

SUMMARY
OF THE
ENVIRONMENTAL IMPACT STATEMENT
FOR THE PROPOSED

CALGA SAND QUARRY EXTENSION

Prepared by:



R. W. CORKERY & CO. PTY. LIMITED

May 2004

INTRODUCTION

This Environmental Impact Statement (EIS) has been prepared to accompany a development application by Rocla Materials Pty Ltd (hereafter “Rocla”) for an extension to the Calga Sand Quarry and associated activities involving the relocation of existing processing plants and other site infrastructure. The existing quarry is located on Lot 2, DP 229889 (owned by J. Voutos), west of Peats Ridge Road, approximately 1.7km northwest of the Calga Interchange on the F3 Freeway (see **Figure A**). The proposed extension would involve the extraction of sand to the north and east of this landholding and on part of the adjacent Lot 121, DP 755221 (owned by F. & J. Gazzana).

The Project Site, including the existing Calga Sand Quarry and the proposed quarry extension, covers an area of approximately 46ha (see **Figure B**). This includes 13.5ha of the area approved for extraction under Development Consent No. 10604, an additional 19ha on Lot 2, DP 229889 (11.8ha to be extracted) and a further 13.5 ha on Lot 121, DP 755221 (10.5ha to be extracted). The Project Site is bounded to the east by Peats Ridge Road, to south and southwest by native bushland, by the Glenworth Valley horse riding facility to the west and by poultry sheds and a commercial mineral water enterprise to the north (also on the Gazzana property).

The proposed development is recognised as a “State Significant” development in accordance with the NSW *Environmental Planning and Assessment Act 1979* as the projected production of sand products would be between 300 000 tonnes and 400 000 tonnes per year, ie. well in excess of the 200 000 tonnes per year threshold level. The proposed development is also identified as an “integrated development” as a total of three approvals are required, in addition to development consent, for the proposed development to proceed. The Minister for Planning and Infrastructure is the consent authority for the proposed development.

This Summary presents an overview of the entire proposed development, the features of the existing environment and the possible impacts of the proposed development on the surrounding environment. Emphasis has been placed upon designing a development that would avoid or minimise adverse environmental impacts upon the local environment and local community.

A number of issues which influenced the design of the proposed development were identified throughout the preparation of the EIS. The identification of the issues was achieved through a review of the 1990 development application for the Calga Sand Quarry and 1991 Development Consent No. 10604, consultation with local and State government authorities and the local community and the results of ongoing environmental monitoring programs. The results of a community consultation program identified that there was a general concern that the final landform not be used as a putrescible landfill or lead to high levels of dust generation.

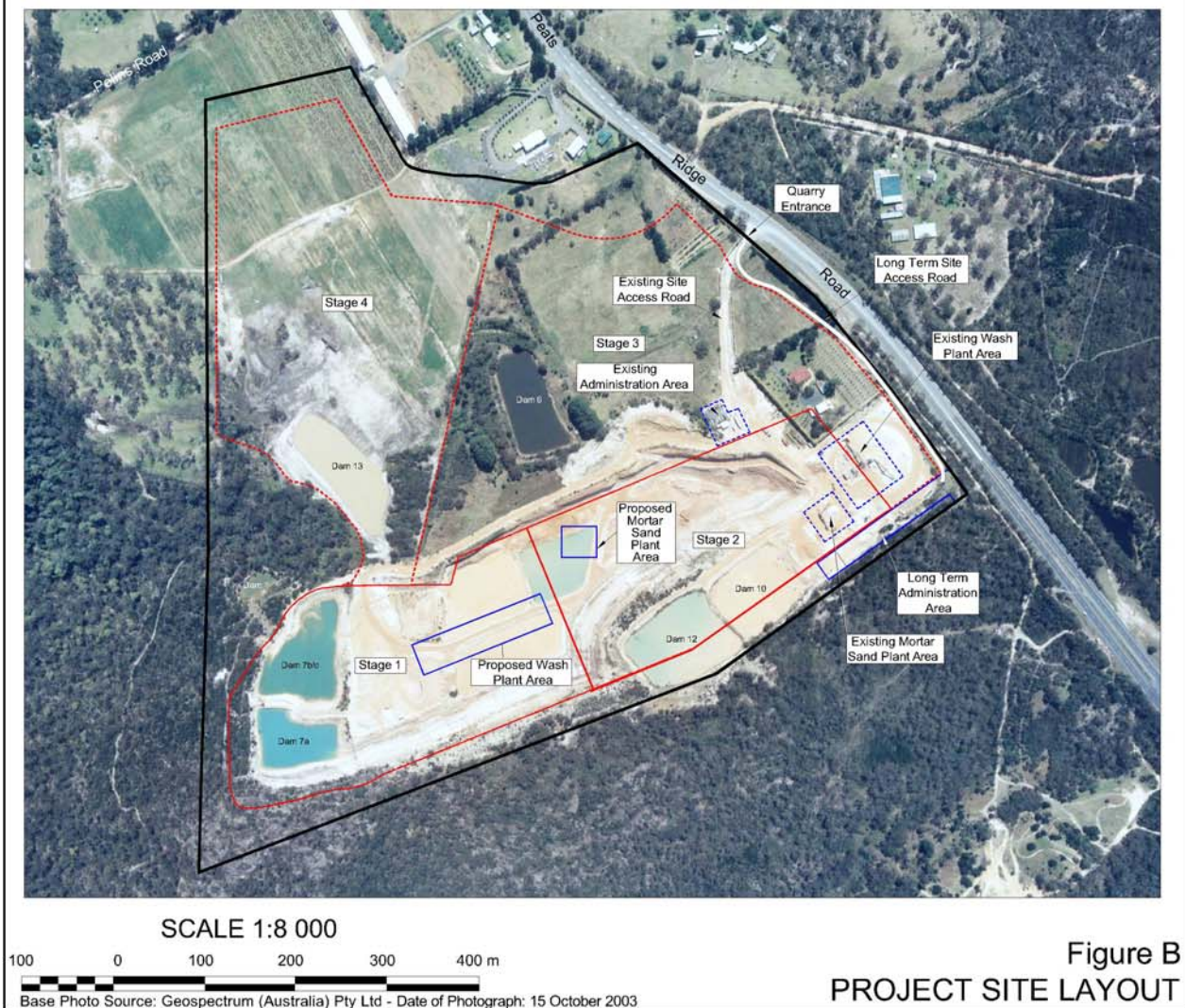
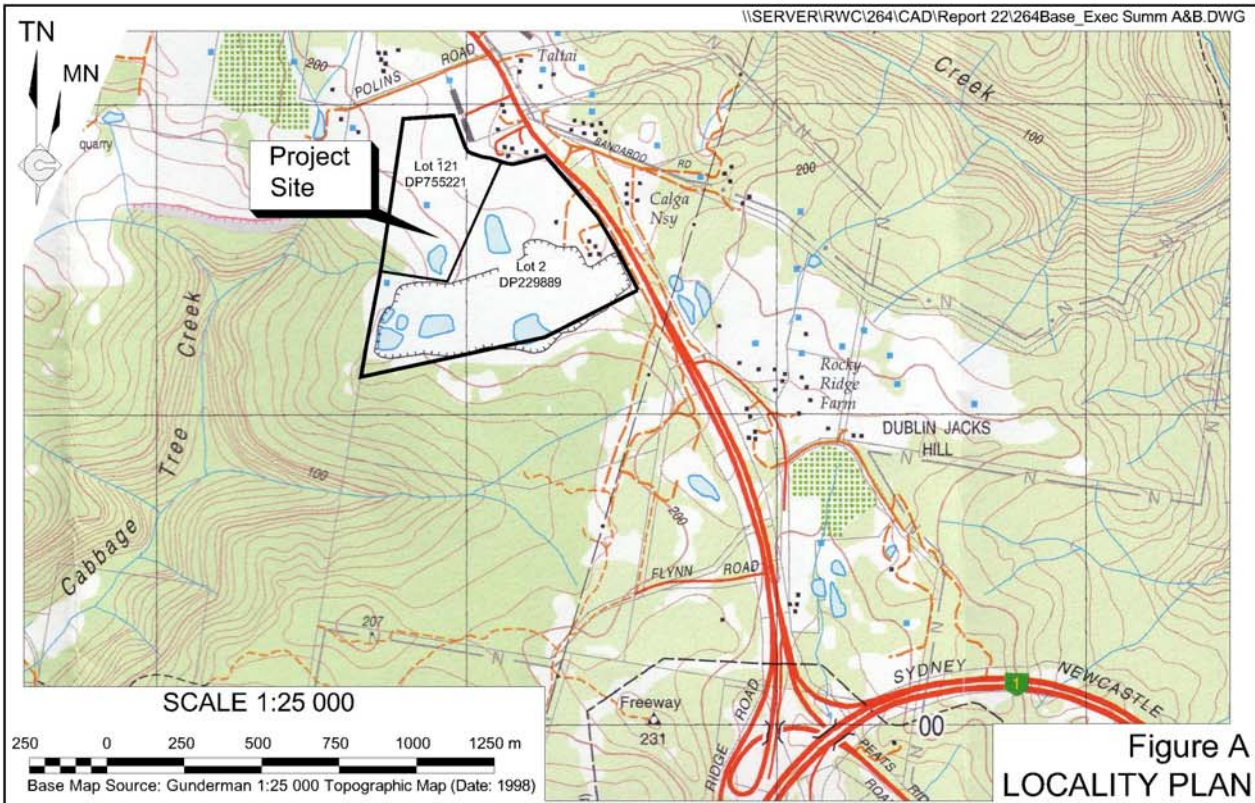
The design of the proposed development and its environmental impact assessment has been undertaken in conjunction with a team of six experienced specialist consultants covering the following issues.

- Noise
- Air Quality
- Groundwater
- Flora
- Fauna
- Aboriginal Heritage

THE APPLICANT (“ROCLA”) AND ITS CURRENT OPERATIONS

The Applicant for the Calga Sand Quarry Extension is Rocla Materials Pty Ltd (ABN 30 083 169 091), referred to throughout this summary as “Rocla”. Rocla Materials Pty Ltd is a wholly owned subsidiary of Rocla Pty Ltd, part of the Amatek Group, an Australian-based international building products company. Other divisions of the Amatek Group include Stramit and Insulation Solutions. Across Australia, Rocla Pty Ltd employs approximately 830 people.





Rocla Materials Pty Ltd trades as Rocla Quarry Products and is the raw materials division of Rocla Pty Ltd. Rocla Quarry Products operates 13 sites in all mainland Australian states.

Rocla has extracted, processed and despatched construction quality sand from the Calga Sand Quarry since taking control of the operation in October 2002 from Calga Sands Pty Ltd. Calga Sands Pty Ltd had operated the quarry since September 1991. Rocla currently supplies markets in Sydney and the Central Coast, a number of which have specifications for “Calga Sand”, with the washed sand product particularly sought after for the production of asphalt.

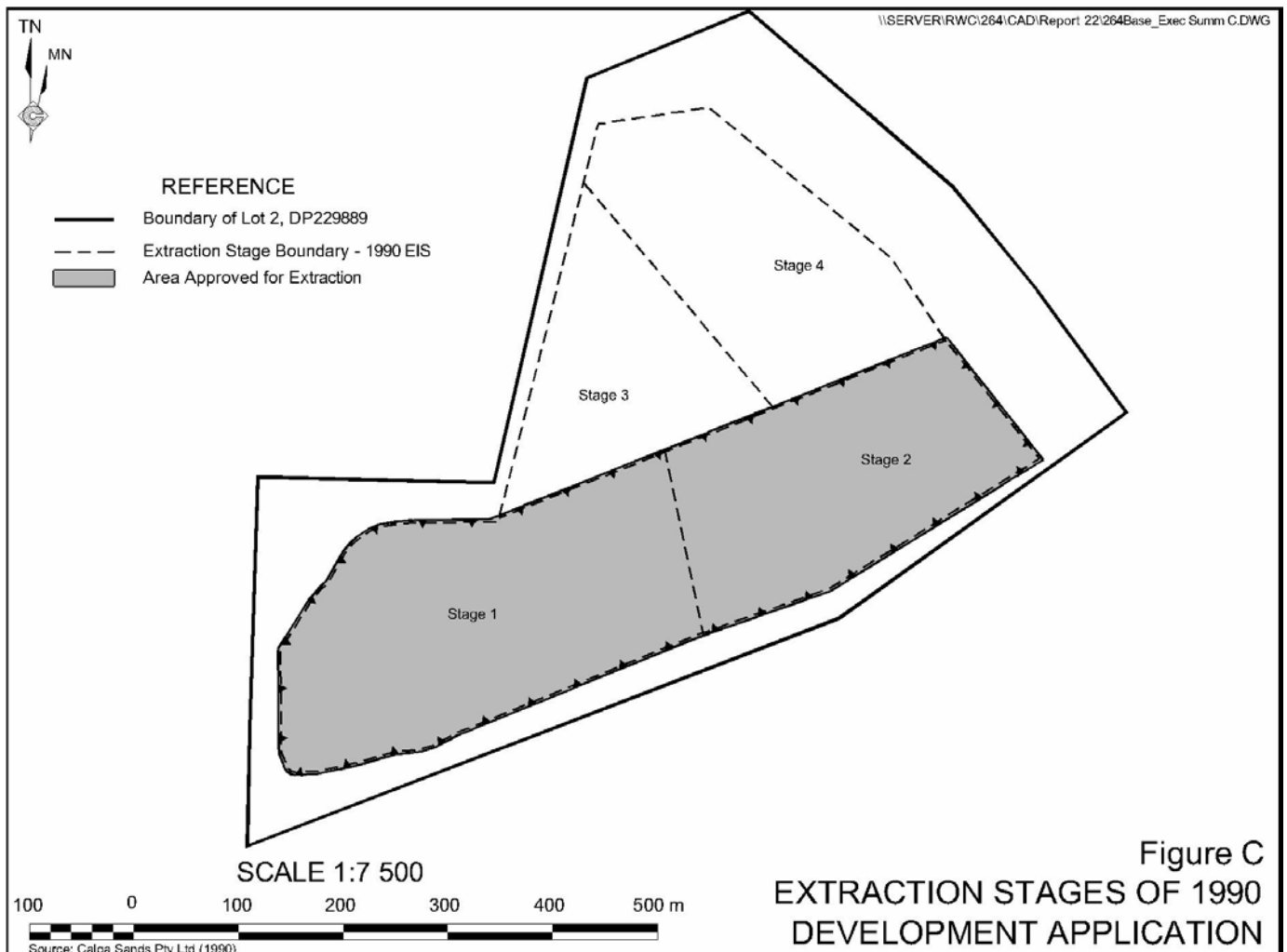
Rocla operates all of its sites in accordance with a number of Corporate Environmental Procedures and their sand extraction operations throughout Australia are recognised for a high standard of rehabilitation.

EXISTING APPROVALS

The existing Calga Sand Quarry operates under Development Consent No. 10604, which was granted by the NSW Land and Environment Court in July 1991. This development consent permits extraction from Stages 1 and 2 of an original four extraction stages proposed by the 1990 development application (see **Figure C**). The quarry operates with an Environment Protection Licence issued by the EPA (now incorporated into the Department of Environment and Conservation).

PLANNING CONTEXT

Planning on the Central Coast Plateau Area, within which the Project Site lies, is controlled principally by Sydney Regional Environmental Plan No 8—Central Coast Plateau Areas (SREP 8—CCPA).



At the time of the original 1990 development application, a conflict existed between the then prevailing SREP 8 and Sydney Regional Environmental Plan No 9 (SREP 9) over the preferential land use for the area for agriculture or extractive industry. This was in fact, one of the reasons for the rejection of extraction from Stages 3 and 4 presented in the 1990 development application. SREP 8 has since been amended by the Gosford/Wyong Local Environmental Plan 2001 – Central Coast Plateau Areas, with the area in which the Project Site is located now clearly identified as permissible for extractive industry with consent under both SREP 9 and SREP 8.

THE EXISTING OPERATIONS

The existing operations at the Calga Sand Quarry include the extraction of friable sandstone, processing to produce both dry-screened and washed sand products and their despatch.

The extraction of friable sandstone is currently confined to within Stages 1 and 2 of the original 1990 development application. At the current rate of extraction, reserves within the quarry will be exhausted by mid 2004. The design of the existing extraction operations reflects Rocla's intent to maximise the recovery of the resource whilst developing it in such a manner that reflects both environmental and community constraints. Reflecting this intent, the quarry has been designed to be free-draining and to provide optimum capacity for silt placement, storage and consolidation and with a 10m to 30m setback to the surrounding landholdings.

Extraction to date has involved the removal of vegetation, topsoil and overburden and the ripping and loading of the friable sandstone for transportation to the processing plants. In order to produce an average of 300 000tpa of sand products, approximately 140 000m³ of raw material is extracted annually.

The friable sandstone extracted is delivered to one of two processing plants, either a wash plant which is a wet processing plant, or a mortar sand plant which is a dry processing plant.

The washed sand is stacked via a radial stacker which allows the segregation of different final products (such as single and double washed sand) into separate stockpiles. Typically half of the washed sand is returned to the mortar sand plant for blending with the raw feed material to be processed through that plant.

The mortar sand plant simply separates the sand from oversize material and achieves the blending required for the material(s) processed. The raw sand is blended with washed sand initially in the stockpile area and then through the plant itself to produce the mortar sand products.

With limited exception, the sand products are destined for markets in either the northern and northwestern Sydney suburbs or the Central Coast. Product trucks delivering the products to these markets turn right onto Peats Ridge Road and travel south from the quarry entrance to the Calga Interchange and onto the F3 Freeway. Those product trucks carrying sand for local markets at Peats Ridge/Mangrove Mountain turn left from the quarry entrance onto Peats Ridge Road.

Product trucks entering and leaving the Calga Sand Quarry are typically single body tippers with trailers or semi-trailers, usually of 25t to 30t capacity. Smaller capacity trucks of 12t to 18t are also used to transport product from the quarry for local users in the Peats Ridge / Mangrove Mountain area.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

Development consent is being sought for the proposed development including:

- the extraction of friable sandstone from a northern and eastern extension to the existing extraction areas;
- the relocation of the processing plants, administrative and services area and internal product transport routes to accommodate the proposed extended extraction areas;



- the production of a washed sand product for use in concrete and asphalt;
- the production of a mortar sand product by blending a proportion of the washed sand with the friable sandstone to achieve the required grading;
- the production of blended products by blending washed sand with imported soils and fine aggregate materials; and
- the progressive deposition of silt and subsequent consolidation and capping to establish a final landform suitable for agricultural activities following the cessation of extraction.

ripping), be free-draining and provide optimum capacity for silt deposition, storage and consolidation. The quarry design parameters would comprise 70° quarry faces with 5m wide benches on the final quarry face. Benches would be developed at approximately 10m intervals and merged into the existing quarry walls. A natural gentle gradient to the southwest would provide drainage away from the active working areas.

Extraction would be undertaken in ten stages, namely Stages 3/1 to 3/6 and 4/1 to 4/4. This sequential extraction, presented in **Figure D**, would allow the progressive development of a series of silt cells on completed stages of the quarry and their subsequent consolidation, capping and revegetation. The numbering of Stages 3/1 to 4/4 is indicative of the proposed sequence but may be subject to change over the life of the quarry dependent on silt deposition and storage requirements.

Extraction Operations

The quarry extension has been designed as a continuation of the existing quarry and as such would maximise recovery of friable sandstone (by

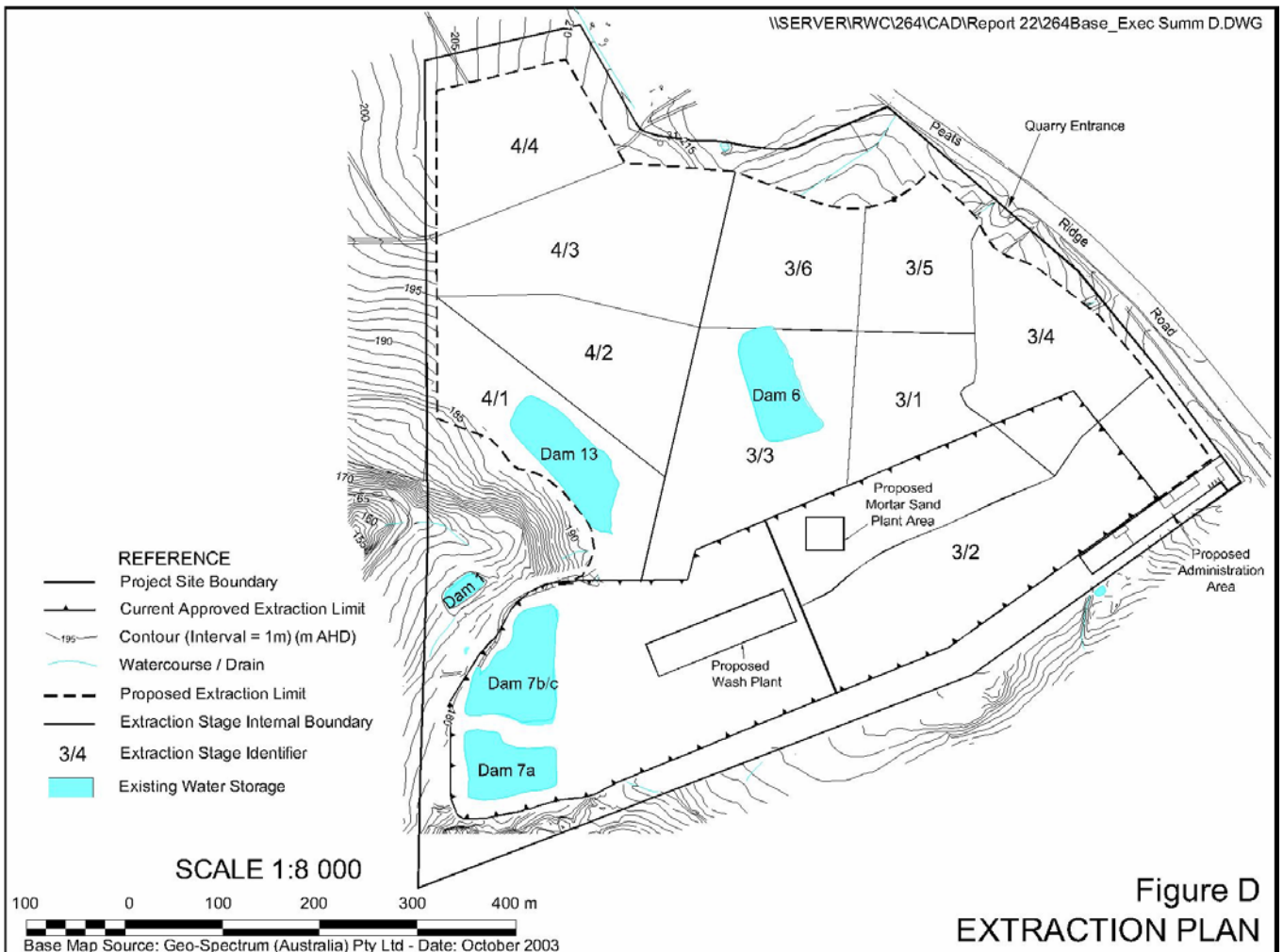


Figure D
EXTRACTION PLAN



Processing Operations and Products

The proposed staged extraction sequence would require the relocation of the processing plants to the floor of the existing quarry (see **Figure D**) prior to extraction commencing in Stage 3/2. The processing of the friable sandstone to produce mortar sand - a dry screened product and concrete sand - a washed sand product, would continue. Within these two broad classifications, products would continue to be sold according to colour and with specified size gradings.

In addition to the production of these two sand products, Rocla proposes to produce a range of additional products generated by blending washed sand with imported soils and fine aggregates and other materials, typically between 2mm and 10mm in size. Blending would be undertaken in a similar manner to that used for the production of mortar sand. The respective raw materials would be initially mixed in stockpiles within the stockpile area and then mixed further through the mortar sand plant. When necessary, screens would be changed to accommodate the grain size of the blended products.

Silt and waste water from the wash plant would continue to be pumped to designated silt cells which would be constructed on the floor of the completed extraction stages. This water, after being allowed to clarify, would be reused through the wash plant with each silt cell eventually consolidated, capped and revegetated.

Product Transportation

All products produced at the Calga Sand Quarry would continue to be transported from the quarry by road. Rocla intends to maintain its current product markets in Sydney and the Central Coast and would retain its current product transport routes external to the quarry ie. via Peats Ridge Road and the F3 Freeway. The existing site entrance would be retained.

A slight increase in the hours of operation for product transportation is proposed, ie. an increase of two hours of operation between 8:00pm and

10:00pm, Monday to Friday. However, given there is no proposed increase in overall production, the number of vehicle movements would remain comparable with approved levels. Approximately 80 to 100 truck movements would occur each weekday and 24 to 36 truck movements each Saturday, with the majority of these between 5:00am and 2:00pm each day.

Infrastructure and Services

For the duration of Stages 3/1 and 3/2, the existing administration area, which incorporates the site offices and weighbridge, lunch room, first aid, parking and ablutions, would remain in its existing location. With the completion of Stage 3/2 and relocation of the main site access road, the administration area, as well as the workshop and refuelling facilities, would be relocated to the southeastern corner of the Project Site.

As there is no planned change to the proposed rate of extraction or production rate, it is envisaged that with the exception of some minor disruption as a result of the relocation of the administration area and wash plant, there would be only minor alterations to the current services provided to the operation.

Hours of Operation and Project Life

With the exception of an additional 2 hours for product transportation, the hours are comparable to those currently in place.

The proposed hours of operation are as follows.

Extraction and Processing	Mon to Fri	6:00am to 8:00pm [#]
	Saturday	6:00am to 4:00pm
Product Transportation	Mon to Fri	5:00am to 10:00pm
	Saturday	5:00am to 4:00pm

At the proposed rate of extraction, the project life would be approximately 30 years extending the life of the operation from 2005 to approximately 2035.

[#]Extraction between 6:00pm and 8:00pm would only occur when machinery can operate at least 10m below the natural ground surface.



By-Products and Waste Management

The management of by-products, namely overburden, oversize material and silts, would be essentially the same as for the existing operations. Overburden and oversize material would be used in the construction of silt cells and acoustic bund walls, as a capping medium for completed silt cells or stockpiled for future use in the rehabilitation of the quarry. Similarly, silts produced as a by-product of the wash plant would be pumped and deposited in purpose-built silt cells on the floor of completed sections of the quarry. The silts would be allowed to settle out and the water reused through the wash plant. Each silt cell would be consolidated and capped with 1.0m to 1.5m of overburden or overburden/oversize material mixture in preparation for revegetation.

Other wastes generated by the activities on the Project Site, including domestic wastes and maintenance consumables, construction and workshop wastes and sewage would continue to be disposed of in a similar fashion to those currently approved for the existing quarry.

Rehabilitation and Final Land Use

Rocla proposes to create a final landform that is free-draining to the southwest, approximately 15m to 25m below the pre-extraction ground level, and suitable for future agricultural activities. Dams created for the on-site storage of water would be retained to assist in future agricultural pursuits. Rehabilitation would be undertaken progressively over the remaining life of the quarry.

Rehabilitation procedures for the proposed quarry extension would essentially be an extension of current procedures and in accordance with local and State government agency requirements. Effectively, the open areas of the final landform would be revegetated with grass and pasture species, with native trees planted around the edges of the dams and drainage lines/channels and adjacent to the undisturbed native bushland on the southwestern side of the Project Site. The quarry perimeter and benches would be revegetated with native tree and shrub species to assist in improving the visual amenity of the final landform and in the stabilisation of these areas.

THE EXISTING ENVIRONMENT, SAFEGUARDS AND IMPACTS

The components and features of the existing environment on and around the Project Site have been studied in detail to understand how the proposed development can best be designed to avoid or minimise impacts on the surrounding environment. A brief overview of the main components of the surrounding environment, the proposed safeguards and the assessed level of impact is set out below.

Surface Water

Both the existing quarry and the proposed extension lie within the catchment of the Cabbage Tree Creek which forms part of the Hawkesbury River catchment. During periods of heavy rainfall, surface water flows onto the Project Site via one of three channels draining from Peats Ridge Road. This surface water is contained within a series of farm dams and purpose-built dams for the existing and extended quarry. Water surplus to the requirements of the wash plant would be retained on site and may overflow from these dams and return to the Cabbage Tree Creek catchment.

The proposed development has been designed to effectively minimise impacts to the existing surface water flows and availability to surrounding water users. The runoff from Peats Ridge Road would be channelled long term across both properties within the Project Site and the surface water directed to a series of dams where any sediment would be allowed to settle out before flowing into Cabbage Tree Creek.

Groundwater

Aquifers are commonly developed within the Hawkesbury Sandstone in the Calga area and the local groundwater is largely controlled by the presence of the more permeable sandstone horizons, which constitute the major water storage units. Numerous springs are also present within and surrounding the Project Site which indicates a significant interrelationship between surface water and groundwater. There are no groundwater dependent ecosystems within or directly surrounding the Project Site.



The availability and use of groundwater beneath the Project Site and surrounding landholdings is managed under the Water Sharing Plan for the Kulnura Mangrove Mountain Groundwater Sources 2003, effectively limiting the quantity of groundwater available. The availability of groundwater is of critical importance to the Gazzana family who operate a commercial mineral water enterprise, located immediately to the north of the Project Site. This operation is reliant on high bore yields (44ML/yr – 49ML/yr) for its continued viability.

The quarry extension has been designed, particularly given the Gazzana family involvement in the proposed quarry extension, to avoid any substantial impacts upon the groundwater resources beneath their family property.

Modelling of the potential impact of the proposed quarry extension has indicated that there would be a localised drawdown of the groundwater, effectively limited to approximately 100m from the extended quarry perimeter. This drawdown would not significantly influence the borehole yield of the nearby production bores. A likely reduction in aquifer recharge would result from the quarry extension. In order to avoid a significant reduction in the yields of the commercial production bores, Rocla proposes to restrict extraction to above 190m AHD in Stages 4/3 and 4/4. Furthermore, extraction from this stage would only proceed following further groundwater monitoring. Should any significant impact on the yields of the production bores be noted as extraction approaches Stage 4/4, extraction from this stage would not proceed.

Soils

Topsoil and subsoil would continue to be managed to ensure their availability for the rehabilitation of completed areas of the proposed extension to the Calga Sand Quarry. The Project Site has been classified as both Class 3 agricultural land (NSW Agriculture) and prime agricultural land (SREP 8) and the soil would be managed to ensure that land of these classifications are retained in the final landform. There is no indication that the Project Site contained contaminated soils, however,

should they be encountered, including hydrocarbon contamination, the soils would either be remediated on-site or removed from site for appropriate disposal.

Noise

The existing noise sources on and surrounding on the Project Site include the existing extraction, processing and product transportation operations as well as traffic noise generated by Peats Ridge Road and the F3 Freeway. Background noise levels as measured at two nearby residences, vary between 31 dB(A) and 40 dB(A) depending on the time of day.

The goals for noise generated by the proposed development would be: 5 dB(A) above the measured background levels for the operation of the Calga Sand Quarry; 10 dB(A) above the measured background levels during the construction of acoustic bund walls; and 2 dB(A) above existing traffic noise levels. Exceedances of these noise goals would occur at the closest residences but only during worst-case meteorological scenarios combined with extraction at surface level. Operational procedures would be carefully managed to avoid, or limit the frequency of, any exceedances. Once extraction progresses to 5m below the existing surface level, exceedances are only predicted to occur in Stage 4/4 near the end of the project life. Noise generated from the construction of acoustic bund walls would also exceed noise goals, however, appropriate safeguards and management procedures would be implemented to minimise these exceedances and impacts on nearby residents. In any event, the duration of construction would be limited to 4 weeks over five construction campaigns throughout the life of the project (approximately 30 years).

Air Quality

The friable sandstone extracted for processing is relatively moist (>10% moisture) and therefore, minimal dust is generated during loading and processing operations. The main sources of dust generation, both for the existing and proposed extension would be the removal of topsoil and



subsoil, ripping of the friable sandstone and on-site traffic movements. Predicted dust levels, assuming the adoption of a range of standard safeguards, controls and operating procedures, would satisfy relevant criteria at all residences surrounding the Project Site.

Ecology

The majority of the Project Site has been highly altered by past agricultural land uses and is dominated by exotic grass species. Small areas of native vegetation occur along the boundary between Stages 3 and 4 of extraction. This native vegetation is essentially an extension of relatively undisturbed mesic and sclerophyll woodland communities to the southwest of the proposed quarry extension. The quarry extension has been designed such that the main woodland communities are not disturbed and revegetation of the final landform incorporates a range of native tree and shrub species.

No threatened flora species were identified on the Project Site and five threatened fauna species were identified either on the site, or in surrounding areas. An eight-part test was performed for each of these fauna species with the results indicating that the proposal is not likely to significantly affect the population or habitat of any of the species. Similarly, an assessment of the potential impact of the proposal on migratory terrestrial and wetland bird species indicates that the proposed extension of the Calga Sand Quarry is unlikely to significantly impact on any of these species.

Aboriginal Heritage

A search of the Aboriginal Sites Register identified 103 sites within a 7km x 7km square centred on the Project Site of which three were recorded within or immediately adjacent to the Project Site. Two of these sites were deemed to be mis-located, possibly following the transfer of original map references to GPS locations, as a search of the Project Site by an archaeologist and representative of the Darkinjung Local Aboriginal Land Council (LALC) failed to identify these sites in their listed locations. The third site, containing a shelter, grinding groove and artwork, was

identified but is located outside the area of the proposed extension to the Calga Sand Quarry. In keeping with the recommendations of the archaeologist and request of the Darkinjung LALC, silt-stop fences and/or sediment traps would be installed up-slope of the site to prevent sediment-laden containing run-off impacting on the site.

Visibility

The existing Calga Sand Quarry is visible from a limited number of residences adjoining Peats Ridge Road, Polins Road and Cooks Road as well as south-bound traffic on Peats Ridge Road. The proposed quarry extension would not expose any additional residences or traffic to the quarry site. In fact, the construction of vegetated bund walls to minimise the impact of noise, would reduce the number of residences with direct or broken views of the quarrying activities. The quarry extension would become more visible from distant rural vantage points beyond the Cabbage Tree Creek valley.

Land Use

The Project Site is located within an area of former orchards, market gardens and grazing land. While this land is largely unused for these activities at present, it has been classified as Class 3 agricultural land by NSW Agriculture and as prime agricultural land under the SREP 8. The surrounding land use is divided between, orchards, grazing land, poultry sheds and native bushland. Rocla proposes to create a final landform that returns the area to these classifications of land and provides for future use of the Project Site for agricultural activities. To achieve this, the final landform would be free-draining, revegetated with predominantly grass and pasture species and selected areas of native trees. A total of four dams constructed during the life of the operation would be retained.

Social Setting

The Calga Sand Quarry has operated within the local community comprising approximately 15 residences for almost 13 years without any



substantive incident. Given the proposed extension to the quarry would essentially involve the continuation of existing methods and procedures, it is unlikely that there would be any conflict in the future. The concerns of the local community that the site not become a putrescible landfill or lead to the generation of large amounts of dust have been addressed. Similarly, the proposed development has been designed not to jeopardise the viability of the mineral water enterprise on the Gazzana property. The extension to the Calga Sand Quarry would maintain a degree of economic activity both during the operation of the quarry and on the completion of extraction when the land would be ideally suited to resumed agricultural activities.

PROJECT JUSTIFICATION

The proposal to extend to the Calga Sand Quarry has been assessed in terms of a wide range of biophysical, social and economic issues. Whilst the overall level of impact has been assessed to be minimal, the predicted impacts can be justified in terms of the need for the resource and sustainable development principles.

Need for the Resource

Construction quality sand is a limited resource within the Sydney and Central Coast areas. Currently Rocla produces concrete sand for a number of customers, whose specifications require the quality of sand produced at the Calga Sand Quarry. Sand from the quarry is regularly used in asphalt for upgrading and maintenance work on the F3 Freeway between Sydney and Newcastle and the growing construction industry on the Central Coast. Cessation of production from the Calga Sand Quarry would therefore remove a very important local source of quality sand to these markets, forcing existing and future customers to obtain their sand requirements from less suitable or more distant sources.

Sustainable Development Principles

The proposed development has been designed based on an extensive review of technical and

scientific data and has been planned generally in accordance with all four sustainable development principles.

- (i) The **precautionary principle** has been considered during all stages of the assessment of the extension to the Calga Sand Quarry. Rocla's experience in extracting and processing sand at Calga, together with an extensive range of specialist consultant studies relating to the existing environment and required safeguards and procedures on the Project Site, provide a high degree of certainty that the proposed development would not result in any major impacts.
- (ii) The **principle of social equity** has been addressed throughout the design of the proposed quarry extension. Rocla's proposed development would maintain the current economic contribution to the local economy and provide for continued economic activity after the cessation of extraction activities. For the local community, Rocla is committed to a range of safeguards to overcome concerns and to remain pro-active to offset some of the unavoidable and/or perceived impacts of the proposed development.
- (iii) The proposed development would address the principle of **conservation of biological diversity and ecological integrity** through a program to eradicate Crofton Weed and Blackberry, a consideration to maintain summer feed trees of the Grey-headed Flying-fox and the integration of native vegetation with the final agricultural land use.
- (iv) The **principle of improved valuation, pricing and incentive mechanisms** has been addressed in the proposed development and the provision of a suitable landform for the long term use of the Project Site. It is planned that the price of the products despatched are sufficient to enable Rocla to undertake all environmentally-related tasks and meet its commitments to the local community.



CONCLUSION

The proposed extension to the Calga Sand Quarry has been designed to address the issues raised by the community and all levels of government. The proposed development provides for the continued recovery of an important sand resource which is significant in the planning of resources available to the Sydney and Central Coast markets. The subsequent landform, created by the deposition, consolidation and capping of silt material with overburden, subsoil and topsoil, would be constructed to sustain long-term agricultural or horticultural activity and manage all components of the local environment, particularly water management, air quality and soil issues.

This document and the range of specialist consultant studies undertaken have identified that the extension to the Calga Sand Quarry should proceed because it would:

- (i) satisfy the demand for construction quality sand and introduce a level of certainty for supply;
- (ii) satisfy sustainable development principles;
- (iii) preserve a site of Aboriginal heritage value;
- (iv) have a managed impact on the biophysical environment;
- (v) ameliorate perceived social impacts;
- (vi) contribute to the continued economic activity of the local communities along Peats Ridge Road, Central Coast and Sydney; and
- (vii) provide a site suitable for future agricultural or horticultural activities compatible with surrounding land uses.

SUBMISSIONS REGARDING THE PROPOSAL

During the period of exhibition of the Environmental Impact Statement, any member of the local or wider community is able to send a written submission to the Department of Infrastructure, Planning and Natural Resources (DIPNR) regarding the proposal. When making a submission, the following information needs to be included.

- Your name and address.
- Reference to the Calga Sand Quarry Extension.
- A statement indicating whether you support or object to the proposal.
- The reasons why you support or object to the proposal.

All submissions should be sent to:

Major Development Assessment
DIPNR
PO Box 3927
SYDNEY NSW 2001

ROCLA CONTACTS

Quarry Manager—Calga Quarry Site

Paul Slough

Tel: (02) 4375 1151
Mobile: (0418) 166 212
Fax: (02) 4375 1171

Quarry Superintendent—Rocla Quarry Products

Pat McCue

Tel: (02) 9668 8257
Mobile: (0418) 205 873
Fax: (02) 9668 9168

Regional Manager—Head Office

John Gardiner

Tel: (02) 9632 0122
Mobile: (0418) 282 073
Fax: (02) 9632 7471

Principal—Environmental Consultants

Rob Corkery

Tel: (02) 6362 5411
Mobile: (0428) 635 975
Fax: (02) 6361 3622

