



ASSESSMENT REPORT

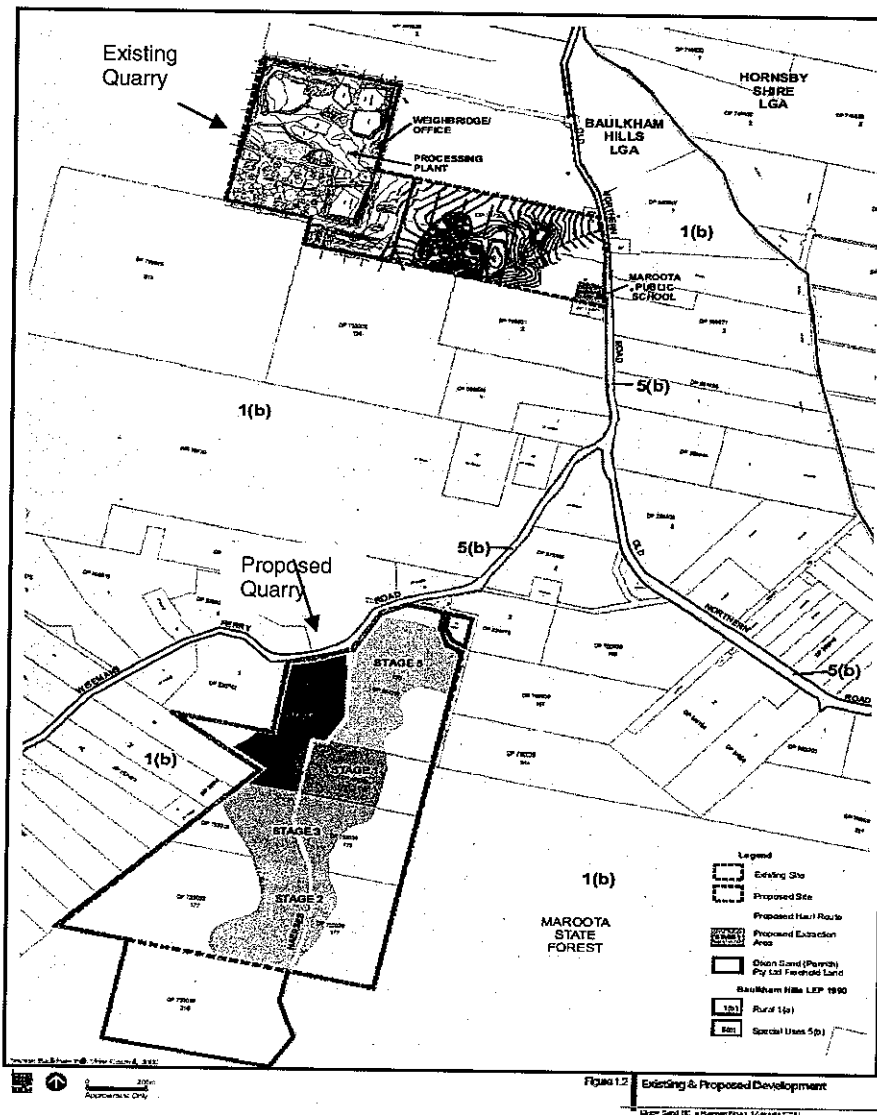
PROPOSED SAND EXTRACTION, HAERSES ROAD, MAROOTA

1. BACKGROUND

Dixon Sand (Penrith) Pty Limited (the Applicant) owns and operates a sand quarry off Old Northern Road, Maroota, in the Baukham Hills LGA (see Figure 1). The existing quarry operates under two Court granted development consents.

Under these consents the Applicant is allowed to:

- produce a maximum of 495,000 tonnes of sand product a year;
- generate a maximum of 120 truck movements per day, of which only 60 movements may be laden; and
- transport sand product to local and regional markets via Old Northern Road and Wiseman's Ferry Road.



The Applicant now proposes to develop a new sand quarry approximately 1.5 km south of the existing quarry, off Wiseman's Ferry Road (see Figure 1); and to operate this quarry in conjunction with the existing quarry.

The proposal site (known as the Haerses Road site) consists of approximately 52 hectares of remnant vegetation and 51.9 ha of largely cleared agricultural land.

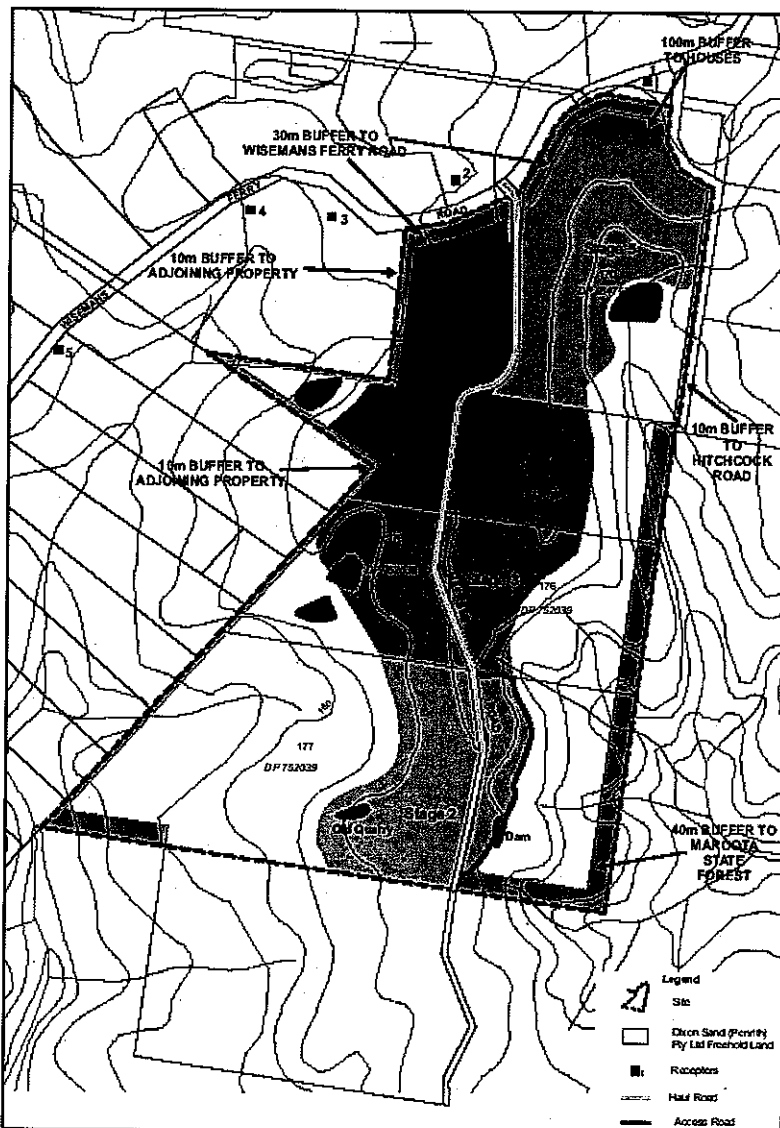
The site is surrounded by an existing sand quarry owned by PF Formation (to the north east), the Maroota State Forest (to the east and south), and a few agricultural properties (to the west and north).

Haerses Road, a partially sealed Council road, runs through the site and provides access from the Maroota State Forest directly onto Wiseman's Ferry Road.

Figure 1 Existing and Proposed Quarry

2. THE PROPOSED DEVELOPMENT

On 25 July 2005, the Applicant lodged a development application (DA 165-7-2005) with the Department for the proposal.



The proposal involves:

- extracting up to 7 million tonnes of sand from the site over a period of 25 years at a maximum rate of 250,000 tonnes per year;
- removing coarse rejects on site using a mobile screen;
- using empty trucks returning to the existing quarry via Wiseman's Ferry road to:
 - haul some of the screened sand directly to local and regional markets (approximately 60,000 tonnes of sand per annum); and
 - haul the remaining screened sand to the existing quarry for processing;
- using facilities and land at the existing quarry for sand processing and tailings disposal; and
- rehabilitating the site to class 4 agricultural land.

The site would be extracted in 5 stages, with each stage being progressively extracted and rehabilitated (see Figure 2). The exception to this is Stage 1, which would commence first and remain operational for the life of the quarry.

Haerses Road, which runs through the site, would be progressively extracted and reinstated as required, however this access would be maintained during the life of the quarry.

Figure 2 Proposed Quarry Plan

The proposal would generate employment for approximately 2 people and involve a capital expenditure of \$346,000. The proposal would also provide 7 million tonnes of sand to the local and Sydney construction materials market, and make a valuable contribution to meeting annual demand which is currently estimated to be between 6 and 7 million tonnes of sand a year.

3. STATUTORY CONTEXT

3.1 Permissibility

The land subject to the DA is zoned 1(b) Rural under the *Baulkham Hills Shire Local Environmental Plan 2005*. Extractive industries are permissible with development consent within this zone.

3.2 State Significant Development

The proposal is classified as State significant under section 76(A)(7) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as it involves an extractive industry that would extract more than 200,000 tonnes of extractive material per year and thereby meets the criteria for State significance under clause 7 of the *State Environmental Planning Policy (State Significant Development) 2005*.

Consequently the Minister is the consent authority for the DA.

3.3 Integrated Development

The proposal is classified as integrated development under section 91 of the EP&A Act as it requires additional approvals from:

- the Department of Environment and Conservation (DEC) under the *Protection of the Environment Operations Act 1997*; and
- Baulkham Hills Shire Council (Council) under the *Roads Act 1993*.

The DEC and Council have issued their general terms of approval for the development.

3.4 Designated Development

The proposal is classified as designated development under Section 77A of the EP&A Act and Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), because it is for an extractive industry obtaining more than 30,000 cubic metres of material per year, and will disturb a total surface area of more than 2 hectares of land. Consequently the DA was accompanied by an environmental impact statement, and is subject to third party merit appeal rights.

4. CONSULTATION

Following the lodgement of the DA, the Department:

- notified Baulkham Shire Council, Hornsby Shire Council, relevant State government agencies, and all residents in the vicinity of the site who would be affected by the proposal;
- advertised the exhibition of the DA and EIS in the Hills Shire Times; and
- exhibited the DA and EIS from 2 August 2005 until 2 September 2005.

This satisfies the requirements for public participation in the EP&A Regulation.

During the exhibition period, the Department received 13 submissions on the proposal: 5 from public authorities, 4 from special interest groups (Glenorie Public School Parents and Teachers Association, Maroota Forest Conservation Committee Inc, Eastbend Rural Communications Inc, and Hawkesbury River Environment Centre), and 4 from the general public. 3 general public / special interest submissions objected to the proposal. 1 public submission supported the proposal. None of the agency submissions objected to the proposal.

Department of Primary Industries (DPI)

DPI did not object to the proposal but raised the following issues for the Department's consideration:

- adequacy of geotechnical investigations undertaken on site;
- rehabilitation and final land use;
- dust impacts; and
- runoff impacts on Little Cattai Creek.

The Department has considered DPI's issues in its assessment of key issues (see section 5.2). In addition, as part of its response to submissions, the Applicant provided detailed information to the DPI regarding the geotechnical investigations undertaken on site. The DPI has advised the Department that this information has addressed DPI's concerns on this issue.

NSW Roads and Traffic Authority (RTA)

The RTA did not object to the proposal subject to the Applicant providing the following road and intersection works at Haerses Road and Wiseman's Ferry Road:

- an 'AUR' right turn treatment to facilitate safe right turn movements at this intersection; and
- safe site distances for the intersection through the lopping and/or removal of trees on Wiseman's Ferry Road, rather than through the reduction of speed limits.

The Applicant has agreed to the RTA's requirements (see section 5.2.4 for more detail).

Baulkham Hills Shire Council

Council did not object to the proposal but provided the following comments/ recommended conditions for the Department's consideration (in addition to its General Terms of Approval under the *Roads Act 1993*):

- the proposal has not been assessed against the requirements of *Baulkham Hills Local Environmental Plan 2005*;
- the proposal does not comply with certain requirements of *Baulkham Hills Development Control Plan No. 16 – Extractive Industries* (DCP 16) in relation to setbacks and the width of internal access roads;
- inadequate assessment of the heritage values of the existing shed on site; and
- that the Applicant make section 94 contributions to Council at a rate of 75c per tonne per annum for the maintenance of public roads.

The Department has assessed the proposal against the relevant statutory provisions (see Appendix A), and is generally satisfied that the proposal is consistent with the relevant provisions of Council's LEP and DCP 16. The

Department has considered the heritage impacts of the proposal in section 5.2.8 of the proposal and determined that the shed is not of significant heritage value. The requirement for section 94 contributions has been incorporated into the Department's recommended conditions of consent.

Department of Natural Resources (DNR)

DNR did not object to the proposal but recommended that the Applicant be required to:

- implement a robust and comprehensive groundwater monitoring program;
- minimise fertiliser use in post rehabilitation lands to prevent groundwater contamination;
- minimise offsite discharge;
- minimise tree clearance on site;
- comply with truck movements limits and DCP 16 setback requirements; and
- ensure that all site amenities include appropriate sewage provisions.

The Department has considered DNR's comments in its assessment of the flora and fauna (section 5.2.1), groundwater (section 5.2.5), and surface water (section 5.2.6) impacts of the proposal and has incorporated requirements for the Applicant to comply with relevant truck movements limits in its recommended conditions of consent. The Department has also assessed the proposal against relevant statutory provisions (see Appendix A), and is generally satisfied that the proposal is consistent with the relevant provisions of DCP 16. Furthermore, the Applicant has advised that its amenities block on site is already connected to the Council sewage system.

NSW Heritage Office

The NSW Heritage Office commented that the development should be sympathetic to the existing cultural landscape of the site. The Department has assessed the rehabilitation and screening measures proposed for the development, and assessed the proposal against the land use objectives of relevant statutory provisions, and believes that the proposal can be operated and rehabilitated to a landform and landuse that is consistent with the existing landuse and landscape of the site and surrounding area.

Public and Special Interest Groups

3 submissions (1 from the public and 2 from specialist interest groups) objected to the proposal on the grounds of potential impacts to flora and fauna, noise, air quality, traffic and transport, ground water, surface water, visual amenity, indigenous heritage and rehabilitation. The Department recognises that these are the key issues associated with the proposal and has considered each in detail in section 5.2 of this report.

In addition to the above, several submissions raised issues relating to previous consents and strategic planning issues, which are largely outside the scope of this DA. These include:

- the alleged mishandling of section 94 contributions in relation to previous consents by Baulkham Hills Shire Council's (this issue was previously dealt with in *Diamond v Minister for Planning New South Wales & Dixon Sand (Penrith) Pty Ltd, 2004*);
- that comprehensive traffic management strategies (including driver education programs and other measures) should be incorporated into the provisions of *Sydney Regional Environmental Plan No. 9 – Extractive Industry (No. 2 – 1995)* (SREP 9);
- that off-shore marine sand extraction is a better alternative to sand extraction in Sydney, and in particular Maroota; and
- that State Government should undertake strategic environmental impact assessments of the entire area covered by SREP 9, and purchase compensatory habitat in joint partnership with local government.

The Department has considered these broader issues in its assessment report insofar as they are applicable to the DA (e.g. traffic impacts, flora & fauna impacts, suitability of the site).

5. SECTION 79C ASSESSMENT

The EP&A Act requires a consent authority to consider the matters under section 79C when it determines a development application. The Department's consideration of these matters is presented below.

5.1 Environmental Planning Instruments

The following environmental planning instruments apply to the proposal:

- *State Environmental Planning Policy No. 11 – Traffic Generating Development* (SEPP 11);
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33);
- *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55);
- *Sydney Regional Environmental Plan No. 9 – Extractive Industry (No. 2 – 1995)* (SREP 9);
- *Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No. 2 – 1997)* (SREP 20);
- *Baulkham Hills Local Environmental Plan 2005*;
- *Baulkham Hills Development Control Plan No. 1 – Rural 1(a), 1(b) and 1(c) Zones* (DCP 1); and
- *Baulkham Hills Development Control Plan No. 16 – Extractive Industries* (DCP 16).

The Department has assessed the proposal against the objectives and requirements of the above planning instruments (see Appendix A of this report), and is generally satisfied that the proposal is consistent with the requirements of these planning instruments.

5.2 Environmental Impacts

The Department has assessed the DA and the submissions on the proposal, and believes the key issues are as follows:

5.2.1 Flora and Fauna

Issue

The proposal has the potential to affect a number of threatened species and their habitats if extraction occurs beyond the existing cleared area of the site.

Consideration

The site consists of approximately 52 hectares of remnant vegetation and approximately 51.9 ha of largely cleared agricultural land. The remnant vegetation on site connects to the Maroota State Forest to the east, south east and south west of the site.

The Applicant proposes to limit the quarry to the existing disturbed footprint of the site, thereby limiting all clearing works to the existing largely cleared agricultural areas of the site, which consist of orchards, horticultural plantings, planted turpentine and some disturbed stands of bloodwood trees. The Applicant estimates that approximately 1 hectare of largely disturbed vegetation would be removed for the development. To compensate for this loss the Applicant proposes to replant at least 2 hectares of vegetation in the form of landscaping plantings for visual screening purposes.

A specialist flora and fauna impact assessment of the site was undertaken, by Greenloaning Biostudies Pty Limited. Field surveys identified 2 threatened flora species (*Tetratheca glandulosa* and *Darwinia biflora*), and potential foraging habitat for several threatened fauna species: glossy black cockatoo, masked owl, koala, yellow-bellied glider and the large-eared pied bat. All these species were identified within the undisturbed areas of the site.

As clearing would be limited to existing disturbed areas, the Applicant's ecologist concluded that the proposal would not directly affect any threatened species or habitat identified on site. It was considered that the removal of some isolated stands of trees would not significantly reduce any feed or forage resource for threatened species, due to the small number of trees involved, and the existence of extensive areas of better quality habitat in close proximity. Furthermore, it was noted that any clearing would be compensated by the re-planting proposed by the Applicant.

The EIS noted that by limiting extraction to existing disturbed areas, the proposal would:

- limit habitat fragmentation to existing disturbance levels; and
- continue to maintain east-west wildlife linkages and high-quality habitat for threatened species on site.

For the above reasons, the Part 5A assessment undertaken for the proposal concluded that the proposal is unlikely to significantly affect any threatened species listed under the *Threatened Species Conservation Act 1995*.

Potential impacts on aquatic ecosystems (including groundwater dependent ecosystems) were also considered as part of the Applicant's flora and fauna assessment. The assessment indicated that a groundwater fed spring located at the far east end of the site may provide potential habitat for the Adam's emerald dragonfly, classified as vulnerable under the *Fisheries Management Act 1994* (FMA Act). The EIS also identified that a TSC Act listed endangered wetland community was located approximately 8km to the south west of the site (i.e. Broadwater Swamp forming part of the 'Freshwater Wetlands on Coastal Floodplains of the NSW North Coast, Sydney Basin, and South East Corner Bioregions').

The assessment concluded that the proposal is unlikely to adversely impact on aquatic ecosystems (including groundwater dependent ecosystems) within or surrounding the site because:

- extraction would be undertaken so as to not intersect (and therefore de-pressure) groundwater systems (see section 5.2.5);
- the proposed quarry boundary would be located more than 50m from the freshwater spring identified to represent potential habitat for the Adam's emerald dragonfly; and
- the Applicant proposes to implement a range of erosion and sediment control measures designed to prevent downstream or offsite runoff impacts.

Two of the public submissions raised concerns regarding the accuracy of the flora and fauna information provided, given that it was largely based on surveys undertaken in 2002. The Applicant clarified that the 2002

surveys were verified by follow-up assessments in 2004 (ERM, 2004) and contended that the information provided was sufficient for assessment purposes given that most of the clearing would be limited to the existing disturbance footprint of the site. The Department agrees with the Applicant's conclusions.

As a result of concerns raised by the RTA (see section 5.2.4), the Applicant has agreed to provide adequate sight distances for turning movements into Haerses Road, by undertaking some minor tree clearance on Wiseman's Ferry Road. It is proposed that a 50m strip of vegetation comprising 10 mature trees (Grey Gum, Smooth Barked Apple and Stringy Iron Bark) and some shrub understorey (Acacia, Allocasuarina, Lomandra and Bracken Fern) be removed for the proposal. A supplementary ecological assessment undertaken for the works indicated that the proposed additional vegetation removal would not significantly impact on any threatened species or habitat. To compensate for the removal of this vegetation the Applicant has proposed to plant similar species outside of the road reserve, within the visual buffer that is proposed for this stretch of the road.

Conclusion

The Department is satisfied with the Applicant's assessment and believes that if vegetation clearing is limited to the already cleared and disturbed areas on site, the proposal is unlikely to adversely impact threatened species or their habitat on site, or further exacerbate existing fragmentation levels on site. The Department is further satisfied that the proposal includes sufficient compensatory planting measures to ensure that there is no net loss of vegetation in the medium to long term from either the quarry or road works.

Nevertheless the Department believes that the Applicant should be required to:

- develop and implement a Vegetation Clearing Protocol for the proposal;
- maintain a 50m buffer to all identified areas of *Terathea glandulosa* and *Darwinia biflora*, and from the groundwater spring on the east end of the site;
- develop and implement a detailed groundwater monitoring plan to monitor groundwater levels and quality on site;
- undertake compensatory planting using similar species to those removed, to ensure that there is no net loss of vegetation in the medium to long term; and
- conserve and manage the vegetation to be retained on site.

5.2.2 Noise

Issue

The proposal has the potential to generate operational and traffic noise impacts.

Consideration

The EIS includes a specialist acoustic assessment undertaken by ERM Australia Pty Limited. Noise impacts were modelled assuming the following:

- day time operational hours (7am to 6pm Monday to Saturday) for all activities except truck movements and sand loading which are also proposed to occur between 6am and 7am Monday to Saturday (Max. 10 movements);
- the presence of a 5m earth noise bund at the western boundary of the stage 4 extraction area, and at the northern end of the stage 5 extraction area; and
- the presence of a mobile screen close to the working extraction face.

Following concerns raised by the Department of Environment and Conservation (DEC), the Applicant provided additional information on the:

- potential sleep disturbance impacts of the proposal;
- the noise attenuation levels attributed to proposed mitigation measures; and
- potential road traffic noise impacts.

Predicted Noise Impact - Daytime Operations

The noise assessment for daytime operations (see Table 1) indicates that with the presence of appropriate control measures the proposal would comply with Industrial Noise Policy (INP) project specific criteria at sensitive receivers apart from one marginal exceedence of 1dBA, and remain within INP amenity criterion in relation to cumulative impacts.

However, the assessment also indicated that the construction of noise bunds on site has the potential to exceed INP project specific noise criteria (39 dBA L_{eq}) by up to 21 dBA and INP maximum recommended amenity criteria (55 dBA L_{eq}) by up to 5dBA, at nearest sensitive receivers.

Noise bund construction is sometimes considered a construction activity and therefore subject to construction noise goals (in this case 64 dBA L_{10}). However, because in this case the construction of the noise bunds would be staged over a number of years and would not be limited to a discrete construction period at the start of the development, the Department would generally assess this activity as an operational work that is subject to INP assessment criteria.

Noise Generated by the Proposal						
Hours of Operation	Receiver	INP Project Specific Criteria (day time) L_{Aeq} (dBA)	Predicted Noise Levels $L_{eq15min}$ (dBA)			
			Stage 1	Stage 4 Plant location a)	Stage 4 Plant location b)	Stage 5
7am to 6pm Monday to Saturday	1	39	32	29	29	37
	2		36	39	40	37
	3		32	38	35	30
	4		31	37	32	29
	5		26	35	27	25
Cumulative Noise Generation: Proposal + Other Operations						
Hours of Operation	Receiver	INP Amenity Criteria for Rural Areas L_{Aeq} (dBA)	Predicted Noise Levels $L_{eq15min}$ (dBA)			
			Stage 1	Stage 4 Plant location a)	Stage 4 Plant location b)	Stage 5
7am to 6pm Monday to Saturday	1	50	39	38	38	40
	2		38	40	41	38
	3		34	39	36	33
	4		33	38	34	32
	5		29	35	29	28

Table 1 Results of Noise Modelling (Refer to Figure 2 for receiver locations)

On this occasion, however, given that the works would be of short duration (approximately 3 weeks a year for 4 years), would comply with the relevant construction noise goals, and are an essential to mitigate the operational noise impacts of the proposal as a whole, the Department is satisfied that the noise impacts associated with bund construction would not constitute an unacceptable noise impact to sensitive receivers, and are justified.

Nevertheless the Department believes that the Applicant should be required to:

- limit acoustic bund construction to restricted hours within the daytime period (i.e. 8am to 5pm Monday to Friday only) and
- implement reasonable and feasible measures to minimise and manage the noise impacts associated with the activity (include implementing respite periods and keeping receivers notified of the proposed works).

Predicted Noise Impact – Operations during shoulder period

The Applicant's assessment indicated that truck movements into Haerses road during the shoulder period (6am to 7am) are likely to exceed sleep disturbance criteria (45 dBA L_{max}) by up to 17 dBA at receiver 2. The Applicant has negotiated a private agreement with receiver no. 2 in relation to these exceedences. No exceedence is predicted for any other receivers.

Predicted Noise Impact – Traffic Noise

One public submission raised concerns regarding the potential road traffic noise impacts of the proposal. The Applicant's acoustic consultant has advised that the proposal would not materially change existing approved traffic noise levels on Wiseman's Ferry and Old Northern Road as:

- the proposal would not increase the total number of trucks travelling along these roads (but only increase laden truck movements); and
- noise generated by laden vehicles is unlikely to be significantly different from that generated by empty vehicles on sealed roads.

DEC has determined that it is able to licence the development under the *Protection of the Environment Operations Act 1997*, and has provided its General Terms of Approval.

Conclusion

The Department is satisfied with the Applicant's assessment and believes that the proposal is unlikely to generate unmanageable levels of direct or cumulative noise impacts at sensitive receivers. However, the Department recognises that the noise impacts associated with bund construction would constitute a source of annoyance to sensitive receivers in the short term. Consequently, the Department believes that the Applicant should be required to

- develop and implement a noise management plan for the construction of acoustic bunds;
- comply with INP noise criteria;
- limit truck movements turning into the site during the hours of 6am and 7am to 10 movements; and
- implement a noise monitoring program to demonstrate compliance with noise impact assessment criteria.

5.2.3 Air Quality

Issue

Extraction activities have the potential to generate dust impacts on surrounding receivers.

Consideration

The EIS includes a specialist air quality assessment of the proposal undertaken by ERM Australia Pty Limited. Following concerns raised by the DEC, the Applicant:

- provided additional justification for the meteorological data and background air quality levels used;
- provided more information on the representativeness of the receptors modelled; and
- undertook a revised assessment of the air quality impacts arising from the proposal, using more conservative assumptions than were previously employed.

The results of the revised air quality assessment (see Table 2) indicate that the proposal would remain well within contemporary air quality goals at sensitive receivers, including the Maroota Public School.

Receiver	Total Suspended Solids Annual Average ($\mu\text{g}/\text{m}^3/\text{yr}$)		PM ₁₀ 24 Hour Average ($\mu\text{g}/\text{m}^3/24\text{hr}$)		PM ₁₀ Annual Average ($\mu\text{g}/\text{m}^3/\text{yr}$)		Deposited Dust (g/month/m ²)	
	Quarry Contribution	Total Predicted	Quarry Contribution	Total Predicted	Quarry Contribution	Total Predicted	Quarry Contribution	Total Predicted
1	9.0	41.5	17.3	36.6	4.0	17.3	0.48	3.4
2	12.7	45.5	30.5	49.8	5.2	18.5	0.89	3.8
3	7.1	39.7	19.7	39.0	3.0	16.3	0.47	3.4
4	4.3	36.9	12.0	31.3	1.8	15.1	0.27	3.2
5	2.1	34.6	5.6	24.9	0.9	14.2	0.10	3.0
Maroota PS	<2	<35	<5	<24	<1	<21	<0.2	<4
Criteria	90	90	50	50	30	30	2	4

Table 2 Results of Air Quality Modelling (Refer to Figure 2 for receiver locations)

While the proposal would increase the total number of laden vehicles operating on the roads, it would not increase the total number of truck movements on public roads. The Applicant has stated that all laden vehicles travelling on public roads would have their loads covered. As such, the Applicant argues that the proposal would not increase existing, approved traffic related dust impacts along public roads.

DEC has determined that it is able to licence the development under the *Protection of the Environment Operations Act 1997*, and has provided its General Terms of Approval.

Conclusion

While 2 public submissions raised concerns regarding the potential dust impacts of the proposal, the Department is satisfied that the Applicant has carried out a conservative and robust assessment of potential impact, which sufficiently demonstrates that the proposal would not result in any significant impacts. Nevertheless the Department believes that the Applicant should be required to:

- implement all reasonable and feasible measures to minimise air quality impact at affected residences, including but not limited to those measures described in the EIS; and
- implement an air quality monitoring program to demonstrate compliance with contemporary air quality criteria.

5.2.4 Traffic and Transport

Issue

The proposal would generate additional traffic movements at the intersection of Wiseman's Ferry Road and Haerses Road and has the potential to reduce road safety at this intersection.

Consideration

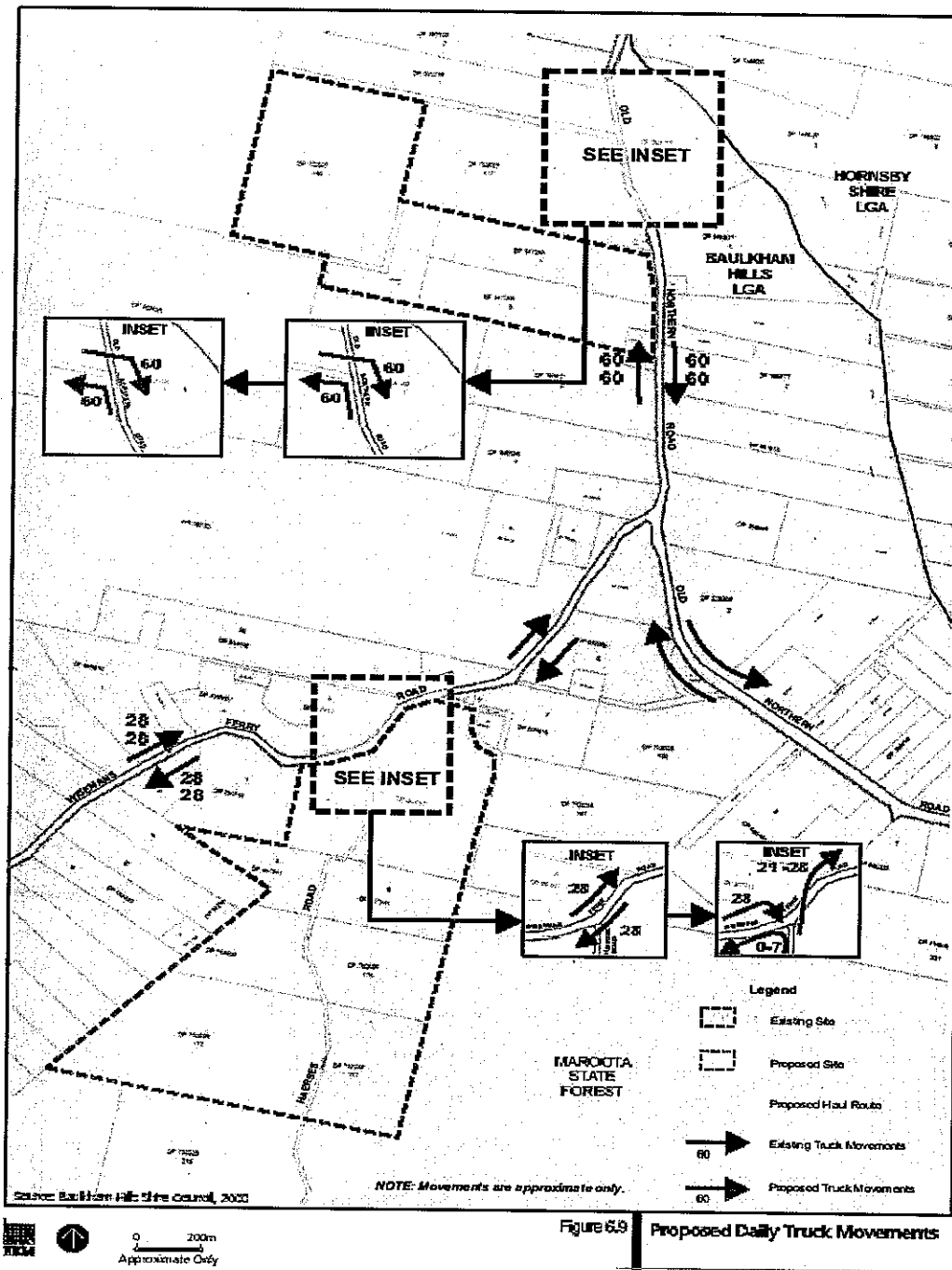
The EIS includes a specialist traffic impact assessment of the proposal undertaken by ERM Australia Pty Limited.

The proposal would use empty trucks returning to the existing quarry via Wiseman's Ferry Road (currently around 28 per day) to transfer sand from the Haerses Road site to either:

- the existing quarry for processing or
- directly to regional and local markets (i.e. sand sold directly from the site).

As such, the proposal would not change existing *traffic volumes* on Wiseman's Ferry Road and Old Northern Road, but would generate additional *turning traffic* into and out of Haerses Road (see Figure 3).

Figure 3
Proposed
Traffic
Movements



The Applicant's assessment of the intersection between Wiseman's Ferry Road and Haerses Road was based on *Ausroads* guidelines, and indicated that the existing intersection did not require upgrading to account for turning and approach traffic volumes, under existing and predicted future traffic volumes along Wiseman's Ferry Road. However, it was noted that sufficient sight distance was not available at the eastern approach of the intersection, to allow for safe right hand movements out of Haerses Road. It was therefore recommended that the speed limit along the eastern approach to Haerses Road be reduced to 60km/hr to increase the safety of turning movements.

The RTA raised concerns that turning movements at the intersection between Wiseman's Ferry Road and Haerses Road had not been assessed against the requirements of the *RTA Road Design Guide*, which in this case have superseded the *Ausroads* guidelines. The RTA required that the intersection be upgraded to a Type 'AUR' treatment to meet the design standards specified by the *RTA Road Design Guide*. The Applicant has agreed to upgrade the intersection to RTA standards within 12 months of the commencement of operations. Until then, the Applicant has proposed that truck movements in and out of Haerses Road be limited to 30 movements a day (15 in/ 15 out). The RTA has advised that it supports this interim measure.

The RTA has also advised that it would not support a reduction in speed limit along Wiseman's Ferry Road to meet sight distance requirements at the intersection, but rather recommended that trees be removed from the verges of Wiseman's Ferry Road to meet relevant sight distances. Council does not object to this measure and the Applicant has agreed to this request.

In addition to the above, the Applicant proposes to:

- upgrade the length of Haerses Road to meet the requirements for 'internal haul roads' under DCP 16; and
- progressively extract and reinstate Haerses Road to the satisfaction of Council.

Council has determined that it is able to approve the development under the *Roads Act 1993*, and has provided its General Terms of Approval.

Conclusions

Several public submissions raised concerns regarding the continued traffic impact of sand haulage on public roads. Based on its assessment the Department is satisfied that the proposal would not increase existing traffic volumes on public roads and that appropriate measures can be put in place to minimise the road safety impacts of the proposal. In this regard, the Department believes that the Applicant should be required to:

- undertake tree removal and lopping works along Wiseman's Ferry Road to the satisfaction of Council, to ensure safe turning sight distance at the intersection between Wiseman's Ferry Road and Haerses Road, prior to the commencement of site works;
- upgrade the intersection between Wiseman's Ferry Road and Haerses Road to a Type 'AUR' standard in accordance with the *RTA Road Design Guide*, within 12 months of commencement of operations;
- limit truck numbers into Haerses Road to 15 trucks per day until such time that the intersection is upgraded to RTA standards;
- contribute to the maintenance of the Old Northern Road and Wiseman's Ferry Road via section 94 contributions;
- develop and implement a Traffic Control Plan for the proposal;
- upgrade the length of Haerses Roads to meet the requirements of DCP 16; and
- progressively re-instate Haerses Road to the satisfaction of Council.

5.2.5 Groundwater

Issue

The proposal has the potential to intersect local groundwater aquifers during extraction and affect groundwater levels and quality.

Consideration

The EIS includes a specialist hydrogeological impact assessment of the proposal undertaken by ERM Australia Pty Limited.

The assessment states that there are a number of registered groundwater bores within 2.5 km of the Haerses Road site, which are used for domestic (11), industrial (3) and irrigation (1) purposes. Most of the bores are located upstream of the site, although the closest domestic bore is located approximately 1km to the south west and downstream of the site.

The hydrogeological assessment carried out for the proposal indicates that groundwater levels vary across the site from approximately 172m to 186m AHD and move in a south westerly direction. Groundwater occurs between the Maroota sand and Hawkesbury sand bedrock units in the northern portion of the site, and between the Eluvial sand and Hawkesbury sand bedrock units in the southern portion of the site. A discontinuous perched aquifer was identified approximately 2-3m above the main aquifer in the southern portion of the site.

DCP 16 restricts quarrying to 2m above the wet weather groundwater levels. The EIS states that the proposal would comply with the DCP's requirements in relation to the main groundwater body, but would breach the perched aquifer located on the southern portion of the site. The Applicant argues that this would not constitute a non-compliance of the DCP's requirements, as both historic records and current investigations indicate that the perched aquifer is discontinuous, and does not form part of the main groundwater table in the area.

The Applicant contends that:

- downstream users are unlikely to be dependent on the perched aquifer as a groundwater resource, given its small aerial extent, and discontinuous, ephemeral nature;
- breaching the perched aquifer is unlikely to reduce overall groundwater levels due to its lack of connectivity to the main aquifer; and
- the risk of ground water contamination via chemical spills would be low, as all chemical storage and equipment maintenance would be restricted to the existing quarry.

The Applicant proposes to undertake groundwater monitoring, both prior to the commencement of, and during the operation of the quarry: the former to establish baseline groundwater data and confirm the wet weather groundwater level; and the later to monitor the impacts of the proposal on groundwater levels and quality.

The difficulty of establishing accurate wet weather groundwater data in drought conditions was raised in a number of public submissions. The Department recognises that the Applicant's assertion of minimal impacts to groundwater systems depend on ensuring compliance with DCP 16, and therefore largely on establishing accurate baseline wet weather groundwater data for the site. Therefore, the Department believes that the Applicant should be required to undertake a detailed survey of the site to confirm maximum extraction depths across the extraction area prior to the commencement of site works. The extraction depths should be based on at least 12 months of continuous, site-specific baseline groundwater data and should comply with DCP 16 extraction limits.

Conclusion

The Department is satisfied that if quarrying is restricted to 2 metres above the wet weather groundwater level, the proposal is unlikely to adversely impact on local or regional groundwater levels or quality. However, the Department believes that the Applicant should be required to:

- establish accurate baseline wet weather groundwater levels for the site prior to the commencement of extraction activities;
- implement a detailed groundwater monitoring program for the proposal; and
- prepare and implement a groundwater contingency management plan.

5.2.6 Surface water

Issue

The proposal has the potential to generate runoff which could affect surrounding water bodies.

Consideration

The site is located in the Little Cattai Creek catchment which discharges into the Hawkesbury River, located approximately 12 km to the south west. Surrounding waterways include the Little Cattai Creek (150m to the south east) and the Broadwater swamp (8km to the south west). The Longneck Lagoon, classified as a nationally important wetland, is located 14km to the south west but in a separate catchment.

A number of public submissions raised concerns regarding the potential impacts of the proposal on surrounding undisturbed catchments and waterways.

The Applicant proposes to implement the following control measures to ensure there are no surface water discharges from the site, and thereby prevent offsite surface water quality impacts:

- divert clean run-on water around the quarry to adjacent remnant vegetation areas or to onsite sediment dams (for use in dust suppression);
- contain all dirty runoff within the quarry itself and/ or within sediment dams capable of accounting for a 90th percentile, 5 day rain event; and
- rehabilitate the site to a slope profile suitable for erosion control and in compliance with DCP 16 requirements.

While the proposal would result in the removal of several metres of the soil profile, the Applicant contends that this would not significantly increase the existing recharge rates of the site, which are naturally high due to the highly permeable sandy substrate soils that characterise the area. Consequently, the Applicant argues that the proposal is unlikely to materially change existing surface water flows of water bodies dependent on groundwater recharge.

DEC has determined that it is able to licence the development under the *Protection of the Environment Operations Act 1997*, and has provided its General Terms of Approval.

Conclusion

Based on the Applicant's assessment, the Department is satisfied that the proposal can be managed to ensure that there are minimal impacts on offsite surface water flows and quality. In this regard, the Department believes that the Applicant should be required to operate the site as a non-discharge site, and has therefore required the Applicant to develop and subsequently implement a Site Water Management Plan for the development.

5.2.7 Visual

Issue

The proposal has the potential to impact on the visual amenity of several nearby residences.

Consideration

The EIS includes a visual impact assessment of the proposal undertaken by ERM Australia Pty Limited. The findings of the assessment are summarised in Table 3 below (see Figure 2 for more details on the plantings proposed).

Receiver	Existing Viewpoint	Mitigation Measures/ Other Considerations	Impact
Private residence 20m north east of site (Receiver 1).	Foreground southern views of site across a small, immature olive tree orchard and grassed paddocks.	Planting of a 100m buffer north of the Stage 5 area, would begin in Stage 1, allowing approximately 20 years for the plantings (and the existing olive grove) to mature before extraction begins in Stage 5. This would minimise foreground views of the Stage 5 extraction.	Medium
	Some middle distance southerly views.	Middle ground views of Stage 1 works would be minimised though the quarry face being oriented to the north and through progressive rehabilitation works.	
Quarry owned land east of Hitchcock Road.	Nil foreground views due to existing vegetation buffers; some middle distance westerly views.	Progressive rehabilitation of the Stage 1 and 5 extraction areas should minimise middle distance visual impacts.	Medium
Several residences along Wiseman's Ferry Road north west of the site (Receivers 2-5).	Middle distance views across established windbreaks.	Construction of a 5m bund wall and plantings along the western boundary of the site would provide some screening for residences. This would be in addition to the screening already provided by existing established wind breaks along sections of the site's western boundary. However, due to the topography of the site, extraction on the ridge line would be visible.	Medium
Motorists on Wiseman's Ferry Road	Foreground fleeting views of the site through sparse road side vegetation and existing dwellings.	Supplementary planting would be undertaken within the existing 30m buffer between the road and the northern boundary of the proposal site.	Low
Motorists on Old Northern Road	Far distance fleeting views of the site at one location.	The proposal site is screened from this road at all but one vantage point located some 1.6 from the site.	Low

Table 3 Visual Impact Assessment

One of the closest residences to the site (identified in the EIS as Receiver 1) objected to the proposal on the grounds of potential visual amenity impacts. Based on its assessment, the Department is satisfied that the proposal includes sufficient mitigation measures to minimise impacts on this receiver.

Conclusion

The Department is satisfied that the proposal includes sufficient mitigation measures (including considerable buffer areas and screen planting) to minimise the potential visual impacts of the proposal on affected residences and believes the proposal to be consistent with existing landuse, and strategic landuse values of the Maroota area. The Department believes that the Applicant should be required to implement the mitigation measures proposed in the EIS to minimise visual impacts.

5.2.8 European and Indigenous Heritage

Issue

The proposal has the potential to impact upon European and Aboriginal heritage values of the area.

Consideration

The EIS included a specialist assessment of European and Aboriginal heritage undertaken by ERM Australia Pty Limited.

No Aboriginal artefacts were identified on site, although a previously identified site (AHIMS 45-2-0081) located approximately 160m to the east of the proposed quarry boundary was relocated during the survey. The Applicant's consultant considered that there is limited potential for archaeological material to be located within the cleared and disturbed footprint of the site. The Department is satisfied that if restricted to the existing agricultural disturbance footprint of the site, the proposal is unlikely to impact on Aboriginal heritage values on site.

No items listed on any European heritage databases, registers or inventories were identified within the proposed quarry area. However, the heritage assessment identified 3 three buildings/structures within the quarry area that require removal, which have the potential to exhibit some heritage value: a corrugated iron shed with brick chimney, the remains of an old fibro house, and the charcoal remains of a hut. The assessment considered that the structures did not possess or represent any unique historical features and were highly dilapidated, derelict

and disturbed in nature. Consequently the Applicant's assessment concluded that the removal of these structures would not significantly impact on local or regional European heritage values.

No issues of concern were raised by the DEC or the NSW Heritage Office on heritage grounds. Council raised concerns regarding the adequacy of the heritage assessment on the shed. However, in the absence of objections from the Heritage Office, the Department believes that the level of assessment undertaken was adequate to determine heritage significance. Based on the Applicant's assessment, the Department is further satisfied that the shed does not display any unique or significant heritage value, and should therefore be allowed to be demolished without being subject to any special requirements.

Conclusion

The Department is satisfied with the Applicant's assessment and believes that the proposal is unlikely to adversely affect Aboriginal or European heritage values in the area as:

- all quarrying would be limited to already cleared and disturbed areas on site; and
- a 160m offset would continue to be maintained between the proposed quarry area and the identified Aboriginal heritage site (AHIMS 45-2-0081).

5.2.9 Rehabilitation and Final Landform

Issue

The rehabilitation measures proposed would marginally reduce the agricultural land use capacity of the site.

Consideration

The site is proposed to be rehabilitated to a generally undulating final landform that is approximately 17m lower than existing ground levels at its lowest point. It is expected that most of the overburden stripped from the site (as well as some coarse rejects from sand screening) would be used to form stable batters connecting existing ground surfaces to the quarry floor. Very little additional soil would be available for pit floor rehabilitation purposes apart from approximately 100 to 300mm of topsoil, which would be replaced directly over extracted areas.

The shallowness of post extraction subsoil would change the land capability of the site from Class 3 agricultural land (well suited for grazing and pasture improvement/ may be cropped or cultivated in rotation with pasture) into Class 4 agricultural land (poor grazing land, unsuitable for cultivation).

Although the proposal would reduce the agricultural capability of the site, the Department believes that this is justified given that:

- the site, while exhibiting some agricultural potential, does not constitute prime agricultural land (Class 1 or 2);
- the site is entirely owned by the Applicant;
- sand extraction is consistent with the strategic land use objectives of the site;
- sand extraction would generate greater economic benefits than agriculture at the site; and
- if extraction was not limited to the existing agricultural areas of the site, significant vegetation clearing would be required.

Two public submissions and one agency submission raised concerns that the application of fertiliser on shallow post extraction subsoils for rehabilitation purposes has the potential to contaminate groundwater systems. Accordingly, the Department has required that the Applicant prepare a rehabilitation and landscape management plan for the development to ensure that site-appropriate rehabilitation measures are developed for the site, which do not generate adverse offsite impacts.

Conclusion

The Department is satisfied that the proposal's predicted impacts on the quality of the agricultural land are justified. Nevertheless the Department believes that the Applicant should be required to develop a rehabilitation and landscape management plan to manage the rehabilitation of the site.

5.2.10 Other Issues

The Applicant has also assessed the potential impact of the proposal on geology and soils, hazards, land contamination, utilities, waste, greenhouse gas and the socio-economic environment. The Department is satisfied with the Applicant's assessment of these issues, and the measures proposed by the Applicant to manage and mitigate any potential impacts arising from the proposed development.

5.3 Suitability of the Site

As with the existing quarry, the proposed new quarry would be located on land identified in NSW Government Policy (SREP 9) as containing a sand resource of regional significance. Extractive industry is classified as a permissible development (with consent) under the existing zoning of the site and is consistent with the existing development and landuse in the Maroota area. Furthermore, the quarry would be located on land almost entirely

owned by the Applicant (apart from Hearses Road) and would have direct access to the surrounding the arterial road network.

The Department is also satisfied that the proposal has been designed to minimise its impact on the environment (by limiting extraction to existing disturbance areas, not increasing truck numbers above already approved limits, and providing extensive visual screening for sensitive receivers), and can be operated in accordance with applicable environmental criteria and standards.

Consequently, the Department is satisfied that the proposed development is suitable for the site.

5.4 Submissions on the Proposal and the Public Interest

During the exhibition period the Department received a total of 8 submissions from the public and special interest groups on the proposal. Of these, 2 submissions from local residents and 2 submissions from specialist interest groups objected to the development. The Department received 1 public submission in support of the development. No government authorities objected to the proposal.

In consideration of the range and content of the submissions, the Department believes there is some local opposition to the proposal itself, but more strongly to sand extraction in the Maroota area in general. While the shortage of sand in Sydney was recognised, many of the submissions raised concerns that the potential costs of sand extraction - in terms of loss of amenity, heavy vehicle traffic on public roads, and reduced land prices - would be concentrated on the local Maroota community. Strong emphasis was also placed on the need to protect the natural features of the Maroota area.

The Department acknowledges these concerns; however its environmental assessment of the proposal indicates that the proposal, and the cumulative impacts of the proposal with surrounding extractive and other developments, would be able to be operated in accordance with applicable environmental criteria and standards.

Further, the Department believes that the proposal is broadly in the wider public interest, given:

- the socio-economic benefits of the proposal, including the creation of job opportunities for an additional 2 personnel, and a capital investment of up to \$345,000; and
- the need to ensure the ongoing supply of construction sand to the local and Sydney construction industry.

6. RECOMMENDED CONDITIONS OF CONSENT

The Department has drafted recommended conditions of consent for the development proposal (see Tag A). These conditions are required to ensure that the proposal is carried out generally in accordance with the EIS, and provide for the on-going environmental management and reporting on the environmental performance of the development.

The Applicant does not object to these conditions.

7. CONCLUSION

The Department has assessed the DA, EIS and submissions on the proposal in accordance with the requirements in section 79C of the EP&A Act, and has concluded that the proposal would provide significant economic benefits to the Sydney Region and can be implemented in an environmentally sustainable manner.

A number of NSW Government reports (*Extractive Industry Report 1994* and *Background Report in the Development of the Sydney Construction Material Strategy, 2004*) have acknowledged that the Sydney Region will require several new sources of sand supply to replace the Penrith Lakes Scheme, which is scheduled to close in 2010. Maroota has a regionally significant sand resource, and has been identified as one of the key locations for Sydney's future sand supply. The proposed Haerses Road quarry would make a valuable contribution to the Sydney construction material market in the short to medium term.

While the Department is cognisant that there is some local opposition to the proposal, it nevertheless believes that the development would satisfy an important demand in the Sydney region, and thereby facilitate significant economic and social benefits to the community as a whole. In addition to these strategic economic benefits, the proposal would also generate employment for 2 people and attract capital investment of up to \$346,000.

The proposal has the potential to add to cumulative noise, dust, groundwater and flora and fauna impacts in the local area. However, the Department believes that the Applicant has sufficiently demonstrated that the proposal would be designed to minimise both direct and cumulative impacts on the environment and remain compliant with contemporary best practice standards. Therefore the Department is satisfied that the proposal is unlikely to generate significant offsite environmental impacts.

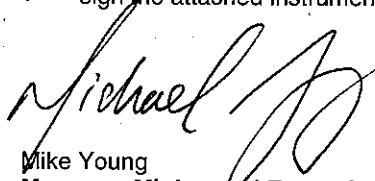
In addition, given that the development would be located entirely within land designated for extractive industry by SREP 9, the Department is satisfied the proposal is consistent with the land use objectives and existing land uses in the area, and is therefore a suitable development for the site.

On balance the Department is satisfied that the benefits of the proposal outweigh its costs. Consequently, the Department believes the proposal should be approved, subject to conditions.

8. RECOMMENDATION

It is RECOMMENDED that the Minister:

- consider the findings and recommendations of this report;
- approve the DA under Section 80 of the EP&A Act, subject to the conditions set out in the attached instrument of consent; and
- sign the attached instrument of consent (Tag A).

 10/2/06
Mike Young
Manager, Mining and Extractive Industries

 10/2/06
David Kitto
A/Director, MDA

Chris Wilson
A/Executive Director, OSDAA

APPENDIX A

ASSESSMENT OF ENVIRONMENTAL PLANNING INSTRUMENTS

A.1 State Environmental Planning Plan No. 11 – Traffic Generating Development (SEPP 11)

SEPP 11 applies to the proposal as it constitutes a class of development ('extractive industry') listed under Schedule 1 of SEPP 11. The RTA was provided the opportunity to comment on the proposal and raised a number of requirements which have been incorporated into the Department's draft instrument of consent (tag A). The transport impacts of the proposal have been assessed in section 5.2.4 of this report.

A.2 State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

SEPP 33 aims to define 'Hazardous' and 'Offensive' development so that consent authorities can recognise such development when determining development applications. The Department has assessed the environmental impacts of the proposal (see section 5.2 of this report) and is satisfied that the proposal includes sufficient controls and management measures so as to not constitute a development that would 'pose a significant risk to the biophysical environment or to human health, life or property', or one that would 'emit a polluting discharge which would have a significant adverse impact on the locality'.

A.3 State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

The proposal would change the land use of the site from intensive agriculture to sand extraction. A preliminary investigation of the site undertaken in accordance with the *Planning Guidelines for Managing Land Contamination (1998)* indicated that due to its long site history of agricultural use, contamination on site was likely to be limited to fertilizer and pesticide residuals in the soil. Consequently the Department is satisfied that the site is unlikely to be contaminated to such an extent as to pose a risk to human health or require remediation.

A.4 Sydney Regional Environmental Plan No. 9 – Extractive Industry (No. 2 - 1995) (SREP 9)

The site is identified within schedule 2 of the SREP as an area 'designated for extractive industry'. Clause 7(2) of the SREP provides that development for the purpose of extractive industries is permissible with consent on land to which the plan applies.

Clause 7(3) requires that a consent authority shall not consent to the carrying out of such development unless:

Provision	Consideration / Reference in Report
(a) it has considered the effect of the development on flood behaviour, the water quality, quantity and hydrodynamics of any watercourse or underground waters and also the effect of flood behaviour	The Department has considered the proposal's effects on groundwater and surface water in Sections 5.2.5 and 5.2.6, respectively. The Department is satisfied that the proposal would not have any significant effect on flood behaviour.
(b) it has considered a rehabilitation plan	The Department is satisfied that the proposal has addressed rehabilitation to an acceptable standard.
(c) it is satisfied that noise and vibration levels will generally be in accordance with the guidelines	The Department is satisfied that the proposal can be conducted in accordance with current noise guidelines (see Section 5.2.2). The Department is satisfied that the proposal would not cause significant vibration impacts.
(d) it is satisfied that rehabilitation measures will be carried out in accordance with the guidelines in the <i>Urban Erosion and Sediment Control Handbook (1992)</i>	The Department is satisfied that the proposal can be conducted in accordance with current erosion and sediment control standards.

Clause 8 of the SREP requires the consent authority to forward a copy of the application to the DPI, and to have regard for any comments made by the Director-General of that Department. The Department received a submission from the DPI, and has had regard for the DPI's recommendations (see Section 4).

Clause 9 of the SREP requires a consent authority to consider the recommendations for future extraction outlined in the Extractive Industry Report (Department of Planning, 1994). The Report recommends that continued extraction at Maroota would be necessary to meet the long-term sand requirements of the Sydney Region.

Clause 11 requires that a consent authority shall not consent to the carrying out of an extractive industry in Maroota (as identified in Schedule 2) unless it is satisfied that the development:

Provision	Consideration / Reference in Report
(a) is unlikely to have a significant adverse impact on the Maroota groundwater resource or on other groundwater users in the region, and	The Department has considered the proposal's effects on groundwater in Section 5.2.5.
(b) will conserve the environmentally sensitive and significant areas and features of the Maroota locality, including the environment of threatened species, populations and ecological communities, and	The Department has considered the proposal's effects on the site's flora and fauna in Section 5.2.1.
(c) will involve controlled and limited access points to main roads, and	Access to the Haerses Road site would be through the existing access via Wiseman's Ferry Road.
(d) will result in a final landform capable of supporting sustainable agricultural production or other post-extraction land uses compatible with the established character and the landscape and natural quality of the Maroota locality.	The proposal site would be rehabilitated to a final use of class 4 agricultural land which is compatible with the established agricultural character of the Maroota locality.

Clause 19(2) of the SREP requires that a consent authority shall not consent to the carrying out of an extractive industry unless it is satisfied that the extraction will be carried out to maximise the quality of the material extracted and minimises the creation of waste. The Department is satisfied that the proposal maximises the quality of material extracted, and would be conducted in accordance with modern waste minimisation and management practices.

A.5 Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No. 2 – 1997) (SREP 20)

Clause 11(5) of SREP 20 prohibits the development of extractive industries in certain locations identified in schedule 2 to the plan. The site is not identified in schedule 2.

The Department is satisfied that the proposal is able to be conducted in a manner that is consistent with the General Planning Principles listed in clause 5 of the SREP, and the Specific Planning Policies and Recommended Strategies listed in clause 6 of the SREP.

A.6 Baulkham Hills Local Environmental Plan 2005 (LEP 2005)

At the time of lodgement the proposal was located on land zoned 1(b) under the then *Baulkham Hills Shire Council Local Environmental Plan 1991* (LEP 1991). The EIS (section 4.1) included an assessment of the proposal under the provisions of LEP 1991 and the *Draft Baulkham Hills Shire Council Local Environmental Plan 200X*. The draft LEP was subsequently gazetted on 26 August 2005, superseding the provisions of the 1991 LEP. Following concerns raised by Council, the Applicant reassessed the proposal against the relevant provisions of LEP 2005, in its response to submissions.

Under LEP 2005, the proposal would continue to be zoned as 1(b) Rural and 'extractive industries or industries directly associated with, or dependent upon, extractive industries' would remain permissible with consent under this zone. The stated objectives of this zone almost entirely mirror those previously stated under LEP 1991 and the Draft LEP (see below).

Stated objectives of 1 (b) Rural Zone under LEP 2005	Previously stated objectives of 1 (b) Rural Zone under LEP 1991 and/or the Draft LEP
(a) to ensure that existing or potentially productive agricultural land is not withdrawn unnecessarily from agricultural production, and	same as objective (a) of LEP 1991 and Draft LEP
(b) to maintain the rural character of the locality without adversely affecting the carrying out of agricultural activities, and	same as objective (e) of LEP 1991 and Draft LEP
(c) to ensure that development is carried out in a manner that minimises risks from natural hazards and does not unreasonably increase demand for public services and public facilities, and	same as objective (b) of LEP 1991 and Draft LEP

(d) to provide land on which development may be carried out that assists the operation and functioning of development in adjoining residential areas and appropriate locations for tourist facilities, and	Similar in intent to objective(s): <ul style="list-style-type: none"> • (c) of the Draft LEP and LEP 1991: "to provide for urban support functions" ; and • (f) of LEP 1991: "to make provision for tourist facilities in appropriate locations".
(e) to protect and enhance those areas of particular scenic and environmental value, and	same as objective (d) of LEP 1991 and Draft LEP
(f) to ensure that development is designed and carried out having regard to the rural and heritage character of surrounding land, and	same as objective (f) of Draft LEP
(g) to ensure that development is designed and carried out having regard to adjoining land uses and the natural environment.	same as objective (g) of Draft LEP

Clause 32 of LEP 2005 requires that the consent authority consider the additional matters listed under that clause for development involving extractive industries. The matters listed under clause 32 are identical to those previously listed under clause 40 of the Draft LEP and have been addressed in section 4.1 of the Applicant's EIS.

Based on the Department's assessment of the environmental impacts of the proposal and its review of the Applicant's assessment of statutory matters, the Department is satisfied that the proposal is generally consistent with the stated objectives of Council's 2005 LEP.

A.7 Baulkham Hills Development Control Plan No. 1 – Rural 1(a), 1(b) and 1(c) Zones (DCP 1)

DCP 1 acts as a guideline for development in rural areas. Its objectives are:

- to provide guidelines for the development of rural areas in the Shire;
- to ensure that development in rural areas has regard to the agricultural and environmental quality of the land; and
- to accommodate development which is compatible with the rural environment, that does not unreasonably increase the demand for services and minimises risks from natural hazards.

The proposed development is located within the Rural 1(b) zone. The Department is satisfied that the proposal has been designed to minimise impacts to the environment and minimise risks from natural hazards. The proposal would not require the provision of any additional services onto the site and would be progressively rehabilitated to land suitable for agriculture. Consequently the Department is satisfied that the proposal is consistent with the objectives of DCP 1.

A.8 Baulkham Hills Development Control Plan No. 16 – Extractive Industries (DCP 16)

DCP 16 contains a range of provisions which control the manner in which extractive industries are established and operated in general and in the Maroota area in particular. The Applicant's EIS includes a detailed assessment of how the proposal meets the various provisions of DCP 16 (see section 4.1.4 and Table 4.1 of the EIS). Having regard to the Applicant's assessment, the Department is satisfied that the proposal is consistent with the stated objectives and provisions of DCP 16.

Council raised concerns that the proposal does not meet the following clauses of DCP 16:

- 3.2 (prescriptive measures) (a): "that extractive industries should be setback no less than 10m from adjoining property boundaries"; and
- 3.3 (prescriptive measures) (a): "that internal access carriageways associated with extractive industries should be no less than 20m wide in accordance with Figure 4 of the Plan".

The Applicant argued that its internal haul road would include a formation width of 14m and a carriageway of 12m, and therefore be compliant with the requirements of Figure 4 of DCP 16.

Furthermore, the Applicant noted that the only property boundary, at which the setback requirements of DCP 16 would not be met, would be at Lot 216 DP 752039, which is already owned (and currently unoccupied) by the Applicant. The Applicant pointed out that the enforcement of a 10m setback at this property boundary would sterilise approximately 10,000m³ of sand resource. The Department agrees that the enforcement of such a setback at an Applicant owned property boundary would be contrary to the intent of DCP 16, which aims to protect the amenity of *private* landholders. The enforcement of the setback in this situation would not convey any amenity benefits to the landholder, but rather result in considerable economic cost.

The Department is satisfied with the Applicant's response to the issues raised, and believes that it demonstrates compliance with the intent and objectives of DCP 16.