



Department of
Infrastructure, Planning and Natural Resources

**PROPOSAL BY CLEARY BROS (BOMBO) PTY LTD TO EXTEND AN
EXISTING SAND QUARRY AT GERROA**

**Report on the assessment of two Development Applications (DA 264/01 and DA
01/2536) pursuant to Section 80 of the Environmental Planning and Assessment
Act, 1979
W92/00173**

Department of Infrastructure, Planning, and Natural Resources

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1 Introduction

Cleary Bros (Bombo) Pty Ltd (The Applicant) lodged Development Applications with Kiama Municipal Council (DA 264/01) and Shoalhaven City Council (DA 01/2536) in July 2001 to develop an extension to its existing quarry at Gerroa on the boundary of Kiama and Shoalhaven LGAs. The location of the site is shown in Figure 1.

The development applications were called in by the Minister under section 88A of the *Environmental Planning and Assessment Act 1979* (the Act) on 19 December 2001 due to potential impacts on matters of State and regional environmental planning significance. The sand resource on the site is identified in Illawarra Regional Environmental Plan No 1 and a Ministerial section 117 direction as being of regional significance.

In December 2002, the Applicant amended the DAs to reduce the proposed area of extraction and submitted an amended Statement of Environmental Effects. The amended proposal was publicly exhibited in January 2003.

The proposal now under consideration involves the extension and continued operation of the Cleary Bros sand quarry on the corner of Seven Mile Beach Rd and Berry Beach Rd, Gerroa. The site is adjacent to Seven Mile Beach National Park and within the Coastal Zone. Sand extraction has occurred on the site for over 50 years, and now continues under a consent granted by the Land and Environment Court in 1990. That consent was modified in December 2002 to allow extraction in a restricted area to proceed until September 2003.

Quarrying on the site occurs by dredging sand from within a permanent pond which expands as the dredge advances. The proposed quarry extension area is to the west of the existing dredge pond within an area that has been cleared of vegetation.

The proposal would result in the extraction of approximately 300,000 tonnes of fine construction sand over a six year period. The reduction in extraction area from the original proposal has removed the need to clear any vegetation on the site. The proposal would provide continued employment for up to four employees and result in the utilisation an important resource for the construction industry in the region.

2 Development Proposal

2.1 OVERVIEW

The proposed quarry extension includes the following:

- Gradual extraction of sand by dredging within the quarry extension area;
- Processing of sand by dry and wet sorting at the existing processing plant;
- Stockpiling of sand adjacent to the processing plant;
- Loading and trucking of sand on internal haul roads;
- Sale and transport of sand from the site to customers in the region;
- Recycling of all processing water to the dredge pond;
- Construction of a flood bund and an acoustic barrier;
- Use of existing water management structures on the site;
- Rehabilitation of the site and decommissioning of all quarry-related infrastructure.

Figure 1 Site Location – Proposed Gerroa Quarry Extension



2.2 SITE DESCRIPTION AND LOCALITY

The subject site is on the boundary of Shoalhaven City and Kiama Local Government Areas several kilometres south of Gerroa on Seven Mile Beach Rd. The site is in the catchment of Crooked River which flows into the Pacific Ocean at Gerroa. Blue Angle Creek is the closest tributary of Crooked River to the quarry site.

The terrain in the locality of the site is generally low lying agricultural land on Foys Swamp to the west with the vegetated dunes of Seven Mile Beach National Park to the east. Land immediately around the quarry site is densely vegetated with native vegetation communities.

The major feature on the site itself is the existing dredge pond which is approximately 850m long and 180m wide. Extraction is complete in the southern end of the pond and this section has been fully rehabilitated. Figure 2 shows the site in detail.

2.3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The proposal involves the extraction of approximately 300,000 tonnes of sand from the quarry extension area. This area would be first surveyed and the extraction limit fenced. A flood bund would be constructed around the extraction area and any topsoil would be stripped from the extraction area and stockpiled for later use in rehabilitation. Due to the small size of the extension area, being less than 2.5 ha, the operation will not be staged as such. The dredge would gradually extract sand from the extension area with sand being pumped from the dredge to the processing plant through a 200mm pipeline. Water from the processing would be recycled to the dredge pond with product sand being dried and stockpiled for sale. Rehabilitation of the dredge pond banks and extracted areas would be undertaken progressively as the dredge advances.

After extraction of the extension area, sand would be extracted from the processing plant and stockpile area before decommissioning of the site and final rehabilitation.

The quarry would operate between 7am and 6pm Monday to Friday and 7am and 1pm on Saturday.

The quarry extension site layout is shown in Figure 3.

Figure 2 Site Locality – Proposed Gerroa Quarry Extension

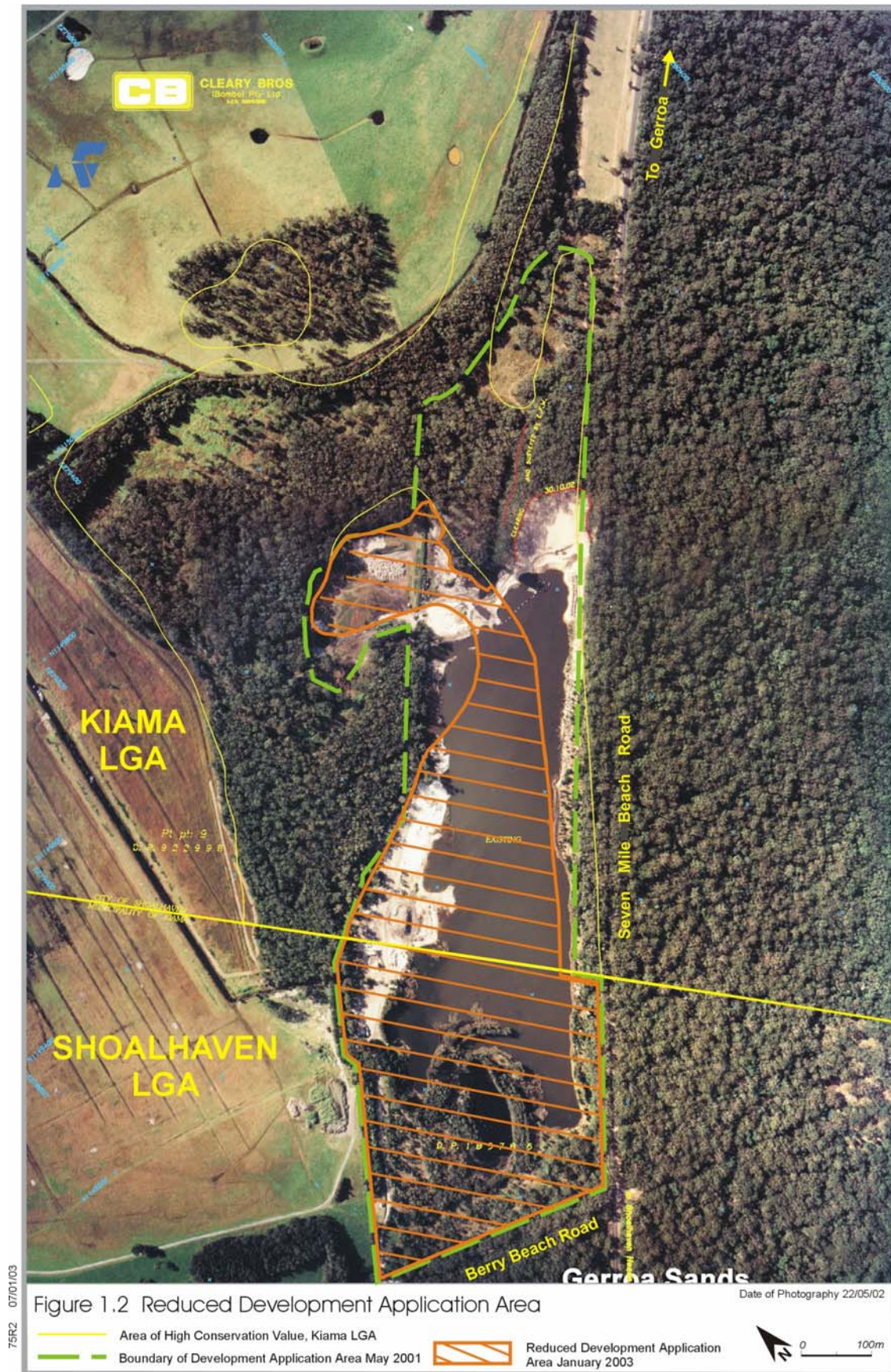


Figure 3 Extension Site Layout – Proposed Gerroa Quarry Extension

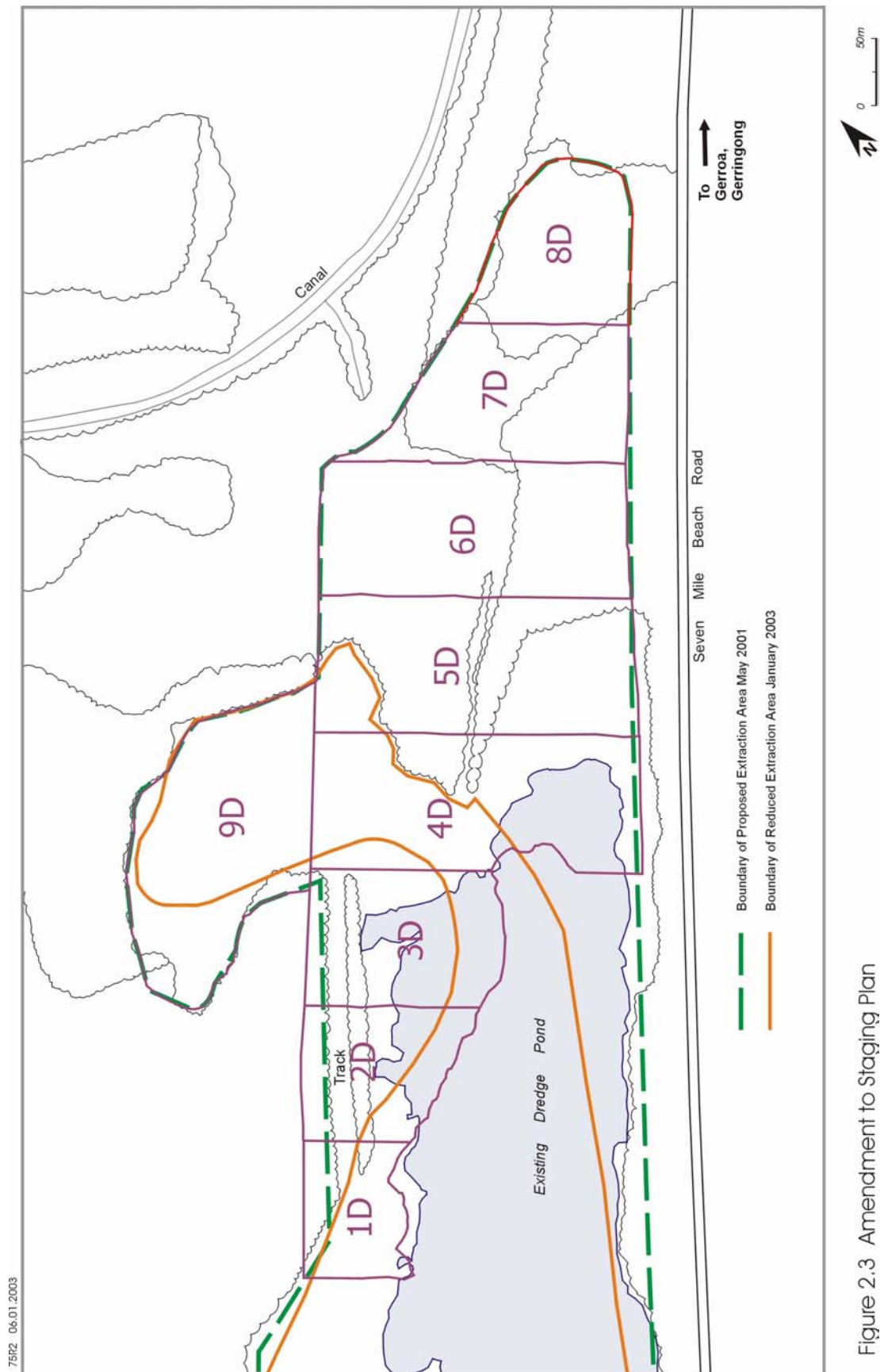


Figure 2.3 Amendment to Staging Plan

3 Statutory Planning Framework

3.1 PERMISSIBILITY

The Shoalhaven portion of the subject land is zoned Rural 1(a) and Environment Protection 7(d2) under the Shoalhaven Local Environmental Plan (LEP) 1985. No extractive activities are proposed in the Environment Protection 7(d2) zone. Extractive industries and associated works are permissible with development consent in the Rural 1(a) zone.

The Kiama portion of the subject land is zoned Rural 1(a) and is partially within an area of high conservation value under Kiama LEP 1996. The amended extraction area is entirely outside the area of high conservation value. Extractive industries are permissible in the Rural 1(a) zone with development consent.

The proposal is permissible with development consent in the zones under the Kiama and Shoalhaven LEPs.

3.2 MINISTERS ROLE

The Minister called the proposal in for determination under section 88A of the Act. The Minister is the consent authority and can determine the Development Applications by either granting or refusing consent under section 80 of the Act.

3.3 LEGISLATIVE CONTEXT

3.3.1 Environmental Planning and Assessment Act 1979

State Significant Development

Since the Minister called the development applications in, the proposal is classified as State Significant development under section 76A(7) of the Act.

Integrated Development

The proposal is classified as 'integrated development' under section 91 of the Act since it requires an approval from the National Parks and Wildlife Service (NPWS) under section 90 of the *National Parks and Wildlife Act 1974* for permission to disturb or destroy an object of Aboriginal cultural heritage, and an approval from Shoalhaven City Council (SCC) under section 138 of the *Roads Act 1993* for works within the road reserve of Berry Beach Road.

The NPWS and SCC have provided their general terms of approval, indicating that they would provide the relevant approvals for the proposed development.

Non-Designated Development

A proposal is 'designated development' if it is listed under Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* (the Regulation). Since the existing quarry is designated development, the proposal could also be designated development. Clause 35 of Part 2 of Schedule 3 of the Regulation states, however, that development involving alterations or additions to development (whether existing or approved) is not designated development if, in the opinion of the consent authority:

the alterations or additions do not significantly increase the environmental impacts of the total development (that is the development together with the additions or alterations) compared with the existing or approved development.

Clause 36 of the Regulation sets out the following factors that the consent authority must take into account when determining whether a development involving alterations or additions would significantly increase the environmental impacts of the total development:

(a) the impact of the existing development having regard to factors including:

- (i) previous environmental management performance, including compliance with the conditions of any consents, licences, leases or authorisations by a public authority and compliance with any relevant codes of practice, and*
- (ii) rehabilitation or restoration of any disturbed land, and*
- (iii) the number and nature of all past changes and their cumulative effects, and*

(b) the likely impact of the proposed alterations or additions having regard to factors including:

- (i) the scale, character or nature of the proposal in relation to the development, and*
- (ii) the existing vegetation, air, noise and water quality, scenic character and special features of the land on which the development is or is to be carried out and the surrounding locality, and*
- (iii) the degree to which the potential environmental impacts can be predicted with adequate certainty, and*
- (iv) the capacity of the receiving environment to accommodate changes in environmental impacts, and*

(c) any proposals:

- (i) to mitigate the environmental impacts and manage any residual risk, and*
- (ii) to facilitate compliance with relevant standards, codes of practice or guidelines published by the Department or other public authorities.*

The Department's consideration of these factors is outlined below:

Impact of Existing Development

- Cleary Bros has generally complied with the conditions of its 1990 consents and an extension of time to the consent was granted by the Land of Environment Court as recently as December last year. The NPWS has advised that some conditions of a permit issued to Cleary Bros have not been complied with relating to provision of records of Aboriginal cultural heritage. NPWS letter has been responded to by Cleary Bros archaeologist and the Department understands that available information is being provided. NPWS has now issued its general terms of approval for the proposed extension indicating its satisfaction with the proposal;
- The disturbed land on the site has been rehabilitated and landscaped. Encouraging results have been achieved at the southern edge of the dredge pond where the Applicant's ecologist reports that diverse habitats have been created attracting water birds, native animals and reptiles; and,
- There has been one change to the development since the 1990 consent which, as noted above, allowed for an extension of time for an additional 9 months. This modification did not alter the overall impact of the quarry and did not change the operations on site;

Proposed Development

- The scale of the development is minor in relation to the total development and would not involve any increase in the intensity of the operation. The proposal is for an extension in area of extraction and time of the operation. The area of the extension is approximately 10% of the existing extraction area and the operation of the development would be extended by up to 6 years;
- The proposed development would not significantly increase the quarry's impact on environmental qualities in the locality and no clearing of vegetation is proposed;
- The potential impacts can be predicted with reasonable certainty since the current performance of the quarry is well understood from environmental monitoring over the life of the quarry and this would not be intensified by the current proposal; and,
- The proposed development would result in some increases in potential impacts to groundwater systems and a prolongation of amenity impacts on surrounding residents. These impacts are all within acceptable environmental limits and, considering the current quality of the local environment, it is unlikely that the capacity of the receiving environment would be compromised by the proposal.

Management of Impacts

- Cleary Bros has demonstrated that existing environmental management systems at the quarry can effectively manage the proposed development, however any consent for this proposal would allow the Minister to require further improvements in line with current best practice.

The Department therefore recommends that the Minister form the opinion that the proposed alterations and additions are not designated development.

3.4 RELEVANT ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy No. 11 – Traffic Generating Developments

The aim of SEPP 11 is to ensure that the traffic authority is made aware of, and is given an opportunity to make representations in respect of the development referred to in Schedule 1 or 2.

As extractive industry is listed in paragraph (m) of Schedule 1, this policy applies to the proposed development. In accordance with this policy, a copy of the DA and EIS was forwarded to both Shoalhaven and Kiama Councils, and the Roads and Traffic Authority (RTA). Submissions were considered in assessing the traffic impacts of the proposal.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

SEPP 33 requires consent authorities in assessing Development Applications to have regard to the potential risk and offensiveness of the proposal in terms of impacts on human health, property and the biophysical environment. This plan applies to hazardous and offensive industry that, when all measures proposed to reduce or minimise impacts on the locality have been employed, would still pose a significant risk in relation to human health, life or property, or the biophysical environment.

The proposal would not result in any changes to the storage or use of hazardous materials at the site. The existing site currently stores diesel and lubricating oil which are classified as combustible liquids, class C1 and C2, under the *Australian Dangerous Goods Code* and are not “hazardous materials” as defined in SEPP 33. Therefore the development is not classified as a potentially hazardous development.

The quarry is potentially offensive as it requires an environment protection licence. The EPA has advised that the size and scale of the extension proposal is such that it would not require a variation to the existing licence. Therefore SEPP 33 does not apply to the development.

State Environmental Planning Policy No. 55 – Remediation of Land

SEPP 55 provides a State-wide planning approach for the protection of health and the environment from contamination and remediation of contaminated land. Clause 7 of this policy stipulates that a consent authority must not grant consent to the carrying out of any development on land unless:

- a) *it has considered whether the land is contaminated, and*
- b) *if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

The subject site is currently vacant cleared land in a rural area. Given the current land use and history of the site the Department considers that it is unlikely to be contaminated. Geological and groundwater investigations did not detect contamination. It is considered that the site is suitable for the proposed development and would not require any remediation prior to commencement of the proposal.

State Environmental Planning Policy No. 71 – Coastal Protection

The Development Applications were lodged in 2001 therefore the proposal is not subject to SEPP 71, however the site is located within the Coastal Zone and the Applicant was asked to assess the development against the provisions of the Policy. A detailed assessment of the proposal against the relevant provisions of SEPP 71 is in Appendix A. This assessment concludes that the proposal is generally consistent with SEPP 71.

Illawarra Regional Environmental Plan No.1

Illawarra REP 1 applies to the site and sets certain matters to be considered in the assessment of development applications. The resource on the site is identified in the Plan as being of regional significance. A detailed assessment of the proposal against the relevant provisions of Illawarra REP 1 is in Appendix A and concludes that the proposal is generally consistent with the Plan.

Kiama Local Environmental Plan 1996

The land to be developed is zoned Rural 1(a) under Kiama LEP 1996. The proposal is assessed against the objectives of that zone and other relevant provisions of Kiama LEP 1996 in Appendix A. This assessment concludes that the proposal is generally consistent with Kiama LEP 1996.

Shoalhaven Local Environmental Plan 1985

The land to be developed is zoned Rural 1(a) under Shoalhaven LEP 1985. The proposal is assessed against the objectives of that zone and other relevant provisions of Shoalhaven LEP 1985 in Appendix A. This assessment concludes that the proposal is generally consistent with Shoalhaven LEP 1985.

3.5 DEVELOPMENT CONTROL PLANS

Kiama and Shoalhaven Councils have advised that there are no development control plans or draft development control plans that would relate to the site or the proposed development.

3.6 SECTION 94 CONTRIBUTIONS

The existing quarry currently pays section 94 contributions to Kiama Municipal Council and Shoalhaven City Council for road maintenance. Contributions are paid under the 1990 consent as follows:

Kiama: \$0.30 per tonne of sand transported

Shoalhaven: \$0.20 per tonne of sand transported

The contributions are indexed annually to the RTA's Cost Rise Index and the contribution to Kiama is currently \$0.395 per tonne. Kiama Council has advised that contributions should continue to be paid at the current rate.

Shoalhaven Council has prepared and exhibited a draft section 94 contributions plan which would require a contribution of \$0.30 per tonne. The Department has reviewed this draft Plan and considers that Council has established sufficient nexus and justified the contribution rate.

The Minister has the power to impose conditions requiring a contribution to public services under section 94 of the Act without an approved contributions plan being in place. The Department considers that the contributions proposed by the Councils are justified and has included conditions requiring such contributions in the recommended instrument of consent.

3.7 NSW COASTAL POLICY 1997

Since the development is within the Coastal Zone the NSW Coastal Policy applies. The Policy sets out a number of objectives and strategic actions that are to be considered by the consent authority when assessing a development application, under clause 92 of the Regulation. Objectives and strategic action relevant to the proposal have been considered in Appendix A. This assessment concludes that the proposal is generally consistent with the NSW Coastal Policy.

3.8 RELATIONSHIP WITH EXISTING DEVELOPMENT CONSENTS

The Applicant has not applied to revoke or modify the existing consent on the site, granted by the Land and Environment Court in 1990. The recommended instrument of consent would operate over the same land, with the addition of the quarry extension site, and provide for continued operation of the processing and administrative facilities at the existing quarry. The existing consent will expire in September 2003.

3.9 CONCLUSION

The Department has assessed the development applications for the proposed Gerroa Quarry Extension in accordance with the Act and Regulation. All statutory requirements under NSW legislation have been met. The Department has considered the proposed development in the context of all relevant environmental planning instruments. The Department concludes that the proposal is generally consistent with the aims, objectives and provisions of all applicable instruments, plans, and policies.

4 Stakeholder Consultation and Summary of Issues Raised

The Department's consultation with stakeholders has been comprehensive and in keeping with the scale and implications of the proposed development. The views expressed by each government agency, special interest group, and individual have been carefully considered. The Department has conducted public participation in accordance with the Act and the Regulation. The public consultation included:

- advertising, notification, and public exhibition of Development Applications by Shoalhaven City Council and Kiama Municipal Council from 16 August to 14 September 2001;
- advertisement of the exhibition period for the amended Development Applications in the South Coast Register on Friday 24 January and Wednesday 5 February 2003, the Illawarra Mercury on Friday 24 January and Wednesday 5 February 2003, and the Kiama Independent on Wednesday 29 January and Wednesday 5 February 2003.
- notification of nearby and potentially affected landholders and residents, and placement of signs at the site during the exhibition period;
- exhibition of the Development Applications and SEE at the Department's offices in Wollongong and Sydney CBD, Shoalhaven City Council, Kiama Municipal Council, and the Nature Conservation Council from 24 January to 26 February 2003; and,
- consultation with community groups, both Councils and other government agencies through correspondence and meetings.

Kiama and Shoalhaven Councils received a total of 18 public submissions during the first exhibition period in 2001. These submissions are summarised in Appendix C. The major issue raised in submissions was the potential impacts of the proposal on the native bushland, particularly the Swamp Mahogany/Swamp Oak community which had since been listed under the *Threatened Species Conservation Act 1995* as the endangered ecological community "Sydney Coastal Estuary Swamp Forest". Concern was also raised over the proposal to extract in the area of High Conservation Value in Kiama LEP. The amendment to the DA addressed these issues by eliminating all vegetation clearing and works in the area of High Conservation Value.

A summary of submissions received by the Department during the exhibition of the amended DAs is provided in Table 1.

Table 1 Summary of Submissions to Amended DAs

Submission Type	Number of submissions received	Submissions objecting to proposal
Community Private Individual	4	4
Community groups	2	2
Government Agencies	10	
Councils	2	
Total	18	6

The elected representative for the Kiama Electorate is Mr Matt Brown MP. His views on the proposed development are unknown.

The National Parks and Wildlife Service (NPWS) expressed concern over the initial proposal to clear the Swamp Mahogany – Swamp Oak Forest community and associated fauna impacts. NPWS also requested further work on Aboriginal cultural heritage. Following the amendment to the proposal NPWS recommended conditions of approval for flora and fauna, and provided general terms of approval for a permit under section 90 of the National Parks and Wildlife Act 1974.

The former Department of Land and Water Conservation (DLWC) identified potential impacts on flooding, groundwater, surface water, and acid sulphate soils, in its response to the first exhibition period. The Applicant prepared additional flooding and groundwater studies before the modification of the proposal and this information was forwarded to DLWC. Following the modification of the DA, DLWC indicated that any vegetation clearing would require approval under the *Native Vegetation Conservation Act 1997* and highlighted inconsistencies between the flood study and previous studies.

The Coastal Council did not supply any specific comments since it considered the proposal to be a minor extension to an existing operation.

In both its submissions the Environment Protection Authority (EPA) advised whether or not the proposal would require a variation to the Environment Protection Licence. The amended DA will not require a variation and the proposal is not integrated for EPA.

The Department of Mineral Resources advised that it is satisfied with assessment of resource issues related to the amended proposal.

The Roads and Traffic Authority (RTA) referred the DA to the Southern Regional Development Committee which recommended conditions requiring an upgrade to the quarry entrance intersection, removal of truck speed limits, use of certain haulage routes and section 94 contributions.

Kiama Municipal Council noted that the amended development proposal substantially addressed many of the key issues Council had with the original DA. Council advised it had no objection to the proposal proceeding provided a series of recommended conditions are attached to any consent. Council's conditions relate to reporting, traffic management, intersection upgrades, water quality, rehabilitation, noise, and section 94 contributions. Council provided a letter stating it has no objection to the recommended conditions of consent.

Shoalhaven City Council provided standard conditions for use as general terms of approval under the *Roads Act 1993*.

The key issues that were raised in public and special interest group submissions to the amended DAs are identified below:

- potential for impacts on the Swamp Mahogany / Swamp Oak vegetation community and the need for a buffer zone around vegetation;
- inaccuracies in the flood study;
- lack of resource assessment;
- lack of information relating to acid sulphate soils;
- need for compensatory measures to ameliorate impacts on vegetation;
- lack of information about proposed rehabilitation;
- need to adopt a precautionary approach;
- groundwater impacts;

- landuse conflict with surrounding rural activities and the National Park;
- impacts due to quarry trucks on local roads;
- need for a time limit to the consent period; and,
- need for a strategic approach to resource use and utilisation of substitute materials.

These issues are addressed in section 5 of this report. Copies of Government, Council, and public submissions received in the second exhibition period are in Appendix D.

5 Consideration of Environmental Issues

5.1 AIR QUALITY IMPACTS

The existing quarry and proposed extension are based around a wet extraction method by dredging. Sand processing is carried out either wet or dry, and sand product is stockpiled in a compacted area. Trucks are used to transport the material off site on an existing compacted haul road. The opportunity for dust generation at the quarry is therefore low due to the wet extraction and processing and limited truck movement on existing compacted areas.

Dust monitoring at the quarry in 2000, reported in the SEE, confirms that cumulative dust deposition in the locality was less than 55% of the EPA's air quality impact assessment criteria for dust deposition (4 g/m²/month). The proposal would not result in an intensification of the quarry production or an expansion of the disturbed area, therefore dust generation is expected to be similar to current levels.

No submissions identified air quality impacts as a matter of concern.

The Department is satisfied that air quality impacts of the proposed development would comply with relevant air quality criteria and not adversely affect amenity in the locality.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Continue to manage dust emissions from potential sources and formalise any procedures in a Quarry Environmental Management Plan;*
- *Monitor ambient air quality;*
- *Report on air quality monitoring and modifications required to management practices in an annual environmental management report.*

5.2 NOISE IMPACTS

The Applicant prepared a noise impact assessment in accordance with the EPA's *Industrial Noise Policy (INP)*. Nearest potential noise receptors were identified as two residences on the southern side of Berry Beach Rd. The nearest of the two residences is approximately 400m from the processing area. Noise sources were modelled using sound power level measurements taken on site. The proposal would not result in additional noise sources or intensity of operations above that which exists under the current approval. The results of the noise modelling of the quarry are shown in Table 1 below.

Table 1 – Noise modelling results

Location	Period	Predicted Noise Levels, L_{Aeq}	Noise Criterion	Exceedance
Lot 2	Calm & isothermal conditions	41	40	+1
	Slight wind conditions	44		+4
Lot 3	Calm & isothermal conditions	43	40	+3
	Slight wind conditions	45		+5

1. Project Specific Noise Level (or Criterion) established from earlier studies.
2. 'Worst-case' scenario - assuming all noise sources operate concurrently. This may not actually occur in practice.

The noise criterion (project specific noise goals) in the above table were developed according to the INP. The existing development was assessed before the INP was adopted and the quarry's current EPA licence has no noise limits, which explains why some exceedances of the criteria are apparent.

Given the predicted exceedances of project specific noise goals, particularly under adverse wind conditions, the Applicant has proposed measures to further mitigate noise generation from the site. The key noise sources at the site are the stationary plant and equipment which is located closest to the residences. It is therefore feasible to acoustically treat the equipment by installing a noise bund or wall. The Applicant's acoustic consultant expects that such a treatment would provide the required attenuation of 5dB(A) and has recommended design features for the acoustic treatment.

The Department acknowledges that the proposal is unlikely to increase existing noise impacts on residents while noting that improvements can be made to the operation to further reduce noise. The Department considers that if the development proceeds, the overall impact of noise on surrounding residents is likely to be reduced.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Comply with the project specific noise goal of 40 dB(A) at affected residences;*
- *Install acoustic treatments as required to achieve the above noise limit;*
- *Include specific noise mitigation procedures in the Quarry Environmental Management Plan; and,*
- *Monitor and report on compliance with the noise limit.*

5.3 WATER AND FLOODING IMPACTS

Surface water in the quarry area generally drains to the dredge pond. The quarry site is contained within a flood bund that is constructed to AHD 3.2m. The dredge pond acts as a detention basin/settling pond and has one EPA licenced discharge point for periods of high rainfall. The proposed extension would not alter the existing surface water management regime and EPA has advised that no variation to the EPA licence is required.

Flooding was considered in a report by Perrens Consultants, prepared in response to a letter from the former DLWC. Due to the proximity of the site to the entrance of the Crooked River, an Ocean Tailwater Control study was completed as part of the flood study. In worst-case flooding and ocean tailwater conditions, the modelling conducted

shows that the proposed development would increase flood levels by only 20mm due to the large flood storage capability of the low lying Foy's Swamp to the west, and the small relative size of the quarry itself. In order to exclude the quarry from floodwaters and prevent erosion and scouring of the site the existing 3.2m AHD flood bund would be extended around the quarry extension area. The former DLWC was concerned over inconsistencies between flood studies undertaken for the site in 1990 and 2003. The 2003 flood study supersedes the work done in 1990 by incorporating computer modelling techniques to improve certainty in flooding predictions. The differences noted by DLWC are due to the improved method of assessment and the Department accepts the results of the 2003 study.

Water from the dredge pond is extracted with the sand and used for processing before being recycled directly to the dredge pond. Water consumption at the site is therefore restricted to moisture in sand product which leaves the site. Groundwater and dredge pond water level and quality monitoring between 1993 and 2000 has been used to assess impacts of the operation on the groundwater system. The data indicates that variations in groundwater and dredge pond water level and pH are related to rainfall events rather than sand extraction. No dieback was observed in a 100m long strip of vegetation located 20m from the edge of the dredge pond during the period 1993-2000, indicating that any changes in the groundwater regime have not indirectly affected vegetation. As the extension area is small compared to the area already extracted it is expected that future impacts on groundwater would be similar and acceptable.

Monitoring at the existing quarry has not detected variations in acidity that could be attributed to acid sulphate soils. Analysis of dredge pond pH indicates that either pyritic acid sulphate materials are not present in the soil formation or the exposure time is insufficient to cause oxidation. The extraction method of recycling water directly to the dredge pond limits the opportunity for any acid sulphate materials to oxidise. The Department is satisfied that acid sulphate soils are unlikely to be oxidised during the extraction process, however the Applicant should be required to undertake a product monitoring program to ensure that acid sulphate material does not leave the site in sand product.

The Department expects that potential impacts on surface water and groundwater due to the proposed expansion will be similar to impacts of the current operation and is satisfied that the scale of any potential impact would not prevent approval of the proposal.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Install and maintain a continuous flood bund around the entire site;*
- *Monitor surface and ground water quality, and any acid sulphate materials in the product; and,*
- *Develop a quarry management plan for the site incorporating erosion and sediment control procedures and measures to prevent surface and groundwater impacts.*

5.4 FLORA AND FAUNA IMPACTS

The Applicant conducted a detailed assessment of flora and fauna impacts of the original proposal. Several fauna surveys were conducted for the SEE, however no threatened fauna was found on the site. The majority of public submissions raised concern over the original proposal to clear vegetation on the site, particularly an area of Swamp Mahogany/Swamp Oak Forest. This community is considered to be a sub-

group of the *Sydney Coastal Estuary Swamp Forest in the Sydney Basin Bioregion* endangered ecological community which was listed under the *Threatened Species Conservation Act 1995* on 22 December 2000.

Subsequently, however, Cleary Bros amended its proposed extraction area, removing all areas where vegetation clearing was proposed. The amended proposal would have no direct impacts on any vegetation, including the endangered ecological community. The elimination of vegetation clearing also ensured there would be no loss of fauna habitat and no direct impacts on fauna likely to occur in the locality.

Potential indirect impacts on vegetation could occur through changes in the local groundwater regime, however the groundwater impact assessment undertaken by Douglas Partners concluded that groundwater levels and pH are unlikely to change outside the range of the natural variation in those parameters. The Applicant's flora and fauna study proposes a buffer zone for extraction around vegetation to limit indirect impacts. The study suggests a buffer that is variable along the forest boundary and remains outside the root ball of individual trees.

NPWS requested a minimum buffer that is outside the canopy of any trees and shrubs and at least 10m from the stem of any mature tree or shrub over 5m, including plants of *Eucalyptus robusta*, *Casuarina glauca*, *Melaleuca linarifolia*, *Eucalyptus botryoides*, or *Livastona australis*.

The Department considers that both approaches to a buffer zone have merit, however the buffer proposed by the Applicant may cause roots to be exposed and does not allow for growth of trees and expansion of the root ball. The NPWS proposed buffer would provide an arbitrary 10m zone from the stem of a tree, however larger trees may require an additional buffer due to the extension of the root ball. In order to reconcile these issues, the Department considers that the buffer should be related to the size of the root ball and provide adequate distance for expansion and tree stability. This could be provided by a buffer of 5m from the root ball of any tree or shrub. The Department is satisfied that such a buffer would mitigate any indirect impacts on vegetation.

The Department agrees with NPWS that the Applicant should improve its management of the Swamp Mahogany/Swamp Oak Forest on the site by eradicating weeds and revegetating the community. The Department is satisfied that the overall proposal is unlikely to impact negatively on flora and fauna on the site.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Survey and fence a buffer zone for the extraction area a minimum of 5m from the root ball of any tree or shrub. The buffer zone shall be marked out by a qualified ecologist or botanist and approved by the Director-General before extraction commences;*
- *Establish a program to remove weeds and revegetate the areas of Swamp Mahogany/Swamp Oak Forest on the site, and rehabilitate all extraction areas.*

5.5 CULTURAL HERITAGE IMPACTS

The original SEE included an assessment of cultural heritage across the site and recommended further work in the 9D area. The amended application proposes to extract within the 9D area. Sub-surface testing was undertaken and an additional Aboriginal cultural heritage assessment was prepared for the amended development application.

The subsurface testing found both stone artefacts and shell material indicating the presence of Aboriginal middens in the proposed extension area. All Aboriginal sites and objects in the extraction area would be disturbed by the dredging operation. The consultant assessed the significance of these Aboriginal objects as low to moderate at the local level, mainly since Cleary Bros has set aside two areas for preservation which would not be affected by sand extraction.

The Jerrinja Local Aboriginal Land Council (LALC) had representatives present during site surveys and stated it has no objection to the development proceeding, provided monitoring is undertaken during extraction operations.

The NPWS provided General Terms of Approval indicating it would issue a permit to destroy Aboriginal objects on the site under section 90 of the *National Parks and Wildlife Act 1974*.

The Department is satisfied that the proposal is unlikely to have significant impacts on cultural heritage on the site or in the locality. As requested by NPWS and the Jerrinja LALC, conditions requiring monitoring and implementing the recommendations of the Applicants cultural heritage report should be imposed.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Undertake ongoing monitoring of Aboriginal cultural heritage during stripping operations on the site, in consultation with the Jerrinja LALC;*
- *Cease work and consult with NPWS and the local Aboriginal community should any cultural heritage objects be uncovered during works on the site; and,*
- *Incorporate such procedures in an environmental management plan.*

5.6 TRANSPORT IMPACTS

Currently the site produces up to 29 truck movements per day with 70% of loads being delivered to destinations north of the site and the remainder to the south. This contributes a minimal amount to traffic flows on Gerroa Rd, measured by the RTA as just under 7,000 vehicles per day in 1997 with 325 trucks on average per day. A review of accident statistics on local traffic routes did not reveal any particular concerns related to quarry trucks.

The proposed quarry extension would not intensify the extraction of sand and vehicle movements from the site are not expected to increase. Vehicle movements are limited by the proposed maximum extraction rate of 80,000 tonnes per annum which would be included as a condition of consent.

Three public submissions raised concern over truck movements from the site and impacts on local roads. The quarry is required to pay section 94 contributions to both Kiama and Shoalhaven Council's for road maintenance.

RTA referred the DA to the Southern Regional Development Committee (SRDC) which had no objection to the proposal and recommended that the Applicant be required to upgrade the quarry access road on Berry Beach Rd to a BAL/BAR configuration. The SDRC also recommended that the 50km/h quarry truck speed limits in the existing consent not be included in any future consent. The Applicant's traffic noise impact assessment confirms that truck speed limits are not required to mitigate potential noise

impacts. The Department agrees that no truck speed limits should be imposed since they are unnecessary and frustrate other drivers who travel at the posted speed limits of 80 or 100km/h.

To upgrade the quarry access road intersection, an approval was required under the *Roads Act 1993* from Shoalhaven City Council. Council provided General Terms of Approval for the upgrade which have been included in the recommended conditions of consent.

The Department considers that since the proposal will not increase truck movements from the quarry, traffic impacts from the development would not be significant.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Transport no more than 80,000 tonnes per annum from the site;*
- *Prepare a Transport Code of Conduct to outline minimum requirements for driver behaviour and truck movements from the site; and,*
- *Upgrade the quarry access road intersection in accordance with Shoalhaven Council's General Terms of Approval.*

5.7 LANDSCAPE AND VISUAL AMENITY IMPACTS

Potential viewing locations to the site are restricted to traffic moving along Berry Beach Rd or Seven Mile Beach Rd adjacent to the site. The existing quarry is screened from both roads by environmental bunds which have been constructed and substantially rehabilitated with native vegetation.

The proposed extension area is to the west of the existing dredge pond and further from both public roads than the existing extraction area. It is completely screened by vegetation in the south and the existing environmental bund along Seven Mile Beach Rd to the east.

The extraction of sand would result in minor variations in the local topography and the creation of a lake connected to the groundwater system. The edges of the lake and other cleared areas would be rehabilitated with native vegetation similar to rehabilitation already completed in the southern part of the site.

Changes to the local landscape as a result of sand extraction would not be visible from off site and are unlikely to affect visual amenity or landscape quality in the long term. The Department is satisfied that visual and landscape impacts associated with the proposal would be minimal and acceptable.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Rehabilitate the site with native vegetation;*
- *Prepare and implement a Rehabilitation Plan and Landscape Plan as part of the Quarry EMP to detail rehabilitation procedures and objectives;*
- *Lodge a Rehabilitation Bond with the Minister to ensure all rehabilitation works are satisfactorily completed.*

5.8 WASTE MANAGEMENT IMPACTS

Waste generated at the existing quarry site is managed in accordance with the Environment Protection Licence for the site. The proposed quarry extension would not result in any changes to waste generation or management on the site. Waste management at the site is unlikely to have any significant environmental impacts, however since Cleary Bros has a wide variety of operations in the area including waste transport, a condition should be included prohibiting transport of waste to the site.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Ensure that no waste is transported to the site for disposal.*

5.9 HAZARDS

The proposal would not result in any changes to the storage or use of hazardous materials at the site. The existing site currently stores diesel and lubricating oil which are classified as combustible liquids, class C1 and C2, under the *Australian Dangerous Goods Code* and are not “hazardous materials” as defined in SEPP 33. Therefore the development is not classified as a potentially hazardous development.

The Department is satisfied that the proposal would not have any significant off-site risk impacts and that the requirements of SEPP 33 have been complied with.

5.10 SOCIO-ECONOMIC IMPACTS

The proposal would not result in any immediate changes to employment or investment in the area, however it would provide for continuation of employment for the current staff for up to 6 years. The development is likely to continue to supply the same markets at similar rates, providing ongoing economic activity in the locality. Some of the benefits from the employment generation and economic activity would be expected to flow on to the local community through expenditure on local goods and services and section 94 contributions to the local Councils.

The Department is satisfied that the proposal is unlikely to have significant adverse socio-economic impacts and that the local community would continue to experience some flow-on benefits from the quarry.

The quarry has a history of conflict with local environmental groups including litigation in the Land and Environment Court. This has led to poor communication between the quarry operators and the local community. In order to improve the existing situation, the Department considers that the Applicant should be required to establish a Community Consultative Committee to provide an open forum for communication with the community, local Councils, and Government agencies.

Recommendations

If the Minister determines to approve the Development Application the Applicant should be required to:

- *Establish a community consultative committee for the quarry.*

5.11 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Ecologically sustainable development (ESD) is one of the objects of the Act set out in section 5. The regulation requires, under Schedule 2, that and EIS contain a justification for a development proposal considering the following principles of ESD:

- a) the precautionary principle;
- b) inter-generational equity;
- c) conservation of biological diversity and ecological integrity; and,
- d) improved valuation, pricing and incentive mechanisms.

The Department has considered and implemented the precautionary principle in its assessment of the proposal. The Applicant has designed the proposal to minimise impacts on threatened species and has reduced the proposed extraction area to avoid potentially irreversible impacts on an endangered ecological community. This action, combined with the rehabilitation and revegetation of the site would ensure that biological diversity and ecological integrity in the area are conserved and enhanced.

The Department recognises that extractive industry operations deplete in situ resources and potentially restrict use of these resources by future generations. The proposal would result in the removal of 300,000 tonnes of sand resource, however the economic benefit and activity generated by this resource would assist current and future generations to develop alternative technologies which reduce reliance on non-renewable resources.

The efficient use of sand in building and infrastructure construction is a value-adding process that results in products which have a life of at least 50-100 years. In addition, the use of extractive materials in construction does not result in destruction of the material. The Department considers that future reuse of extractive materials used in construction is a reasonable eventuality that would not significantly restrict the wellbeing of future generations.

The Department considers that the Applicant has adequately considered the environmental and social costs of the proposal and is satisfied that, on balance, the value of the sand resource to the community and the State justifies the proposal going ahead.

The Department is satisfied that the proposal is generally consistent with the principles of ESD.

6 Recommended Instrument of Consent

The Department has prepared a set of recommended conditions of consent for the proposal. These conditions include NPWS's and Shoalhaven City Council's General Terms of Approval.

The conditions are required to:

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

The Applicant, Shoalhaven Council, and Kiama Council have been consulted and have agreed with the conditions in the recommended instrument of consent.

7 Section 79 (C) Consideration

Section 79C of the Act sets out the matters that a consent authority must take into consideration when it determines a DA.

The Department has assessed the DA against these matters (see Appendix B), and is satisfied that:

1. the proposal is generally consistent with the provisions of the relevant planning instruments;
2. the potential impacts of the proposal could either be mitigated or managed; and
3. the proposal is generally in the public interest.

8 Conclusions

The Department is of the opinion that the proposed development is consistent with State and regional planning objectives relating to environmental management, sustainable development and resource utilisation. It is further considered that the potential environmental impacts of the proposal can be suitably managed such that they do not preclude the granting of development consent. The proposal would also provide socio-economic benefits to the locality and the region. It is therefore concluded that the proposal should be approved, subject to the conditions of consent designed to control and mitigate potential environmental impacts.

9 Recommendations

It is RECOMMENDED that the Minister:

- (i) Consider the findings and recommendations of this report;
- (ii) Form the opinion that the proposed alterations and additions are not designated development;
- (iii) Approve the DA subject to conditions under Section 80 of the Act; and
- (iv) Sign the attached Instrument of Consent.

David Kitto
A/Manager – Mining and Extractive Industries
Major Development Assessment Branch
ENDORSED:

Sam Haddad
Executive Director
Sustainable Development

Report prepared by Matt Andrews

APPENDIX A – ENVIRONMENTAL PLANNING INSTRUMENTS AND NSW COASTAL POLICY

State Environmental Planning Policy No. 71 – Coastal Protection

The relevant provisions of the Plan are considered below:

State Environmental Planning Policy No. 71 – Coastal Protection		
1.	(a) to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and (b) to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and (c) to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and (d) to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and (e) to ensure that the visual amenity of the coast is protected, and (f) to protect and preserve beach environments and beach amenity, and (g) to protect and preserve native coastal vegetation, and (h) to protect and preserve the marine environment of New South Wales, and (i) to protect and preserve rock platforms, and (j) to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the <u>Protection of the Environment Administration Act 1991</u>), and (k) to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and (l) to encourage a strategic approach to coastal management.	Consistent N/A N/A Consistent Consistent N/A Consistent Consistent N/A Consistent N/A Consistent
8.	(b) existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved, (c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability, (d) the suitability of development given its type, location and design and its relationship with the surrounding area, (e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss	N/A N/A Consistent N/A

	<i>of views from a public place to the coastal foreshore,</i> <i>(f) the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,</i> <i>(g) measures to conserve animals (within the meaning of the <u>Threatened Species Conservation Act 1995</u>) and plants (within the meaning of that Act), and their habitats,</i> <i>(h) measures to conserve fish (within the meaning of Part 7A of the <u>Fisheries Management Act 1994</u>) and marine vegetation (within the meaning of that Part), and their habitats</i> <i>(i) existing wildlife corridors and the impact of development on these corridors,</i> <i>(j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,</i> <i>(k) measures to reduce the potential for conflict between land-based and water-based coastal activities,</i> <i>(l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,</i> <i>(m) likely impacts of development on the water quality of coastal waterbodies,</i> <i>(n) the conservation and preservation of items of heritage, archaeological or historic significance,</i> <i>(o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities,</i> <i>(p) only in cases in which a development application in relation to proposed development is determined:</i> <i>(i) the cumulative impacts of the proposed development on the environment, and</i> <i>(ii) measures to ensure that water and energy usage by the proposed development is efficient.</i>	Consistent Consistent Consistent Consistent Consistent N/A Consistent Consistent N/A N/A Consistent Consistent
14	<i>A consent authority must not consent to an application to carry out development on land to which this Policy applies if, in the opinion of the consent authority, the development will, or is likely to, result in the impeding or diminishing, to any extent, of the physical, land-based right of access of the public to or along the coastal foreshore.</i>	N/A.
15	<i>The consent authority must not consent to a development application to carry out development on land to which this Policy applies in which effluent is proposed to be disposed of by means of a non-reticulated system if the consent authority is satisfied the proposal will, or is likely to, have a negative effect on the water quality of the sea or any nearby beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or a rock platform.</i>	N/A.
16	<i>The consent authority must not grant consent to a development application to carry out development on land to which this Policy applies if the consent authority is of the opinion that the development will, or is likely to, discharge untreated stormwater into</i>	Consistent.

	<i>the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform.</i>	
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Illawarra Regional Environmental Plan No.1

The relevant provisions of the Plan are considered below:

Illawarra Regional Environmental Plan No.1		
11	<i>The objectives relating to rural lands are:</i> (a) <i>to retain the productive capacity of prime crop and pasture lands,</i> (b) <i>to protect valuable natural environments, as identified on sheets 1–10, 14, 15 and 17 of the map,</i> (c) <i>to provide for wildlife movement between major protected wildlife habitats,</i> (d) <i>to effectively manage the development of rural lands having regard to flood potential, bushfire risks, salinisation, soil degradation, erosion and weed infestation,</i> (e) <i>to allow for the development of small rural holdings in appropriate locations,</i> (f) <i>to prevent uneconomic demand for State Government services,</i> (g) <i>to allow for future urban expansion,</i> (h) <i>to retain the scenic attributes of rural areas, and</i> (i) <i>to provide for developments which by virtue of their character require siting away from urban areas.</i>	N/A N/A Consistent Consistent N/A N/A N/A Consistent Consistent
32	<i>The objectives relating to extractive materials are:</i> (a) <i>to manage the extractive resources of the region in a co-ordinated manner so as to meet community needs while ensuring that adverse impact on the environment and the community is minimal,</i> (b) <i>to ensure that development proposals for land containing extractive resources are assessed in relation to the potential problem of rendering those resources unavailable, and</i> (c) <i>to ensure that the transportation of extractive materials has a minimal adverse impact on the community and that the transportation of large volumes of extractive materials shall by-pass urban areas where possible.</i>	Consistent Consistent Consistent
33	Development applications <i>(1)The consent authority shall not consent to a development application for consent to carry out development on land identified on the map as land</i>	

	<i>containing extractive materials otherwise than for the purposes of:</i> (a) <i>extractive industries and related purposes,</i> (b) <i>agriculture and associated purposes,</i> (c) <i>local roads, or</i> (d) <i>home industries,</i> <i>without the concurrence of the Director.</i> (2)<i>In deciding whether to grant concurrence under subclause (1), the Director shall take into account:</i> (a) <i>the impact the proposed development, if carried out, would have on the availability of extractive materials, and</i> (b) <i>whether the benefit to the community of the proposed development, if carried out, is greater than the costs to the community of refusing consent to the development application, redesigning or relocating the development or rendering the extractive materials unavailable.</i>	Consistent N/A
35	Transport of extractive materials <i>When practicable, the consent authority should consider attaching to appropriate development consents a condition requiring the transport of extractive materials or other bulk freight by other than road haulage.</i>	Consistent
106	Sand dune systems <i>In deciding whether to grant consent to a development application for development on frontal or dynamic sand dunes other than for beach restoration purposes, the consent authority shall consult with the Commissioner of the Soil Conservation Service and the Director of Public Works and consider whether:</i> (a) <i>the development is unlikely to have a detrimental impact on the sand dune systems,</i> (b)<i>the development is unlikely to be detrimentally affected by the natural characteristics of the beach system, and</i> (c) <i>public access to the beach is maintained.</i>	Consistent
107	Development generally <i>In deciding whether to grant consent to a development application to carry out development on land adjacent to, or in close proximity to, a lake, lagoon, river or the coast, the consent authority shall take into consideration the need to facilitate public access to the waterfront by requiring dedication of appropriate land, for open space purposes.</i>	N/A

Kiama Local Environmental Plan 1996

The relevant provisions of the Plan are considered below:

Kiama Local Environmental Plan 1996		
8	<i>The objectives are:</i> (a) <i>to provide suitable land for agricultural use;</i>	Consistent

	(b) <i>to protect the agricultural potential of rural land;</i> (c) <i>to prevent the fragmentation of rural land of prime crop and pasture potential;</i> (d) <i>to enable uses that are compatible with the rural use of the land;</i> (e) <i>to protect the landscape quality of the rural area;</i> (f) <i>to cater for small domestically-based enterprises that do not adversely affect the environment or the amenity of the neighbourhood and its residents; and</i> (g) <i>to ensure that development and land management practices do not have an adverse effect on water catchments, water quality, land surface conditions and important ecosystems such as streams, estuaries and wetlands.</i>	Consistent, not prime land. Consistent. Consistent Consistent N/A Consistent
12	(1) <i>The Council shall not grant consent to development on land within Zone No. 1(a) (other than the subdivision of land) unless it has taken into account the effect that the proposed development will have on the agricultural viability of that land and land in the vicinity of that land.</i> (2) <i>The Council shall not grant consent to development on land within Zone No. 1(a) unless it has considered:</i> (a) <i>the effect of the proposed development on agricultural and other land uses undertaken on adjacent and adjoining holdings and other holdings in the vicinity; and</i> (b) <i>the quality of the land and the potential agricultural productivity of the land; and</i> (c) <i>the likely impact of the proposed development on the landscape, vegetation, soil resources and stability and water resources (including the quality of water courses, ground water storage and riparian rights), and the cumulative impact of the development on surface and ground water quality and quantity and on the physical and biological functions of watercourses and riparian corridors; and</i> (d) <i>the effect of the proposed development on the structure and nature of agricultural industries in the area; and</i> (e) <i>the traffic generating effects of the development on access roads; and</i> (f) <i>the cumulative effect of similar proposals if consent is granted; and</i> (g) <i>the likelihood of the land remaining available for</i>	Consistent, not viable agricultural land Considered Considered Considered N/A Considered N/A Considered

	<i>agriculture.</i>	
58	<i>The Council may consent to an application to carry out development on flood liable land if:</i> <i>(a) the development is for a purpose ancillary or incidental to the use of land for the purpose of agriculture; or</i> <i>(b) a statement of environmental effects or an environmental impact statement indicates that the development would not be contrary to the public interest; or</i> <i>(c) the development comprises the extension or alteration of an existing dwelling-house; or</i> <i>(d) the land is in any urban zone under this plan.</i> <i>(3) In considering an application to which subclause (2) applies, the Council shall make an assessment of:</i> <i>(a) the likely levels, velocity, sedimentation and debris carrying effects of flooding; and</i> <i>(b) the structural sufficiency of any building the subject of the application and its ability to withstand flooding; and</i> <i>(c) the effect which the development, if carried out, will or is likely to have on the flow characteristics of floodwaters; and</i> <i>(d) whether or not access to the site will be possible during a flood; and</i> <i>(e) the likely increased demand for assistance from emergency services during a flood.</i> <i>(4) In considering an application for consent required by this clause, the Council may set flood levels, and in granting such a consent it may require filling, structural changes or additions or such other measures to reduce the effects of flooding or to assist in emergency situations as it considers appropriate.</i>	N/A Consistent N/A N/A Considered Consistent
65	<i>(5) The Council must not grant a consent required by this clause unless it has considered:</i> <i>(a) a preliminary soil assessment to ascertain the presence or absence of acid sulfate soils within the area of the proposed works, unless the applicant agrees that acid sulfate soils are present within the area of the proposed works; and</i> <i>(b) the adequacy of an acid sulfate soils management plan prepared for the proposed development in accordance with Acid Sulfate Soils Assessment and Management Guidelines; and</i> <i>(c) the likelihood of the proposed development</i>	Considered N/A

	<i>resulting in the oxidation of acid sulfate soils and the discharge of acid water from the area of the proposed works; and</i> (d) <i>any comments received from the Department of Land and Water Conservation within 21 days of the Council having sent that Department a copy of the development application and of the related acid sulfate soils management plan.</i>	Considered Considered
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Shoalhaven Local Environmental Plan 1985

The relevant provisions of the Plan are considered below:

Shoalhaven Local Environmental Plan 1985		
9	<i>Objectives of zone</i> <i>The objectives are:</i> (a) <i>to conserve and maintain the productive potential of prime crop and pasture land;</i> (b) <i>to ensure that existing or potential agricultural land use is not jeopardised by non-agricultural land uses; and</i> (c) <i>to conserve cultural landscapes.</i>	N/A Consistent Consistent
27	<i>Development on acid sulfate soils (*127)</i> (1) <i>This clause applies to land identified as having high probability to be affected by acid sulfate soils on the map prepared by the Department of Land and Water Conservation entitled "Acid Sulfate Soil Risk Map" dated December 1997(*195) and available for public inspection at the office of the Council.</i> (2) <i>Despite any other provision of this plan, the consent of the Council is required for any development which involves or is likely to involve, through drainage, earthworks, or any other means, the exposure to the atmosphere of any part of soil which contains iron pyrites within land to which this clause applies.</i> (3) <i>The Council must not consent to development described in subclause (2) unless it is satisfied that measures can and will be taken to avoid or mitigate the actual or potential contamination of waterways in the vicinity of the land concerned by acid from acid sulfate soils.</i>	Consistent Consistent
28	<i>Danger of bush fire (*127)</i> (1) <i>In deciding whether to grant consent to any development on land which in its opinion is likely to be affected by bush fire, the Council must take into account whether:</i> (a) <i>the development is likely to have a significant adverse effect on the implementation of any strategies for bush fire control and fuel management adopted by the Council;</i> (b) <i>a significant threat to the lives of residents, visitors or emergency and services personnel may be created or increased as a result of the development</i>	Consistent

	or the access arrangements to and from the development; (c) the increased demand for emergency services during bush fire events created by the development would lead to a significant decrease in the ability of the emergency services to effectively control major bush fires; (d) the measures proposed to avoid or mitigate the threat from bush fire, including siting of the development, design of structures and materials used, clearing of vegetation, fuel free and fuel reduced areas and landscaping and fire control aids such as roads and water supplies, are inadequate or impractical for the locality or would result in unacceptable environmental impacts. (1A) In deciding whether to grant consent to any development on land within Zone No 1(a), 1(b), 1(c), 1(d), 1(e), 1(f), 1(g), 2(c), 7(a), 7(c), 7(d), 7(d2), 7(e), 7(f), 7(f2) or 7(f3) that in its opinion is likely to be affected by bush fire, the Council must have regard to the publication Planning for Bushfire Protection 2001, published by the NSW Rural Fire Service, and must be satisfied that the requirements of that publication have been met, as far as possible. (*195)	Consistent Consistent, no additional effect. No additional measures required. N/A (Guidelines not applicable)
29	Development of flood liable land (*127) (1) Subject to subclause (2), the Council must not consent to the carrying out of development on land which, in its opinion, is flood liable. (2) the Council may consent to the carrying out of development on flood liable land if: (a) the development is for a purpose ancillary or incidental to the use of land for the purpose of agriculture; or (b) the development comprises the extension or alteration of an existing dwelling-house; or (c) the land is in any urban zone under this plan; or (d) the Council has received a flood assessment report, in relation to the land, that addresses each of the matters referred to in subclause (3), and the Council is of the opinion that the development is feasible despite the land being flood liable. (*170) (3) In considering an application to which subclause (2) applies, the Council must make an assessment of: (a) the likely levels, velocity, sedimentation and debris carrying effects of flooding; (b) the structural sufficiency of any building the subject of the application and its ability to withstand flooding; (c) the effect which the development, if carried out, will or is likely to have on the flow characteristics of floodwaters;	N/A N/A N/A Consistent Considered Considered

(d) whether or not access to the site will be possible during a flood; and	Considered
(e) the likely increased demand for assistance from emergency services during a flood.	Considered
(4) In granting consent to a development application made pursuant to subclause (2), the Council may impose conditions that set floor levels, require filling, structural changes or additions or require other measures to mitigate the effects of flooding or assist in emergency situations.	Consistent

NSW Coastal Policy 1997

The relevant provisions of the Policy are considered below:

NSW Coastal Policy 1997		
1	1.16 Voluntary conservation agreements will be negotiated with landowners to ensure preservation of plant and animal species on freehold and other lands of significant conservation value. 1.17 Seagrass, mangrove, saltmarsh and other wetland associated species will be conserved and managed as valuable components of the coastal ecosystem by effectively implementing existing controls (eg SEPP 14, Fish Habitat Protection Plans, Ramsar listing of important wetlands) and through controlling runoff, sedimentation and other water quality impacts. 1.3.1 License limits imposed by the Environment Protection Authority will continue to be used as appropriate to control discharges of pesticide compounds, heavy metals and other contaminants from sewage treatment works and other point sources. 1.3.2 Problems of non-point source pollution (eg resulting from urban development) will be addressed through a range of actions including the setting of ambient water quality objectives; the development of stormwater management plans; the promulgation of environmental guidelines; and encouraging the adoption and implementation by industry and developers of “best management practices” for minimising pollution. 1.3.7 The highest possible quality of coastal waters will be ensured by: • establishing water quality and environmental flow objectives for coastal rivers and implementing through catchment plans; • basing waste water discharge limits on the relevant national water quality guidelines and the local ambient water quality objectives in accordance with the Australian Water Quality Guidelines for Fresh and Marine Waters (ANZECC, 1992); • assessing the quality of ocean and estuarine waters against local water quality objectives, where established, and otherwise by using the ANZECC (1992) Marine Waters standards as benchmarks; • monitoring dispersion of pollutants in coastal waters. 1.3.8 The discharge of contaminated stormwater to coastal waters	N/A Consistent EPA licence current Consistent N/A N/A Consistent

	will be minimised, with the aim being to ensure environmentally sound management of stormwater and prevent contamination in the future. 1.4.5 Development proposals on the coastline and offshore, which are threatened by coastal hazards or where they pose a threat to the physical well being of the coastline subject to the provisions of the Coastal Protection Act, 1979 will be approved subject to conditions which minimise impacts or rejected where they pose an unacceptable threat to the physical well being of the coastline. 1.4.7 Development proposals in or adjacent to estuaries will only be approved where conditions can be imposed which minimise potential impacts to the extent that they are acceptable under the Rivers and Foreshores Improvement Act, 1948 and Fisheries Management Act, 1994.	Consistent Consistent N/A
2	2.1.3 Physical and ecological processes and hazards will be considered when assessing development applications. 2.1.4 Initiatives will be taken to address the impacts of acid sulfate soils (ASS) through: •consideration being given to the need for environmental studies which address ASS early in the planning and development process; •the use of ASS soils risk mapping undertaken by the Department of Land and Water Conservation and guidelines for their assessment and management prepared by the Environment Protection Authority in the assessment of any proposals likely to disturb ASS; •EISs being required for certain types of development if located on potential ASS soils in accordance with Schedule 3 of the EP&A Regulation; •monitoring of the impacts of disturbed ASS and requiring restoration and mitigation works to be undertaken progressively; • the preparation of management plans, as appropriate, to effectively manage project level impacts and the remediation of ASS sites. 2.2.2 Appropriate planning mechanisms will be considered for incorporating sea level change scenarios set by the Inter-governmental Panel on Climate Change.	Considered Consistent Considered
5	5.3.4 The responsible recovery of mineral resources within the coastal zone will be ensured through the granting of leases which : – require the proper rehabilitation of mined lands; – impose conditions in the lease agreement for the minimisation of adverse environmental impacts; – impose conditions for the prevention of disturbance of adjacent lands by recovery operations; – conserve and protect flora, fauna, fish, fisheries, scenic attractions, and features of Aboriginal, architectural, archaeological, historical or geological interest; – require the preparation of a mining rehabilitation and environmental management plan which will serve to document and monitor the environmental management strategy, including rehabilitation which will apply to the particular operation; – require the lodgement of a security deposit (performance bond) by the proponent, to ensure compliance with lease conditions;	Mineral lease not required however proposal is generally consistent with these provisions.

	– require that any necessary development consent be obtained from the relevant consent authority under the EP&A Act, 1979 prior to the granting of any lease.	
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APPENDIX B – SECTION 79C CONSIDERATION

Section 79C requires that the consent authority, when determining a development application, takes into consideration the following matters:

a) The provisions of:

i) *any environmental planning instrument;*

The following environmental planning instruments are relevant to the proposed development:

- *State Environmental Planning Policy No. 11 – Traffic Generating Developments*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*
- *State Environmental Planning Policy No. 55 – Remediation of Land*
- *State Environmental Planning Policy No. 71 – Coastal Protection*
- *Illawarra Regional Environmental Plan No.1*
- *Kiama Local Environmental Plan (LEP) 1996*
- *Shoalhaven Local Environmental Plan (LEP) 1985*

The consistency of the proposal with these planning instruments is assessed in section 3.4 and in Appendix A. The proposal is generally consistent with the provisions of relevant environmental planning instruments.

ii) *any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority;*

There are no draft environmental planning instruments relevant to the proposed development.

iii) *any development control plan;*

There are no development control plans relevant to the proposed development.

iv) *any matters prescribed by the regulations that apply to the land to which the development application relates;*

Clause 92 of the *Environmental Planning and Assessment Regulation 2000* requires the following matters to be taken into consideration by a consent authority in determining an application:

- *The Government Coastal Policy (where relevant);*

The NSW Government Coastal Policy 1997 applies to the proposed development site since it is within the Coastal Zone. The proposal has been assessed as generally consistent with the Policy in section 3.7 and Appendix A of this report.

- *In the case of a DA for the demolition of a building, the provisions of Australian Standard AS 2601-1991: The demolition of structures, as in force 1 July 1993;*

The proposed development does not include demolition of structures.

b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;

Section 5 of this report considers the environmental, social and economic impacts of the proposed development in detail. The Department is satisfied that all relevant impacts can be appropriately managed and mitigated through the conditions of the recommended instrument of consent, if the Minister decides to approve the development application.

c) the suitability of the site for the development;

The proposed development site has an existing quarry and a sand resource which has been identified as regionally significant in Illawarra Regional Environmental Plan No1 and a Ministerial direction under section 117 of the Act (direction G28). Surrounding landuses such as residents on rural land potentially conflict with extractive industry development, however the environmental assessment of the proposal concludes that amenity at those locations is unlikely to be affected. The proposal is therefore generally consistent with existing surrounding landuses. Through consideration of each of the relevant impacts posed by the development, detailed in section 5 of this report, the Department concludes that the development can be constructed and operated on the site within appropriate environmental limits. The Department is satisfied that the site is generally suitable for the proposed development.

d) any submissions made in accordance with this Act or the regulations;

All matters raised in submissions have been given due consideration, as outlined in section 4 and Appendix C of this report, and addressed in relevant parts of section 5.

e) the public interest.

The Department has considered each of the issues of concern raised in public submissions. Assessment of each of these issues has concluded that the proposed development can be carried out within appropriate environmental limits. The proposal would result in minimal changes to environmental amenity and quality in the locality and the region during its operation. The local community would also benefit from the economic flow on effects of the development and improved communication intended through the Community Consultative Committee required in the recommended instrument of consent.

At a regional level, the Department recognises the importance of sand extraction at Gerroa to the construction industry in the Illawarra. The proposed development would continue supply to local and regional markets and provide ongoing benefits to the general public. Having considered both the local and regional stakeholders in the proposed development, the Department is satisfied that the proposal is in the public interest.

APPENDIX C – SUMMARY OF SUBMISSIONS

APPENDIX D – SUBMISSIONS