

# Environmental Assessment

---



For

**Proposed Machinery Shed  
Minor Modification to Project Approval 06\_0030**

At

**Lot 162 in Deposited Plan 755721,  
Wooyung**

Prepared for

**Ramtech Pty Ltd**

By

**Planit Consulting Pty Ltd**

Revised August 2009

## ENVIRONMENTAL ASSESSMENT

Planit Consulting Pty Ltd has been commissioned by Ramtech Pty Ltd to prepare An Environmental Assessment relating to a proposed Machinery Shed. The shed is to be utilised for the storage of machinery associated with a previously approved sand quarry (Project Approval 06\_0030) that includes this lot within the greater area of the sand quarry site.

## THE SITE

- The subject property is legally described as Lot 162 in DP 755721, Wooyung, and locally known as Dunloe Park. The site has an area of approximately 81 Hectares. The lot is currently utilised for agricultural purposes being largely cattle grazing. Recently, Project Approval 06\_0030 was issued by the Minister for the operation of a sand quarry (see Appendix B). Lot 162 is one lot within the greater site of the sand quarry as shown below in the plan of the site as issued within Project Approval 06\_0030. Lot 162 is proposed to contain extraction pit one. The proposed machinery shed is to be located in the western area of the site as shown in Appendix A.



- The subject property (Lot 162) is zoned 1(a) Rural under the provisions of Tweed Local Environmental Plan 2000 (TLEP 2000).
- The subject site is relatively flat with some sand hill rises to the east of the site. The location of the shed is generally flat ground.
- Access is provided from a haulage road that has been approved and constructed as part of the Project Approval. This haulage road connects the site to Pottsville Mooball Road.

- Services are available to the property including water, power, telecommunications, drainage and sewer as a result of the Project Approval issued for the site and associated with the sand quarry. No constraints are evident in this regard.
- The surrounding agricultural uses within the greater area of Dunloe Park and outside of the area to be utilised for the sand quarry involve cattle grazing and sugar cane cropping.
- In terms of hazards the property is considered to be on a floodplain. The location of the shed on the site is not affected by bushfire under Council's Bushfire Prone Land Map.

## **THE PROPOSAL**

The proposal incorporates the erection of a shed to be utilised for the purpose of storing machinery associated with the approved sand quarry. The proposal is a simple modification through the addition of this shed to the greater Dunloe Sand Quarry site and is ancillary to the main extractive industry that was approved under Project Approval 06\_0030. The owner of the site is presently in the process of gaining approval from the DoP in regard to the various conditions of the Project Approval prior to sand quarrying operations beginning. The proposed shed was not included as a part of this project approval as the exact location was not determined at the time of assessment of the sand quarry. The owner has decided that the location proposed is the most suitable to the operations of the sand quarry and is simply a standard necessity for storing the machinery within a sheltered area.

The proposed location of the shed is toward the western end of Lot 162 in DP 755721. This location is adjacent to the 'works area' for the sand quarry as approved under Project Approval 06\_0030. The 'works area' is the location at which trucks will pick up extracted and refined material to be taken away from the site. The proposed location of the machinery shed as shown on the plans in Appendix A is within this 'works area' and is considered by the operators the most beneficial position within close proximity to stock piles and loading zones and the haulage route into and out of this area.

The proposed shed has a floor area of 240m<sup>2</sup> and dimensions of 10m width by 24m length. The shed has a proposed height to the roof pitch of 5.5m (refer to plans within Appendix A). Three open bays at a width of 6.9m each are proposed to provide quick access to and from the shed.

## **APPROVALS SOUGHT**

Approval is sought pursuant to Part III of the Environmental Planning & Assessment Act, 1979 and particularly Section 75W.

A construction certificate will also be sought at a later date.

## **INTEGRATED DEVELOPMENT**

The proposed development is not nominated as Integrated Development for the purposes of Council's assessment.

## **ADVERTISING/NOTIFICATION**

It is not anticipated that the Minister will require the advertising of this minor modification.

## **VARIATIONS SOUGHT**

The proposed development does not seek any variations to applicable planning controls.

## STATUTORY ASSESSMENT

### State Environmental Planning Policy No. 11 – Traffic Generating Development (SEPP 11)

The proposed shed will not generate any additional traffic. All machinery to be stored in the shed will remain on the property at all times, with the exception of possible maintenance requirements that may be required to be undertaken off site.

### State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71)

The subject site is within the coastal zone and therefore relevant provisions of this policy apply. The matters for consideration under Clause 8 of the Policy are addressed below:

- a) *The aims of this policy set out in Clause 2.*

The development is not inconsistent with the aims of the policy.

- b) *Existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved.*

The development site does not have access to the foreshore, and hence access to the foreshore will not be impacted upon by the proposal.

- c) *Opportunities to provide new public access to an along the coastal foreshore for pedestrians or persons with a disability.*

As the site does not adjoin the foreshore, no new opportunities exist to provide access to the foreshore.

- d) *The suitability of development and its type, location and design and its relationship with the surrounding area.*

The proposed shed is ancillary to the previously approved sand quarry and is relatively isolated from any incompatible development and hence it is considered that the site is suitable for such a use.

- e) *Any detrimental impact that the development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore.*

The development will not cause any overshadowing of the coastal foreshore and will not impede any views to the foreshore.

- f) *The scenic qualities of the NSW coast, and means to protect and improve these qualities.*

The site and immediate area of the shed and extraction pits are a considerable distance from, surrounding residents in the area. Under Project Approval 06\_0300 visual buffer tree plantings are required and these. The shed will not be seen from any beach locations. In combination the shed will not impact upon scenic qualities of the NSW coast.

- g) *Measures to conserve animals (within the meaning of the Threatened Species Conservation Act, 1995) and plants (within the meaning of that Act) and their habitats.*

A detailed flora and fauna investigations have been undertaken in regard to the sand quarry and no threatened species exist in the location of the proposed shed.

- h) *Measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act, 1994 and marine vegetation within the meaning of that part) and their habitats.*

Marine vegetation or fish habitat will not be affected by the proposal.

- i) *Existing wildlife corridors and the impact of development on these corridors.*

The shed will be located within an area cleared and presently grazed by cattle. The construction of the shed will not impact on surrounding wildlife corridors or upon additional areas to be rehabilitated in accordance with project Approval O6\_300.

- j) *The likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards.*

The site is not adjacent to the beach front and is not located in an area that is at high risk from coastal processes.

- k) *Measures to reduce the potential for conflict between land based and water based coastal activities.*

Due to the relative isolation of the site, conflict between uses is unlikely.

- l) *Measures to protect the cultural places, values, customs, beliefs and traditional knowledge of aboriginals.*

A heritage evaluation has been undertaken as part of the background research for the sand quarry. No items or sites of heritage value were identified at the location of the proposed shed.

- m) *Likely impacts of development on the water quality of coastal water bodies.*

Detailed investigations have been undertaken into the existing water quality of the site and groundwater in regard to the approved sand quarry. Monitoring of these issues on the site will be in accordance with the conditions of Project Approval O6\_0300. The proposed shed is considered to have a negligible impact upon the water quality of Mooball Creek.

- n) *The conservation and preservation of items of heritage, archaeological or historic significance.*

No items of heritage, archaeological or historic significance are present at the location of the proposed shed.

- o) *Only in cases in which a Council prepares a draft Local Environmental Plan that applies to land to which this policy applies, the means to encourage compact towns and cities.*

Not applicable.

- p) *Only in cases in which development application in relation to proposed development is determined;*

i) *The cumulative impacts on the proposed development on the environment;*

ii) *Measures to ensure that water and energy usage by the proposed development is efficient.*

The greater site area comes under a vast array of environmental controls and monitoring in accordance with conditions of approval for the sand quarry. The proposed shed will not result any additional significant cumulative impacts.

### **North Coast Regional Environmental Plan 1988 (NCREP)**

The aim of the NCREP is:

*To provide a basis for the co-ordination of activities related to growth in the region and encourage optimum economic and social benefit to the local community and visitors to the region*

The site's location, features and zonings require assessment and consideration of a number of provisions and requirements contained in the NCREP. With regard to the proposal the following Clauses are applicable:

- Clause 12 – impact of development on agricultural activities
- Clause 18 – extractive industry
- Clause 29 A - natural areas and water catchment
- Clause 32B – coastal lands
- Clause 33 – coastal hazard areas

### **Clause 12**

As the site and adjacent sites are zoned for agricultural purposes under the Tweed Local Environmental Plan 2000, Clause 12 of the NCREP is applicable.

Clause 12 of the NCREP states:

*"The council shall not consent to an application to carry out development on rural land unless it has first considered the likely impact of the proposed development on the use of adjoining or adjacent agricultural land and whether or not the development will cause a loss of prime crop or pasture land."*

A detailed Agricultural Land Assessment has been undertaken and was assessed under Project Approval 06\_0300. The findings suggested that the land was not considered high quality agricultural land. The sand quarry is approved and the shed is ancillary to the approved use on site. The proposed shed will not cause a loss of or detrimentally impact upon adjoining agricultural lands.

### **Clause 18**

With regard to the establishment of extractive industries the NCREP states the following development consent requirement:

*"The council shall not consent to a development application for an extractive industry unless it includes any necessary conditions of consent to require implementation both during and after extractive operations of an erosion and sediment control plan and rehabilitation plan."*

The proposed shed is ancillary to an approved extractive industry.

The Erosion and Sediment Control and Rehabilitation Plans prepared in accordance with Project Approval 06\_0300 cover the site of the proposed shed and will ensure that sediment and erosion control will be effectively mitigated during the construction of the proposed shed.

### **Clause 29A**

Clause 29A applies to the site. However as no works or vegetation removal is proposed within the area affected by the Environmental Protection zoning, the Clause is not relevant to the proposed development.

### **Clause 32B & Clause 33**

As identified within figure 4 of the NSW Coastal Policy 1997, the subject site falls within the policy boundary. As such, Clauses 32B and 33 apply to the proposal.

Clause 32B states as follows:

*In determining an application for consent to carry out development on such land, the council must take into account:*

- (a) the NSW Coastal Policy 1997,
- (b) the Coastline Management Manual, and

(c) the North Coast: Design Guidelines.

Clause 33 states as follows:

*Before granting consent to development on land affected or likely to be affected by coastal processes, the council shall:*

- (a) *take into account the Coastline Management Manual,*
- (b) *require as a condition of development consent that disturbed foreshore areas be rehabilitated, and*
- (c) *require as a condition of development consent that access across foredune areas be confined to specified points*

It is considered that the detailed assessments undertaken for the approved sand quarry demonstrates that the proposed sand quarry apply across the entire site including the location of the proposed shed. These investigations and assessments have been developed in accordance with current best practice principles relating to environmental management, sand quarry operations and site rehabilitation. Due attention has been given to the above manuals and guidelines throughout preparation of these investigations and the preparation of the Environmental Management Plan. The shed is an ancillary structure to the sand quarry and its construction and use will have a minimal impact upon coastal processes.

#### **Tweed Local Environmental Plan 2000 (TLEP 2000)**

The site falls within the legislative boundary of the Tweed Local Environmental Plan 2000 (TLEP 2000). Pursuant to the TLEP 2000, the site is subject to a number of zoning classifications as follows:-

- Rural 1(a) Zone

With regard to the location of the proposed shed, Lot 162 is located wholly on land zoned as Rural 1(a).

Within the Rural 1(a) zone 'extractive industries' are allowable with development consent and the sand quarry was granted consent under Project Approval 06\_0300. The proposed shed is ancillary to the operations of the sand quarry.

The TLEP 2000 outlines the following objective for the **Rural 1(a) zone**:

##### **Primary objectives**

- to enable the ecologically sustainable development of land that is suitable primarily for agricultural or **natural resource utilisation purposes** and associated development.
- to protect rural character and amenity.

##### **Secondary objectives**

- to enable other types of development that rely on the rural or natural values of the land such as agri- and eco-tourism.
- to provide for development that is not suitable in or near urban areas.
- to prevent the unnecessary fragmentation or development of land which may be needed for long-term urban expansion.
- to provide non-urban breaks between settlements to give a physical and community identity to each settlement.

As the proposed shed is simply ancillary to the approved sand quarry which meets the primary objectives the she is considered to also meet the objectives for the 1(a) zoning.

#### **Clause 22 & 23 – Development near Designated Roads**

Clause 22 of the TLEP 2000 applies to land that has frontage to, or relies on a 'designated' road as its sole means of access. This Clause may technically not apply to the development

as the site has access for entry and exit along a private haulage track that intersects with Pottsville Mooball Road.

As the proposed development is not solely accessed from Pottsville Mooball Road, which is a Designated Road, it could be argued that this Clause does not apply to the proposed development. However, it is considered that Council may have intended for the Clause to apply to development of this type and for the sake of completeness, the provisions of this Clause are addressed below:

- (a) *the development (because of its nature, appearance, cumulative effect or illumination, or the intensity or the volume or type of traffic likely to be generated, or for another similar reason) is unlikely to constitute a traffic hazard or materially reduce the capacity or efficiency of the designated road.*

The proposal will not generate any traffic as it is simply for the storage of machinery associated with the approved sand quarry.

- (b) *the location, standard and design of access points, and on-site traffic movement and parking arrangements, would ensure that through traffic movement on the designated road is not impeded, and*

This was assessed under the approved sand quarry. The haulage road connection to Pottsville-Mooball Road has been approved under Section 138 of the Roads Act.

- (c) *the development, or proposed access to it, will not prejudice any future improvements to, or realignment of, the designated road, and*

Realignment or major road improvements to this part of the Pottsville Mooball Road are not anticipated, however, in any case, the construction of the approved haulage road intersection would not be an impediment to any future works. Again this was assessed under the Project Approval 06\_0300.

- (d) *where the land is in Zone 1(a), 5(a), 7(a), 7(d), 7(f), or 7(l), the development is of a type that necessitates a location in proximity to the designated road for reasons other than only commercial advantage, and*

The sand quarry excavation area and proposed shed are not located in close proximity to the designated road.

- (e) *the development is of a type that is not sensitive to traffic noise or, if it is, it is located or adequate measures are included to ameliorate any potential noise impact, and*

The development will not be sensitive to traffic noise. Amelioration measures are not required.

- (f) *the development would not detract from the scenic values of the locality, particularly from the point of view of road users, and*

The development is well removed from Pottsville Mooball Road and will therefore not impact on the scenic quality of the road.

- (g) *where practicable, access to the land is provided by a road other than the designated road, and*

Access to the designated road was approved under Project Approval 06\_0300.

- (h) *in respect of any application for commercial or retail development near the Pacific Highway in Zone 1 (a), 7 (a), 7 (d), 7 (f) or 7 (l), the development:*

- (i) *would not compromise the Highway's function as the North Coast's primary inter- and intra-regional road traffic route, and*  
(ii) *would not contribute to the need to expend public money on the Highway to overcome the effects of ribbon development, and*  
(iii) *would not compromise highway safety and efficiency, and*



(iv) *would not cause or contribute to the shifting of the retail/commercial foci of any town from the town centre to a highway-orientated site.*

Subclause (h) is not applicable as the site does not front the Pacific Highway.

**Clause 23** requires development consent to be obtained for any opening or a road or access that intersects with a designated road. Consent has been granted by the Minister under Project Approval 06\_0300.

#### **Clause 29 – Development Adjoining 8(a) National Parks & Nature Reserves**

Clause 29 states that Council must not grant consent to development adjoining land zoned 8(a) National Parks and Nature Reserves without first considering the likely effects of the development on flora and fauna found in the locality and the potential for disturbance of native flora and fauna as a result of the intrusion of humans, domestic and feral animals, increased fire risk, rubbish dumping, weed invasion and vegetation clearing.

Land to the east of the site, on the opposite side of Mooball Creek is zoned 8(a) National Parks and Nature Reserves, and hence Clause 29 of the LEP would apply to the proposed development.

The Minister has previously considered the abovementioned impacts and granted consent under Project Approval 06\_0300.

It was considered that the approved sand quarry would create no adverse impacts on the Nature Reserve and the development would have beneficial impacts through the rehabilitation and revegetation of buffer zones. This also applies to the proposed shed which is an ancillary component of the sand quarry operations. The proposed development of the shed is not of the type that would introduce potential risks such as domestic animals and rubbish dumping to the area.

It is considered the proposed shed will not have any detrimental impacts on adjacent 8(a) zoned land.

#### **Clause 31 – Development Adjoining Waterbodies**

Clause 31 of the TLEP 2000 applies to land adjoining the high water mark, or bank, or a waterbody. Lot 162 has frontage to Mooball Creek and although the proposed location of the shed is separated from the bank of the creek by a substantial buffer area and by an area of wetlands, Clause 31 is applicable to the development.

Clause 31 requires the following matters to be considered by Council before granting consent to a development:

- (a) *the development will not have a significant adverse effect on scenic quality, water quality, marine ecosystems, or the bio-diversity of the riverine or estuarine area or its function as a wildlife corridor or habitat, and*
- (b) *adequate arrangements for public access to and use of foreshore areas have been made in those cases where the consent authority considers that public access to and use of foreshore areas are appropriate and desirable requirements, and*
- (c) *the development is compatible with any coastal, estuary or river plan of management adopted by the Council under the Local Government Act 1993 that applies to the land or to land that may be affected by the development, and*
- (d) *the development addresses the impact of increased demand from domestic water supply on stream flow; and*
- (e) *the development addresses the likely impact of biting midge and mosquitoes on residents and tourists and the measures to be used to ameliorate the identified impact.*

The above matters were considered by the Minister for the sand quarry under Project Approval 06\_0300. The proposed shed is not considered to create any cumulative impacts upon Mooball Creek and the associated riparian zones as the separation from the creek is approximately 1km and under the Project Approval rehabilitation of the riparian vegetation is ensured creating a greater natural buffer to the creek.

In relation to Subclause 3(b), it is not considered appropriate to provide public access through the site of the proposed sand quarry to Mooball Creek.

In relation to Subclause 3(c), to our knowledge, there has not been a plan of Management adopted by Council that applies to the site.

With regard to Subclause 3(d), it is not proposed to use water in Mooball Creek for any part of the development, and Subclause 3(e) is not applicable to the proposal as it does not involve any tourist or residential development.

It is noted that Sub clauses 4 and 5 enable Council to require the rehabilitation of land adjoining the waterbed to create a vegetated riparian zone or wetland. These matters have been addressed in the Rehabilitation Management Plan prepared in accord with conditions of Project Approval 06\_0300.

The proposed shed is a minor addition to the sand quarry and is not considered to impact upon the waterbody of Mooball Creek.

#### **Clause 34 – Flooding**

Where Council, if of the opinion that a site of a development is affected by flooding, the following matters are required to be addressed prior to development consent being granted:

- (a) the extent and nature of the flooding hazard affecting the land, and*
- (b) whether or not the development would increase the risk or severity of flooding of other land in the vicinity, and*
- (c) whether the risk or severity of flooding affecting the development could be reasonably mitigated, and*
- (d) the impact of the development on emergency services, and*
- (e) the provisions of Tweed Development Control Plan No 5—Development of Flood Liable Land and any other relevant development control plan.*

The site is considered to be subject to events of flooding and these issues were investigated and mitigated under Project Approval 06\_0300. The proposed shed is a structure allowable below the 1 in 100 year flood levels as it is only proposed to be for the storage of machinery associated with the approved sand quarry.

It is considered the proposed shed meets the provisions of Clause 34 and will have a negligible impact upon flooding in the region.

#### **Clause 35 – Acid Sulfate Soil**

The proposed shed will require minimal excavation that is associated with the footings of the structure. Acid Sulfate Soils on the site were assessed as a consideration for the sand quarry approval. It was shown that ASS's are present to varying levels and depth across the site. Any of the soils removed from the upper layers for the purpose of footings will be treated in the same way as top soils removed from the excavation pits in accordance with the conditions of Project Approval 06\_0300.

#### **Clause 39A - Bushfire**

The location of the shed is not within a Mapped bushfire prone area.

## **TWEED DEVELOPMENT CONTROL PLANS**

### **DCP No.5 - Development of Flood Liable Land**

With regard to extractive industries, DCP 5 does not contain any specific requirements. It is noted, however that the proposal has been accompanied by detailed flood modelling, consistent with the siting of the proposed extraction areas within a floodplain.

The site is considered to be subject to events of flooding and these issues were investigated and mitigated under Project Approval 06\_0300. The proposed shed is a structure that would be considered allowable in a rural area within a flood plain, as it is only proposed to be for the storage of machinery associated with the approved sand quarry.

It is considered the proposed shed meets the provisions of Clause 34 of the Tweed LEP and DCP No.5 and will have a negligible cumulative impact upon flooding in the region.

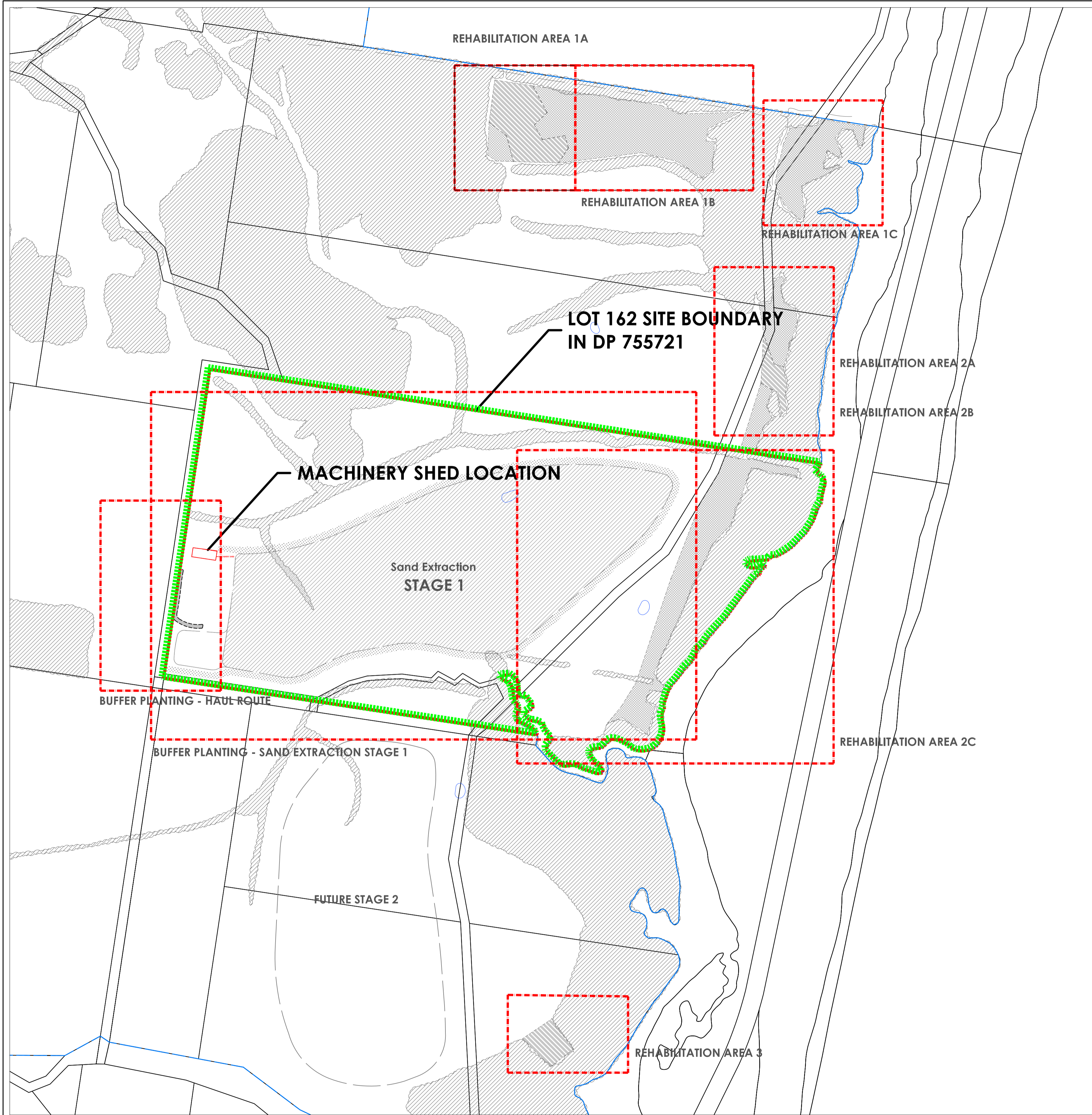
### **CONCLUSION**

The site is considered both suitable and capable of accommodating the proposed shed for the purpose of storing machinery, ancillary to the approved sand quarry. The proposal is not considered to create any additional significant cumulative impacts on the environment that haven't been appropriately mitigated in accordance with Project Approval 06\_0300 for the sand quarry.

The Ministers' approval for the proposed shed is respectfully requested.

# Appendix A

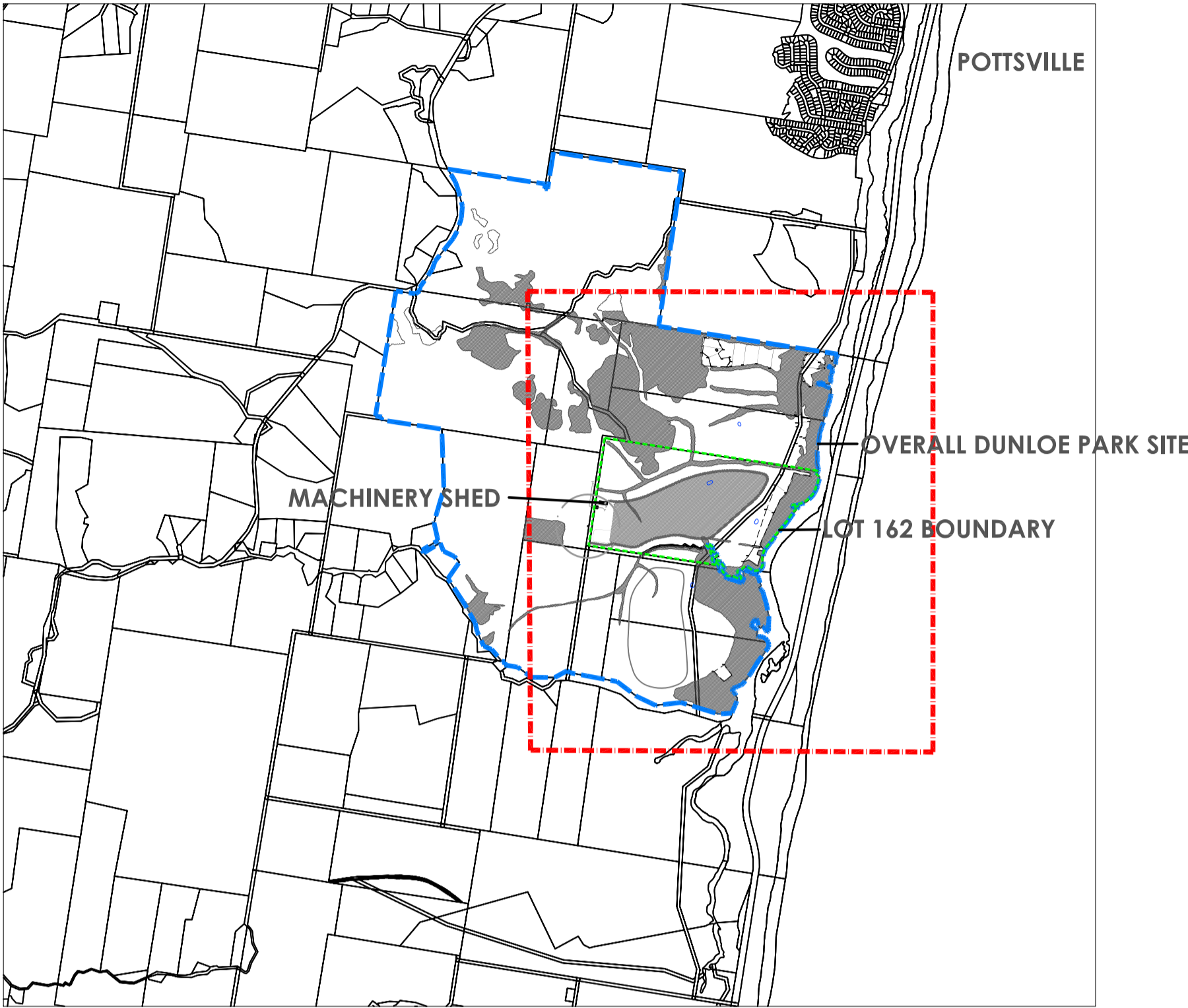
## SITE PLAN AND PROPOSED SHED PLANS



Key Plan

Dunloe Park Sand Extraction  
Scale: 1:5000 at full size A1

# Dunloe Park



Key Plan

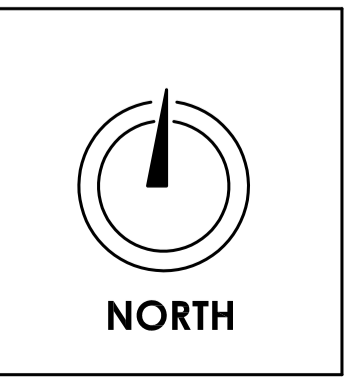
Dunloe Park Sand Extraction  
Scale: 1:5000 at full size A1

PROJECT TITLE	MACHINERY SHED
DRAWING TITLE	LOCATION PLAN
BASE PROVIDED BY	

NO	DATE	REVISION	BY

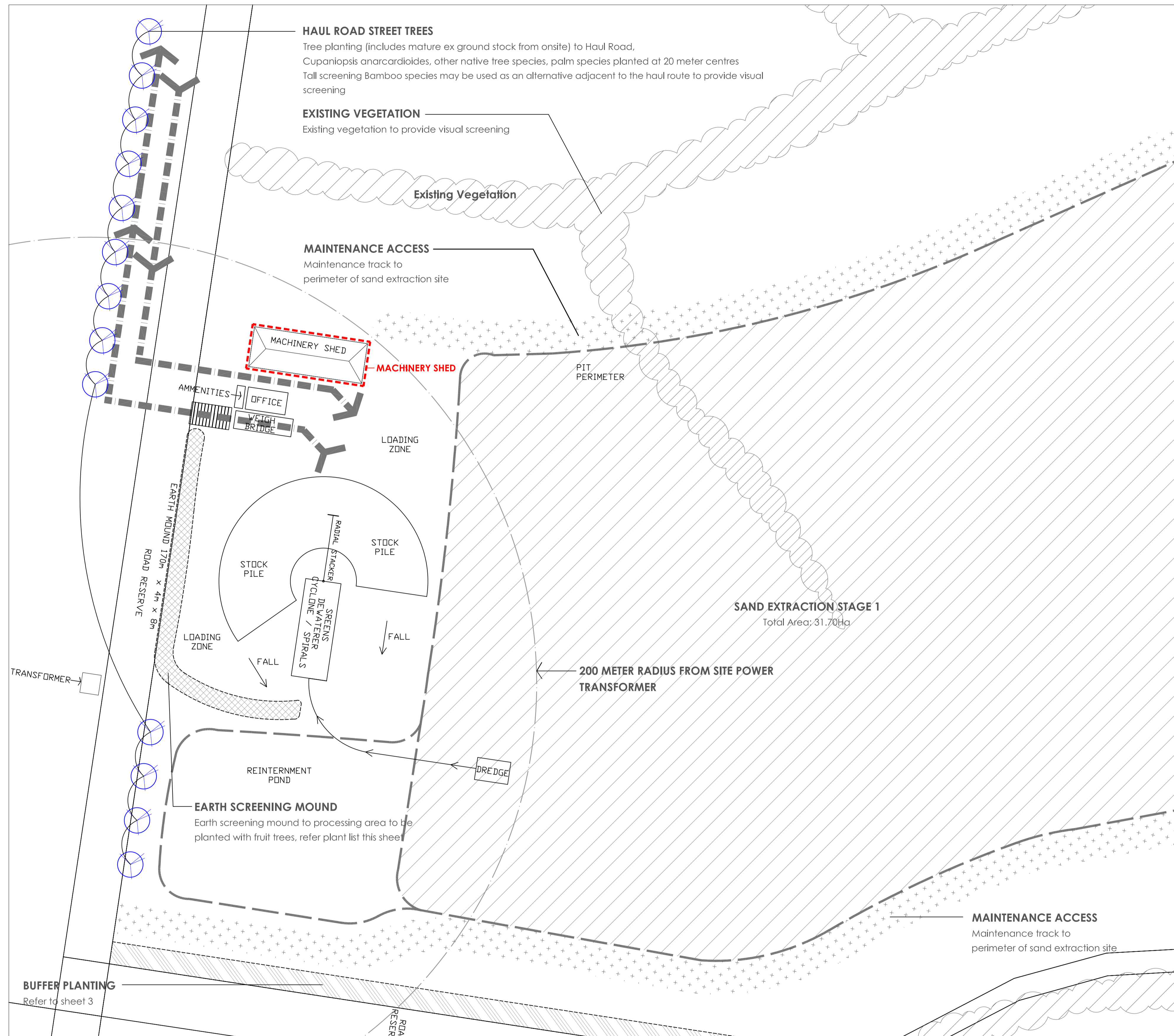
SCALE:	AS SHOWN	DATE:	AUGUST 2009
DESIGN:	JB/GD	CHECKED:	AS
DRAWN:	JB	DRAWING NO.:	

CLIENT	RAMTECH PTY LTD
--------	-----------------

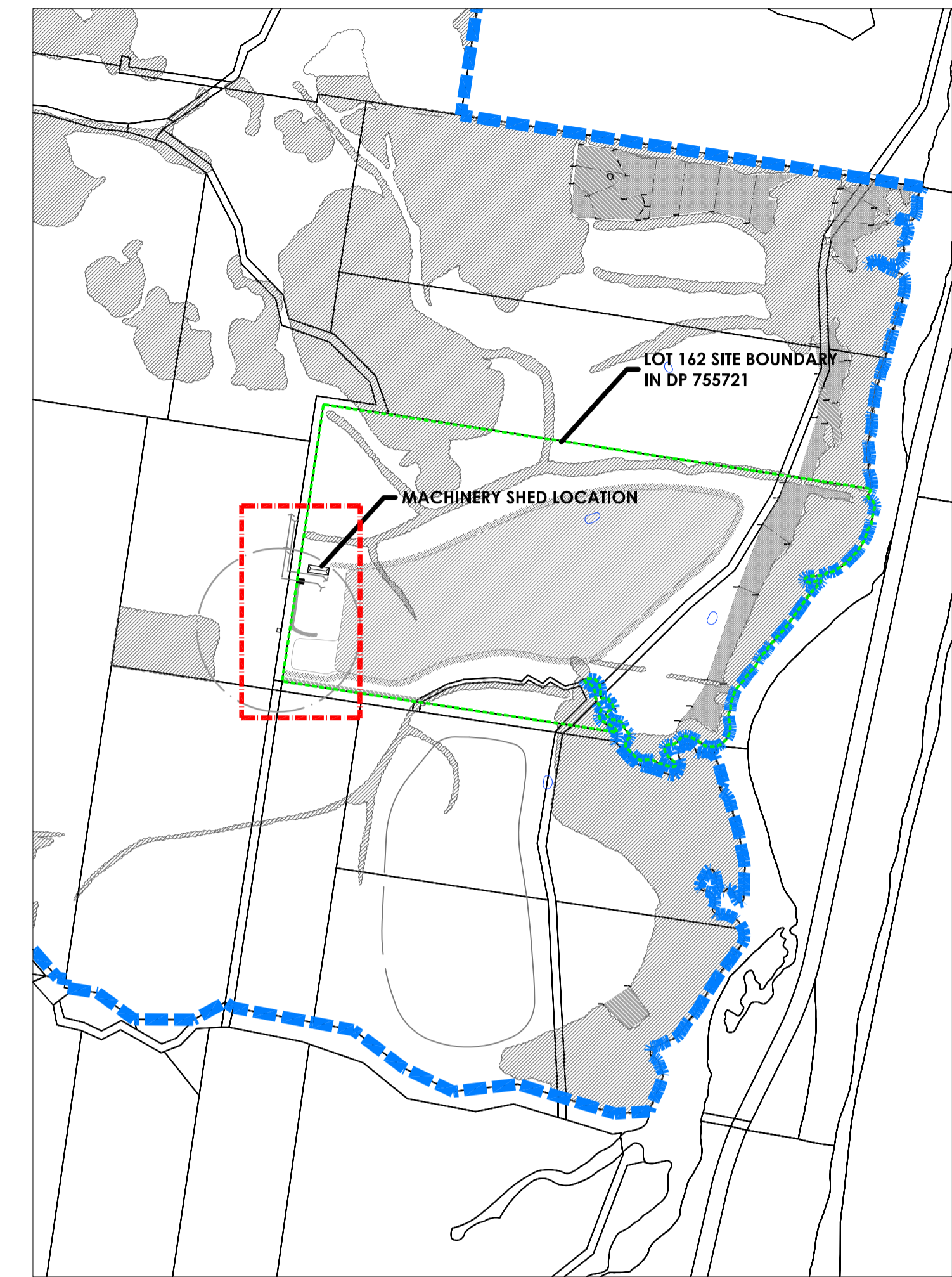


Level 2247 Gold Coast Highway  
Nobby Beach  
PO Box 206 QLD 4218

Telephone: 07 5526 1500  
Fax: 07 5526 1502  
Email: admin@planitconsulting.com.au



# Dunloe Park



LOCATION PLAN

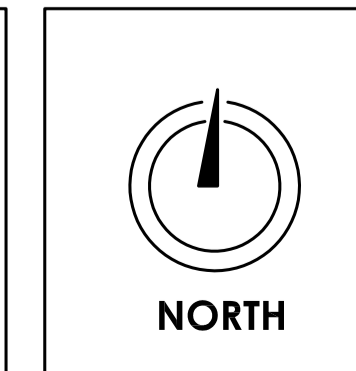
NTS

<b>PROJECT TITLE</b>	DUNLOE PARK - MACHINERY SHED
<b>DRAWING TITLE</b>	SITE PLAN
<b>BASE PROVIDED BY</b>	

NO	DATE	REVISION	BY

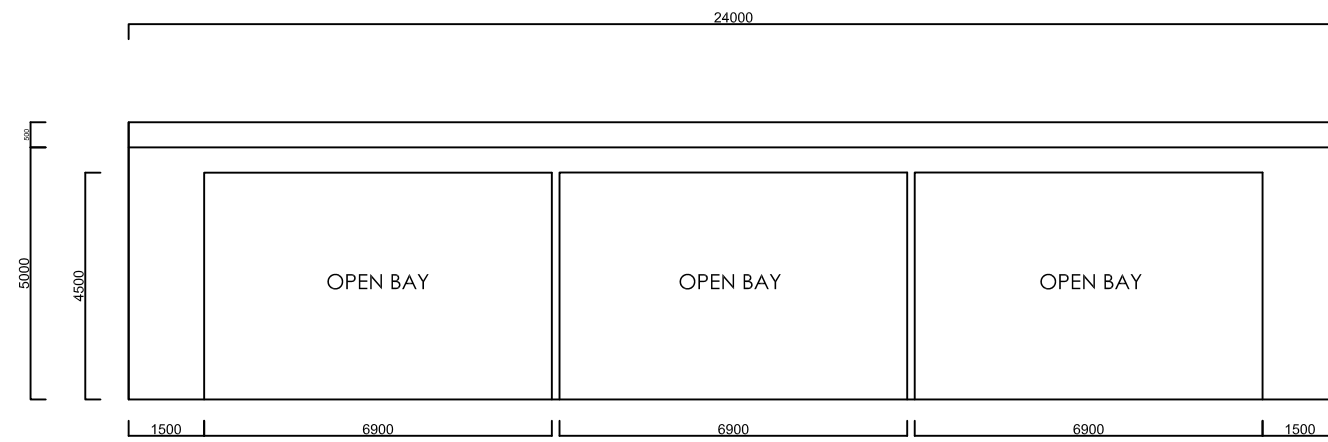
<b>SCALE:</b>	AS SHOWN	<b>DATE:</b>	AUGUST 2009
<b>DESIGN:</b>	JB/GD	<b>CHECKED:</b>	AS
<b>DRAWN:</b>	JB	<b>DRAWING NO.:</b>	

<b>CLIENT</b>	RAMTECH PTY LTD
---------------	-----------------

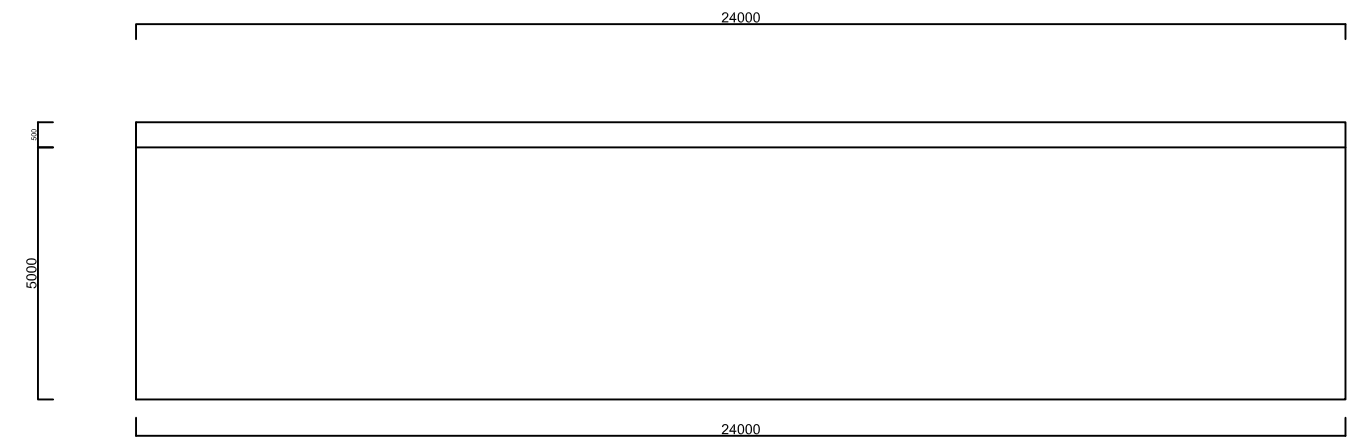


Level 2247 Gold Coast Highway  
 Nobby Beach  
 PO Box 206 QLD 4218

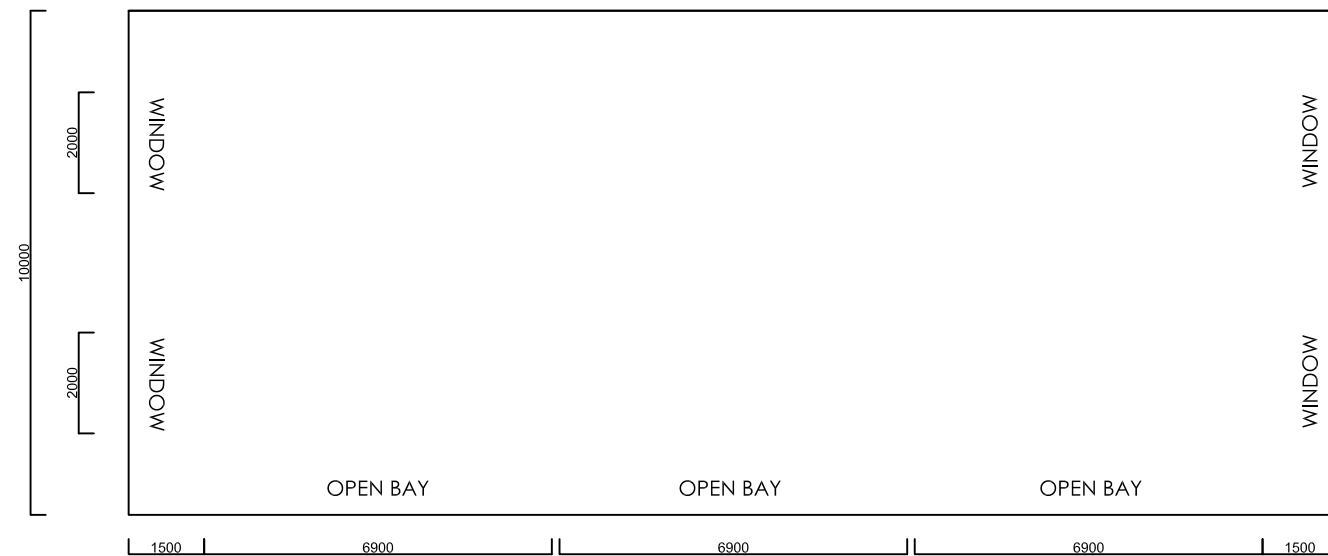
Telephone: 07 5526 1500  
 Fax: 07 5526 1502  
 Email: admin@planitconsulting.com.au



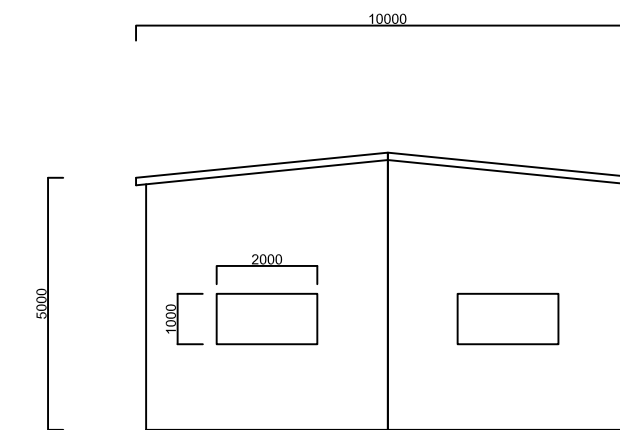
**FRONT ELEVATION**



**REAR ELEVATION**



**FLOOR PLAN**



**SIDE ELEVATION**

**NOTE:** ALL STRUCTURAL ELEMENTS INCLUDING SPAN BEAMS AND STRUCTURAL SUPPORT POSTS TO ENGINEERS DETAILS

**TITLE:** PROPOSED SHED, DUNLOE SANDS

**SCALE:** 1:100@ A3

**DATE:** 25/06/09

**DRAWN:** ZP

Level 1 2247 Gold Coast Hwy  
Nobby Beach  
PO Box 206 QLD 4218

Telephone: 07 5526 1500  
Fax: 07 5526 1502  
Email: admin@planitconsulting.com.au



## Appendix B

# PROJECT APPROVAL 06\_0300



# Project Approval

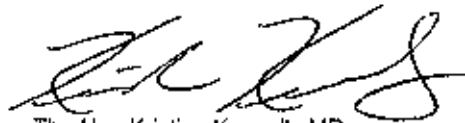
## Section 75J of the *Environmental Planning and Assessment Act 1979*

I approve the project application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

The reason for these conditions is to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the project.

24 NOV 2008



The Hon Kristina Keneally MP  
Minister for Planning

Sydney

2008

---

### SCHEDULE 1

**Project Application:**

06\_0030

**Proponent:**

Ramtech Pty Ltd

**Approval Authority:**

Minister for Planning

**Land:**

Lot 1 DP208249; Lot 182 DP755721; Lot 183 DP755721; Lot 44 DP755721; Lot 81 DP755721; Lot 162 DP755721; Lot 2 DP 780199; Lot 1 DP780199; Lot 1 DP780200; Lot 2 DP785895

**Project:**

Dunloe Park Sand Project

## TABLE OF CONTENTS

<b>DEFINITIONS</b>	<b>3</b>
<b>SCHEDULE 2 ADMINISTRATIVE CONDITIONS</b>	<b>4</b>
Obligation to Minimise Harm to the Environment	4
Terms of Approval	4
Limits on Approval	4
Management Plans/Monitoring Programs	4
Structural Adequacy	4
Demolition	4
Operation of Plant and Equipment	5
Section 94 Contributions	5
<b>SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS</b>	<b>6</b>
General Extraction and Processing Provisions	6
Noise	6
Air Quality	7
Soil and Water	8
Rehabilitation and Landscaping	10
Aboriginal Cultural Heritage	12
Traffic and Transportation	12
Visual Impact	12
Waste Management	13
Emergency and Hazards Management	13
Production Data	13
<b>SCHEDULE 4 ADDITIONAL PROCEDURES</b>	<b>14</b>
Notification of Landowners	14
Independent Review	14
<b>SCHEDULE 5 ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS</b>	<b>15</b>
Environmental Management Strategy	15
Environmental Monitoring Program	15
Incident Reporting	15
Annual Report	15
Independent Environmental Audit	16
Community Consultative Committee	16
Access to Information	16
<b>APPENDIX 1: PROJECT SITE</b>	<b>17</b>
<b>APPENDIX 2: REHABILITATION STAGING PLAN</b>	<b>18</b>
<b>APPENDIX 3: STATEMENT OF COMMITMENTS</b>	<b>19</b>
<b>APPENDIX 4: INDEPENDENT DISPUTE RESOLUTION PROCESS</b>	<b>23</b>

## DEFINITIONS

AEMR	Annual Environmental Management Report
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Tweed Shire Council
Day	The period from 7.00am to 5.00pm, Monday to Friday, and 8.00am to 1.00pm on Saturdays
DECC	Department of Environment and Climate Change
Department	Department of Planning
Director-General	Director-General of the Department of Planning, or delegate
DPI	Department of Primary Industries
DWE	Department of Water and Energy
EA	Environmental Assessment of the project titled <i>Environmental Assessment Part 3A – Environmental Planning and Assessment Act, 1979, Dunloe Sands – Ramtech P/L, prepared by PLANIT Consulting dated 17 September 2007</i> , including the response to issues raised in submissions, dated March 2008
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997 (POEO Act)</i>
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Minister	Minister for Planning, or delegate
Privately-owned land	Land that is not owned by a public agency or a quarrying company
Project	The development as described in the EA
Proponent	Ramtech Pty Ltd, or its successors in title
RTA	Roads and Traffic Authority
SEPP	State Environmental Planning Policy
Statement of Commitments	The Proponent's commitments in Appendix 3
Site	Land to which the Project Approval applies

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

### Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
  - (a) EA;
  - (b) statement of commitments; and
  - (c) conditions of this approval.

*Note: The general layout of the project is shown in the figure in Appendix 1.*

3. If there is any inconsistency between the documents referred to above, the conditions of this approval shall prevail to the extent of the inconsistency.
4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
  - (a) any reports, plans, programs or correspondence that are submitted in accordance with this approval; and
  - (b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.

### Limits on Approval

5. Sand extraction operations may take place until 1 January 2035.

*Note: Under this Approval, the Proponent is required to rehabilitate and revegetate the site to the satisfaction of the Director-General. Consequently this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the site has been rehabilitated and revegetated to a satisfactory standard.*

6. The Proponent shall not extract to a depth of more than 12 m below the natural ground surface.

*Notes: The Department acknowledges that this limit may have a variance of +/- 1m.*
7. The Proponent shall not transport more than 300,000 tonnes of sand material a year from the site.
8. The Proponent shall ensure that heavy vehicle movements (in and out) associated with the project do not exceed 8 per hour.

### Management Plans/Monitoring Programs

9. With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

### Structural Adequacy

10. The Proponent shall ensure that any new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

*Notes:*

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

### Demolition

11. The Proponent shall ensure that all demolition work is carried out in accordance with AS 2601-2001: *The Demolition of Structures*, or its latest version.

**Operation of Plant and Equipment**

12. The Proponent shall ensure that all plant and equipment used at the site is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

**Section 94 Contributions**

13. Prior to carrying out any development, or as otherwise agreed by Council, the Proponent shall pay Council \$47,250 in accordance with Council's Tweed Road Contribution Plan and \$399.40 in accordance with Tweed Council Section 94 Plan No.18.

**SCHEDULE 3  
ENVIRONMENTAL PERFORMANCE CONDITIONS**

**GENERAL EXTRACTION AND PROCESSING PROVISIONS**

**Identification of Boundaries**

1. Within 1 month of the date of approval of the Landscape Management Plan (see condition 27 below), the Proponent shall:
  - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction;
  - (b) submit a survey plan of these boundaries to the Director-General; and
  - (c) ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

*Note: The limit of extraction includes the area described in the EA and shown conceptually on the plan in Appendix 1.*

**NOISE**

**Impact Assessment Criteria**

2. The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 1.

<i>Receiver Location</i>	<i>Day L<sub>Aeq</sub> (15 min) dB(A)</i>
Residences on privately-owned land	48

*Table 1: Noise Impact Assessment Criteria*

*Notes:*

- *Noise from the site is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the identified noise limits, except where otherwise specified below.*
- *Where it can be demonstrated that direct measurement of noise from the project is impractical, alternative means of determining compliance may be acceptable (see Chapter 11 of the NSW Industrial Noise Policy).*
- *The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.*
- *The identified noise emission limits apply under meteorological conditions of wind speed up to 3m/s at 10 metres above ground level, and temperature inversion conditions.*

**Hours of Operation**

3. The Proponent shall comply with the operating hours in Table 2.

<i>Activity</i>	<i>Day</i>	<i>Time</i>
Sand extraction and processing, delivery and distribution, and other quarry related activities	Monday – Friday	7:00am to 5:00pm
	Saturday	7:00am to 12:00pm
	Sunday and Public Holidays	Nil
Maintenance (if inaudible at neighbouring residences)	Any day	Any time

*Table 2: Operating Hours*

**Continuous Improvement**

4. The Proponent shall:
  - (a) implement all reasonable and feasible best practice noise mitigation measures;
  - (b) investigate ways to reduce the noise generated by the project; and

- (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Director-General.

### Noise Monitoring Program

5. The Proponent shall prepare and implement a Noise Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- be submitted to the Director-General prior to carrying out any development on the site;
  - be prepared in consultation with the DECC;
  - include details of how the noise performance of the project would be monitored, and include a noise monitoring protocol for evaluating compliance with the relevant noise limits in this approval; and
  - include a protocol of monitoring haulage truck noise on Pottsville Road.

### AIR QUALITY

#### Impact Assessment Criteria

6. The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the criteria listed in Tables 3 to 5 at any privately owned land.

<b>Pollutant</b>	<b>Averaging period</b>	<b>Criterion</b>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	50 µg/m <sup>3</sup>

Table 3: Short Term Impact Assessment Criteria for Particulate Matter

<b>Pollutant</b>	<b>Averaging period</b>	<b>Criterion</b>
Total suspended particulate (TSP) matter	Annual	90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	30 µg/m <sup>3</sup>

Table 4: Long Term Impact Assessment Criteria for Particulate Matter

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase in deposited dust level</b>	<b>Maximum total deposited dust level</b>
Deposited dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month

Table 5: Long Term Impact Assessment Criteria for Deposited Dust

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS/NZS 3580.10.1-2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

#### Dust Monitoring Program

7. The Proponent shall prepare and implement a Dust Monitoring Program for the project to the satisfaction of the Director-General. This program must:
- be submitted to the Director-General prior to carrying out any development on the site;
  - be prepared in consultation with DECC; and

- (c) include details of how the air quality performance of the project would be monitored, and include a protocol for evaluating compliance with the relevant air quality criteria in this approval.

*Note: Initially, this program may concentrate on monitoring the dust deposition impacts of the project. However, in time, it may be expanded to include other pollutants.*

## SOIL AND WATER

### Discharges

8. Except as may be expressly provided for by an EPL, the Proponent shall not discharge any water from the project or ancillary operational areas. The Proponent shall ensure that the extraction pit subject to dredging is maintained and operated to prevent discharges of any surface water from these ponds.

### Water Quality Objectives

9. The Proponent shall aim to meet the water quality objectives in Table 6 for water in the dredge ponds and in groundwater adjacent the dredge ponds, unless otherwise approved by the Director-General.

<b>Pollutant</b>	<b>Unit of Measure</b>	<b>Water Quality Objectives</b>
Turbidity	NTU	5 - 20
pH	pH	6.5 – 8.5
Oil and Grease	mg/L	10
Salinity	µS/cm	<3,000
Dissolved oxygen	mg/L	>6
Chlorophyll-a	µg/L	2-10
Faecal coliforms	Median No./100mL	<1000
Enterococci	Median No./100mL	<230
Algae and blue-green algae	No.cells/mL (M.aeruginosa)	<50,000
	mm <sup>3</sup> /L (total biovolume)	<4
Sodium	mg/L	500
Potassium ion	mg/L	40
Magnesium ion	mg/L	100
Chloride ion	mg/L	1000
Sulphate ion	mg/L	800
Bicarbonate ion	mg/L	400
Soluble ion	mg/L	20
Soluble aluminium ion	mg/L	0.5
Ammonium ion	mg/L	20

*Table 6: Water Quality Objectives*

**Notes:**

- *The objectives for dissolved oxygen, turbidity and algae are relevant to surface water only.*
- *The Department acknowledges that short term exceedances of these objectives may occur during natural events such as flooding.*
- *The Department acknowledges that pre-existing water quality may not meet the objectives for some analytes, including salinity. The proponent shall strive to meet the water quality objectives through implementation of the Soil and Water Management Plan (see condition 18 below), as far as is reasonable and feasible and within the Proponent's control, to the satisfaction of the Director-General.*



### **Fines Management**

10. The Proponent shall ensure that all excavated potential acid sulfate soil fines material is returned back to below the watertable as soon as possible to prevent oxidation. No potential acid sulfate soil shall be removed from the site, unless adequately neutralised in accordance with methods approved under the Soil and Water Management Plan.
11. The Proponent shall ensure that all potential acid sulfate soil fines material is discharged into the pond at a depth of no less than 3 metres from the water surface, and that all fines are deposited to a final depth of at least 8 metres from the water surface, unless an alternative method(s) is approved by DWE and the Director-General.

### **Wastewater Treatment**

12. The Proponent shall manage on-site sewage to the satisfaction of Council and DECC. The facility must comply with the requirements of the *Environment and Health Protection Guidelines – On-site Sewage Management for Single Households (1998)*.

### **Flood Management**

13. The Proponent shall ensure that flood bunding around the Stage 1 and Stage 2 works does not exceed 300 mm in height above natural surface level, to a maximum height of 2.0 m AHD, unless otherwise approved by the Director-General.
14. The Proponent shall ensure that perimeter drainage must be installed and operational prior to the construction of bunding or the placement of fill on site.
15. All earthworks, including flood and acoustic bunding works, shall be contained wholly within the site.
16. The Proponent shall cease dredging and processing activities not less than 24 hours prior to the commencement of overflow from any dredge pond. No dredging or processing shall occur when the dredge ponds are overflowing.
17. The Proponent shall ensure that the flood storage capacity of the site is no less than the pre-existing flood storage capacity at all stages of the project. Details of the available flood storage capacity shall be reported in the AEMR.

### **Management and Monitoring**

18. The Proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. This plan must:
  - (a) be prepared in consultation with DWE and DECC;
  - (b) include a:
    - Water Balance;
    - Erosion and Sediment Control Plan;
    - Acid Sulfate Soil Management Plan;
    - Blue-Green Algae Management Plan;
    - Surface Water Monitoring Program; and
    - Groundwater Monitoring Program; and
  - (c) be submitted to the Director-General prior to starting quarrying operations, and prior to carrying out any development site in the case of the Erosion and Sediment Control Plan.
19. The Water Balance shall include:
  - (a) details of all water extracted, transferred, used and/or discharged by the quarry;
  - (b) the source of all water collected or stored on the site, including rainfall, stormwater and groundwater; and
  - (c) measures to minimise water use by the project.
20. The Erosion and Sediment Control Plan shall:
  - (a) be consistent with the requirements of *Managing Urban Stormwater: Soils and Construction, Volume 1, 4<sup>th</sup> Edition, 2004* (Landcom), and Council's codes including its *Code of Practice for*

*Soil and Water Management on Construction Sites, Development Design Specification D7 – Stormwater Quality and Tweed Urban Stormwater Quality Management Plan;*

- (b) identify activities that could cause soil erosion and generate sediment;
  - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
  - (d) describe the location, function, and capacity of erosion and sediment control structures; and
  - (e) describe what measures would be implemented to maintain these structures over time.
21. The Acid Sulfate Soil Management Plan shall:
- (a) be consistent with the *NSW Acid Sulphate Soil Advisory Committee's Acid Sulfate Soil Manual*; and
  - (b) define procedures for managing the potential acid sulfate soils on the site, including sample testing and procedures.
22. The Blue-Green Algae Management Plan shall:
- (a) be prepared by a suitably qualified blue-green algae expert, whose appointment has been approved by the Director-General;
  - (b) be consistent with extant guidelines for blue-green algae management including the NHMRC's *Guidelines for Managing Risks in Recreational Water*;
  - (c) describe the measures that would be implemented to prevent and control the sources of algal blooms over the short, medium and long term; and
  - (d) define procedures for the management and notification of identified algal blooms.
23. The Surface Water Monitoring Program shall include:
- (a) detailed baseline data on surface water quality;
  - (b) surface water impact assessment criteria;
  - (c) a program to monitor surface water flows and quality;
  - (d) a program to manage water releases from the site;
  - (e) a program to monitor bank and bed stability; and
  - (f) a protocol for the investigation, notification and mitigation of identified exceedances of the surface water impact assessment criteria.
24. The Ground Water Monitoring Program shall include:
- (a) detailed baseline data on groundwater levels and quality, based on statistical analysis;
  - (b) groundwater impact assessment criteria;
  - (c) a program to monitor ground water levels and quality;
  - (d) a program to monitor ground water level effects on vegetation, and on ground water supply to adjoining properties; and
  - (e) a protocol for the investigation, notification and mitigation of identified exceedances of the groundwater impact assessment criteria.

## **REHABILITATION AND LANDSCAPING**

### **Rehabilitation and Revegetation**

25. The Proponent shall rehabilitate the site to the satisfaction of the Director-General.
26. The Proponent shall:
- (a) rehabilitate and revegetate the 15 ha hectares of land identified in the EA (see the revegetation plan in Appendix 2); and
  - (b) within 12 months of the commencement of quarrying operations, make suitable arrangements to provide appropriate long term security for the revegetation area to ensure it is managed for conservation purposes,
- to the satisfaction of the Director-General.

### **Landscape Management Plan**

27. The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared:
    - by suitably qualified consultants, including a specialist hydrologist, coastal engineer, wetlands ecologist and landscape architect;

- in consultation with Council, DWE, DECC, DPI-Fisheries and the CCC; and
  - in accordance with extant guidelines including the DWE's *Constructed Wetlands Manual, Volumes 1 and 2* and the DPI's *Policy and Guidelines: Aquatic Habitat Management, 1999*;
- (b) be submitted to the Director-General prior to starting quarrying operations on the site; and
- (c) include a:
- Rehabilitation and Revegetation Management Plan; and
  - Long Term Management Strategy.

*Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Long Term Management Strategy. However, a conceptual strategy must be included in the initial plan, along with a timetable for augmentation of the strategy with each subsequent review of the plan.*

28. The Rehabilitation and Revegetation Management Plan must include:
- (a) the rehabilitation objectives for the site and revegetation areas;
  - (b) a description of the short, medium, and long term measures that would be implemented to:
    - rehabilitate and stabilise the site;
    - implement the revegetation strategy; and
    - manage the remnant vegetation and habitat on the site and in the revegetation areas;
  - (c) detailed performance and completion criteria for the rehabilitation and stabilisation of the site and implementation of the revegetation strategy;
  - (d) a detailed description of how the performance of the rehabilitation of the quarry and the revegetation areas would be monitored over time to achieve the stated objectives;
  - (e) a detailed description of what measures would be implemented over the next 5 years to rehabilitate and manage the landscape of the site and revegetation areas including the procedures to be implemented for:
    - progressively rehabilitating and stabilising areas disturbed by quarrying;
    - implementing revegetation and regeneration within the disturbance areas and revegetation areas;
    - protecting areas outside the disturbance areas, including SEPP 14 wetlands and SEPP 26 littoral rainforests;
    - vegetation clearing protocols;
    - managing impacts on fauna;
    - controlling terrestrial and aquatic weeds and pests;
    - controlling access;
    - bushfire management; and
    - reducing the visual impacts of the project;
  - (f) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
  - (g) details of who is responsible for monitoring, reviewing, and implementing the plan.
29. The Long Term Management Strategy must:
- (a) define the objectives and criteria for quarry closure and post-extraction management;
  - (b) investigate options for the future use of the site;
  - (c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and
  - (d) describe how the performance of these measures would be monitored over time.

### **Rehabilitation Bond**

30. Prior to starting quarrying operations on the site, the Proponent shall lodge a rehabilitation bond for the project with the Director-General. The sum of the bond shall be calculated at:
- (a) \$2.50/m<sup>2</sup> for the total area to be disturbed and/or revegetated in each 5 year review period (see condition 31 below); and
  - (b) \$1.50/m<sup>2</sup> for the total area of land previously disturbed and/or rehabilitated by the project, to the satisfaction of the Director-General.

*Notes:*

- *If the rehabilitation and revegetation works are completed to the satisfaction of the Director-General, the Director-General will release the rehabilitation bond.*

- *If the rehabilitation and revegetation works are not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.*
31. Within 6 months of each Independent Environmental Audit (see condition 6 of schedule 5) excluding the inaugural audit, unless the Director-General directs otherwise, the Proponent shall review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the Director-General. This review must consider:
- (a) the effects of inflation;
  - (b) any changes to the total area of disturbance; and
  - (c) the performance of the rehabilitation and revegetation to date.

## **ABORIGINAL CULTURAL HERITAGE**

### **Aboriginal Cultural Heritage Management Plan**

32. The Proponent shall prepare and implement an Aboriginal Cultural Heritage Management Plan to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DECC and all relevant Aboriginal communities;
  - (b) be submitted to the Director-General for approval prior to commencement of construction; and
  - (c) include a:
    - program for additional archaeological survey/s of the disturbance area;
    - description of the measures that would be implemented to salvage any identified Aboriginal sites within the disturbance area;
    - description of the measures that would be implemented to protect any Aboriginal sites outside the disturbance area; and
    - description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project.

## **TRAFFIC AND TRANSPORTATION**

### **Road Haulage**

33. Prior to commencement of operations the Proponent shall:
- (a) design and construct the haul road and its intersection with Pottsville-Mooball Road; and
  - (b) install advanced truck turning warning signage along Pottsville-Mooball Road, to the satisfaction of Council.
34. The Proponent shall ensure that all loaded vehicles entering or leaving the site have their loads covered.
35. The Proponent shall ensure all loaded vehicles leaving the site are cleaned of materials that may fall on the road before they are allowed to leave the site.

### **Parking**

36. The Proponent shall provide sufficient parking on-site for all project-related traffic and visitors, in accordance with Council's parking codes and to the satisfaction of the Director-General. No on street parking shall be undertaken.

## **VISUAL IMPACT**

### **Visual Amenity**

37. The Proponent shall minimise the visual impacts of the project to the satisfaction of the Director-General.
38. The Proponent shall establish and subsequently maintain the vegetated buffer around the extraction area within 12 months of the date of this approval.

*Note: The vegetation buffer shall be detailed in the Landscape Management Plan.*

### **Lighting Emissions**

39. The Proponent shall:
- (a) take all practicable measures to mitigate off-site lighting impacts from the project; and
  - (b) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

### **Advertising**

40. The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the Director-General.

*Note: This does not include business identification, traffic management and safety or environmental signs.*

### **WASTE MANAGEMENT**

41. The Proponent shall minimise the amount of waste generated by the project to the satisfaction of the Director-General.

### **EMERGENCY AND HAZARDS MANAGEMENT**

#### **Dangerous Goods**

42. The Proponent shall ensure that the storage, handling, and transport of dangerous goods are conducted in accordance with the relevant *Australian Standards*, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

#### **Safety**

43. The Proponent shall secure the project to ensure public safety to the satisfaction of the Director-General.

#### **Bushfire Management**

44. The Proponent shall:
- (a) ensure that the project is suitably equipped to respond to any fires on-site; and
  - (b) assist the rural fire service and emergency services as much as possible if there is a fire on-site.

### **PRODUCTION DATA**

45. The Proponent shall:
- (a) provide annual production data to the DPI using the standard form for that purpose; and
  - (b) include a copy of this data in the AEMR.

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. If the results of monitoring required in schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director-General, affected landowners, and/or existing or future tenants accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.

### **INDEPENDENT REVIEW**

2. If a landowner considers that the project is exceeding the impact assessment criteria in schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General advising that an independent review is warranted:

- (a) consult with the landowner to determine his/her concerns;
  - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to determine whether the project is complying with the relevant criteria in schedule 3, and identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and
  - (c) give the Director-General and landowner a copy of the independent review.
3. If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.
  4. If the independent review determines that the project is not complying with the relevant criteria in schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:
    - (a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and
    - (b) conduct further monitoring to determine whether these measures ensure compliance; or
    - (c) secure a written agreement with the landowner to allow exceedances of the relevant criteria in schedule 3,to the satisfaction of the Director-General.

If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the Director-General.

5. If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 4).

**SCHEDULE 5  
ENVIRONMENTAL MANAGEMENT AND MONITORING CONDITIONS**

**ENVIRONMENTAL MANAGEMENT STRATEGY**

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:
  - (a) be submitted to the Director-General prior to starting quarrying operations on the site;
  - (b) be prepared in consultation with the relevant agencies;
  - (c) provide the strategic context for environmental management of the project;
  - (d) identify the statutory requirements that apply to the project;
  - (e) describe in general how the environmental performance of the project would be monitored and managed;
  - (f) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the construction, operation and environmental performance of the project;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the life of the project;
    - respond to any non-compliance;
    - manage cumulative impacts; and
    - respond to emergencies; and
  - (g) describe the role, responsibility, authority, and accountability of the key personnel involved in the environmental management of the project.

**ENVIRONMENTAL MONITORING PROGRAM**

2. The Proponent shall prepare an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General prior to starting quarrying operations on the site, and consolidate the various monitoring requirements in schedule 3 of this approval into a single document.

**INCIDENT REPORTING**

3. Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.
4. Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that:
  - (a) describes the date, time, and nature of the exceedance/incident;
  - (b) identifies the cause (or likely cause) of the exceedance/incident;
  - (c) describes what action has been taken to date; and
  - (d) describes the proposed measures to address the exceedance/incident.

**ANNUAL REPORTING**

5. Within 12 months of the date of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:
  - (a) identify the standards and performance measures that apply to the project;
  - (b) describe the works carried out in the last 12 months;
  - (c) describe the works that will be carried out in the next 12 months;
  - (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
  - (e) include a summary of the monitoring results for the project during the past year;
  - (f) include an analysis of these monitoring results against the relevant:
    - impact assessment criteria/limits;
    - monitoring results from previous years; and
    - predictions in the EA;
  - (g) identify any trends in the monitoring results over the life of the project;
  - (h) identify any non-compliance during the previous year; and
  - (i) describe what actions were, or are being, taken to ensure compliance.

## **INDEPENDENT ENVIRONMENTAL AUDIT**

6. Within 2 years of the start of quarrying operations on site, and every 5 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by a suitably qualified, experienced, and independent person(s) whose appointment has been approved by the Director-General;
  - (b) include consultation with the relevant agencies;
  - (c) assess the environmental performance of the project, and its effects on the surrounding environment;
  - (d) assess whether the project is complying with the relevant standards, performance measures and statutory requirements;
  - (e) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,
  - (f) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.
7. Within 1 month of completion of each Independent Environmental Audit, the Proponent shall submit a copy of the audit report to the Director-General and relevant agencies, with a response to any of the recommendations in the audit report.
8. Following each Independent Environmental Audit, the Proponent shall review and if necessary revise each of the environmental management and monitoring strategies/plans/programs in schedules 3 and 5, to the satisfaction of the Director-General. The revised strategies/plans/programs shall be submitted to the Director-General within 6 months of completing the audit.

## **COMMUNITY CONSULTATIVE COMMITTEE**

9. Prior to starting quarrying operations on the site, the Proponent shall establish a CCC for the project. This CCC must be established and operated in accordance with the *Guideline for Establishing and Operating Community Consultative Committees for Mining Developments*, and to the satisfaction of the Director-General.

## **ACCESS TO INFORMATION**

10. Within 1 month of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of any independent environmental audit or AEMR, the Proponent shall:
  - (a) provide a copy of the relevant document/s to Tweed Shire Council and relevant agencies; and
  - (b) ensure that a copy of the relevant document/s is made publicly available on site and/or at the Proponent's regional office,to the satisfaction of the Director-General.
11. During the project, the Proponent shall:
  - (a) make a summary of monitoring results required under this approval publicly available at the Proponent's regional office; and
  - (b) update these results regularly (at least every 3 months),to the satisfaction of the Director-General.



**APPENDIX 1  
PROJECT SITE**



**APPENDIX 2  
REHABILITATION STAGING PLAN**



## APPENDIX 3 STATEMENT OF COMMITMENTS

### **Amended Statement of Commitments**

---

The following sections summaries the commitments by Ramtech Pty Ltd regarding mitigations and control measures to be implemented for the proposal:

#### **Sand Extraction**

- Additional resource assessment works are to be undertaken in respect of two (2) key elements, being the extent of resource available for brickies loam and the extent of resource available with respect of mineral sands. Such assessments are to be undertaken in accord with the matters raised by the Department of Primary Industries in correspondence dated 21<sup>st</sup> December 2007.
- Annual production data will be made available in accord with DPI requirements.
- Extraction of marine clay will not be undertaken
- Sand extraction below the watertable will be by suction dredge only. No dry extraction of sand will occur on site, with the exception of the initial overburden and brickies loam.
- Prior to commencement of extraction, the extent of the approved extraction areas shall be clearly and permanently marked by a licensed surveyor with survey posts.
- Fines will be re-entered approximately below the watertable at approximately 10m below NSL.

#### **Sediment and Erosion Control**

- A perimeter bund and catch drain shall be constructed around each dredge pond and processing areas. The bund is to be vegetated.
- Installation of sediment control fences at the downslope perimeter of cleared or disturbed land. These are to be functional before clearing commences.
- A negative grade will be maintained around the dredge ponds within the bunded perimeter.
- Additional Erosion and sediment control devices shall be installed on an 'as required' basis. Such measures will be installed in accordance with the "Soils and Construction Guidelines - Managing Urban Stormwater".
- Where practical, surface waters from undisturbed areas shall be diverted away from extraction/works areas.
- All processing areas will drain towards the onsite water bodies. No discharge of processing waters from the site shall occur under normal conditions (ie. Not flooded).
- Topsoil stripping will be undertaken in sub-stages of 1 hectare or less
- All existing ground cover around the site is to remain and be maintained to limit sediment and erosion.
- Any on-site stockpiles of commercial sand shall remain damp and will have appropriate sediment and erosion control devices installed at all times.
- Stockpiled topsoil shall be seeded so as to achieve adequate vegetation cover and sediment and erosion devices will be installed around all stockpiles at all times.
- No discharge of processing water from the site shall occur under normal conditions (ie. not flooded)

#### **Surface Water Control & Quality**

- Installation of surface and ground water monitoring devices as located on figure GJ0400.9.2 (Appendix Q)
- Surface water monitoring shall be undertaken in accordance with requirements as outlined with the draft EMP under Appendix G.

- All processing areas will drain towards the onsite water bodies. No discharge of processing waters from the site shall occur under normal conditions (ie. not flooded).
- Provision of reliable in situ monitoring equipment at all times for use by Quarry staff. This equipment will be calibrated at least monthly.
- All effluent generated will be pumped off site for treatment at Council facility.

#### Groundwater Movement and Quality

- Installation of ground water monitoring devices as located on figure GJ0400.8.1 (Appendix Q)
- Ground water monitoring shall be undertaken in accordance with the requirements as outlined within the draft EMP under Appendix G.
- Provision of reliable in situ monitoring equipment at all times for use by Quarry staff. This equipment will be calibrated at least monthly.
- All groundwater bores will be licensed by DIPNR.
- Dewatering from on site water bodies will not be undertaken
- Contour profiling of groundwater head data will be undertaken as part of site monitoring and reporting procedures.

#### Fuel Management and Land Contamination

- Fuel storage is to be contained within a bund area, and protected from the elements. Bunding will be sufficient to contain 110% of the volume of fuel storage.
- Operating procedures for containing and cleaning up oil spills on water to be established and implemented on site, with all staff to be trained in these procedures. Such measures are to form part of the site EMP.
- Products designed to contain and absorb oil spills on water will be available on site. Quantity and type of product will be monitored and will be available in sufficient quantities to deal with any potential spill on site.
- Materials stored on site will be limited to
  - One (1) month supply of diesel
  - Machine and equipment oils and grease
  - limited quantities of petrol

#### Air Quality

- The full length of internal haulage roadways will be sealed.
- A vegetation barrier for dust control along the southern boundary adjoining Warwick Park Road will be established (species and planting in accordance with rehabilitation plan, Appendix H).
- Topsoil stripping will be undertaken in sub-stages of 1 hectare or less.
- Topsoil stripping will not be undertaken on day with excess winds.
- All trucks entering/leaving the site shall be covered.
- Stockpiled topsoil shall be seeded so as to achieve adequate vegetation cover and sediment and erosion devices will be installed around all stockpiles.
- Any disturbed or unsealed movement areas will be watered by an onsite cart to ensure that such areas remain damp. Watering rates shall not be less than 2.5l/m<sup>2</sup>/hour.

#### Noise

- Construction of a 4m high earth mound shielding the operational areas. This mound shall form part of the stockpile and be lightly top soiled, seeded and maintained with native grasses.

- The earth mound is to be constructed between 7.30am and 5pm. The occupants of the nearest dwellings to the site be notified as to the hours of operation for the mound construction, and be provided with a contact telephone number should they have concerns regarding noise from this stage of the operation;
- The bulldozer used to construct the earth barriers should be well maintained, and fitted with residential mufflers;
- Upon plant dredge pump selection, noise levels should be less than or equal to 88dB(A) at 1m from the plant. If this level is not achievable, further acoustic treatment in the form of a semi enclosure will be required to reduce source noise levels to within the acceptable range;
- Upon sand screening plant selection, noise levels should be less than or equal to 80dB(A) at 1m from the plant. If this level is not achievable, further acoustic treatment in the form of a semi enclosure will be required to reduce source noise levels to within the acceptable range;
- Haulage trucks and the wheeled loader should be well maintained, and fitted with residential mufflers;
- Internal haulage route and the crossover to Pottsville Road be as smooth as possible, and well maintained;
- Prior to commencement of operations, an acoustic test be conducted to ensure compliance with the noise limit criteria;
- All operations to be limited to 7am to 6pm, Monday to Friday, and 7am to midday, Saturdays.

#### Flora & Fauna

- A detailed regeneration and rehabilitation plan is to be prepared and approved by the DECC prior to the issue of a construction certificate.
- Removal of existing weed species (particularly infestations of Bitou Bush and Lantana).
- Revegetation of disturbed areas within existing native vegetation communities with plants endemic to the locality. Revegetation areas will total approximately 15ha in area. No clearing of vegetation is required with the exception of approximately 20 Casuarina trees lining minor drainage channels in the extraction areas.
- Revegetation of nominated areas within the rehabilitation plan as attached under Appendix H to strengthen potential habitat corridors, extend the distribution of Swamp Sclerophyll and Littoral Rainforest environments and to extend the perimeter of the narrowest portions of the eastern forest to provide long-term mitigation against potential edge effects.
- A monitoring program will be implemented in respect of the rehabilitation areas external to the extraction areas. Such program will be subject to final approval by the DECC and will contain consideration of additional rehabilitation / regeneration areas at the expense of implementation of the nest boxes. Consideration will also be given to strengthening corridor linkages where possible.
- Incorporation of potential foraging resources for threatened fauna species within landscaping/revegetation areas including:
  - *Allocasuarina littoralis*, *A. torulosa* for Glossy Black Cockatoos
  - Flowering species (Eucalypts, Corymbians, Melaleuca, Banksia) for flying fox/bat species
  - Littoral Rainforest fruiting species for Fruit-doves/Rainforest Pigeons
  - Favoured Eucalypts for Koalas
- Installation of nest boxes within the existing vegetation communities.

#### Waste

- All soil waste will be disposed of by licensed contractor in accordance with the *Protection of Environmental Operations Act 1997 (PEEO Act 1997)* & *Waste Minimisation Act 1995*.
- All solid wastes are to be managed in accord with the attached HMC Solid Waste Management Plan.
- Effluent will be treated on site in accord with the attached HMC report.

#### Flooding

- Adoption of a maximum 300mm bund height to all levels below 2m AHD.

#### Cultural Heritage

- The proponent will undertake additional archaeological surveys of the proposed extraction areas prior to works commencing to provide assurance that no aboriginal sites exist within the extraction areas
- If aboriginal sites are found within the extraction areas the proponent must undertake surveys / assessment to determine the cultural heritage values of the site and report how those values might be impacted upon and provide appropriate avoidance, mitigation or compensatory measures. Such additional assessments must be in accord with guidelines and requirements of the DECC.

#### Views and Landscapes

- 5m to 10m vegetated buffers will be established around the extraction areas in accordance with the rehabilitation plan attached under Appendix H. The objectives of these areas are for visual protection primarily.
- A detailed rehabilitation plan will be prepared for those areas external to the extraction areas.

#### Monitoring, Reporting and Consultation

- Reporting and consultation measures will be implemented as outlined with the draft EMP under Appendix G.

#### Licensing

- The proponent will commit to gaining an Environmental Protection Licence from DECC.

APPENDIX 4  
INDEPENDENT DISPUTE RESOLUTION PROCESS

