

**In the Land and
Environment Court
of New South Wales**

No. 10987 of 2000

Patricia Treacy

Applicant

**Minister for Urban
Affairs and Planning**

First Respondent

Tiocliff Pty Ltd

Second Respondent

Order

The Court orders that:

1. The appeal be allowed.
2. Development consent is granted to the development application referred to in schedule 1, subject to the conditions in schedule 2 hereto.
3. The exhibits, other than exhibits 4, 12 and 13, may be returned.

Ordered: 28 March 2001



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TREACY v MINISTER FOR URBAN AFFAIRS & PLANNING & Anor.

PREMISES: BARINA QUARRY, COLLECTOR

LAND AND ENVIRONMENT COURT PROCEEDINGS NO. 10987 OF 2000

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 INTEGRATED STATE SIGNIFICANT DEVELOPMENT

SCHEDULE 1

Application made by:	Tiocliff Pty Ltd. ('the Applicant').
To:	The Minister for Urban Affairs and Planning ('the Minister').
In respect of:	Lot A DP 86342, Lot 33 DP750008 and Lot3 DP1177623, in the Queanbeyan-Palerang Local Government Area.
For the following:	Continuation of an existing hard rock quarry and development of a new quarry and associated works known as the Barina Quarry.
Development Application:	DA No. 1-01-2000 lodged with the Department of Urban Affairs and Planning on 6 January 2000, accompanied by a Environmental Impact Statement prepared by R. W. Corkery & Co. Pty Ltd. and dated December 1999 entitled "Lake George Quarries. Environmental Impact Statement. Barina Quarry-Collector".

Red Text – November 2023 Modification

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SCHEDULE 2

Conditions of Development Consent

Definitions

The Act	Environmental Planning and Assessment Act 1979, as amended.
AEMR	Annual Environmental Management Report
Applicant	Collector Resources Pty Ltd, or any person carrying out any development to which this consent applies
BCD	Biodiversity Conservation and Sciences Directorate within the Department
Construction	All physical work to enable quarrying operations, including but not limited to demolition and removal of buildings or works, and erection of buildings, structures and other infrastructure permitted by this consent
Council	Queanbeyan-Palerang Regional Council
DA	Development Application
The Department	The Department of Planning and Environment
Development	The development as described in the documents listed in condition 1.1(a)
DPE Water	Water Group within the Department
DPI-Agriculture	Department of Primary Industries – Agriculture
DPI-Fisheries	Department of Primary Industries - Fisheries
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMS	Environmental Management Strategy
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i>
EPL	Environment Protection Licence under the POEO Act
EQMP	Existing Quarry Management Plan
Existing Quarry	The existing extraction area, processing plant, raw material and product stockpile areas, offices/amenities block, and environmental controls.
GTA	General Term of Approval
Heritage NSW	Heritage NSW within the Department
Incident	An occurrence or set of circumstances that causes, or threatens to cause material harm and which may or may not be or cause a non-compliance
L _{A10} (15 minute)	is the sound pressure level that is exceeded for 10% of the time when measured over a 15 minute period.
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act
Material Harm	Is harm that: <ul style="list-style-type: none">a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; orb) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the

CONSOLIDATED CONSENT

	reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)
	This definition excludes “harm” that is authorised under either this consent or any other statutor approval.
Minister	NSW Minister for Planning and Public Spaces (or delegate)
Modification 2	The modification to the development as described in MR (Mod 2)
MR (Mod 2)	Modification Report titled ‘Modification Report for Proposed Modification No. 2 (MOD 2) to DA1-01-2000 (Barina Quarry) V2’, dated May 2023, prepared by Umwelt Pty Limited, Submissions Report titled ‘Barina Quarry Modification 2 Submissions Report’, dated February 2023, prepared by Umwelt Pty Limited
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent
Operation	The carrying out of the approved purpose of the development upon completion of construction
Planning Secretary POEO Act	Planning Secretary under the EP&A Act, or nominee <i>Protection of the Environment Operations Act 1997</i>
Project	The quarrying, processing and transportation of hard rock and ancillary activities in the existing and proposed Barina Quarry.
Project Site	Lot A DP 86342, Lot 33 DP750008 and Lot 3 DP1177623 in the Queanbeyan-Palerang Local Government Area
Proposed Quarry	The new quarry proposed approximately 400m east of the existing quarry together with associated overburden emplacement, haul roads, and environmental controls.
TSP	Total Suspended Particulates.
TfNSW	Transport for New South Wales
ULSC	Upper Lachlan Shire Council

CONSOLIDATED CONSENT

TABLE OF CONTENTS

1.	GENERAL	4
2.	HOURS OF OPERATION	6
3.	LIMITS ON PRODUCTION	7
4.	ENVIRONMENTAL MANAGEMENT	7
5.	WATER MANAGEMENT AND MONITORING	12
6.	MANAGEMENT OF WASTE AND HAZARDOUS MATERIALS	14
7.	AIR QUALITY, BLAST, AND NOISE MANAGEMENT AND	15
	MONITORING	
8.	TRAFFIC MANAGEMENT	23
9.	FLORA AND FAUNA ASSESSMENT, MANAGEMENT AND.....	24
	MONITORING	
10.	ABORIGINAL HERITAGE	26
11.	MONITORING/AUDITING	26
12.	REPORTING	27
13.	COMMUNITY CONSULTATION/OBLIGATIONS	28
14.	PROPOSERS OBLIGATIONS	29
15.	FURTHER APPROVALS AND AGREEMENTS	32

CONSOLIDATED CONSENT

1. GENERAL

There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent or minimise harm that may result from the construction, operation and rehabilitation on the subject site.

1.1 Adherence to Terms of DA, EIS, etc.

- (a) Development shall be carried out generally in accordance with:
- (i) DA No. 1-01-2000; and
 - (ii) the Environmental Impact Statement prepared by R. W. Corkery & Co. Pty Ltd. and dated December 1999 and MR (Mod 2).
 - (iii) the following additional information requested by the Department:
 - the letter from R.W. Corkery & Co. dated 7 March 2000 and attachments;
 - the letter from Tiocliff Pty Limited dated 4 April 2000 and attachments;
 - the letter from Tiocliff Pty Limited dated 17 May 2000;
 - the letter from Umwelt Pty Limited dated 1 May 2023; and
 - the letter from Umwelt Pty Limited dated 10 February 2023.
- unless otherwise modified by the Conditions in this Consent.
- (b) If at any time, the Planning Secretary is made aware of the occurrence of any environmental impacts from the proposal that pose serious environmental and/or amenity concerns, due to the failure of environmental measures required by the Conditions of Consent to ameliorate the impacts, the Planning Secretary may order the Applicant to cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Planning Secretary.
- (c) If any licence conditions are breached the Applicant shall comply with any modification to the work as specified by the relevant agency.

1.2 Surrender of Existing Consent

- (a) Pursuant to Section 80A(5) of the Act the Applicant shall surrender the following consents immediately this consent becomes effective under Section 83 of the Act.
- (i) DA No. 95-6/32 issued by Gunning Shire Council on 20 February 1996; and
 - (ii) DA No. 96-7/34 issued by Gunning Shire Council on 27 August 1997.
- (b) The Planning Secretary is to be advised of the date of the surrender of the consents detailed in subclause (a).

1.3 Commencement and Duration

- (a) The approval for the project is for a period of 1 year from the date of determination of Modification 2.

CONSOLIDATED CONSENT

- (b) No extraction shall commence in the proposed quarry, until the Applicant has completed the following works for the existing quarry:
 - (i) rehabilitation of the existing overburden/weathered rock stockpiles and the overburden embankment along the eastern limit.
 - (ii) construction and rehabilitation of the proposed bund wall along the western perimeter.
 - (iii) reshaping and rehabilitation of the former overburden stockpile to the north of the existing quarry.
 - (iv) tree and shrub planting adjacent to the site access road.
 - (v) reshaping and rehabilitation of the eastern and southern bund walls.
 - (vi) tree planting beyond the southern bund wall, and
 - (vii) obtained all licences necessary for all operations.
- (c) The date of commencement of the proposed quarry is to be notified in writing to the **Planning Secretary**, and Council, at least two weeks prior to commencement of operations.
- (d) The Applicant shall relocate the processing plant within the existing quarry within 13 months of the date of recommencement of operations in the existing quarry.
- (e) The total area of disturbance of activities associated with the existing quarry shall not exceed 7.5ha.
- (f) **The Project cannot recommence after being placed into care maintenance until an Independent Environmental Audit as per condition 11.1 has been undertaken in consultation with ULSC and Council and the audit recommendations have been addressed to the satisfaction of the Planning Secretary.**

1.4 Compliance

- (a) The Applicant shall comply with all reasonable requirements of the **Planning Secretary** in respect of the implementation of the Conditions of this Consent, within such time as the **Planning Secretary** may agree. If necessary, the **Planning Secretary** may order the Applicant to cease work until non-compliance has been addressed to the **Planning Secretary's** satisfaction.
- (b) The Applicant shall ensure that all contractors and sub-contractors are aware of, and comply with, the Conditions of this Consent.
- (c) The Applicant shall comply with all relevant conditions prescribed in Part 7 of the Environmental Planning and Assessment Regulation 1994, as required by Section 80A (11) of the Act.
- (d) The Applicant shall submit a Conditions Compliance Report to the **Planning Secretary** at least one month prior to commencement of the proposed quarry, detailing compliance with all relevant Conditions. Work shall not commence on the proposed quarry until the report is approved by the **Planning Secretary**.

1.5 Dispute Resolution

CONSOLIDATED CONSENT

In the event that the Applicant, Council or a government authority other than the Department, cannot agree on the specification or requirements applicable under this Consent, the matter shall be referred by either party to the **Planning Secretary** or, if not resolved, to the Minister, whose determination of the disagreement shall be final and binding on the parties.

1.6 Bank Guarantee for Rehabilitation

- (a) The Applicant shall provide an insurance bond or bank guarantee acceptable to the **Planning Secretary** from any bank licensed pursuant to the Banking Act 1959 (Cth) in the sum of \$200,000 in favour of the Minister administering the Environmental Planning & Assessment Act 1979 to ensure due completion of the rehabilitation and landscaping works as described in the approved Landscape Plan and Revegetation Plan required in Condition 4.2.2 to the satisfaction of the **Planning Secretary**.
- (b) The **Planning Secretary** may at any time and more than once and without notice to the Applicant demand all or part of the monies available under the insurance bond or bank guarantee if, in the **Planning Secretary's** opinion, the Applicant has failed to make satisfactory progress with the implementation of the Rehabilitation and Landscape Plan. The **Planning Secretary** shall apply the monies to ensure that the actions specified in any approved Rehabilitation and Landscape Plan are achieved.

1.7 Appointment of Environmental Officer

- (a) The Applicant shall engage an Environmental Officer for the life of the quarry, whose appointment is to receive prior approval by the **Planning Secretary**. The Officer will:
 - (i) be responsible for the preparation of the environmental management plans (refer Condition 4.2);
 - (ii) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;
 - (iii) be responsible for receiving and responding to complaints in accordance with Condition 13.2;
 - (iv) facilitate an induction and training program for all persons involved with the project; and
 - (v) have the authority and independence to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.
- (b) The Applicant shall notify the **Planning Secretary**, EPA, Council and the Community Consultative Committee of the name and contact details of the Environmental Officer upon engagement and any changes to that appointment.

2. HOURS OF OPERATION

- (a) ¹Unless otherwise agreed in writing by the EPA, the hours of operation for site preparation, extraction, processing, and product dispatch are 7:00 am to 6:00 pm Monday to Friday, and 7:00 am to 1:00 pm Saturdays. Blasting is to be carried out only between the hours of 10:00 am and 3:00 pm Monday to

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CONSOLIDATED CONSENT

Friday. Maintenance is to be carried out between 7:00 am and 6:00 pm Monday to Friday, and 7:00 am to 4:00 pm Saturdays. There are to be no activities on Sundays and Public Holidays.

- (b) ¹The hours of operation specified in this Condition may be varied with the written consent of the EPA, if the EPA is satisfied that the amenity of residents in the locality will not be adversely affected. The **Planning Secretary** and the Community Consultative Committee is to be advised of any changes to hours of operation approved by the EPA.

3. LIMITS ON PRODUCTION

- (a) Production of quarry products from the existing quarry will be limited to 150,000 tonnes per annum.
- (a) Production of quarry products from the proposed quarry will be limited to 300,000 tonnes per annum.
- (c) The Applicant shall cease extraction in the existing quarry before quarry products are produced from the proposed quarry.
- (d) Production of quarry products from the existing and proposed quarry shall not exceed 150,000 tonnes per annum in total until the roadworks required by Condition 8(1)(a)(iii) have been completed to the satisfaction of Council.

4. ENVIRONMENTAL MANAGEMENT

4.1 Existing Quarry Management Plan (EQMP)

- (a) The Applicant will prepare a Existing Quarry Management Plan (EQMP) for the existing quarry in consultation with the relevant authorities and to the satisfaction of the **Planning Secretary** within three months of the date of consent.
- (b) The Existing Quarry Management Plan (EQMP) shall address the following:
- (i) Dust Management
 - (ii) Noise Management
 - (iii) Blasting and Vibration Management
 - (iv) Procedures for decommissioning of the existing quarry and processing plant in its existing location.
 - (v) Processing Plant relocation
 - (vi) Rehabilitation
 - (vii) On-going operations within the existing quarry

4.2 Environmental Management Strategies And Plans

- (a) The Applicant shall prepare an Environmental Management Strategy (EMS) for the development of the proposed quarry in consultation with the relevant authorities and the Community Consultative Committee for the approval of the **Planning Secretary** prior to development of the proposed quarry. The Strategy shall be provided to the **Planning Secretary** no later than the time the first Environmental Plan (EMP) under sub-clause (d) below is submitted.

CONSOLIDATED CONSENT

- (b) The Environmental Management Strategy shall include, but not be limited to:
- (i) statutory and other obligations which the Applicant is required to fulfil during the project, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;
 - (ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer;
 - (iii) overall environmental management objectives and performance outcomes, during operation and rehabilitation of the quarries, for each of the key environmental elements for which management plans are required under this consent (refer subclause (d)).;
 - (iv) overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by quarrying operations, including elements such as creek lines and drainage channels, within the context of those objectives;
 - (v) identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;
 - (vi) steps to be taken to ensure that all approvals, plans, and procedures are being complied with;
 - (vii) processes for conflict resolution in relation to the environmental management of the project; and
 - (viii) documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.
- (c) The Applicant shall make copies of the Environmental Management Strategy available to Council, **ULSC, DPE Water, BCD**, EPA and Community Consultative Committee (refer Condition 10.1) within fourteen days of approval by the **Planning Secretary**.
- (d) The Applicant shall prepare the following Environmental Management Plans for the proposed quarry:
- (i) Erosion and Sediment Control Plan (Condition 4.2.1(a))
 - (ii) Land Management Plan (Condition 4.2.4)
 - (iii) Weed Control Plan (Condition 4.2.4(h)).
 - (iv) Water Management Plan(Condition 5.1(a))
 - (v) Dust Management Plan(Condition 7.1(a))
 - (vi) Noise Management Plan(Condition 7.4.3)
 - (vii) Blasting and Vibration Management Plan(Condition 7.3(f))
 - (viii) Road Traffic Noise Management Plan(Condition 7.5.1(a))
 - (ix) Traffic Management Plan (Condition 8.1)
 - (x) Flora and Fauna Management Plan(Condition 9.1(a))
 - (xi) Landscape and Rehabilitation Plan(Condition 4.2.2)
 - (xii) Aboriginal Site Management Plan(Condition 10.1)
- (e) The Plans are to include the development and operation of the proposed quarry haul road, proposed quarry and overburden emplacement. The plans shall also be required to detail the ongoing processing, product stockpiling and product dispatch from the existing quarry after extraction activities cease in that area. No activities associated with development of the proposed quarry are to commence until the Plans have been approved by the **Planning Secretary**.

CONSOLIDATED CONSENT

- (f) The management plans are to be revised, and updated as necessary, at least every three years or otherwise as directed by the **Planning Secretary** in consultation with the relevant government agencies. The plans will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at Council within two weeks of approval of the relevant government authority.

4.2.1 Prevention of Soil Erosion

- (a) ¹The Applicant shall prepare an **Erosion and Sediment Control Plan** for the proposed quarry in consultation with the **DPE Water** and EPA to the satisfaction of **DPE Water**, EPA and the **Planning Secretary**. The Plan shall be prepared and implemented prior to the commencement of the proposed quarry.
- (b) The Erosion and Sediment Control Plan shall include but not be limited to:
- (i) details of temporary and permanent sediment and erosion control systems to be used during quarrying, including for earthworks associated with rehabilitation and landscaping;
 - (ii) ¹measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The plan should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing) or its latest version;
 - (iii) details of the proposed measures to maximise the retrieval of topsoil for subsequent use in the rehabilitation program;
 - (iv) consideration and management of erosion and sedimentation of surface watercourses/waterbodies, including all creeklines within the project area;
 - (v) measures to construct banks, channels and similar works to divert stormwater away from disturbed and land surfaces such as haul roads, proposed quarry and overburden emplacement area. All diversion banks, channels and points of discharge must be constructed or stabilised so as to minimise erosion and scouring;
 - (vi) a program for reporting on the effectiveness of the sediment and erosion control systems and performance against objectives contained in the approved Erosion and Sediment Control Management Plan and EIS;
- (c) Sedimentation dams must be constructed to contain or treat surface water runoff from all quarry areas and areas disturbed by quarrying including overburden emplacement area, topsoil stockpiles, unsealed roads and areas cleared of vegetation. Sedimentation dams must be designed:
- to provide, to the satisfaction of the **DPE Water**, a minimum dam capacity appropriate to the area draining to each dam;

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CONSOLIDATED CONSENT

- so that the maximum flow velocity through the dams meets **DPE Water** guidelines;
 - to prevent short circuiting; and
 - if inflow is likely to contain oil or other deleterious floating matter a baffle must be installed at the outlet to prevent discharge of that matter.
- (d) The sediment dam which is proposed to be built in conjunction with the overburden emplacement is not to exceed a volume greater than 500 m³ per hectare of disturbed area (ie. overburden surface area). For example, if the overburden surface covers four hectares, then the maximum size of the sediment dam would be 2,000 m³ (or 2 ML).
- (e) The Applicant shall ensure that the main access road/haul road shall have an all weather surface, be located on minimum grades were practical, and have adequate drainage onto safe disposal areas.
- (f) The Applicant shall undertake appropriate measures to ensure that any vehicles which leave the site do not track materials on public roads.
- (g) The Applicant shall not allow any discharge of runoff off-site.
- (h) The Applicant must consult with the **DPE Water** in relation to any dam construction proposed at the site.
- (i) 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 must be sown with the pasture mix detailed in Condition 4.2.4(d) if they are to be stored for longer than six months. Topsoil stockpiles must have a maximum depth of 1.5 metres.
- (j) The Applicant shall ensure that rehabilitation of all disturbed areas is completed within twelve months of completion of extraction.

4.2.2 Visual Amenity and Landscaping

The Applicant shall, prior to the commencement of quarrying prepare a detailed **Landscape and Rehabilitation Plan**, in consultation with the **BCD** and Council, to the satisfaction of the **Planning Secretary**. The plan shall include, but not be limited to:

- (i) details of the establishment of vegetation and the construction of mounding or bunding, for the purposes of maintaining satisfactory visual amenity from nearby residents and the Federal Highway;
- (ii) progressive rehabilitation of the entire existing quarry, the proposed quarry, overburden emplacement area and associated works;
- (iii) use of local endemic species or species naturally occurring in the Collector area;
- (iv) details of the visual appearance of the processing plant and site facilities (including paint colours and specifications);
- (v) maximum use of overburden in the rehabilitation of the existing quarry;
- (vi) annual performance outcomes in relation to the implementation of the plan and a monitoring program to ascertain its effectiveness. Details shall be provided in the AEMR.

4.2.3 Bushfire and other Fire Controls

The Applicant shall:

- (i) provide adequate fire protection works including ensuring the availability of trained personnel, water truck and fire fighting equipment,
- (ii) carry out annual hazard reduction measures with particular attention to boundaries of adjoining landholdings. These measures are to be carried out in consultation with adjoining land owners and the Gunning District Rural Fire Service; and
- (iii) prior to commencement of proposed quarrying operations prepare a bushfire management plan for the project site to the satisfaction of Council and the NSW Rural Fire Service.

4.2.4 Land Management

Adjoining Properties

- (a) 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 AEMR.
- (b) Prior to commencement of the proposed quarry, the Applicant shall ensure that a stockproof fence is constructed on the western boundary of the 20m buffer to the "Protected Land" under the Native Vegetation and Conservation Act 1997 east of the proposed overburden emplacement as described in Figure 3.6 of the EIS. The Applicant shall consult with the landowner with respect to the location of the fence.

Land Management Plan

- (c) The Applicant shall, prior to commencement of the proposed quarry prepare a **Land Management Plan** for the project site in consultation with BCD, Council, and to the satisfaction of the Planning Secretary, to provide for proper land management. The plan shall include, but not be limited to:
 - (i) pastures and remnant vegetation management;
 - (ii) prevention and rehabilitation of land degradation;
 - (iii) eradication of vermin; and,
 - (iv) feral animal control.
- (d) The Applicant shall replace the pasture seed mix given in Table 2.6 on page 2-33 of the EIS with the mix detailed in the table below.

Seed Species	Application Rates (kg/ha)
Subterranean Clover	2.5
White Clover	1.0
Perennial Rye Grass	4.5
Phalaris	1.25
Demeter Tall Fescue	3.0
Cocksfoot	2.0
Millet (Summer – dams)	5.0

CONSOLIDATED CONSENT

Oats (Winter – dams)	5.0
Fertiliser – Grower II or Starter 15	300 (Second year 150 kg/ha)

Note: All clover seed is to be lime pelleted and inoculated.

- (e) 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 (in accordance with Council requirements)
- (f) The total area of trees and shrubs cleared in any one calendar year is not to exceed 2 hectares.
- (g) Clearing is restricted to the areas marked on Figure 3.6 of the EIS.
- (h) The Applicant shall prepare a **Weed Control Plan** in consultation with Council which:
 - (i) Identifies weed species present within the quarry sites,
 - (ii) Appropriate weed management measures to be implemented including:
 - (iii) Specific measures for the removal and management of noxious weed species; and
 - (iv) Specific measures to prevent the spread of noxious weed to areas of native vegetation and adjoining properties

5. WATER MANAGEMENT AND MONITORING

5.1 Surface & Ground Water Management Plans

- (a) Prior to the commencement of the proposed quarry, the Applicant shall prepare a **Water Management Plan** for the project site, in consultation with the **DPE Water** and to the satisfaction of the **Planning Secretary**, which shall include, but not be limited to, the following matters:
 - (i) management of the quality and quantity of surface and groundwater within the areas covered by the water management plans;
 - (ii) identification of all potential sources of water pollution (including discharges from stockpiled material) and a detailed description of the remedial action to be taken or management systems to be implemented to minimise emissions of these pollutants from all sources within the subject site;
 - (iii) management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water;
 - (iv) measures to prevent the quality of any surface waters being degraded below the relevant ANZECC water quality criteria prior to quarrying operations, particularly in Currawang Creek and Lake George, due to the operation of the quarry;
 - (v) contingency plans for managing adverse impacts of the development on surface and groundwater quality;
 - (vi) details of design and maintenance of all storages, diversions, transmission channels and sedimentation basins for the site, to ensure that no sedimentation of watercourses occurs as a result of quarrying operations;
 - (vii) measures for assessing chemical water quality impacts of the quarrying operation above and below the quarry sites;

CONSOLIDATED CONSENT

- (viii) projection of potential groundwater changes during quarrying (short term) and post-quarrying (long term) with particular attention given to the affect of changes to groundwater quality and mobilisation of salts;
 - (ix) a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved site water management plan, and EIS, and
 - (x) a strategy for the decommissioning of water management structures, including storage, and sedimentation dams once extraction is complete.
- (b) The works associated with the proposal shall not damage or interfere in any way with:
- (i) vegetation outside the area of operation;
 - (ii) the stability of adjacent or nearby streams; or
 - (iii) the quality of water in the stream or watercourse below current beneficial use.
- (c) The Applicant must consult with the **DPE Water** in relation to any dam construction proposed at the site.
- (d) The Applicant shall, in consultation with **DPE Water** , ensure that all soil and / or vegetation material to be removed from the area of operation is disposed of on an appropriate site where it will not be swept back into watercourses.
- (e) ¹The Applicant must engage a suitably qualified and experienced person to address the potential impact on the local and regional groundwater system, by the establishment and operation of the quarry proposal.
- (f) If groundwater is encountered during the operation of the quarry, the Applicant shall notify the Regional Hydrologist of the **DPE Water** and obtain a licence under Part 5 of the Water Act before any dewatering is undertaken.
- (g) At the end of the quarry life, all quarry areas that hold water are to be lined with bentonite to the recommended specifications of **DPE Water** to ensure that minimum recharge of groundwater occurs.
- (h) In the event that the development adversely affects groundwater users the Applicant shall, to the satisfaction of the **DPE Water** , liaise with the users to provide a replacement water supply of similar quality and quantity to that affected, until such time as the development ceases to impact on the users' water supply.

5.2 Surface And Groundwater Monitoring

The Applicant shall:

- a) locate surface and groundwater monitoring positions, as identified in the Site Water Management Plan (Condition 5.1(a)) in consultation with **DPE Water** and EPA, and to the satisfaction of the **Planning Secretary**, prior to the commencement of any quarrying;
- b) prepare a detailed monitoring program in respect of ground and surface water quality and quantity, including water in and around the project site during quarrying operations in consultation with **DPE Water** , and to the

1 Environment Protection Authority General Terms of Approval

CONSOLIDATED CONSENT

satisfaction of the **Planning Secretary**. The monitoring program shall identify frequency of sampling, the parameters to be measured, the need for any contingency plans, the reporting procedure and determination of appropriate cut-off criteria for monitoring purposes determined in consultation with **DPE Water** ;

- c) The monitoring program shall be prepared prior to commencement of quarrying operations in the existing and proposed quarries.
- d) ¹For each monitoring/ discharge point specified below (by an EPA ID number), the Applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant/parameter specified in the table. The Applicant must use the sampling method, units of measure, and sample at the frequency specified below in the table.

EPA ID no.	Type of Monitoring Point	Parameter & unit of measure	Frequency	Description of Location
8	Surface Water	pH, TSS, Turbidity Total Petroleum Hydrocarbons	Daily during any discharge	Points to be determined
9	Groundwater	Total Petroleum Hydrocarbons-(TPH)	Monthly	Points to be determined

- (e) The results and interpretation of surface and groundwater monitoring are to be reported and interpreted in the AEMR.

6. MANAGEMENT OF WASTE AND HAZARDOUS MATERIALS

- (a) ¹The Applicant must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.
- (b) Bund(s) must be installed around areas in which fuels, oils and chemicals are stored. Bunds must:
- have walls and floors constructed of impervious materials;
 - be of sufficient capacity to contain 110% of the volume of any tank;
 - have walls not less than 250 millimetres high;
 - have floors graded to a collection sump; and
 - not have a drain valve incorporated in the bund structure.
- (c) A wastewater treatment facility with oil separator and sediment trap must be installed to treat drainage from the hardstand, vehicle servicing areas, and bitumen precoat plant.

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- (d) The Applicant is required to store all oils and grease from equipment maintenance in leak proof containers within a bunded area until collected by a licensed recycling contractor.

Bitumen Precoating Plant

- (f) ¹Prior to the establishment of a bitumen precoating plant on the processing plant site the Applicant shall prepare a bitumen precoating operational procedure for the approval of the **Planning Secretary** and the EPA which details the standard operating procedures to be implemented during the process of preparing bitumen precoat material to ensure that all environmental safeguards are implemented.

7. AIR QUALITY, BLAST, AND NOISE MANAGEMENT AND MONITORING

7.1 Air Quality Management and Monitoring

Operational Dust Limits

The Applicant shall manage the development so that the ambient air quality goals for total suspended particles (TSP) of 90 ug/m³ (annual average) and the dust deposition goal of 5 gm/m² (annual average) are not exceeded as a result of the development, when measured at any monitoring location specified in Condition 7.1(a).

Dust Management Plan

- (a) ¹The Applicant shall, prior to the commencement of any quarrying operations, prepare a Dust Management Plan detailing air quality safeguards and procedures for dealing with dust emissions to the satisfaction of the **Planning Secretary** and EPA. The Plan shall be updated as required by the **Planning Secretary**. The Plan shall include, but not be limited to, details of:
- an identification of all potential sources of dust and Total Suspended Particulates (TSP);
 - the identification of dust affected properties and the relevant dust limits consistent with the EIS;
 - specifications for the procedures for the dust monitoring program for the purpose of undertaking independent dust investigations;
 - outline the procedure to notify property owners and occupiers likely to be affected by dust from the quarrying operations;
 - the establishment of a protocol for handling dust complaints that include recording, reporting and acting on complaints;
 - appropriate mechanisms for community consultation;
 - outlining mitigation measures to be employed to minimise dust emissions from all sources within the quarry (including drilling, blasting, disturbed areas, haul roads, etc);
 - equipment to be available and used to control dust generation;
 - methods to determine when and how the quarrying operations are to be modified to minimise the potential for dust emissions, particularly from blasting and surface activities if the relevant criteria are exceeded;

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CONSOLIDATED CONSENT

- identification of longer term strategies directed towards mitigating dust levels that exceed the relevant EPA dust amenity criteria;

Air Quality and Dust Monitoring

(b) The Applicant shall:

- (i) undertake monitoring at locations described in the Dust Management Plan (Condition 7.1(a));
 - (ii) establish dust deposition and Total Suspended Particulate (TSP) monitoring locations for the quarrying operations, including sites for monitoring impacts of dust at the nearest residences, and locations as may be determined to be necessary by the **Planning Secretary** and in accordance with the Dust Management Plan referred to in Condition 7.1(a);
 - (iii) detail monitoring methodologies and standards to be adhered to;
 - (iv) provide a detailed monitoring cycle and duration of the monitoring cycle; and
 - (v) provide all results and analysis of air quality monitoring in the AEMR including a determination of the dust deposition rate in g/m²/month for deposited dust and µg/m³ for TSP which shall be plotted in the AEMR.
- (c) ¹For each monitoring/discharge point or utilisation area specified below (by an EPA ID number), the Applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant/parameter specified in the table. The Applicant must use the sampling method, units of measure, and sample at the frequency specified below in the table.

EPA ID no.	Type of Monitoring Point	Parameter & unit of measure	Frequency	Description of Location
1	Dust Deposition	Particulates – TSP	Continuous	Northern Site Boundary
2	Dust Deposition	Particulates – TSP	Continuous	Southern Site Boundary
3	Dust Deposition	Particulates – TSP	Continuous	Eastern Site Boundary
4	Dust Deposition	Particulates – TSP	Continuous	North of Crushing Plant
5	Dust Deposition	Particulates – TSP	Continuous	South of Crushing Plant
6	Dust Deposition	Particulates – TSP	Continuous	West of Crushing Plant
7	Dust Deposition	Particulates – TSP	Continuous	Comalie Creek Residence

- (d) ¹Monitoring of dust deposition and the concentration of total suspended particulate matter in ambient air must be carried out at locations agreed to in consultation with the EPA. The sampling method, units of measure, interval and frequency of monitoring will be as set out in the *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW* or its latest version.

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CONSOLIDATED CONSENT

- (e) In the event that a landowner or occupier considers that dust from the project at their dwelling, or over more than 25% of their vacant land is in excess of the relevant EPA dust amenity criteria, and the **Planning Secretary** is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:
- (i) consult with the landowner or occupants affected to determine their concerns;
 - (ii) make arrangements for appropriate independent dust investigations in accordance with the Dust Management Plan, and to the satisfaction of the **Planning Secretary**, to quantify the impact and determine the source of the effect;
 - (iii) modify the quarrying activity in accordance with a Dust Management Plan if exceedences are demonstrated to result from the quarry related activity. This shall include:
 - introduction of additional controls, either of dust generation from individual sources on the site or on site operations or modify operations, to ensure that the dust criteria are achieved; and / or,
 - enter into an agreement with the landowner or provide such forms of benefit or amelioration as may be agreed between the parties as providing acceptable compensation for the dust levels experienced.
 - (iv) conduct follow up investigations to the satisfaction of the **Planning Secretary**, where necessary.

Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.

- (f) If the independent dust investigations in sub-clause e(ii) above confirm that dust limits are continuously in excess of the relevant EPA dust amenity criteria, the Applicant shall at the written request of the owner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 14.1.
- (g) Further independent investigations shall cease if the **Planning Secretary** is satisfied that the relevant consent limits or relevant EPA dust amenity criteria are not being exceeded and are unlikely to be exceeded in the future.

7.2 Dust Suppression and Control

- (a) Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises which shall include the prompt and effective rehabilitation of all disturbed areas.
- (b) Belt conveyors on the processing plant, must be enclosed on the top and at least one side. Belt scrapers must be installed to effectively remove material from the underside of each belt.
- (c) Air pollution control equipment must be fitted to the drilling rig(s) to minimise fines generated during drilling being discharged to the atmosphere.

- (d) An effective water spray system must be installed on raw material and product stockpiles and operated at sufficient frequency to maintain the entire surface of the stockpile in a condition that will minimise the emission of wind blown or traffic generated dust.
- (e) A mobile water tanker equipped with a pump and sprays must be provided to suppress dust from unsealed roads when in use.
- (f) Haul roads must be surfaced in selected hard, non-friable material. Soft mudstone, claystone and shale must not be used.

7.3 Blast Management and Monitoring

Blast Management

Overpressure

- (a) ¹The overpressure level from blasting operations on the premises must not:
 - (i) exceed 115dB (Lin Peak) for more than 5% of the total number of blasts over a period of 12 months; and
 - (ii) exceed 120dB (Lin Peak) at any time.

when measured at any point within 1 metre from any affected residential boundary or other noise sensitive location such as a school or hospital.

Ground Vibration (ppv)

- (b) ¹Ground vibration peak particle velocity from the blasting operations at the premises must not:
 - (i) exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and
 - (ii) exceed 10mm/s at any time.

when measured at any point within the grounds of noise sensitive locations and within 30m of any residence or other noise sensitive location such as a school or hospital.

Time and Frequency of Blasting

- (c) ¹Blasting operations on the premises may only take place between 10:00 am and 3:00 pm Monday to Friday inclusive.
- (d) ¹The hours of operation for blasting operations specified in this condition may be varied if the EPA, having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.

CONSOLIDATED CONSENT

- (e) ¹Blasting at the premises is limited to one (1) blast per day and three (3) blasts per calendar month.

Blast Management Plan

- (f) The Applicant shall prepare and implement a **Blasting and Vibration Management Plan**, to the satisfaction of the **Planning Secretary** prior to the commencement of any further blasting. The plan must include, but need not be limited to, the following matters:
- compliance standards;
 - mitigation measures;
 - remedial action;
 - monitoring methods and program;
 - monitoring program for flyrock distribution;
 - measures to protect any underground utilities (eg: rising mains, subsurface telecommunication and electric cables) native fauna, and livestock nearby;
 - procedures for the notification of neighbours prior to detonation of each blast; and
 - measures to ensure no damage by flyrock to people, property, livestock and powerlines.
- (g) The Applicant shall advise residents within one (1) kilometre of the active quarrying area of future blasting events on a monthly basis, and of any changes to monthly programs.
- (h) Upon written request of the owner of any dwellings located within one (1) kilometre of the active quarrying area, the Applicant shall arrange at its own costs, for the inspection by a technically qualified person agreed to by both parties, to record the material condition of any structure on such property within 14 days of receipt of the request. The Applicant shall supply a copy of any inspection report, certified by the person who undertook the inspection, to the relevant property owner within fourteen (14) days of receipt of the report;
- (i) No blasting associated with the quarry shall occur within 500 metres of any public road.

Blast Monitoring

- (j) The Applicant must monitor ground vibration and overpressure of all blasts at locations agreed to in consultation with the EPA.
- (k) For the purpose of blast monitoring, the ground vibration or the overpressure must be measured at noise sensitive sites (eg. residences, hospitals, schools etc), selected in consultation with the EPA.
- (l) The Applicant shall provide the **Planning Secretary** with results of the blast monitoring on a quarterly basis and in the AEMR (Condition 12.1)

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7.4 Operational Noise

7.4.1 Noise Limits

- (a) ¹Noise from the premises must not exceed:
- (i) an L_{A10} (15 minute) noise emission criterion of 50 dB(A) from 7:00 am – 6:00 pm Monday to Friday and 8:00 am – 1:00 pm Saturday for a period of 13 months from the date consent is issued.
 - (ii) an L_{A10} (15 minute) noise emission criterion of 40 dB(A) from 7am - 6pm Monday to Friday and 8am – 1pm Saturday for the period commencing 13 months from the date the consent is issued.

The noise emission limits above apply for adverse weather conditions.

Note: Adverse weather conditions means in the presence of winds up to 3 metres per second and/or temperature inversions of up to 4 degrees Centigrade per 100 metres.

- (b) In the event that a landowner or occupier considers that noise from the project at their dwelling is in excess of the noise levels given above, or that a landowner considers that the noise levels are being exceeded over more than 25% of their vacant land and the **Planning Secretary** is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:
- (i) consult with the landowner or occupants affected to determine their concerns;
 - (ii) make arrangements for appropriate independent noise investigations in accordance with the Noise Management Plan (refer Condition 7.4.3), and to the satisfaction of the **Planning Secretary**, to quantify the impact and determine the source of the effect;
 - (iii) modify the quarrying activity in accordance with a noise reduction plan prepared as part of the Noise Management Plan, if exceedences are demonstrated to result from the quarry related activity. This shall include:
 - introduction of additional controls, either on noise emission from individual sources on the site or on site operations or modify operations, to ensure that the criteria above are achieved;
 - with the agreement of the landowner, undertaking of noise control at the dwelling to achieve acceptable internal noise levels;
 - enter into an agreement with the landowner or provide such other forms of benefit or amelioration as may be agreed between the parties as providing acceptable compensation for the noise levels experienced;
 - (iv) conduct follow up investigations to the satisfaction of the **Planning Secretary**, where necessary.

Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.

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CONSOLIDATED CONSENT

- (c) If the independent noise investigations in sub-clause b(ii) above confirm that noise affectation criterion of 45dB(A) is being exceeded in the period under subclause (a)(ii) above, the Applicant shall at the written request of the owner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 14.1.
- (d) If continued complaints and noise investigations confirm that the noise limits are being consistently exceeded, the Applicant shall continue to negotiate with the landowner until an acceptable resolution is reached.
- (e) Further independent investigations shall cease if the **Planning Secretary** is satisfied that the relevant consent limits or EPA amenity criteria are not being exceeded and are unlikely to be exceeded in the future.
- (f) All plant and equipment operated within the premises are not to exceed the maximum Sound Power Level (dB(A)), as listed in Table 4.7 (Noise Controls) of the EIS when determined from measurements at a distance of not more than 7 metres from the exhaust or engine.

7.4.2 Noise Measurements

- (a) For the purpose of noise measurement, the L_{A10} noise level must be measured or computed at the most affected area within 30 metres of the residence or at the boundary, if the boundary is closer than 30 metres to the residence, over a period of 15 minutes using "FAST" response on the sound level meter.

Noise Management Plan

- (b) ¹The Applicant shall prior to commencement the proposed quarry, develop a **Noise Management Plan** to the satisfaction of the **Planning Secretary**.
The Plan shall:
 - (i) include details of the conduct of noise investigations at six monthly intervals (unless otherwise agreed by the **Planning Secretary**) to evaluate, assess and report the L_{A10} (15 minute) noise emission levels due to normal operations of the quarry under adverse weather conditions;
 - (ii) details of the proposed methodologies including establishing the proposed quarry's operating configuration; determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements;
 - (iii) outline the design of any noise modelling or other studies including the means for determining the noise levels emitted by the quarrying activities;
 - (iv) identify noise affected properties and the relevant noise limits consistent with the EIS,
 - (v) specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations;
 - (vi) outline the procedure to notify property owners and occupiers likely to be affected by noise from the quarry;
 - (vii) establish a protocol for handling noise complaints that include recording, reporting and acting on complaints;
 - (viii) record appropriate mechanisms for community consultation;

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- (ix) outline mitigation measures to be employed on the site to limit noise emissions;
- (x) identify longer term strategies directed towards mitigating noise levels that exceed the EPA target noise criteria listed above under adverse meteorological conditions;
- (xi) outline measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms);
- (xii) specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they lead to exceedence of the relevant noise criteria; and,
- (xiii) survey and investigate noise reduction measures from plant and equipment annually and report in the AEMR at the conclusion of the first 12 months of quarrying in the proposed quarry and set targets for noise reduction taking into consideration valid noise complaints in the previous year. The Report shall also include remedial measures to achieve compliance with the specified noise goals.

7.5 Traffic Noise

7.5.1 Noise Levels

- (a) ¹The Applicant shall, prior to commencement of the proposed quarry, prepare a **Traffic Noise Management Plan** to the satisfaction of the **Planning Secretary** for traffic associated with the proposal. The plan shall:
 - outline mitigation measures to be employed to reduce product truck noise emissions and meet the relevant EPA criteria set out in the EPA's *Environmental Criteria for Road Traffic Noise*;
 - identify strategies for mitigating product truck noise emissions that exceed the relevant EPA criteria and describe appropriate actions to be undertaken to reduce noise impacts in the event of complaints being received from residences;
 - outline procedures for the ongoing assessment of product truck noise impacts on private dwellings and identify procedures for the implementation of reasonable mitigation works on private dwellings adversely impacted by road noise from the operation of the quarry;
 - details of monitoring that will be undertaken; and,
 - methods for educating drivers in the reduction of product truck noise impacts.
- (b) The applicant shall also:
 - (i) make copies of the plans available to the EPA, Council and Community Consultative Committee within fourteen days of approval, or as otherwise agreed to be the **Planning Secretary**; and
 - (ii) include a summary of all noise monitoring results in the AEMR.

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7.6 Noise Monitoring

- (a) The Applicant shall undertake noise monitoring at locations agreed to in consultation with the EPA.
- (b) ¹For each monitoring point specified below (by an EPA ID number), the Applicant must monitor (by sampling and obtaining results by analysis) the parameters specified in the table below. The Applicant must use the sampling method, units of measure, and sample at the frequency specified below in the table.

EPA ID no.	Type of Monitoring Point	Parameter & unit of measure	Frequency	Description of Location
10	Noise Monitoring	LA10, LA90, Leq, Lin Peak, ppv	Continuous	Comalie Creek Residence
11	Noise Monitoring	LA10, LA90, Leq, Lin Peak, ppv	Continuous	Points to be determined
12	Weather	Temperature, Wind speed, Wind Direction, rainfall, humidity	Continuous	Points to be determined

- (c) Monitoring results are to be included in the AEMP.

8. TRAFFIC MANAGEMENT

8.1 Traffic Management Plan

- (a) The Applicant shall prepare a **Traffic Management Plan** to the satisfaction of the **Planning Secretary** prior to commencement of further operations in the existing quarry. The Plan shall document measures to be taken to meet the criteria, including a monitoring, reporting and response program; and methods for educating drivers in the reduction of road noise impacts. The plan shall:
- (i) Ensure that truck movements do not exceed 134 movements per day (67 laden truck movements), and 20 movements per hour (10 laden truck movements).
 - (ii) Include the preparation and implementation of a product truck driver protocol that ensures that company owned trucks and trucks under contract) comply with the following:
 - All loads leaving the site are covered.
 - All trucks leaving the site comply with legal weight limitations for classes of vehicles established by the **TfNSW**;
 - All trucks leaving the site turn right at Currawang Road. No left turn at Currawang Road will be permitted, except for local deliveries;
 - Trucks do not queue on Currawang Road;
 - 60kph truck speed limit from the exit northwest to the Federal Highway.

CONSOLIDATED CONSENT

- (iii) Provide details of measures to improve the access to the site , including;
 - Realignment and reconstruction of Currawang Road and the entrance to the site access to ensure that the intersecting angle is as close to 90 degrees as possible, and a 100kph stopping distance on the through road is maintained, in accordance with the *Roads and Traffic Authority Design Guide*.
 - Construction of acceleration and deceleration lanes at the reconstructed and/or relocated intersection with the site access road; and,
 - Erection of “Truck Crossing” signs at the intersection of Currawang Road and the site access road.
 - Strengthening, widening and straightening of the site access road and Currawang Road to the satisfaction of Council.
- (b) The Applicant shall submit detailed plans of the above roadworks to Council for approval within 6 months from the date of the consent, the work to be completed within 12 months of the date of consent.
- (c) Road design standards employed in the reconstruction of the intersection of Currawang Road and the site access road must consider endemic fog frequency and fog severity conditions, with a view to reducing the threat of fog induced road accidents.
- (d) From the date of determination of Modification 2, the Applicant must not undertake road haulage of quarry products until the section of Collector Road from the quarry access to the Federal Highway is upgraded to the satisfaction of Council and ULSC.

8.2 Non-Compliance

- (a) The Applicant shall undertake an investigation to identify any reported incidents of non-compliance with the product truck driver protocol and impose appropriate penalties on drivers and/or companies found not complying with the performance goals set in the truck driver protocol.

8.3 Reporting

- (a) The Applicant shall submit a quarterly report to the **Planning Secretary**, Council, and the Community Consultative Committee detailing any incidences of truck driver non-compliances, results of investigations undertaken, and any measures taken to prevent further non-compliance, unless otherwise agreed by the **Planning Secretary**.
- (b) Results of investigations for subclauses (d) and (e) are to be reported in the AEMR.

9. FLORA AND FAUNA ASSESSMENT, MANAGEMENT AND MONITORING

9.1 *Assessment and Management*

- (a) The Applicant shall prior to commencement of quarrying in the proposed quarry prepare and implement a **Flora and Fauna Management Plan** for the management of flora and fauna issues for the project site. The Plan shall be prepared in consultation with BCD, and to the satisfaction of the **Planning Secretary**. The Plan shall be prepared by an appropriately qualified and experienced ecologist to the satisfaction of the **Planning Secretary**. The ecologist shall be responsible for providing advice to minimise potential impacts upon threatened and protected fauna species that may utilise the site and to provide expert advice on the regeneration and reconstruction of flora and fauna habitat on quarried and disturbed areas. The Plan shall include but not be limited to:

9.2 *Clearing of vegetation*

- (i) details of pre-clearance inspections, including the identification and inspection of trees containing tree hollows, including stags, prior to clearing of any vegetation. This shall be undertaken by an appropriately qualified and experienced ecologist for the presence of any threatened fauna utilising those hollows;
- (ii) the description of appropriate methods for the removal / translocation of any threatened species to suitable areas at the discretion of the ecologist, should any threatened fauna be detected during any clearing; and
- (iii) details of the methods for salvaging and relocating hollow bearing limbs/stags, that have been identified, to areas regenerated with native vegetation or existing areas of native vegetation, to augment and reconstruct faunal habitat. The limbs and trunks are not to be burnt.

9.3 *Reconstruction of native bushland – Post Quarrying fauna habitat*

- (i) the establishment of long-term post-quarrying land use objectives over the site;
- (iii) details of the principal goal to replace each community type that currently exists on site that will be removed or reduced in area, with communities of same or similar dominant species composition;
- (iii) measures to connect existing areas and future areas of habitat rehabilitation to form a network of wildlife corridors throughout the site and to adjoining lands to facilitate species recruitment through natural immigration;
- (iv) strategies for the preparation of the site for habitat rehabilitation, as part of the revegetation;
- (v) details of the utilisation of local endemic species or species naturally occurring in the Collector area;
- (vi) methods of revegetation;
- (vii) measures for the dispersal of rocks and logs of varying sizes throughout the proposed revegetated areas to provide refuge and basking sites for herpetofauna;
- (viii) details of the fencing of all habitat rehabilitation areas to prohibit grazing by stock for a minimum of five years beginning from the removal of stock and fencing of that area;

CONSOLIDATED CONSENT

- (ix) strategies to manage the impact of surface water management, dust deposition, and erosion and sediment control measures, on flora and fauna, including the impact of heavy machinery;
 - (x) development of a protocol for identifying and managing significant impacts on any threatened flora and fauna species not identified in the EIS, during development through construction or operation of the quarry; and
 - (xi) details of the habitat monitoring program (refer to subclause (e) below).
- (b) During the life of the quarry and until the revegetated areas constitute viable ecosystems, the Applicant shall maintain the revegetated areas. Maintenance shall include but not be limited to:
- replanting failed or unsatisfactory areas
 - repairing erosion problems
 - fire management – fire suppression or fire encouragement*
 - pest and weed control*
 - control of feral animal populations*
 - maintain and repair fencing*
 - fertiliser application
 - watering plants in drier areas, especially in the establishment phase
 - application of lime or gypsum to control pH and improve soil structure.
- Note: A viable ecosystem is loosely defined as a reconstructed vegetation community being able to sustain itself with only those management efforts indicated by * being required as ongoing initiatives.
- (c) as well as the requirements under subclause (d), the efforts and progress of the flora and fauna management plan shall be documented in the AEMP.

9.4 Monitoring

- (d) The regeneration works shall be monitored by an appropriately qualified and experienced ecologist approved by the **Planning Secretary**. The results of the monitoring and the effectiveness of the revegetation shall be publicly reported annually as part of the AEMR.
- (e) The Applicant shall prepare a detailed monitoring program of habitat areas on the site, during the development and for a period after the completion of quarrying to be determined by the **Planning Secretary** in consultation with **BCD**. The monitoring program shall be included in the Flora and Fauna Management Plan (Condition 9.1(a)) and a summary of the results shall be provided in the AEMR. The program shall:
- (i) monitor impacts attributable to the development and include monitoring of the success of any restoration or reconstruction works. The Applicant shall carry out any further works required by the **Planning Secretary** as a result of the monitoring;
 - (ii) establish an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristics and structure and to propose contingency measures for improvements to revegetation if required; and

- (iii) establish an ongoing monitoring program of fauna species diversity and abundance and the effectiveness of reconstructed ecosystems in providing fauna habitat and contingency measures should impacts be identified as occurring.

Note: The information obtained from the monitoring shall be used to guide future revegetation efforts on the quarry site.

10. ABORIGINAL HERITAGE

10.1 *Aboriginal Site Management Plan*

- (a) The Applicant shall prepare an **Aboriginal Site Management Plan** in consultation with the Pejar Local Aboriginal Land Council and the **Heritage NSW** to the satisfaction of the **Planning Secretary** prior to development of the proposed quarry. This plan shall detail management and conservation measures for site CL1 (marked on Figure 3.6 of the EIS) including the establishment and fencing of an appropriate buffer zone around the site.
- (b) In the event that relics are uncovered during the development, work shall cease immediately in the vicinity of the discovery until the **Heritage NSW** is notified and shall not commence until an assessment of significance has been completed and any necessary approvals are obtained.

11. MONITORING/AUDITING

- (a) In addition to the requirements contained elsewhere in this consent, the **Planning Secretary** may, at any time in consultation with the relevant government authorities and Applicant, require the monitoring programs in Conditions 5 and 7 to be revised/updated to reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial monitoring programs. All monitoring programs shall also be made publicly available at Council within two weeks of approval of the relevant government authority.
- (b) All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall require approval from the relevant regulatory agencies to ensure the effectiveness and quality of the monitoring program. Only accredited laboratories shall be used for laboratory analysis.

11.1 **Third Party Monitoring/Auditing**

Independent Environmental Audit

- (a) The Applicant shall arrange for an **Independent Environmental Audit** of the existing quarry at the end of the first year following completion of extraction in the existing quarry, at the end of the first year following the commencement of quarrying in the proposed quarry, and every three (3) years thereafter, until the completion of quarrying, and at any additional time(s) as the **Planning Secretary** may direct. The audit shall be conducted pursuant to *ISO 14010 – Guidelines and General Principles for Environmental Auditing* and *ISO 14011 – Procedures for Environmental Auditing* (or the current versions) and any specifications of the **Planning**

CONSOLIDATED CONSENT

Secretary. Copies of the report shall be submitted by the Applicant to the **Planning Secretary.**

- (b) The audit shall:
 - (i) assess compliance with the requirements of this Consent, licence and approvals;
 - (ii) assess the development against predictions in the EIS;
 - (iii) review the effectiveness of the environmental management of the development, including any mitigation works;
 - (iv) be carried out at the Applicant's expense; and
 - (v) be conducted by a duly qualified independent person or team approved by the **Planning Secretary.**
- (c) The **Planning Secretary** may, after considering an audit report and any submissions made by the EPA, **DPE Water, BCD** and Council on the report, notify the Applicant of any reasonable requirements for compliance with this Consent. The Applicant shall comply with those requirements within such time as the **Planning Secretary** may direct.

12. REPORTING

12.1 Annual Environmental Management Report (AEMR)

- (a) The Applicant shall, throughout the life of the quarry prepare and submit an **Annual Environmental Management Report** (AEMR) to the satisfaction of the **Planning Secretary.** The AEMR shall review the performance of the quarry against the Environmental Management Strategy, the conditions of this Consent, and other licences and approvals relating to the quarry operations. To enable ready comparison with the EIS's predictions, diagrams and tables, the report shall include, but not be limited to, the following matters:
 - (i) an annual compliance audit of the performance of the project against conditions of this consent and statutory approvals;
 - (ii) a review of the effectiveness of the environmental management of the quarry in terms of EPA, **DPE Water, BCD**, and Council requirements;
 - (iii) results of all environmental monitoring required under this consent or other approvals, including interpretations and discussion by a suitably qualified person;
 - (iv) identify trends in monitoring results over the life of the quarry;
 - (v) an assessment of any changes to agricultural land suitability resulting from the quarrying operations, including cumulative changes;
 - (vi) a listing of any variations obtained to approvals applicable to the subject area during the previous year;
 - (vii) rehabilitation report; and
 - (viii) environmental management targets and strategies for the next year, taking into account identified trends in monitoring results.
- (b) In preparing the AEMR, the Applicant shall:
 - (i) respond to any requests made by the **Planning Secretary** for any additional requirements;
 - (ii) comply with any requirements of the **Planning Secretary** or other relevant government agency; and
 - (iii) ensure that the first report is completed and submitted within twelve months of this consent, or at a date determined by the **Planning Secretary** in consultation with the Council and the EPA.

CONSOLIDATED CONSENT

- (d) The Applicant shall ensure that copies of each AEMR are submitted at the same time to the Department, EPA, DPE Water, BCD and Council, and made available for public information at Council within fourteen days of submission to these authorities. A copy of the AEMR shall be made available to the Community Consultative Committee.

13. COMMUNITY CONSULTATION/OBLIGATIONS

13.1 Community Consultative Committee

- (a) The Applicant shall:
- (i) establish a Community Consultative Committee and ensure that the first meeting is held prior to submission of the Environmental Management Strategy (Condition 4.2a). Selection of representatives shall be to the satisfaction of the Planning Secretary in consultation with the Applicant and Council. The Committee shall be chaired by Council. The Committee shall comprise two (2) representatives of the Applicant (including the Environmental Officer), the Chairperson, one (1) representative of Council and four (4) community representatives.
 - (ii) Representatives from relevant government agencies or other individuals may be invited to attend meetings as required by the Chairperson. The Committee may make comments and recommendations about the implementation of the development and environmental management plans, monitor compliance with conditions of this consent and other matters relevant to the operation of the quarry during the term of the consent. The Applicant shall ensure that the Committee has access to the necessary plans for such purposes. The Applicant shall consider the recommendations and comments of the Committee and provide a response to the Committee and Planning Secretary.
- (b) The Applicant shall, at its own expense:
- (i) nominate two (2) representatives to attend all meetings of the Committee;
 - (ii) provide to the Committee regular information on the progress of work and monitoring results;
 - (iii) promptly provide to the Committee such other information as the Chair of the Committee may reasonably request concerning the environmental performance of the development;
 - (iv) provide access for site inspections by the Committee; and
 - (v) provide meeting facilities for the Committee, and take minutes of Committee meetings. These minutes shall be available for public inspection at Council within 14 days of the meeting.
- (c) The Applicant shall establish a trust fund or other funding arrangement to be managed by the Chair of the Committee to facilitate the functioning of the Committee, and pay \$2000 per annum to the fund for the duration of quarrying on the Project Site, or as otherwise directed by the Planning Secretary. The monies are to be used only if required for the engagement of consultants to interpret technical information and the like. The annual payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee meeting. A record of the finances of the trust or other funding arrangement during each year shall be provided to the Planning Secretary and Applicant by the Chair on each

CONSOLIDATED CONSENT

anniversary of the first payment. Any unspent monies shall be returned to the Applicant each year.

13.2 Complaints Procedure

Complaints

- (a) The Environmental Officer (refer Condition 1.7) shall be responsible:
 - (i) for recording complaints with respect to the quarrying operations on a dedicated and publicly advertised telephone line, 24 hours a day, 7 days a week, entering complaints or comments in an up-to-date log book, or other suitable data base, and ensuring that a response is provided to the complainant within 24 hours;
 - (ii) providing a report of complaints received every six months throughout the life of the project to the **Planning Secretary**, Council and EPA or as otherwise agreed by the **Planning Secretary**. A summary of this report shall be included in the AEMR (Condition 12.1a).
- (b) The Applicant must nominate at least two persons (and their telephone numbers) who will be available to the EPA on a 24 hours basis, and who have authority to provide information and to implement such measures as may be necessary from time to time to address a pollution incident or to prevent pollution from continuing as directed by an authorised officer of the EPA.

14. PROPONENTS OBLIGATIONS

14.1 Area of Affection – Land Acquisition

- (a) The owner of any dwelling, or vacant land located in areas that exceed noise and/or air quality criteria established in accordance with this consent, and at any time after the granting of development consent, may request the Applicant in writing to purchase the whole of that property.
- (b) The Applicant shall negotiate and purchase a property, as identified in sub-clause (a) above, within six (6) months of a written request from the affected land owner.
- (c) In respect of a request to purchase land arising under this condition, the Applicant shall pay the owner the acquisition price which shall take into account and provide payment for:
 - (i) a sum not less than the current market value of the owner's interest in the land at the date of this consent as if the land was not affected by the proposed Barina Quarry, having regard to:
 - the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and
 - the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of request is completed subsequent to that date.

CONSOLIDATED CONSENT

- (ii) the owner's reasonable compensation for disturbance allowance and relocation costs within the Gunning or Mulwaree Local Government Areas, or within such other location as may be determined by the **Planning Secretary** in exceptional circumstances;
 - (iii) the owner's reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired.
- (d) Notwithstanding any other condition of this consent, the landowner and the Applicant may, upon request of the landowner, acquire any property affected by the project during the course of this consent on terms agreed to between the Applicant and the landowner.
- (e) In the event that the Applicant and any owner referred to in this condition cannot agree within the time limit upon the acquisition price of the land and/or the terms upon which it is to be acquired, then:
 - (i) either party may refer the matter to the **Planning Secretary**, who shall request the President of the Australian Institute of Valuers and Land Economists to appoint a qualified independent valuer or Fellow of the Institute, who shall determine, after consideration of any submissions from the owners, a fair and reasonable acquisition price for the land as described in sub-clause (c) and/or terms upon which it is to be acquired;
 - (ii) in the event of a dispute regarding outstanding matters that cannot be resolved, the independent valuer shall refer the matter to the **Planning Secretary**, recommending the appointment of a qualified panel. The **Planning Secretary**, if satisfied that there is need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of:
 - the appointed independent valuer,
 - the **Planning Secretary** or nominee, and
 - the President of the Law Society of NSW or nominee.
- (f) The qualified panel shall determine a fair and reasonable acquisition price as described in sub-clause (c) above and/or the terms upon which the property is to be acquired.
- (g) The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the **Planning Secretary** and the costs of determination referred to in sub clauses (c) and (d).
- (h) Upon receipt of a determination pursuant to sub-clauses (c) and (d), the Applicant shall, within 14 days, offer in writing to acquire the relevant land at a price not less than the determination. Should the Applicant's offer to acquire not be accepted by the owner within six (6) months of the date of such offer, the Applicant's obligations to purchase the property shall cease, unless otherwise agreed by the **Planning Secretary**.
- (i) in the event that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with obtaining Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.

14.2 Contributions to Council

- (a) The Applicant shall pay or procure payment to the Council of a contribution under Section 94 of the Environmental Planning and Assessment Act 1979, in respect of road maintenance at the rate of 8.37 cents per payload tonne and in respect of the said contribution the following provision shall apply:
- (i) The said contribution will be calculated and paid monthly from the date of which the road haulage commences.
 - (ii) The Section 94 Contribution shall be at the rate of 8.37 cents per payload tonne subject to review at twelve (12) months having regard to the Roads and Traffic Authority road maintenance index.
 - (iii) On or before the thirtieth (30th) day after the end of each month of road haulage of the materials, the Applicant shall deliver or procure delivery to the Council of a true certified copy weighbridge or other returns or records showing the true quantities of materials transported from the quarry during the immediately proceeding month and pay the Council the appropriate contributions in accordance with sub-paragraphs i) and ii).
 - (iv) If Council considers that further monies are due under sub-paragraphs i) and ii) then Council may notify the Applicant of the amount payable and the Applicant shall pay that amount to the Council within fourteen (14) days of receipt by the Applicant of the notice.
 - (v) Council has the right to inspect and to make copies of the original records relating to any of the extracted material, including numbers and types of laden trucks and trailers, and load quantities transported from the quarry audited by any person nominated by its internal accountant at any time as and when such person may by written request so require. The Applicant shall provide to the Council all the information which the Council considers it requires to accurately calculate the contribution due to it under the conditions within seven (7) days (or longer period allowed by Council) of being requested.
- (b) Unless amended by a Section 94 Contributions Plan pursuant to Section 94 of the Environmental Planning and Assessment Act 1979 (as amended), Section 94 funds collected by, and held in trust by Council on behalf of the Applicant, shall be applied to the road upgrading works detailed in Condition 8.1(a)(iii) and the on-going maintenance of Currawang Road.

15. FURTHER APPROVALS AND AGREEMENTS

15.1 Statutory Requirements

- (a) The Applicant shall ensure that all statutory requirements including but not restricted to those set down by the Local Government Act 1993, Protection of the Environment Administration Act 1991, Protection of the Environment Operations Act 1997, *Water Management Act 2000*, Water Act 1912, National Parks and Wildlife Act 1974, and all other relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions, Directions, Notices and Requirements issued pursuant to statutory powers by the Council, EPA, *BCD*, *DPE Water*, *TfNSW*, *Heritage NSW*, *DPI-Agriculture and DPI-Fisheries*, are fully met.

¹Except 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.

15.2 *Structural Adequacy*

- (a) Detailed plans and specifications relating to the design and construction of all structural elements associated with the proposed development are to be submitted to the Principal Certifying Authority prior to the commencement of construction works. Such plans and specifications must be accompanied by certification provided by a practicing professional structural engineer or an accredited certifier certifying the structural adequacy of the proposed building design and compliance with the Building Code of Australia.

15.3 *Verification of Construction*

- (a) Upon completion of building works and prior to the issue of an occupation certificate, a certificate/s prepared by a suitably qualified person or a compliance certificate/s issued by an accredited certifier, is to be submitted to the Principal Certifying Authority certifying that the following building components, where relevant, have been completed in accordance with approved plans and specifications:
- (i) footings;
 - (ii) concrete structures, including ground floor and any subsequent floors, retaining walls and columns;
 - (iii) framing and roof structure;
 - (iv) fire protection coverings to building elements required to comply with the Building Code of Australia; and
 - (v) mechanical ventilation.

The certificate/s shall demonstrate at what stage of construction inspections were undertaken.

ADDITIONAL CONDITION

16. Subject to the approval of the **TfNSW**, the Applicant will ensure that vegetation within the Federal Highway median, north of the **Collector** Road junction, be cleared to provide a minimum sight distance of 500m for vehicles turning right into Collector Road.

¹ Environment Protection Authority General Terms of Approval