



PART 3A PRELIMINARY ASSESSMENT

JANUARY 2007

EXECUTIVE SUMMARY

This Preliminary Assessment seeks to assist the Director General in the preparation of the Environmental Assessment Requirements for a proposed sand extraction operation at Lot 332 DP 753204 No. 521 Jessie Road Anna Bay. The Director General as delegate of the Minister of Planning has confirmed that the project is a Part 3A Major Project under Clause 6(1) of State Environmental Planning Policy (Major Projects) 2005 and that a Project Application may be lodged with the Director General.

The subject site is located directly to the north of the sand dunes of Newcastle Bight and wind blown sand has been a natural hazard affecting the site for over 6,000 years. The proposal seeks consent to remove naturally wind blown sand to enable our client to reclaim their land and remove the naturally created hazard of sand inundation. The sand removed from the site will be used for commercial building and construction purposes as quality fill.

This Preliminary Assessment provides a site description, history and details of the proposal. The Preliminary Assessment also identifies the major issues in terms of the application which include traffic, ecology, archaeology, acoustic considerations and dust. Overall it is considered that the proposal will improve the amenity of the area, satisfy a full statutory and merit based planning assessment and provide a local commercial opportunity.

On behalf of our client we seek the Director General's Environmental Assessment Requirements for Project Application preparation.



^ LOOKING ALONG THE SOUTHERN BOUNDARY OF THE SITE WHERE THE SAND DUNES ENCROACH ONTO OUR CLIENT'S LAND



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INTRODUCTION

Insite has been engaged by SS & LM Johnston to prepare this Preliminary Assessment for sand extraction on their land at Anna Bay. Johnston Sands has been removing the wind blown sand commercially from the site since the 1980's. However, the ownership of the property has recently changed and the new land owner wishes to formalise the operations of the commercial sand extraction business.

The Director General, as delegate of the Minister for Planning, has confirmed that the project is a Part 3A Major Project under Clause 6(1) of State Environmental Planning Policy (Major Projects) 2005 and that a Project Application may be lodged with the Director General. This Preliminary Assessment seeks to assist the Director General in the preparation of the environmental assessment requirements for the proposed development.

The primary issues that are addressed in this Preliminary Assessment are:

- A site history;
- A description of the site and surrounding areas;
- Details of the proposal;
- Consideration of permissibility and relevant statutory controls; and
- An overview of the key environmental issues relevant to the proposal.

This Preliminary Assessment is accompanied by:

- Correspondence from the Department of Planning;
- Proposed Activities Plan; and
- Threatened Fauna Species Table.



^ LOOKING SOUTH ALONG THE ACCESS ROAD TOWARDS THE EXISTING DWELLING ON THE SITE



2.1 SITE DETAILS

2.1 SITE HISTORY

The subject site has historically been utilised for rural living and a construction business. Given that the site is located within close proximity to the sand dunes of Newcastle Bight, off shore coastal winds have historically shifted large amounts of sand onto our client's property. Subsequently, in order to remove the naturally created hazard and reclaim the land, commercial sand extraction has been occurring on the site since the 1980's.

The land has recently changed in ownership and the new owner of the land seeks to formalise the commercial sand extraction operations of Johnston Sands. It is our client's intention to continue the commercial sand extraction operation indefinitely until wind blown sand no longer encroaches onto the site. Until this time the natural wind blown sand hazard will continue to be removed and commercially sold as quality fill.

2.2 SITE DESCRIPTION

The development site is located at No. 521 Jessie Road, Anna Bay. The title details of the property are Lot 332 DP 753204. Specific characteristics of the site include:

- The site has an approximate area of 4.672ha.
- Currently located on the site are a dwelling and a number of machinery sheds.
- Johnston Sands currently operate from the site.
- Access to the site is provided by a gravel section of Jessie Road which extends north to the intersection of Nelson Bay Road and Port Stephens Drive. A track extending off Jessie Road extends through the site.
- Vegetation exists throughout much of the site with the exception of along the southern boundary, where the sand inundation has killed off all vegetation. Clearing of vegetation has previously been undertaken around the dwelling, machinery sheds and internal access road which extends through the site.

2.3 SURROUNDING LAND

The site is bound to the north and east by rural properties. The site is bound to the west by Jessie Road and further west by rural property. The site is bound to the south by the sand dunes of Newcastle Bight.



^ FIGURE 1: LOCALITY MAP

3. PROPOSAL

The details for the proposal are as follows:

- The commercial removal of the naturally wind blown sand from Newcastle Bight Sand Dunes from the subject site.
- The extracted sand will be transported from the site to market where it will be sold as quality fill to the building and construction industry.
- The sand resource that is subject to the proposal is the sand that is naturally wind blown onto the subject site.
- It is estimated that up to 25,000 tonnes of wind blown sand will be extracted from the site annually.
- Maximum production would involve 1,000 tonnes per day but it is estimated that the average daily extraction would be 30 tonnes per day.
- Conventional earth moving equipment and registered trucks will be used for the extraction process.
- The extracted sand is proposed to be hauled along an existing route. The route is comprised of an access track across the subject site to Jessie Road and then extends in a northerly direction on a gravel road to the roundabout intersection of Nelson Bay Road and Port Stephens Drive.
- Dust will be minimised through the use of a water cart.
- Hours of operation proposed are 7am – 6pm weekdays and 7am – 1pm Saturdays.
- Given the nature of the proposal (removal of naturally wind blown sand from the property), the life of the project will be on going ie. whilst wind continues to be naturally blown onto the site, to reclaim the land and remove a natural hazard, our client will continue to extract the sand.



^ FIGURE 2: PROPOSED ACTIVITIES PLAN

4. PLANNING CONTROLS

4.1 STATE ENVIRONMENTAL PLANNING POLICIES

4.1.1 STATE ENVIRONMENTAL PLANNING POLICY (MAJOR PROJECTS 2005)

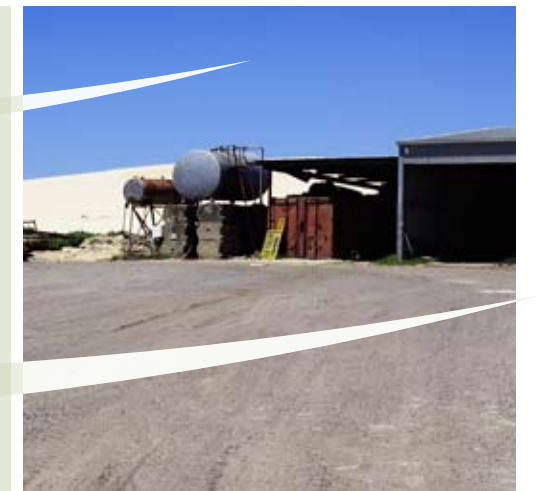
State Environmental Planning Policy (SEPP) (Major Projects) identifies certain developments that are major projects under Part 3A of the Environmental Planning and Assessment Act 1979. The Minister for Planning must confirm that these projects are major projects for the purposes of Part 3A of the Environmental Planning and Assessment Act 1979. Under Clause 6(1) of SEPP (Major Projects) 2005, the Director General, as delegate of the Minister of Planning, has confirmed that the proposal forms a Part 3A Major Project (see Attachment No. 1).

4.1.2 STATE ENVIRONMENTAL PLANNING POLICY NO. 44 KOALA HABITAT PROTECTION

This policy applies to land in the Port Stephens Local Government area. The proposal does not seek to clear any vegetation on the site thus it is considered that no potential Koala habitat will be affected by the proposal. Subsequently it is considered that the proposal complies with the provisions of SEPP 44 Koala Habitat Protection.



^ AERIAL VIEW OF THE SITE



4. PLANNING CONTROLS

4.1.3 STATE ENVIRONMENTAL PLANNING POLICY NO. 71 COASTAL PROTECTION

SEPP 71 applies to coastal land within New South Wales. The subject land is located within close proximity to Newcastle Bight and subsequently the provisions of the SEPP apply.

The following table highlights the relevant considerations of SEPP 71 in relation to the proposal:

CLAUSE	COMMENT
8(a) Aims of Policy	The proposal is consistent with the aims of SEPP 71.
8(b) Public Access	The proposal will have no impact on foreshore access arrangements.
8(c) New Public Access	Given the nature of the proposal, no public access arrangements through the site will be provided.
8(d) Suitability of Development	The proposal is consistent with this clause. The proposal is suitable for the location as it involves the removal of naturally wind blown sand from the subject site.
8(e) Amenity of Coastal Foreshore	The proposal will have no impact on the coastal foreshore. No overshadowing or loss of views will be generated by the excavation operation.
8(f) Scenic Qualities	The proposed development will not alter the scenic qualities of the coastline.
8(g) Animal Conservation	The proposal will have no impact on any threatened species. Refer to Section 5.2 of this report.
8(h) Fish Conservation	The proposal will have no impact on marine flora and fauna.
8(j) Coastal Processes & Hazards	The rationale behind the proposal is generated from a natural coastal hazard, wind blown sand. The proposal seeks to allow our client to extract the wind blown sand from the subject site and remove the natural hazard.
8(k) Land / Water Conflict	The proposal will not generate any land based / water based conflict issues.
8(l) Aboriginal Heritage	Refer to section 5.3 of this report.
8(m) Water Quality	The proposal will have no impact on the quality of coastal water bodies.
8(n) Heritage	There are no items of heritage or heritage significance on the subject site or surrounding land.
8(o) Draft LEP's	Not applicable.
8(p)(i) Cumulative Impacts of Proposal	There are no cumulative impacts generated by the proposal.
8p(ii) Water & Energy Efficiency	Not applicable.

Part 4 of SEPP 71 also contains development controls for proposals in the coastal zone. It is noted that:

- No flexible zone provisions need to be utilised to enable approval of the development on the land;
- The proposal will have no impact on public access to the foreshore; and
- The proposal will not have a negative effect on coastal waterbodies.

Overall it is considered that the proposal remains consistent with the provisions of SEPP 71 Coastal Protection.



^ LOOKING SOUTH TOWARDS EXISTING SHEDS ON THE SITE



4. PLANNING CONTROLS

4.2 HUNTER REGIONAL ENVIRONMENTAL PLAN 1989

The Hunter Regional Environmental Plan (HREP) 1989 applies to all land within the Port Stephens Local Government Area. Part 6 of the HREP 1989 deals with minerals and extractive materials and provides the following objectives:

- “(a) manage the coal and other mineral resources and extractive materials of the region in a co-ordinated manner so as to ensure that adverse impacts on the environment and the population likely to be affected are minimised,*
- (b) ensure that development proposals for land containing coal and other mineral resources and extractive materials are assessed in relation to the potential problems of rendering those resources unavailable, and*
- (c) ensure that the transportation of coal and other mineral resources and extractive materials has minimal adverse impact on the community.”*

Given that the proposal does not propose to begin an independent extractive activity but simply proposes to extract wind blown sand from the subject site to remove a naturally created hazard and reclaim the land for commercial purposes, it is considered that the proposal complies with the objectives of the HREP 1989.

4.3 PORT STEPHENS LOCAL ENVIRONMENTAL PLAN 2000

The subject site is zoned 1(a) Rural Agriculture “A” Zone under the provisions of the Port Stephens Local Environmental Plan 2000. The development is defined as an “extractive industry” and is a permissible use. The objectives of the zone are:

- “(The objective of the Rural Agriculture “A” Zone is to maintain the rural character of the area and to promote the efficient and sustainable utilisation of rural land and resources by:*
- (a) regulating the development of rural land for purposes other than agriculture by ensuring that development is compatible with rural land uses and does not adversely affect the environment or the amenity of the locality, and*

- (b) ensuring development will not have a detrimental effect on established agricultural operations or rural activities in the locality, and*
- (c) preventing the fragmentation of grazing or prime agricultural lands, protecting the agricultural potential of rural land not identified for alternative land use, and minimising the cost to the community of:*
- (d) protecting or conserving (or both protecting and conserving):*
 - (i) soil stability by controlling development in accordance with land capability, and*
 - (ii) trees and other vegetation in environmentally sensitive localities where the conservation of the vegetation is likely to reduce land degradation or biodiversity, and*
 - (iii) water resources, water quality and wetland areas, and their catchments and buffer areas, and*
 - (iv) land affected by acid sulphate soils by controlling development of that land likely to affect drainage or lower the water table or cause soil disturbance, and*
 - (v) valuable deposits of minerals and extractive materials by restricting development that would compromise the efficient extraction of those deposits, and*
- (e) reducing the incidence of loss of life and damage to property and the environment in localities subject to flooding and to enable uses and developments consistent with floodplain management practices.”*



^ LOOKING TOWARDS THE ADJACENT PROPERTY TO THE EAST



4. PLANNING CONTROLS

COMMENT

The proposal will have no impact on the rural character of the area.

In terms of objective (a) it is considered that the proposal is compatible with surrounding land uses and will not affect the environment or the amenity of the locality. In fact, the proposal will improve the amenity of the locality by ensuring that sand inundation does not occur and adversely affect the site and adjoining properties. It should be noted that there are a number of other similar commercial sand extraction operations in the locality.

In terms of objectives (b) and (c) the proposal will not have a detrimental effect on established agricultural operations or rural activities in the vicinity. It is considered that the continued removal of the natural sand inundation hazard will have a positive impact on current and potential rural activities in the vicinity.

With respect to objective (d) the following is noted in respect to each element requiring consideration:

- (i) The proposal will have no impact on soil stability.
- (ii) The proposal will not require the clearing of any trees or other vegetation to facilitate the operations of the proposal.
- (iii) The proposal will have no impact on water resources, water quality or wetland areas.
- (iv) This issue is addressed in Section 5.6 Acid Sulfate Soils.
- (v) Given that the proposal seeks to remove a naturally wind blown sand hazard to reduce the impact of inundation of sand on the subject land, it is considered that the proposal is an appropriate development that would not compromise valuable deposits of minerals and extractive materials.

Objective (e) is not relevant to the proposal as the land is not subject to flooding.

4.4 PORT STEPHENS COUNCIL ACID SULFATE SOILS POLICY

Port Stephens Council's Acid Sulfate Soils Policy which was adopted in September 2006 seeks to manage any disturbance to potential and actual acid sulfate soils in the Port Stephens Local Government Area.

The subject land is identified as Class 4 land under the Acid Sulfate Soils planning maps produced by Port Stephens Council. This classification indicates that acid sulfate soils may be found at a level greater than 2 metres below the natural ground surface.

Given that the proposal involves the removal of wind blown sand from above ground level and that no excavation below the ground's surface is proposed, it is considered that acid sulfate soils will not be affected by the proposal.

LOOKING TOWARDS
EXISTING MACHINERY
SHEDS ON THE SITE >



< LOOKING ACROSS THE
SOUTHERN BOUNDARY OF
THE SITE

5. KEY ISSUES

5.1 TRAFFIC

5.1.1 BACKGROUND

The site is accessed via an existing gravel access road which connects to Jessie Road. Jessie Road then forms the southern arm of the existing roundabout on Nelson Bay Road and Port Stephens Drive. It is proposed to continue to utilise these roads as the primary access for the sand extraction operation. Jessie Road is of unsealed gravel formation approximately 4 to 5 metres in width and in good condition. Nelson Bay Road (Main Road 108) is sealed and in excellent condition. Nelson Bay Road features a divided four lane carriageway to the east of Jessie Road and a two lane undivided carriageway to the west of Jessie Road. As previously stated, a two lane roundabout exists at the intersection of Nelson Bay Road, Port Stephens Drive and Jessie Road.

As the operation has been in existence for some considerable time, the operators are able to provide accurate estimations of the sand to be extracted, and therefore the expected number of vehicle movements associated with the extraction activities. The operators have advised that an estimated 25,000 tonnes of wind blown sand will be extracted annually, with the maximum daily extraction being 1,000 tonnes. The operators have also advised that the average daily extraction is in the order of 30 tonnes per day.

In assessing the likely traffic impacts, the maximum daily extraction rate will be adopted to determine peak vehicle movements. The adoption of the maximum extraction rate ensures that this assessment considers the greatest likely impact (if any) on the existing road network and traffic flows it currently carries.

5.1.2 TRAFFIC GENERATION

As previously stated, the maximum daily extraction rate will be adopted to determine peak vehicle movements from the site. The operators have advised that the maximum daily extraction rate is 1,000 tonnes based upon the current staffing levels, the capacity of the loading and haulage equipment currently in use and delivery / turn around times.

In determining the number of vehicle movements generated by the site a relationship between truck movements and extraction rates must be drawn. As the operator utilises both single trucks and trucks and trailers, an average tonnage per truck must be established. The operator has advised that the number of single trucks versus truck and trailers is in the order of a 60:40 split. As such an average tonnage per truck has been assumed as being 12.5 tonnes per vehicle movement. Therefore, based upon a daily maximum of 1,000 tonnes the total number of truck movements generated will be 80 vehicle trips per day. The operator has also advised that in order to operate at this level a staff of 6 to 7 people would be required. If an allowance for staff vehicle movements is made, the total number of vehicle movements associated with the sand extraction operation will be in the order of 90 vehicle trips per day. The peak hourly flow from the site is therefore 9 vehicle trips per hour.

LOOKING SOUTH ALONG
JESSIE ROAD TOWARDS
THE SITE >



< LOOKING EAST ALONG
NELSON BAY ROAD

5. KEY ISSUES CONT.

5.1.3 IMPACT OF THE PROPOSAL

A review of the RTA's Traffic Volume Data for the Hunter and Northern Regions 2004 has shown that Nelson Bay Road (Anna Bay) east of Gan Gan Road carried 9481 vehicles per day in 2004. Gan Gan Road is located within 1km of the subject site and as such it is considered reasonable to adopt the RTA's count for this location. As the count was carried out in 2004, an allowance of 2.5% growth has been applied for the years 2005 and 2006. Therefore, the assumed current flows on Nelson Bay Road at this location are in the order of 9961 vehicles per day. The peak hour flow on Nelson Bay Road is therefore 996 vehicle trips per hour, or approximately 500 vehicles per hour in direction.

The roundabout on Nelson Bay Road and Port Stephens Drive was observed to be operating well within capacity and without excessive delays. Average delays were in the order of 3 to 5 seconds, however in most cases the roundabout flowed freely without any delay. It should be noted that observation of the roundabout took place during peak business periods for the sand extraction operation. The operation has also been ongoing for some considerable time without the incidence of problems at this location. Whilst formal modeling of the proposal has not been undertaken at this time, if required such modeling can be undertaken during the future detailed assessment of the proposal.

Given the low number of movements associated with the operation of the proposal (9 vehicles per hour) and the fact that the operation has been carried out successfully for some considerable time, it is considered that the ongoing operation of the sand extraction business will not have an adverse impact on the existing road network at this location.

5.2 ECOLOGY

The environmental risk rating for potential flora and fauna impacts is considered low due to the nature of the sand extraction which does not require land clearing. Although many threatened species populations and communities have been recorded in the Anna Bay/Port Stephens area, no vegetation that would provide habitat to these species is within the sand extraction area or access tracks and will

not be encroached upon during any stage of the sand extraction process.

The draft guidelines for threatened species assessment (Department of Environment and Conservation, Department of Primary Industries July 2005) states that the main purpose of a preliminary assessment is to determine the likelihood of the study area and subject site to supporting threatened species. This step is primarily a desktop assessment involving searches of relevant databases and literature reviews to identify a list of threatened species that could be potentially occurring in the area. The guidelines list as items to be included in a preliminary assessment a description of the location and nature of the proposed development, a description of dominant vegetation types, a description of habitat features a list of threatened species that are known or likely to occur within the study area and an assessment of which of the threatened species that are known or likely to occur are likely to be directly or indirectly affected by the proposal.

A database search of the atlas of NSW wildlife has been undertaken for an area within 5km radius of the site. Flora and fauna data also exists in house for the Anna Bay area. The table in **Attachment No. 3** lists the species of threatened fauna recorded within the 5km radius and on the in house database.

The species in the table in **Attachment No. 3** includes both terrestrial species that would mainly occupy forest type communities as well as marine and shore species which would be found along both the Stockton Bight stretch and the coastal communities of Anna Bay. Given that this proposal will only remove sand from an area absent of either of these types of habitat, impacts on these habitat types will be negligible. The main potential impact will be from potential for encroachment for surrounding vegetation during the operation process, however, the lack of native vegetation within the proposal area coupled with the inclusion of fencing to protect vegetated areas would suggest that impacts from the proposal be negligible.



^ LOOKING TOWARDS THE SOUTHERN BOUNDARY OF THE SITE

5. KEY ISSUES CONT.

5.3 ARCHAEOLOGY

The draft Department of Environment and Conservation (DEC) guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation July 2005 state that the main purpose of a preliminary assessment is to identify whether there are Aboriginal cultural heritage values associated with the subject site. The draft guidelines suggest a desktop scoping exercise that includes a description of the location and nature of the proposed development, a description of any social or cultural values including the spiritual traditional historical contemporary associations and attach which the place or area has for the present day aboriginal community and an assessment of which of the aboriginal cultural heritage values that are known or likely to occur are likely to be directly or indirectly affected by the proposal.

Searches of the DEC Aboriginal Heritage Management system reveal that approximately 20 sites are listed within the Anna Bay area. The sites identified include artefact scatters, scar trees, and a predictive model of site location constructed to identify areas of high value indicates that there is potential for widespread evidence of aboriginal occupation in the form of these artefacts in the local area.

Potential impacts to aboriginal heritage and cultural values may arise through the construction of new dwellings and facilities such as roads or increases in the extraction face or new stockpiles. Such impact will be very limited as most surface development will be within previously disturbed areas.

We believe given the ongoing use of already developed areas in the proposal the assessment will not directly or indirectly effect aboriginal cultural heritage values however future assessments will provide more information.

5.4 ACOUSTIC CONSIDERATIONS

5.4.1 HOURS OF OPERATION

The proposed hours of operation are identified as those of the current operations which are from 7am to 6pm Monday to Friday and 7am to 1pm Saturdays. The site is closed on Sundays, Public Holidays and for an extended period over the Christmas and New Year break.

5.4.2 NOISE ISSUES

It is anticipated that noise from the proposed extension will essentially emanate from the two main sources outlined below:

1. Operational noise from the general operation at the site including intermittent noise from vehicle movement, trucks and cars on site and intermittent noise from extraction activities including loading, excavating and sorting; and
2. Road traffic noise from truck movements associated with the development on site and on public roads. Trucks will enter and exit the site from sealed road access which intersects with the round-a-bout at Nelson Bay Road.

5.4.3 NOISE CRITERIA

With respect to noise criteria, the NSW Department of Planning has provided the environmental assessment requirements under part 3(a) of the Environmental Planning & Assessment Act 1979 to be compliant with the NSW Industrial Noise Policy (INP) and Chapter 171 of the Environmental Noise Control Manual (ENCM). Similarly, the Department of Environment & Conservation (NSW) requires that impacts of noise and vibration be assessed in accordance with the INP.

LOOKING TOWARDS THE SOUTH EASTERN CORNER OF THE SITE >



< LOOKING TOWARDS THE NORTH WESTERN CORNER OF THE SITE

5. KEY ISSUES CONT.

5.4.4 INDUSTRIAL NOISE CRITERIA

The Industrial Noise Policy is designed to assess “industrial noise” using the more stringent of the following two approaches:

- Intrusive noise impacts in the short term for residences; and
- Amenity for particular land uses such as residences.

The INP’s intrusive goal is set 5dBA above the Rating Background Level (RBL) for each time period (daytime, evening or night time) of interest. The RBL’s are derived from the measured LA90 noise levels as per the DEC guidelines.

The amenity goal sets an upper limit to the total noise level (LAeq) in an area from all industrial noise (existing and future). The criterion depends on the time of day, area classifications and the relationship of the total measured LAeq (and contribution from existing industrial noise) to determine the Acceptable Noise Level (ANL) for the development. The potentially affected area is classified as “Rural” by the INP. Given this, the “acceptable” amenity levels (LAeq dBA) which apply over the whole day, evening or night period are as follows and are applicable as there are no other “industrial” noise sources:

- Daytime 50dBA;
- Evening 45dBA; and
- Night time 40dBA.

With respect to the area surrounding the site, there are currently residential, public and tourist developments. Therefore ANL are committed in meeting the rural amenity criterion of 40dBA (however assessed over a 15 minute period) to be assessed just inside the site boundary of adjoining possible future residences.

5.4.5 OPERATIONAL TRAFFIC NOISE ASSESSMENT

This section assesses the impact of increased noise potentially impacting residential receivers due to additional road traffic generated by the development. With respect to access to the site, all road traffic movements (construction and operation) will travel along Nelson Bay Road (this is the only option) and then via the access to the property. The functional category of this road is considered to be “sub-arterial” (RTA Road Design Guide 1996) and using the NSW Department of Environment & Conservation (DEC) document, the NSW Environmental Criteria for Road Traffic Noise (ECRTN), the applicable noise criteria refer to a day time (7.00am-10.00pm) LAeq,15hr 60dBA level and a night time (10.00pm-7.00am) LAeq,9hr 55dBA level. Traffic generating developments are allowed an increase above these limits of 2dB, once all reasonable and feasible mitigation is considered. Analysis of the traffic data and estimated vehicle movement during construction along the access route indicated that a 2dB limit will apply

There will be minor increases in road noise during the peak extraction activities however, there is minimal risk of exceeding the 2dB limit. During the operational stage, there would be minor, light vehicle activity as required and as such negligible impact expected. Given the low risk of exceeding the 2dB limit, a further detailed assessment is not deemed necessary. In addition to the assessment of Nelson Bay Road, the noise from the use of the access road has been considered as part of the operational noise on-site.



^ LOOKING EAST ACROSS THE SITE



5. KEY ISSUES CONT.

5.5 AIR QUALITY

The proposal is for ongoing sand extraction and consequently air quality issues will be confined to emissions from surface operations including conveying and other handling of sand on the site as well as ventilation emissions from the quarrying site. Impacts on air quality with proposed mitigation measures have been allocated a low risk category in the environmental risk register.

5.5.1 EXISTING AIR QUALITY DATA

Monitoring programs to characterise the meteorological conditions and existing air quality have been in place for the region since 2000. The air quality monitoring plant comprises one Particulate Matter Total monitor. In addition the DEC's Particulate Matter Total monitor at Beresfield provides useful information on regional Particulate Matter Total concentration.

Measured dust deposition levels were generally low and all locations where the gauge was positioned recorded deposition levels less than the DEC's annual average assessment criteria of 4gm/m² per month. Overall dust deposition levels appear to be at a satisfactory level.

Measurements of Particulate Matter Total and Total Suspended Solids concentrations have been made at sites. Refer to as the Beresfield and Barrter site. The 24 hour average Particulate Matter Total concentration has only exceed the DEC's criteria of 50mg/m³ once in the last 12 months at the Beresfield site. Previous high results can generally be contributed to local bush fires.

The annual average Particulate Matter Total concentration running mean at Beresfield exceeded DEC's standards from late 2002 to the end of 2003. It has been below the criterion since that time by way of comparison at Barrter Farms has not exceeded the criterion as with dust deposition Particulate Matter Total and Total Suspended Solids concentrations are satisfactory at present Particulate Matter Total emissions that might effect air quality in the area will be carefully controlled to ensure that the area continues to comply with the DEC's annual and 24 hours criteria with Particulate Matter Total. The JS project is unlikely to contribute significantly in the local area.

5.5.2 METEOROLOGICAL CONDITIONS

The meteorological station has been operating at Williamtown airfield as part of the RAAF base environmental monitoring program. The most common winds are from Westerly winds in Winter and in the summer. Autumn and Spring show an intermediate pattern between that which implies the Summer and Winter winds.

5.5.3 ASSESSMENT APPROACH

The air quality assessment will follow NSW DEC's guidelines 2001 which require the assessment to:

- Identify relevant pollutants;
- Ascertain existing concentrations and deposition levels if relevant of the relevant pollutants;
- Derive appropriate assessment criteria;
- Analyse the proposed operation and develop emissions inventories in a format suitable for use with a dispersion model;
- Prepare a meteorological data file for use with the dispersion model;
- Use estimated emissions meteorological data and dispersion model to predict ground level concentrations and deposition levels; and
- Compare predicted concentrations and deposition levels with assessment criteria after taking account of existing levels of pollution.



^ LOOKING EAST ALONG THE INTERNAL ACCESS TRACK WITHIN THE SITE



5. KEY ISSUES CONT.

5.6 PUBLIC INTEREST

The proposal is considered to be within the public interest for the following reasons:

- The proposal will generate positive social impacts such as the removal of a naturally created hazard that has historically inundated both the subject site and surrounding properties with sand.
- The proposal will generate a number of local employment opportunities.
- The proposal will allow quality sand to be transported to market for construction and commercial usage that would have previously been a nuisance to the subject site and adjacent properties.
- If the wind blown sand is not transported away from the site then a safety hazard would be created that would detrimentally affect our client's property and adjacent parcels of land.
- The sand extraction will save existing coastal vegetation on the site from being destroyed due to sand inundation.



^ LOOKING TOWARDS SOME EXISTING VEGETATION ON THE SOUTHERN END OF THE SITE

6. CONCLUSION

This preliminary assessment identifies the issues that should be addressed during the planning of the proposed extractive activity. The key matters that require further investigation as part of the Environmental Assessment Report are:

- Traffic;
- Ecology;
- Archaeology;
- Acoustic considerations; and
- Dust.

Overall, taking the above issues into account, it is considered that the proposal can be supported. The proposal seeks to commercially extract wind blown sand from the site that would otherwise form a nuisance and natural hazard. The proposal will generate numerous social, economic and ecological benefits and is undoubtedly within the public interest. The proposal remains consistent with the relevant planning controls and will allow quality fill to be supplied to the local building industry that would otherwise inundate our client's property.

On behalf of the proponent we seek the Director General's Environmental Assessment Requirements for Project Application preparation to allow our client to continue to commercially extract sand from the site to allow the land to be reclaimed from a natural hazard.



^ LOOKING SOUTH TOWARDS THE SAND DUNES





ATTACHMENT 1

CORRESPONDENCE FROM DoP



ATTACHMENT 2

PROPOSED ACTIVITIES PLAN



ATTACHMENT 3

THREATENED FAUNA SPECIES TABLE