

*Environmental Management Strategy*  
*for the*  
*Calga Sand Quarry*

Approved

*Prepared by:*



**R. W. CORKERY & CO. PTY. LIMITED**

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for the  
Calga Sand Quarry*

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**Prepared by:**

R.W. Corkery & Co. Pty. Limited  
Geological & Environmental Consultants  
75 Kite Street  
ORANGE NSW 2800

ABN: 31 002 033 712

Telephone: (02) 6362 5411  
Facsimile: (02) 6361 3622  
Email: RWC@cww.octec.org.au

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**On behalf of:**

Rocla Materials Pty Ltd  
Lot 151 Peats Ridge Road  
CALGA NSW 2250

ABN: 30 083 169 091

Telephone: 02 4375 1151  
Facsimile: 02 4375 1171  
Email: John.Gardiner@rocla.com.au

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**APPENDICES (at rear of document)**

- Appendix 1 Program for Implementation of the Development Conditions
- Appendix 2 Environmental Incident Report and Register Forms



## ACRONYMS USED THROUGHOUT THIS STRATEGY

AEMR	-	Annual Environmental Management Report
CCC	-	Community Consultative Committee
CCPA	-	Central Coast Plateau Areas
DEC (EPA)	-	Department of Environment and Conservation (Environment Protection Authority)
DNR	-	Department of Natural Resources
DoP	-	Department of Planning
DPI (MR)	-	Department of Primary Industries (Mineral Resources)
EIS	-	Environmental Impact Statement
EPL	-	Environment Protection Licence
ESD	-	Ecological Sustainable Development
GCC	-	Gosford City Council
LEP	-	Local Environmental Plan
RTA	-	Roads and Traffic Authority



## 1 INTRODUCTION

*Condition 5(1)* of Development Consent (DA 94-4-2004) for the Calga Sand Quarry requires Rocla Materials Pty Ltd, “the Company”, to prepare and implement an Environmental Management Strategy for the operation of the Calga Sand Quarry. This document presents the Environmental Management Strategy and, as such, outlines the following.

- The strategic context within which environmental aspects at the Calga Sand Quarry will be managed (Section 2).
- The environmental legislation under which the Calga Sand Quarry will be managed including relevant statutory requirements (Section 3).
- The approach to monitoring and reporting environmental performance (Section 4).
- External auditing (Section 5).
- Communications with the local community and Government Agencies (Section 6).
- Management of complaints, disputes, non compliances, cumulative impacts and emergencies (Sections 7 to 11).
- Details of the responsibility and accountability for environmental management at the Calga Sand Quarry (Section 12).
- A program for implementation of the development consent (DA 94-4-2004) (**Appendix 1**).

This document is supported by two appendices, one being the Company’s program for implementing the conditions of the development consent and the other being the forms used by the Company to record complaints / environmental incidents.

It is noted that for the purposes of the elapsed periods referred to in various conditions in the development consent, the date on which Development Consent DA 94-4-2004 became effective was **6 December 2005**.

## 2 STRATEGIC CONTEXT

The approach to environmental management of the Calga Sand Quarry will be largely drawn from the experience of the Company during the operation of the quarry until it ceased operations on 31 December 2004 together with the Company’s experience operating sand extraction projects throughout NSW and other states. Additionally, the various Management and/or Monitoring Plans prepared for this project, as required by the development consent, will provide the basis for environmental management of the quarry.

The Company’s NSW Operations Manager is ultimately responsible for the environmental management of the Calga Sand Quarry.



### 3 STATUTORY REQUIREMENTS

The Calga Sand Quarry will need to comply with the following statutory requirements.

#### ***Environmental Planning and Assessment Act 1979***

This Act predominantly refers to the assessment of all potential developments. An Environmental Impact Statement (EIS) was completed for the Calga Sand Quarry and Development Consent (DA 94-4-2004) granted by the Minister for Planning. The development consent required the preparation of various Environmental Management and/or Monitoring Plans/Programs namely:

- Environmental Management Strategy (this document);
- Noise Monitoring Program\*;
- Air Quality Monitoring Program\*;
- Water Management Plan\*;
- Environmental Monitoring Program\*;
- Groundwater Contingency Strategy
- Rehabilitation and Landscape Management Plan

Those marked \* were submitted to the Department of Planning prior to or concurrently with this strategy where as the remainder are yet to be submitted in accordance with the timetable specified in the development consent.

Where applicable, relevant consent conditions have been referenced within the various Environmental Management and/or Monitoring Plans/Programs. Additionally, a program of implementation for each condition of the development consent is included at the back of this strategy (**Appendix 1**).

#### ***Protection of Environment Operations Act 1997***

An Environment Protection Licence (EPL 11295) under the *Protection of Environment Operations Act 1997* exists for the Company's Calga Sand Quarry. EPL 11295 has been amended to reflect the recently approved quarry development. The additional conditions within EPL 11295 reflect the General Terms of Approval referred to throughout the Development Consent. The Department of Environment and Conservation General Terms of Approval are included in the development consent. The Company will comply with all conditions of this licence.

#### ***National Parks and Wildlife Act 1974***

No permits are required under this Act, however, in accordance with this Act, all employees and contractors at the Calga Sand Quarry will be made aware of their obligations for reporting and not interfering with any sites, artefacts or values of Aboriginal heritage significance identified during the course of operations. Given the previous extent of clearing and past land uses, it is unlikely that any such sites, artefacts or values will be identified.





***Native Vegetation Conservation Act 1997***

Clearing of vegetation can only be carried out in accordance with the Development Consent (DA 94-4-2004). Employees and contractors will be made aware that should clearing occur outside the area approved under DA 94-4-2004 occur, a stop work can be imposed by the Department of Natural Resources and a possible monetary penalty incurred.

***Soil Conservation Act 1938***

Under this Act, the Department of Natural Resources may prescribe measures of erosion and sediment control that must be adopted before a development can go ahead. Alternatively, an operation may be suspended following review of the site by DNR if it is determined that proper erosion and sediment controls are not implemented.

***Noxious Weeds Act 1993***

Section 15 of this Act requires that the local control authority (in this case, Gosford City Council) be advised of the presence of any notifiable weeds on the Quarry Site.

***Water Act 1912***

All four monitoring bores on the Quarry Site are licenced under this Act to allow the use of piezometers for groundwater monitoring. All bores used to monitor the performance of the Calga Sand Quarry would be licenced in accordance with this Act. Details of all licences would be included within the first Annual Environmental Management Report.

***Roads Act 1993***

Under this Act, the proposed line marking \*undertaken in accordance with *Condition 3(27)* needs to be undertaken to the satisfaction of the RTA.

**Gosford/Wyong Local Environmental Plans (LEP) 2001 – Central Coast Plateau Areas (Gosford/Wyong LEP 2001 – CCPA)**

This instrument is the controlling local planning instrument for the Quarry Site. The Gosford/Wyong LEP 2001 – CCPA provides an equitable balance in the use and management of natural resources on the Central Coast Plateau within the Local Government Areas of Gosford and Wyong. The plan permits an extractive industry to proceed on the Quarry Site, however, given the quarry development is State significant under the provisions of the *Environmental Planning and Assessment Act 1979*, that Act prevails in planning matters.

**NSW Biodiversity Strategy**

The Environmental Impact Statement prepared for the Calga Sand Quarry determined that its development and operation would be unlikely to have a significant impact on flora and fauna. The Company would abide by the principles of Ecological Sustainable Development (ESD) as required by the NSW Biodiversity Strategy. The operation will not impact on Cabbage Tree Creek downstream from the Quarry Site.



## 4 ENVIRONMENTAL PERFORMANCE MANAGEMENT, MONITORING AND REPORTING

### 4.1 Environmental Management Program

As discussed in Section 3, environmental management of the Calga Sand Quarry will be undertaken in accordance with a range of Environmental Management and/or Monitoring Plans/Programs required by the Development Consent (DA 94-4-2004). These individual plans are being progressively submitted to the Department of Planning in accordance with the timetable set out in the development consent. Ultimately, all documents would be assembled in one comprehensive document to guide the management of the operation in all respects. Each of the monitoring plans for noise, air quality and water incorporate the relevant operational performance criteria that the Company will need to satisfy throughout the life of the quarry. In addition to these performance criteria, the Company intends to operate the quarry without any sustainable complaints.

The Company will regularly review, and if necessary update, this program in consultation with the relevant government authorities and local community and report any changes within the relevant Annual Environmental Management Report (AEMR).

### 4.2 Annual Reporting

In accordance with *Condition 5(4)*, the Company will submit an AEMR to the:

- Department of Planning (DoP);
- Department of Environment and Conservation (Environment Protection Authority) (DEC (EPA));
- Department of Primary Industries (Mineral Resources) (DPI (MR));
- Roads and Traffic Authority (RTA);
- Department of Natural Resources (DNR);
- Gosford City Council (GCC); and
- The community representatives on the Community Consultative Committee.

The Company proposes to submit each AEMR for the period ending 6 December each year by no later than 31 January in the following year. It is envisaged that the AEMR would be the subject of a review by the Community Consultative Committee and relevant Government Agencies during the month of March following the submission of each AEMR.

Each AEMR will present an overview of the performance of the Calga Sand Quarry during the preceding 12 months and identify the proposed extraction, processing and rehabilitation activities and environmental management planned for the following 12 months. Each AEMR will address each of the items nominated in *Condition 5(4)*.

An Annual Return will also be submitted to the DEC (EPA) each year reporting on compliance with conditions and criteria contained within EPL 11295. The anniversary date for EPL 11295 is 24 July.



## 5 EXTERNAL AUDITING

### 5.1 Environmental Audit

*Condition 5(5)* requires an independent external audit of the operation within 3 years from the issue of development consent, hence for the period ending 6 December 2008 and every five years thereafter. The Company will nominate the name of the proposed auditor for the initial audit by 6 September 2008 to enable sufficient preparation time for the audit. A similar procedure will be followed for subsequent environmental audits unless the same auditor is to be commissioned, and is already approved by the Director-General.

Each audit will likely involve the following basic elements (in accordance with ISO 19011:2002).

- (i) Entry Meeting – where the outline of the audit objectives will be discussed with the Company management team.
- (ii) Document Review – where all Calga Sand Quarry documentation relating to monitoring, procedures, licences, consents and other environmental documentation is assessed against compliance criteria, ie. conditions of the development consent and EPL.
- (iii) Site Inspection – where observations of site performance against consent and licence conditions, and, where appropriate, environmental best practice will be made.
- (iv) Exit Meeting – where the principal observations are reviewed.

In compliance with *Condition 5(5)*, the audit will:

- (i) be conducted by a suitably qualified, experienced and independent person whose appointment is endorsed by the Director-General;
- (ii) be carried out generally in accordance with *ISO 19011:2002 - Guidelines for Quality and/or Environmental Systems Auditing* (or updated versions of this guideline);
- (iii) assess the environmental performance of the development, and its affect on the surrounding environment;
- (iv) assess whether the development is complying with the relevant, standards, performance measures, and statutory requirements;
- (v) review the adequacy of the Company's Environmental Management Strategy and Environmental Monitoring Plans/Programs; and, if necessary,
- (vi) recommend measures or actions to improve the environmental performance of the development, and/or the environmental management and monitoring systems.

The Company will submit the results of the audit to the Director-General within 3 months of the audit being conducted together with a detailed response to recommendations contained within the report.



## 5.2 Groundwater Audit

*Condition 3(17)* requires a suitably qualified and independent hydrogeologist (approved by the Director-General) to undertake an audit of the groundwater impacts of the quarry operation. It is noted that this condition specifies that the groundwater audit is undertaken annually unless directed otherwise by the Director-General.

The Company will nominate the name of the proposed hydrogeologist for the initial groundwater audit by 6 September 2006 to enable sufficient preparatory time for the audit. A similar procedure will be followed in subsequent year(s) unless the same hydrogeologist is to be commissioned, and is already approved by the Director-General.

It is proposed that the independent hydrogeologist would be provided with the results of all groundwater monitoring data compiled in accordance with this consent for the relevant AEMR and any other relevant data requested. The Company intends to incorporate the groundwater audit report as an Appendix to the AEMR to supplement the monitoring results presented in the same document.

## 6 COMMUNICATION WITH THE LOCAL COMMUNITY AND GOVERNMENT AGENCIES

### 6.1 Introduction

Community and government consultation during the operation of the Calga Sand Quarry will primarily be undertaken through the following three mechanisms.

- Direct, one-to-one contact between a Company representative and surrounding land owners and relevant Government Agencies.
- The establishment of, and involvement with, a Community Consultative Committee.
- AEMR preparation, submission and annual AEMR meetings with Government Agencies.

### 6.2 Direct Contact

The Company will attempt to be as proactive as possible to keep surrounding residents and relevant government agencies informed about site activities.

It is recognised that the community surrounding the Calga Sand Quarry is comparatively small, and as such, the Company intends to inform any relevant residents(s) about any activity that may be of interest eg. commencing activities in a new stage, the results of specific monitoring etc. In any event, a Company representative would visit each land owner at least every 12 months to provide them with a summary copy of the AEMR.



The Company would maintain a communications directory of all relevant officers within each involved Government Agency in order that they can also be contacted in the event an activity/event on site warrants direct notification. The Company will operate with an open-door policy for all relevant representatives of involved Government Agencies to visit the Quarry Site as required, albeit with sufficient notice to enable the Quarry Manager to escort the representative(s) around the Quarry Site.

### 6.3 Community Consultative Committee

A Community Consultative Committee (CCC) will be established by the Company, in accordance with *Condition 5(8)* to enable community representatives to review and provide comment on the environmental performance of the development.

The CCC will:

- (a) be comprised of at least:
  - 2 representatives from the Company, including the person responsible for environmental management at the quarry ;
  - representatives from Gosford City Council (if available); and
  - 2 representatives from the local community, whose appointment has been approved by the Director-General in consultation with Council;
- (b) be chaired by an independent chairperson endorsed by the Director-General;
- (c) meet at least twice each year; and
- (d) review and provide advice on the environmental performance of the development, including any environmental management plans, monitoring results, audit reports, and complaints.

As required by *Condition 5(9)*, the Company will, at its own expense:

- (a) ensure that 2 of its representatives attend 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) arrange site inspections for the Committee, if necessary;
- (e) take minutes of the Committee's meetings;
- (f) make these minutes available to the public;
- (g) respond to any advice or recommendations the Committee may have in relation to the environmental management or performance of the development; and
- (h) forward a copy of the minutes of each Committee meeting, and any responses to the Committee's recommendations to Council within a month of the Committee meeting.

Outcomes of CCC meetings, and any related actions, will also be documented in relevant AEMRs.



## 6.4 Annual Environmental Management Report

The preparation and circulation of the Annual Environmental Management Report (AEMR) to all relevant Government Agencies will provide each agency with an update of overall performance of the quarry and the plans for the ensuing year. An annual meeting will be held with representatives of involved agencies during the month of February to review the contents of the document. This annual contact with Government Agencies representatives through this process would supplement any direct contact(s) discussed in Section 6.2.

## 7 COMPLAINT MANAGEMENT

The Company advertises a pager number (9963 2242) for the recording of complaints regarding the operation of the Calga Sand Quarry. This complaints line operates 24 hours per day, 7 days per week.

All complaints received will be managed using the Company's recording forms (see **Appendix 2**). Complaints are directed to the Quarry Manager as soon as practicable after the receipt of the complaint by the paging service.

All complaints received will be reported in the respective AEMR's and the complaints register will also be made available to auditors during the required external audits of the Calga Sand Quarry.

## 8 DISPUTE MANAGEMENT

In the event that a dispute arises between the Company and a public authority, other than the DoP, or any surrounding land owner relating to the operation of the Calga Sand Quarry or requirements applicable under Development Consent (DA 94-4-2004), the Company will refer the matter to the Department of Planning who would initiate the independent dispute resolution process referred to in Appendix 3 of the development consent. Ultimately, the facilitator appointed by the Department of Planning would provide a decision to the Department which would be binding on all parties.

All dispute resolution negotiations will be appropriately recorded.

It is noted that the independent dispute resolution process documented in Appendix 3 of the development consent is also applicable to any concern expressed by a land owner regarding a documented non compliance of any criteria nominated in *Schedule 3* of the development consent.



## 9 MANAGEMENT OF NON-COMPLIANCES

Should the Calga Sand Quarry become non-compliant with any conditions of the development consent throughout the life of the quarry, the non-compliance will be managed as follows.

- In the case of monitored pollution or discharge criteria, any non-compliance will be drawn to the attention of the Quarry Manager who will review the recorded non-compliance and request confirmation through re-sampling or re-calculation as appropriate. Should the non-compliance be confirmed, a mitigation strategy will be developed in consultation with an appropriate independent environmental professional, if required. DoP, DNR, GCC and/or DEC will be informed of the non-compliance as required, and each non-compliance will be documented in the relevant AEMR and/or Annual Return, including any corrective actions undertaken, and the effectiveness of the corrective action.
- In the event that the submission of documentation is to occur beyond the due date, all relevant parties will be informed together with the new date when the documentation will be supplied. It is the Company's objective not to submit documentation beyond the due date, however, such a procedure is considered appropriate in the event that such a circumstance arises.

In accordance with the conditions of EPL 11295, in the event of a non-compliance incident causing or threatening material harm to the environment, ie. a pollution incident, the DEC (EPA) will be notified immediately. Written details of the notification will be provided to DEC (EPA) within 7 days from the date on which the incident occurred.

## 10 MANAGEMENT OF CUMULATIVE IMPACTS

Cumulative impacts arising from the operation of the Calga Sand Quarry are only likely to arise as a result of the accumulated traffic levels on Peats Ridge Road involving heavy vehicles from other quarries in the Peats Ridge and Kulnura area that also travel along Peats Ridge Road.

It is noteworthy that the proposed level of product despatch from the Calga Sand Quarry is comparable to the level approved for the former quarry operation under the previous development consent. Hence, local residents may be aware of the re-commencement of heavy vehicle traffic travelling to and from the Quarry Site, however, the actual traffic level reached would be comparable to that prior to the closure of the quarry on 31 December 2004.

## 11 RESPONDING TO EMERGENCIES

In the event that an emergency situation arises on-site or off-site that may have implications on site (eg. bushfire) the Company would undertake procedures in accordance with its Emergency Procedures Manual. This is a corporate document that covers a range of emergencies/incidents – some of which are site specific to the Calga Sand Quarry. The emergencies covered in the Company's Emergency Procedures Manual are as follows.

- Bushfires.
- Traffic Accidents On-site and Local Road Network.
- Overhead Power Lines.
- Fuel or Oil Spillage.



## 12 ACCOUNTABILITY AND RESPONSIBILITY

The Company's operations at the Calga Sand Quarry will be conducted by both Company employees and contractors. The responsibility of day to day environmental management is vested with the Quarry Manager. The Quarry Manager is directly responsible to the Company's Quarry Superintendent who in turn is responsible to the NSW Operations Manager. This team of Company personnel would collectively address and manage all environmental issues that arise at the quarry. The contractual documentation with the contractor would record this fact but also specify all relevant obligations that the contractor needs to fulfil, particularly with respect to complying with the development consent and the range of environmental management plans.

The environmental performance of the entire Quarry Site is the sum total of the contribution of every employee and contractor employed and therefore the Company places considerable emphasis on involving all employees and contractors, at some level, in environmental management. As such, it will be every employee's responsibility to carry out their work in an environmentally acceptable manner. The individual Environmental Management/Monitoring Plans/Programs identify accountabilities and responsibilities relevant to the tasks presented in that plan. These accountabilities and responsibilities will be relayed to each employee/contractor through site inductions, and where necessary, through training. Procedures would be in place to assess each employee's competency(ies) for the relevant task(s).

