

# HAERSES ROAD QUARRY

## ENVIRONMENTAL MANAGEMENT STRATEGY

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Version V1a

Client: Dixon Sand (No. 1) Pty Ltd

Prepared by: Project Environmental Services Pty Ltd

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## Disclaimer

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## Document Control

Revision No.	Reviewer		Approved for Issue		Comments
	Name	Date	Name	Date	
Umwelt V1 to V4					EMS versions V1 (Jul 2018) to V4 (Nov 2020) previously composed in Umwelt Pty Ltd document template.
V1	Hunny Churcher	25/11/2021	Mark Dixon	26/11/2021	The contents of EMS V4 (November 2020) were transferred to PES document template. The EMS was reviewed and revised to address the requirements of DA Modifications 3 and 4 consent conditions.
V1a	Hunny Churcher	20/04/2022	Chris Churcher	21/04/2022	Address DPE's Request for additional information (letter dated 23/03/2022)

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# 1.0 Introduction

## 1.1 Background

Dixon Sand (No. 1) Pty Limited (Dixon Sand) operates the Haerses Road Quarry (the Quarry) located on Haerses Road at Maroota, New South Wales (NSW) (refer to **Figure 1.1**), a sand extraction and processing operation. The Quarry has been in operation since 2006. The site is approximately 71 hectares (ha) and includes Lot 170 DP 664766, Lot 170 DP 664767, Lots A and B DP 407341, Lots 176 and 177 DP 752039 and Lot 216 DP 752039 (refer to **Figure 1.2**). The Quarry is located in the small rural community of Maroota which supports a number of other sand extraction operations, including the Old Northern Road Quarry which is also operated by Dixon Sand. The Quarry supplies concrete sand and specialty sands to the Sydney metropolitan market.

The Quarry operates in accordance with Development Consent (DA 165-7-2005) by the Minister for Planning on 14 February 2006. The following Modifications to the Development Consent have been approved:

- Modification 1 under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 22 January 2018,
- Modification 2 under Section 4.55(A) of the EP&A Act on 29 January 2019,
- Modification 4 under Sections 4.15(1) and 4.55(1A) of the EP&A Act on 29 June 2021, and
- Modification 3 under Section 4.55 of the EP&A Act on 23 July 2021.

The Development Consent permits the extraction and processing of 495,000 tonnes per annum (tpa). Transport of up to 190,000 tpa of quarry product to the Old Northern Road Quarry for processing, located approximately 2 kilometres (km) to the north, is permitted. A total of 250,000 tonnes of Virgin Excavated Natural Material and/or Excavated Natural Material (VENM / ENM) may be imported into the Quarry for rehabilitation and/or processing in each calendar year. A total of 180 daily truck movements (either arrival or dispatch, and includes transfers between Haerses Road and Old Northern Road quarries) is permitted. Of the total daily truck movement limit, 20 truck movements (arrival or dispatch) is permitted between 6:00 and 7:00 am.

The Development Consent permits quarrying operations to be carried out on site until 14 February 2046.

## 1.2 Purpose and Scope

The purpose of this Environmental Management Strategy (EMS) is to:

- establish the strategic framework for the environmental management of the Quarry;
- identify the relevant statutory approvals applying to the Quarry;
- describe the roles and responsibilities of key quarry personnel involved in the environmental management of the Quarry; and
- describe the environmental management strategies, procedures, controls, monitoring, communication and reporting programs to be implemented for the management of environmental impacts arising from the operation of Haerses Road Quarry.

This EMS applies to Lot 170 DP 664766, Lot 170 DP 664767, Lots A and B DP 407341, Lots 176 and 177 DP 752039 and Lot 216 DP 752039 as shown on **Figure 1.2**.

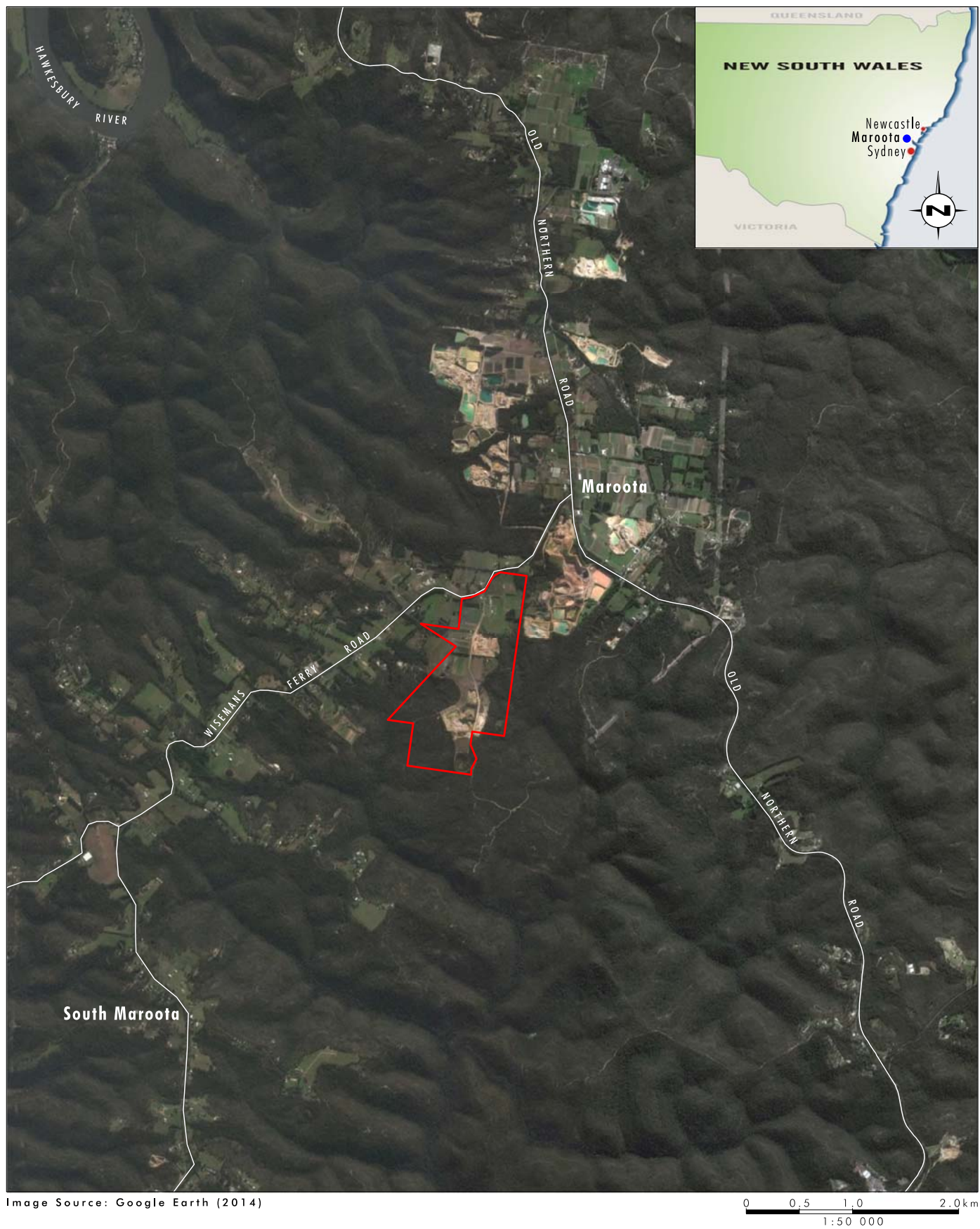
The EMS has been developed to identify, address and effectively manage the environmental aspects and impacts of the operation, including:

- sand extraction, processing and product transport operations;
- management of biodiversity offsetting obligations;
- environmental monitoring and management programs; and

- rehabilitation and closure activities.

This EMS addresses the relevant requirements of the Development Consent. The Development Consent conditions relevant to this plan are provided in **Section 2.1**.

This EMS has also been developed in accordance with the requirements of the Department of Planning and Environment's (DPE) *Environment Management Plan Guidelines* (the guidelines). A checklist of where each condition has been addressed within this document is shown in **Appendix 1**.



#### Legend

Haerses Road Quarry Site

**FIGURE 1.1**  
**Locality Plan**



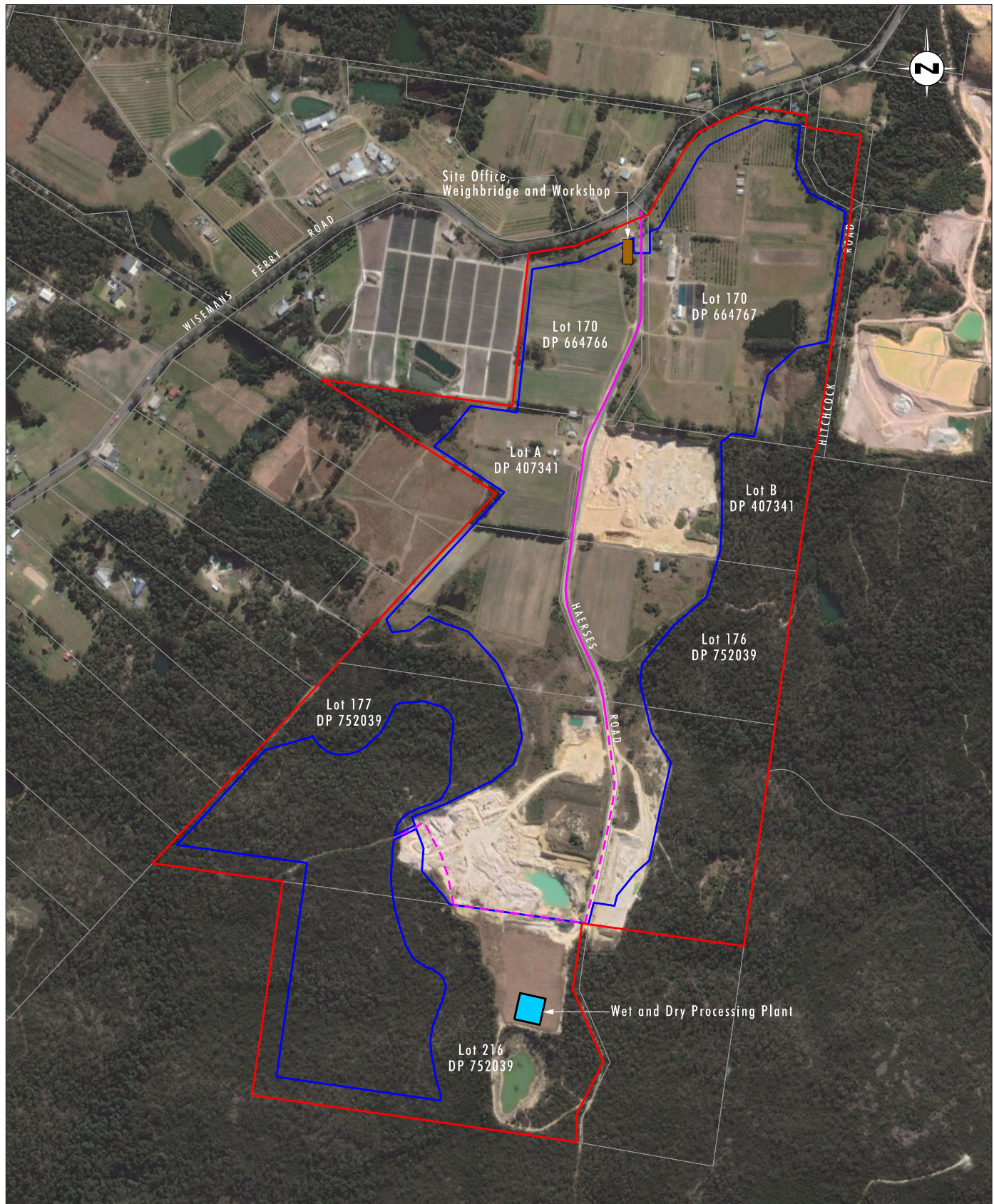


Image Source: Google Earth (Sep 2017)  
Data Source: Mc Kinlay Morgan & Associates Pty Ltd (2014)

0 100 250 500m  
1:10 000

#### Legend

- Haerses Road Quarry Site
- Approved Extraction Stages
- Site Office, Weighbridge and Workshop
- Wet Processing Plant
- Indicative Unsealed Haul Road
- Sealed Haul Road

FIGURE 1.2

Haerses Road Quarry

## 2.0 Regulatory Requirements

### 2.1 Statutory and Planning Framework

#### 2.1.1 Commonwealth Legislation

The original Development Consent was not determined to be a 'controlled action' under Section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Subsequently, Modification 1 of the Development Consent was determined by the Department of Environment and Energy (DoEE) to be a 'controlled action' due to its potential impacts on Matters of National Environmental Significance (MNES). The DoEE determined that activities in Modification 1 would have significant impact on listed threatened species and communities (under Section 18 and 18A of the Act), including *Darwinia biflora* and Coastal Upland Swamps in the Sydney Basin Bioregion. EPBC Act Approval 2015/7608 was granted by DoEE on 6 August 2018. A copy of EPBC 2015/7608 is provided in **Appendix 3**.

Modifications 2, 3 and 4 of the Development Consent was not determined to have any impact on MNES and therefore did not require further assessment under the EPBC Act.

#### 2.1.2 State Legislation

##### 2.1.2.1 Environmental Planning and Assessment Act 1979

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

The Development Consent DA 165-7-2005 for the project was granted with conditions by the Minister for Planning on 14 February 2006. Four modifications to this consent have since been granted.

Modification 1 was issued under (the now repealed) Section 75W of the EP&A Act on 22 January 2018 where approval was granted for an extension to the extraction area and importation of VENM and ENM.

Modification 2 was issued under Section 4.55(A) of the EP&A Act on 29 January 2019 to correct an inconsistency between the approved area of disturbance and identified buffers to this disturbance.

Modification 4 was issued under Sections 4.15(1) and 4.55(1A) of the EP&A Act on 29 June 2021 which altered the extraction sequence.

Modification 3 was issued under Section 4.55 of the EP&A Act on 23 July 2021 which permitted an increase in extraction rate from 250,000 tonnes per annum (tpa) to 495,000 tpa, an increase in the importation amount of VENM and ENM from 100,000 tpa to 250,000 tpa, a small extension in extraction area, an increase in truck movements from 56 per day to 180 per day (i.e. 90 inbound, 90 outbound).

##### 2.1.2.2 Protection of the Environment Operations Act 1997

The primary purpose of the Protection of the Environment Operations Act 1995 (POEO Act) is pollution prevention, waste management and minimisation, licencing of premises and activities with environmental risks and enforcement provisions following environmental offences.

Environment Protection Licence (EPL# 12513) has been issued by the NSW Environment Protection Authority (EPA) under the POEO Act which outlines the obligations of Dixon Sand as the licence holder and establishes



discharge limits and monitoring requirements for emissions to the environment. A copy of EPL 12513 is provided in **Appendix 3**.

### 2.1.2.3 Water Management Act 2000

The **Water Management Act 2000** (WM Act) controls the extraction and use of water and the construction of works. Part 3 of the WM Act specifies approval requirements for water use, water management works approvals and activity approvals. There are two types of activity approvals including controlled activity approvals and aquifer interference approvals.

Modification 3 involves emplacing clean fill material within 40m of an intermittent drainage channel. However, as the project is classified as State Significant Development, the requirement to obtain a controlled activity approval under Section 91(2) of the WM Act does not apply by virtue of Section 2.21(1)(g) of the EP&A Act.

Modification 3 will not trigger the need for a aquifer interference approval as the proposed extraction will remain at least 2m above the wet weather high groundwater level of the Maroota Tertiary Sand Groundwater Source and no change to extraction elsewhere on the Quarry site.

Dixon Sand currently holds two water access licences (WAL) for the Quarry site which are: WAL # 25941 and # 25956.

There are no groundwater access licences for the Quarry. If unexpected groundwater inflows to the Quarry occur, Dixon Sand will obtain the necessary licences in consultation with Department of Industry, Land and Water (refer to Section 5 SWMP in **Appendix 8**).

### 2.1.2.4 Other State Legislation

No further approvals associated with the legislations listed below are required for Modification 3 of the Development Consent:

- National Parks and Wildlife Act 1974 (NP&W Act),
- Water Act 1912,
- Heritage Act 1977,
- Environmentally Hazardous Chemicals Act 1985,
- Roads Act 1993,
- Crown Land Management Act 2016, and
- Biodiversity Conservation Act 2016 (BC Act)

## 2.1.3 State Environmental Planning Policies

### 2.1.3.1 State Environmental Planning Policy (State and Regional Development) 2011

The project is currently operating and managed as a State Significant Development in accordance with Schedule 1 of the SRD SEPP under the current Development Consent DA 165-7-2005.

### 2.1.3.2 State Environmental Planning Policy (Infrastructure) 2007

Extractive industries are permissible with consent in the RU1 Primary Production Zone of *The Hills Local Environmental Plan 2012*. Importing of VENM, ENM and other clean fill material for the purpose of site rehabilitation is considered permissible with consent in accordance with the Infrastructure SEPP.

### 2.1.3.3 State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007

Part 3 of the Extractive Industries SEPP requires specific matters to be considered in relation to the development applications including compatibility with other surrounding land uses, natural resource and environmental management, resource recovery, transport and rehabilitation.

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

Existing operations within the Quarry are not considered as hazardous or offensive and the Modification to the Development Consent will not result in any changes to the existing operations which would alter either of these classifications.

### **2.1.4 Regional Planning Instruments**

#### **2.1.4.1 Sydney Regional Environmental Plan No 9 – Extractive Industry**

The Quarry is located within land identified in Schedule 4 of SREP9 9. Therefore, development for the purposes of extractive industries is to be permitted with council consent taking into account relevant environmental issues. The Minister for Planning is the consent authority for the Modification 3 of the Development Consent.

### **2.1.5 Local Planning Controls**

#### **2.1.5.1 The Hills Local Environmental Plan 2012**

The entire Quarry site is zoned RU1 Primary Production. Extractive industries are permissible with development consent within land zoned RU1. As the development is permissible with consent, the Minister (or delegate) is the consent authority for Modification 3 of the Development Consent.

#### **2.1.5.2 The Hills Development Control Plan**

Clause 11 of SRD SEPP excludes the requirement for development control plans to be applied to State Significant Development. However, reference is drawn to Part 2 of Part B of the Hills DCP which relates to extractive industries within the rural zone.

## **2.2 Development Consent Conditions**

**Table 2.1** identifies the relevant Development Consent conditions and where they have been addressed within this EMS.

A copy of the consolidated Development Consent is provided as **Appendix 2**.



**Table 2.1: Environmental Management Strategy Development Consent Conditions**

Condition	Description	Section/s Addressed
<b>Schedule 5 – Environmental Management, Reporting and Auditing</b>		
<b>Environmental Management Strategy</b>		
1	<p>The Applicant must prepare an EMS for the development to the satisfaction of the Secretary. This strategy must:</p> <ul style="list-style-type: none"> <li>(a) be submitted to the Secretary for approval within 6 months of the approval of Modification 1 (Mod 1), unless otherwise agreed by the Secretary;</li> <li>(b) provide the strategic framework for environmental management of the development;</li> <li>(c) identify the statutory approvals that apply to the development;</li> <li>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</li> <li>(e) describe the procedures to be implemented to: <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the development;</li> <li>• receive, record, handle and respond to complaints;</li> <li>• resolve any disputes that may arise during the course of the development;</li> <li>• respond to any non-compliance;</li> <li>• respond to emergencies; and</li> </ul> </li> <li>(f) include: <ul style="list-style-type: none"> <li>• copies of any strategies, plans and programs approved under the conditions of this consent; and</li> <li>• a clear plan depicting all the monitoring to be carried out under the conditions of this consent.</li> </ul> </li> </ul> <p>The Applicant must implement any EMS as approved by the Secretary.</p>	Whole document
<b>Evidence of Consultation</b>		
2	<p>Where consultation with any State or local agency is required by the conditions of this consent, the Applicant must:</p> <ul style="list-style-type: none"> <li>(a) consult with the relevant agency prior to submitting the required document to the Secretary for approval;</li> <li>(b) submit evidence of this consultation as part of the relevant document;</li> <li>(c) describe how matters raised by the agency have been addressed and any matters not resolved; and</li> <li>(d) include details of any outstanding issues raised by the agency and an explanation of disagreement between any agency and the Applicant.</li> </ul>	Appendix 6 to 11
<b>Management Plan Requirements</b>		
3	<p>The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <ul style="list-style-type: none"> <li>(a) detailed baseline data;</li> <li>(b) a description of: <ul style="list-style-type: none"> <li>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria; and</li> </ul> </li> </ul>	Appendix 6 to 11

Condition	Description	Section/s Addressed
	<ul style="list-style-type: none"> <li>the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;</li> <li>(c) a description of the measures that to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</li> <li>(d) a program to monitor and report on the: <ul style="list-style-type: none"> <li>impacts and environmental performance of the development; and</li> <li>effectiveness of any management measures (see (c) above);</li> </ul> </li> <li>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</li> <li>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;</li> <li>(g) a protocol for managing and reporting any: <ul style="list-style-type: none"> <li>incidents;</li> <li>complaints;</li> <li>non-compliances with statutory requirements; and</li> <li>exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan.</li> </ul> </li> </ul> <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	
<b>Application of Existing Strategies, Plans and Programs</b>		
4	The Applicant must continue to apply existing management plans, strategies or monitoring programs approved prior to the approval of Modification 1, until the approval of a similar plan, strategy or program following the approval of Mod 1.	Section 3.0
<b>Revision of Strategies, Plans and Programs</b>		
5	<p>Within 3 months of the submission of an:</p> <ul style="list-style-type: none"> <li>(a) incident report under condition 10 below;</li> <li>(b) Annual Review under condition 12 below;</li> <li>(c) Independent Environmental Audit report under condition 14 below; and</li> <li>(d) any modifications to this consent,</li> </ul> <p>the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. The Applicant must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.</p> <p><i>Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.</i></p>	Section 13.0

Condition	Description	Section/s Addressed
<b>Updating and Staging of Strategies, Plans or Programs</b>		
6	<p>To ensure that strategies, plans or programs required under this consent are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.</p> <p>The Secretary may approve a revised strategy, plan or program required under this consent, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Applicant may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.</p> <p>While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the operations associated with the development are covered by suitable strategies, plans or programs at all times.</p> <p>If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.</p>	Section 13.0
<b>Adaptive Management</b>		
7	<p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in this consent. Any exceedance of these criteria or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <ol style="list-style-type: none"> <li>take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;</li> <li>consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</li> <li>implement reasonable remediation measures as directed by the Planning Secretary;</li> </ol>	Sections 7.0 and 8.0
<b>Community Consultative Committee</b>		
8	<p>The Applicant must establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. The CCC must be established by 30 June 2018 and operated in general accordance with the Department's CCC Guidelines, November 2016 (or later version).</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li><i>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.</i></li> </ul>	Section 11.0

Condition	Description	Section/s Addressed
	<ul style="list-style-type: none"> <li><i>In accordance with the guidelines, the Committee should comprise an independent chair and appropriate representation from the Applicant, Council and the local community.</i></li> <li><i>The CCC established and operated prior to the approval of Modification 1 must continue to be operated in accordance with the procedures required by the consent prior to the approval of Mod 1 until such time as the CCC required by this condition is established.</i></li> </ul> <p><i>The Applicant may, with the approval of the Secretary, combine the function of this CCC with the functions of other CCCs in the area.</i></p>	
<b>Incident Notification</b>		
9	The Proponent must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.	Section 7.0
<b>Non-Compliance Notification</b>		
10	Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Section 7.0
<b>Regular Reporting</b>		
11	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	Section 8.0

Condition	Description	Section/s Addressed
<b>Annual Review</b>		
12	<p>By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a review to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:</p> <ul style="list-style-type: none"> <li>(a) describe the development (including any progressive rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;</li> <li>(b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the: <ul style="list-style-type: none"> <li>• relevant statutory requirements, limits or performance measures/criteria;</li> <li>• requirements of any plan or program required under this consent;</li> <li>• monitoring results of previous years; and</li> <li>• relevant predictions in the documents listed in condition 2(a) of Schedule 2;</li> </ul> </li> <li>(c) evaluate and report on: <ul style="list-style-type: none"> <li>• the effectiveness of the air quality and noise management systems; and</li> <li>• compliance with the performance measures, criteria and operating conditions in this consent.</li> </ul> </li> <li>(d) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>(e) identify any trends in the monitoring data over the life of the development;</li> <li>(f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</li> <li>(g) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.</li> </ul> <p>The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the CCC (see condition 8 of Schedule 5) and any interested person upon request.</p>	Section 8.0

Condition	Description	Section/s Addressed
<b>Independent Environmental Audit</b>		
13	<p>By the end of November 2019, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <ul style="list-style-type: none"> <li>(a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</li> <li>(b) include consultation with the relevant agencies and the CCC;</li> <li>(c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);</li> <li>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;</li> <li>(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and</li> <li>(f) be conducted and reported to the satisfaction of the Secretary.</li> </ul>	Section 10.0
14	<p>Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Applicant must implement these recommendations, to the satisfaction of the Secretary.</p>	Section 10.0
<b>Access to Information</b>		
15	<p>Within 3 months of the determination of Mod 1, until the completion of all works, including rehabilitation and remediation the Applicant must:</p> <ul style="list-style-type: none"> <li>(a) make the following information publicly available on its website: <ul style="list-style-type: none"> <li>• the documents listed in condition 2(a) of Schedule 2;</li> <li>• current statutory approvals for the development;</li> <li>• all approved strategies, plans and programs required under the conditions of this consent;</li> <li>• a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;</li> <li>• a complaints register, updated monthly;</li> <li>• the annual reviews of the development;</li> <li>• any independent environmental audit as described in condition 13 above, and the Applicant's response to the recommendations in any audit; and</li> <li>• any other matter required by the Secretary; and</li> </ul> </li> <li>(b) keep this information up-to-date,</li> </ul> <p>to the satisfaction of the Secretary.</p>	Section 11.0

## 2.3 Objectives

The objectives of the EMS are to:

- exist as an umbrella document for the Quarry environment management system (encompassing management plans and procedures) that has been developed to address environmental aspects that are specific to the operations of the Quarry;
- implement a fully functional and effective environmental management system that is used to drive improved environmental performance and reduce environmental risk;
- ensure ownership of the environmental management system at all levels and that employee knowledge and use of the system remain high; and
- continuously improve the environmental performance of the operations through improvement plans, audits and inspection processes, training programs and effective corrective action systems.

To ensure these objectives are met, the EMS and associated plans and programs will be reviewed on a regular basis in accordance with Condition 5 of Schedule 5 of the Development Consent and revised as required.

## 2.4 Environmental Management Plans

The Development Consent requires the preparation of a series of Environmental Management Plans (EMPs) to specifically address and manage environmental matters relevant to the operation of the quarry. These EMPs form part of this EMS and have been included as appendices (refer to **Appendix 6 to 11**). The EMPs required by the consent include:

- Environmental Management Strategy (this document)
- Air Quality Management Plan (**Appendix 6**)
- Noise Management Plan (**Appendix 7**)
- Soil and Water Management Plan (**Appendix 8**)
- Traffic Management Plan (**Appendix 9**)
- Biodiversity and Rehabilitation Management Plan (**Appendix 10**)
- Acoustic Bund Construction Noise Management Plan (**Appendix 11**)

In addition, under Part 5.7A of the POEO Act, the holder of an EPL must prepare and implement a pollution incident response management plan (PIRMP). A copy of the Dixon Sand PIRMP is provided in **Appendix 4**.

**Appendix 5** is a consolidated plan of the environmental monitoring locations for the quarry.

The other Appendices attached to this document are:-

- Plan Preparation Checklist and Certification (**Appendix 1**)
- DA 165-7-2005 Consolidated Consent (**Appendix 2**)

- Environment Protection Licence 12531 and EPBC Act Approval 2015/7608 (**Appendix 3**)
- Site Condition Checklist (**Appendix 12**)
- Complaints Register Form (**Appendix 13**)
- Site Induction for Drivers (**Appendix 14**)



## 3.0 Environmental Management Framework

This EMS establishes an environmental management framework for all quarrying and processing activities undertaken at Haerses Road Quarry. It includes the development and management of environmental management plans, procedures, reporting and review requirements. Management of environmental aspects and issues of the quarry are documented, regulated, controlled and measured through this document (the EMS), various environmental management plans which form sub-plans to this EMS and the Annual Review.

The EMS and sub-plans have been developed in consultation with relevant government agencies, are reviewed regularly and updated as required. Until such time as a new version of a management plan is approved from the Secretary, Dixon Sand will continue to apply existing management plans, strategies and monitoring programs.

Copies of the various environmental management plans that form sub-plans to this EMS have been included as appendices to this EMS. These are listed in **Section 2.4**.

## 4.0 Roles and Responsibilities

Dixon Sand will implement any Environmental Management Strategy as approved by the Secretary.

Environmental management at the Quarry is the responsibility of all employees and contractors, with the Quarry Manager having overall responsibility for environmental management of the site. Key personnel and their roles and responsibilities are listed in the following sections.

### 4.1 Dixon Sand Managing Director

The Dixon Sand Managing Director will:

- Ensure that sufficient resources are allocated for the implementation of the EMS at the Quarry.

### 4.2 Quarry Manager

The Quarry Manager is responsible for the overall environmental performance of the Quarry. The Quarry Manager will:

- Authorise the EMS and have a working knowledge of the EMS.
- Oversee the implementation of the EMS
- Be aware of the environmental legislative requirements associated with the Quarry and take measures to ensure compliance.
- Ensure all operations are undertaken in accordance with the EMS.

### 4.3 Environmental Officer(s)

The responsibilities and authorities of the Environmental Officer(s) or delegate include, but are not limited to, the following:

- Implement and maintain the EMS.
- Manage environmental elements of the quarry operations and undertake tasks specified in each EMP.
- Assist in identifying environmental risks and mitigation measures, including implementing additional or revising existing mitigation measures (refer to **Section 5**).
- Undertake review of the EMS and related environmental documents in accordance with timelines specified in **Section 12**.
- Ensure that all statutory reporting required by the Development Consent, EPL and this EMS is undertaken.
- Ensure that all environmental documentation identified by Condition 15 Schedule 5 of the Development Consent is made publicly available on the Quarry website and that the material presented on the website is up to date.

- Ensure appropriate training is provided to all employees and contractors regarding their environmental responsibilities.
- Authority to stop work immediately should there be potential or immediate risk of harm to the environment.
- Ensure mitigation measures are implemented to eliminate and/or prevent further harm prior to any recommencement of work.
- Coordinate environmental incidents, investigations and reporting as required by legislation and internal standards guidelines.
- Provide primary contact for complaints and supply follow-up information to any complainant.
- Coordinate monitoring requirements and evaluate and report monitoring results as required.

## 4.4 Employees and Contractors

While on the site, it is the responsibility of all employees and contractors of Dixon Sand to:

- Be aware of this EMS and undertake all works in accordance with these documents.
- Not cause or allow to be caused any action that may harm the environment (such as fuel spills, disturbance to plants and animals in buffer areas, uncontrolled dirty water runoff or excessive noise).
- Immediately notify the Environmental Officer and relevant supervisor of any incident or accident that may potentially harm the environment.

## 5.0 Environmental Risks

The environmental risks associated with the establishment and operation of the quarry were assessed and documented in the EIS (ERM 2005), EA (Umwelt 2016), SEE (Umwelt 2019) and SEE (Umwelt 2020) for the Quarry.

A summary of the key activities undertaken by the quarry and their associated environmental risks is provided in **Table 5.1**.

**Table 5.1: Key Environmental Risks**

Activity	Risk
<b>Vegetation Clearing</b>	Soil erosion, water quality degradation, air emissions, noise generation, biodiversity impacts, visual amenity
<b>Topsoil stripping</b>	Soil erosion, water quality degradation, air emissions, noise generation, biodiversity impacts, visual amenity
<b>Extraction of raw material</b>	Soil erosion, water quality degradation, groundwater impacts, air emissions, noise generation, visual amenity
<b>Handling and stockpiling of raw material</b>	Loss of sediment, air emissions, noise generation
<b>Processing of raw material</b>	Water quality degradation, air emissions, noise generation
<b>Handling, stockpiling and haulage of product</b>	Water quality degradation, air emissions, noise generation
<b>Water management system</b>	Water quality degradation
<b>Site Rehabilitation</b>	Soil Erosion, water quality degradation, air emissions, noise generation, biodiversity impacts, not achieving final landform/land use at the site.
<b>Maintenance activities</b>	Soil erosion, surface water quality degradation, dust emissions, noise generation, waste generation, visual amenity

## 6.0 Inspections and Monitoring

### 6.1 Environmental Inspections

Regular environmental inspections, in conjunction with the environmental monitoring and incident/ complaint reporting procedures, are used to monitor general site conditions and environmental performance to ensure compliance with the EMS and sub-plans.

Environmental inspections are undertaken by the Environmental Officer (or delegate) on a monthly basis, or more frequently as required. The Site Condition Checklist is to be completed during each inspection and any non-conformance or corrective action noted during the inspection is to be reported to the Quarry Manager and recommendations made for corrective action. A copy of the Site Condition Checklist is provided as **Appendix 12**.

### 6.2 Environmental Monitoring

Each sub-plan details its monitoring requirements, including those required by the Development Consent and EPL. A summary of the key environmental monitoring undertaken by the Quarry is provided in **Table 6.1**, with further detail provided in the relevant sub-plans provided in **Appendices 6-11**.

Monitoring locations for noise, air, surface water and groundwater are shown in each of the sub-plans and in a consolidation map in **Appendix 5**.

**Table 6.1: Summary of Key Environmental Monitoring**

Monitoring	Frequency	Responsibility	Monitoring Guidelines/ Performance Indicator
Meteorological <ul style="list-style-type: none"> <li>Temperature</li> <li>Rainfall</li> <li>Wind speed and direction</li> </ul> Sigma theta	<ul style="list-style-type: none"> <li>Continuous</li> <li>Averaging period: 15 min/ 1 hr/ 24 hr</li> </ul>	Environmental officer or delegate	Monitoring undertaken in accordance with the <i>Approved Methods for Sampling and Analysis of Air Pollutants in NSW</i> guidelines
Attended noise monitoring <ul style="list-style-type: none"> <li>LA<sub>eq</sub> (15 min)</li> <li>LA<sub>eq</sub>(1hour)</li> </ul>	Upon receipt of a noise complaint. Annually for Stage 1-5 operations. 6-monthly for first 2 years of operation in Mod 1 extraction area, then annually subject to DPE approval.	Environmental Officer or suitably qualified and experienced acoustic practitioner	Monitoring results compliant with noise criteria Monitoring results reported in Annual Review and on website
Air quality <ul style="list-style-type: none"> <li>PM<sub>10</sub></li> </ul> Dust deposition	<ul style="list-style-type: none"> <li>PM<sub>10</sub> - continuous</li> </ul> Deposited dust – continuous (analysed monthly)	Environmental Officer or delegate	Monitoring results compliant with noise criteria Monitoring results reported in Annual Review and on website
Transport <ul style="list-style-type: none"> <li>Quantity of products transported</li> <li>Total truck movements</li> </ul>	Continuous and reviewed monthly or following a complaint	Weighbridge operator/ Quarry Manager	Monitoring results compliant with traffic movement conditions of consent Monitoring results reported in Annual Review and on website
Water quality <ul style="list-style-type: none"> <li>pH</li> <li>Total suspended solids</li> <li>Electrical conductivity</li> <li>Turbidity</li> <li>Stream flow</li> </ul>	Monthly	Environmental Officer or delegate	Compliance with EPL licence limits prior to and during discharge

Monitoring	Frequency	Responsibility	Monitoring Guidelines/ Performance Indicator
Erosion and Sediment Controls	<p>During construction all temporary controls will be inspected:</p> <ul style="list-style-type: none"> <li>• Daily for high risk controls such as when works are undertaken within drainage lines;</li> <li>• Weekly for all other controls; and</li> <li>• Prior to significant forecasted rainfall events; and</li> <li>• After significant rainfall events.</li> </ul> <p>During the operational phase, monthly inspections of long-term erosion and sediment controls will be undertaken as well as inspections prior to and after forecasted rainfall events.</p>	Environmental Officer or delegate	Sediment and erosion controls effectively implemented and maintained in accordance with Landcom's <i>Managing Urban Stormwater</i> (Blue Book).
Groundwater <ul style="list-style-type: none"> <li>• Groundwater levels</li> <li>• Groundwater quality</li> </ul>	<ul style="list-style-type: none"> <li>• Levels monitored monthly</li> <li>• Levels monitored continuously in Mod 1 extraction area</li> <li>• Water quality monitored 6 monthly</li> </ul>	Environmental Officer or delegate	Regional groundwater table and Maroota Tertiary Sands Groundwater Source show no observable adverse impact as a result of quarrying
Site water inventories and flows <ul style="list-style-type: none"> <li>• Water storage levels</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous</li> </ul>	Environmental Officer or delegate	Storage records indicate water managed within site water management system and license limits
Biodiversity <ul style="list-style-type: none"> <li>• Ecological</li> <li>• Threatened species</li> <li>• BioBank Site Photo Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Ecological monitoring – annually</li> <li>• Threatened species monitoring – annually</li> <li>• BioBank site photo monitoring – annually</li> </ul>	Environmental Officer or delegate	Ecological monitoring results meet performance indicators set out in the Biodiversity and Rehabilitation Management Plan.
Rehabilitation	<p>Monthly inspections of general rehabilitation areas</p> <ul style="list-style-type: none"> <li>• Annual inspection of rehabilitation areas for soils conditions, drainage and sediment control structures, germination rates, plant health, natural regeneration, weed diversity and abundance and evidence of feral animals.</li> </ul>	Environmental Officer or delegate	Rehabilitation achieves rehabilitation objectives and completion criteria set out in the Biodiversity and Rehabilitation Management Plan

## 7.0 Incident Response

Dixon Sand is committed to implementing and maintaining an effective incident response process to:

- ensure comprehensive and timely communication about a pollution incident to staff at the premises, the relevant regulatory authorities and people outside the facility who may be affected by the impacts of the pollution incident;
- minimise and control the risk of a pollution incident at the facility by requiring identification of risks and the development of planned actions to minimise and manage those risks; and
- ensure that the incident response processes are properly implemented and regularly tested for accuracy, currency and suitability.

### 7.1 Pollution Incident Response

The Quarry has developed a PIRMP in accordance with the requirements of the POEO Act.

The PIRMP provides details of the management and notification procedures to be implemented if a pollution incident does occur. For the purpose of this plan, a pollution incident is defined by the EPA as:

*'an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.'*

A copy of the PIRMP is provided as **Appendix 4** to this EMS.

The PIRMP will be routinely tested at least once every 12 months to ensure the information included in the plan is accurate and up to date, and that it is capable of being implemented in a workable and effective manner

#### 7.1.1 Pollution Incident Response

Under Part 5.7 of the POEO Act there is an obligation to notify relevant authorities of a pollution incident that causes or threatens material harm to the environment.

Harm to the environment is defined as material if:

- it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; and/or
- it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations).

Dixon Sand will notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the POEO Act and the PIRMP (refer to **Appendix 4**).



Notifications of environmental harm will be made in the first instance by telephoning the EPA's Environment Line on 131 555. Dixon Sand will also provide written details of the incident to the EPA within 7 days of the date on which the incident occurred when requested. Dixon Sand will also report in accordance with the requirements in **Section 7.4**.

## **7.1.2 Emergency Incident Response**

Emergency and incidents at the Quarry are managed in accordance with a number of procedures. A summary of each procedure is listed below. Refer to the individual document for comprehensive and detailed procedures.

### **7.1.2.1 Pollution Incident Response Management Plan**

Refer to Section 7.1.1 for a summary of *PIRMP*. Contact details for relevant emergency response and notification agencies are contained in the *PIRMP*.

### **7.1.2.2 Bushfire Management Plan Part 2: Emergency Management and Evacuation Plan**

The *Bushfire Management Plan Part 2: Emergency Management and Evacuation Plan* outlines the emergency and evacuation procedures to be implemented in the event of a bushfire at or near the Quarry. It includes the procedures for both sheltering (remaining at the Quarry) and evacuation, taking into consideration specific triggers and actions for the event. The Plan contains a list of appointed Chief and Deputy Fire Wardens and a table of emergency service contacts.

- Sheltering Procedures:
  - Designated Muster Point: Emergency muster point outside the Lunch Room
  - Refuge Building: Lunch Room
  - What to do after the Bushfire Emergency
- Evacuation Procedures
  - Procedures for evacuation when deemed unsafe to take shelter on site.
  - List of Neighbourhood Safe Places (Last Resort)
  - What to do after the Bushfire Emergency

### **7.1.2.3 Site Incident and Emergency Reporting**

The *Site Incident and Emergency Reporting* Procedure is utilised by all operators on the Quarry premise in the case of an incident or emergency.

- In the event of an emergency over the 2 way (Channel 70 UHF) or phone 02 4566 8348, say:
  - "Emergency, emergency, emergency"
- Stay calm and answer the following questions:
  - Your name
  - The exact location of the incident/ accident

- What has happened
- What are the injuries – if known
- What assistance do you require
- Wait for further instructions
- A list of First Aiders is provided
- Regulator notification requirement

## 7.2 Non-Compliance

On identification of a non-compliance, the Quarry Manager will be notified and an investigation into the cause or source of the non-compliance will commence. The Quarry Manager (or delegate) will implement appropriate corrective action (in accordance with the relevant management plan) to cease and/or remediate the incident.

An investigation into the cause of the incident will be undertaken with the personnel involved, Environmental Officer and the Quarry Manager. The investigation will review all reasonable and feasible steps which may be taken to:

- prevent recurrence; and/or
- remediate any spill, pollution or other effects of the non-compliance.

## 7.3 Incident and Non-Compliance Notification and Reporting

### 7.3.1 Incident Notification

In accordance with Condition 9 of Schedule 5 of the Development Consent, in the event that Dixon Sand becomes aware of an **incident** (an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance), the Quarry Manager or delegate will immediately notify the Department and any other relevant agencies of any such incident.

The notification is to be in writing via the Major Projects Website and clearly identify the development (including the development application number and name) and set out the location and nature of the incident.

### 7.3.2 Non-Compliance Notification

Within 7 days of becoming aware of a non-compliance, Dixon Sand will notify the Department of the non-compliance. Notification will be in writing via the Major Projects Website and will identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

### **7.3.3 Notification to Landowners**

In accordance with Condition 1 Schedule 4 of the Development Consent, as soon as practicable, and no longer than 7 days, after obtaining monitoring result showing an exceedance of any criteria specified in Schedule 3 of the Development Consent, the applicant must notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the development is again complying with the air quality criteria.

In the event if an exceedance of air quality criteria in Condition 9 Schedule 3 of the Development Consent, Dixon Sand will also send a copy of the NSW Health fact sheet entitled 'Mine Dust and You' to the affected landowners and current tenants of the land (including the tenants of the land which is not privately-owned).

### **7.3.4 Written Report**

Where an EPA officer or other government representative suspects on reasonable grounds that the action of the operations may be causing or is likely to be causing harm to the environment, the authorised officer may request a written report of the event.

The Quarry Manager will be responsible for ensuring these reporting requirements outlined in Conditions R3 of the EPL are complied with.

## 8.0 Reporting

### 8.1 Regular Reporting

Dixon Sand will provide regular reporting regarding the environmental performance of the development on the Dixon Sand website, in accordance with the reporting arrangements in any plans or programs approved under the Development Consent.

Dixon Sand will make publicly available on its website air monitoring results, noise monitoring results, water quality results, any complaints made in regards to the operation of the quarry, as well as the Annual Review and any independent environmental audit reports (refer to **Section 9.2**).

### 8.2 Annual Review

The Development Consent requires that by the end of March each year, or other timing as may be agreed by the Secretary, Dixon Sand will submit a report to the Department reviewing the environmental performance of the quarry to the satisfaction of the Secretary. Dixon Sand collects monitoring data on a financial year basis. On 9 February 2018, the Secretary provided written approval to Dixon Sand to submit the Annual Review within 3 months after the conclusion of the financial year monitoring period.

In accordance with the Secretary's approval, Dixon Sand will submit an Annual Review by 30 September each year for the previous financial year (1 July to 30 June).

This review will:

- describe the development (including any progressive rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
- include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
  - relevant statutory requirements, limits or performance measures/criteria;
  - requirements of any plan or program required under this consent;
  - monitoring results of previous years; and
  - Relevant predictions in the documents listed in Condition 2(a) of Schedule 2 of the Development Consent
- evaluate and report on:
  - the effectiveness of the air quality and noise management systems; and
  - compliance with the performance measures, criteria and operating conditions in this consent.
  - identify any non-compliances over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;
- identify any trends in the monitoring data over the life of the development;

- identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

Dixon Sand will ensure that copies of the Annual Review are submitted to Council and are available to the CCC and any interested person upon request.

## 8.3 EPL Annual Return

Dixon Sand will complete and submit to the EPA an Annual Return for each 12 month reporting period in the approved form comprising a:

- statement of Compliance; and
- monitoring and Complaints Summary.

Before the end of each reporting period, the EPA will provide a reminder of the licence anniversary date and deadline to submit the Annual Return.

The Annual Return will be completed and submitted via the EPA's eConnect web portal.

Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- the licence holder; or
- by a person approved in writing by the EPA to sign on behalf of the licence holder.

Notification of environmental harm reporting requirements are outlined in **Section 7.4.1**.

## 8.4 Adaptive Management

In accordance with Condition 7 Schedule 5 of the Development Consent, Dixon Sand will assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in the consent. Any exceedance of these criteria or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria or performance measures has occurred, Dixon Sand will, at the earliest opportunity:

- take all reasonable and feasible steps to ensure the exceedance ceases and does not reoccur;
- consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- implement remediation measures as directed by the Planning Secretary.

Dixon Sand is committed to continual improvement of the environmental management and performance of the quarry. The Environmental Officer in consultation with the Quarry Manager will regularly review and update environmental strategies, plans and programs, including following monitoring results, community complaints and the occurrence of incidents. Review and improvement will also occur upon receipt of feedback from the regulatory review processes under the Development Consent such as the Annual Review and Independent Environmental Audit (refer to **Section 12**).

## 9.0 Unexpected Archaeological Finds

The unexpected finds procedure has been developed in accordance with the requirement of Condition 29 of Schedule 2. The unexpected finds procedure aims to provide a consistent approach on how to proceed in the event of uncovering an unexpected find during quarry operations.

### 9.1 Types of Unexpected Archaeological finds

An 'unexpected find' is any unanticipated archaeological discovery which are categorised as either:

- Aboriginal objects or items
- Non-Aboriginal unexpected finds
- Human skeletal remains

#### 9.1.1 Aboriginal objects

Unexpected Aboriginal heritage significance items are subject to statutory controls and protections under the *National Park and Wildlife Act 1974*. Examples of Aboriginal heritage items or objects include:

- Stone tool artefacts,
- Shell middens,
- Axe grinding grooves,
- Pigment or engraved rock art,
- Burials, and
- Sacred trees.

#### 9.1.2 Non-Aboriginal unexpected finds

Non-Aboriginal unexpected finds may include statutory 'relics' or other non-statutory archaeological features (.e. works) which are protected under the *Heritage Act 1977*. Relics may relate to past domestic, industrial or agricultural activities such as:

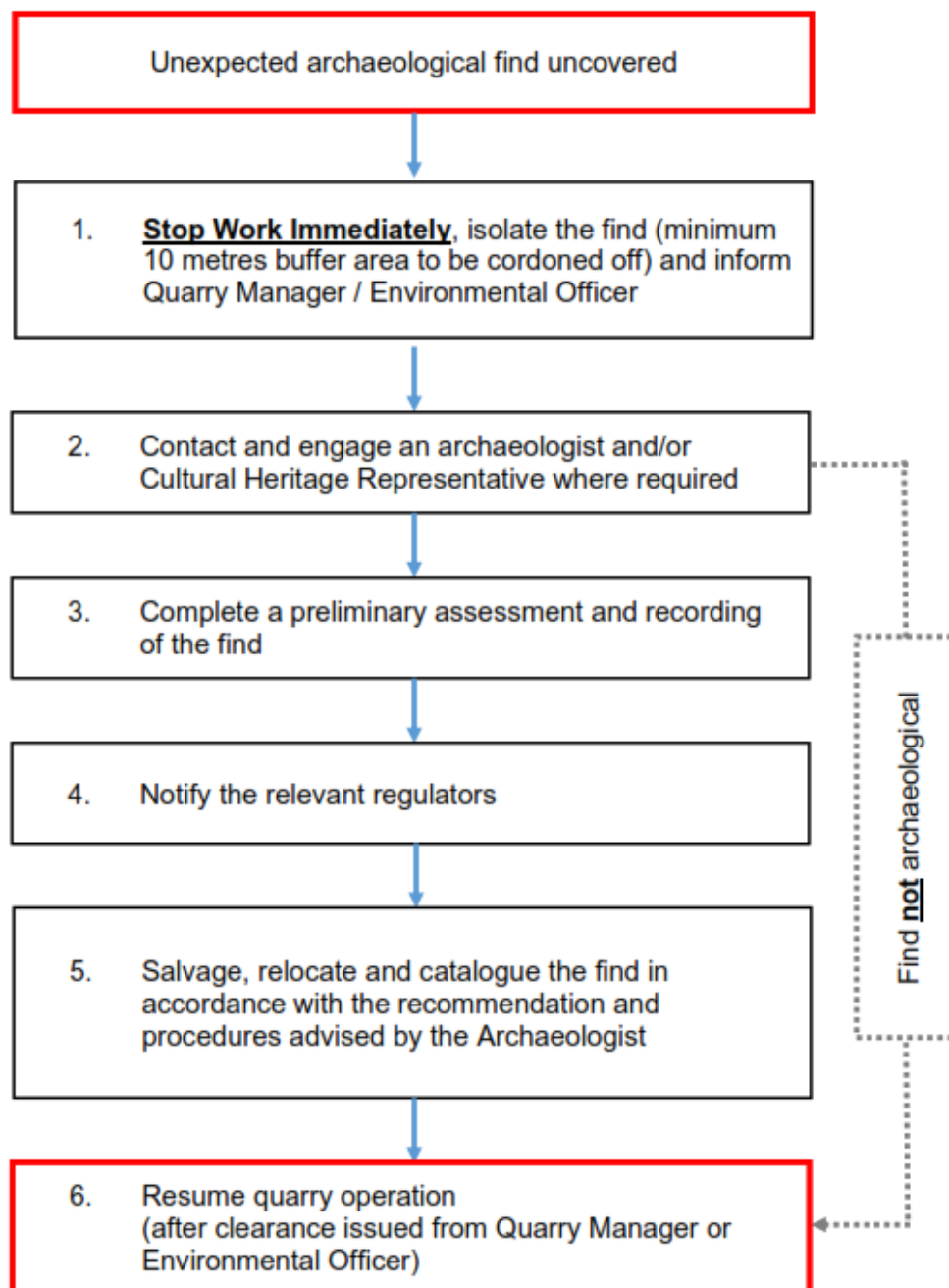
- bottles,
- items of clothing,
- pottery,
- building or road materials, and
- general refuse.

### 9.1.3 Human skeletal remains

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological).

## 9.2 Unexpected Archaeological Finds Procedure

On discovering a potential unexpected archaeological find, the following procedures are to be implemented. Note that work in the immediate vicinity of the suspected Aboriginal object or play may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974*.





## 10.0 Auditing

### 10.1 Types of Unexpected Archaeological finds

During the preparation of each Annual Review (refer to **Section 8.2**), the Environmental Officer (or delegate) will complete an audit of performance and compliance against conditions of the Development Consent and other approvals, licences or permits.

This audit will document whether operations are compliant or non-compliant, the risk posed in the event of a non-compliance, corrective actions to be implemented and timeframe for implementation.

Following submission of the Annual Review, the Quarry Manager and Environmental Officer will conduct a review of the EMS. This review will aim to check the adequacy and effectiveness of the EMS and to scope for opportunities for improvement of the EMS.

### 10.2 Independent Environmental Audit

In accordance with Condition 13 Schedule 5 of the Development Consent, by the end of November 2019, and every 3 years thereafter, unless the Secretary directs otherwise, Dixon Sand will commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit will:

- be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
- include consultation with the relevant agencies and the CCC;
- assess the environmental performance of the development and whether it is complying with the relevant requirements in the development consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);
- review the adequacy of strategies, plans or programs required under the abovementioned approvals;
- recommend appropriate measure or actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
- be conducted and reported to the satisfaction of the Secretary.

Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, Dixon Sand will submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. Dixon Sand will implement these recommendations, to the satisfaction of the Secretary.

## 10.3 Independent Review

In accordance with Condition 2 Schedule 4 of the Development Consent, if a landowner considers the development to be exceeding the relevant criteria in Schedule 3, they may ask the Secretary in writing for an independent review of the impacts of the development on their land.

If the Secretary is satisfied that an independent review is warranted, within 3 months, or as otherwise agreed by the Secretary and the landowner, of the Secretary's decision, Dixon Sand will:

- commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
  - consult with the landowner to determine his/her concerns;
  - conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3; and
- if the development is not complying with these criteria, then identify measures that could be implemented to ensure compliance with the relevant criteria;
- give the Secretary and landowner a copy of the independent review; and
- comply with any written requests made by the Secretary to implement any findings of the review.

## 11.0 Communication

### 11.1 Community Consultative Committee

In accordance with Condition 8 Schedule 5, a CCC for the Dixon Sand's Quarry operations exists, and has members comprised of Government representatives, Maroota Public School representative and local community representatives. The CCC is required to operate in general accordance with the Department's *Community Consultative Committee Guidelines, November 2016* (or later version).

Minutes of the CCC meetings are published on the Dixon Sand website and provided to Council and the Secretary within 14 days of each meeting.

### 11.2 Communication with Community Stakeholders

The community and other relevant stakeholders will continually be informed about the construction, operation and environmental performance of the project. The primary communication methods to be utilised at the Quarry to achieve this include:

- CCC meetings held twice per year
- Website reporting - The Dixon Sand website is maintained to provide the wider community with access to the Development Consent, EPL, monitoring results, environmental management plans and monitoring programs, audit reports, Annual Review reports, community complaints register and any other information in relation to the operation that may be of interest to the community. It is the responsibility of the Environmental Officer (or delegate) to maintain the website.
- Letter box drops for informing surrounding residents on the nature of works, timing and duration etc.
- A telephone complaints line is available to the community during operating hours of the Quarry. The telephone complaint number is advertised on the site gate and on the Dixon Sand website. Postal and email platforms will also be advertised and utilised for receiving community feedback.
- Annual community open days are held to explain operations and receive feedback. Open days are advertised in local newspapers and on the Dixon Sand website.
- Regular informal liaison with neighbouring property owners/occupants.
- Provision of support and assistance for local community initiatives such as:
  - the Maroota Public School Annual Muster festival
  - Supplying resources to local schools, after school care facilities and community events including local dressage competitions
  - local Landcare and bush regeneration groups

## 11.3 Access to Information

As required by Condition 15 of Schedule 5 of the Development Consent, all strategies, plans and programs will be displayed on the company website (<http://www.dixonsand.com.au>) within 3 months of approval by the Secretary.

The Environmental Officer (or delegate) will be responsible for ensuring reports are placed on the website.

## 11.4 Complaints Management

Dixon Sand operates a telephone complaints line during its operating hours for the purpose of receiving any complaints from members of the public in relation to operations. The telephone complaint line is (02) 4566 8348. Postal and email platforms are also advertised and utilised for receiving community feedback.

Dixon Sand maintains a register of all complaints received by the community and publishes this register on its website. The register includes details of the following:

- the date and time of the complaint;
- method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect. (Note: Complainants personal details are not included on the register published on the Dixon Sand's website);
- nature of the complaint;
- actions taken in relation to the complaint, including any follow-up contact with the complainant;
- if no action was taken, the reasons why no action was taken.

A copy of the Complaints Register form is provided as **Appendix 13**.

All complaints received by the Quarry will be directed in the first instance to the Environmental Officer, or, in the event that the Environmental Officer is unavailable, the Quarry Manager. Following a complaint, appropriate action will be taken within 2 working days to determine the cause of the complaint and identify appropriate actions to remediate the complaint source.

All complaints will be investigated and an appropriate response provided to the complainant.

The investigation may include the following:

- a review of any available monitoring data relevant to the time of the complaint;
- a review of the activities and/or equipment being carried out or operated at the time of the complaint;
- a review of whether activities outside the normal 'day-to-day' operations were being carried out on site at the time of the complaint;
- a review of whether any activities or extraordinary events/conditions in the locality may have contributed to the complaint; and
- recommendation of any actions that may be carried out to resolve the complaint and/or minimise the likelihood of further complaints.

## 11.5 Dispute Resolution

In the event of a disagreement between the Quarry and a member of the community, the Dixon Sand Quarry Manager will undertake the necessary liaison and communication to reach a resolution, which will involve an offer for a one-on-one meeting with the community member to discuss the issue.

If a complaint cannot be resolved through the community complaints management procedure (**Section 10.4**), the Independent Review procedure outlined in Condition 2 Schedule 4 of the Development Consent will be followed.

## 11.6 EMS Control and Distribution

To ensure the correct environmental procedures and plans are used on site, issue of this EMS is controlled by the Environmental Officer (or delegate) to ensure current versions are available and distributed. The EMS document will be distributed to the following agencies, regulators and companies following document revision and approval by the Secretary:

- Dixon Sand (No.1) Pty Ltd
- Department of Planning, Industry and Environment (NSW)
- Environment Protection Authority (NSW)
- Environment, Energy and Science (NSW)
- Roads and Maritime Services
- The Hills Shire Council
- Community Consultative Committee (CCC).

The Management Plans which form the Appendices to the EMS will be distributed for consultation with relevant agencies and regulators, in accordance with the requirements outlined in the development consent prior to submission to the Secretary for approval. Evidence of consultation and issues raised by the agencies and regulators will be included in the relevant Management Plans.

## 12.0 Training and Awareness

Dixon Sand provides training to all personnel and contractors to ensure all persons working on the site are aware of their environmental obligations, site environmental issues and control measures, as well as roles and responsibilities with regards to the environment on site.

Dixon Sand Managers and/or Environmental Officer will be responsible for ensuring all personnel working on the site are properly inducted and that retraining is provided as required. Inductions are undertaken for all employees and contractors before starting work at the site. The induction covers the following issues:

- requirements of the EMS;
- specific environmental issues on the site and control measures;
- roles and responsibilities for environmental management; and
- environmental incident procedures.

Additionally, Dixon Sand provides the following retraining sessions:

- within one month of changes to relevant sections of the EMS; and/or
- within one month to persons identified by Complaints Register or Site Condition Checklist as not conforming to procedures.

All truck drivers entering the site for the first time will be provided with the 'Site Induction for Drivers' form (**Appendix 14**) to complete and return.

The status of inductions will be checked monthly using the 'Site Condition Checklist' (**Appendix 12**).

Dixon Sand will maintain a record of all inductions and retraining, including name and date provided. All induction and retraining information will be retained on site.

## 13.0 Review and Continual Improvement

In accordance with Condition 5 of Schedule 5 of the Development Consent, Dixon Sand shall review, and if necessary revise, the strategies, plans, and programs required under the Development Consent within 3 months of the submission of an:

- incident report under Condition 10 Schedule 5;
- annual review under Condition 12 Schedule 5;
- independent Environmental Audit report under Condition 14 Schedule 5; and
- any modifications to this consent.

Dixon Sand will review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. Dixon Sand will notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.

The review of strategies, plans and programs will be undertaken by the Dixon Sand Environment Officer in consultation with the Quarry Manager.



## 14.0 References

Department of Planning and Environment, 2006, *Conditions of Consent DA 165-7-2005*.

Department of Planning and Environment, 2006, *Conditions of Consent DA 165-7-2005 Modification 1*.

Department of Planning and Environment, 2006, *Conditions of Consent DA 165-7-2005 Modification 2*.

Department of Planning and Environment, 2006, *Conditions of Consent DA 165-7-2005 Modification 3*.

Department of Planning and Environment, 2006, *Conditions of Consent DA 165-7-2005 Modification 4*.

Dixon Sand (Penrith) Pty Ltd (Dixon Sand), 2017, *Environmental Monitoring Program – Dixon Sand Haerses Road, Maroota*, Report prepared for DP&E approval.

Dixon Sand (Penrith) Pty Ltd (Dixon Sand), 2017, *Environmental Monitoring Strategy – Dixon Sand Haerses Road, Maroota*, Report prepared for DP&E approval.

Environmental Resources Management Australia Pty Ltd (ERM), 2005, *Proposed Sand Quarry at Haerses Road, Maroota, Environmental Impact Statement*, Report prepared for Dixon Sand (Penrith) Pty Ltd.

NSW Environment Protection Authority, 2011, *Environmental Protection Licence 12513*.

Umwelt (Australia) Pty Ltd, 2016, *Environmental Assessment Dixon Sand Haerses Road Quarry Extraction Area Modification*, Report prepared for Dixon Sand (Penrith) Pty Ltd.

Umwelt (Australia) Pty Ltd, 2016, *Application to modify DA 165-7-2005 for Haerses Road Quarry under Section 4.55(1) of the Environmental Planning & Assessment Act 1979*.

Umwelt (Australia) Pty Ltd, 2018a, *Haerses Road Quarry Bushfire Management Plan Part 1: Environmental Management*, Report prepared for Dixon Sand (Penrith) Pty Ltd.

Umwelt (Australia) Pty Ltd, 2018b, *Haerses Road Quarry Bushfire Management Plan Part 2: Emergency Management and Evacuation Plan*, Report prepared for Dixon Sand (Penrith) Pty Ltd.

Umwelt (Australia) Pty Ltd 2019, *Haerses Road Quarry Modification 3 – Statement of Environmental Effects*.

Umwelt (Australia) Pty Ltd 2020, *Haerses Road Quarry Modification 4 – Statement of Environmental Effects*.

# Appendix 1

## Plan Preparation Checklist and Certification

## Appendix 1 - Plan Preparation Checklist & Certification

The Environmental Management Plan Requirements guidelines state that the following checklist must be completed and supplied to the Department with an Environmental Management Plan (EMP) and Sub-plans. *(Note: the items marked as NA are not required to be included in the Sub-plan).*

Requirement	Plan Reference	Yes/No/NA
<b>Document preparation and endorsement</b>		
Has the Plan been prepared in consultation with all relevant stakeholders? (Section 3.1)	NA	NA
Have the views of the relevant stakeholders been taken into consideration, have appropriate amendments been made to the Plan and does the Plan clearly identify the location of any changes? (Section 3.1)	NA (included in relevant Sub-plans)	NA
Has the Plan been certified on behalf of the proponent? (Section 3.2)	Appendix 1	Yes
<b>Version content</b>		
Does the Plan include the required version control information? (Section 2.3)	Before Table of Contents	Yes
Does the Plan reference the project description as required in Section 2.4?	Section 1.1	Yes
Does the Plan identify the components of the project to which it applies (i.e. scope)? (Section 2.5).	Section 1.2	Yes
Does the Plan describe the proponent's Environmental Management System (EMS), and identify how the Plan relates to other documents required by the conditions of consent? (Section 2.6)	Section 3.0	Yes
Does the Plan identify continuous improvements processes from the EMS that will be adopted? (Section 2.6)	Section 3.0	Yes
Does the Plan include (unaltered) all the conditions of consent to the addressed by the Plan and identify where in the Plan each requirement has been addressed? (Section 2.7.1)	Section 2.2	Yes
Have all other additional approvals been identified? Has appropriate information been provided regarding how each additional approval is relevant? (Section 2.7.2)	Section 2.1	Yes
Have all relevant guidelines, policies and standards been identified, including details of how they are relevant? (Section 2.7.3)	NA	NA
Has the project's organisational structure been included? (Section 2.8)	Section 4.0	Yes
Are the roles and responsibilities of key positions or personnel (including any specialists required by the conditions of consent) outlined? (Section 2.8)	Section 4.0	Yes
Is the process that will be adopted to identify and analyse the environmental risks included? (Section 2.9)	Section 5.0	Yes
Does the Sub-plan identify the relevant sections of the EIA documents that contain the assessment of the matter/s addressed by the Plan? (Section 2.10)	NA (included in relevant Sub-plans)	NA (included in relevant Sub-

Requirement	Plan Reference	Yes/No/NA
Have all further studies required to support mitigating measures been identified and included? (Section 2.11)	NA (included in relevant Sub-plans)	NA (included in relevant Sub-plans)
Have project hold points been identified and included? (Sections 2.7.2 and 2.12)	NA (included in relevant Sub-plans)	NA (included in relevant Sub-plans)
Have all mitigation measures from conditions of consent been included unaltered? (Section 2.13)	NA (included in relevant Sub-plans)	NA (included in relevant Sub-plans)
Have any new mitigation measures been written in committed language and all relevant information included? (Section 2.13)	NA (included in relevant Sub-plans)	NA (included in relevant Sub-plans)
Have the tools that will be used to communicate Plan requirements to project personnel been included? (Section 2.14)	Section 12.0	Yes
Is an environmental inspection program described as required? (Section 2.15.1)	Section 6.1	Yes
Are relevant details of environmental monitoring that will be carried out included? (Section 2.15.2)	Section 6.2	Yes
Is a compliance monitoring and reporting program (or similar) referenced? (Section 2.15.3)	NA (included in relevant Sub-plans)	NA (included in relevant Sub-plans)
Is an independent auditing program referenced? (Section 2.16)	Section 10.2	Yes
Are project status notification protocols that comply with conditions included? (Section 2.17.1)	NA (not required by consent)	NA (not required by consent)
Does the Plan reference a Community and Stakeholder Engagement Plan (or similar) or include community and stakeholder engagement actions (if required)? (Section 2.17.2)	Section 11.0	Yes
Does the document include the incident notification and reporting protocols that comply with the relevant conditions of consent? (Section 2.17.3)	Section 7.3	Yes
Does the document identify the project person or position that is responsible for deciding whether an occurrence is an incident? (Section 2.17.3)	Section 7.0	Yes
Does the document describe corrective and preventative action protocols that address the requirements? (Section 2.18)	Section 13.0	Yes
Does the document identify training and awareness programs as required? (Section 2.19)	Section 12.0	Yes
Does the document include details of a document review and revision process that complies with the requirements? (Section 2.20)	Section 13.0	Yes
Does the document include details of public availability requirements? (Section 2.21)	Section 11.0	Yes

## Document Certification Form

<b>Project Name</b>	Haerses Road Quarry
<b>Project Application Number</b>	DA 165-7-2005
<b>Proponent</b>	Dixon Sand (No.1) Pty Ltd
<b>Document Title</b>	Haerses Road Quarry Biodiversity and Rehabilitation Management Plan
<b>Document Version</b>	V1a
<b>Date of Issue</b>	21 April 2022

Haerses Road Quarry Environmental Management Strategy has been prepared by Project Environmental Services Pty Ltd in response to conditions of consent Schedule 5 Condition 1, DA 165-7-2005 for the Haerses Road Quarry. Subsequent reviews and changes to the Environmental Management Strategy have been made on behalf of Dixon Sand (No. 1) Pty Ltd.

I am authorised to and have reviewed the document on behalf of Dixon Sand (No. 1) Pty Ltd.

I certify that the Haerses Road Quarry Environmental Management Strategy:

- has been prepared in accordance with the relevant condition/s and the Department's Environmental Management Plan
- adequately identifies and addresses all relevant conditions of consent
- has been prepared in accordance with relevant requirements of the conditions of consent regarding stakeholder consultation.

<b>Name of Certifier</b>	Hunny Churcher
<b>Position</b>	Environment Officer
<b>Company</b>	Project Environmental Services
<b>Date</b>	21 April 2022

# Appendix 2

## DA 165-7-2005 Consolidated Consent

# Development Consent

## Section 80 of the *Environmental Planning and Assessment Act 1979*

I, the Minister for Planning, approve the Development Application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required 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 development.

Frank Sartor MP  
**Minister for Planning**

Sydney, 14 February 2006 File No: 9039217

### SCHEDULE 1

<b>Development Application:</b>	DA 165-7-2005.
<b>Applicant:</b>	Dixon Sand (Penrith) Pty Limited.
<b>Consent Authority:</b>	Minister for Planning.
<b>Land:</b>	Lot 170 DP 664766; Lot 170 DP 664767; Lots A and B DP 407341; Lots 176 and 177 DP 752039 and Lot 216 DP 752039; Haerses Road; and the intersection of Wiseman's Ferry Road and Haerses Road.
<b>Proposed Development:</b>	Sand quarry
<b>State Significant Development:</b>	The proposal is classified as State significant development under section 76(A)(7) of the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) as it is an extractive industry that meets the criteria for State significance under the <i>State Environmental Planning Policy (State Significant Development) 2005</i> .
<b>Integrated Development:</b>	The proposal is classified as integrated development under section 91 of the EP&A Act as it requires additional approvals under the: <ul style="list-style-type: none"><li>• <i>Protection of the Environment Operations Act 1997</i>; and</li><li>• <i>Roads Act 1993</i>.</li></ul>
<b>Designated Development:</b>	The proposal is classified as designated development under Section 77A of the EP&A Act as it is an extractive industry that meets the criteria of Schedule 3 of the <i>Environmental Planning and Assessment Regulation 2000</i> (EP&A Regulation).

Note:

- To find out when this consent becomes effective, see section 83 of the EP&A Act;
- To find out when this consent is liable to lapse, see section 95 of the EP&A Act; and
- To find out about appeal rights, see section 97 of the EP&A Act.

(Schedules 2-5 updated in entirety during Modification 1, dated 22 January 2018)

Blue Text – January 2019 Modification

Green Text – June 2021 Modification

Red Text – July 2021 Modification

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## DEFINITIONS

Aboriginal item or object	Any item or object that provides evidence of the use of an area by Aboriginal people, as defined under the <i>National Parks and Wildlife Act 1974</i>
Annual Review	The review required by condition 12 of Schedule 5.
AHD	Australian Height Datum
Applicant	Dixon Sand (Penrith) Pty Limited, or its successors in title
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCA	Building Code of Australia
BCD	Biodiversity & Conservation Division within the Department
Biodiversity Offset Strategy	The conservation and enhancement program as described in EA (Mod 1) and Appendix 4
CCC	Community Consultative Committee
Council	The Hills Shire Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning, Industry and Environment
Development	The development as described in the documents listed in condition 2(a) of Schedule 2
DP	Deposited Plan
DPIE Crown Lands	Crown Lands Group within the Department
DPIE Water	Water Group within the Department
EA (Mod 1)	Environmental Assessment titled <i>Dixon Sand Haerses Road Quarry Extraction Area Modification</i> dated October 2016, including the Response to Submissions dated June 2017, supplementary Response to Submissions dated October 2017, and additional information dated 11 December 2017, prepared by Umwelt (Australia) Pty Ltd
EA (Mod 2)	The Environmental Assessment titled <i>Application to modify DA 165-7-2005 for Haerses Road Quarry under Section 4.55(1) of the Environmental Planning &amp; Assessment Act 1979</i> , prepared by Umwelt (Australia) Pty Ltd, dated 28 November 2018
EIS	Environmental Impact Statement titled <i>Dixon Sand (Penrith) Pty Limited Haerses Road Sand Quarry EIS</i> , dated June 2005, and prepared by Environmental Resources Management Australia Pty Limited
ENM	Excavated Natural Material
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
EPA	NSW Environment Protection Authority
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 POEO Act
Evening	The period from 6pm to 10pm
Heritage NSW	The Heritage Group within the Department of Premier and Cabinet
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance
Laden trucks	Trucks transporting quarry products from the site and/or trucks transporting extractive material to the site
Land	As defined in the EP&A Act, except where the term is used in the noise and air quality conditions in Schedules 3 and 4 of this consent, where it is defined as 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 consent
M	Metres
Material harm	Is harm that: <ul style="list-style-type: none"> <li>involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial; or</li> <li>results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)</li> </ul> This definition excludes "harm" that is authorised under either this consent or any other statutory approval
MEG	Mining, Exploration and Geoscience, within the Department of Regional NSW
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Minister	Minister for Planning, or delegate
Mitigation	Activities associated with reducing the impacts of the development
Mod 1 Extraction Area	The area identified as <b>Sandstone Extraction Area A and Sandstone Extraction Area B in Figure 1</b> of Appendix 1
MR (Mod 3)	The Modification Report titled <i>Haerses Road Quarry Modification 3 Statement of Environmental Effects</i> , prepared by Umwelt (Australia) Pty Ltd, dated December

MR (MOD 4)	<p>2019, including the Response to Submissions dated 9 April 2020, and additional information accompanying the Response to Submissions</p> <p>The Modification Report titled <i>Haerses Road Quarry Modification 4 Statement of Environmental Effects</i>, prepared by Umwelt (Australia) Pty Ltd, dated September 2020</p>
MTSGS	Maroota Tertiary Sands Groundwater Source
MTSGS buffer zone	The area identified as <b>Sandstone Extraction Area B</b> in Figure 1 of Appendix 1
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Non-Compliance	An occurrence, set of circumstances or development that is a breach of this consent
NRAR	Natural Resources Access Regulator
Old Northern Road Quarry	The development approved under development consent DA 250-09-01
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned by a public agency or the Applicant (or its subsidiary) or another quarrying company
Quarrying operations	<p>The:</p> <ul style="list-style-type: none"> <li>• extraction, processing, stockpiling and transportation of extractive materials carried out on the site and the associated removal of vegetation, topsoil and overburden; and</li> <li>• processing, stockpiling, blending and transportation of VENM and ENM carried out on the site</li> </ul>
Quarry products	Includes all saleable quarry products, but excludes tailings, other wastes and rehabilitation material for use on the site or at the Old Northern Road Quarry
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable and non-polluting
Secretary	Planning Secretary under the EP&A Act, or nominee
Shoulder	The period from 6.00 am to 7.00 am on Monday to Saturday
Site	The land referred to in Schedule 1
SCBGS	Sydney Central Basin Groundwater Source
TfNSW	Transport for NSW
Waste	Has the same meaning as the definition of the term in the Dictionary to the POEO Act
VENM	Virgin Excavated Natural Material

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

### OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance measures and criteria established under this consent, the Applicant must implement all reasonable and feasible measures to prevent or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.

### TERMS OF CONSENT

2. The Applicant must carry out the development:
  - (a) generally in accordance with the EIS, EA (Mod 1), EA (Mod 2), MR (Mod 4) and MR (Mod 3); and
  - (b) in accordance with the conditions of this consent and the Development Layout Plans.

*Note: The Development Layout Plans are shown in Appendix 1.*

3. If there is any inconsistency between the documents in condition 2(a), the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
4. The Applicant must comply with any written requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents);
  - (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this consent; and
  - (c) the implementation of any actions or measures contained in these documents.

### LIMITS ON CONSENT

5. The Applicant may carry out quarrying operations on the site until 14 February 2046.

*Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional requirements and undertakings to the satisfaction of the Secretary. Consequently, this consent will continue to apply in all respects other than the right to conduct quarrying operations until the rehabilitation of the site and those requirements and undertakings have been carried out to the standard required by the applicable conditions.*

6. The Applicant must not extract more than 495,000 tonnes of quarry products per year from the quarry.
7. The Applicant must not transport more than 190,000 tonnes of quarry products per year to the Old Northern Road Quarry for processing.
8. Truck movements at the site (i.e. either arrival or dispatch), including truck movements between the site and the Old Northern Road Quarry, must not exceed:
  - (a) 180 per day; and
  - (b) 20 between 6.00 am and 7.00 am.

*Note: Operating hours for arrival and dispatch of trucks are also controlled under condition 1 of Schedule 3.*

9. The Applicant must not receive more than 250,000 tonnes of VENM and ENM (in total) at the site in any calendar year. No other materials classified as waste under the EPA's *Waste Classification Guidelines 2009* (or its latest version) may be received or processed on the site.
10. The Applicant must:
  - (a) maintain accurate records of all VENM and ENM received at the site (including the date, time and quantity received); and
  - (b) include a copy of this data in the Annual Review.

### STRUCTURAL ADEQUACY

11. The Applicant must ensure that all 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 Applicant is required to obtain construction and occupation certificates for any proposed building works;
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.

## DEMOLITION

12. The Applicant must ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

## PROTECTION OF PUBLIC INFRASTRUCTURE

13. Unless the Applicant and the applicable authority agree otherwise the Applicant must:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
  - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

*Note: This condition does not apply to damage to roads caused as a result of general road usage or otherwise addressed by contributions required by condition 15 below.*

## OPERATION OF PLANT AND EQUIPMENT

14. The Applicant must ensure that all the plant and equipment used at the site, or to monitor the performance of the development is:
- (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## SECTION 94 CONTRIBUTIONS

15. The Applicant must pay Council a monthly financial contribution toward the maintenance of local roads used for haulage of quarry products. The contribution must be determined in accordance with *The Hills Shire Council Contributions Plan No. 6 Extractive Industries*, or any subsequent relevant contributions plan adopted by Council.

## PRODUCTION DATA

16. The Applicant must:
- (a) provide calendar year annual quarry production data to **MEG** using the standard form for that purpose; and
  - (b) include a copy of this data in the Annual Review.

## COMPLIANCE

17. The Applicant must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.

## LIMITS OF EXTRACTION

### Buffer Zones

18. Within 6 months of the determination of [Modification 2](#), the Applicant must:
- (a) engage a registered surveyor to mark out the boundaries of the:
    - approved limits of extraction;
    - buffer zones shown in Appendix 2; and
    - MTSGS buffer zone;
  - (b) submit a survey plan of these boundaries to the Secretary; and
  - (c) ensure that the boundaries of each operational extraction area are clearly marked on site in a permanent manner that allows operating staff and inspecting officers to clearly identify these limits, to the satisfaction of the Secretary.

The Applicant must not undertake any quarrying operations within the buffer zones shown in Appendix 2.

*Note: This condition does not prevent the construction or maintenance of acoustic bunds shown in Appendix 3.*

### Maximum Extraction Depth

19. The Applicant must not undertake any extraction within 2 metres of the highest recorded wet weather groundwater level of both the MTSGS and the SCBGS.
20. Within 6 months of the determination of Modification 1, the Applicant must:
- (a) establish the highest recorded wet weather groundwater levels for the site based on all available local and site-specific groundwater monitoring data; and

- (b) engage a suitably qualified and experienced person to prepare a Maximum Extraction Depth Map (contour map or similar) for the development to ensure compliance with condition 19 above and submit this map to the Secretary for approval.

Within 14 days of the approval of the Maximum Extraction Depth Map, the Applicant must submit a copy of the approved map and the supporting groundwater monitoring data to [DPIE Water and NRAR](#).

- 21. The Applicant must comply with the extraction depths specified in the approved Maximum Extraction Depth Map, to the satisfaction of the Secretary.
- 22. The Applicant must review and update the Maximum Extraction Depth Map:
  - (a) annually, for the duration of the baseline groundwater monitoring program (see condition 17 of Schedule 3); and
  - (b) within 3 months of the completion of each Independent Environmental Audit (see condition 13 of Schedule 5),  
to the satisfaction of the Secretary.

### SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

#### NOISE

##### Hours of Operation

- The Applicant must comply with the operating hours set out in Table 1.

*Table 1: Operating hours*

Activity	Permissible Hours
Quarrying operations (excluding truck arrival, loading and dispatch)	7.00 am to 6.00 pm Monday to Saturday
	At no time on Sundays or public holidays
Truck arrival, loading and dispatch	6.00 am to 6.00 pm Monday to Saturday
	At no time on Sundays or public holidays
Acoustic bund construction and road and intersection works on Haerses Road and Wisemans Ferry Road	8.00 to 5.00 pm Monday to Friday
	At no time on Saturdays, Sundays or public holidays
Maintenance	At any time, provided that these activities are not audible at any privately-owned residence outside of permissible hours for quarrying operations

- The following activities may be carried out outside the hours specified in condition 1 above:
  - delivery or dispatch of materials as requested by the NSW Police Force or other public authorities; and
  - emergency work to avoid the loss of lives, property or to prevent environmental harm.

In such circumstances, the Applicant must notify the Secretary and affected residents prior to undertaking the activities, or as soon as is practical thereafter.

- The Applicant must ensure that operational noise generated by the development (excluding acoustic bund construction) does not exceed the criteria in Table 2 at any residence on privately-owned land.

*Table 2: Operational noise criteria dB(A)*

Receiver	Day	Shoulder (6.00 am to 7.00 am)	
	<i>L<sub>Aeq</sub> (15 minute)</i>	<i>L<sub>Aeq</sub> (15 minute)</i>	<i>L<sub>A</sub>(max)</i>
R05, R06	41	35	52
R03	40	37	
R13, R14	40	36	
All other receivers	40	35	

Noise generated by the development **must** be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NSW Noise Policy for Industry*.

However, the noise criteria in Table 2 do not apply if the Applicant has an agreement with the relevant landowner to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

**Notes:**

- Should an agreement with a landowner be terminated for any reason, the Applicant must comply with the noise criteria in Table 2.
- Receiver locations are shown in Appendix 5

- The Applicant must manage noise from construction activities (including acoustic bund construction) in accordance with the noise management levels defined in Table 2 of the *Interim Construction Noise Guideline*, except where the Applicant has an agreement with the relevant landowner to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of the agreement.

## Acoustic Bund Construction

5. The Applicant must:
  - (a) design, construct and maintain the acoustic bunds shown in Appendix 3 to the satisfaction of the Secretary; and
  - (b) limit all bund construction activities to a period of not more than four weeks in any calendar year, unless otherwise approved by the Secretary.
6. Prior to the construction of any acoustic bunds, the Applicant must prepare an Acoustic Bund Construction Noise Management Plan, which details the procedures that would be undertaken to:
  - (a) keep surrounding residents informed of the proposed timing and duration of bund construction;
  - (b) minimise and mitigate the noise impacts generated by the works; and
  - (c) receive, handle and respond to complaints relating to the works.

The Applicant must implement the Acoustic Bund Construction Noise Management Plan as approved by the Secretary.

## Operating Conditions

7. The Applicant must:
  - (a) take all reasonable steps to minimise the construction, operational, low frequency and road transportation noise of the development;
  - (b) take all reasonable steps to minimise the noise impacts of the development during **noise-enhancing meteorological conditions**;
  - (c) operate a noise management system to guide the day to day planning of quarrying operations and the implementation of noise mitigation measures to ensure compliance with the relevant conditions of this consent;
  - (d) carry out regular **attended** noise monitoring to determine whether the development is complying with the relevant conditions of this consent; and
  - (e) modify or stop operations on the site to comply with the relevant conditions of this consent.

*Note: Monitoring under this consent is not required at all residences and the use of representative monitoring locations can be used to demonstrate compliance with criteria, if agreed to by the Secretary.*

## Noise Management Plan

8. The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with the EPA;
  - (b) be submitted to the Secretary for approval within 6 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
  - (c) describe the measures to be implemented to ensure:
    - compliance with the noise criteria and operating conditions of this consent;
    - best practice management is being employed; and
    - the noise impacts of the development are minimised during **noise-enhancing meteorological conditions**;
  - (d) describe the proposed noise management system;
  - (e) include a noise monitoring program that:
    - is capable of evaluating the performance of the development;
    - includes a protocol for determining any exceedances of the relevant conditions of this consent; and
    - effectively supports the noise management system; and
  - (f) **include a program to either:**
    - **attenuate the dump trucks prior to commencing quarrying operations in Stages 4 or 5; or**
    - **identify alternative mitigation measures and demonstrate that these measures will be implemented to achieve compliance with the noise criteria in this consent at all times.**

The Applicant must implement the Noise Management Plan as approved by the Secretary.

## AIR QUALITY

### Air Quality Impact Assessment Criteria

9. The Applicant must ensure that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 3 at any residence on privately-owned land.

Table 3: Air quality criteria

Pollutant	Averaging Period	Criterion
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Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	a,d 30 µg/m <sup>3</sup>	
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	b 50 µg/m <sup>3</sup>	
Total suspended particulates (TSP)	Annual	a,d 90 µg/m <sup>3</sup>	
<sup>c</sup> Deposited dust	Annual	b 2 g/m <sup>2</sup> /month	a,d 4 g/m <sup>2</sup> /month

Notes to Table 3:

*a Cumulative impact (ie increase in concentrations due to the development plus background concentrations due to all other sources).*

*b Incremental impact (ie increase in concentrations due to the development alone, with zero allowable exceedances of the criteria over the life of the development).*

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

*d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by the Secretary.*

### Operating Conditions

10. The Applicant must:
- implement best practice management to minimise the dust emissions of the development;
  - operate a continuous monitoring system to minimise air quality impacts at sensitive sites such as the Maroota Public School, including:
    - a monitoring device that is connected to an alarm system at the site;
    - trigger level(s) as agreed with the EPA; and
    - procedures to cease or modify operations in the event that the trigger level(s) are reached, to ensure compliance with the criteria in condition 9 above, to the satisfaction of the EPA;
  - regularly assess meteorological and air quality monitoring data on an ongoing basis and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent;
  - minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d under Table 3);
  - monitor and report on compliance with the relevant air quality conditions in this consent; and
  - minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.

### Air Quality Management Plan

11. The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with the EPA;
  - be submitted to the Secretary for approval within 6 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
  - describe the measures to be implemented to ensure:
    - compliance with the air quality criteria and operating conditions of this consent;
    - best practice management is being employed; and
    - the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events;
  - describe the proposed air quality management system; and
  - include an air quality monitoring program that:
    - is capable of evaluating the performance of the development and informing day to day operational decisions;
    - includes a protocol for determining any exceedances of the relevant conditions of this consent; and
    - effectively supports the air quality management system; and
  - include a program to implement the air quality emissions controls detailed in MR (Mod 3), including sealing the Quarry Access Road between Wisemans Ferry Road and the processing plant. Relevant controls must be implemented before:
    - any increase in extractive operations above 250,000 tonnes of product per year; and
    - the commencement of quarrying operations in Stages 4 or 5.

The Applicant must implement the Air Quality Management Plan as approved by the Secretary.

### Meteorological Monitoring



12. For the life of the development, the Applicant must ensure that there is a suitable meteorological station operating in the vicinity of Maroota Public School that:
- (a) complies with the requirements in the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (DEC, 2007); and
  - (b) is capable of measuring meteorological conditions in accordance with the *NSW Noise Policy for Industry* (EPA, 2017),
- unless a suitable alternative is approved by the Planning Secretary following consultation with the EPA.

### Greenhouse Gas Emissions

13. The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.

### SOIL AND WATER

*Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain all necessary approvals and/or water licences for the development.*

#### Water Supply

14. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply, to the satisfaction of the Secretary.

#### Water Discharges

15. The Applicant must comply with the discharge limits in any EPL, or with section 120 of the POEO Act.

#### Groundwater Management

16. Prior to the commencement of quarrying operations within the Mod 1 extraction area, the Applicant must:
- (a) install additional monitoring bores in accordance with EA (Mod 1);
  - (b) install one additional monitoring bore in the south-western corner of the Mod 1 extraction area;
  - (c) install loggers in each on-site bore to enable continuous groundwater level monitoring;
  - (d) install water level loggers in all existing on-site quarry dams and in new quarry dams when constructed; and
  - (e) carry out an aquifer pumping test within the SCBGS, to the satisfaction of **DPIE Water and NRAR**.
17. Prior to commencing quarrying operations within the MTSGS buffer zone, the Applicant must complete a baseline groundwater monitoring program, in consultation with **DPIE Water and NRAR** and to the satisfaction of the Secretary. The program must include monthly monitoring of groundwater levels and quality within the MTSGS buffer zone for a period of not less than 2 years.

The Applicant must not commence quarrying operations within the MTSGS buffer zone without the prior approval of the Secretary.

18. The Applicant must ensure that groundwater in the regional groundwater sources managed under the *Water Sharing Plan for the Greater Metropolitan Groundwater Sources 2011* is not intercepted or contaminated by its operations. In the event of this groundwater being intercepted or contaminated, operations are to cease within the vicinity of the affected area and the Applicant must consult with the Secretary and **DPIE Water and NRAR** to determine the basis upon which extraction may recommence.

*Note: Perched groundwater lenses that are above the regional groundwater source may be intercepted, however Water Access Licences must be held to account for all groundwater taken.*

#### Soil and Water Management

19. The Applicant must prepare a Soil and Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by a suitably qualified and experienced person/s approved by the Secretary;
  - (b) be prepared in consultation with the EPA and **DPIE Water and NRAR**;
  - (c) be submitted to the Secretary for approval prior to the commencement of quarrying operations within the Mod 1 extraction area, unless otherwise agreed by the Secretary; and
  - (d) include a:
    - (i) Site Water Balance that includes:
      - details of:
        - sources and security of water supply;
        - water use and management on site;

- any off-site water transfers; and
- reporting procedures; and
- measures to be implemented to minimise clean water use on site;
- (ii) Surface Water Management Plan, that includes:
  - a program for obtaining detailed baseline data on surface water flows and quality in water bodies that could potentially be affected by the development;
  - a detailed description of the surface water management system on site including the:
    - clean water diversion system;
    - erosion and sediment controls;
    - dirty water management system; and
    - water storages, including the area, depth and capacity of any in-pit sumps; and
  - a program to monitor and report on:
    - any surface water discharges;
    - the effectiveness of the water management system;
    - the quality of water discharged from the site to the environment; and
    - surface water flows and quality in local watercourses; and
- (iii) Groundwater Management Plan that:
  - includes detailed management measures to ensure that quarrying operations do not intercept the highest recorded wet weather groundwater level of the MTSGS and/or the SCBGS;
  - includes a protocol to obtain appropriate water licence(s) to cover the volume of any unforeseen groundwater inflows into the quarry from the quarry face or floor; and
  - includes a monitoring program to manage potential impacts, if any, on any alluvium and associated surface water source near the proposed extraction area that includes:
    - monitoring of groundwater inflows into the quarry from the quarry face or floor, or into any in-pit sumps;
    - identification of a methodology for determining threshold water level criteria;
    - contingency measures in the event of a breach of thresholds; and
    - a program to regularly report on monitoring.

The Applicant must implement the Soil and Water Management Plan as approved by the Secretary.

## TRANSPORT

### Road Works

20. Prior to carrying out any development, the Applicant must upgrade Haerses Road to meet the requirements for 'internal haul roads', under Baulkham Hills *Development Control Plan No. 16 – Extractive Industries*, to the satisfaction of Council.
21. The Applicant must:
  - (a) maintain safe access to the site for the public and emergency services for the duration of the development; and
  - (b) reinstate the extracted length of Haerses Road to the satisfaction of Council.

#### Notes:

- The Applicant must ensure that the final alignment and design of Haerses Road is approved by Council prior to the commencement of the development.
  - The Applicant must bear the full costs associated with the design, survey and construction of the road works, including the relocation of utilities, if required.
  - All works are to be in accordance with Council's Design Guidelines and Work Specifications for Subdivisions and Developments.
  - Following the reconstruction of Haerses Road, the Applicant must rehabilitate any temporary access roads that were established on site.
22. Prior to carrying out any development, the Applicant must:
    - (a) provide for appropriate sight distances at the intersection of Haerses Road and Wisemans Ferry Road, by clearing and/or lopping vegetation along the eastern approach of Wisemans Ferry Road; and
    - (b) provide warning signage ("Truck Turning") on the eastern and western approaches of Wisemans Ferry Road, to the satisfaction of TfNSW.
  23. Within 12 months of the commencement of the development, the Applicant must construct a Type 'AUR' treatment at the intersection of Haerses Road and Wisemans Ferry Road to the satisfaction of TfNSW. Until the intersection works have been completed to the satisfaction of TfNSW, the Applicant must limit the number of trucks entering the site to 15 truck movements per day.

#### Notes:

- *Prior to the Construction Certificate being released the Applicant must:*
    - *enter into a Memorandum of Understanding with the TfNSW that the Type 'AUR' intersection treatment shall be fully constructed and handed over to the TfNSW within 12 months of the commencement of the development; and*
    - *issue a bank guarantee in favour of the TfNSW for the total cost of the intersection works (the cost to be determined following the approval of detailed design plans by the TfNSW).*
  - *The Applicant shall ensure that the intersection works comply with the TfNSW Road Design Guide.*
  - *The Applicant shall bear the full costs associated with the design, survey and construction of the works, including the relocation of utilities, if required.*
24. Prior to transporting any quarry products derived from quarrying operations within the Mod 1 extraction area, the Applicant must construct a channelised right-turn 'CHR' treatment at the intersection of Haerses Road and Wisemans Ferry Road to the satisfaction of TfNSW. The Applicant must:
- (a) submit detailed design plans to TfNSW for approval prior to the issue of a construction certificate by Council or the commencement of road works; and
  - (b) design and construct the intersection treatment in accordance with the Austroads *Guide to Road Design*.
- 24A. The Applicant must monitor trucks queuing within the right turn bay at the quarry intersection on Wisemans Ferry Road and, in the instance that there are trucks regularly queuing at the intersection, extend the length of the right turn bay to the satisfaction of TfNSW.

### Construction Traffic Management

25. Prior to commencement of the works referred to in condition 24 above, the Applicant must prepare and implement a Traffic Control Plan for the development to the satisfaction of the TfNSW.

### Monitoring of Product Transport

26. The Applicant must keep accurate records of all laden truck movements to and from the site (including time of arrival and dispatch) and publish a summary of these records on its website every 6 months.

### Operating Conditions

27. The Applicant must:
- (a) ensure that all laden trucks have their loads covered when arriving at or leaving the site;
  - (b) ensure that all laden trucks are cleaned of material that may fall from vehicles, before leaving the site; and
  - (c) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport product from the development so they can be easily identified by road users.

### Traffic Management Plan

28. The Applicant must prepare a Traffic Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the TfNSW and Council;
  - (b) be submitted to the Secretary for approval within 6 months of the determination of Modification 1, unless otherwise agreed by the Secretary;
  - (c) describe the processes in place to control the arrival and dispatch of trucks;
  - (d) include a Drivers' Code of Conduct that details the safe and quiet driving practices that must be used by drivers travelling to and from the site, particularly in the vicinity of Maroota Public School;
  - (e) describe the measures to be put in place to ensure compliance with the Drivers' Code of Conduct;
  - (f) include specific measures to minimise the impact of heavy vehicles, including restrictions on routes and times (particularly in relation to peak hours, holiday periods and times immediately before and after school hours, i.e. 8.30 am – 9.00 am and 3.00 pm – 3.30 pm);
  - (g) propose measures to minimise the transmission of dust and tracking of material onto the surface of the public road from vehicles leaving the quarry; and
  - (h) include a protocol to monitor truck queuing behaviour in the right turn bay at the quarry intersection on Wisemans Ferry Road, and trigger points for implementing the intersection upgrade required under condition 24A.

The Applicant must implement the approved Traffic Management Plan as approved by the Secretary.

## ABORIGINAL HERITAGE

29. If any suspected object or place of Aboriginal heritage significance is identified on site, the Applicant must ensure that:
- (a) all work in the immediate vicinity of the suspected Aboriginal object or place ceases immediately;
  - (b) a 10 m buffer area around the suspected Aboriginal object or place is cordoned off; and
  - (c) the [Heritage NSW](#) is contacted immediately.

Work in the immediate vicinity of the suspected Aboriginal object or place may only recommence in accordance with the provisions of Part 6 of the *National Parks and Wildlife Act 1974*.

## BIODIVERSITY AND REHABILITATION

### Biodiversity Offset Strategy

30. The Applicant must retire the biodiversity credits specified in Table 4 to the satisfaction of the Secretary and [BCD](#). The Applicant must retire the credits prior to commencing any vegetation clearing within the Mod 1 extraction area, except the minimum clearing required to comply with condition 16 of this Schedule.

Table 4: Biodiversity credits to be retired prior to the commencement of vegetation clearing

Credit type	Number of Credits
<i>Ecosystem Credits</i>	
HN560 Needlebush – Banksia Wet Heath on Sandstone Plateaux of the Sydney Basin Bioregion	3
HN566 Red Bloodwood – Scribbly Gum Heathy Woodland on Sandstone Plateaux of the Sydney Basin Bioregion	377
HN582 Scribbly Gum – Hairpin Banksia – Dwarf Apple Heathy Woodland on Hinterland Sandstone Plateaux of the Central Coast, Sydney Basin Bioregion	181
HN586 Smooth-barked Apple – Red Bloodwood – Sydney Peppermint Heathy Open Forest on Slopes of Dry Sandstone Gullies of Western and Southern Sydney, Sydney Basin Bioregion	44
<i>Species Credits</i>	
<i>Darwinia biflora</i>	360
Dural Land Snail ( <i>Pommerhelix duralensis</i> )	98
Eastern Pygmy Possum ( <i>Cercartetus nanus</i> )	148
<i>Grevillea parviflora</i> subsp. <i>supplicans</i>	338
<i>Tetratheca glandulosa</i>	288

31. The Applicant must retire the biodiversity credits specified in Table 5 to the satisfaction of the Secretary and [BCD](#). The Applicant must retire the credits prior to commencing any vegetation clearing in extraction cells 2A, 2B or 3B (as shown in Appendix 1), except the minimum clearing required to comply with condition 16 of this Schedule.

Prior to commencing vegetation clearing in any of extraction cells 2A, 2B and 3B, the Applicant must demonstrate that the proportionate credits required in respect of that cell have been retired, to the satisfaction of the Secretary.

Table 5: Biodiversity credits to be retired prior to vegetation clearing in extraction cells 2A, 2B or 3B

Credit type	Number of Credits
<i>Species Credits</i>	
Dural Land Snail ( <i>Pommerhelix duralensis</i> )	132

32. The Applicant must retire the biodiversity credits specified in Table 6 to the satisfaction of the Secretary and BCD. The Applicant must retire the credits prior to commencing any vegetation clearing in extraction cells 2A, 2B, 3A, 3B, 4A, 4B and 5B (as shown in Appendix 1), except the minimum clearing required to comply with condition 16 of this Schedule.

Prior to commencing vegetation clearing in any of extraction cells 2A, 2B, 3A, 3B, 4A, 4B and 5B, the Applicant must demonstrate that the proportionate credits required in respect of that cell have been retired, to the satisfaction of the Secretary.

Table 6: Biodiversity credits to be retired progressively

Credit type	Number of Credits
<b>Ecosystem Credits</b>	
HN582 Scribbly Gum – Hairpin Banksia – Dwarf Apple Heathy Woodland on Hinterland Sandstone Plateaux of the Central Coast, Sydney Basin Bioregion	357
<b>Species Credits</b>	
Eastern Pygmy Possum ( <i>Cercartetus nanus</i> )	75

33. In retiring the ecosystem and species credits set out in conditions 30 to 32 above, the Applicant may apply the Biodiversity Offset Strategy (see Appendix 4) or, with the agreement of the Secretary, may use other land, the NSW Biodiversity Conservation Fund or alternate mechanisms permitted under the Biodiversity Offsets Scheme of the BC Act.

The credits identified in Tables 4, 5 and 6 were calculated in accordance with *Framework for Biodiversity Assessment of the NSW Biodiversity Offset Policy for Major Projects* (OEH, 2014) and may need to be converted to reasonably equivalent 'biodiversity credits', within the meaning of the BC Act, if the credits are to be retired in accordance with the Biodiversity Offsets Scheme of the BC Act.

### Rehabilitation Objectives

34. The Applicant must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must be generally consistent with the final landform shown in Appendix 6 and must comply with the objectives in Table 6.

Table 6: Rehabilitation Objectives

Feature	Objective
All areas of the site affected by the development	<ul style="list-style-type: none"> <li>Safe</li> <li>Hydraulically and geotechnically stable</li> <li>Non-polluting</li> <li>Fit for the intended final land use(s)</li> <li>Final landform integrated with surrounding natural landforms as far as is reasonable and feasible, and minimising visual impacts when viewed from surrounding land</li> </ul>
Surface infrastructure	<ul style="list-style-type: none"> <li>Decommissioned and removed, unless otherwise agreed by the Secretary</li> </ul>
Quarry benches and pit floor	<ul style="list-style-type: none"> <li>Landscaped and vegetated using native tree and understorey species</li> </ul>
Final void	<ul style="list-style-type: none"> <li>Minimise the size, depth and slope of the batters of the final void</li> <li>Minimise the drainage catchment of the final void</li> </ul>

### Progressive Rehabilitation

35. The Applicant must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to future re-disturbance.

## Biodiversity and Rehabilitation Management Plan

36. The Applicant must prepare a Biodiversity and Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by a suitably qualified expert;
  - (b) be prepared in consultation with BCD and Council;
  - (c) be submitted to the Secretary for approval within 6 months of the approval of Modification 1, unless otherwise agreed by the Secretary;
  - (d) provide details of the conceptual final landform and associated final land use(s) for the site;
  - (e) describe how the implementation of the Biodiversity Offset Strategy will be integrated with the overall rehabilitation of the site;
  - (f) describe the short, medium and long term measures to be implemented to:
    - manage remnant vegetation and habitat on site, including within the Biodiversity Offset Strategy area; and
    - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;
  - (g) include a detailed description of the measures described in paragraph (f) to be implemented over the next 3 years (to be updated for each 3 year period following initial approval of the plan) including the procedures to be implemented for:
    - maximising the salvage of environmental resources within the approved disturbance area, including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation;
    - restoring and enhancing the quality of native vegetation and fauna habitat in the biodiversity offset and rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features;
    - protecting vegetation and fauna habitat outside the approved disturbance area on-site, paying particular attention to any occurrences of *Hibbertia superans* adjacent to the approved extraction areas;
    - minimising the impacts on native fauna, including undertaking pre-clearance surveys and avoiding clearing activities during sensitive hibernation and breeding periods;
    - establishing vegetation screening to minimise the visual impacts of the site on surrounding receivers;
    - ensuring minimal environmental consequences for threatened species, populations and habitats;
    - collecting and propagating seed;
    - controlling weeds and feral pests;
    - controlling erosion; and
    - managing bushfire risk;
  - (h) include a program to monitor the effects of the development on flora and fauna;
  - (i) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy and the rehabilitation of the site (including progressive rehabilitation), including triggers for any necessary remedial action;
  - (j) include a program to monitor and report on the effectiveness of the measures described in paragraphs (f) and (g), and progress against the performance and completion criteria;
  - (k) identify the potential risks to the successful implementation of the plan, and include a description of the contingency measures to be implemented to mitigate against or address these risks, including specific measures to be implemented in the event that the performance and completion criteria are not satisfied; and
  - (l) include details of who is responsible for monitoring, reviewing, and implementing the plan.

The Applicant must implement the Biodiversity and Rehabilitation Management Plan as approved by the Secretary.

## Biodiversity and Rehabilitation Bond

37. Within 6 months of the approval of the Biodiversity and Rehabilitation Management Plan, the Applicant must lodge a Biodiversity and Rehabilitation Bond with the Department to ensure that the Biodiversity Offset Strategy and rehabilitation of the site are implemented in accordance with the performance and completion criteria set out in the Biodiversity and Rehabilitation Management Plan and the relevant conditions of this consent. The sum of the bond must be determined by:
- (a) calculating the full cost of implementing the Biodiversity Offset Strategy;
  - (b) calculating the cost of rehabilitating all disturbed areas of the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and
  - (c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary.

Notes:



- *Alternative funding arrangements for long term management of the Biodiversity Offset Strategy, such as provision of capital and management funding as agreed by BCD as part of a BioBanking Agreement, or transfer to conservation reserve estate can be used to reduce the liability of the Biodiversity and Rehabilitation Bond.*
  - *If capital and other expenditure required by the Biodiversity and Rehabilitation Management Plan is largely complete, the Secretary may waive the requirement for lodgement of a bond in respect of the remaining expenditure.*
  - *If the Biodiversity Offset Strategy and/or rehabilitation of the site area are completed (or partially completed) to the satisfaction of the Secretary, then the Secretary will release the bond (or relevant part of the bond). If the Biodiversity Offset Strategy and rehabilitation of the site are not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works.*
  - *Any redundant rehabilitation or biodiversity bonds currently held by the Department in relation to the development may be released following acceptance of the Biodiversity and Rehabilitation bond required under this condition.*
38. The Biodiversity and Rehabilitation Bond must be reviewed and (if required), an updated bond must be lodged with the Department within 3 months following:
- (a) an update or revision to the Biodiversity and Rehabilitation Management Plan;
  - (b) the completion of an Independent Environmental Audit in which recommendations relating to the implementation of the Biodiversity Offset Strategy and/or rehabilitation of the site have been made; or
  - (c) in response to a request by the Secretary.

## **VISUAL**

39. The Applicant must implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development to the satisfaction of the Secretary.

## **WASTE**

40. The Applicant must:
- (a) manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Council;
  - (b) minimise the waste generated by the development;
  - (c) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and
  - (d) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary.
41. Except as expressly permitted in an EPL and/or the conditions of this consent, the Applicant must not receive waste on the site for storage, treatment, processing, reprocessing or disposal.

## **LIQUID STORAGE**

42. The Applicant must ensure that all tanks and similar storage facilities (other than for water) are protected by appropriate bunding or other containment, in accordance with the relevant Australian Standards.

## **DANGEROUS GOODS**

43. The Applicant must ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the *Dangerous Goods Code*.

## **BUSHFIRE**

44. The Applicant must:
- (a) ensure that the development is suitably equipped to respond to any fires on site; and
  - (b) assist the Rural Fire Service and emergency services to the extent practicable if there is a fire in the vicinity of the site.
45. Within 6 months of the determination of Modification 1, the Applicant must prepare a Bushfire Management Plan for the site in consultation with Council and to the satisfaction of the Rural Fire Service.

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS**

1. As soon as practicable, and no longer than 7 days, after obtaining monitoring results showing:
  - (a) an exceedance of any criteria in Schedule 3, the Applicant must notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every 3 months, to each affected landowner until the development is again complying with the relevant criteria; and
  - (b) an exceedance of any air quality criteria in Schedule 3, the Applicant must send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and current tenants of the land (including the tenants of land which is not privately-owned).

### **INDEPENDENT REVIEW**

2. If a landowner considers the development to be exceeding the relevant criteria in Schedule 3, they may ask the Secretary in writing for an independent review of the impacts of the development on their land.

If the Secretary is not satisfied that an independent review is warranted, the Secretary will notify the landowner in writing of that decision, and the reasons for that decision, within 21 days of the request for a review.

If the Secretary is satisfied that an independent review is warranted, within 3 months, or as otherwise agreed by the Secretary and the landowner, of the Secretary's decision, the Applicant must:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:
  - consult with the landowner to determine his/her concerns;
  - conduct monitoring to determine whether the development is complying with the relevant criteria in Schedule 3; and
  - if the development is not complying with these criteria, then identify measures that could be implemented to ensure compliance with the relevant criteria;
- (b) give the Secretary and landowner a copy of the independent review; and
- (c) comply with any written requests made by the Secretary to implement any findings of the review.



## **SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

### **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

1. The Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval within 6 months of the approval of Modification 1, unless otherwise agreed by the Secretary;
  - (b) provide the strategic framework for environmental management of the development;
  - (c) identify the statutory approvals that apply to the development;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (e) describe the procedures to be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
    - receive, record, handle and respond to complaints;
    - resolve any disputes that may arise during the course of the development;
    - respond to any non-compliance;
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this consent; and
    - a clear plan depicting all the monitoring to be carried out under the conditions of this consent.

The Applicant must implement any Environmental Management Strategy as approved by the Secretary.

#### **Evidence of Consultation**

2. Where consultation with any State or local agency is required by the conditions of this consent, the Applicant must:
  - (a) consult with the relevant agency prior to submitting the required document to the Secretary for approval;
  - (b) submit evidence of this consultation as part of the relevant document;
  - (c) describe how matters raised by the agency have been addressed and any matters not resolved; and
  - (d) include details of any outstanding issues raised by the agency and an explanation of disagreement between any agency and the Applicant.

#### **Management Plan Requirements**

3. The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:
  - (a) detailed baseline data;
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria; and
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
  - (c) a description of the measures that to be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the development; and
    - effectiveness of any management measures (see (c) above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
  - (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and
  - (h) a protocol for periodic review of the plan.

*Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.*

#### **Application of Existing Strategies, Plans and Programs**

4. The Applicant must continue to apply existing management plans, strategies or monitoring programs approved prior to the approval of Modification 1, until the approval of a similar plan, strategy or program following the approval of Modification 1.

#### **Revision of Strategies, Plans & Programs**

5. Within 3 months of the submission of an:
  - (a) incident report under condition 10 below;
  - (b) Annual Review under condition 12 below;
  - (c) Independent Environmental Audit report under condition 14 below; and
  - (d) any modifications to this consent,the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. The Applicant must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.

*Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.*

#### **Updating and Staging of Strategies, Plans or Programs**

6. To ensure that strategies, plans or programs required under this consent are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

The Secretary may approve a revised strategy, plan or program required under this consent, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Applicant may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the operations associated with the development are covered by suitable strategies, plans or programs at all times.

If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.

#### **Adaptive Management**

7. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and performance measures in this consent. Any exceedance of these criteria or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria or performance measures has occurred, the Applicant must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement reasonable remediation measures as directed by the Planning Secretary.

#### **COMMUNITY CONSULTATIVE COMMITTEE**

8. The Applicant must establish and operate a Community Consultative Committee (CCC) for the development to the satisfaction of the Secretary. The CCC must be established by 30 June 2018 and operated in general accordance with the Department's *Community Consultative Committee Guidelines, November 2016* (or later version).

*Notes:*

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*
- *In accordance with the guidelines, the Committee should comprise an independent chair and appropriate representation from the Applicant, Council and the local community.*
- *The CCC established and operated prior to the approval of Modification 1 must continue to be operated in accordance with the procedures required by the consent prior to the approval of Modification 1 until such time as the CCC required by this condition is established.*
- *The Applicant may, with the approval of the Secretary, combine the function of this CCC with the functions of other CCCs in the area.*

## **REPORTING**

### **Incident Notification**

9. The Proponent must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.

### **Non-Compliance Notification**

10. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

### **Regular Reporting**

11. The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

### **Annual Review**

12. By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a review to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must:
  - (a) describe the development (including any progressive rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - requirements of any plan or program required under this consent;
    - monitoring results of previous years; and
    - relevant predictions in the documents listed in condition 2(a) of Schedule 2;
  - (c) evaluate and report on:
    - the effectiveness of the air quality and noise management systems; and
    - compliance with the performance measures, criteria and operating conditions in this consent.
  - (d) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;
  - (e) identify any trends in the monitoring data over the life of the development;
  - (f) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
  - (g) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.

The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 8 of Schedule 5) and any interested person upon request.

## **INDEPENDENT ENVIRONMENTAL AUDIT**

13. By the end of November 2019, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:

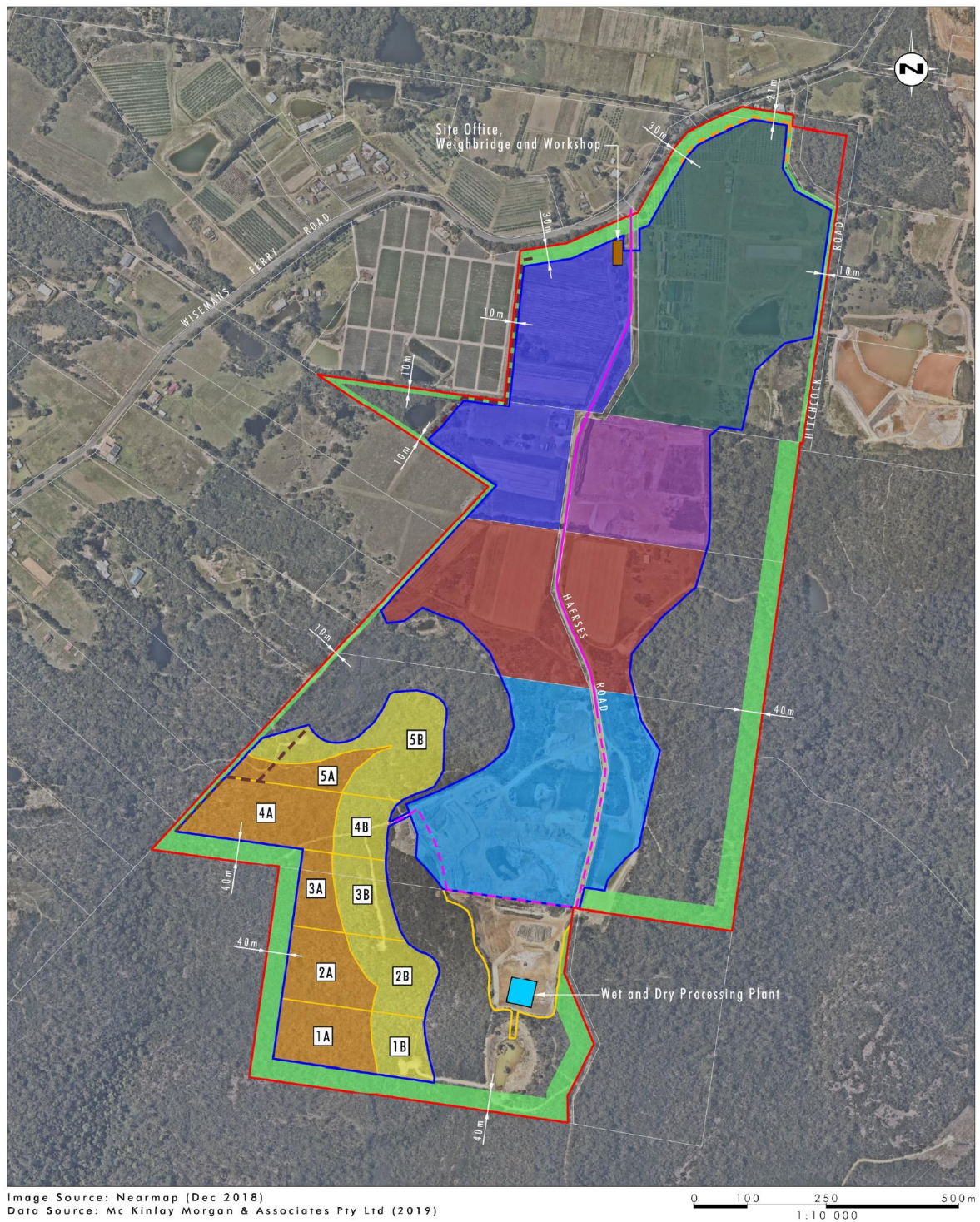
- (a) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies and the CCC;
  - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);
  - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, strategy, plan or program required under the abovementioned approvals; and
  - (f) be conducted and reported to the satisfaction of the Secretary.
14. Within 12 weeks of commencing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Applicant must implement these recommendations, to the satisfaction of the Secretary.

#### **ACCESS TO INFORMATION**

15. Within 3 months of the determination of Modification 1, until the completion of all works, including rehabilitation and remediation the Applicant must:
- (a) make the following information publicly available on its website:
    - the documents listed in condition 2(a) of Schedule 2;
    - current statutory approvals for the development;
    - all approved strategies, plans and programs required under the conditions of this consent;
    - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
    - a complaints register, updated monthly;
    - the annual reviews of the development;
    - any independent environmental audit as described in condition 13 above, and the Applicant's response to the recommendations in any audit; and
    - any other matter required by the Secretary; and
  - (b) keep this information up-to-date, to the satisfaction of the Secretary.



## APPENDIX 1 DEVELOPMENT LAYOUT PLANS



### Legend

- |                                                                                                                                                         |                                                                                                                                                                    |                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <span style="border: 1px solid red; display: inline-block; width: 20px; height: 10px;"></span> Haerses Road Quarry Site                                 | <span style="background-color: #800080; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Tertiary Sands Extraction Area Stage 1 | <span style="border-bottom: 1px dashed orange; display: inline-block; width: 20px;"></span> Proposed Acoustic Bund |
| <span style="border: 1px solid yellow; display: inline-block; width: 20px; height: 10px;"></span> Processing and Stockpiling Area                       | <span style="background-color: #00BFFF; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Tertiary Sands Extraction Area Stage 2 | <span style="border-bottom: 1px solid magenta; display: inline-block; width: 20px;"></span> Sealed Access Road     |
| <span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Buffer Zone                 | <span style="background-color: #FFA500; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Tertiary Sands Extraction Area Stage 3 |                                                                                                                    |
| <span style="border: 1px solid blue; display: inline-block; width: 20px; height: 10px;"></span> Approved Extraction Area                                | <span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Tertiary Sands Extraction Area Stage 4 |                                                                                                                    |
| <span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Sandstone Extraction Area A | <span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Tertiary Sands Extraction Area Stage 5 |                                                                                                                    |
| <span style="background-color: #FFD700; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Sandstone Extraction Area B | <span style="background-color: #800080; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Site Office, Weighbridge and Workshop  |                                                                                                                    |
| <span style="border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Extraction Cell Number                                 | <span style="border-bottom: 1px dashed magenta; display: inline-block; width: 20px;"></span> Indicative Unsealed Haul Road                                         |                                                                                                                    |
| <span style="background-color: #00CED1; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> Wet Processing Plant        | <span style="border-bottom: 1px solid black; display: inline-block; width: 20px;"></span> Approved Acoustic Bund                                                   |                                                                                                                    |

**Approved Quarry**

**Figure 1 – Tertiary Sands and Friable Sandstone Extraction Areas**



## APPENDIX 2 BUFFER ZONES

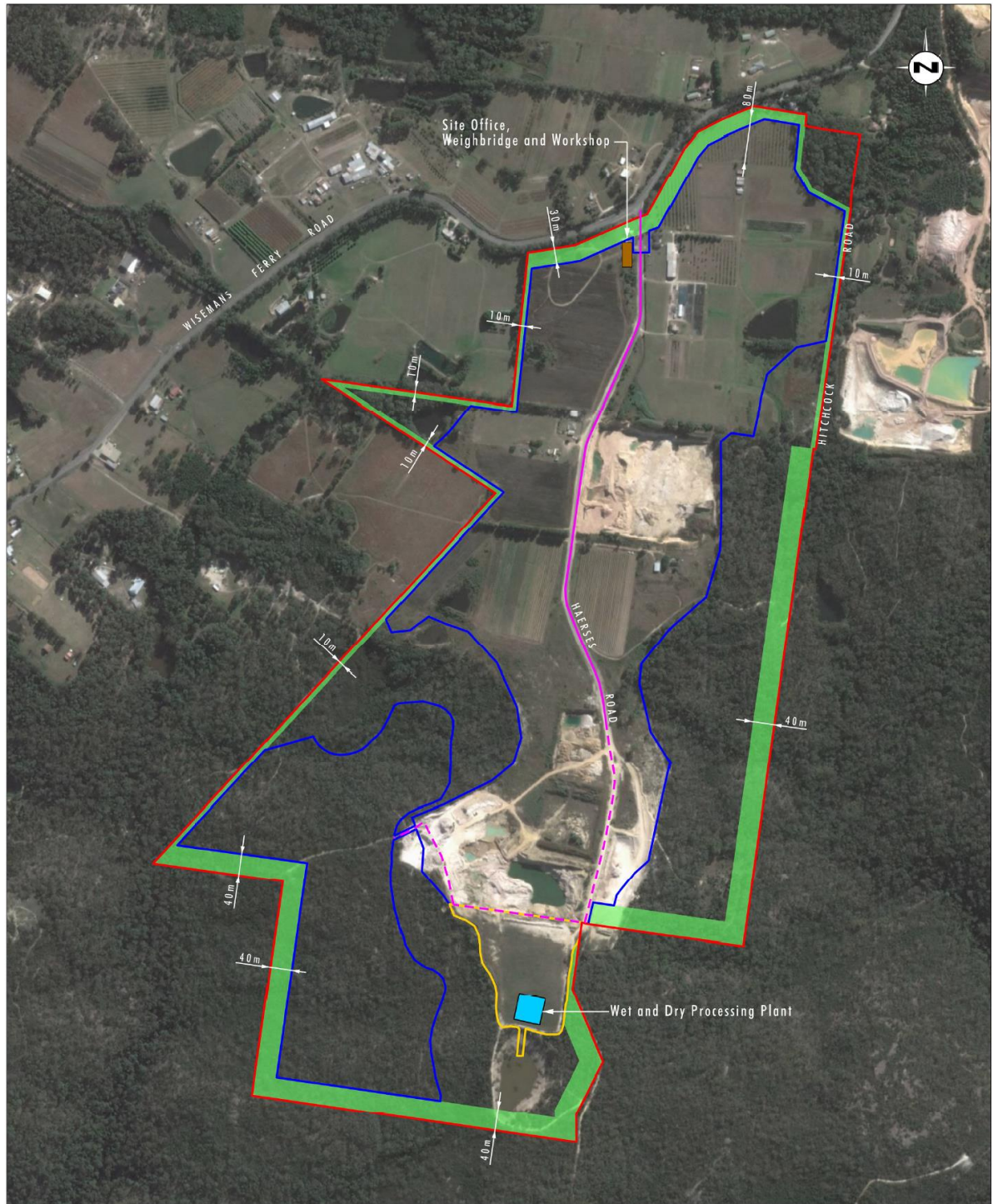


Image Source: Google Earth - DigitalGlobe (May 2016)  
Data Source: Mc Kinlay Morgan & Associates Pty Ltd (2014)

0 100 250 500m  
1:10 000

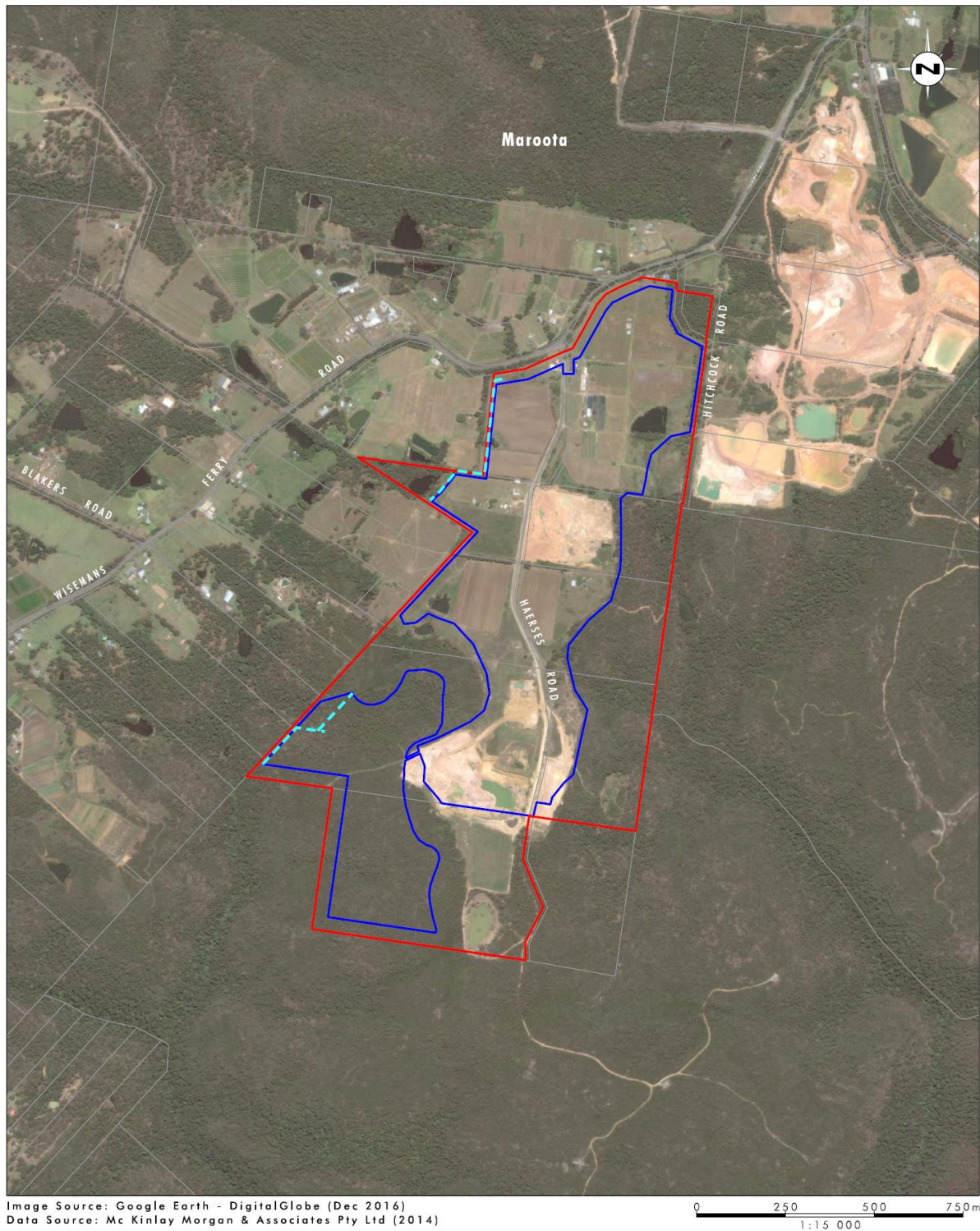
### Legend

- Haerles Road Quarry Site
- Processing and Stockpiling Area
- Buffer Zone
- Approved Extraction Area
- Site Office, Weighbridge and Workshop
- Wet Processing Plant
- Indicative Unsealed Haul Road
- Sealed Access Road

Buffer Zones



### APPENDIX 3 LOCATION OF ACOUSTIC BUNDS



#### Legend

- Haereses Road Quarry Site
- Approved Extraction Area
- - - Acoustic Bund

Acoustic Bunds



# APPENDIX 4 BIODIVERSITY OFFSET STRATEGY

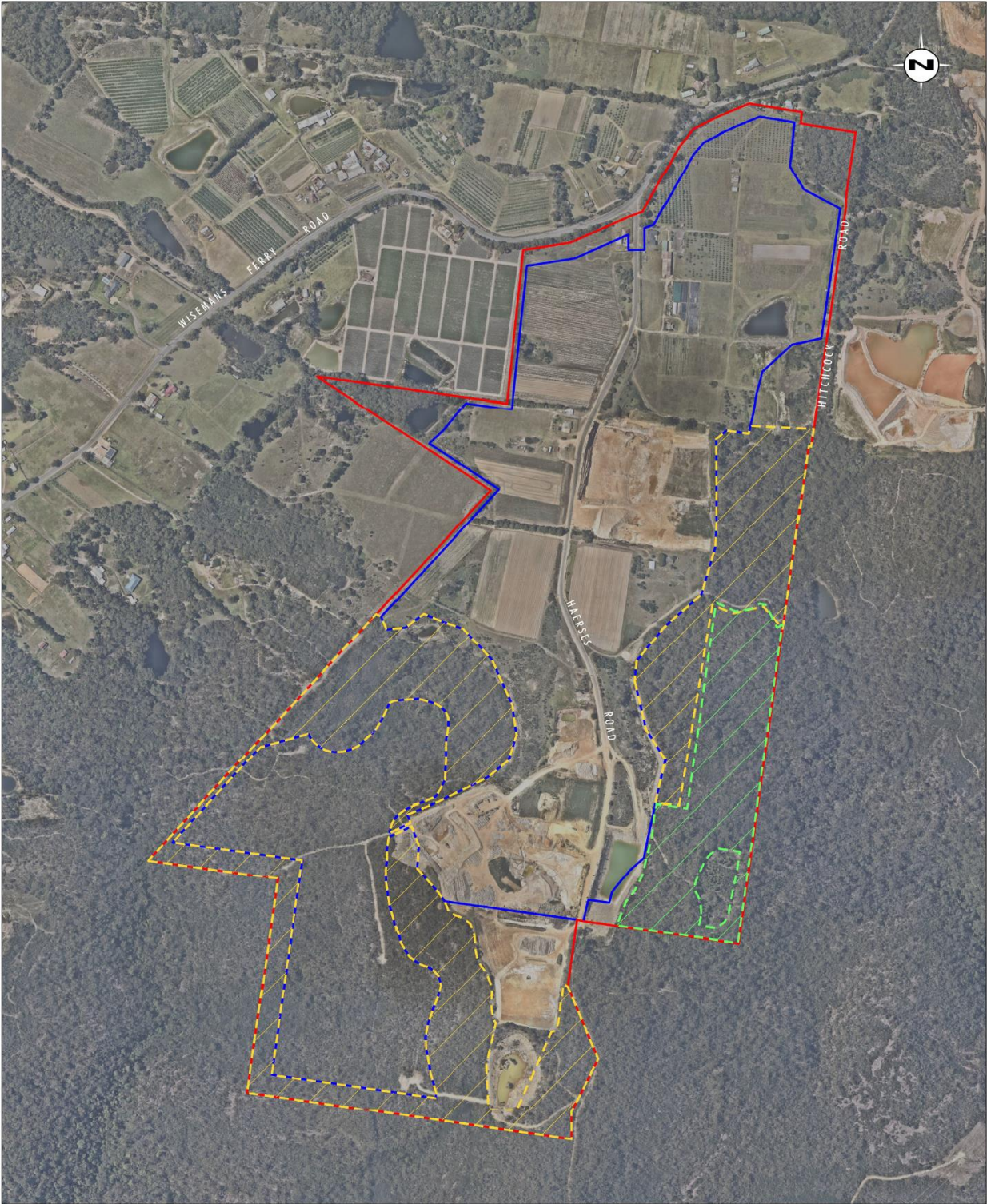


Image Source: Nearmap (Dec 2018)  
 Data Source: Mc Kinlay Morgan & Associates Pty Ltd (2019)

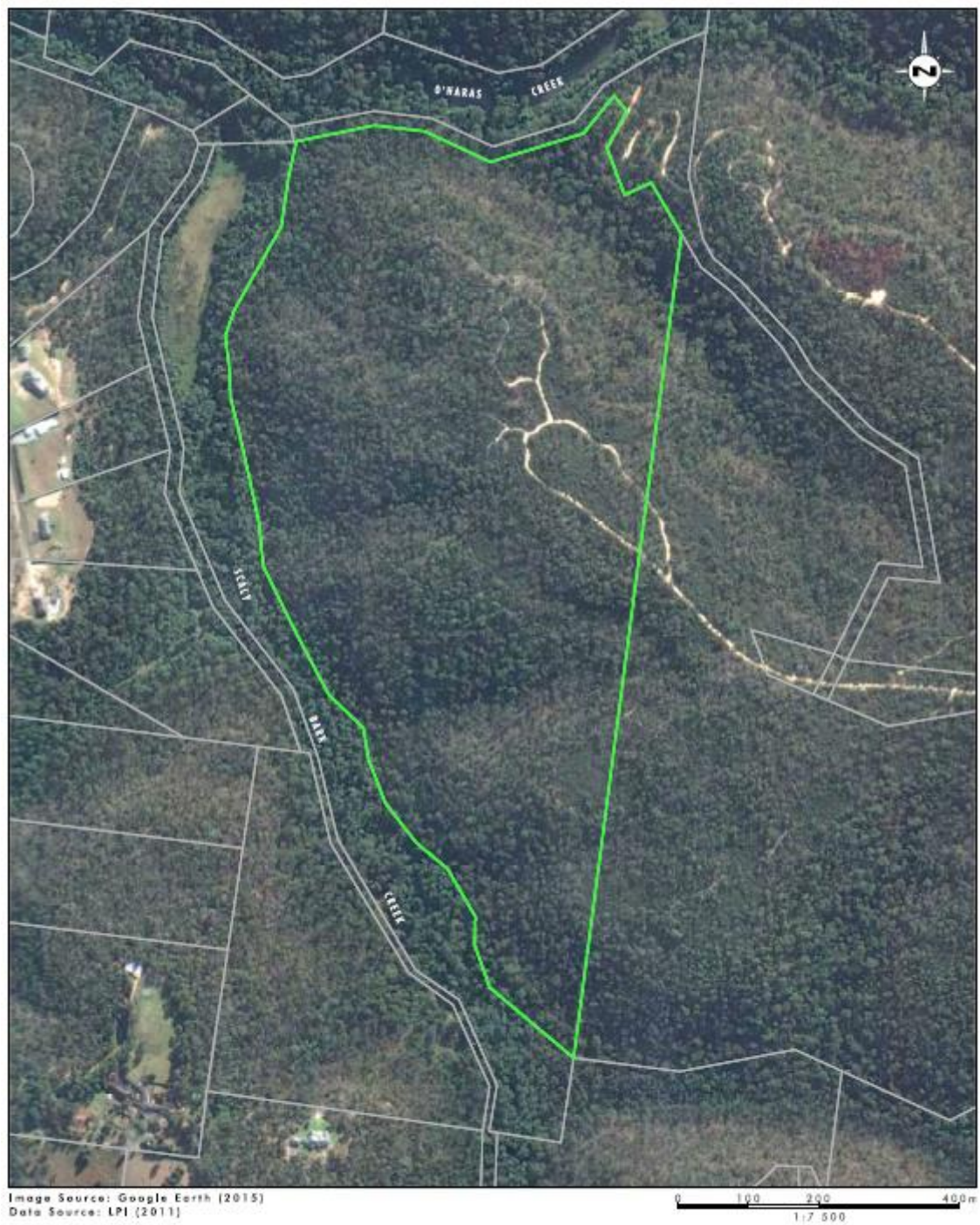
0 100 250 500m  
 1:10 000

- Legend**
- Haerses Road Quarry Site
  - Approved Extraction Area
  - Biodiversity Offset Area for Old Northern Road Quarry
  - Biodiversity Offset Area for Haerses Road Quarry

Biodiversity Offset Areas

Figure 1– Haerses Road Offset Area





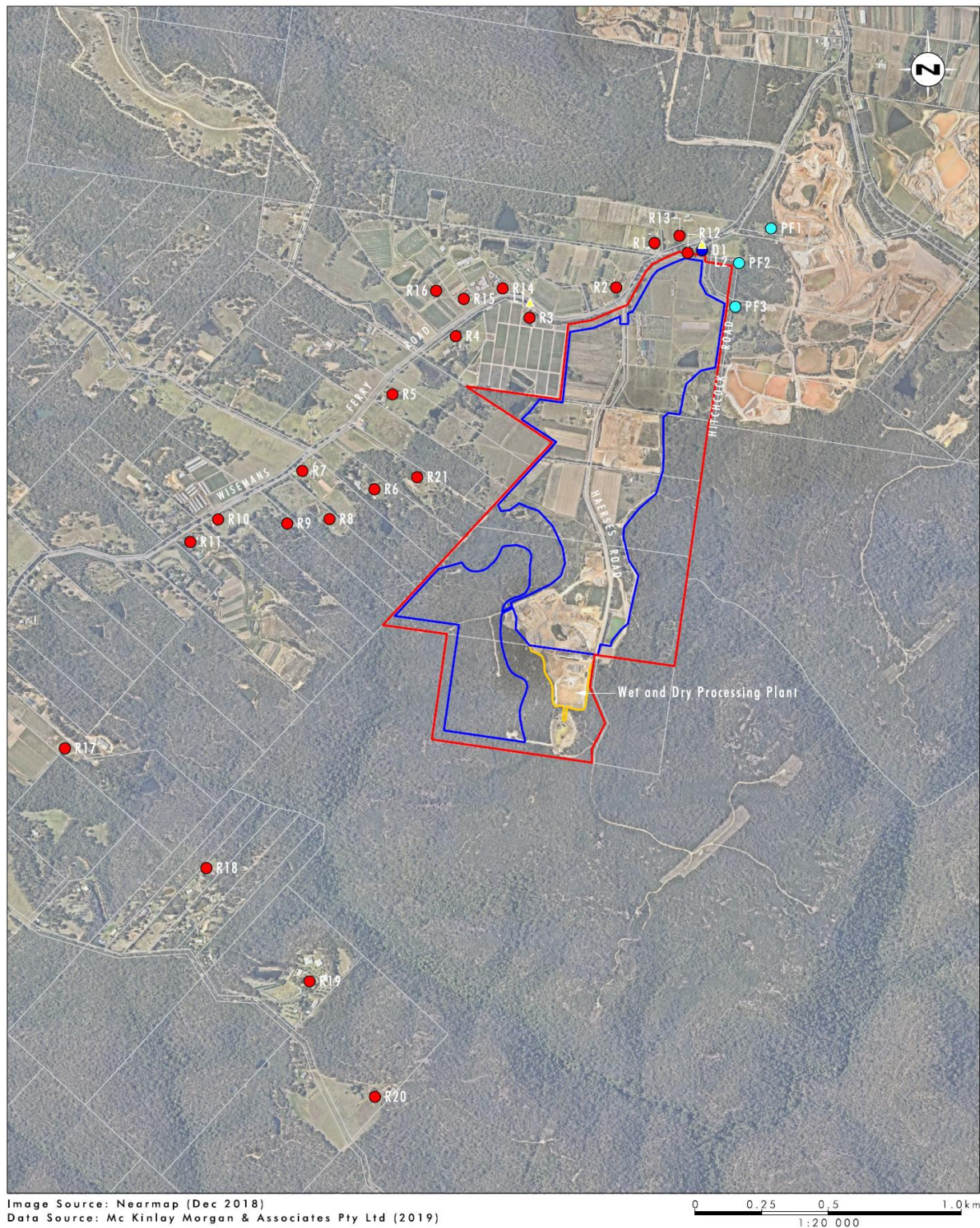
**Legend**  
 Proposed Porters Road BioBank Site

Porters Road BioBank Site

**Figure 2– Porters Road Offset Area**



## APPENDIX 5 RECEIVER LOCATIONS



### Legend

- Haerxes Road Quarry Site
- Approved Extraction Area
- Processing and Stockpiling Area

- ★ Noise Logging Locations
- Noise Receiver Locations
  - Residential
  - Owned by Dixon Sand
  - Owned by PF Formation

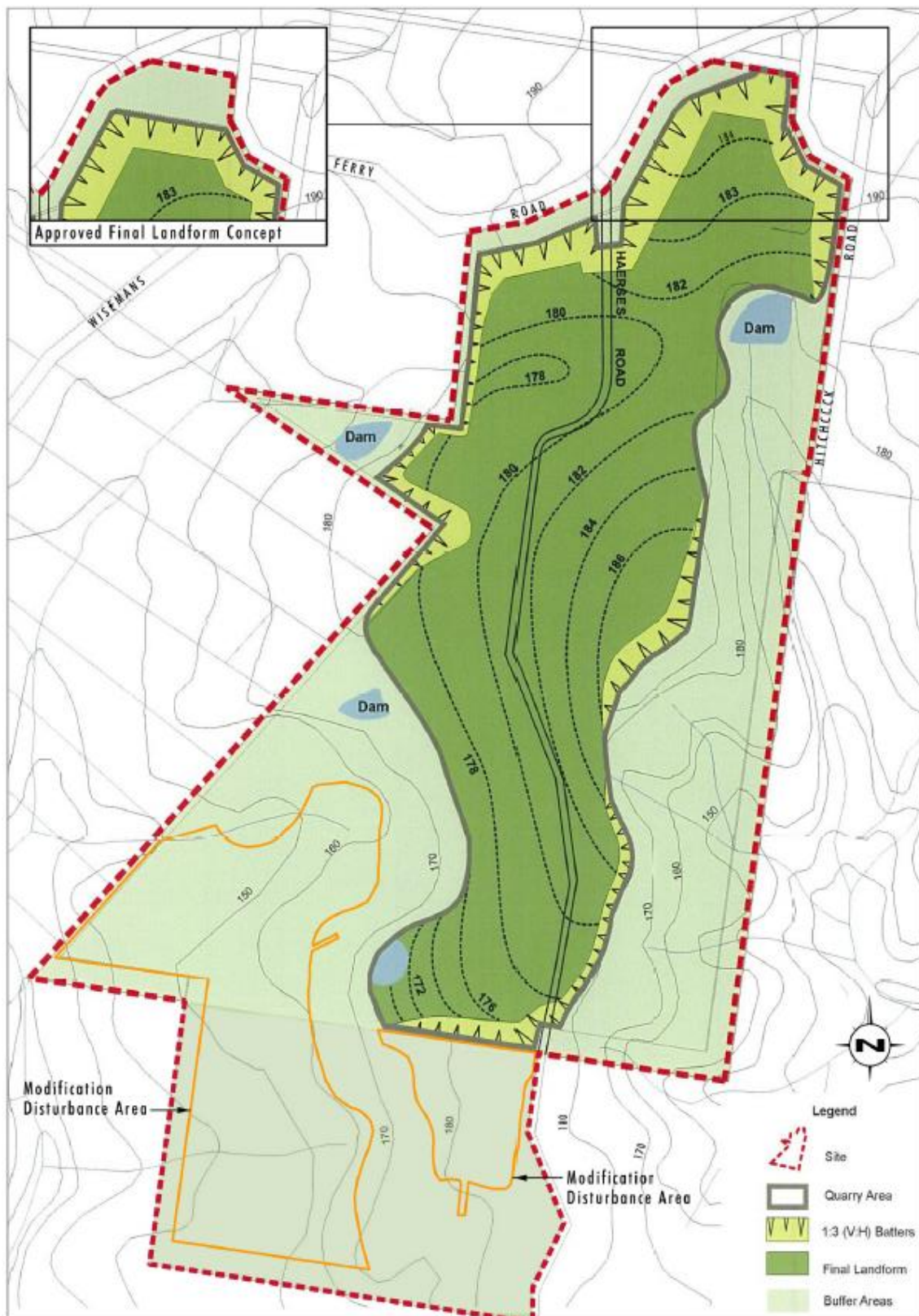
FIGURE 3.1

Background Noise Logging and  
Noise Receiver Locations

*Figure 1 – Residential Receiver Locations*



## APPENDIX 6 FINAL LANDFORM



# Appendix 3

## EPL 12513 and EPBC 2015/7608



# Environment Protection Licence

Licence - 12513

<b><u>Licence Details</u></b>	
Number:	12513
Anniversary Date:	25-July

<b><u>Licensee</u></b>
DIXON SAND PTY LTD
PO BOX 4019
PITT TOWN NSW 2756

<b><u>Premises</u></b>
DIXON SAND PTY LTD
HAERSES ROAD AND INTERSECTION OF WISEMANS FERRY ROAD
MARROOTA NSW 2756

<b><u>Scheduled Activity</u></b>
Crushing, grinding or separating
Extractive activities

<b><u>Fee Based Activity</u></b>	<b><u>Scale</u></b>
Crushing, grinding or separating	> 100000-500000 T annual processing capacity
Extractive activities	> 100000-500000 T annual capacity to extract or process

<b><u>Region</u></b>
Metropolitan - Sydney Industry
Level 13, 10 Valentine Ave
PARRAMATTA NSW 2150
Phone: (02) 9995 5000
Fax: (02) 9995 6900
PO Box 668
PARRAMATTA NSW 2124

# Environment Protection Licence

Licence - 12513



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# Environment Protection Licence

Licence - 12513



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# Environment Protection Licence

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Licence - 12513



## Information about this licence

### Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

### Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

### Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

### Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

### Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

### Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).



# Environment Protection Licence

Licence - 12513



The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

### Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

### Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

### This licence is issued to:

DIXON SAND PTY LTD
PO BOX 4019
PITT TOWN NSW 2756

subject to the conditions which follow.

# Environment Protection Licence

Licence - 12513

## 1 Administrative Conditions

### A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Crushing, grinding or separating	Crushing, grinding or separating	> 100000 - 500000 T annual processing capacity
Extractive activities	Extractive activities	> 100000 - 500000 T annual capacity to extract or process

### A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
DIXON SAND PTY LTD
HAERSES ROAD AND INTERSECTION OF WISEMANS FERRY ROAD
MARROOTA
NSW 2756
LOT A DP 407341, LOT B DP 407341, LOT 170 DP 664766, LOT 170 DP 664767, LOT 176 DP 752039, LOT 177 DP 752039, LOT 216 DP 752039

### A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
Receipt and processing of VENM and ENM

### A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

# Environment Protection Licence

Licence - 12513

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

## 2 Discharges to Air and Water and Applications to Land

### P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

<i>Air</i>			
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Ambient air monitoring		Ambient air monitoring site location near the Maroota Public School as marked in "Figure 1.3 - Existing and Proposed Development" provided 30 November 2004.
3	Ambient air monitoring		Dust deposition gauge located on the site between Stage 4 works and the west dam on the site near Stage 4 works

P1.2 The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.

<i>Noise/Weather</i>		
EPA identification no.	Type of monitoring point	Location description
2	Meteorological Station	Meteorological station near Maroota Public School as marked in "Figure 1.3 - Existing and Proposed Development" provided to the DEC (by Fax) on 30 November 2004

## 3 Limit Conditions

### L1 Pollution of waters

# Environment Protection Licence

Licence - 12513

- L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

## L2 Waste

- L2.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	Waste	Waste received must be VENM or ENM that meets all the conditions of a resource recovery order (made under clause 93 of the POEO (Waste) Regulation 2019) at the time it is received.	-	No more than 100,000 tonnes of VENM and ENM in total, can be received at the premises in any calendar year.

- L2.2 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal of any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

## L3 Noise limits

- L3.1 Noise generated at the premises must not exceed the noise limits presented in the table below. Note that the noise limits represent the noise contribution from the Haerses Road sand quarry site at Maroota.

Receiver	Location	Day	Shoulder (6am to 7am)	Shoulder (6am to 7am)
		LAeq(15 minutes)	LAeq(15 minutes)	LA(max)
R1	1725 Wisemans Ferry Road	37	37	45
R2	1700 Wisemans Ferry Road	40	40	45
R3	1643 Wisemans Ferry Road	38	38	45

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R4	1617 Wisemans Ferry Road	37	37	45
R6	1543 Wisemans Ferry Road	37	35	45
R7	1539 Wisemans Ferry Road	36	35	45
R8	1521 Wisemans Ferry Road	36	35	45
All other residences on privately owned land		35	35	45

## L3.2 For the purpose of condition L3.1

- Day is defined as the period from 7am to 6pm Sunday and Public Holidays.
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.

## L3.3 Noise from the premises is to be measured at the most affected point or within the residential boundary or the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary to determine compliance with the $L_{Aeq(15 \text{ minutes})}$ noise limit in condition L3.1.

Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternate means of determining compliance. See relevant chapter of NSW Noise Policy for Industry.

The modification factors presented in Fact Sheet C of the NSW Noise Policy for Industry must also be applied to the measured noise levels where applicable.

### Definition:

$L_{A10(15 \text{ minutes})}$  is the sound pressure level that is exceeded for 10% of the time when measured over a 15 minute period.

### Note: Noise measurement

For the purpose of noise measures required for this condition, the  $L_{A10}$  noise level must be measured or computed at any point specified in the table above over a period of 15 minutes using "FAST" response on the sound level meter.

For the purpose of the noise criteria for this condition, 5dBA must be added to the measures level if the noise is substantially tonal or impulsive in character. The location or point of impact can be different for each development. Measurement locations can be:

- 1 metre from the façade of the residence for night time assessment;
- at the residential boundary, 30 metres from the residence (rural situations) where boundary is more than 30 metres from residence.

## L3.4 Noise from the premises is to be measured at 1 metre from the dwelling façade to determine compliance with the $L_{A(max)}$ noise level in condition L3.1.

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- L3.5 The noise emission limits identified in condition L3.1 apply under all meteorological conditions (wind speed up to 3m/s at 10 metres above ground level, except under conditions of temperature inversions must be addressed by:
- Documenting noise complaints received to identify any higher level of impacts or patterns of temperature inversions; and
  - Where levels of noise complaints indicate a higher level of impact then actions to quantify and ameliorate any enhanced impacts under temperature inversions conditions should be developed and implemented.
- L3.6 Activities at the premises, other than construction work, may only be carried out between 0600 hours and 1800 hours Monday to Saturday, and at no time on Sundays and Public Holidays.
- L3.7 This condition does not apply to the delivery of material outside the hours of operation permitted by condition L3.6, if that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.
- L3.8 The hours of operation specified in conditions L3.6 may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

## L4 Potentially offensive odour

- L4.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

## 4 Operating Conditions

### O1 Activities must be carried out in a competent manner

- O1.1 Licensed activities must be carried out in a competent manner.
- This includes:
- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
  - b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

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## O2 Maintenance of plant and equipment

- O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
- must be maintained in a proper and efficient condition; and
  - must be operated in a proper and efficient manner.

## O3 Dust

- O3.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.
- O3.2 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.
- O3.3 The licensee must maintain and operate a continuous dust monitoring device at monitoring Point 1 identified in condition P1.1. The device must be fitted with an automatic alarm system alerting quarry managers once the trigger value for PM10 (42µg/m<sup>3</sup>) is reached.
- O3.4 Dust deposition gauges installed at the site must be operated and maintained in accordance with the current Australian Standard: *Ambient air - Particulate matter Determination of deposited matter expressed as insoluble solids, ash, combustible matter, soluble solids and total solids for deposition gauges*.
- O3.5 The licensee must operate and maintain a continuous automatic meteorological station at monitoring Point 2 identified in condition P1.2 of the licence according to the requirements of the current Australian Standard: *Ambient air - Guide for measurement of horizontal wind for air quality applications*.
- Wind monitoring components of the meteorological station must be interfaced with the continuous dust monitoring device identified in condition P1.1.
- O3.6 The licensee must ensure that dust generated by the development does not cause any additional exceedances of the air quality impact assessment criteria listed in the table below at any residence on any privately owned land, listed in condition L3.1.

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

Pollutant	Averaging period	Reference Condition	Criterion
Total suspended particulate (TSP)	Annual	Long term	90 ug/m <sup>3</sup>
Particulate matter <10 µm (PM10)	Annual	Long term	30 ug/m <sup>3</sup>
Particulate matter <10 µm (PM10)	24 hour	Short term	50 ug/m <sup>3</sup>

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Deposited dust	Annual	Long term	4g/m2/month (max total) 2g/m2/month (max increase)
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## O4 Processes and management

O4.1 A Site Water Management Plan (SWMP) must be implemented at the premises. The plan must include a Soil and Water Management Plan, a Stormwater Management Scheme and a Groundwater Monitoring Program.

O4.2 The Soil and Water Management Plan must:

a) describe what measures will be implemented to minimise soil erosion, and the discharge of sediment and other pollutants, during each stage of the development including:

- i) road and intersection works;
- ii) initial clearing and topsoil stripping;
- iii) extraction; and
- iv) noise bund construction.

b) include control measures that have the capacity to contain rainfall and stormwater runoff generated from a 90th percentile, 5 day rainfall event for the life of the development.

O4.3 The Groundwater Monitoring Program must:

- a) describe what measures would be put in place to establish wet weather groundwater levels at the premises;
- b) monitor any potential adverse impacts of the development on groundwater levels and quality;
- c) detail contingency measures that would be put in place in the event that groundwater is breached and/or contaminated.

The SWMP should be prepared in accordance with the requirements of *Managing Urban Stormwater Soil and Construction* Latest Edition.

O4.4 The Stormwater Management Scheme mentioned in condition O4.1 must mitigate the impacts of stormwater run-off from and within the premises at all times. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in the latest edition of Landcom's Manual titled *"Managing Urban Stormwater Soil and Construction Volume 1"*.

O4.5 The licensee must construct and maintain sediment dams for every stage of the extraction area for the life of the quarry. Sediment dams must be in place prior to any extraction taking place in the respective strip of each stage and must be designed and constructed in accordance with the most recent edition of *Managing Urban Stormwater Soil and Construction*.

Notwithstanding the above, the dams must have sufficient capacity to contain rainfall and runoff generated from a 90th percentile, five day rainfall event ("the design event") for the life of the quarry.

O4.6 If mud, sediment or other raw materials are found to be tracked off the premises the Company must install, operate and maintain on the premises an automatic wheel wash or similar facility that will be capable of washing the underside of vehicles, wheels, wheel arches and axles of all vehicles leaving the premises. In addition to this, appropriate measures must be put in place that ensures that all vehicles



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leaving premises must go through the wheel wash facility.

O4.7 The entrance to the premises must be maintained in a sealed state.

O4.8 The sealed access road to the premises must be kept free of dust, sediment and other raw materials at all times.

O4.9 The licensee must prevent any tracking of mud on public roads by vehicles leaving the premises.

## O5 Waste management

O5.1 No more than 100,000 tonnes of VENM and ENM in total, can be received at the premises in any calendar year.

Note: ENM may be received at the premises, as per this condition, provided it meets the conditions of a resource recovery order at the time it is received.

## 5 Monitoring and Recording Conditions

### M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:

- a) in a legible form, or in a form that can readily be reduced to a legible form;
- b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

- a) the date(s) on which the sample was taken;
- b) the time(s) at which the sample was collected;
- c) the point at which the sample was taken; and
- d) the name of the person who collected the sample.

M1.4 The licensee must keep in an electronic format the following records for monitoring Point 1 identified in licence condition P1.1:

- (a) each 15 minute PM10 result;
- (b) each rolling 24-hour average PM10 results (15 minutes);
- (c) each daily 24-hour average PM10 result (midnight to midnight); and
- (d) the rolling annual average PM10 result (each day, midnight to midnight, and over the total number of days of monitoring since monitoring began for first year of monitoring only).

M1.5 The licensee must keep in an electronic format the following records for Point 2 identified in licence condition P1.2: each 15 minute, 1 hour and 24 hour result as indicated in the table at condition M4.1.

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## M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

### M2.2 Air Monitoring Requirements

#### POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	Australian Standard 3580.9.8 - 2001

- M2.3 If any rolling 24-hour average PM10 result measured at Point 1 in licence condition M2.2 is found to be greater than 42 µg/m<sup>3</sup> and the prevailing wind at the site is between 180 and 240 degrees as measured at Point 2:
- i) the licensee must take immediate action to reduce its PM10 emissions;
  - ii) the licensee must immediately notify the EPA Manager Sydney Industry;
  - iii) if the dust level does not return to below 42 µg/m<sup>3</sup> within 1 hour then all dust generating activity on site must stop; and,
  - iv) dust generating activity may only recommence when the rolling 24-hour average PM10 result measured at Point 1 is less than 42 µg/m<sup>3</sup> for four consecutive 15-minute periods.
- M2.4 A comprehensive written action plan must be developed and implemented to ensure compliance with condition M2.3.

## M3 Testing methods - concentration limits

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2010* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

- M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
- a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
  - b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
  - c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

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## M4 Weather monitoring

- M4.1 At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.

### POINT 2

Parameter	Sampling method	Units of measure	Averaging period	Frequency
Temperature at 10 metres	AM-4	degrees Celsius	1 hour	Continuous
Wind Direction at 10 metres	AM-2 & AM-4	-	15 minutes	Continuous
Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous
Sigma Theta	AM-2 & AM-4	-	15 minutes	Continuous
Rainfall	AM-4	millimetres	24 hours	Continuous

## M5 Recording of pollution complaints

- M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M5.2 The record must include details of the following:
- a) the date and time of the complaint;
  - b) the method by which the complaint was made;
  - c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
  - d) the nature of the complaint;
  - e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
  - f) if no action was taken by the licensee, the reasons why no action was taken.
- M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

## M6 Telephone complaints line

- M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of

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receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M6.3 The preceding two conditions do not apply until 3 months after the date of the issue of this licence.

## 6 Reporting Conditions

### R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

R1.3 Where this licence is transferred from the licensee to a new licensee:

- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

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R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a) the licence holder; or
- b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

## R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

## R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

- a) where this licence applies to premises, an event has occurred at the premises; or
- b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
- d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and

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g) any other relevant matters.

- R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

## 7 General Conditions

### G1 Copy of licence kept at the premises or plant

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

### G2 Other general conditions

- G2.1 A community environment liaison committee must be maintained, comprising representatives of the community and the applicant, that will meet at least every 6 months. Discussion at the meetings must include implementation of the development consent and other statutory approvals, and provide adequate time for the community to raise matters of concern associated with the environmental impacts of the operation, with a view to achieving mutually satisfactory solutions.

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## Dictionary

### General Dictionary

<b>3DGM [in relation to a concentration limit]</b>	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
<b>Act</b>	Means the Protection of the Environment Operations Act 1997
<b>activity</b>	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
<b>actual load</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>AM</b>	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>AMG</b>	Australian Map Grid
<b>anniversary date</b>	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>annual return</b>	Is defined in R1.1
<b>Approved Methods Publication</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>assessable pollutants</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>BOD</b>	Means biochemical oxygen demand
<b>CEM</b>	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
<b>COD</b>	Means chemical oxygen demand
<b>composite sample</b>	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
<b>cond.</b>	Means conductivity
<b>environment</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>environment protection legislation</b>	Has the same meaning as in the Protection of the Environment Administration Act 1991
<b>EPA</b>	Means Environment Protection Authority of New South Wales.
<b>fee-based activity classification</b>	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
<b>general solid waste (non-putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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<b>flow weighted composite sample</b>	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
<b>general solid waste (putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>grab sample</b>	Means a single sample taken at a point at a single time
<b>hazardous waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>licensee</b>	Means the licence holder described at the front of this licence
<b>load calculation protocol</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>local authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>material harm</b>	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
<b>MBAS</b>	Means methylene blue active substances
<b>Minister</b>	Means the Minister administering the Protection of the Environment Operations Act 1997
<b>mobile plant</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>motor vehicle</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>O&amp;G</b>	Means oil and grease
<b>percentile [in relation to a concentration limit of a sample]</b>	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
<b>plant</b>	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
<b>pollution of waters [or water pollution]</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>premises</b>	Means the premises described in condition A2.1
<b>public authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>regional office</b>	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
<b>reporting period</b>	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
<b>restricted solid waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>scheduled activity</b>	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
<b>special waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>TM</b>	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .



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<b>TSP</b>	Means total suspended particles
<b>TSS</b>	Means total suspended solids
<b>Type 1 substance</b>	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
<b>Type 2 substance</b>	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
<b>utilisation area</b>	Means any area shown as a utilisation area on a map submitted with the application for this licence
<b>waste</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>waste type</b>	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Mr Kieran Horkan

Environment Protection Authority

(By Delegation)

Date of this edition: 25-July-2006

End Notes	
1	Licence varied by updating references to the Clean Air Reg, issued on 12-Sep-2006, which came into effect on 12-Sep-2006.
2	Licence varied by Change to schedule 1, issued on 07-May-2008, which came into effect on 07-May-2008.
3	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
4	Licence varied by notice 1550965 issued on 11-Mar-2019
5	Licence varied by notice 1580892 issued on 05-Feb-2020

**Approval****Haerses Road Quarry Extension, Maroota, New South Wales (EPBC 2015/7608)**

This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

**Proposed action**

**person to whom the approval is granted** Dixon Sand (Penrith) Pty Ltd

**proponent's ACN (if applicable)** 002 278 686

**proposed action** To expand the existing Haerses Road Quarry, a sand extraction facility, located at Maroota, New South Wales [See EPBC Act referral 2015/7608].

**Approval decision**

Controlling Provision	Decision
Listed threatened species and communities (sections 18 & 18A)	Approved

**conditions of approval**

This approval is subject to the conditions specified below.

**expiry date of approval**

This approval has effect until 14 February 2046.

**Decision-maker****name and position**

Kim Farrant  
Assistant Secretary  
Assessments and Waste Branch

**signature****date of decision**

6.8.18

## Conditions attached to the approval

1. To minimise the impacts of the approved action on **EPBC Act** listed *Darwinia biflora*, the approval holder must not clear more than 17.82 hectares (ha) at the approved action site in accordance with Attachment 1.
2. To minimise the impacts of the approved action on **EPBC Act** listed Coastal Upland Swamps in the Sydney Basin Bioregion, the approval holder must not clear more than 0.08 hectares (ha) at the approved action site in accordance with Attachment 1.
3. To minimise the impacts of the approved action on **EPBC Act** listed Dural Land Snail habitat, the approval holder must not clear more than 2.99 hectares (ha) at the approved action site in accordance with Attachment 2.
4. For the protection of **listed threatened species and communities**, the approval holder must comply with the following conditions of the **NSW conditions of consent**, where those conditions relate to avoiding, mitigating, offsetting, managing, recording or reporting on impacts to **listed threatened species and communities** (See Attachment 3 for **NSW conditions of consent** in full). The approval holder must inform the **Department** within 10 days of any changes to the **NSW conditions of consent**:

Schedule	Condition	Subject
<b>Administrative conditions</b>		
2	2	Requirement to undertake the action generally in accordance with the <b>Environmental Impact Statement</b> for the facility and the <b>Environmental Assessment</b> for the proposed action and the <b>NSW conditions of consent</b> .
<b>Biodiversity and rehabilitation</b>		
3	30	Requirement to retire 3 ecosystem credits (for Coastal Upland Swamps in the Sydney Basin Bioregion), 360 species credits for <i>Darwinia biflora</i> and 98 species credits for the Dural Land Snail ( <i>Pommerhelix duralensis</i> ) prior to commencing vegetation clearing within the extraction area, except the minimum clearing required to comply with condition 16 of Schedule 3.
	31	Requirement to retire 132 species credits for the Dural Land Snail prior to commencing any vegetation clearing in extraction cells 1B, 2B or 3B as shown in Attachment 2, except the minimum clearing required to comply with condition 16 of schedule 3
	33	Requirement to apply the approval holder's Biodiversity Offset Strategy (Attachment 3, Appendix 4) or with the agreement of NSW Department of Planning and Environment may use other land or alternate mechanisms permitted

		under the <i>Framework for Biodiversity Assessment: NSW Biodiversity Offsets Policy for Major Projects</i> .
	35	Requirement to rehabilitate the site progressively as soon as reasonably practicable following disturbance. Implement measures to minimise the total area exposed for dust generation at any time. Implement interim stabilisation measures to control dust emissions from disturbed areas which are not active or ready for rehabilitation.
	36	Requirement to prepare and implement an approved Biodiversity and Rehabilitation Management Plan (BRMP). The BRMP must be approved by the NSW Department of Environment and Planning and the final approved copy provided to the <b>Department</b> . The approved BRMP must be implemented.

5. Within 20 business days after the **commencement** of the action, the approval holder must advise the **Department** in writing of the actual date of **commencement**.
6. The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the Biodiversity Offset Strategy (Attachment 3, Appendix 4) and Biodiversity and Rehabilitation Management Plan required by this approval, and make them available upon request to the **Department**. Such records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **Department's** website. The results of audits may also be publicised through the general media.
7. Within three (3) months of every 12 month anniversary of the **commencement** of the action, the approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. The approval holder must notify the Department within 7 days of any actual or potential non-compliance with the conditions of this approval. Documentary evidence providing proof of the date of publication of the compliance report and non-compliance with any of the conditions of this approval must be provided to the **Department** at the same time as the compliance report is published. Reports must remain published for the life of the approval. The approval holder must continue to publish reports until advised by the **Minister** in writing.
8. Upon the direction of the **Minister**, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.
9. If, at any time after five (5) years from the date of this approval, the person taking the action has not **commenced** the action, then the person taking the action must not **commence** the action without the written agreement of the **Minister**.



10. Unless otherwise agreed to in writing by the **Minister**, the person taking the action must publish all management plans and strategies referred to in these conditions of approval on their website. This includes documents required indirectly through the **NSW conditions of consent**. Documents must remain published for the life of the approval.

## Definitions

**Commencement** (also commence/commenced the action etc.) is the first instance of an activity described as part of the proposed action, excluding the erection of fences and signage.

**Department** is the Australian Government department responsible for the administration of the **EPBC Act**.

**Environmental Assessment:** Umwelt, September 2016. Haerses Road Quarry Extraction Area Modification, Environmental Assessment, Final.

**Environmental Impact Statement:** ERM, 2005. Proposed Sand Quarry at Haerses Road Maroota – Environmental Impact Statement.

**EPBC Act** is the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

**Listed threatened species and communities** are flora and fauna species and ecological communities that are listed under the EPBC Act that may be impacted by the proposed action, including Coastal Upland Swamps in the Sydney Basin Bioregion, *Darwinia biflora* and Dural Land Snail.

**The Minister** is the Australian Government minister responsible for administering the **EPBC Act**, and includes a delegate of **the Minister**.

**NSW conditions of consent** is the document at Attachment 3 recording the final approval for the Haerses Road Sand Quarry expansion by the delegate of the Minister for Planning, dated 22 January 2018 and titled 'Notice of Modification, Section 75W of the *Environmental Planning and Assessment Act 1979*'.

Attachment 1: Extent of *Darwinia biflora* and Coastal Upland Swamp in the Sydney Basin Bioregion to be removed at the approved action site (within orange development site boundary) (Figure provided by Umwelt May 2, 2018)



#### Legend

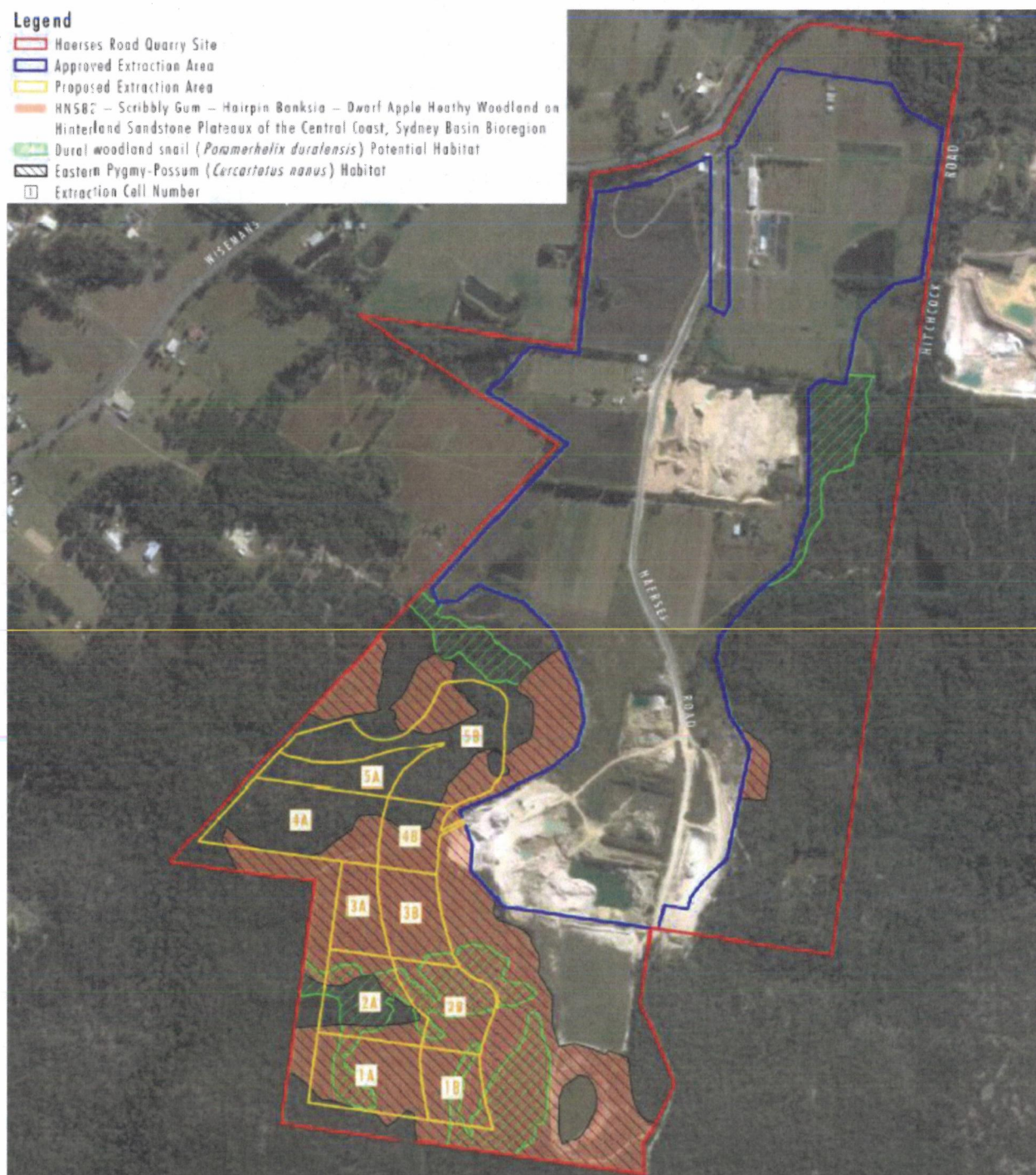
- Development Site
- Modification Area
- Coastal Upland Swamp in the Sydney Basin Bioregion EEC
- Darwinia biflora* Habitat

FIGURE 2.31

*Darwinia biflora* Habitat and Coastal Upland Swamps  
in the Sydney Basin Bioregion EEC within the Development Site  
and Modification Area



Attachment 2: Extent of Dural Land Snail habitat to be removed at the approved action site (green shaded areas within yellow proposed extraction area boundary) (Figure 5 from NSW State Assessment Report)



## Attachment 3: NSW Conditions of Consent





# Appendix 4

## Pollution Incident Response Management Plan

# **Pollution Incident Response Management Plan**

## **Haerses Road Quarry, Maroota**

Version	Revision Date	Revision Details	Prepared by	Approved by
1.0	16/03/18	PIRMP first issued (previously combined with the Old Northern Road Quarry PIRMP)	H.C.	D.D.
2.0	15/03/19	Reviewed pollution inventory and risk assessment. Revised Section 6.0 to include DS-OHS-140-F1. Revised company name change. Amended relevant Code of Practice. Inserted Roles and Responsibilities	H.C.	D.D.
3.0	13/03/20	Review of roles, contact numbers and update of sections 7	H.C. / R.R. / M.M. / B.G.	D.D.
4.0	25/03/2021	Update document in line with Guideline: Pollution Incident Response Management Plan (EPA, March 2020), Pollution Inventory and Site Plans. Additional sections have been added to the document including: Section 3 Environment Protection License details, Section 10 Incident Notification. Authorities contact details and pollutant register have been reviewed and revised.	H.C. / R.R. / B.G.	D.D.

# Pollution Incident Response Management Plan

## Haerses Road Quarry, Maroota

### 1.0 Purpose

This Pollution Incident Response Management Plan (PIRMP) has been prepared, to address the requirements of the *Protection of the Environment Operations Act 1997*, specifically Part 5.7A of the Act, and to ensure compliance with Dixon Sand Environment Protection Licence # 12513, Development Consent DA 165-7-2005, legal and other requirements.

The purpose of the PIRMP is to ensure that pollution incidents and impacts which have the potential to occur during activities associated with the operation of the Haerses Road Quarry, Maroota, are prevented or minimised so that no significant harm occurs to human health and the environment. This plan provides details of management procedures to be implemented in the event of a pollution incident.

For the purpose of this plan, a pollution incident is defined by the NSW Environment Protection Authority (EPA) as:

*'an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.'*

If a pollution incident occurs, it is the duty of the premises to notify the incident if it causes or threatens 'Material Harm' to the environment, which is defined under the *POEO Act* as:

a) **Material harm** to the environment is:

- I. the actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
- II. actual or potential **Loss** or property damage of an amount, or amounts in aggregate, exceeding \$10,000. **Loss** includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

b) **Harm** to the environment includes:

*'any direct or indirect alteration of the environment that has the effect of degrading the environment and, without limiting the generality of the above, includes any act or omission that results in pollution.'*

This Plan further describes how materials are to be handled and stored on site in accordance with applicable Safety and Environmental Legislation.

A written copy of this plan is to be kept at the Haerses Road Quarry, Maroota and be made available on request by an authorised NSW EPA Officer and to any person who is responsible for implementing this plan.

## 2.0 Scope

The scope of this management plan is to provide:

- Procedures to be followed by the licence holder or occupier of the premises in notifying pollution incidents to appropriate personnel, authorities, and regulatory bodies
- A description of the action to be taken, immediately after a pollution incident by the licence holder to reduce or control any pollution
- Procedures to be followed for co-ordinating any action taken in combating the pollution caused by the incident (with appropriate personnel, authorities, and regulatory bodies), and the communication pathways that need to be utilised in order to do this

This management plan applies to the employees and contractors operating at Haerses Road Quarry, Maroota.

## 3.0 Environment Protection Licence

**Table 1: Environment Protection Licence (EPL) Details**

<b>Name of Licensee:</b>	Dixon Sand Pty Ltd ABN: 80 002 278 686	
<b>EPL Number</b>	12513	
<b>Premise name and address</b>	Haerses Road Quarry Haerses Road and Intersection of Wisemans Ferry Road, Maroota	
<b>Company Contact Details</b>	<b>Name:</b>	David Dixon
	<b>Position:</b>	Director / Quarry Manager
	<b>Business Hours Contact Number:</b>	02 4566 8348
	<b>After Hours Contact Number:</b>	0414 330 490
	<b>Emails:</b>	<a href="mailto:david@dixonsand.com.au">david@dixonsand.com.au</a> <a href="mailto:environment@dixonsand.com.au">environment@dixonsand.com.au</a>
<b>Website Address</b>	<a href="http://www.dixonsand.com.au">www.dixonsand.com.au</a>	
<b>Scheduled activities on EPL</b>	Crushing, grinding or separating Extractive activities	
<b>Fee based activities on EPL</b>	Crushing, grinding or separating	> 100000 – 500000 T annual processing capacity
	Extractive activities	> 100000 – 500000 T annual capacity to extract or process

## 4.0 Legal and Other Requirements

All activities carried out on site are to comply with the following licences, legislation, regulations and guidelines relevant to the notification and management of environmental pollution.

- *Environment Protection Licence 12513 – Haerses Road Quarry*
- *Development Application DA165-7-2005 – Haerses Road Quarry*
- *Protection of the Environment Operations Act, 1997 (POEO Act)*
- *Protection of the Environment Operations (General) Regulation, 2009*
- *Protection of the Environment Operations (Waste) Regulation, 2005*
- *Protection of the Environment Legislation Amendment, 2011*
- *Environmentally Hazardous Chemicals Act, 1985 (NSW)*
- *Managing Risks of Hazardous Chemicals in the Workplace - Code of Practice (July 2012)*
- *Storage and Handling Liquids: Environmental Protection – Participant’s Manual (DECC 2007)*
- *Soils and Construction: Managing Urban Stormwater (Landcom 2004)*
- *Relevant Australia/New Zealand Standards*
- *Safety Data Sheets applicable to materials stored on site*

By adhering to the requirements set out in the abovementioned legislation, regulations and guidelines, this will aid in preventing or minimising the release of pollution into the environment.

In addition, Dixon Sand has procedures outlined in the Environmental Management Strategy documentation relevant to pollution management and reporting.



## 5.0 Roles and Responsibilities

Dixon Sand has set out the roles and responsibilities for the overall conduct and control of any pollution incident until such time the incident is under control and any investigation completed. Once the all clear is given by emergency services and/or regulatory authorities, the responsibility is transferred back to the Quarry Managers.

The roles and responsibilities are outlined in Table 2 below.

**Table 2: Roles and Responsibilities**

Position	Activities / Responsibilities
Quarry Managers (Production Managers)	<ul style="list-style-type: none"> <li>• Contact Emergency services</li> <li>• Assess the incident situation and activate the response team, if required</li> <li>• Prevent further harm by controlling the incident scene, if safe to do so</li> <li>• Activate the site emergency evacuation procedure, if required</li> <li>• Manage the site evacuation procedure</li> <li>• Liaise with emergency services and regulatory authorities</li> <li>• Assist in clean-up and remediation</li> </ul>
Environmental Officer (or delegate)	<ul style="list-style-type: none"> <li>• Assist in incident controlling, if safe to do so</li> <li>• Notify the relevant regulatory authorities, if required</li> <li>• Assist in clean-up and remediation</li> <li>• Collate information and record incident in the Environmental Incident Register</li> </ul>
Safety Advisor (or delegate)	<ul style="list-style-type: none"> <li>• Assist in incident controlling, if safe to do so</li> <li>• Notify the relevant regulatory authorities, if required</li> <li>• Assist in clean-up and remediation</li> <li>• Assist in clean-up and remediation</li> </ul>
Operators and Contractors	<ul style="list-style-type: none"> <li>• Report incident to the Quarry Managers or Management Team</li> <li>• Prevent further harm by controlling the incident scene, if safe to do so</li> <li>• Assist in clean-up and remediation</li> </ul>

## 6.0 Identification of Potential Pollution Hazards & Risk Assessment

The following risk matrix and table has been developed to:

- Identify site specific hazards that may result in a pollution incident occurring;
- Assess the likelihood of an incident occurring as a result of a particular hazard;
- Assess the likely degree of impact if an incident occurs; and
- Outline preventative management actions to be implemented in order to control, minimise or avoid impacts.
- Monitor implemented controls.

Table 3 contains the Risk Assessment Matrix adopted by Dixon Sand.

Table 4 contains the hazards identified on site and associated risk assessment and proposed actions.

Table 3: Risk Assessment Matrix

RISK ASSESSMENT MATRIX					
Likelihood	Consequence				
	1	2	3	4	5
A	Extreme	Extreme	High	Med	Low
B	Extreme	High	High	Med	Low
C	Extreme	High	Med	Low	Low
D	High	Med	Med	Low	Low
E	High	Med	Low	Low	Low
<u>LIKELIHOOD</u>					
A - Almost Certain ( <i>is expected to occur</i> )					
B - Likely ( <i>will probably occur</i> )					
C - Possible ( <i>may occur at some point</i> )					
D - Unlikely ( <i>could occur but doubtful</i> )					
E - Rare ( <i>may occur but highly unlikely</i> )					
<u>CONSEQUENCE</u>					
1 - Catastrophic ( <i>critical unmanageable impacts</i> )					
2 - Major ( <i>intense, manageable impacts</i> )					
3 - Moderate ( <i>serious impacts, easily managed</i> )					
4 - Minor ( <i>minor management action required</i> )					
5 - Insignificant ( <i>impacts requiring no treatment</i> )					
<u>RESPONSE TO RISK RANKINGS</u>					
Extreme	Work is not to commence until the hazard is managed and the level of risk is reduced. The quarry manager or production manager is to authorise the work.				
High	Work can be tolerated if it is not reasonably practicable to reduce the risk further. The activity must not be undertaken without a risk assessment and being supervised.				
Medium	Work can be undertaken with the identified controls in place.				
Low	Work that is part of the day to day operation of the quarry with known controls, control measures are to be effective, reliable and subject to appropriate monitoring.				
<u>HIERARCHY of RISK CONTROL</u>					
Eliminate the hazard			Highest level of health and safety protection, most reliability of control measures.		
Substitute the hazard with something safer			Change the substance being used to a safer one, use two people to lift items, change from one energy source to another e.g. From air to hydraulics.		
Isolate the hazard from people			Putting up barriers, sound walls, acoustic enclosures		
Reduce the risk through <b>engineering controls</b>			Put in guards or other barriers, use design and engineering solutions.		
Reduce exposure by applying <b>administrative actions</b>			Procedures, signs, training		
Use <b>personal protective equipment</b> .			Lowest level of health and safety protection, least reliability of control measures		

Table 4: Hazard Identification and Risk Assessment

Hazard	Potential Pollution Incident & Condition influencing Likelihood of Occurrence	Likelihood of Incident occurring	Consequence of Incident	Assessed Risk Level	Proposed Actions • Pre-emptive Actions (avoid impact) • Control Actions (minimise impact)
Storage of oils in garage.	<p><i>Polluting Incident</i></p> <ol style="list-style-type: none"> <li>1. Chemical spill to land/water from fuel tanks/oil &amp; grease drums</li> <li>2. Chemical spill to land/water from chemical containers</li> </ol> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>• Chemical not stored correctly</li> <li>• Poor maintenance on site</li> <li>• Impact/damage to tank/bunding releasing chemical</li> <li>• Incorrect use of equipment</li> <li>• Maximum size of any chemical containers is 20 litres</li> </ul>	<ol style="list-style-type: none"> <li>1. E (Rare)</li> <li>2. D (Unlikely)</li> </ol>	<ol style="list-style-type: none"> <li>1. 4 (Minor)</li> <li>2. 4 (Minor)</li> </ol>	<ol style="list-style-type: none"> <li>1. Low</li> <li>2. Low</li> </ol>	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>• EPA approved bunding containment installed for all tanks / containers</li> <li>• Spill kits located on site at vantage points</li> <li>• Regular inspections</li> <li>• Correct refuelling procedures and training</li> <li>• Site induction for all employees/contractors</li> <li>• All maintenance work is generally undertaken on a concrete hard stand</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>• Notify Quarry Managers or delegate</li> <li>• Stop release at source</li> <li>• Contain release using spill kits or earth bunding</li> <li>• Follow incident response procedure outline in Section 7</li> <li>• Remove contaminated material from site by licenced contractor/facility</li> </ul>
Silt/Tailings ponds Note: majority of ponds are cut into rock	<p><i>Polluting Incident</i></p> <ol style="list-style-type: none"> <li>1. Dam wall collapse releasing sediment laden water off site</li> <li>2. Silt pond overtopping</li> </ol> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>• Poor construction / maintenance of dam</li> <li>• Machine impacting dam wall</li> <li>• Poor monitoring of water levels resulting in over topping</li> </ul>	<ol style="list-style-type: none"> <li>1. E (Rare)</li> <li>2. E (Rare)</li> </ol>	<ol style="list-style-type: none"> <li>1. 3 (Moderate)</li> <li>2. 3 (Moderate)</li> </ol>	<ol style="list-style-type: none"> <li>1. Low</li> <li>2. Low</li> </ol>	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>• Daily monitoring, regular inspections</li> <li>• Pond wall maintenance as required and identified in inspections</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>• Notify Quarry Managers or delegate</li> <li>• Cease pumping of tailing into pond immediately</li> <li>• Control release of silt/water by installing temporary earth bunding downslope of release</li> <li>• Follow incident response procedure outline in Section 7</li> <li>• Remediate area of sediment release</li> <li>• Repair pond wall when practical to do so</li> </ul>

Hazard	Potential Pollution Incident & Condition influencing Likelihood of Occurrence	Likelihood of Incident occurring	Consequence of Incident	Assessed Risk Level	Proposed Actions • Pre-emptive Actions (avoid impact) • Control Actions (minimise impact)
Main water storage dam (storm water) Note: dam is cut into rock	<p><i>Polluting Incident</i></p> <ol style="list-style-type: none"> <li>Dam wall collapse or leaking releasing sediment laden water off site</li> <li>Sediment laden water released from weir</li> </ol> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Poor construction / maintenance of dam</li> <li>Machine impacting dam wall</li> <li>Dam not treated correctly prior to release</li> <li>Storm event exceeding design capacity</li> </ul>	<ol style="list-style-type: none"> <li>E (Rare)</li> <li>E (Rare)</li> </ol>	<ol style="list-style-type: none"> <li>3 (Moderate)</li> <li>3 (Moderate)</li> </ol>	<ol style="list-style-type: none"> <li><b>Low</b></li> <li><b>Low</b></li> </ol>	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Daily monitoring of water level, regular inspections</li> <li>Dam wall maintenance as required and identified in inspections</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Cease flow of water into dam and repair pond wall when practical to do so</li> <li>Monitor water quality of discharge as per EPL conditions (daily samples taken during discharge)</li> <li>Follow incident response procedure outline in Section 7</li> </ul>
Waste materials E.g. • Putrescible • Recycle	<p><i>Polluting Incident</i></p> <ul style="list-style-type: none"> <li>Contamination of land/water</li> </ul> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Poor waste management / storage</li> </ul>	C (Possible)	4 (Minor)	<b>Low</b>	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Regular inspections and segregated bins</li> <li>All waste removed from site by licenced contractor</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Waste materials to be removed from site by licenced contractor</li> <li>Any contaminated land to be remediated and removed from site by licenced contractor to licenced waste management facility</li> </ul>
Mobile plant operating in quarry	<p><i>Polluting Incident</i></p> <ul style="list-style-type: none"> <li>Release of fuel/oil from plant</li> </ul> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Worn hoses</li> <li>Fuel cart malfunction, break in hose</li> <li>Poor maintenance</li> </ul>	B (Likely)	4 (Minor)	<b>Medium</b>	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Regular maintenance</li> <li>Plant pre-start inspections</li> <li>Spill kits located on site</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Control release of fuel/oil using spill kit or earth bund</li> <li>Follow incident response procedure outline in Section 7</li> <li>Collect and remove contaminated material from site by licenced contractor</li> </ul>

Hazard	Potential Pollution Incident & Condition influencing Likelihood of Occurrence	Likelihood of Incident occurring	Consequence of Incident	Assessed Risk Level	Proposed Actions <ul style="list-style-type: none"> <li>Pre-emptive Actions (avoid impact)</li> <li>Control Actions (minimise impact)</li> </ul>
Refuelling plant and equipment	<p><i>Polluting Incident</i></p> <p>1. Release of fuel/oil from plant during refuel from mobile fuelling vehicle</p> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Damage to plant due to collision</li> <li>Fuel cart malfunction, break in hose</li> <li>Poor maintenance</li> </ul>	D (Unlikely)	4 (Minor)	Low	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Plant pre-start inspections</li> <li>Spill kits located on site</li> <li>Regular inspections</li> <li>Correct refuelling procedures and training</li> <li>Site induction for all employees/contractors</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Stop release at source</li> <li>Contain release using spill kits or earth bunding</li> <li>Follow incident response procedure outline in Section 7</li> <li>Remove contaminated material from site by licenced contractor/facility</li> </ul>
Water pumping equipment	<p><i>Polluting Incident</i></p> <ul style="list-style-type: none"> <li>Release of fuel/oil into the water storage</li> </ul> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Pump malfunction / break in hose</li> <li>Poor maintenance</li> <li>Spillage during refuelling</li> </ul>	C (Possible)	3 (Minor)	Low	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Daily monitoring, regular inspections</li> <li>Correct refuelling procedure</li> <li>Regular maintenance</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Cease operation of pump</li> <li>Control release of sediment/fuel/oil using spill kit or earth bund</li> <li>Follow incident response procedure outline in Section 7</li> <li>Remove contaminated material from site by licenced contractor</li> </ul>
Dust generation	<p><i>Polluting Incident</i></p> <ul style="list-style-type: none"> <li>Significant release of dust from site operations</li> </ul> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Extreme weather conditions</li> <li>Excessive machinery movements</li> <li>Poor maintenance of haul roads</li> <li>Inadequate use of water cart</li> </ul>	C (Possible)	4 (Minor)	Low	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Monitor weather conditions and cease works or modify operations when significant dust is visible leaving site</li> <li>Maintain haul roads in good condition</li> <li>Regular use of water cart and street sweeper</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Following procedure outlined in EPL (condition M2.4) if TEOM alarm is triggered</li> </ul>

Hazard	Potential Pollution Incident & Condition influencing Likelihood of Occurrence	Likelihood of Incident occurring	Consequence of Incident	Assessed Risk Level	Proposed Actions • Pre-emptive Actions (avoid impact) • Control Actions (minimise impact)
Excessive noise generation	<p><i>Polluting Incident</i></p> <ul style="list-style-type: none"> <li>Excessive noise generation from quarry activities</li> <li>Excessive noise generation from trucks</li> </ul> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Staff and contractors not properly inducted.</li> <li>Poor maintenance of haul roads</li> </ul>	D (Unlikely)	4 (Minor)	Low	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Implement mitigation measures and controls contained in the Noise Management Plan</li> <li>Conduct annual attended noise monitoring at sensitive receivers</li> <li>Provide environmental inductions to all staff and contractors</li> <li>Regular maintenance of machinery and equipment.</li> <li>Construction of noise bunds</li> <li>Operating within approved hours of operation</li> <li>Replacement of old noisy equipment.</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Cease noise generating activity immediately</li> <li>Follow incident response procedure outline in Section 7</li> </ul>
Working outside approved areas	<p><i>Polluting Incident</i></p> <ul style="list-style-type: none"> <li>Working outside the approved areas of extraction</li> <li>Clearing outside the approved areas</li> </ul> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Staff and contractors not properly inducted.</li> <li>Unclear boundary marking</li> </ul>	E (Unlikely)	3 (Moderate)	Low	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Provide environmental inductions to all staff and contractors</li> <li>Maintain pegs and boundary markers for extraction, clearing and buffer areas in good order.</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Cease activity outside the approved area immediately</li> <li>Follow incident response procedure outline in Section 7</li> </ul>
Herbicide spillage	<p><i>Polluting Incident</i></p> <ul style="list-style-type: none"> <li>Spillage of herbicide onto non-targeted areas</li> </ul> <p><i>Influencing Conditions</i></p> <ul style="list-style-type: none"> <li>Mis-handling of herbicide container and application hose</li> <li>Poor maintenance of equipment</li> <li>Mis-application of targeted area</li> </ul>	E (Unlikely)	3 (Moderate)	Low	<p><i>Pre-emptive Actions</i></p> <ul style="list-style-type: none"> <li>Storage of herbicide in bunded containers in the site vehicle.</li> <li>Spill kit</li> <li>SDS on site</li> </ul> <p><i>Incident Control Actions</i></p> <ul style="list-style-type: none"> <li>Notify Quarry Managers or delegate</li> <li>Stop release at source and follow SDS's instructions.</li> <li>Contain release using spill kits or earth bunding</li> <li>Follow incident response procedure outline in Section 7</li> <li>Remove contaminated material from site by licenced contractor/facility if applicable</li> <li>Engaging competent contractors to undertake the work.</li> </ul>



## 7.0 Pollutant Inventory

Table 5: Pollutants kept on premise

Pollutant	Quantity	Location	Controls (spill kits, bunding etc.)
Diesel Fuel Truck	3000 litres	Mobile fuel tank fitted with a bowser head on a truck	Shut off valve and Spill kit
Hydraulic oil	20L drum	Storage garage	Enclosed storage area and Spill kit
Engine oil	20 L	Storage garage	Enclosed storage area and Spill kit
Herbicide and wetting agents	Round-up Taskforce Garlon Starane Advance Enviro-dye Pulse	Contractor's vehicle	Chemicals stored in approved containers in a tub with absorbent material in the base. Spill equipment and SDS contained in vehicle

## 8.0 Pollution Incident Response Contact Details

**Table 6: Dixon Sand Incident Contact Details (Responsible persons for reporting to authorities)**

The UHF channel used at Haerses Rd may vary depending on the amount of over the air traffic occurring. As at March 2020 UHF channel 70 was being used. The UHF channel will be displayed at the entrance to the quarry if it changes.

Name	Position	Contact Number
David Dixon	Quarry Manager (Production Manager)	Office - 02 4566 8348 Mobile – 0414 330 490 (24hrs)
Mick Munnoch	Quarry Manager (Production Manager)	Office - 02 4566 8348 Mobile – 0458 079 241 (24hrs)
Ben Grogan	Quarry Manager (Production Manager)	Office - 02 4566 8348 Mobile – 0458 187 378 (24hrs)
Hunny Churcher	Environmental Officer	Mobile – 0405 844 207 (24hrs)
Rowan Russell	Safety Advisor	Office - 02 4566 8348 Mobile – 0418 243 576 (24hrs)

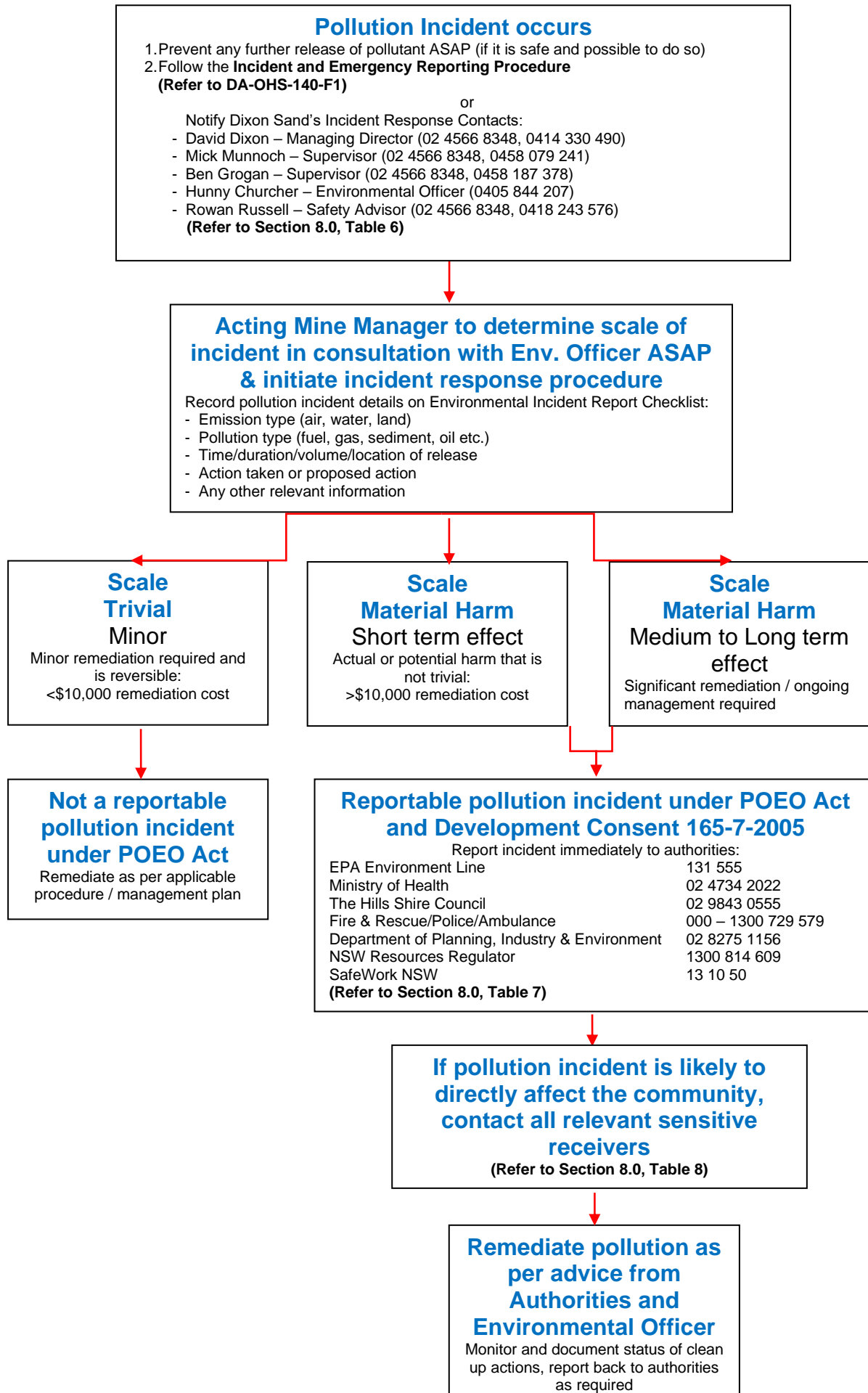
**Table 7: Authorities Incident Contact Details**

Name	Location	Contact Number
Emergency	-	000 (when incident presents immediate threat to human health and property)
EPA (Environment Line)	-	131 555 (At recorded prompt, press 1 to be connected to 24hr response line)
Fire & Rescue	-	1300 729 579 (No need to dial this number if have previously dialled 000)
Department of Planning, Industry and Environment (DPIE)	-	02 8275 1156 (Maria Divis – Senior Compliance Officer) Or other delegated Compliance Officers
Ministry of Public Health	Nepean Blue Mountains Public Health (Environmental Health Team)	02 4734 2022 (normal hours, report to Environmental Health Team) 02 4734 2000 (after hours switch – ask for Public Health Officer)
NSW Resources Regulator	-	1300 814 609
The Hills Shire Council	Castle Hill	02 9843 0555
SafeWork NSW	-	13 10 50

**Table 8: Receivers on EPL 12513 (Haerses Rd Quarry)**

Name	Address
Maroota Public School	4540 Old northern Road, Maroota
Receivers	As identified in Environmental Assessment (Umwelt, Sept 2017)

## 8.0 Pollution Incident Response Procedure & Actions Flow Chart



## **9.0 Notification of Incident**

### **Notification of Relevant Authorities**

In the event of a notifiable incident, relevant authorities will be contacted via telephone call (and email if required) and notified through the contact details contained in Table 7.

### **Notification of Neighbours and Local Community**

In the event where the incident has the potential to impact or cause an impact to nearby residents and the Maroota Public School (Table 8), notification will be provided in the form of door-knock, phone call or letter box drop. The most suitable notification methodology will be determined by the Quarry.

## **9.0 Training, Plan Testing & Review**

All staff, visitors and contractors coming on to site will be briefed on their responsibilities under this plan as part of site induction requirements, with a copy of this plan being available to all personnel for viewing.

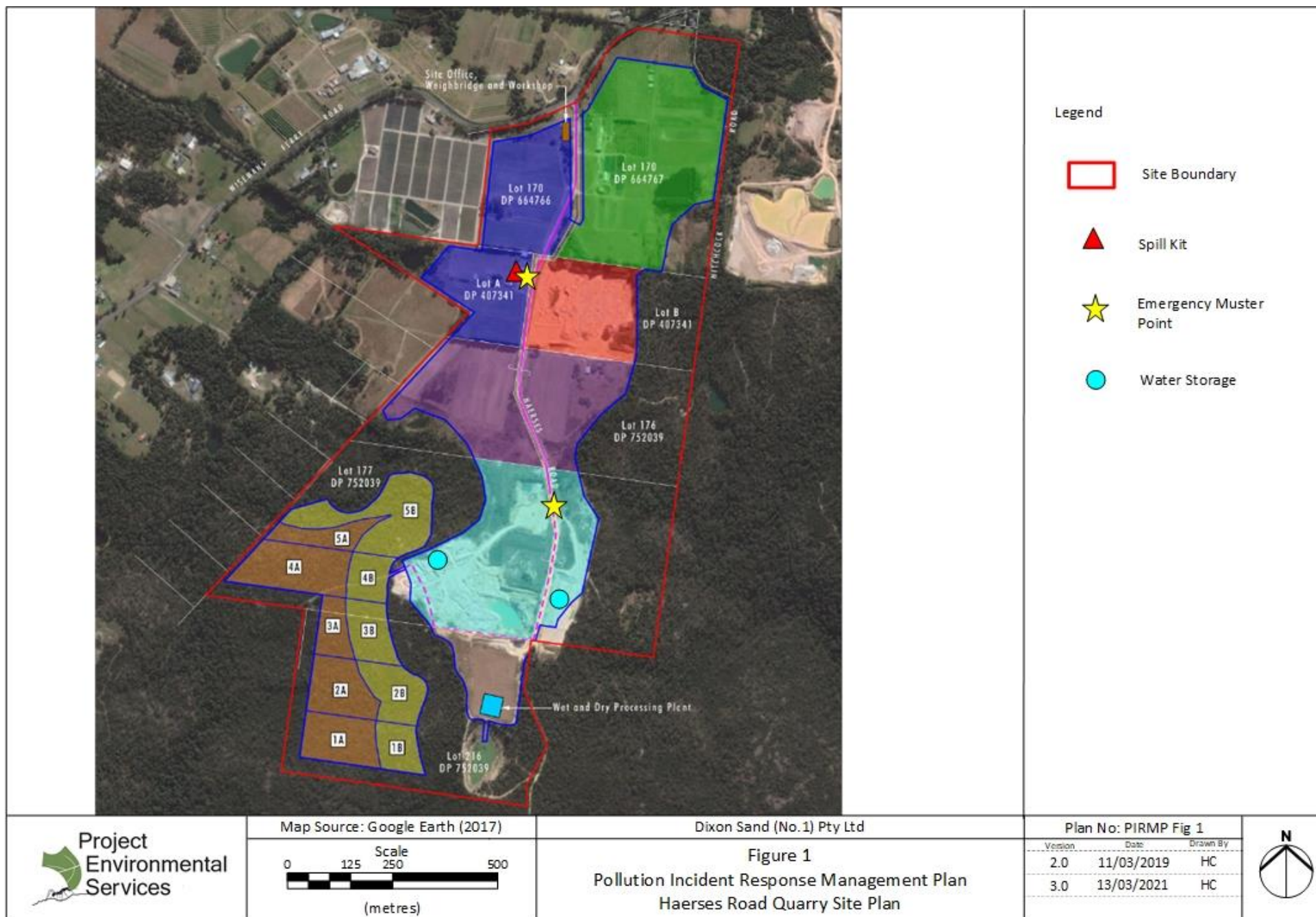
The incident response and action flow chart (Section 9) will also be made available as a notice posted at appropriate locations around the site office and workshop area.

Annual testing and review of this plan is to be undertaken, which would involve two components. The first component will involve a desktop review of the plan components to ensure all details are up to date and still relevant to site operations. The second component will involve a practical exercise with all relevant site staff, in the form of a toolbox training exercise on the implementation of the response procedure (flow chart in Section 9 of this plan).

This plan would be tested and reviewed annually on an on-going basis, within 12 months of the latest approved revision date.

PIRMP and mock incident training details are contained in the quarry's toolbox talk and training record.

## **10.0 Site Plans**





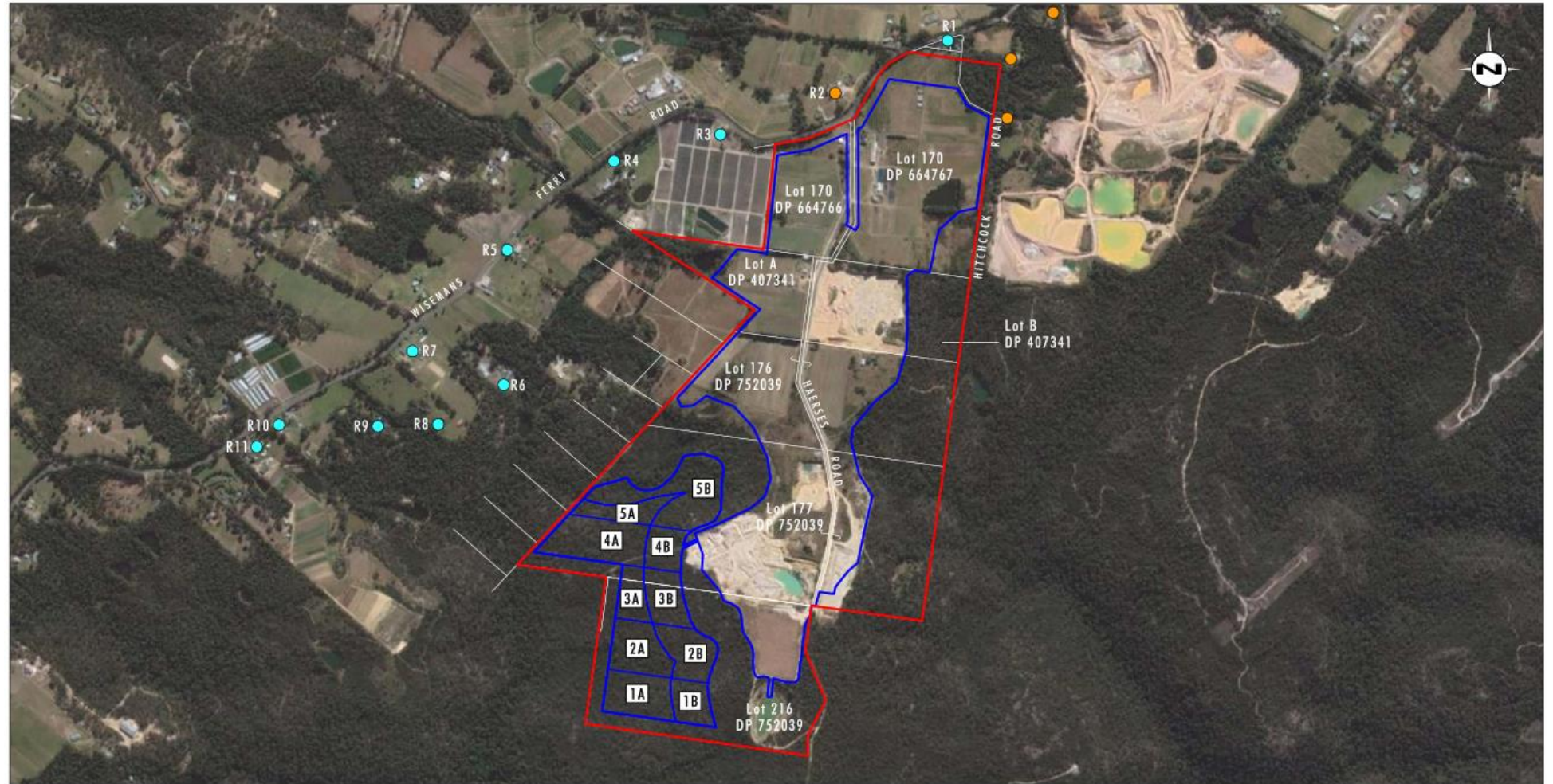


Image Source: Google Earth (Sep 2017)  
Data Source: Mc Kinlay Morgan & Associates Pty Ltd (2014), ERM (2017)

0 250 500 750m  
1:15 000

#### Legend

- ▬ Haerses Road Quarry Site
- ▬ Approved Extraction Area
- 1 Extraction Cell Number
- Noise Receiver Location
- Noise Receiver with Private Agreement

File Name (A4): R03/4272\_036.dgn  
20180504 13.30

FIGURE 3.1

Haerses Road Quarry  
Noise Receiver Locations



# Incident and Emergency Reporting

In the event of an emergency over the 2 way say,

**Emergency, emergency, emergency**

**Give your location within the quarry and  
what has happened (type of emergency)**

To report any other injury, incident including any environmental impact immediately contact your supervisor or the weighbridge operator on:

**CHANNEL 70 UHF or Phone: 02 4566 8348**

Some important points to remember: **Stay Calm**

Answer the following questions:

- 1) Your name
- 2) The exact location of the incident / accident
- 3) What has happened
- 4) What are the injuries – if you know
- 5) What assistance do you require
- 6) Wait for further instructions

**First Aid:** If the injured person requires first aid assistance, the following personnel have been trained in First Aid and can be contacted via the two-way.

**David Dixon, Michael Munnoch, Ben Grogan, Jason Galea, Chris Day, or  
Rowan Russell**

**Regulator notification:** Further notification of the incident to the Resources Regulator or EPA will be determined by management in line with the legislative incident notification requirements and the PIRMP, see notice boards for a summary.

Incident and emergency notification summary – March 2020 – Haerses Road

# Appendix 5

## Environment Monitoring Locations



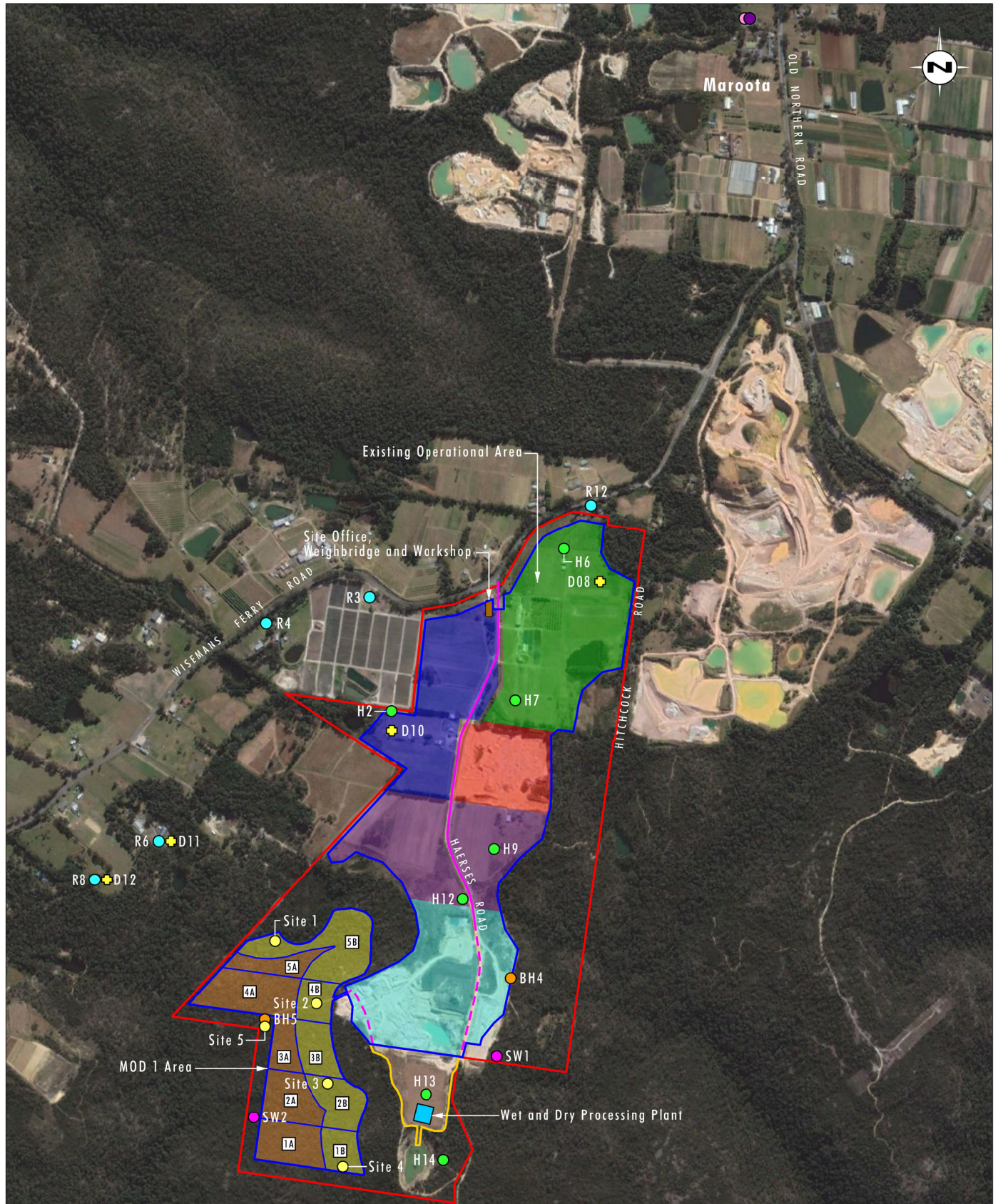


Image Source: Google Earth (Sep 2017)

Data Source: Mc Kinlay Morgan & Associates Pty Ltd (2014)

0 250 500 750m  
1:15 000

### Legend

- |                                                                                       |                                                                          |                                                                                                |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <span style="border: 1px solid red; padding: 2px;"> </span> Haerses Road Quarry Site  | <span style="color: yellow;">●</span> New Groundwater Monitoring Bores   | <span style="border: 1px solid yellow; padding: 2px;"> </span> Extraction Area B               |
| <span style="border: 1px solid blue; padding: 2px;"> </span> Approved Extraction Area | <span style="color: magenta;">●</span> Surface Water Monitoring Location | <span style="border: 1px solid brown; padding: 2px;"> </span> Extraction Cell Number           |
| <span style="color: cyan;">●</span> Sensitive Receiver Noise Monitoring Location      | <span style="color: red;">■</span> Extraction Area Stage 1               | <span style="color: brown;">■</span> Site Office, Weighbridge and Workshop                     |
| <span style="color: yellow;">●</span> Static Dust Gauge                               | <span style="color: cyan;">■</span> Extraction Area Stage 2              | <span style="color: blue;">■</span> Wet Processing Plant                                       |
| <span style="color: magenta;">●</span> TEOM                                           | <span style="color: purple;">■</span> Extraction Area Stage 3            | <span style="color: magenta;">---</span> Indicative Unsealed Haul Road                         |
| <span style="color: purple;">●</span> Weather Station                                 | <span style="color: blue;">■</span> Extraction Area Stage 4              | <span style="color: yellow;">---</span> Sealed Haul Road                                       |
| <span style="color: orange;">●</span> SBCGS Monitoring Bores                          | <span style="color: green;">■</span> Extraction Area Stage 5             | <span style="border: 1px solid yellow; padding: 2px;"> </span> Processing and Stockpiling Area |
| <span style="color: green;">●</span> MTSGS Monitoring Bores                           | <span style="color: orange;">■</span> Extraction Area A                  |                                                                                                |

# Appendix 6

## Air Quality Management Plan

# Appendix 7

## Noise Management Plan

# **Appendix 8**

## **Soil and Water Management Plan**



# Appendix 9

## Traffic Management Plan

# **Appendix 10**

## **Biodiversity and Rehabilitation Management Plan**

# Appendix 11

## Acoustic Bund Construction Noise Management Plan

# Appendix 12

## Site Condition Checklist



## HAERSES ROAD QUARRY DIXON SAND, MAROOTA MONTHLY SITE CONDITION CHECKLIST

This checklist is to be completed monthly by the Environmental Officer.  
Completed checklists are to be retained and included in the Annual Review.

Date of inspection:				
Inspection by:				
Measured monthly rainfall (mm)				
	Yes (✓) No (X) NA	Comments	Actions	Actions Complete (Date/Sign)
<b>SEDIMENT CONTROLS</b>				
Site checked for potential erosion issues or transport of sediment from batters, vehicle access points, excavations, haul roads, vegetation clearing etc.				
Effectiveness and capacity of Erosion and Sediment controls checked (drains, basins, filters etc.)				
Stockpiles located and maintained correctly				
Tree clearance restricted to required area				
<b>WATER QUALITY AND QUANTITY</b>				
Monthly water quality samples collected from monitoring bores. Samples tested for pH and electrical conductivity				
Monthly surface water monitoring of the in-pit sump				
6 monthly monitoring of groundwater quality at 13 bores				
Monthly depth measurement of all groundwater bores and comparison with rainfall				
Monthly inspection of drainage & sediment controls including water storages, pumps, pipes and dams' walls				
Any Fuel or oil spills reported and maintained				
Fuels/chemicals stored in bunded areas				
Monthly sampling of surface water quality at SW1 and SW2				
<b>AIR QUALITY</b>				
Monitoring station (TEOM) and continuous automatic meteorological station are maintained and operating in the vicinity of the Maroota Public School				
On site dust suppression				
Loads covered entering and leaving site				

Drop height of material minimised during truck loading and unloading				
Active extraction areas minimised within the project area through progressive clearing and rehabilitation				
Cessation or restriction of dust generating activities during period of high winds				
Seal quarry access road between Wisemans Ferry Road and Processing Plant				
<b>NOISE</b>				
Compliance with approved hours of operation				
No complaints received from surrounding residences				
Annual attended and unattended monitoring				
Either one of a dozer or front end loader (not both) operating in Cell 4 and Cell 5 during early extraction, clearing or construction of bund walls, to minimise noise				
The use of noisy equipment scheduled at the least sensitive time of day				
Plant switched off when not in use				
In the wet processing plant area, stockpiles are located along to western boundary of the area to shield loading and unloading activities				
Additional noise monitoring at the potentially most affected locations near the south-western end of the site, such as Location R6 and R8, when extraction operations are being conducted in the additional extraction area				
<b>FLORA &amp; FAUNA/ REHABILITATION</b>				
Sightings of threatened species reported				
No disturbance of buffer/conservation areas				
All buffer/conservation area fencing/markings intact				
Rehabilitation undertaken to schedule				
Success of rehabilitation of buffers, conservation areas & rehabilitation areas				
Flora and fauna monitoring program undertaken to schedule				
<b>ARCHAEOLOGY</b>				
Stop work if sites located – OEH notified				
<b>WASTE AND SITE CONDITION</b>				
No rubbish visible or buried on site				



Recyclables removed by licensed Contractors				
Putrescible waste covered and regularly removed				
<b>ROADS AND TRANSPORT</b>				
Monthly inspection of haul roads, site access road and Haerses Road/site access road intersection				
Weekly inspection of Haerses Road/site access road intersection and sand/clay removed as necessary				
Continuous recording of the amount of quarry products transported from the site and total truck movements				
Truck movements have not exceeded 56 per day, or 20 between 6:00 am and 7:00 am				
Weighbridge/log book records retained and recorded				
Monthly monitoring (15-minute sample) of haulage trucks queuing within the right turn bay at the quarry intersection – record: ) sampling time, ) number of trucks queuing within the sampling time				
<b>REPORTING</b>				
Complaints register maintained				
Environmental incidents reported to EPA and DPIE				
Monitoring results and statements of compliance with Development Consent and EPL conditions provided in the Annual Review and EPL Annual Return				
Staff and Contractors undergo relevant environmental inductions. Sighting of training/induction records				
<b>PIRMP / SPILL KIT</b>				
Spill kits inspected and used items replaced				
A copy of PIRMP flowchart available in each Spill Kit				

Signed: ..... (Environmental Officer or Delegate)

# Appendix 13

## Complaints Register Form

# DIXON SAND (No. 1) PTY LTD

## COMPLAINTS REGISTER FORM

**All complaints or comments received from the public to be recorded on a copy of this form. The Environmental Officer and/or Quarry Manager must be advised of the complaint immediately.**

Time & Date of receipt of Complaint	
Method of Complaint (e.g. verbal, telephone, email):	
Name of Quarry in relation to the Complaint	
Nature of Complaint:	
Weather conditions at time relating to complaint (wind/rain?):	
Name / address / contact no. of Complainant: (If complainant will not provide details, provide a note to that effect)	
Complaint recorded by:	
<b>Section to be completed by Site Supervisor:</b>	
Recommended Action: (If no action is to be taken, provide reason why)	
Implementation required by (date):	
Complainant to be contacted on (date if required):	
Action completed: Signed / date (Quarry Manager / Enviro. Officer)	

# **Appendix 14**

## **Site Induction for Drivers**

# **DIXON SAND (No. 1) PTY LTD**

## **SITE INDUCTION FOR DRIVERS**

The development consent outlines specific requirements for quarry activities. It is in the interests of both the customers and Dixon Sand that these requirements are met to allow the quarry to maintain operational compliance as well as a good and safe working environment.

### **RESPONSIBILITIES**

I have read and understood Dixon Sand's Site Traffic Management Plan, specifically:

- I am fully aware of my responsibilities as laid out in Dixon Sands Site Traffic Management Plan.
- I agree to follow all site rules at Dixon Sand's Haerses Road Quarry.
- I am fully aware of my responsibilities to notify Dixon Sand of any potential hazards.
- I am fully aware that I am to only use exhaust/engine breaks when absolutely necessary.
- I am fully aware that I am not to arrive on site prior to 6:00 am or leave site after 6:00pm.

In addition;

- I have read and understood Dixon Sand's Health and Safety Policy.
- I have read and understood Dixon Sand's Alcohol and Drug Policy.

I understand that this document may be used to provide information to the relevant Government Agencies if requested.

**DECLARATION: I have read the above summary of responsibilities and have received a copy of all mentioned documents.**

**Truck Driver**

**Print Name:** \_\_\_\_\_ **Signature:** \_\_\_\_\_

**Company:** \_\_\_\_\_ **Truck Reg. No.:** \_\_\_\_\_

**Witnessed by:**

**Print Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_