

**DETERMINATION OF TWO DEVELOPMENT APPLICATIONS
FOR STATE SIGNIFICANT, INTEGRATED DEVELOPMENT
UNDER SECTION 80 OF THE
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979**

I, the Minister for Infrastructure and Planning, under Section 80 of the *Environmental Planning and Assessment Act 1979* ("the Act"), determine the development applications ("the Applications") referred to in Schedule 1 by granting consent subject to the conditions set out in Schedule 2.

The reasons for the imposition of conditions are to:

- a) minimise any adverse environmental impacts associated with the development;
- b) provide environmental criteria which define acceptable levels of performance;
- c) provide for environmental monitoring, reporting, and independent review; and
- d) ensure consistency of the development with the existing development consent applying to the site.

Diane Beamer MP
**Minister for Assisting the Minister for
Infrastructure and Planning (Planning
Administration)**

Sydney,

2003

File No. W92/00173

SCHEDULE 1

Development Applications:	DA No. 264/01, lodged with Kiama Municipal Council on 18 July 2001, and DA 01/2536, lodged with Shoalhaven City Council on 18 July 2001, both called in by the Minister for Planning under section 88A of the <i>Environmental Planning and Assessment Act 1979</i> on 19 December 2001;
Applicant:	Cleary Bros (Bombo) Pty Ltd ("the Applicant");
Consent Authority:	The Minister for Infrastructure and Planning;
Land:	Lot A DP 185785, and Land in Certificate of Title Vol 5841 Fol 139;
Proposed Development:	The extension of an extractive industry operation and the continued use of an existing central

processing plant, sales area, stockpile storage area, and office.

State Significant Development

The proposed development is within a class of development classified as State Significant development by virtue of two directions made by the Minister on 19 December 2001 under section 88A of the *Environmental Planning and Assessment Act*;

Integrated Development

The proposed development requires additional approvals from the National Parks and Wildlife Service under the *National Parks and Wildlife Act 1974*, and Shoalhaven City Council under the *Roads Act 1993*. Consequently it is classified as integrated development under section 91 of the *Environmental Planning and Assessment Act 1979*.

Non - Designated Development

The proposed development is an alteration and addition to an existing designated development and is not considered to be designated development under Part 2, Schedule 3 of the *Environmental Planning and Assessment Regulation 2000*.

BCA Classification:

This consent does not provide for construction of any buildings or structures.

Note: If the Applicant is dissatisfied with this determination, section 97 of the Act grants it a right of appeal to the Land and Environment Court, which is exercisable within 12 months of receiving notice of this determination. To determine the date from which this consent operates refer to section 83 of the Act. To determine the date upon which this consent may lapse refer to section 95(1) of the Act.

KEY TO CONDITIONS

1. GENERAL	5
Obligation to Minimise Harm to the Environment	5
Scope of Development	5
Relationship with Existing Consent	5
Period of Approval	5
Limits on Production	5
Provision of Documents	6
Dispute Resolution	6
Rehabilitation Bond	6
2. COMPLIANCE	8
3. ENVIRONMENTAL PERFORMANCE	9
Limit of Extraction Area	9
Air Quality	9
Soil and Land Management	10
Water and Flooding	10
Traffic and Transport	11
Noise	12
Impacts on Flora and Fauna	13
Indigenous Heritage	13
Waste Management Impacts	13
Section 94 Contributions	13
4. ENVIRONMENTAL MONITORING AND AUDITING	15
General Monitoring Requirements	15
Meteorological Monitoring	15
Air Quality Monitoring	15
Noise Monitoring	16
Water Monitoring	16
Sand Product Quality Control – Acid Sulphate Soils	16
Independent Auditing	16
5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT	18
Complaints Procedure	18
Community Consultative Committee	18
6. ENVIRONMENTAL MANAGEMENT	20
Environmental Officer	20
Quarry Environmental Management Plan (QEMP)	20
7. ENVIRONMENTAL REPORTING	23
Incident Reporting	23
Annual Performance Reporting	23

SCHEDULE 2

In this consent, the following terms have the meanings indicated:

Act	<i>Environmental Planning and Assessment Act, 1979</i>
AEMR	Annual Environmental Management Report
Applicant	Cleary Bros (Bombo) Pty Ltd
BCA	Building Code of Australia
DA	Development Application
Department	NSW Department of Infrastructure, Planning, and Natural Resources
Director-General	Director-General of the NSW Department of Infrastructure, Planning, and Natural Resources, or her delegate
dust	any solid material that may become suspended in air or deposited
EPA	NSW Environment Protection Authority
Existing quarry	the existing extraction area, processing plant, raw material and product stockpile areas, offices and amenities, and environmental controls currently operating under development consent 11/89.
Existing consent	consent 11/89 awarded by the Land and Environment Court on 14 December 1990, as modified.
GTA	General Term of Approval
KMC	Kiama Municipal Council
Minister	Minister for Infrastructure and Planning, or his delegate
NPWS	NSW National Parks and Wildlife Service
operation/s	any activity that results in the production, or intended production, of quantities of quarry products to be transported off site including clearing, stripping, sand extraction and processing, and overburden emplacement on the quarry extension site.
POEO Act	<i>Protection of the Environment Operations Act, 1997</i>
QEMP	Quarry Environmental Management Plan
Quarry extension	Stripping and sand extraction on the proposed extension site as shown in Figure 2.3 of the amended SEE, and processing, overburden emplacement, haul roads, water management, offices, and associated infrastructure on the existing quarry site.
Regulation	<i>Environmental Planning and Assessment Regulation, 2000</i>
RTA	NSW Roads and Traffic Authority
Site, project site	the land to which this consent applies
SCC	Shoalhaven City Council
SEE	Statement of Environmental Effects, as amended, dated January 2003.

1. GENERAL

Obligation to Minimise Harm to the Environment

1.1 The Applicant shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction and operation of the quarry extension, and rehabilitation of the project site.

Scope of Development

1.2 The Applicant shall carry out the development in accordance with:

- a) development application No. 264/01, lodged with Kiama Municipal Council in July 2001;
- b) development application No. 01/2536, lodged with Shoalhaven City Council in July 2001
- c) *Gerroa Sand Resource – Continuation of Extraction from Southern Extraction Area - Statement of Environmental Effects for Cleary Bros (Bombo) Pty Ltd* (one volume), dated May 2001 and prepared by Davron Engineering;
- d) *Gerroa Sand Resource – Continuation of Extraction, Amended Statement of Environmental Effects for Cleary Bros (Bombo) Pty Ltd*, dated January 2003 and prepared by Perram and Partners;
- e) correspondence from Perram and Partners to the Department dated 21 February 2003 relating to SEPP71;
- f) correspondence from Perram and Partners to the Department dated 18 March 2003 relating to submissions;
- g) correspondence from Perram and Partners to the Department dated 4 April 2003 relating to Aboriginal heritage, noise, and other additional information;
- h) email correspondence from Perram and Partners to the Department dated 4 July 2003 relating to noise impacts; and,
- i) the conditions of this consent.

1.3 In the event of an inconsistency between:

- a) the conditions of this consent and any document listed from condition 1.2a) to 1.2h) inclusive, the conditions of this consent shall prevail to the extent of the inconsistency; and
- b) any document listed from condition 1.2a) to 1.2h) inclusive, the most recent document shall prevail to the extent of the inconsistency.

Relationship with Existing Consent

1.4 The Applicant shall ensure that any EMPs, AEMRs, Quarry Method Statements, Quarry Environmental Management Plans, Biennial Quarry Reports and other documentation required by this consent and the existing consent are included in one document respectively.

Period of Approval

1.5 This consent provides approval for a period of six (6) years from the date the consent operates for:

- a) sand extraction;
- b) continued use of existing processing facilities, haul roads, water management, offices, and associated infrastructure;
- c) transport of product from the site, and,
- d) cessation of extraction operations, decommissioning of equipment, and rehabilitation and revegetation of the site.

Limits on Production

1.6 The Applicant shall ensure that the combined production of quarry products from the existing quarry and the quarry extension shall not exceed 80,000 tonnes per annum.

- 1.7 The Applicant shall provide annual production data to the Department of Mineral Resources using the standard form for that purpose.

Provision of Documents

- 1.8 The Applicant shall make the following documents available to the public upon request at the quarry site, KMC, and SCC, and shall post all documents on the internet, within 14 days of approval of the documents by the Director-General or relevant agency:
- a) this consent and the existing consent;
 - b) any licences or approvals for the quarry obtained from Government agencies; and
 - c) all documents required under this consent, including the QEMP, AEMRs, and Independent Audits.
- 1.9 The Applicant shall ensure the address of the quarry internet site is publicised and freely available.

Dispute Resolution

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

Note: Section 121 of the *Environmental Planning and Assessment Act 1979* provides mechanisms for resolution of disputes between the Department, the Director-General, councils and public authorities.

Rehabilitation Bond

- 1.11 Prior to commencement of operations on the quarry extension site, the Applicant shall provide a Rehabilitation Bond in the sum of \$100,000 in the form of an insurance bond or bank guarantee acceptable to the Director-General 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 \$2.00 per square metre for a maximum exposed area of 5 ha, including dredge pond banks, at completion of extraction of the quarry extension area. Should progressive AEMRs or Independent Environmental Audits determine that the exposed, non-rehabilitated, area on the site is greater than 5 ha, the Director-General may direct the Applicant to increase the value of the Rehabilitation Bond at the rate of \$2.00 per square metre.

The Director-General 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 Director-General's opinion, the Applicant has failed to make satisfactory progress on the rehabilitation and landscaping of the site. The Director-General shall apply the monies to ensure that the actions specified in the documents listed in condition 1.2 and/or any approved Quarry Environmental Management Plan are achieved.

The Rehabilitation Bond will be released when the Applicant submits documentation prepared by a qualified landscape and rehabilitation consultant certifying that the

final rehabilitation has been completed in accordance with the conditions of this consent and/or any approved Quarry Environmental Management Plan to the satisfaction of the Director-General.

2. COMPLIANCE

- 2.1 The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.
- 2.2 Prior to commencement of operations on the quarry extension site and at any other time required by the Director-General, the Applicant shall commission an independent person(s) or organisation(s), approved by the Director-General, to certify in writing to the satisfaction of the Director-General, that the Applicant has complied with all conditions of this consent applicable prior to that event.
- 2.4 If at any time, the Director-General is made aware of the occurrence of any adverse environmental impacts from the proposal, the Director-General may order the Applicant to modify or cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Director-General.

3. ENVIRONMENTAL PERFORMANCE

Limit of Extraction Area

- 3.1 Prior to commencement of operations on the quarry extension site, the Applicant shall engage a qualified ecologist or botanist and a registered surveyor to mark out the limits of the extraction area generally in accordance with the limits shown in figure 2.3 of the amended SEE dated January 2003. Specifically, the limit of extraction area shall be located:
- a) entirely outside the area of high conservation value referred to in clauses 37 and 38 of Kiama LEP 1996; and,
 - b) not less than 5m from the root ball of any tree or shrub on the site, as determined by the ecologist or botanist.
- 3.2 The Applicant shall submit a survey plan of the extraction limit to the Director-General for approval at least one month prior to the commencement of operations on the quarry extension site.
- 3.3 The Applicant shall fence the approved surveyed boundary to prevent extraction beyond the limit. Where the flood bund (condition 3.20) coincides with the extraction limit no fence is required.
- 3.4 The Applicant shall ensure that no works or operations on the quarry extension site occur until the approved boundary has been fenced or bunded.
- 3.5 The Applicant shall ensure that no clearing of vegetation is carried out on the site.

Air Quality

Impact Assessment Criteria

- 3.6 The Applicant shall ensure that air pollution generated by the development does not exceed the criteria listed in Table 1 at any privately owned land.

Table 1 Long term impact assessment criteria 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

Note: dust is assessed as insoluble solids as defined by AS 3580.10.1-1991 (AM-19)

Operating conditions

- 3.7 The Applicant shall ensure that the site is maintained in a condition which prevents and/or minimises the emission of air pollution from the site, including the prompt and effective rehabilitation of all disturbed areas.
- 3.8 The Applicant shall ensure that all vehicles entering or leaving the site, carrying a load that may generate air pollution, are covered to prevent air pollution at all times, except during loading and unloading.
- 3.9 The Applicant shall implement air pollution control measures on the following areas at the site:
- a) all processing equipment;
 - b) internal haul roads and disturbed areas;
 - c) truck loading areas; and,

- d) all stockpiles including raw material, product, topsoil, and overburden.

Soil and Land Management

- 3.10 The Applicant shall ensure that any topsoil removed during operations is stockpiled for use in the rehabilitation of the site.
- 3.11 The Applicant shall ensure that topsoil is not mixed with other overburden material.
- 3.12 The Applicant shall ensure that all practicable measures are taken to prevent and/or minimise erosion from topsoil stockpiles.
- 3.13 The Applicant shall ensure that topsoil stockpiles are sown with appropriate vegetation to stabilise the soil if the topsoil is stored for longer than six months.
- 3.14 The Applicant shall display warning signs on the perimeter fence of the quarry site facing public roads at 50m intervals.
- 3.15 The Applicant shall conduct operations so as not to interfere with or impair the stability or efficiency of any existing utility services in the locality.
- 3.16 The Applicant shall ensure the final batters on the site do not exceed a 1 in 3 gradient (18°).
- 3.17 Upon completion of quarrying, the Applicant shall decommission and remove all plant and equipment from the site, including all infrastructure, power lines and pipelines not required for rural purposes, and complete rehabilitation of the site.
- 3.18 The Applicant shall rehabilitate and revegetate disturbed areas on the site, including the foreshore area of the dredge pond, flood bunds, the current processing area, the site access road, and all cleared areas, using native vegetation.

Water and Flooding

Pollution of waters

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

Surface Water and Flooding

- 3.20 The Applicant shall install and maintain a continuous flood bund to AHD 3.2m around the existing extraction area and the quarry extension area.
- 3.21 The Applicant must take all practical measures to prevent wet weather discharges of total suspended solids from the site.
- 3.22 The Applicant shall take all practicable measures to prevent material being tracked on roads from vehicles which leave the site.

Groundwater

- 3.23 The Applicant shall maintain the existing groundwater monitoring bores throughout the life of the development.

- 3.24 The Applicant shall ensure that maintenance and equipment refuelling operations are carried out in the designated workshop and refuelling areas on the existing quarry site.
- 3.25 The Applicant shall ensure that all plant and equipment on the site is maintained and operated in a proper and efficient manner at all times.

Bunding and Spill Management

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

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

Traffic and Transport

- 3.27 The Applicant shall ensure that all vehicles and machinery enter and exit the site via the existing access roadway off Berry Beach Road.
- 3.28 The Applicant shall ensure that the only route for the movement of trucks in a southerly direction towards Nowra or Berry is along Berry Beach Rd and the Princes Highway.
- 3.29 The Applicant shall ensure that no trucks, either entering or leaving the quarry site, travel along Seven Mile Beach Rd south of its intersection with Berry Beach Rd, except where the destination of the truck lies along or adjacent to it.
- 3.30 The Applicant shall ensure that trucks, approaching from, or leaving the sand mine in, a northerly direction only use Berry Beach Road to its intersection with Crooked River Road, then Crooked River Road to Fern Street, Fern Street to Belinda Street, Belinda Street to the Princes Highway, and the Princes Highway.
- 3.31 The Applicant shall ensure that truck movements to or from the quarry site occur only between the hours of 7.00am and 6.00pm Mondays to Fridays and 7.00am and 1.00pm on Saturdays.
- 3.32 The Applicant shall be responsible for ensuring that these transportation conditions are understood and met by all persons transporting any material from the quarry site.
- 3.33 Prior to the commencement of extraction on the quarry extension site, the Applicant shall upgrade the intersection of the quarry access road and Berry Beach Road to "BAL/BAR" (basic turn left, basic turn right) configuration and seal the access road within the road reserve of Berry Beach Road.
- 3.34 ¹The Applicant shall ensure that all works undertaken within or leading from a public road under the control of SCC shall be provided with traffic control in accordance with AS1742.3. The traffic control is to be in place and maintained during the construction of the works. A traffic control plan is to be approved by SCC or an accredited certifier prior to the commencement of works.

¹ Incorporates SCC General Term of Approval

- 3.35 ²Prior to commencement of any works within the road reserve, the Applicant shall submit engineering plans and specifications for the roadworks required by this consent for examination and approval by the Subdivision and Development Manager of SCC. Such plans will include a traffic control plan where the proposed works are contained in an existing public road. The plan shall be in accordance with Australian Standard 1742.3. It will be the Applicant's responsibility to check and ensure that the proposed works are not affected by Council's, Integral Energy and/or Telstra/Optus services. Any required alterations to services will be at the Applicant's expense. Specifications for road and drainage works shall be as specified under Section 9 of SCC's Subdivision Code and this will be the standard for construction works required. The works are to be supervised by a suitably qualified, experienced person, approved by SCC. Works-as-executed plans shall be submitted for engineering works to be constructed within this approval prior to the release of the plan of survey.

Noise

Impact Assessment Criteria

- 3.36 The Applicant shall ensure that noise generated by the development does not exceed an $L_{Aeq}(15 \text{ minute})$ noise limit of 40 dB(A) at any privately owned land.

Noise Limit Interpretation and Measurement

- 3.37 The noise limits specified in this consent apply under:
- a) wind speeds up to 3 ms^{-1} at 10 metres above ground level; and
 - b) temperature inversion conditions up to 3°C per 100 metres.
- 3.38 Noise generated by the development shall be:
- a) measured at the most affected point on or within the receptor site boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary; and
 - b) subject to the modification factors provided in Section 4 of the *New South Wales Industrial Noise Policy* (EPA, 2000).
- 3.39 Should direct measurement of noise generated by the development be impractical, the Applicant may employ an alternative noise assessment method in consultation with the EPA and to the satisfaction of the Director-General.

Hours of Operation

- 3.40 The Applicant shall not operate the quarry outside the hours 7am to 6pm Monday to Friday, and 7am to 1pm Saturday.

Operational Noise – Management of Operations

- 3.41 The Applicant shall construct and maintain a noise bund or acoustic barrier around any stationary plant and equipment and the stockpile area to achieve a noise reduction of at least 5 dB(A) at the most affected residence and ensure compliance with condition 3.36. This bund or barrier must be completed before commencement of extraction in the quarry extension area.
- 3.42 In the event that noise monitoring determines that the development cannot comply with the noise limit in this consent, the Applicant shall implement noise mitigation works included in section 7 of the Environmental Noise Impact Assessment by Renzo Tonin and Associates P/L in the SEE.

² Incorporates SCC General Term of Approval

Impacts on Flora and Fauna

- 3.43 The Applicant shall ensure that all natural bushland directly adjoining the site and bushland to be conserved within the development site, is not damaged or disturbed by its operations.
- 3.44 The Applicant shall ensure that native bush regeneration and habitat reconstruction techniques are used to rehabilitate the site in accordance with condition 3.18 and the QEMP. The specialised techniques shall be carried out under the direction of a qualified Plant Ecologist and shall include the re-use of stored topsoil that has not been contaminated with exotic grasses or weed species and the collection and propagation of species from the site, particularly the *Sydney Coastal Estuary Swamp Forest in the Sydney Basin Bioregion* endangered ecological community.

Indigenous Heritage

- 3.45 ³The Applicant shall consult with the Jerrinja Local Aboriginal Land Council and establish an agreement for monitoring for Aboriginal cultural heritage during all stripping operations on the quarry extension site, including the existing processing area.
- 3.46 ⁴If, during the course of any activities conducted under this consent the Applicant becomes aware of any objects of Aboriginal cultural heritage, particularly skeletal remains, not previously identified, all work likely to affect the objects shall cease immediately. The Applicant shall then consult with the NPWS and the Jerrinja Local Aboriginal Land Council and decide on an appropriate course of action prior to recommencement of work. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.

Waste Management Impacts

- 3.47 The Applicant shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing or disposal, or any waste generated at the site to be disposed of at the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*. This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the site if it requires an Environment Protection Licence under the *Protection of the Environment Operations Act 1997*.
- 3.48 The Applicant shall ensure that any waste generated at the development shall only be transported to an EPA-approved waste management facility for treatment, recycling and/ or disposal, where relevant.

Section 94 Contributions

- 3.49 The Applicant shall pay or procure payment to Kiama Council of a contribution under Section 94 of the *Environmental Planning and Assessment Act, 1979* at the rate of thirty nine and a half (39.5) cents per tonne of all material transported from the quarry area and exiting into Berry Beach Road. The contribution will be calculated and paid twelve-monthly from the date on which the consent becomes effective. The contribution shall be indexed and adjusted annually in accordance with the NSW Roads & Traffic Authority *Cost Rise Index* applicable to each year ending 30th June. Indexing of the contribution for the succeeding year shall take effect from 1st July in each year, commencing 1st July 2003. On or before the 30th of January for the duration of the consent the quarry operator shall provide Kiama Council with a certified copy of weighbridge or other records showing the true

³ Incorporates NPWS General Term of Approval

⁴ Incorporates NPWS General Term of Approval

quantities of material transported from the premises during the immediately preceding twelve months. Kiama Council shall forthwith issue to the quarry operator an invoice for the contribution sum payable, which the quarry operator shall pay to that Council within fourteen (14) days of the date thereof. No contribution shall be paid under this condition while the Applicant is required to pay a Section 94 contribution to Kiama Council under the existing consent for the quarry.

- 3.50 The Applicant shall pay or procure payment to Shoalhaven City Council of a contribution under Section 94 of the *Environmental Planning and Assessment Act, 1979* at the rate of thirty (30) cents per tonne of all material transported from the quarry area and exiting into Berry Beach Road. The contribution will be calculated and paid twelve-monthly from the date on which the consent becomes effective. The contribution shall be indexed and adjusted annually in accordance with the NSW Roads & Traffic Authority *Cost Rise Index* applicable to each year ending 30th June. Indexing of the contribution for the succeeding year shall take effect from 1st July in each year, commencing 1st July 2003. On or before the 30th of January for the duration of the consent the quarry operator shall provide Shoalhaven City Council with a certified copy of weighbridge or other records showing the true quantities of material transported from the premises during the immediately preceding twelve months. Shoalhaven City Council shall forthwith issue to the quarry operator an invoice for the contribution sum payable, which the quarry operator shall pay to that Council within fourteen (14) days of the date thereof. No contribution shall be paid under this condition while the Applicant is required to pay a Section 94 contribution to Shoalhaven City Council under the existing consent for the quarry.

4. ENVIRONMENTAL MONITORING AND AUDITING

General Monitoring Requirements

4.1 The Applicant shall ensure that the results of all monitoring required under this consent shall be

- a) in a legible form, or in a form that can readily reduced to a legible form;
- b) kept for at least four years after the monitoring or event to which the results relate took place; and
- c) produced in a legible form to any authorised officer of the EPA or the Director-General, upon request; and
- d) kept with the following details for each sample required to be collected:
 - i) the date(s) on which the sample was collected;
 - ii) the time(s) at which the sample was collected;
 - iii) the point at which the sample was collected; and
 - iv) the name of the person who collected the sample.

Meteorological Monitoring

4.2 The Applicant shall monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The applicant must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns:

Parameter	Units of measure	Averaging Period	Frequency	Method ¹
Lapse rate	°C/100m	1 hour	Continuous	Note ²
Rainfall	mm/hr	1-hour	Continuous	AM-4
Sigma Theta @ 10 m	°	1-hour	Continuous	AM-2
Siting	-	-	-	AM-1
Temperature @ 2 m	K	1-hour	Continuous	AM-4
Temperature @ 10 m	K	1 hour	Continuous	AM-4
Wind Direction @ 10 m	°	1-hour	Continuous	AM-2
Wind Speed @ 10 m	m/s	1-hour	Continuous	AM-2

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

² The Applicant shall calculate lapse rate from measurements made at 2m and 10m.

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

Air Quality Monitoring

4.3 The Applicant shall establish a network of monitoring points for air quality at locations approved by the Director-General and the EPA and in accordance with EPA Sampling Method AM-1. At each monitoring point the Applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1 of the table below. The Applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Air			
Pollutant	Units of measure	Frequency	Sampling Method ¹
Particulate Matter (deposited matter)	g/m ² /month	continuous	AM-19

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

Noise Monitoring

- 4.4 The Applicant shall undertake noise monitoring within 3 months of commencement of operations on the quarry extension site. The results of the noise monitoring must be submitted to the EPA and the Director-General in a report. The report must include a statement of whether compliance has been achieved with noise limits specified in this consent and any noise limits in the Environment Protection Licence for the quarry. Noise monitoring shall seek to coincide with worst case operating scenarios for noise generation and adverse weather conditions.

Water Monitoring

- 4.5 The Applicant shall monitor groundwater levels and water quality in the monitoring bores in and around the quarry site, and in the dredge pond, monthly and following any periods of extreme wet weather. Water quality monitoring shall include, as a minimum, conductivity and pH. In the event that acid sulphate material is detected in monitoring undertaken under condition 4.8, the Director-General may require additional water quality parameters to be monitored. Results of groundwater monitoring shall be reported in the AEMR.
- 4.6 The Applicant shall monitor surface water discharges from the site in accordance with the EPL for the quarry.
- 4.7 The Applicant shall record maximum levels of any flood event and any impacts or characteristics of the flood event.

Sand Product Quality Control – Acid Sulphate Soils

- 4.8 The Applicant shall undertake a random sampling and monitoring program of the washed sand product from the quarry to determine the effectiveness of the removal of any acid sulphate material from the sand product. If the sampling of the washed sand product indicates that the Total Oxidisable Sulphur level is greater than 0.03%, the Applicant shall develop procedures to improve the performance of sand washing and initiate daily monitoring of Total Oxidisable Sulphur until such time as it can be demonstrated, to the satisfaction of the Director-General, that random samples of the washed sand contain Total Oxidisable Sulphur levels of less than 0.03%. The Applicant shall submit a report detailing the results of the monitoring program and any actions taken to the Director-General for approval within six months of the date of this consent. After reviewing the report, the Director-General may require on-going monitoring of acid sulphate removal performance, and/or the preparation of an acid sulphate soils management plan in accordance with the *Acid Sulphate Soils Assessment and Management Guidelines*.

Independent Auditing

- 4.9 The Applicant shall commission an independent person(s) to undertake an Environmental Audit of the entire quarry at the following stages of the development:
- i) One year after the date of this consent;
 - ii) Three years after the date of this consent;
 - iii) at the end of the period of approval set out in condition 1.5; and,
- as otherwise required by the Director-General.

The independent person(s) shall be approved by the Director-General prior to the commencement of the Audit. An **Environmental Audit Report** shall be submitted to the Director-General, DLWC, EPA, NPWS, RTA, KMC, and SCC within one month of the completion of the Audit. The Audit shall:

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

The Director-General may, having considered any submission made by DLWC, the EPA, NPWS, the RTA, KMC or SCC in response to the Environmental Audit Report, require the Applicant to undertake works to address the findings or recommendations presented in the Report. Any such works shall be completed within such time as the Director-General may require. The Applicant shall make the Environmental Audit Report available for public inspection on request. The Director-General may make the Environmental Audit Report available on the Department's internet site.

- 4.10 The Applicant shall provide a compliance report(s) to the Director-General detailing the implementation of the recommendations of the Environmental Audit Report. The compliance report(s) shall be submitted to the Director-General within such time, and at such frequency, as the Director-General may require. The Applicant shall make the compliance report(s) available for public inspection.

5. COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT

Complaints Procedure

5.1 Throughout the life of the development, the Applicant shall ensure that the following are available for community complaints:

- a) a telephone number on which complaints about the development may be registered;
- b) a postal address to which written complaints may be sent; and
- c) an email address to which electronic complaints may be transmitted.

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

5.2 The Applicant shall record details of all complaints received through the means listed under condition 5.1 of this consent in a Complaints Register. The Register shall record, but not necessarily be limited to:

- a) the date and time, where relevant, of the complaint;
- b) the means by which the complaint was made (telephone, mail or email);
- c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect;
- d) the nature of the complaint;
- e) any action(s) taken by the Applicant in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the EPA or the Director-General upon request. The Applicant shall also make summaries of the Register, without details of the complainants, available for public inspection.

Community Consultative Committee

5.3 The Applicant shall establish a Community Consultative Committee (CCC) to oversee the environmental performance of the development. This committee shall:

- (a) Be comprised of :
 - an independent chairperson nominated by the Director-General in consultation with the Council, and agreed to by the Applicant;
 - Representatives of both SCC and KMC;
 - Two representatives from the Applicant, including the Environmental Officer;
 - One representative of the Gerroa Environmental Protection Society (GEPS);
 - Two representatives from the local community;whose appointment has been approved by the Director-General in consultation with KMC and SCC;
- (b) Meet at least once every six months; and
- (c) Review and provide advice on the environmental performance of the development, including the Quarry Environmental Management Plan, monitoring results, audit reports, compliance reports, AEMR's or complaints.

5.4 Representatives from the Department may attend CCC meetings. Representatives from relevant government agencies, the local community, the local Aboriginal

community, or other individuals may be invited to attend meetings as required by the Chairperson.

5.5 The Applicant shall, at its own expense:

- (a) Ensure that 2 of its representatives attend all the Committee's meetings;
- (b) Provide the Committee with regular information on the environmental performance and management of the development;
- (c) Provide meeting facilities for the Committee;
- (d) Meet all reasonable costs associated with operating the Committee;
- (e) Allow the Committee to inspect the site, if necessary;
- (f) Take minutes of the Committee's meetings;
- (g) Make these minutes available for public inspection at KMC and SCC within 14 days of the Committee meeting, or as agreed by the Committee;
- (h) Respond to any recommendations the Committee may have in relation to the environmental performance of the development;
- (i) Forward a copy of the minutes of each Committee meeting verified by the chairperson, and any responses to the Committee's recommendations to the Director-General within 14 days of the Committee meeting.

5.6 The Applicant shall ensure that the CCC has its first meeting prior to the commencement of operations on the quarry extension site. Any documents submitted under this consent for the Director-General's approval, or already approved by the Director-General, at the time of the first meeting shall be considered by the CCC at that meeting. The Director-General may require modifications to such documents based on the recommendations of the CCC.

6. ENVIRONMENTAL MANAGEMENT

Environmental Officer

- 6.1 Within 3 months of the operation of this consent, the Applicant shall nominate a suitably qualified and experienced Environmental Officer(s), approved by the Director-General. The Applicant shall employ an Environmental Officer(s) on a full-time basis throughout the life of the development. The Environmental Officer(s) shall be:
- a) the primary contact point for the Department, the EPA, DLWC, the RTA, NPWS, Council and the community, as applicable, in relation to the environmental performance of the development;
 - b) responsible for the QEMP and monitoring programs required under this consent;
 - c) responsible for considering and advising on matters specified in the conditions of this consent, and all other licences and approvals related to the environmental performance and impacts of the development;
 - d) responsible for receiving and responding to complaints in accordance with condition 5.1 of this consent; and
 - e) given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.

The Applicant shall notify the Director-General, EPA, DLWC, RTA, NPWS and Council of the name and contact details of the Environmental Officer upon appointment, and any changes to that appointment that may occur from time to time.

Note: the Environmental Officer(s) need not necessarily be limited to environmental management duties and may be any employee with appropriate qualifications.

Quarry Environmental Management Plan (QEMP)

- 6.2 The Applicant shall prepare and implement a **Quarry Environmental Management Plan** (QEMP) to detail an environmental management framework, practices and procedures to be followed during the operation of the development. The QEMP shall cover operations on both the existing quarry site and the quarry extension and shall be consistent with the Quarry Method Statement and Quarry Management Plan required under the existing consent. The Plan shall include, but not necessarily be limited to:
- a) demonstration of consistency with commitments made in documents listed in condition 1.2 and compliance with the conditions of this consent and the existing consent;
 - b) identification of all statutory and other obligations that the Applicant is required to fulfil in relation to operation of the development, including all consents, licences, approvals and consultations;
 - c) a description of the roles and responsibilities for all relevant employees involved in the operation of the development;
 - d) overall environmental policies and principles to be applied to the operation of the development;
 - e) standards and performance measures to be applied to the development, and a means by which environmental performance can be periodically reviewed and improved;
 - f) management policies to ensure that environmental performance goals are met and to comply with the conditions of this consent;

- g) measures to minimise impacts from the development on local air quality including procedures for management and minimisation of dust emissions during operations on site, and monitoring of air quality;
- h) measures to minimise erosion during site preparation and operation, including details of erosion, sediment and pollution control measures and practices to be implemented;
- i) measures to minimise noise impacts during the operation of the development, including a program to investigate additional noise mitigation measures for the development if it is determined that noise criteria in this consent are being exceeded;
- j) measures to control and manage surface water, stormwater and groundwater on the site, including details of a program for water and flood monitoring;
- k) measures to minimise the production and impact of waste produced at the development during operation, through the implementation of waste reduction, reuse and recycling principles;
- l) measures for bushfire protection at the site, developed in consultation with KMC, SCC, and relevant emergency services. The measures shall be consistent with any bushfire management plan for the nearby Seven Mile Beach National Park;
- m) procedures to be followed to ensure the protection and conservation of Aboriginal cultural heritage;
- n) the specific items listed under condition 6.3 of this consent; and,
- o) the environmental monitoring requirements in this consent.

The QEMP shall be submitted for the approval of the Director-General no later than one month prior to the commencement of extraction in the quarry extension area, or within such period otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall supply a copy of the QEMP to KMC, SCC, the EPA, the RTA, NPWS and DLWC as soon as practicable. The Applicant shall make the QEMP available for public inspection.

6.3 The QEMP for the development, required under condition 6.2 of this consent, shall include the following specific items:

- a) a **Rehabilitation and Landscape Plan** to detail the proposed final landuse and landform for the site and measures to be undertaken to create that landform and vegetation cover. The Plan shall address the requirements of KMC, SCC, NPWS, and DLWC. The Plan shall include:
 - i) details of all landscaping to be undertaken on the site;
 - ii) strategies for maximisation of flora species endemic to the locality in landscaping the site;
 - iii) plans and cross-sections to scale, showing the proposed final landform, demonstrating that it integrates with the surrounding terrain. The final landform shall be integrated across the entire site and adjoining land;
 - iv) site analysis used to determine compatible contours, shape, form, landscape features and quality of the final landform, including the identification of conservation areas;
 - v) details of weed control, revegetation, and habitat construction works to be undertaken in the Swamp Mahogany/Swamp Oak Forest area and disturbed areas on the site;
 - vi) details of measures to ensure a sustainable water management system is created in the final landform on the site; and,
 - vii) a schedule of works and associated time period for the rehabilitation of each disturbed and/or exposed extraction area or

- strip with the aim to restore vegetative covers and habitat at the earliest possible opportunity;
 - viii) procedures for feral animal control;
 - ix) details of any backfilling works, including source of materials and the grades and stability of all batters. Certification is to be provided by appropriately qualified engineers regarding the stability of all designed batters;
- b) a **Transport Code of Conduct** to outline minimum requirements for the movement of heavy vehicles to and from the site. The Code shall include:
- i) restrictions to routes in this consent and the existing consent;
 - ii) speed limits to be observed within certain periods along routes to and from the site;
 - iii) restrictions to the hours of transport operations under this consent;
 - iv) minimum requirements for vehicle maintenance to address noise and exhaust emissions;
 - v) behavioural requirements for drivers; and
 - vi) load coverage requirements.

7. ENVIRONMENTAL REPORTING

Incident Reporting

- 7.1 The Applicant shall notify the EPA and the Director-General of any incident with the potential for adverse off-site impacts on people or the environment as soon as practicable after the occurrence of the incident. The Applicant shall provide written details of the incident to the EPA and the Director-General within seven days of the date on which the incident occurred.

Annual Performance Reporting

- 7.2 The Applicant shall, throughout the life of the development, prepare and submit for the approval of the Director-General, an **Annual Environmental Management Report** (AEMR). The AEMR shall be prepared by an independent, qualified person(s), approved by the Director-General. The AEMR shall also serve as the Biennial Quarry report required under the existing consent. The AEMR shall review the performance of the development against the SEE, Quarry Environmental Management Plan, the conditions of this consent and other licences and approvals relating to the development. The AEMR shall include, but not necessarily be limited to:

- a) details of compliance with the conditions of this consent;
- b) a copy of the Complaints Register for the preceding twelve-month period (exclusive of personal details), and details of how these complaints were address and resolved;
- c) a comparison of the environmental impacts and performance of the development against the environmental impacts and performance predicted in the SEE;
- d) results of all environmental monitoring required under this consent and other approvals, including interpretations and discussion by a suitably qualified person;
- e) a list of all occasions in the preceding twelve-month period when environmental performance goals for the development have not been achieved, indicating the reason for failure to meet the goals and the action taken to prevent recurrence of that type of incident;
- f) evaluation of the effectiveness of the environmental protection requirements and procedures in the QEMP and this consent;
- g) identification of trends in monitoring data over the life of the development to date;
- h) evaluation of the development against the principles of Ecologically Sustainable Development;
- i) a list of variations obtained to approvals applicable to the development and to the site during the preceding twelve-month period;
- j) environmental management targets and strategies for the following twelve-month period, taking into account identified trends in monitoring results; and,
- k) identify any modifications required to the QEMP.

The Applicant shall submit a copy of the AEMR to the Director-General, the EPA, DLWC, the RTA, NPWS, KMC, and SCC every year, with the first AEMR to be submitted no later than twelve months after the commencement of operation of this consent. The Applicant shall make the AEMR available for public inspection on request.
