wide measured horizontally and at right angles to the flow from the top of both banks. No exotic plant species, other than sterile cover crops, are to be planted in the riparian zone.

Water Quality Impacts

Pollution of waters

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

Surface Water

- 3.18 The stormwater system must be designed and installed in accordance with *Managing Urban Stormwater: Soil and Conservation*, Department of Housing 1998, to contain and treat all rainfall and runoff at the site resulting from a 90 percentile, 5 day rainfall event ("the design event").
- 3.19 The Applicant must maintain stormwater basins with the capacity to contain all rainfall and runoff generated from the "design event" specified in condition 3.18.
- 3.20 The Applicant must take all practical measures to avoid or minimise total suspended solids contained in wet weather discharges from the site.
- 3.21 The Applicant shall undertake appropriate measures to ensure that any vehicles which leave the site do not track materials onto public roads.
- 3.22 The Applicant shall consult with [NOW](#) prior to commencement of operations in strip 4 (as described in the EIS) on Lots 1 and 2, DP 547255 and, if required, obtain a permit under the *Fisheries Management Act 1994* for works to be carried out on the site.
- 3.23 Discharge of stormwater from the site is to be clear of sediment and pollution in accordance with the provisions of the *Protection of the Environment Operations Act, 1997*, and the EPL for the quarry, and to the satisfaction of the [EPA](#).

Groundwater

- 3.24 [The Applicant shall ensure that all bores and associated groundwater monitoring equipment on or associated with the site are maintained, and/or replaced if necessary, throughout the life of the development, to the satisfaction of NOW.](#)

Note: MW4 may be removed immediately prior to quarrying in that area.

- 3.25 [Prior to commencing works associated with Mod 4, the Applicant shall enhance the existing groundwater monitoring network by installing additional monitoring bores within the MTSGS buffer zone within Lot 2 \(south of MW2\), including at least one deep monitoring bore that targets the regional groundwater table and at least one shallow groundwater monitoring bore.](#)

- 3.25A Seepage of groundwater from the MTSGS buffer into the quarry pit must be measured and recorded (if there is sufficient water volume to pump and measure).
- 3.26 The Applicant is to ensure that groundwater in the regional groundwater table managed under the *Water Sharing Plan for the Greater Metropolitan Groundwater Sources 2011* is not intercepted or contaminated by its operations. In the event of this groundwater being intercepted or contaminated, operations are to cease within the vicinity of the affected area and the Applicant shall consult with the Secretary and NOW to determine the basis upon which extraction may recommence.
- Note: Perched groundwater lenses that are not below the regional groundwater table outside the MTSGS buffer zone may be intercepted however Water Access Licences must be held to account for all groundwater taken.*
- 3.27 The Applicant shall carry out remedial works to protect the groundwater system, to the satisfaction of the Secretary, if it is determined that any of the existing dams on the site breach the groundwater table.
- 3.28 Maintenance and equipment refuelling operations shall only be carried out in the designated workshop and refuelling areas on the site.

Bunding and Spill Management

- 3.29 The Applicant shall store and handle all hazardous chemicals, dangerous goods, fuels and oils, strictly in accordance with:
- a) All relevant Australian Standards;
 - b) A minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
 - c) The EPA's Environment Protection Manual Technical Bulletin *Bunding and Spill Management*.

In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.

Traffic and Transport Impacts

- 3.30 Truck movements at the site, including those provided for under this consent and DA 165-7-2005, shall not exceed:
- a) a total of 180 per day (ie inbound combined with outbound);
 - b) 40 between the hours of 6.00am and 7.00am (inbound combined with outbound); and
 - c) 118 laden per day, of which no more than 28 may be inbound.
- 3.30A The Applicant shall:
- a) keep daily records of the amount of sand transported from the site;
 - b) keep daily records of all traffic movements in and out of the site (including records of movements approved under condition 3.30; and
 - c) include detailed reports on these records in the Annual Review.
- 3.31 *(deleted)*
- 3.32 All vehicles are to enter and leave the site in a forward direction and prominent and permanent signposting to this effect is to be provided and maintained at all times.
- 3.33 The Applicant is to ensure that the Old Northern Road pavement in the vicinity of the intersection with the Crown Access Road is regularly maintained and kept free of sand, clay and soil at all times. All costs of these works are to be borne by the Applicant.

- 3.34 The Applicant shall advise its drivers and its clients not to arrive at the site prior to 5.45 am on any day. Certified (under company seal) weighbridge dockets and a log book or equivalent computer records are to be kept to verify the arrival and departure times of vehicles. Copies of these records shall be summarized in the [Annual Review](#).
- 3.35A The Applicant shall ensure all new truck drivers are provided with Site Induction for Drivers outlining site requirements, including the requirements of the Transport Code of Conduct referred to in condition 6.3 of this consent, and expected driver behaviour such as observing [all speed limits \(including school zone speed limits around Maroota Public School or other such speed limits as may be imposed from time to time\)](#), and not using exhaust brakes, especially during morning periods.
- 3.35B The Applicant shall liaise with representatives of Maroota Public School as required, but no less than annually, to discuss the effectiveness of traffic management procedures.
- 3.35C The Applicant shall impose a 20 km/hr speed limit on internal haul roads and shall ensure that all vehicles using internal haul roads do not exceed this speed limit.

Noise Impacts

Noise limit Interpretation and Measurement

- 3.35 All noise limits specified as part of this consent apply under:
- Wind speeds up to 3 ms⁻¹ at 10 metres above ground level; and
 - Temperature inversion conditions up to 3oC per 100 metres.
- 3.36 For the purpose of assessment of noise levels specified in this consent, noise from the development shall be:
- Measured at the most affected point on or within the receptor site boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary to determine compliance with LAeq(15 minute) noise limits in condition 3.39;
 - Measured at 1 metre from the dwelling façade of the most affected classroom to determine compliance with LAeq(1 hour) noise limits in condition 3.40; and
 - Subject to the modification factors provided in Section 4 of the *New South Wales Industrial Noise Policy* ([EPA](#), 2000).
- 3.37 Notwithstanding condition 3.36 of this consent, should direct measurement of noise from the site be impractical, the Applicant may employ an alternative noise assessment method deemed acceptable by the [EPA](#) (refer to Section 11 of the *New South Wales Industrial Noise Policy* ([EPA](#), 2000)). Details of such an alternative noise assessment method accepted by the [EPA](#) shall be submitted to the [Secretary](#) prior to the implementation of the assessment method.
- 3.38 Noise limits identified in condition 3.39 do not apply for residential premises where there is a negotiated agreement between the Applicant and the Landowner of the premises.

Noise Limits

- 3.39 Noise from the premises must not exceed:
- An LAeq(15 minute) noise emission criterion of 44 dB(A) between 7am and 6pm Monday to Saturday; and
 - An LAeq(15 minute) noise emission criterion of 37 dB(A) between 6am and 7am Monday to Saturday
- at any residence not owned by the Applicant.

- 3.40 Noise from the premises must not exceed an LAeq(1 hour) noise emission criterion of 45 dB(A) at the most affected classroom of Maroota Public School.

Hours of Operation

- 3.41 Construction of earth bunds around the Maroota Public School setback perimeter, required for the mitigation of noise and dust, must only be carried out between 7am and 6pm Monday to Friday during school holiday periods unless otherwise approved in writing by the EPA.
- 3.42 Loading of trucks and truck movements at the site must only be carried out between 6am and 6pm Monday to Saturday, and at no time on Sundays and Public Holidays. All other activities at the premises must only be carried out between 7am and 6pm Monday to Saturday, and at no times on Sundays and Public Holidays.

Operational Noise – Management of Operations

- 3.43 The Applicant shall design and implement a management system that ensures operations at the quarry site meet the criteria in conditions 3.39 and 3.40. In this regard, the Applicant shall:
- a) Construct all bunds on the eastern, southeastern and northern sides of the quarry extension site to at least 5 m above the existing ground level;
 - b) Not use the bulldozer concurrently with any other plant on strips 4, 5 and 6 of the quarry extension site for any operations at quarry depths between existing ground level and six metres below the existing ground level; and
 - c) Only use the bulldozer for clearing, stripping and bund construction on the quarry extension site in calm wind conditions.

The Applicant shall report on monitoring results from the on-site weather monitoring station, and corresponding operations and noise impacts in adverse weather conditions, in the *Annual Review* and compliance reports required under condition 3.45. The Secretary, in consultation with EPA, may approve variations to the operating restrictions in this condition based on actual noise monitoring conducted by the Applicant on the site and/or the results of compliance reports required in condition 3.45.

- 3.44 The Applicant shall design quarry operations to minimise the need for reversing of trucks and machinery where reversing beepers may contribute to noise impacts exceeding the criteria in conditions 3.39 and 3.40.

Operation Noise – Compliance Report

- 3.45 The Applicant must undertake noise monitoring after noise mitigation earth bunds at strips 4, 5 and 6 are completed. The results of the noise monitoring must be submitted to the EPA and the Secretary in a report within 3 months of completion of the earth bund construction. The report must include a statement of whether compliance has been achieved with noise limits specified in the Environment Protection Licence and this consent.

Operational Noise – Negotiated Agreement with G&M Accurso

- 3.46 The Applicant is to implement the noise mitigation measures contained in the agreement with Mr and Mrs G&M Accurso dated 5 April 2004 titled *Letter of Agreement between Mr and Mrs G&M Accurso and Dixon Sand (Penrith) Pty Ltd* forming Annexure “D” to this Consent. Noise limits contained in condition 3.39 do not apply to the Accurso residence (Lot 117, DP 752025) while the agreement is in force.

- 3.47 Should the agreement referred to in condition 3.46 be terminated for any reason the Applicant shall comply with noise criteria in condition 3.39.

Operation Noise – Residential Noise Management

- 3.48 In the event that noise from the site exceeds noise criterion in condition 3.38 or condition 3.40, or the negotiated agreement in condition 3.46 is terminated for any reason, then the Applicant shall actively manage residual noise (ie noise in excess of the criteria) at the affected receptor. Residual noise shall be managed in accordance with the residual noise management measures detailed in the approved Site Environmental Management Plan. As a minimum to ensure compliance, the Applicant shall undertake the following measures:
- a) Implement a reactive management system where site operations are modified in adverse weather conditions identified through meteorological monitoring;
 - b) Implement additional controls of treatments on individual sources on the site or on site operations, or otherwise modify operations to ensure compliance; or
 - c) Provide other forms of benefit or amelioration of impacts of noise agreed between the Applicant and the affected party, as providing acceptable compensation for noise levels experienced; and
 - d) Identify long term strategies to eliminate noise levels that exceed the noise criteria in condition 3.39 or 3.40.

Impacts on Flora and Fauna

Biodiversity Offset Strategy

- 3.49 The Applicant shall implement the biodiversity offset strategy as outlined in the Table below, to the satisfaction of the Secretary.

Offset Type	Offset Area	Minimum Area
Biodiversity Offset	Haerses Road	8.70 hectares
Rehabilitation Offset	Native Vegetation Corridor (as conceptually shown in Annexure G)	6.83 hectares

Prior to 30 September 2015, the Applicant must confirm the boundary of the Haerses Road Biodiversity Offset Area to the satisfaction of the Secretary. No vegetation clearing is to occur within the expanded extraction area within Lot 2 DP 547255 approved under Mod 4 until the Secretary's approval for the boundary of the Haerses Road Biodiversity Offset Area is obtained.

Long Term Security of Offset

- 3.49A By the end of June 2016, unless the Secretary agrees to extend this date, the Applicant shall make suitable arrangements to protect the Haerses Road Biodiversity Offset Area in perpetuity to the satisfaction of the Secretary.

Note: For the purposes of this consent suitable arrangements may include the use of Public Positive Covenants in combination with Restrictions in Use of Land on the land titles of the Offset Area. Other arrangements such as dedication of land under the National Parks and Wildlife Act 1974, Trust Agreements under the Nature Conservation Trust Act 2001 or a Property Vegetation Plan registered on title under the Native Vegetation Act 2003 would be considered for their suitability by the Secretary.

Biodiversity Management Plan

- 3.49B The Applicant shall prepare and implement a Biodiversity Management Plan for the Haerses Road Biodiversity Offset Area to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH, and be submitted to the Secretary for approval by the end of March 2016;
 - (b) include a detailed description of the short, medium, and long-term

measures that would be implemented over the next 3 years for:

- enhancing the quality of existing native vegetation and fauna habitat;
 - establishing additional native vegetation and fauna habitat through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of naturally scarce fauna habitat features;
 - managing any potential conflicts between the proposed measures and any Aboriginal heritage values (both cultural and archaeological) that may be present;
 - controlling weeds and feral pests;
 - controlling erosion;
 - controlling access; and
 - managing bushfire risk;
- (c) include detailed performance and completion criteria for evaluating the performance of these measures, and triggering any necessary remedial actions;
- (d) include a program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- (e) identify the potential risks to the successful implementation of the plan, and include a description of the contingency measures that would be implemented to mitigate against these risks;
- (f) include details of who would be responsible for monitoring, reviewing, and implementing the plan; and
- (g) be reviewed, and if necessary revised, and be re-submitted to the Secretary for re-approval every 3 years following its initial approval, for the life of this consent.

Note: With the approval of the Secretary, the Biodiversity Management Plan may be integrated with the Flora and Fauna Management Plan required by condition 6.3 i) for achieving biodiversity objectives for the rehabilitated quarry site and the management of the 2 hectare revegetation area required by the Haerses Road Quarry development consent (DA 165-7-2005).

Conservation Bond

3.49C By the end of June 2016, unless the Secretary agrees to extend this date, the Applicant shall lodge a Conservation Bond with the Department to ensure that the Biodiversity Management Plan is implemented.

The sum of the bond shall be determined by:

- (a) calculating the full cost of implementing the Biodiversity Management Plan (other than land acquisition costs); and
- (b) employing a suitably qualified quantity surveyor to verify the calculated costs.

If the completion criteria set out in the Biodiversity Management Plan are achieved, to the satisfaction of the Secretary, the Secretary will release the bond.

If the completion criteria set out in the Biodiversity Management Plan are not achieved, then the Secretary will call in all, or part of, the conservation bond, and arrange for the satisfactory completion of the relevant works.

Notes:

- *Alternative funding arrangements for long-term management of the Hearses Road Biodiversity Offset Area, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate, can be used to reduce the liability of the conservation and biodiversity bond.*
- *The sum of the bond may be reviewed in conjunction with any revision to the Biodiversity Management Plan.*

- 3.50 The Applicant shall ensure that all natural bushland directly adjoining the site and bushland to be conserved within the development site, is not damaged or disturbed by its operations.
- 3.51 Native bush regeneration and habitat reconstruction techniques shall be used to rehabilitate and regenerate the Haerses Road biodiversity offset, the native vegetation corridor, extraction areas, tailings ponds, and disturbed areas, and stabilize environmental bunds on the site in accordance with the SEMP. Bush regeneration shall include a specific program to translocate, propagate, and revegetate threatened plant species on the site including *Melaleuca deanei*, *Darwinia Fascicularis* susp. *oligantha*, and *Kunzea rupestris*. The specialised techniques shall be carried out under the direction of a qualified Plant Ecologist and shall include the re-use of stored topsoil that has not been contaminated with exotic grasses or weed species and the collection and propagation of species from the site.

Indigenous Heritage

- 3.52 If, during the course of any activities conducted under this consent, the Applicant becomes aware of any heritage or archaeological sites not previously identified, all work likely to affect the site shall cease immediately. The Applicant shall then consult with relevant authorities and decide on an appropriate course of action prior to recommencement of work. The relevant authorities may include OEH, the NSW Heritage Office, and the relevant local Aboriginal community. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.

Waste Management Impacts

- 3.53 The Applicant shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing or disposal, or any waste generated at the site to be disposed of at the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*. This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the site if it requires an Environment Protection Licence under the *Protection of the Environment Operations Act 1997*.
- 3.54 All liquid and non-liquid wastes generated at the development shall be assessed, classified and managed in accordance with the EPA Environmental Guidelines *Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (EPA, 1999).
- 3.55 Any waste generated at the development shall only be transported to an EPA - approved waste management facility for treatment, recycling and/or disposal, where relevant.

Section 94 Contributions

- 3.56 The Applicant shall pay or procure payment to the Council of a contribution under Section 94 of the *Environmental Planning and Assessment Act 1979* at a rate in accordance with Baulkham Hills Shire Council's *Contributions Plan No: 6 – Extractive Industries*. The said contribution will be calculated and paid monthly from the date on which development consent became effective. The said contribution will be indexed and adjusted annually in accordance with *Contributions Plan No: 6 – Extractive Industries*. On or before the fourteenth day of each month for the duration of the consent, the applicant shall deliver or procure delivery to the Council of true certified copy weighbridge or other returns or records showing the true quantities of extracted/processed material transported from the property during the immediately preceding month and the Council will then, as soon as it can

conveniently do so, issue an invoice to the applicant or its consenting assignee, who will pay to the Council within fourteen (14) days of the date thereof. The Council and the consent authority has the right to inspect and have the original records relation to any of the extracted/processed material, including numbers and types of laden trucks, trailers and load quantities transported from the property audited by any person nominated by its internal accountant any time when he may be written request so require. The Council will pay all of the said contribution payments into a specially identified account for payments towards the rehabilitation, restoration, repair and/or maintenance of Old Northern and Wisemans Ferry Roads from the intersection of the Crown Road access and the Hills Shire boundary at Cattai Creek and other projects identified in the Plan of Management for Extractive Industries adopted by Council.

4. ENVIRONMENTAL MONITORING AND AUDITING

General Monitoring Requirements

- 4.1 The results of all monitoring required under this consent shall be:
- In a legible form, or in a form that can be readily reduced to a legible form;
 - Kept for at least four years after the monitoring or event to which the results relate took place; and
 - Produced in a legible form to any authorized officer of the EPA or the Secretary, upon request; and
 - Kept with the following details for each sample required to be collected:
 - the date(s) on which the sample was collected;
 - the time(s) at which the sample was collected;
 - the point at which the sample was collected; and
 - the name of the person who collected the sample.
- 4.2 Incorporates an EPA General Term of Approval. The Applicant shall monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The Applicant must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns:

Parameter	Units of Measure	Averaging Period	Frequency	Method
Rainfall	mm/hr	1-hour	Continuous	AM-4
Sigma Theta @ 10 m		1-hour	Continuous	AM-2
Siting	-	-	-	AM-1
Temperature @ 2 m	K	1-hour	Continuous	AM-4
Wind Direction @ 10 m		1-hour	Continuous	AM-2
Wind Speed @ 10 m	m/s	1-hour	Continuous	AM-2

Note: the purpose of condition 4.2 of this consent is to provide a mechanism for collection and recording meteorological data relevant to the site for use in on-going air quality and noise assessment and management.

Air Quality Monitoring

- 4.3 For each monitoring point or utilisation area specified in condition 3.2, the Applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1 of the table below. The Applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Air

Pollutant	Units of measure	Frequency	Sampling Method
Particulate matter – PM10	ug/m3	1 day in 6 or continuous, or as	AM-18 or AS3580.9.8 – 2001

		otherwise approved by EPA	
Particulate Matter (deposited matter)	g/m2/month	Continuous	AM-19
Siting	-	-	AM-1

- 4.3A The Applicant shall install a continuous monitoring device approved by the [EPA](#) and connected to an alarm system by electronic link at a central point in the operations area at sensitive sites such as Maroota school with a trigger level set at the maximum predicted level which respectively contributed to setting of the overall levels of 24 hour PM10 at 37.0 ug/m3 annual PM10 at 16.4 ug/m3 annual TSP at 37.0 ug/m3 and TSP at 2.5 g/m2/month tabulated by ERM Australia in its Air Quality Assessment for Proposed Maroota Quarry Extension September 2003 or such other level prescribed by the [EPA](#) from time to time. If the measured concentration of PM10 reaches the trigger level then the operations shall cease or be modified immediately such that the trigger level is not reached. The trigger level and period for averaging that level shall be certified by the [EPA](#).
- 4.4 Monitoring for the concentration of a pollutant emitted to the air required to be conducted under this consent, or a licence under the *Protection of the Environment Operations Act 1997*, must be carried out in accordance with *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* ([EPA 2001](#)) or latest document.

Noise Monitoring

- 4.5 The Applicant shall engage an independent person(s) to conduct noise monitoring at sensitive residential locations and Maroota Public School every six months, or as otherwise approved by the [Secretary](#), during the operation of the development to determine compliance with the noise criteria in conditions 3.39 and 3.40. Noise monitoring shall seek to coincide with worst case operating scenarios for noise generation and adverse weather conditions.
- 4.6 Within six months of the date of this consent, the Applicant shall engage an independent person(s) to conduct road traffic noise monitoring at Maroota Public School to determine the actual impact of truck movements on existing traffic noise levels compared to predictions made in the EIS for the existing development consent (796/00/HE). In the event that monitoring indicates that the relevant criteria in EPA's *Environmental Criteria for Road Traffic Noise* is exceeded, the Applicant shall implement noise mitigation measures at the School in consultation with Maroota Public School, Council, [RMS](#), and [EPA](#) and as directed by the consent authority and in accordance with a specification approved by the consent authority.
- 4.6A The Applicant shall engage an independent person(s) to conduct road traffic noise monitoring at Maroota Public School for 1 day per week (being the peak product dispatch day) for a period of 3 months within the 6 months following the commencement of truck movements in accordance with the approval of DA 250-09-01 Mod 2, or as directed by the [Secretary](#). The monitoring shall be undertaken to determine compliance with the predicted noise levels in the SEE for DA 250-09-01 Mod 2 and comply with levels prescribed in condition 3.39. A copy of the monitoring results shall be provided to the Department and Maroota Public School.

In the event that monitoring indicates noise level exceedances, the Applicant shall implement reasonable and feasible noise mitigation measures at the Maroota Public School in consultation with the Maroota Public School, Council, [RMS](#) and [EPA](#), and to the satisfaction of the [Secretary](#).

Water Quality Monitoring

Surface Water

- 4.7 The Applicant shall undertake surface water monitoring and discharge monitoring in accordance with the EPL for the quarry.

Groundwater

- 4.8 The Applicant shall monitor groundwater levels in the four monitoring bores on Lots 1 and 2, DP 547255 and the two monitoring bores on Lot 196 DP 752025, monthly and following any periods of extreme wet weather. Water quality monitoring of groundwater shall be undertaken every six months. Results of groundwater monitoring shall be reported in the Annual Review.

Flora and Fauna Monitoring

- 4.9 The Applicant shall prepare and implement a Flora and Fauna Monitoring Program to monitor the effects of the development on flora and fauna including known populations of *Tetratheca Glandulosa*, *Melaleuca deanei*, *Darwinia fascicularis subsp. oligantha*, and *Kunzea Rupestris* on the site. The Program shall also monitor the success of revegetation works on the site. The Program shall be developed in consultation with OEH and Council. The Program shall include annual surveys for threatened species during quarry operations. The Applicant shall include the Flora and Fauna Monitoring Program in the SEMP (condition 6.3(i)).
- 4.10 The Flora and Fauna Monitoring Program shall begin before commencement of operations on the quarry site and continue until at least two years beyond the period of approval in condition 1.5.

Independent Auditing

- 4.11 The Applicant shall commission an independent person(s) to undertake an Environmental Audit of the entire quarry at the following stages of the development:
- a) Before commencement of operations on strips 2, 3, 4, 5, and 6;
 - b) At the end of the period of approval set out in condition 1.5; and
 - c) At the completion of the Flora and Fauna Monitoring Program in condition 4.10, or as otherwise required by the Secretary.

The independent person(s) shall be approved by the Secretary prior to the commencement of the Audit. An **Environmental Audit Report** shall be submitted to the Secretary, the OEH, the EPA, the RMS and Council within one month of the completion of the Audit. The Audit shall:

- a) Be carried out in accordance with *ISO 14010 – Guidelines and General Principles for Environmental Auditing* and *ISO 14011 – Procedures for Environmental Auditing*;
- b) Assess compliance with the requirements of this consent, and other licences and approvals that apply to the development;
- c) Assess the development against the predictions made and conclusions drawn in the documents referred to under condition 1.2 of this consent;
- d) Review the effectiveness of the environmental management of the development, including any environmental impact mitigation works; and
- e) Independently review and validate monitoring systems and outcomes.

The Secretary may, having considered any submission made by the OEH/ EPA, the RMS or Council in response to the Environmental Audit Report, require the Applicant to undertake works to address the findings or recommendations presented in the Report. Any such works shall be completed within such time as the Secretary may require. The Applicant shall make the Environmental Audit Report available for public inspection on request. The Secretary may make the Environmental Audit Report available on the Department's internet site.

- 4.12 The Applicant shall provide a compliance report(s) to the [Secretary](#) detailing the implementation of the recommendations of the Environmental Audit Report (refer to condition 4.11). The compliance report(s) shall be submitted to the [Secretary](#) within such time, and at such frequency, as the [Secretary](#) may require. The Applicant shall make the compliance report(s) available for public inspection.

5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

Complaints Procedure

- 5.1 Throughout the life of the development, the Applicant shall ensure that the following are available for community complaints:
- a) A telephone number on which complaints about the development may be registered;
 - b) a postal address to which written complaints may be sent; and
 - c) an email address to which electronic complaints may be transmitted.

The telephone number, the postal address and the email address shall be advertised in at least one appropriate local newspaper prior to the commencement of operations on Lots 1 and 2, DP 547255. These details shall also be provided on the Applicant's internet site.

- 5.2 The Applicant shall record details of all complaints received through the means listed under condition 5.1 of this consent in a Complaints Register. The Register shall record, but not necessarily be limited to:
- a) The date and time, where relevant, of the complaint;
 - b) The means by which the complaint was made (telephone, mail or email);
 - c) Any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
 - d) The nature of the complaint;
 - e) Any action(s) taken by the Applicant in relation to the complaint, including any follow-up contact with the complainant; and
 - f) If no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the [EPA](#) or the [Secretary](#) upon request. The Applicant shall also make summaries of the Register, without details of the complainants, available for public inspection.

Community Consultative Committee

- 5.3 The Applicant shall establish a Community Consultative Committee (CCC) to oversee the environmental performance of the development. The Applicant shall ensure that one committee is established for the entire site which meets the requirements of both this consent and the existing consent for the site while that consent operates. This committee shall:
- a) Be comprised of:
 - 1 independent chairperson nominated by the [Secretary](#) in consultation with the Council, and agreed to by the Applicant;
 - 2 representatives from the Applicant, including the Environmental Officer;
 - 1 representative from the Council;
 - 1 representative from the Maroota Public School; and
 - 2 representatives from the local community;whose appointment has been approved by the [Secretary](#) in consultation with the Council;
 - b) Meet at least once every six months; and
 - c) Review and provide advice on the environmental performance of the development, including the Site Environmental Management Plan, monitoring results, audit reports, compliance reports, [Annual Reviews](#) or complaints.

- 5.4 Representatives from the Department may attend committee meetings. Representatives from relevant government agencies, the local community, the local Aboriginal community, or other individuals may be invited to attend meetings as required by the Chairperson.
- 5.5 The Applicant shall, at its own expense:
- Ensure that 2 of its representatives attend all the Committee's meetings;
 - Provide the Committee with regular information on the environmental performance and management of the development;
 - Provide meeting facilities for the Committee;
 - Meet all reasonable costs associated with operating the Committee;
 - Allow the Committee to inspect the site, if necessary;
 - Take minutes of the Committee's meetings;
 - Make these minutes available for public inspection at the Council within 14 days of the Committee meeting, or as agreed by the Committee;
 - Respond to any recommendations the Committee may have in relation to the environmental performance of the development;
 - Forward a copy of the minutes of each Committee meeting verified by the independent chairperson, and any responses to the Committee's recommendations to the [Secretary](#) within 14 days of the Committee meeting.
- 5.6 The Applicant shall ensure that the Committee has its first meeting prior to the submission of the Site Environmental Management Plan.
- 5.7 The Applicant shall prepare and implement a Community Relations Plan (CRP) to improve communications with the local community and Maroota Public School. The Plan shall be developed in consultation with Council, the CCC, and MPS. The Plan shall include, but not be limited to:
- Identification of stakeholders potentially affected by the development;
 - Details of strategies to ensure open communication between the Applicant and the community and Maroota Public School;
 - Details of strategies to monitor and evaluate social impacts of the development on the local community and Maroota Public School;
 - Measures to improve community relations including:
 - Quarry open days and education sessions to promote better understanding of quarry operations in the wider community;
 - Participation in community activities;
 - Strategies involving in-kind exchanges of expertise and resources for activities such as bush regeneration, Landcare, Streamwatch, and other community-based environmental programs.

The CRP shall be included in the SEMP.

6. ENVIRONMENTAL MANAGEMENT

Environmental Officer

- 6.1 Within 3 months of the operation of this consent, the Applicant shall nominate a suitably qualified and experienced Environmental Officer(s), approved by the [Secretary](#). The Applicant shall employ an Environmental Officer(s) on a full-time basis throughout the life of the development. The Environmental Officer(s) shall be:
- The primary contact point for the Department, the [OEHL](#), the [EPA](#), the [RMS](#), Council and the community, as applicable, in relation to the environmental performance of the development;
 - Responsible for all Management Plans and Monitoring Programs required under this consent;
 - Responsible for considering and advising on matters specified in the conditions of this consent, and all other licences and approvals related to the environmental performance and impacts of the development;

- d) Responsible for receiving and responding to complaints in accordance with condition 5.2 of this consent; and
- e) Given the authority and independence to require reasonable steps be taken to avoid or minimize unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.

The Applicant shall notify the **Secretary**, the **OEH**, **EPA**, the **RMS**, and Council of the name and contact details of the Environmental Officer upon appointment, and any changes to that appointment that may occur from time to time.

- 6.2 The Applicant shall prepare and implement a **Site Environmental Management Plan** (SEMP) to detail an environmental management framework, practices and procedures to be followed during the operation of the development. The SEMP shall cover operations on both the existing quarry site and the quarry extension. The Plan shall include, but not necessarily be limited to:
- a) Demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent;
 - b) Identification of all statutory and other obligations that the Applicant is required to fulfil in relation to operation of the development, including all consents, licenses, approvals and consultations;
 - c) A description of the roles and responsibilities for all relevant employees involved in the operation of the development;
 - d) Overall environmental policies and principles to be applied to the operation of the development;
 - e) Standards and performance measures to be applied to the development, and a means by which environmental performance can be periodically reviewed and improved;
 - f) Management policies to ensure that environmental performance goals are met and to comply with the conditions of this consent;
 - g) Procedures to be followed to ensure the protection and conservation of Aboriginal cultural heritage;
 - h) The CRP required in condition 5.7
 - i) The Management Plans listed under condition 6.3 of this consent; and
 - j) The environmental monitoring requirements outlined under conditions 4.1 to 4.12 of this consent, inclusive.

The SEMP shall be submitted for the approval of the **Secretary** no later than one month prior to the commencement of operation of the development, or within such period otherwise agreed by the **Secretary**. Operation shall not commence until written approval has been received from the **Secretary**. Upon receipt of the **Secretary's** approval, the Applicant shall supply a copy of the SEMP to Council, the **OEH**, the **EPA**, the **RMS** as soon as practicable. The Applicant shall make the SEMP available for public inspection on request.

- 6.3 As part of the SEMP for the development, required under condition 6.2 of this consent, the Applicant shall prepare and implement the following Management Plans:
- a) An **Air Quality Management Plan** to outline measures to minimise impacts from the development on local and regional air quality. The Plan shall address the requirements of the **EPA** and Council. The Plan shall include, but not necessarily be limited to:
 - i. identification of all sources of dust emissions from the development and potentially affected properties;
 - ii. detailed procedures for management and minimisation of dust emissions during operations on site;
 - iii. procedures and schedules for rehabilitation of disturbed areas to minimise dust emissions;

- iv. a protocol for handling dust complaints;
 - v. air quality monitoring, consistent with the requirements of this consent and any relevant Environment Protection Licence for the site; and
 - vi. a contingency plan should an incident or weather event lead to air quality impacts above environmental performance goals/limits.
- b) An **Erosion and Sedimentation Control Plan** to detail measures to minimise erosion during site preparation and operation. The Plan shall address the requirements of the **Secretary**, the **EPA**, and Council. The Plan shall include, but not necessarily be limited to:
- i. results of investigations into soils associated with the site, in particular the stability of the soil and its susceptibility to erosion;
 - ii. details of erosion, sediment and pollution control measures and practices to be implemented;
 - iii. procedures for removal of farm dams on site to ensure that large volumes of water and sediment are not released to natural waterways;
 - iv. demonstration that erosion and sediment control measures will conform with, or exceed, the relevant requirements and guidelines provided in the former Department of Land and Water Conservation's publication *Urban Erosion and Sedimentation Handbook*, the **EPA's** publication *Managing Urban Stormwater: Soils and Construction*;
 - v. design specifications for diversionary works, banks and sediment basins;
 - vi. an erosion monitoring program during site preparation works and construction of the development; and
 - vii. measures to address erosion, should it occur, and to rehabilitate/stabilise disturbed areas of the site.
- c) A **Noise Management Plan** to detail measures to minimise noise impacts during the operation of the development and to manage residual noise (refer to condition 3.48 of this consent). The Plan shall be developed in consultation with Council and the **EPA**. The Plan shall include, but not necessarily be limited to:
- i. identification of a noise sources associated with the proposed development;
 - ii. program to investigate and monitor noise levels from the development on periodic basis;
 - iii. a protocol for handling noise complaints;
 - iv. a program to investigate additional noise mitigation measures for the development if it is determined that noise criteria in this consent are being exceeded;
 - v. a specific program to identify and implement, where appropriate, noise mitigation measures on the site, or at the receptor, to reduce residual noise impacts at the receptors including requirements of condition 3.48 of this consent; and
 - vi. a program to identify other forms of benefit or amelioration that may be applied, upon agreement of the Applicant and the affected party, at receptors the subject of condition 3.48 of this consent.
- d) A **Water Management Plan** to outline measures to control and manage surface water, stormwater and groundwater on the site. The Plan shall address the requirements of the **Secretary**, the **EPA**, **NOW** and Council. The Plan shall include, but not necessarily be limited to:
- i. identification of all potential sources of surface water and groundwater pollution;
 - ii. management measures to ensure separation of clean and dirty water on site;
 - iii. measures to rehabilitate erosion-affected areas and areas the subject of excavation, including tree, shrub and/or cover crop species and implementation;

- iv. management procedures for all surface water collection and storage structures on the site, including a maintenance program for associated infrastructure (eg pumps, pipes, dam walls etc) and a program for desilting of those structures, where relevant;
 - v. a demonstration of consistency with the surface water management plan for the catchment, should one exist, or with the EPA's publication *Managing Urban Stormwater: Council Handbook* should a stormwater management plan for the catchment not exist;
 - vi. management measures to ensure that quarrying operations, other than monitoring bores, do not intercept the wet weather groundwater table within the MTSGS buffer and/or the regional groundwater table within the Sydney Basin Central Groundwater Source;
 - vii. details of a program for monitoring surface water and groundwater quality and quantity at the site;
 - viii. details of measures to ensure a sustainable water management system is created in the final landform on the site; and
 - ix. a strategy for the decommissioning of water management structures, including storage, and sedimentation dams once extraction is complete.
- e) **A Rehabilitation and Landscape Plan** to detail the proposed final landuse and landform for the site and measures to be undertaken to create that landform and vegetation cover. The Plan shall address the requirements of the Secretary, Council, OEH, the EPA and DRE. The Plan shall include, but not necessarily be limited to:
- i. details of all landscaping to be undertaken on the site;
 - ii. maximisation of flora species endemic to the locality in landscaping the site;
 - iii. a specific program to translocate, propagate, and revegetate and monitor threatened plant species on the site including *Tetradlea glandulosa*, *Melaleuca deanei*, *Darwinia Fascicularis susp. oligantha*, and *Kunzea rupestris*;
 - iv. Plans and cross-sections to scale, showing the proposed final landform (as shown conceptually in Annexure H) demonstrating that it integrates with the surrounding terrain. The final landform shall be integrated across the entire site and adjoining land;
 - v. Site analysis used to determine compatible contours, shape, form, landscape features and quality of the final landform;
 - vi. Deleted;
 - vii. Details of the progressive rehabilitation of both extraction areas, environmental bunds, and setback/buffer zones;
 - viii. Details of stream restoration works including:
 - Methods to stabilise the bed and banks of the waterway;
 - Establishment of riparian zones using local native vegetation;
 - Vegetation monitoring, maintenance, and performance criteria; and
 - Use of an environmentally sympathetic, soft-engineering approach;
 - ix. a schedule of works and associated time period for the rehabilitation of each disturbed and/or exposed extraction area or strip with the aim to restore vegetative covers and habitat at the earliest possible opportunity;
 - x. procedures for weed control and feral animal control;
 - xi. details of all backfilling works, including source of materials and the grades and stability of all batters. Batter design should be in accordance with the provisions of DCP No 500 – Extractive Industries, and certification is to be provided by appropriately qualified engineers regarding the stability of all designed batters;
 - xii. details including a soil drainage plan sufficient for growing crops that require free drainage.

- f) A **Bushfire Management Plan** for the site, developed in consultation with Council and relevant emergency services. The Plan shall be consistent with any bushfire management measures for State Forests and National Parks in the region;
- g) A **Traffic Management Plan** to outline measures to minimise traffic impacts associated with the development. The Plan shall address the requirements of Council and the RMS. The Plan shall include specific measures to minimise the impact of heavy vehicles, including restrictions on routes and times (particularly in relation to peak hours, holiday periods and times immediately before and after school hours, i.e. 8.30 am – 9.00am and 3.00pm – 3.30pm);
- h) A **Transport Code of Conduct** to outline minimum requirements for the movement of heavy vehicles to and from the site. The Code shall meet the requirements of Council and the RMS. The Code shall include, but not necessarily be limited to:
 - i. restrictions to routes (consistent with the Transport Management Plan required under g) above, where relevant);
 - ii. speed limits to be observed within certain periods along routes to and from the site;
 - iii. restrictions to the hours of transport operations under this consent;
 - iv. minimum requirements for vehicle maintenance to address noise and exhaust emissions;
 - v. behavioural requirements for drivers; and
 - vi. load coverage requirements.
- i) A **Flora and Fauna Management Plan** to detail measures to minimise impacts on flora and fauna, particularly populations of threatened plants, on the site during the operation of the development. The Plan shall be developed in consultation with OEH and Council and include:
 - i. details of the creation, landscaping and management of on-site vegetation to provide habitat for fauna species likely to occur on the site;
 - ii. details of strategic vegetation management, outlining timeframes for clearing and re-vegetation activities and a map illustrating the Plan. The Plan should aim to maximise scope for new vegetation to establish and restore ecological integrity;
 - iii. details of the schedule for clearing activities incorporating seasonal habitat requirements for species such as bats and other mammals, with the objective of avoiding incidents during sensitive hibernation and breeding periods.
 - iv. details of pre-clearance inspections, including the identification and inspection of trees containing tree hollows, including stags, prior to clearing of any vegetation;
 - v. details of how micro habitats including dead trees, stags, stumps and hollow branches will, where practical, be salvaged and relocated to areas depauperate of tree hollow habitat and in the recreation of habitat areas;
 - vi. details of measures to care for any animals injured or found during clearing activities, including the use of WIRES to attend to fauna as necessary, and the methods for their relocation if appropriate. This shall include measures for harbouring and releasing nocturnal animals at night;
 - vii. measures to re-instate or relocate plants and vegetation communities and to use local endemic species and local provenance seed for revegetation;
 - viii. details of the methods for strategically placing felled trees between cleared and remnant bushland to provide runways of ground cover for dispersion of animals;
 - ix. strategies for the establishment of wildlife corridor links to adjoining habitat areas and integration of rehabilitation works with nearby mines;

- x. details of strategies for the exclusion of grazing stock on areas of native bushland reconstruction;
 - xi. measures to monitor the success of revegetated areas, and plant additional species where necessary;
 - xii. consideration of Aboriginal heritage management to ensure that activities under the Plan do not impact on Aboriginal heritage values; and
 - xiii. details of the flora and fauna monitoring required under this consent.
- j) A **Waste Management Plan** to outline measures to minimise the production and impact of waste produced at the development during operation, through the implementation of waste reduction, reuse and recycling principles. The Plan shall meet the requirements of the EPA and Council. The Plan shall include, but not necessarily be limited to:
- i. identification of the types and quantities of waste materials produced on the site during operation of the development;
 - ii. programs aimed at minimising the production of waste at the site through the implementation of operational and management measures;
 - iii. details of potential reuse and recycling avenues for waste materials produced on the site, including collection and handling procedures;
 - iv. details of appropriate disposal routes in the event that reuse and recycling avenues are not available or are not practicable; and
 - v. programs for involving and encouraging employees and contractors to minimise domestic waste production on the site and reuse/recycle where appropriate.

Revision of Strategies, Plans and Programs

- 6.4 Within 3 months of the submission of an:
- (a) Annual Review under condition 7.2 below;
 - (b) incident report under condition 7.1 below;
 - (c) audit report under condition 4.11 above; or
 - (d) any modifications to this consent,
- the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.

7. ENVIRONMENTAL REPORTING

Incident Reporting

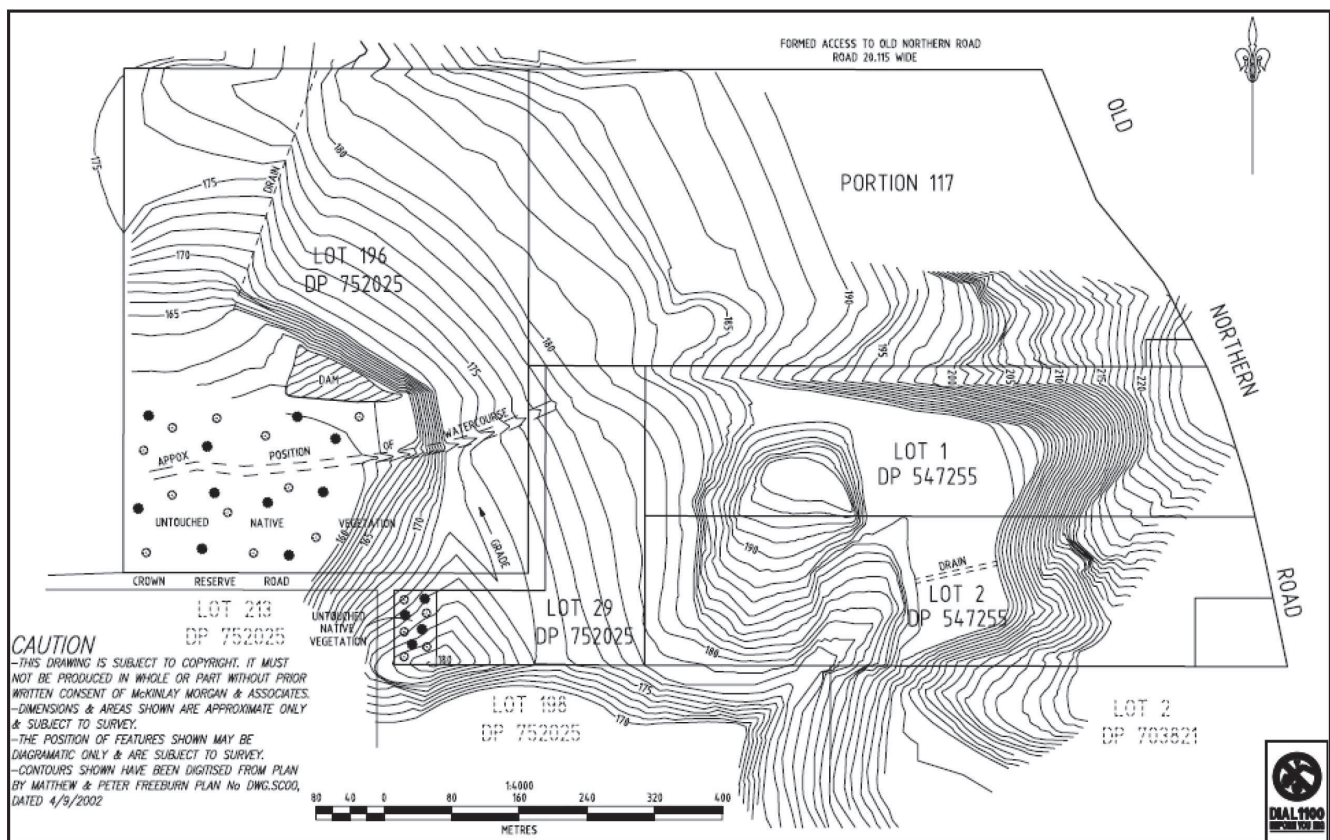
- 7.1 The Applicant shall notify, at the earliest opportunity, the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Applicant shall notify the Secretary and any other relevant agencies as soon as practicable after the Applicant becomes aware of the incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Annual Review

- 7.2 By the end of September each year, or other timing as may be agreed by the Secretary, the Applicant shall review the environmental performance of the development to the satisfaction of the Secretary. This review must:
- (a) describe the development (including rehabilitation) that was carried out in the previous financial year, and the development that is proposed to be carried out over the current financial year;

- (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous financial year, which includes a comparison of these results against:
- (c) the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EIS;
- (d) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- (e) identify any trends in the monitoring data over the life of the development;
- (f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- (g) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

NOTE – ALL OTHER ANNEXURES ARE ONLY IN PDF VERSION



Proposed amended final landform

PLAN OF PROPOSED EXTRACTOR AREA LOT 196 DP 752025, OLD NORTHERN ROAD, MAROOTA

10 ORIGINAL OWNERS

NO.	ORIGINAL OWNER	ORIGINAL OWNER
1	WATERWAYS	WATERWAYS
2	WATERWAYS	WATERWAYS
3	WATERWAYS	WATERWAYS
4	WATERWAYS	WATERWAYS
5	WATERWAYS	WATERWAYS
6	WATERWAYS	WATERWAYS
7	WATERWAYS	WATERWAYS
8	WATERWAYS	WATERWAYS
9	WATERWAYS	WATERWAYS
10	WATERWAYS	WATERWAYS

CAUTION

This plan is a preliminary plan and is not intended to be used for any purpose other than to show the location of the proposed extraction area. It is not intended to be used for any purpose other than to show the location of the proposed extraction area. It is not intended to be used for any purpose other than to show the location of the proposed extraction area.

PLAN OF PROPOSED EXTRACTOR AREA LOT 196 DP 752025, OLD NORTHERN ROAD, MAROOTA

A3



Annexure G

Native Vegetation Corridor

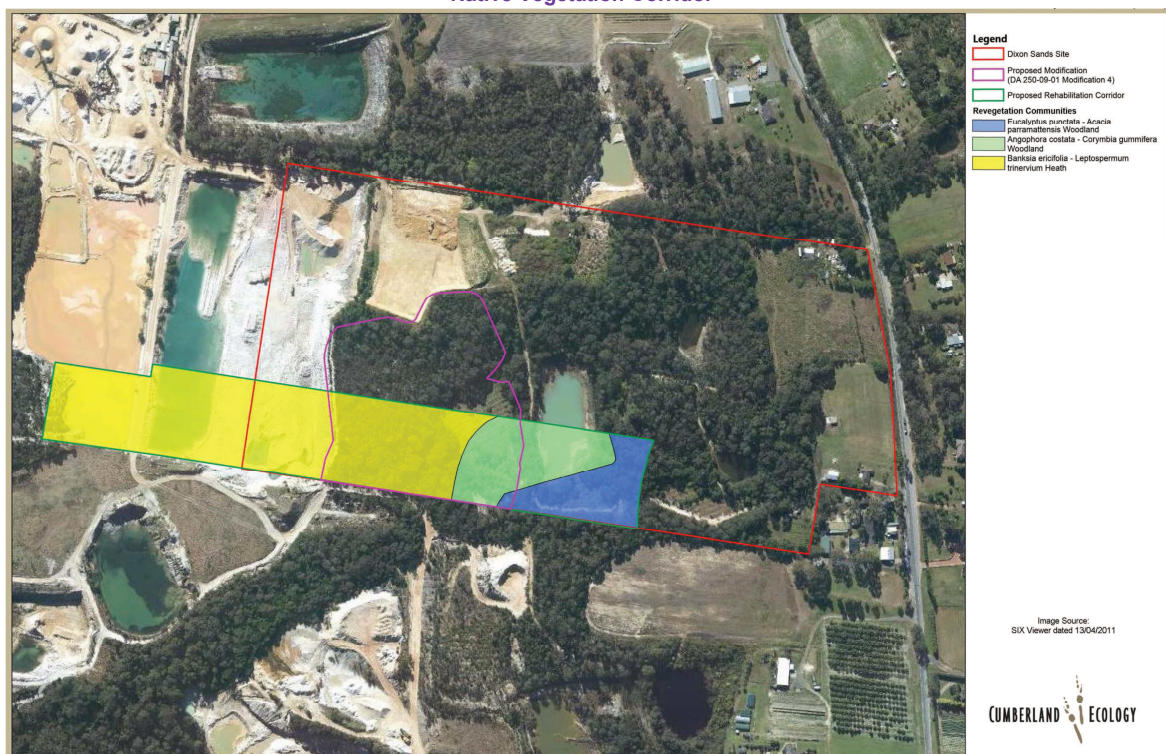


Figure 1: Native Vegetation Corridor

Annexure H
Final Landform

