

Development Consent

Section 80 of the *Environmental Planning & Assessment Act 1979*

I, the Minister for Infrastructure, Planning and Natural Resources, approve the Development Application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

These conditions are required to:

- (i) prevent, minimise, and/or offset adverse environmental impacts;
- (ii) set standards and performance measures for acceptable environmental performance;
- (iii) require regular monitoring and reporting; and
- (iv) provide for the on-going environmental management of the development.

Craig Knowles, MP
Minister for Infrastructure, Planning and Natural Resources

Sydney,

2004

File No. P91/02045

SCHEDULE 1

Development Application:	DA No. 315-7-2003.
Applicant:	Badger Mining Company Pty Limited.
Consent Authority:	The Minister for Infrastructure, Planning and Natural Resources.
Land:	Lot 3, DP 623799 and Lot 1, DP 838361.
Proposed Development:	The development and operation of a clay/shale quarry on Lot 3, DP 623799 and the construction and use of an access road and service facilities on Lot 1, DP 838361.
State Significant Development	The proposal is classified as State significant development under section 76A(7) of the <i>Environmental Planning and Assessment Act 1979</i> because it is a class of development listed in the schedule of the Minister's declaration of 3 August 1999.
Integrated Development	The proposal is classified as integrated development under section 91 of the <i>Environmental Planning and Assessment Act 1979</i> , because it requires approvals under the: <ul style="list-style-type: none">• <i>Protection of the Environment Operations Act 1997</i>;• <i>Rivers and Foreshores Improvement Act 1948</i>;• <i>Water Act 1912</i>; and• <i>Roads Act 1993</i>.
Designated Development	The proposal is classified as designated development under section 77A of the <i>Environmental Planning and Assessment Act 1979</i> , because it would disturb a total surface area of more than 2 hectares of land by clearing or excavating, and consequently meets the criteria in Schedule 3 of the <i>Environmental Planning and Assessment Regulation 2000</i> .

BCA Classification:

Class 10b

Bunded fuel storage
Plant nursery
Weighbridge
Bridge
Conveyor and hoppers

Note:

- 1) *To find out when this consent becomes effective, see Section 83 of the Environmental Planning and Assessment Act 1979 (EP&A Act);*
 - 2) *To find out when this consent is liable to lapse, see Section 95 of the EP&A Act; and*
 - 3) *To find out about appeal rights, see Section 97 of the EP&A Act.*
-

Red Type represents the 4 January 2006 Modification (MOD 1)

Blue Type represents the 28 January 2010 Modification (MOD 2)

Green Type represents the May 2015 Modification (MOD 3)

SCHEDULE 2 DEFINITIONS

Annual review	Annual Review, as required under condition 5 of Schedule 5
Applicant	Epic Mining Pty Limited, or any other person who seeks to carry out development approved under this consent
BCA	Building Code of Australia
DA	Development Application
Department	Department of Planning and Environment
DNA	Douglas Nicolaisen & Associates Pty Ltd
Dust	Any solid material that may become suspended in air or deposited
DRE	Division of Resources and Energy within the Department of Trade and Investment, Regional Infrastructure and Services
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the <i>Protection of the Environment Operations Act, 1997</i>
GTA	General Terms of Approval
Incident	A set of circumstances that: <ul style="list-style-type: none"> causes, or threatens to cause, material harm to the environment; and/or breaches or exceeds the limits or performance measures/criteria in this consent
Land	The whole of a lot in a current plan registered at the Land Titles Office at the date of this consent
LCC	Liverpool City Council
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
NOW	NSW Office of Water
PCC	Penrith City Council
Privately-owned land	Land where: <ul style="list-style-type: none"> a private agreement does not exist between the Applicant and the land owner; and there are no land acquisition provisions requiring the Applicant to purchase the land upon request from the land owner
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Reasonable	Reasonable relates to the application of judgement 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
Riparian zone	A 40 metre-wide strip of land adjacent to a local watercourse, measured horizontally from the top of the bank of the watercourse
RMS	NSW Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
SEE	Statement of Environmental Effects
SEMP	Site Environmental Management Plan
Site	Land to which the DA applies
Vacant land	The whole of a lot in a current plan registered at the Land Titles office that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot at the date of this consent

SCHEDULE 3 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Applicant shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

Scope of Development

2. The Applicant shall carry out the development generally in accordance with:
 - (a) DA No. 315-7-03
 - (b) EIS titled *Proposed Clay/Shale Extraction Operation – Lot 3 – 275 Adams Road Luddenham*, dated May 2003, and prepared by Douglas Nicolaisen & Associates Pty Ltd (DNA);
 - (c) correspondence from DNA to the Department dated 16 March 2004 relating to operating hours, location of environmental bunds and reduction in the proposed extraction area;
 - (d) information accompanying modification application DA 315-7-2003-MOD-1 for the relocation of the access bridge across Oaky Creek, lodged 16 November 2005, and prepared by Stuart J Castle Pty Ltd;
 - (e) Modification Application DA 315-7-2003 MOD 2 and the accompanying SEE titled “Section 96(1A) Modification Application, 275 Adams Road Luddenham” produced by Planning Direction Pty Ltd and dated 3 November 2009 and “Acoustic Report – Clay/Shale Quarry at 275 Adams Road Luddenham” produced by Golders Associates Ltd and dated 15 December 2009;
 - (f) Modification Application DA 315-7-2003 MOD 3 and the accompanying Environmental Assessment titled *Environmental Assessment Report for Epic Mining Pty Ltd: 275 Adams Road, Luddenham, NSW*, prepared by Benbow Environmental Pty Ltd and dated November 2014 relating to temporary stockpiling, extraction sequencing and other activities; and
 - (g) conditions of this consent.

Note: The general layout of the development, including quarrying extraction area and development sequence, is shown in Appendix 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 to the extent of any inconsistency.
4. The Applicant shall comply with any reasonable requirements of the Secretary arising from the Department's assessment of:
 - (a) any reports, plans, strategies, programs, reviews, audits or correspondence that are submitted in accordance with this consent;
 - (b) any reports, reviews or audits commissioned by the Department regarding compliance with this consent; and
 - (c) the implementation of any actions or measures contained in these documents.
- 4A. The Applicant shall prepare revisions of any strategies, plans or programs required under this consent if directed to do so by the Secretary. Such revisions shall be prepared to the satisfaction of, and within a timeframe approved by, the Secretary.

Limits on Approval

5. The Applicant may undertake quarrying operations on the site until 31 December 2024.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary. Consequently, this consent will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been properly rehabilitated.

Limits on Production

6. The hours of operation for the development are limited to between 7 am and 6 pm Monday to Friday. The Applicant shall ensure that no haulage vehicles enter or leave the site between 6 pm and 7 am Monday to Friday, and on public holidays. Maintenance activities may be conducted between 7 am and 1 pm on Saturday. No other work is to be undertaken on Saturday, Sunday and public holidays.
7. The production of quarry products from the quarry shall not exceed 300,000 tonnes per annum.

8. The Applicant shall provide annual production data to the **DRE**, in the manner required, on the standard form supplied for that purpose. These data are also to be included in the **Annual Review**.

Protection of Public Infrastructure

9. The Applicant shall:
 - (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
 - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

Structural Adequacy

10. The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- (a) *Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.*
- (b) *Part 8 of the EP&A Regulation sets out the requirements for the certification of development.*

Demolition

11. The Applicant shall ensure that any demolition work is carried out in accordance with AS 2601-2001: *The Demolition of Structures*, or its latest version.

Operation of Plant and Equipment

12. The Applicant shall ensure that all plant and equipment at the site, or used in connection with the development, are:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

Compliance

13. Prior to commencement of development on Lot 3 DP 629799 and Lot 1 DP 838361, the Applicant shall commission an independent person(s) or organisation(s), approved by the **Secretary**, to certify in writing to the satisfaction of the **Secretary**, that the Applicant has complied with all relevant conditions of this consent applicable prior to that event.

SCHEDULE 4 ENVIRONMENTAL PERFORMANCE

AIR QUALITY

Impact Assessment Criteria

1. The Applicant shall ensure that the air pollution generated by the development does not exceed the criteria listed in Tables 1, 2, and 3 at any privately-owned land.

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³

Table 1: Long-term impact assessment criteria for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³

Table 2: Short-term impact assessment criterion for particulate matter

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Table 3: Long-term impact assessment criteria for deposited dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

Environmental Management

2. ¹The site must be maintained in a condition that minimises or prevents the emission of dust from the site, including the prompt and effective rehabilitation of all disturbed areas.
3. ²The 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.
4. ³The Applicant shall ensure that all vehicles leaving the site are subject to equipment or facilities to remove adhering materials from wheels and underneath the bodies, unless otherwise approved by the EPA. The aims of the installed facilities are:
 - preventing materials from being carried away from the site to adjoining road surfaces; and
 - collecting, treating and disposing of any washdown.
5. The Applicant shall ensure that all internal unsealed roadways, quarry floor and stockpiles are to be watered as required to minimise dust generation.

¹ Incorporates EPA's GTA

² Incorporates EPA's GTA

³ Incorporates EPA's GTA

6. ⁴The Applicant shall not allow offensive odour to be emitted from the site.

Notes:

- (a) Section 129 of the POEO Act provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant Environment Protection Licence (EPL) as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.
- (b) No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the POEO Act.

Monitoring

7. The Applicant shall establish air quality monitoring stations at a minimum of 4 locations around the site, (including the “northern” residence in the EIS, and locations representative of the most-affected residences in Jackson Road, Ferndale Road and adjoining landowners to the east of the site) to monitor, by sampling and obtaining results by analysis, dust deposition to the satisfaction of EPA and the Secretary, using the specified averaging period, frequency, and sampling method in Table 4:

Pollutant	Units of Measure	Averaging Period	Frequency	Sampling method ¹
Dust Deposition	g/m ² /month	Month, annual	Continuous	AS-3580.10.1 ²
Siting	-	-	-	AM-1

Table 4: Air quality monitoring

¹ NSW EPA, 2001, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

² Standards Australia, 1991, AS 3580.10.1-1991, *Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method*.

8. Before carrying out any development, the Applicant shall prepare an Air Quality Monitoring Program, in consultation with EPA, and to the satisfaction of the Secretary.

Soil and Land Management

9. The Applicant shall immediately utilise or stockpile, for use in the rehabilitation of the site, any topsoil removed during the development. Topsoil shall not be mixed with other overburden products. The topsoil stockpile(s) shall be protected from erosion. The topsoil stockpile(s) shall be sown with appropriate vegetation to stabilise the soil if they are to be stored for longer than 6 weeks. The topsoil stockpile(s) shall have a maximum height of 1.5 metres.
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, noise attenuation bund, access roads and ancillary facilities.
11. 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 this consultation are to be reported in the Annual Review.

NOISE

Noise Impact Assessment Criterion

12. ⁵The Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criterion presented in Table 5.

Day L _{Aeq} (15 minute)	Property
41	All residential or sensitive receptors not associated with the development.

Table 5: Noise impact assessment criterion dB(A)

⁴ Incorporates EPA's GTA

⁵ Incorporates EPA's GTAs

Notes:

- (a) The noise limits in Table 5 are for the noise contribution of the establishment and operation of the clay/shale quarry on Lot 3, DP 623799 and Lot 1 DP838361, Adams Road, Luddenham.
- (b) The criterion in Table 5 does not apply to a six-week period for the construction of a noise attenuation bund adjacent to the quarry excavation area.
- (c) Noise from the development is to be measured at the most affected point or within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary.
- (d) To determine compliance with the $L_{Aeq(15 \text{ minute})}$ noise limits in the above table where it can be demonstrated that direct measurement of noise from the development is impractical, the EPA may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.

12A. When extraction operations are taking place in Bench 3, as indicated on Figure 1 in Appendix 1, operations are restricted to the use of 1 truck and 1 excavator, until the quarry floor is at least 1.5m below the existing ground level.

Operating Conditions

13. The Applicant shall ensure that all vehicles travelling on internal roads do not exceed 20 kilometres per hour.
14. The Applicant shall design operations to minimise the need for reversing of trucks and machinery where reversing beepers may contribute to noise impacts exceeding the criterion in condition 12.

Monitoring

15. The Applicant shall prepare noise compliance assessments of the operations at the site, within 3 months of the commencement of operations, and at intervals of 3 months thereafter, unless otherwise agreed by the Secretary and the EPA. The assessment shall be carried out by a suitably qualified and experienced acoustical consultant, approved by the Secretary, and submitted to the EPA and the Department.

Construction of the Noise Attenuation Bund

Note: The noise attenuation bund also functions as visual screen of the operations associated with the extraction of the clay/shale resource.

16. The Applicant shall minimise noise levels during the construction of the noise attenuation bund by the implementation of best available techniques economically achievable.
17. The Applicant shall complete the construction of the noise attenuation bund in the minimum time, not to exceed 6 weeks from the commencement of its construction, unless otherwise approved by the Secretary.
18. The Applicant shall prepare a noise assessment of the construction of the noise attenuation bund within 3 weeks of the commencement of construction of the bund. The assessment shall be carried out by a suitably qualified and experienced acoustical consultant, approved by the Secretary, and submitted to the EPA and the Department.

Environmental Management

19. Prior to carrying out any development on the site, the Applicant shall prepare an updated Noise Management Plan for the development, in consultation with the EPA and to the satisfaction of the Secretary, which addresses;
 - actions to be undertaken to achieve compliance with condition 12;
 - actions to be undertaken during the construction of the noise attenuation bund;
 - circumstances that would lead to the construction of the noise attenuation bund to a height of 5 or 6 metres instead of the proposed 4 metre height, and any additional noise control measures to be undertaken during the construction of a higher bund;
 - measurement of the acoustic performance of plant and equipment used on site to demonstrate that the predictions of the EIS and documentation listed in condition 2 of schedule 3 are met;
 - a program for monitoring noise generated by the development at a minimum of 4 locations around the site, (including the "northern" residence in the EIS, and locations representative of the most-affected residences in Jackson Road, Ferndale Road and adjoining landowners to the east of the

site) which includes a noise monitoring protocol for evaluating compliance with the criterion in condition 12; and

- continuation of the program of quarterly monitoring for a period of 12 months, in order to reassess changes in noise emissions; monitoring may be reduced, if the Secretary is satisfied with the outcome of the 12 months of quarterly monitoring.

METEOROLOGICAL MONITORING

20. The Applicant shall maintain a permanent meteorological station at a location approved by the EPA, and to the satisfaction of the Secretary, to monitor the parameters specified in Table 6, using the specified units of measure, averaging period, frequency, and sampling method in the table.

Parameter	Units of measure	Averaging period	Frequency	Sampling method ¹
Rainfall	mm/hr	1 hour	Continuous	AM-4
Sigma Theta @ 10 m	°	1 hour	Continuous	AM-2
Siting	-	-	-	AM-1
Wind Direction @ 10 m	°	1 hour	Continuous	AM-2
Wind Speed @ 10 m	m/s	1 hour	Continuous	AM-2

Table 6: Meteorological monitoring

¹NSW EPA, 2001, *Approved Methods for the Sampling and Analysis of Air Pollutants in NSW*.

BLASTING

21. Blasting is not permitted on the site.

⁶SURFACE & GROUND WATER

Note: The Applicant is required to obtain licences for the development under the Water Act 1912, the Rivers and Foreshores Improvement Act 1948 and the Protection of the Environment Operations Act 1997.

Pollution of Waters

22. Except as may be expressly provided by an EPA licence, the Applicant shall comply with section 120 of the *Protection of the Environment Operations Act 1997* during the carrying out of the development.

Surface Water Management System

23. The Applicant shall:
- design, install, operate and maintain a stormwater management system for the site in accordance with the publication titled "*Managing Urban Stormwater: Soil and Construction, Department of Housing 1998*" for a 90 percentile five day rainfall interval (unless condition 9 applies);
 - install bund(s) 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 the tank (or 110% of the volume of the largest tank where a group of tanks are installed);
 - 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;
 - conduct maintenance on mobile plant and equipment within a bunded area, unless within the quarry excavation;
 - install a wastewater treatment facility with oil separator and sediment trap to treat the drainage from any hardstand, vehicle servicing and workshop areas; and
 - divert stormwater away from disturbed land surfaces. All diversion banks, channels and points of discharge should be constructed or stabilised so as to minimise erosion and scouring.

Site Water Management Plan

24. The Applicant shall prepare and implement an updated Site Water Management Plan for the site, to the satisfaction of the Secretary. This plan shall:
- be submitted to the Secretary for approval by 30 September 2015;
 - be prepared in consultation with NOW and EPA; and
 - include a:

⁶ Incorporates EPA's GTAs

- Surface Water Monitoring Program;
- Groundwater Monitoring Program;
- Erosion and Sediment Control Plan; and
- Irrigation Management Plan.

25. The Surface Water Monitoring Program shall include:
- (a) detailed baseline data on surface water flows and quality in Oaky Creek upstream and downstream of the development;
 - (b) surface water impact assessment criteria;
 - (c) a program to monitor surface water flows and quality in Oaky Creek; and
 - (d) a program to monitor the effectiveness of the Erosion and Sediment Control Plan.
26. The Groundwater Monitoring Program shall include:
- (a) baseline data on groundwater levels and quality, based on statistical analysis, to benchmark the pre-quarrying natural variation in groundwater levels and quality;
 - (b) groundwater impact assessment criteria;
 - (c) a program to monitor groundwater impacts during quarry operations.

Note: Licences are required under the Water Act 1912 for groundwater monitoring bores.

27. The Erosion and Sediment Control Plan shall:
- (a) be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition, 2004* (Landcom);
 - (b) identify activities that could cause soil erosion or discharge sediment or water pollutants from the site;
 - (c) describe the location, function and capacity of all erosion and sediment control structures;
 - (d) describe the measures to minimise soil erosion and the potential migration of sediments to downstream waters.
28. The Irrigation Management Plan shall:
- (a) comply with the requirements of the Surface Water Licence issued under the *Water Act 1912* for the use of water obtained from the quarry;
 - (b) identify the specific areas of land to be irrigated, determine sustainable water application rates and monitoring requirements;
 - (c) describe measures to prevent any tailwater drainage from entering Oaky Creek; and
 - (d) ensure that the soils subject to irrigation are not adversely affected by the concentration of salts.

Internal Road Crossing of Oaky Creek

29. Prior to the commencement of any work within 40 metres of Oaky Creek, a permit under Part 3A of the *Rivers and Foreshores Improvement Act 1948* shall be obtained from the **Department of Natural Resources**. All works shall be:
- (a) undertaken in accordance with the permit application, except as otherwise provided by conditions of the permit;
 - (b) constructed generally in accordance with the information contained in the documents (including the EIS) listed in condition 2 of schedule 3; and
 - (c) designed and constructed such that the works do not cause sedimentation, erosion or permanent diversion of the Protected Waters;

Note: Should Crown land, as defined under the Crown Lands Act 1989, be included in the crossing, there is a requirement to seek approval from the Department of Lands under the Crown Lands Act 1989.

WASTE MANAGEMENT

30. ⁷The 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*.

Note: 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.

31. The Applicant shall ensure that the site has a suitable sewage disposal system, to the satisfaction of the LCC.

⁷ EPA GTA

ABORIGINAL HERITAGE

32. The Applicant shall:
- (a) protect from disturbance, by fencing, the Aboriginal site and relics (the site) located close to Oaky Creek shown in Figure 2 of Technical Document 8 of the EIS (*“Assessment and Management Recommendations for the Aboriginal Archaeological Site at 275 Adams Road Luddenham”* prepared by Umwelt (Australia) Pty Limited and dated September 2001);
 - (b) not allow stormwater or other discharges to be directed across the site;
 - (c) not allow sedimentation to occur on the site;
 - (d) provide training in the cultural values of Aboriginal sites to all permanent staff;
 - (e) protect the site from damage; and
 - (f) allow access to the site by representatives of the Gandangara Local Aboriginal Land Council to allow educational and cultural activities and monitoring of the condition of the site.

REHABILITATION & VEGETATION

33. Prior to the carrying out of any development on the site, the Applicant shall prepare a Site Rehabilitation Plan in accordance with the rehabilitation guidelines in the document titled *“Sydney Regional Environmental Plan No. 9 – Extractive Industry (No. 2) – Planning Report”*, to the satisfaction of the [Secretary](#). The Site Rehabilitation Plan shall include a Vegetation Management Plan.
34. The Vegetation Management Plan shall include:
- (a) revegetation of the riparian zone of Oaky Creek;
 - (b) protection, establishment and maintenance of the riparian zone;
 - (c) protection of remnant native vegetation;
 - (d) restoration of any areas within the riparian zone disturbed by the development; and
 - (e) a program to vegetate the noise attenuation bund.
35. The Applicant shall provide annual audits of the performance of the rehabilitation undertaken on the site to be included in the [Annual Review](#). The audit shall be conducted by a qualified rehabilitation consultant, approved by the [Secretary](#).
36. Prior to 5 years of the estimated completion of extractive activities at the site, the Applicant shall submit a report to the Department identifying the final land use of the site and method of treatment for the final void.

Rehabilitation Bond

37. Prior to commencement of operations on Lot 3, DP 623799, the Applicant shall provide a Rehabilitation Bond in the sum of \$166,750 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 & 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 \$2.50 per square metre for a maximum exposed area of 6.67 hectares (ha).

The Department shall review the adequacy of Rehabilitation Bond to provide for the completion of rehabilitation and landscaping works on the site at intervals of not less than three years. The Applicant shall ensure that the Rehabilitation Bond is in accordance with the sum determined by the review.

Notes:

- (a) 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.
- (b) The [Secretary](#) shall apply the monies to ensure that the actions specified in the documents listed in condition 2 of schedule 3 and/or any approved Site Rehabilitation Plan are achieved.
- (c) The Rehabilitation Bond will be released when the Applicant submits documentation prepared by a qualified rehabilitation consultant certifying that the final rehabilitation has been completed in accordance with the conditions of this consent and/or any approved Site Rehabilitation Plan, to the satisfaction of the [Secretary](#).

VISUAL AMENITY

38. The Applicant shall carry out the development in a way that prevents and/or minimises the visual impacts of the development.
39. Buildings, structures and roadworks shall be designed and constructed to present a neat and orderly appearance, to blend as far as practicable with the surrounding landscape and to minimise visual impact.

TRAFFIC & TRANSPORT

Site Access Road/Elizabeth Drive Intersection

40. ^{8&9}Prior to the transport of clay/shale materials from the site, the Applicant shall construct an intersection of the site access road and Elizabeth Drive in accordance with the information contained in the EIS, to the satisfaction of the RMS. This treatment shall be in accordance with RMS standards for a Rural Type AUR Right Turn Treatment and shall:
- (a) incorporate an auxiliary left turn deceleration lane;
 - (b) safely integrate existing access to the neighbouring property immediately to the east of the intersection;
 - (c) incorporate signs and linemarking in accordance with the relevant RMS standards;
 - (d) provide intersection lighting to the relevant standards, should the intersection be used outside of daylight hours; and
 - (e) be in accordance with detailed design plans submitted to the RMS for approval prior to the commencement of any roadworks.

Note: All works must be carried out at the Applicant's expense. A plan checking fee and lodgement of performance bond may be required prior to the release of approved road design plans by the RMS.

41. ¹⁰Prior to 8 years from the commencement of this consent, the Applicant shall review the access arrangements to Elizabeth Drive, in consultation with PCC and LSC, and to the satisfaction of the RMS.

Note: Part of the RMS' proposal for the road widening of Elizabeth Drive would result in its conversion to a four lane divided carriageway that would restrict access to the quarry site to left-in/left-out movements only.

Road Transport Protocol

42. ¹¹Prior to the commencement of road haulage from the site, the Applicant shall develop a Road Transport Protocol, in consultation with the RMS, PCC and LCC. This protocol shall:
- (a) specify the haulage route(s) to be used, the maximum number of road movements and the haulage hours;
 - (b) include a Traffic Management Plan which addresses:
 - procedures to ensure that drivers adhere to the designated haulage route(s) as required under this Protocol;
 - measures to achieve a low-frequency, regular trucking schedule rather than a high-frequency, campaign trucking schedule;
 - contingency plans where, for example, any designated transport route is disrupted. This shall also address procedures for notifying relevant agencies and affected communities by the implementation of any such contingency plan;
 - procedures to ensure that all haulage vehicles associated with the quarry are clearly distinguishable as Badger Mining Company product haulers;
 - details for procedures for receiving and addressing complaints from the community concerning traffic issues associated with haulage from the quarry or return of unladen trucks to the quarry; and
 - measures to ensure the provisions of the traffic management plan are implemented, for example, education of drivers and any contractual agreements with operators of heavy vehicles which serve the quarry.
 - (c) include a Code of Conduct for drivers which addresses:
 - travelling speeds;
 - staggering of truck departures to ensure a regular trucking schedule throughout the day;
 - instructions to drivers not to overtake each other on the haulage route(s), as far as practicable, and to maintain appropriate distances between vehicles;
 - instructions to drivers to adhere to the designated haulage route(s);
 - instructions to drivers to be especially safety conscious and to ensure that traffic regulations are obeyed strictly;

⁸ Incorporates RMS' GTAs

⁹ Incorporates PCC's GTA

¹⁰ Incorporates RMS's GTA

¹¹ Incorporates RMS's GTAs

- driver training in the Code to ensure that all drivers are made aware and adhere to the Code;
and
- procedures for ensuring compliance with and enforcement of the Code.

SCHEDULE 5
ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. Before carrying out any development, the Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the **Secretary**. This strategy must:
 - (a) provide the strategic context for environmental management of the development;
 - (b) identify the statutory requirements that apply to the development;
 - (c) describe in general how the environmental performance of the development would be monitored and managed during the development;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance;
 - manage cumulative impacts;
 - respond to emergencies; and
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the development.
2. Within 14 days of the **Secretary**'s approval, the Applicant shall:
 - (a) send copies of the approved strategy to the relevant agencies, PCC, LCC and the Community Consultative Committee (CCC) (see condition 8); and
 - (b) ensure the approved strategy is publicly available during the development.

ENVIRONMENTAL MONITORING PROGRAM

3. Before carrying out any development, the Applicant shall prepare an Environmental Monitoring Program for the development in consultation with the relevant agencies, and to the satisfaction of the **Secretary**. This program must consolidate the various monitoring requirements in schedule 4 of this consent into a single document.
4. The Applicant shall regularly review, and if necessary update, this program in consultation with the **Secretary**.

ANNUAL REVIEW

5. By the end of September 2016 and each year following, 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 calendar year, and the development that is proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EIS;
 - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the development;
 - (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

INDEPENDENT ENVIRONMENTAL AUDIT

6. Before 31 December 2010, and every 3 years thereafter, unless the **Secretary** directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
 - (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the **Secretary**;
 - (b) include consultation with the relevant agencies;

- (c) assess the environmental performance of the development, and whether it is complying with the relevant requirements in this consent and any relevant EPL (including any assessment, plan or program required under these approvals);
- (d) review the adequacy of any approved strategy, plan or program required under these approvals; and
- (e) recommend measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and may include additional experts in any field specified by the Secretary.

7. Within six weeks of the completion of this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

COMMUNITY CONSULTATIVE COMMITTEE

8. The Applicant shall establish and operate a Community Consultative Committee (CCC) for the development in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and to the satisfaction of the Secretary. This CCC must be operating by 30 September 2015.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this approval; and*
- *In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council and the local community.*

REVISION OF STRATEGIES, PLANS AND PROGRAMS

9. Within 3 months of a modification to this consent or following the submission of an:
 - (a) annual review under condition 5 above;
 - (b) incident report under condition 10 below; or
 - (c) audit report under condition 6 above,
 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 that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve the environmental performance of the development.

REPORTING

Incident Reporting

10. The Applicant shall immediately notify the Secretary and any other relevant agencies of any 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.

Regular Reporting

11. The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

ACCESS TO INFORMATION

12. From 30 September 2016 and for the duration of the development, the Applicant shall:
 - (a) make copies of the following publicly available on its website:
 - the EIS;
 - current statutory approvals for the development;
 - approved strategies, plans and programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a complaints register, which is to be updated monthly;
 - minutes of CCC meetings;
 - the annual reviews of the development (for the last 5 years);
 - any independent environmental audit of the development, 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.

APPENDIX 1 GENERAL SITE LAYOUT

