



## OLD NORTHERN ROAD QUARRY

Environmental Management Strategy

**FINAL**

February 2024



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### Environmental Management Strategy

## FINAL

Prepared by  
**Umwelt (Australia) Pty Limited**  
on behalf of  
**Dixon Sand Pty Ltd**

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Report No. 4209/R01/V5  
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# 1.0 Introduction

## 1.1 Background

Dixon Sand Pty Ltd (Dixon Sand) operates the Old Northern Road Quarry (the Quarry), a sand extraction and processing operation, located on Old Northern Road, Maroota in New South Wales (NSW) (refer to **Figure 1.1**). The Quarry has been in operation since the early 1980s with Dixon Sand operating the Quarry since 1992. The site covers approximately 58.4 hectares (ha) and includes Lot 29 DP752025, Lot 196 DP752025, Lot 1 DP547255 and Lot 2 DP547255 (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. The Quarry is a major supplier of mortar sands to the Sydney metropolitan market.

The Quarry operates in accordance with Development Consent (DA) 250-09-01 issued by the Land and Environment Court in 2004. DA 250-09-01 has been subsequently modified on five (5) occasions, most recently in 2017 under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

DA 250-09-01 permits the extraction and processing of up to 495,000 tonnes of quarry products per annum, including the processing of extractive material sourced from the Haerses Road Sand Quarry.

The consent permits quarrying operations to be carried out on site until 24 May 2042, with continued receipt and processing of material from Haerses Road Sand Quarry permitted until 14 February 2046.

The approved extraction areas are shown on **Figure 1.3**.

## 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
- 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 Old Northern Road Quarry.

This EMS applies to Lot 29 DP752025, Lot 196 DP752025 and Lots 1 and 2 DP547255 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 document has been prepared to satisfy Condition 1 of Schedule 5 of DA 250-09-01 and consideration of the requirements of the Department of Planning and Environment's (DPE) *Environment Management Plan Guidelines*. A checklist of where the requirements of the guidelines has been addressed within this document is shown in **Appendix 1**.

## 1.3 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.
- To implement a fully functional and effective environmental management system that is used to drive improved environmental performance and reduce environmental risk.
- To ensure ownership of the environmental management system at all levels and that employee knowledge and use of the system remain high.
- To 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.



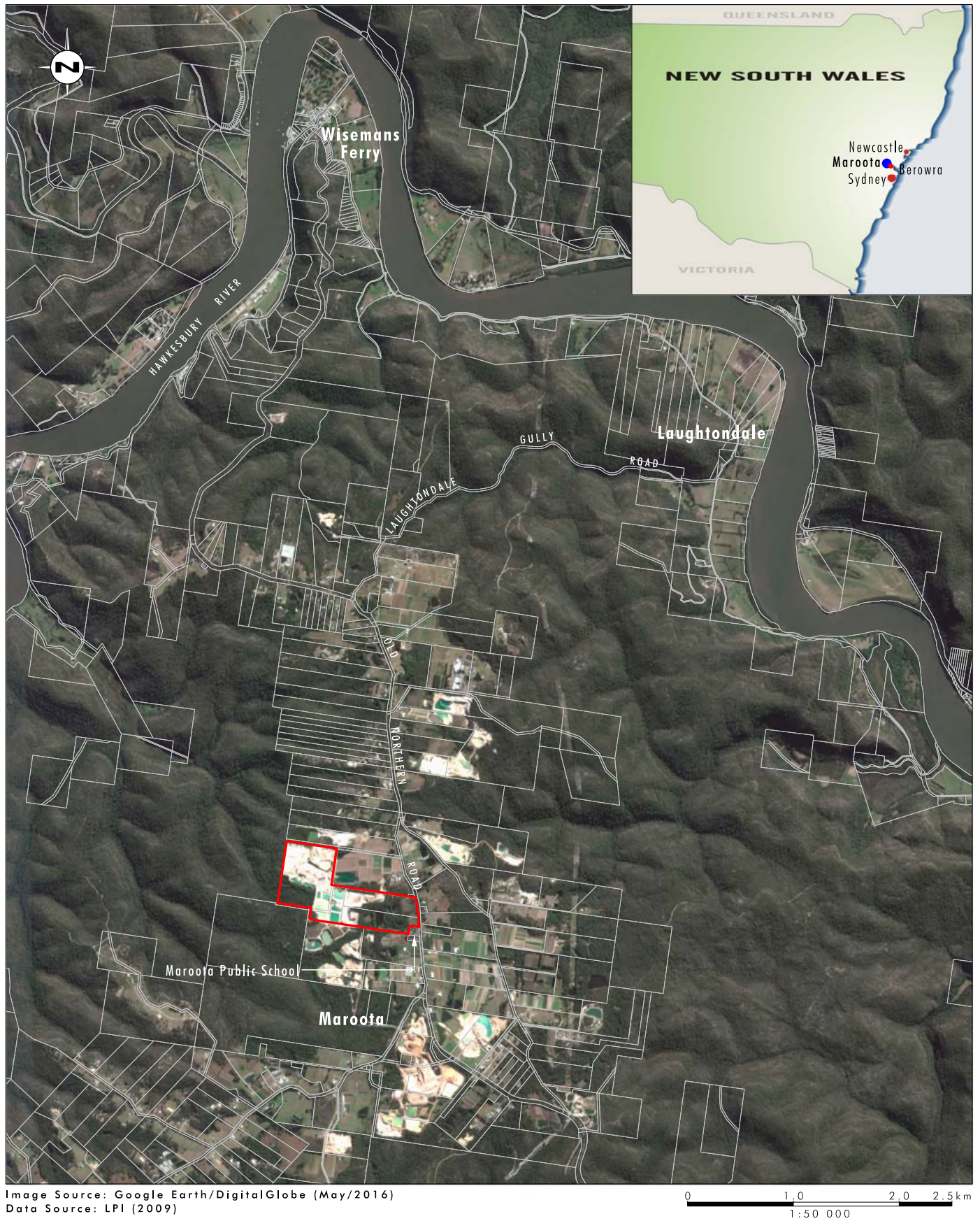


Image Source: Google Earth/DigitalGlobe (May/2016)  
Data Source: LPI (2009)

0 1.0 2.0 2.5 km  
1:50 000

### Legend

Old Northern Road Quarry

FIGURE 1.1  
Locality Plan



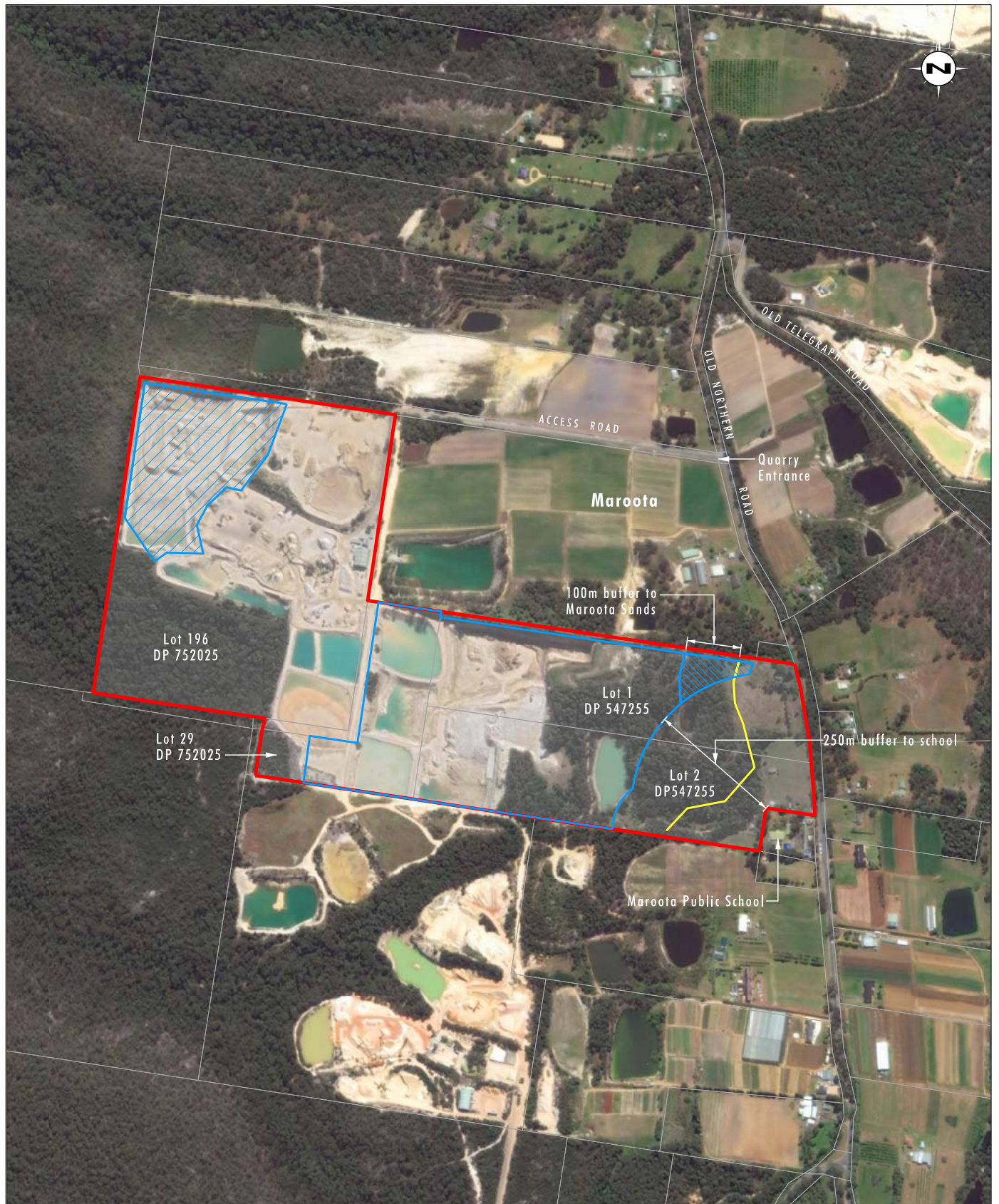


Image Source: Google Earth (2016 - 2017)  
Data Source: LPI (2016)

0 100 250 500 m  
1:10 000

### Legend

- Old Northern Road Quarry
- Approved Extraction Limits
- ▨ Extraction Area with Maximum Extraction Depth of 127.5m AHD
- ▨ Extraction Area Limited to 2m Above Wet Weather Groundwater Level
- Limit of Maroota Tertiary Sands Groundwater Source

FIGURE 1.2

Old Northern Road Quarry



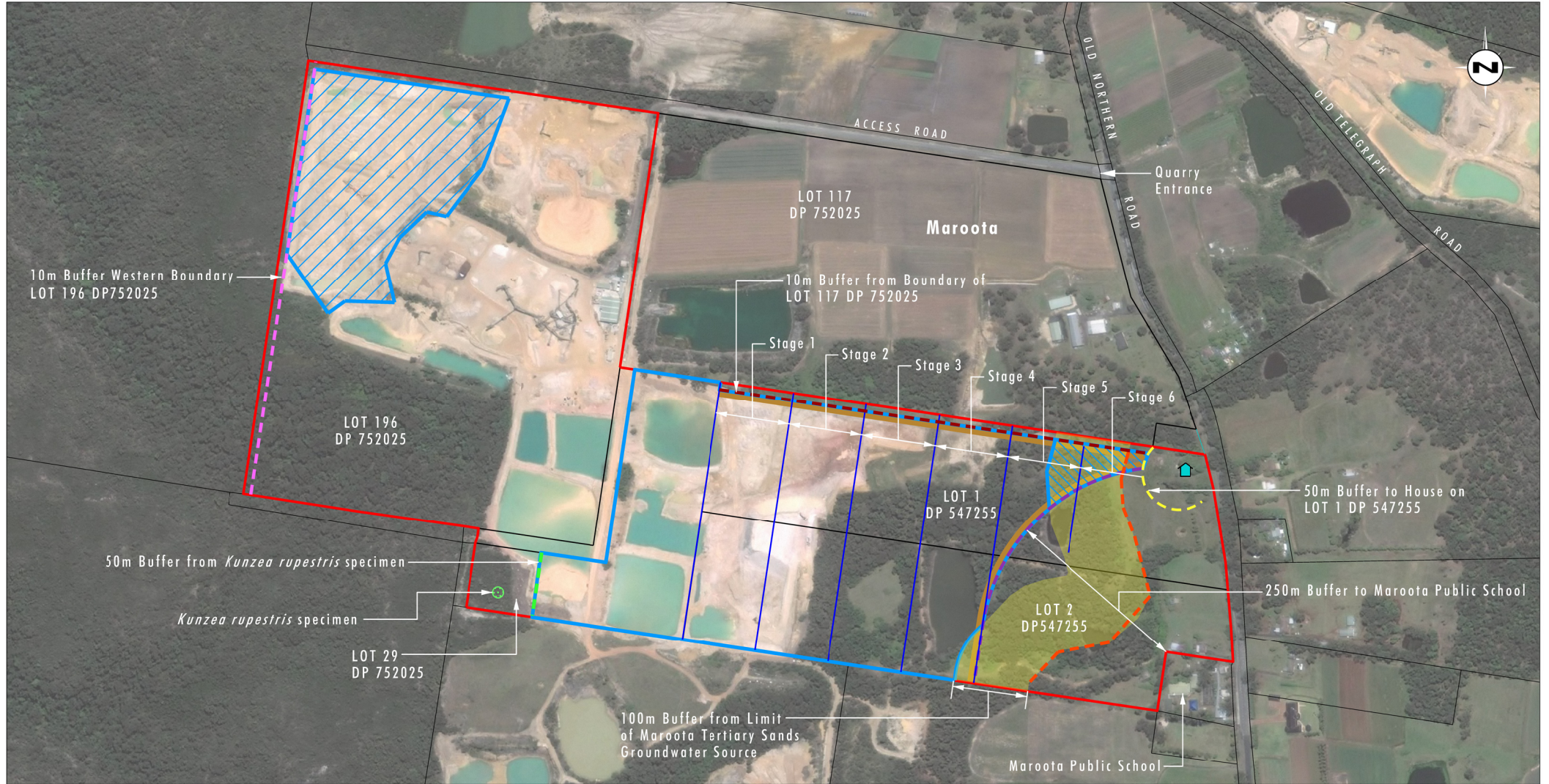


Image Source: Google Earth Digital Globe (Nov. 2016)  
Data Source: McKinlay Morgan and Assoc. (Sept 2015), ERM (Aug. 2005)

#### Legend

- |  |   |  |
|--|---|--|
| <span style="border: 1px solid red; padding: 2px;"> </span> Old Northern Road Quarry   | <span style="border: 1px solid green; padding: 2px;"> </span> 100m buffer from limit of Maroota Tertiary Sands Groundwater Source | <span style="border: 1px solid black; padding: 2px;"> </span> Cadastral Boundaries |
| <span style="border: 1px solid blue; padding: 2px;"> </span> Extraction Area   | <span style="border: 1px solid purple; padding: 2px;"> </span> 250m Buffer from Maroota Public School                             | <span style="color: blue;">■</span> House on LOT 1 DP 547255                       |
| <span style="border: 1px solid blue; padding: 2px;"> </span> Extraction Area with Maximum Extraction Depth of 127.5m AHD       | <span style="border: 1px solid red; padding: 2px;"> </span> 10m Buffer from Boundary of Lot 117 DP 752025                         | <span style="color: blue;">■</span> Quarry Staging                                 |
| <span style="border: 1px solid blue; padding: 2px;"> </span> Extraction Area Limited to 2m Above Wet Weather Groundwater Level | <span style="border: 1px solid green; padding: 2px;"> </span> 50m Buffer from <i>Kunzea rupestris</i> specimen                    | <span style="border: 1px solid orange; padding: 2px;"> </span> Bund                |
| <span style="border: 1px solid orange; padding: 2px;"> </span> Limit of Maroota Tertiary Sands Groundwater Source              | <span style="border: 1px solid purple; padding: 2px;"> </span> 10m Buffer from Western Boundary of Lot 196 DP 752025              |  |
| <span style="color: green;">●</span> <i>Kunzea rupestris</i> specimen  | <span style="border: 1px solid green; padding: 2px;"> </span> 50m Buffer from House on LOT 1 DP 547255                            |  |

File Name (A4): R01/4209\_012.dgn  
20180131 15:17

0 100 200 400m  
1:7 500

FIGURE 1.3

Extent of Extraction Areas and Buffer Areas

## 2.0 Regulatory Requirements

### 2.1 Development Consent

Dixon Sand holds DA 250-09-01 issued by the Land and Environment Court in 2004 under the EP&A Act. The consent has been subsequently modified on a number of occasions, with a copy of the consolidated consent provided as **Appendix 2**.

The EMS has been prepared in accordance with the conditions of DA 250-09-01. **Table 2.1** outlines the relevant Conditions of Consent and where they have been addressed within the EMS.

**Table 2.1 DA 250-09-01 Mod 5, Conditions of Consent for Environmental Management Strategy**

Condition	Description	Section/s Addressed
<b>Environmental Management Strategy</b>		
<b>1</b>	<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 three (3) months of the approval of Modification 5</li> <li>(b) Provide the strategic framework for environmental management of the development</li> <li>(c) Identify the strategic 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> </ul>	Whole document
	<p>(e) Describe the procedures to be implemented to:</p> <ul style="list-style-type: none"> <li>• Keep 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>	Section 8.0
	<p>(f) Include a Community Relations Plan, developed in consultation with Council, the CCC, and Maroota Public School, which includes:</p> <ul style="list-style-type: none"> <li>• Identification of stakeholders potentially affected by the development</li> <li>• Detailed strategies to monitor and evaluate social impacts of the development on the local community and Maroota Public School</li> <li>• Measures to improve community relations including: <ul style="list-style-type: none"> <li>○ Quarry opens days and education sessions to promote better understanding of quarry operations in the wider community</li> <li>○ Participation in community activities; and</li> <li>○ strategies involving in-kind exchanges of expertise and resources for activities such as bush regeneration, Landcare, Streamwatch, and other community-based environmental programs;</li> </ul> </li> </ul>	Appendix 11
	<p>(g) Include:</p> <ul style="list-style-type: none"> <li>• Copies of any strategies, plan 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 condition of this consent.</li> </ul> <p>The Applicant must implement any EMS as approved by the Secretary.</p>	Appendix 4 to 11 of this EMS

Condition	Description	Section/s Addressed
Evidence of Consultation		
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 of this EMS
Management Plan Requirements		
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> <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> </ul> </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 environment 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</li> </ul> </li> <li>(h) A protocol for periodic review of the plan.</li> <li>(i) <i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></li> </ul>	Appendix 6 to 11



Condition	Description	Section/s Addressed
Application for Existing Strategies, Plans & Programs		
4	The Applicant must continue to apply existing management plans, strategies or monitoring programs approved prior to the approval of Modification 5, until the approval of a similar plan, strategy or program following the approval of Modification 5.	Section 3.0
Revision of Strategies, Plans & Programs		
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>	Section 13.0
Revision of Strategies, Plans & Programs		
5	<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 six (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
Updating and Staging of Strategies, Plans or Programs		
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 measure 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

Condition	Description	Section/s Addressed
<b>Adaptive Management</b>		
<b>7</b>	<p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measure in Schedule 3. Any exceedance of these criteria and/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 and/or performance measures has occurred, the Applicant must as soon as becoming aware of any exceedance:</p> <ol style="list-style-type: none"> <li>1. Take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur</li> <li>2. Consider all reasonable and feasible options for remediation (where relevant)</li> <li>3. Consider all reasonable and feasible options for remediation (where relevant)</li> <li>4. Within fourteen (14) days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measure or other course of action; and</li> <li>5. Implement remediation measures as directed by the Secretary; to the satisfaction of the Secretary.</li> </ol>	Section 7.0 and 8.0
<b>Community Consultative Committee</b>		
<b>8</b>	<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 10 October 2018 and operated in general accordance with the Department's <i>Community Consultative Committee Guidelines, November 2016</i> (or later version)</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>• The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensure that the Applicant complies with this consent.</li> <li>• In accordance with the guidelines, the CCC should comprise an independent chair and appropriate representation from the Applicant, Council and the local community.</li> <li>• The CCC established and operated prior to the approval of Modification 5 must continue to be operated in accordance with the procedures required by the consent prior to the approval of Modification 5 until such time as the CCC required by this condition is established.</li> </ul>	Appendix 11
<b>Incident Reporting</b>		
<b>9</b>	The Applicant must immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any incident	Section 7.0
<b>10</b>	Within seven (7) days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify any non-compliance with this consent.	Section 7.0



Condition	Description	Section/s Addressed
<b>Regular Reporting</b>		
<b>11</b>	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
<b>Annual Review</b>		
<b>12</b>	<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</li> <li>(g) Describe what measure 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>		
<b>13</b>	<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) By the end of November 2019, and every three (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:</li> <li>(c) Be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary</li> <li>(d) Include consultation with the relevant agencies and the CCC</li> <li>(e) Assess the environmental performance of the development and whether it is complying by the end of November 2019, and every three (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:</li> <li>(f) Be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary</li> <li>(g) Include consultation with the relevant agencies and the CCC</li> <li>(h) Assess the environmental performance of the development and whether it is complying</li> <li>(i) Be conducted and reported to the satisfaction of the Secretary.</li> </ul>	Section 10.0
<b>14</b>	<p>Within twelve (12) weeks of commencing this audit, or as otherwise agreed by the Secretary, the Application 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>		
<b>15</b>	<p>Within three (3) months of approval of Modification 5, until 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> </ul> </li> </ul>	Section 11.0

Condition	Description	Section/s Addressed
	<ul style="list-style-type: none"> <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> <p>(b) Keep this information up-to-date, to the satisfaction of the Secretary.</p>	

## 2.2 Other Approvals, Licences and Permits

Dixon Sand holds the following licences and permits relevant to the operation of the Quarry:

- Environment Protection Licence (EPL) 3916 issued by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations (POEO) Act 1997* to extract, process and store sand at the quarry. The EPL 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 3916 is provided in **Appendix 3**
- Part 2 Access Licences in accordance with the *Water Management Act 2000* to extract water from a supply bore on Lot 196. Two Water Access Licences (WAL) and associated Water Supply Works are:
  - WAL 24341 – 30 Megalitres allocated to the Sydney Basin Central Groundwater Source aquifer (supply works 10WA109393), and
  - WAL 24325 – 80 Megalitres allocated to the Sydney Basin Central Groundwater Source aquifer (supply works 10WA109345)

Two production bores are located on Lot 196. These are GW105044 and GW105047.

A Controlled Activity Approval under the *Water Management Act 2000* will be required for any works (including stream and riparian zone restoration works) undertaken within 40 metres of the top bank of the creek on Lot 196.

Dixon Sand will consult with DPI Water prior to the commencement of operations in strip 4 on Lots 1 and 2 in order to determine whether a permit under the *Fisheries Management Act 1994* is required prior to the commencement of these works.

## 2.3 Environmental Management Plans

DA 250-09-01 requires the preparation of a series of management plans to specifically address and manage environmental matters relevant to the operation of the Quarry. These plans form part of this EMS and have been included as appendices. The environmental management plans required by the consent include:

- Environmental Management Strategy (this document)
- Environmental Monitoring Plan (**Appendix 4**)
- Noise Management Plan (**Appendix 6**)
- Air Quality Management Plan (**Appendix 7**)
- Soil and Water Management Plan (**Appendix 8**)
- Traffic Management Plan (**Appendix 9**)
- Biodiversity and Rehabilitation Management Plan (**Appendix 10**)
- Community Relations Plan (**Appendix 11**)

In addition, under Part 5.7A of the POEO Act, the holder of an environment protection licence must prepare and implement a Pollution Incident Response Management Plan (PIRMP) (refer **Section 7.1**). A copy of the Dixon Sand PIRMP is provided in **Appendix 5**.

## 3.0 Environmental Management Framework

This EMS establishes an environmental management framework for all quarrying and processing activities undertaken at Old Northern 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 and consist of:

- Environmental Monitoring Plan (**Appendix 4**)
- Pollution Incident Response Management Plan (**Appendix 5**)
- Noise Management Plan (**Appendix 6**)
- Air Quality Management Plan (**Appendix 7**)
- Soil and Water Management Plan (**Appendix 8**)
- Traffic Management Plan (**Appendix 9**)
- Biodiversity and Rehabilitation Management Plan (**Appendix 10**).

## 4.0 Roles and Responsibilities

Environmental management at the Quarry is the responsibility 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 Quarry Manager

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

- ensure that adequate resources are available to implement the EMS at the Quarry
- authorise the EMS and have a working knowledge 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.

### 4.2 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 Environmental Management Plan.
- Assist in identifying environmental risks and mitigation measures, including implementing additional or revise existing mitigation measures.
- Undertake internal audit and review of performance and compliance in accordance with **Section 9.1**.
- Undertake review of the EMS and related environmental documents in accordance with timelines specified in **Section 12.0**.
- Ensure that all statutory reporting required by the Consent, EPL and this EMS is undertaken.
- Ensure that all environmental documentation identified by Condition 15 Schedule 5 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 and ensure mitigation measures are implemented to eliminate and/or prevent further harm prior to any recommencement of work.



## 4.3 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);  
and
- 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 Environmental Impact Statement (ERM 2001) for the Quarry and subsequent modification application environmental assessments (ERM 2005 and 2007, Nexus Environmental Planning 2011 and 2013, Umwelt 2017). 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
<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 on a monthly basis, or more frequently as required. More frequent inspections may be required in circumstances such as following rainfall, during adverse metrological conditions, following identification of a non-compliance or when works are being undertaken in proximity to extraction limits or buffer areas. 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 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 in **Table 6.1**, with further detail provided in the relevant sub-plans provided in **Appendices 4 - 10**.

Monitoring locations for noise, air, surface water and ground water are shown in the Environmental Monitoring Plan (**Appendix 4**).

**Table 6.1 Summary of key Environmental Monitoring**

Monitoring	Frequency	Responsibility	General Performance Indicator
<b>Meteorology</b> <ul style="list-style-type: none"> <li>Rainfall</li> <li>Wind speed and direction</li> <li>Temperature</li> <li>Sigma theta</li> </ul>	Continuous, 24hr/15min/1hr averaging period	Environmental Officer or delegate	Monitoring undertaken in accordance with the <i>Approved Methods for Sampling and Analysis of Air Pollutants in NSW</i> guidelines
<b>Attended noise monitoring</b> <ul style="list-style-type: none"> <li>LA<sub>eq</sub> (15 min)</li> <li>LA<sub>eq</sub>(1hour)</li> </ul>	6 monthly monitoring and after a complaint	Environmental Officer to engage a suitably qualified and experienced acoustic practitioner	Monitoring results compliant with noise criteria Monitoring results reported in Annual Review and on website
<b>Air Quality monitoring:</b> <ul style="list-style-type: none"> <li>PM<sub>10</sub></li> <li>Dust Deposition</li> </ul>	<ul style="list-style-type: none"> <li>PM<sub>10</sub> – Continuous</li> <li>Dust Deposition – Continuous (analysed monthly)</li> </ul>	Environmental Officer or delegate	Monitoring results compliant with air quality criteria Monitoring results reported in Annual Review and on website
<b>Transport monitoring</b> <ul style="list-style-type: none"> <li>Quantity of product transported</li> <li>Total truck movements</li> </ul>	Continuous and reviewed monthly or after a complaint	Weigh bridge operator/ Quarry Manager	Monitoring results compliant with traffic movement conditions of consent Monitoring results reported in Annual Review and on website
<b>Water quality and flow volumes – Discharges from Main Dam</b> <ul style="list-style-type: none"> <li>pH</li> <li>Total Suspended Solids</li> <li>Turbidity</li> <li>Volume</li> </ul>	<ul style="list-style-type: none"> <li>Water quality parameters – prior to any discharge and daily during discharge</li> <li>Volume – flow meter and continuous logger</li> </ul>	Environmental Officer	Compliance with EPL licence limits prior to and during discharge
<b>Receiving water quality at SW19:</b> <ul style="list-style-type: none"> <li>pH</li> <li>Total Suspended Solids</li> <li>Turbidity</li> <li>Flow condition – no flow, low flow, high flow</li> </ul>	Quarterly	Environmental Officer	Compliance with baseline surface water quality trigger values

Monitoring	Frequency	Responsibility	General Performance Indicator
<b>Sediment and erosion control</b>	Monthly visual inspection or after heavy rain	Environmental Officer	Sediment and erosion controls effectively implemented and maintained in accordance with Landcom's <i>Managing Urban Stormwater</i>
<b>Groundwater monitoring</b> <ul style="list-style-type: none"> <li>Groundwater levels</li> <li>Groundwater quality</li> <li>Groundwater inflow volumes</li> </ul>	<ul style="list-style-type: none"> <li>Levels monitoring monthly</li> <li>Quality monitored 6-monthly</li> <li>Inflow volumes monitored on an ongoing basis as they occur</li> </ul>	Environmental Officer or delegate	Regional groundwater table and MTSGS show no observable adverse impact as a result of quarrying
<b>Sediment and erosion control</b>	Monthly visual inspection or after heavy rain	Environmental Officer	Sediment and erosion controls effectively implemented and maintained in accordance with Landcom's <i>Managing Urban Stormwater</i>
<b>Site water inventories and flows</b> <ul style="list-style-type: none"> <li>Water storage levels</li> <li>Number of water cart fills</li> <li>Pump run hours for water transfers</li> <li>Total time of gravity transfers</li> </ul>	<ul style="list-style-type: none"> <li>Water storage levels monitored monthly.</li> <li>Flows monitoring daily.</li> </ul>	Environmental Officer or delegate	Storage and transfer records indicate water managed within site water management system and licence limits
<b>Groundwater monitoring</b> <ul style="list-style-type: none"> <li>Groundwater levels</li> <li>Groundwater quality</li> <li>Groundwater inflow volumes</li> </ul>	<ul style="list-style-type: none"> <li>Levels monitoring monthly</li> <li>Quality monitored 6-monthly</li> <li>Inflow volumes monitored on an ongoing basis as they occur</li> </ul>	Environmental Officer or delegate	Regional groundwater table and MTSGS show no observable adverse impact as a result of quarrying

Monitoring	Frequency	Responsibility	General Performance Indicator
<b>Biodiversity monitoring</b> <ul style="list-style-type: none"> <li>Ecological monitoring</li> <li>Biodiversity Offset Area Monitoring</li> <li>Threatened flora/translocation monitoring</li> <li>Visual inspection of buffer and conservation areas to ensure integrity of buffer markers and fences and ensure no disturbance or degradation as a result of the operation</li> </ul>	<ul style="list-style-type: none"> <li>Ecological and Biodiversity Offset Area Monitoring - Annual</li> <li>Threatened flora/translocation monitoring – three (3)-monthly in the first year then annually</li> <li>Monthly visual inspection of buffer markers and fences to ensure no disturbance of buffer/conservation zones.</li> <li>Monthly visual assessment of buffer/conservation areas to ensure no degradation as a result of the operation.</li> </ul>	Environmental Officer or delegate	<p>Ecological monitoring results meet performance indicators set out in the Biodiversity and Rehabilitation Management Plan.</p> <p>Site Condition Checklist indicates buffer markers and fencing in place and no disturbance or degradation to buffer and conservation areas.</p>
<b>Extraction depth</b>	Monthly visual survey from survey control points during extraction, down to within 5 metres of maximum extraction depth, then a regular interval by qualified surveyor until maximum extraction depth is achieved.	Quarry Manager or delegate	Works as executed plans show compliance with maximum extraction depth
<b>Rehabilitation</b>	<p>Monthly inspection of general rehabilitation areas.</p> <p>Bi-annual sampling within stream restoration area (following commencement of restoration works).</p> <p>Annual inspection of rehabilitation areas for weeds and feral animals.</p>	Environmental Officer or delegate	Rehabilitation achieves rehabilitation objectives and completion criteria set out in the Biodiversity and Rehabilitation Management Plan.
<b>Waste</b>	<p>Monthly check of waste management system.</p> <p>Weekly check of recycling system.</p>	Environmental Officer or delegate	<p>No non-compliance relating to waste disposal.</p> <p>No contamination of site or adjacent areas.</p>

## 7.0 Incident Response

### 7.1 Pollution Incident Response

Old Northern Road Quarry has developed a Pollution Incident Response Management Plan (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 NSW Environmental 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.’*

A copy of the PIRMP is provided as **Appendix 5** to this EMS.

### 7.2 Non-Compliance Incident Response

On identification of a non-compliance, the Quarry Manager will be notified and an investigation into the cause or source of the non-compliance commenced.

On identification of the cause or source of the non-compliance, 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, the 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 Emergency Incident Response

Environmental incidents at the Quarry are managed in accordance with the PIRMP (refer to **Appendix 5**) and a Bushfire Management Plan.

Medical and safety incidents are managed in accordance with Dixon Sand’s Incident and Emergency Reporting procedures.

Contact details for relevant emergency response and notification agencies are provided in the PIRMP and Incident and Emergency Reporting procedure, and replicated in **Section 7.4** below.



## 7.4 Incident Contact Details

INCIDENT TYPE	CONTACT	TELEPHONE
All incidents	General Manager	T  02 4566 8348 M  0414 330 490
Environmental incidences	Environmental Officer	T  02 4566 8348 M  0405 844 207
Pollution incident/ Non-compliance incident	EPA Pollution Line	131 555
	Department of Planning and Environment - Planning	1300 420 596
Serious WHS incident	Department of Regional NSW – Mining, Exploration and Geoscience – NSW Resources Regulator	1300 814 609
Fire	Fire Fighting Service	000
Hazardous materials spill	Fire & Rescue	1300 729 579
Accident/Unlawful action	Police (Wisemans Ferry)	T  02 4566 4302 AH  02 4577 4111
Injured animal	Wildlife Information and Rescue Service (WIRES – Blue Mountains)	02 4754 2946
Archaeological artefact identified	National Parks and Wildlife Service (Sydney Zone)	02 9585 6444
Human remain	Police	000

## 7.5 Incident Notification and Reporting

### 7.5.1 Notification of Environmental Harm

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, 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 5**).

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.

## 7.5.2 Incident Reporting

In addition to the notification requirements under Part 5.7 of the POEO Act outlined in **Section 7.5.1**, in the event that Dixon Sand becomes aware of a set of circumstances that:

- Causes or threatens to cause material harm to the environment, and/or
- Breaches or exceeds the limits or performance measures/criteria in the development consent,

Dixon Sand Quarry Manager or delegate will immediately notify the Secretary (using the contact name, email address and phone number provided by the Department from time to time) and any other relevant agencies of any such incident.

Additionally, within seven (7) days of the date of becoming aware of such an incident, Dixon Sand will provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested. This report must include the time and date of the incident, details of the incident, measures implemented to prevent re-occurrence and must identify any non-compliance with the Consent.

## 7.5.3 Notification to Landowners

Dixon Sand will notify landowners as soon as practicable and no longer than seven (7) days after obtaining monitoring results showing:

- An exceedance of any criteria in Schedule 3, Dixon Sand will notify the affected landowners in writing of the exceedance, and provide regular monitoring results, at least every three (3) months, to each affected landowner until the development is again complying with the relevant criteria; and
- An exceedance of any air quality criteria in Schedule 3, Dixon Sand will 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).

## 7.5.4 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 officer may request a written report of the event.

The Quarry Manager will be responsible for ensuring these reporting requirements are complied with.

## 8.0 Reporting

### 8.1 Regular Reporting

Dixon Sand will 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 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 10.3**).

### 8.2 Annual Review

By the end of September each year, as approved by the Secretary (letter dated 9<sup>th</sup> February 2018), Dixon Sand will submit a report to the Department reviewing the environmental performance of the Quarry to the satisfaction of the Secretary. This review will include:

- A description of the development (including any progressive rehabilitation) that was carried out in the previous reporting period from 1<sup>st</sup> July to 30<sup>th</sup> June annually (timing approved by the Secretary, letter dated 9<sup>th</sup> February 2018), and the development that is proposed to be carried out over the current reporting period;
- A comprehensive review of the monitoring results and complaints records of the development over the previous calendar year (or other timing as may be agreed by the Secretary), 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
- An evaluation of:
  - The effectiveness of the air quality and noise management systems; and
  - Compliance with the performance measures, criteria and operating conditions in this consent
- Identification of any non-compliances over the past calendar year (or other timing as may be agreed by the Secretary), and a description of what actions were (or are being) taken to ensure compliance
- Identification of any trends in the monitoring data over the life of the development
- Identification of any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies
- Description of what measure 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 interest person upon request.

### 8.3 EPL Annual Return

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

- Statement of Compliance,
- Monitoring and Complaints Summary,
- Statement of Compliance - Licence Conditions,
- Statement of Compliance - Load based Fee,
- Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
- Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
- 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.

The Annual Return for the reporting period will be supplied to the EPA via eConnect EPA or registered post (or other accepted method) not later than 60 days after the end of each reporting period.

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 7.1** and **Section 7.2**.

## 9.0 Unexpected Archaeological Finds

The unexpected finds procedure has been developed in accordance with the requirement of Condition 24 of Schedule 3. 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:

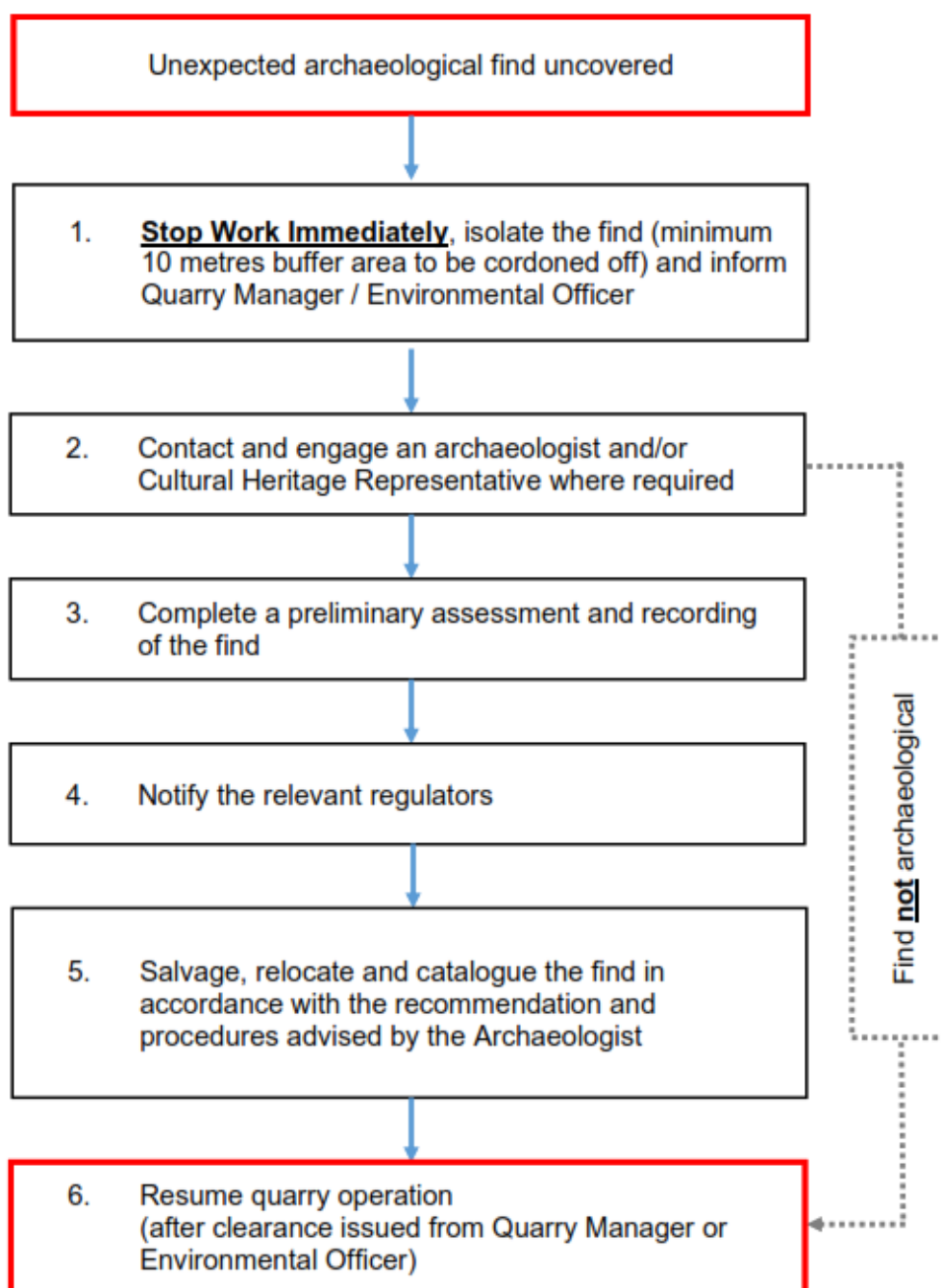
- bottles,
- items of clothing,
- pottery,
- building or road materials, and
- general refuse.

### 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 Internal Audit and Review

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 (**Section 2.1**) and other approvals, licences or permits (**Section 2.2**).

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 (refer to **Section 8.2**), 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

By the end of November 2019, and every three (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 this 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 twelve (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 DA250-09-01, 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 three (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; and
- 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

Dixon Sand has established and operates a CCC for the development. The CCC is comprised of an independent chairperson, representatives of the quarry, Hills Shire Council, Maroota Public School and the local community. The CCC meets on a six (6) monthly basis. The CCC is required to operate in general accordance with the Department's *Community Consultative Committee Guideline, June 2023* (or later version).

Meeting agenda and minutes of the CCC meetings are published on the company website and provided to Council and the Secretary.

## 11.2 Communication with Community Stakeholders

Dixon Sand has operated Old Northern Road Quarry since 1992 and has established relationships with surrounding residences and Maroota Public School.

In accordance with Condition 1(f) Schedule 5 of the Development Consent, a Community Relations Plan has been developed in consultation with Council, the CCC and Maroota Public School. The Community Relations Plan describes the methods by which the Quarry will manage community relations and communication with key community stakeholders during the operation of the Quarry. A copy of the Community Relations Plan is provided as **Appendix 11**.

## 11.3 Access to Information

As required by Condition 15 of Schedule 5 of DA 250-09-01, all strategies, plans and programs will be displayed on the company website (<http://www.dixonsand.com.au>) within one month of approval by the Secretary. The website will be updated at least once every 3 months.

The Environmental Officer 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 activities conducted at the premises or by the vehicle or mobile plant associated with the Quarry.

Dixon Sand will notify the public of the complaints line telephone number and the fact that it is a complaints line so that the community knows how to make a complaint. The telephone number will be advertised on the site gate and on the Dixon Sand website.

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
- the 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. Complainants personal details are not included on the register published on the Dixon Sand's website
- the nature of the complaint
- the action 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 two (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
- 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. Where relevant, negotiations will be initiated in accordance with the applicable development consent conditions.

## 11.6 Control of Distribution

To ensure the correct environmental procedures and plans are used on site; issue of this EMS is controlled using a document register. The register is retained at the site office and will be included in each Annual Review. The EMS document will be distributed to the following agencies, regulators and companies:

- Dixon Sand Pty Ltd
- Department of Planning and Environment - Planning
- Environment Protection Authority (NSW)
- Department of Planning and Environment – Environment and Heritage Group

- Transport for New South Wales
- The Hills Shire Council
- Community Consultative Committee (CCC)

## **11.7 Project Status Notification**

There is no specific requirement under DA 250-09-01 to notify the Department of any changes in the project status.

## 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 retraining 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
- 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 to complete and return.

The status of inductions will be checked monthly using the 'site Condition Checklist'.

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

Ongoing monitoring and review on the performance and implementation of this EMS will be undertaken by the Environmental Officer.

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

- incident report under Condition 10;
- annual review under Condition 12;
- independent Environmental Audit report under Condition 14; 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 six (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

Environmental Resources Management Australia Pty Ltd (ERM), 2001, *Proposed extension of sand extraction operations Lots 1 and 2 DP547255 Old Northern Road, Maroota, Environmental Impact Statement*, Report prepared for Dixon Sand (Penrith) Pty Ltd.

Environmental Resources Management Australia Pty Ltd (ERM), 2005, *Statement of Environmental Effects (SEE) titled Sand Quarry on Lots 29, 196, 1 & 2 Old Northern Road, Maroota, Section 96 Consent Modification*.

Environmental Resources Management Australia Pty Ltd (ERM), 2007, *Statement of Environmental Effects (SEE) titled Section 96 Modification for Dixon Sand Pty Ltd dated August 2017, incorporating letter from Environmental Resource Management Australia to the Department dated 1 April 2008 and 29 May 2008*.

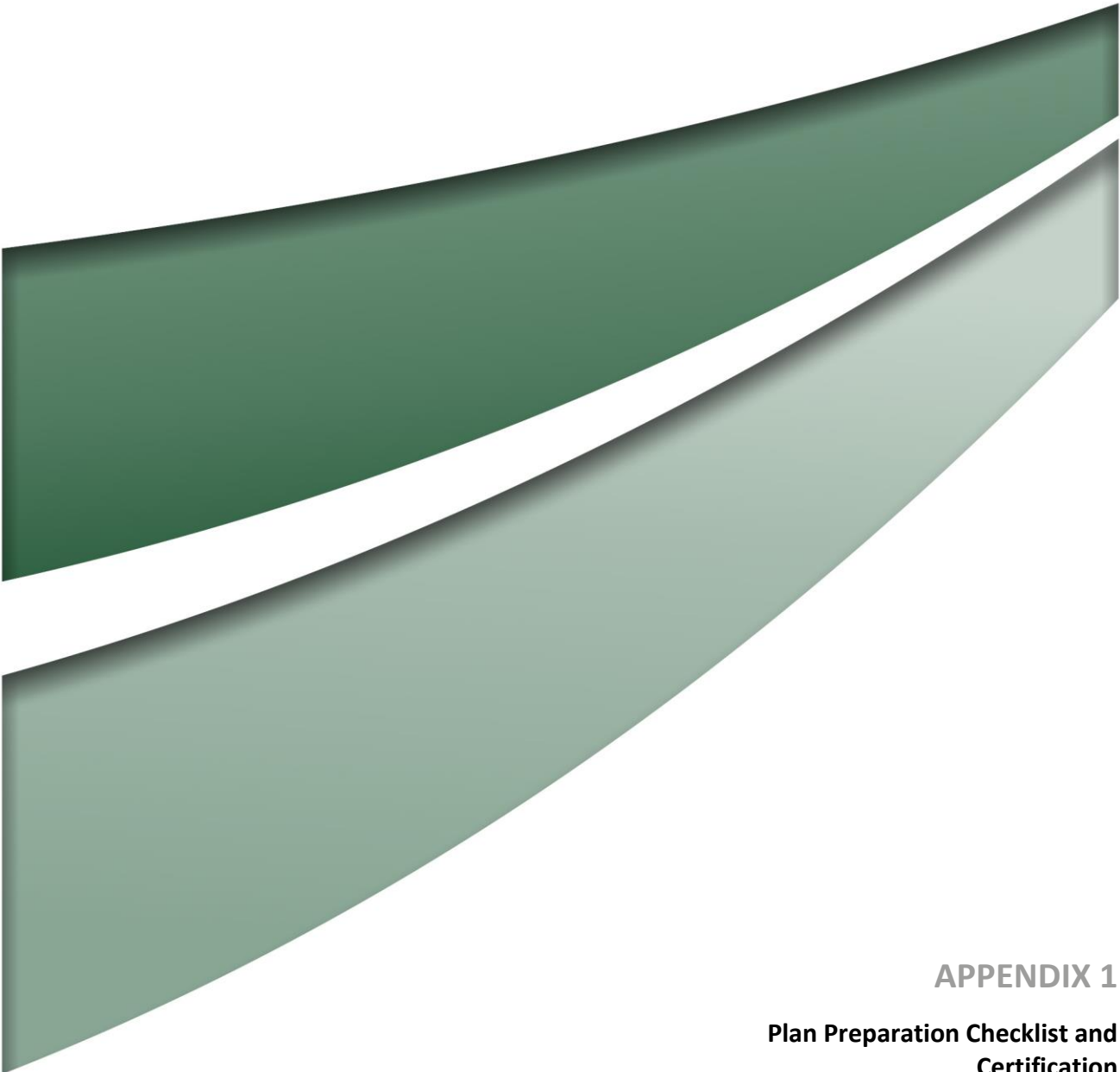
Nexus Environmental Planning Pty Ltd, (2012), *Environmental Assessment Section 75W Modification DA 250-09-01 Dixon Sand (Penrith) Pty Ltd Old Northern Road Maroota* (2 Volumes)

Nexus Environmental Planning Pty Ltd, (2013), *Environmental Assessment Section 75W Modification (4) DA 250-09-01 Dixon Sand (Penrith) Pty Ltd Old Northern Road Maroota* (2 Volumes)

NSW EPA, 2015, *Environmental Protection Licence 3916*

Southern Environmental Pty Limited, (1999), *Maroota Quarry Extension - Environmental Impact Statement*, Report prepared for Dixon Sand (Penrith) Pty Ltd

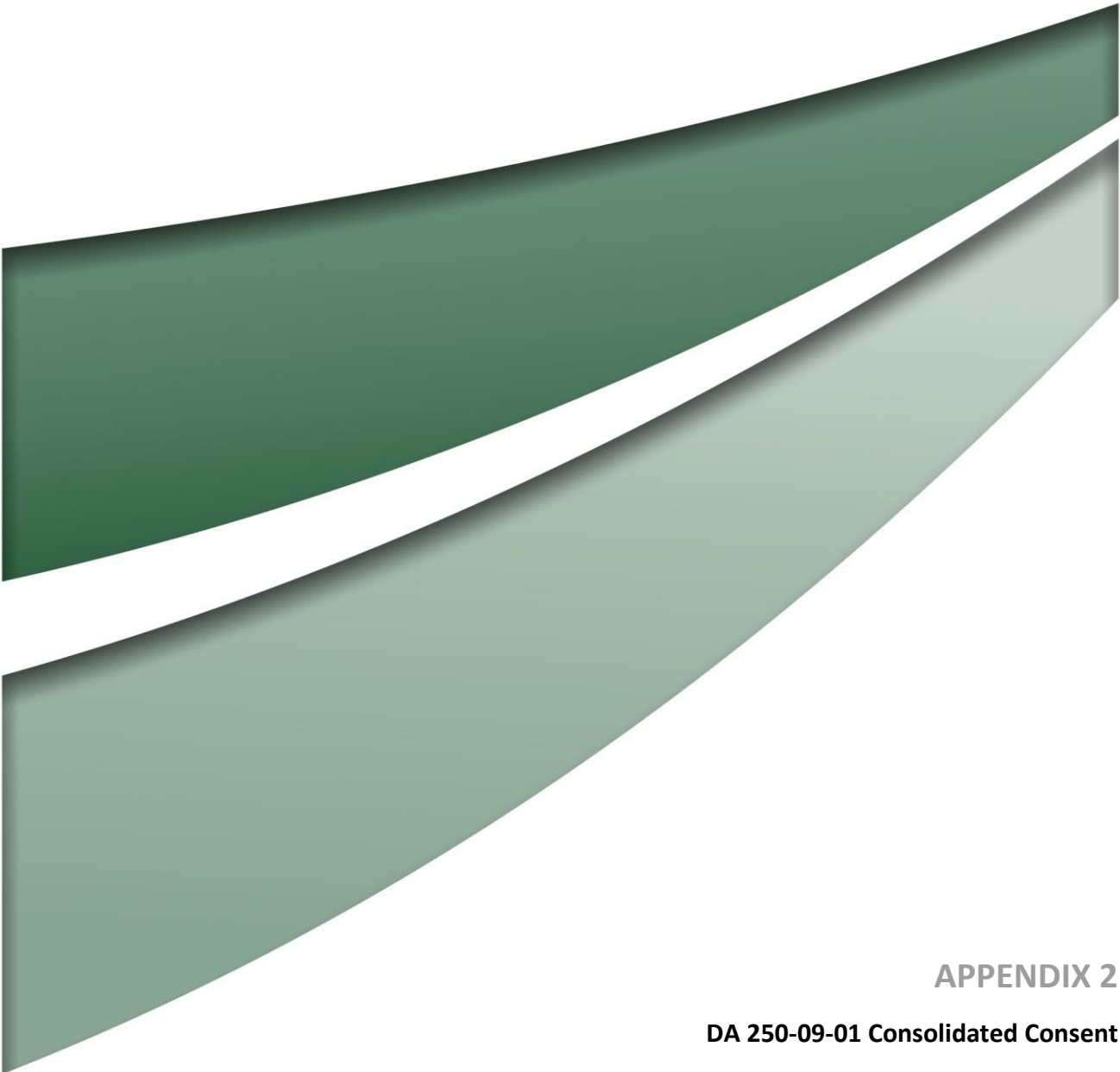
Umwelt (Australia) Pty Ltd, 2017, *Environmental Assessment – Proposed Modification to DA 250-09-01 – Old Northern Road Quarry, Maroota*, Report prepared for Dixon Sand (Penrith) Pty Ltd



## **APPENDIX 1**

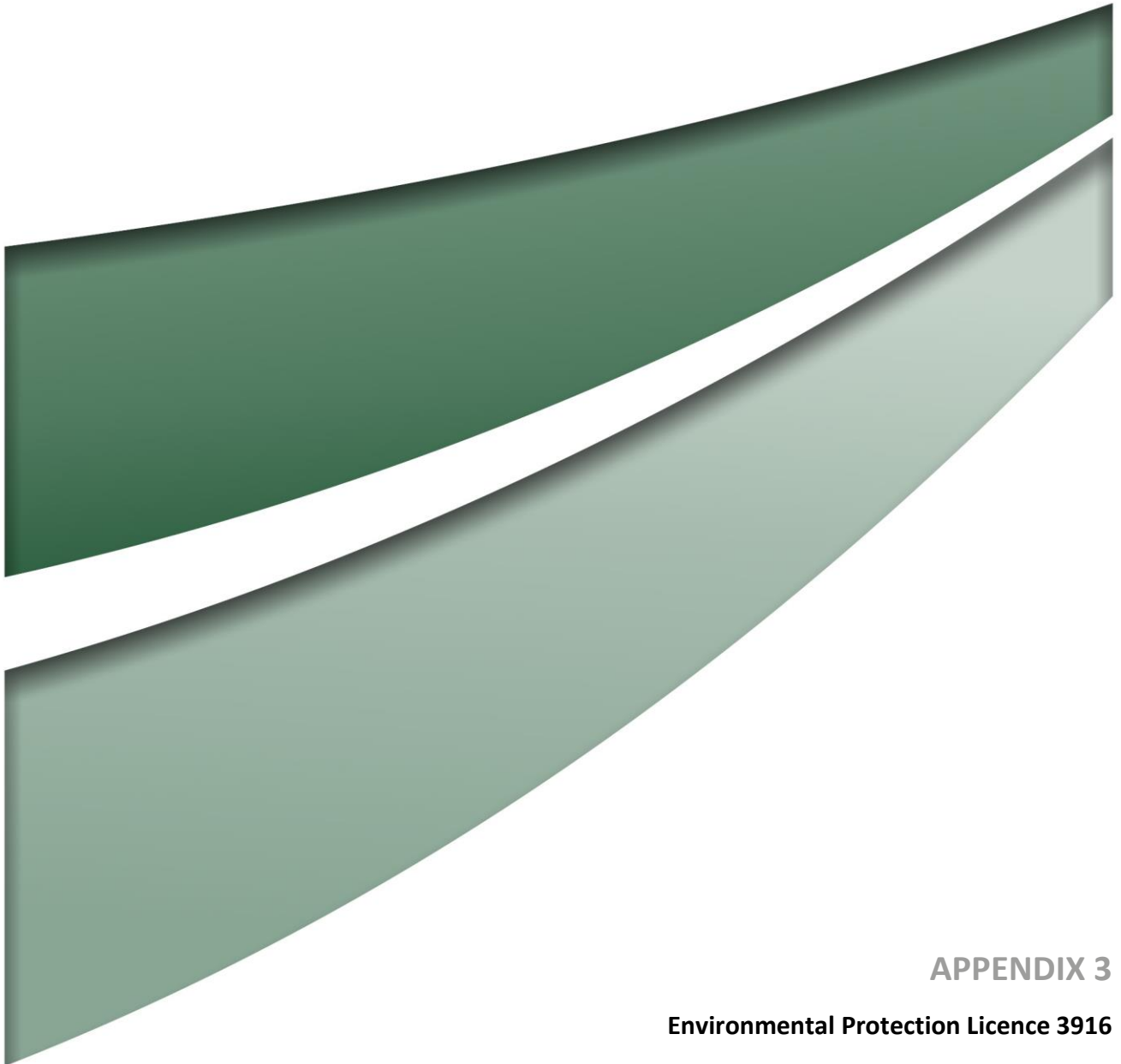
### **Plan Preparation Checklist and Certification**





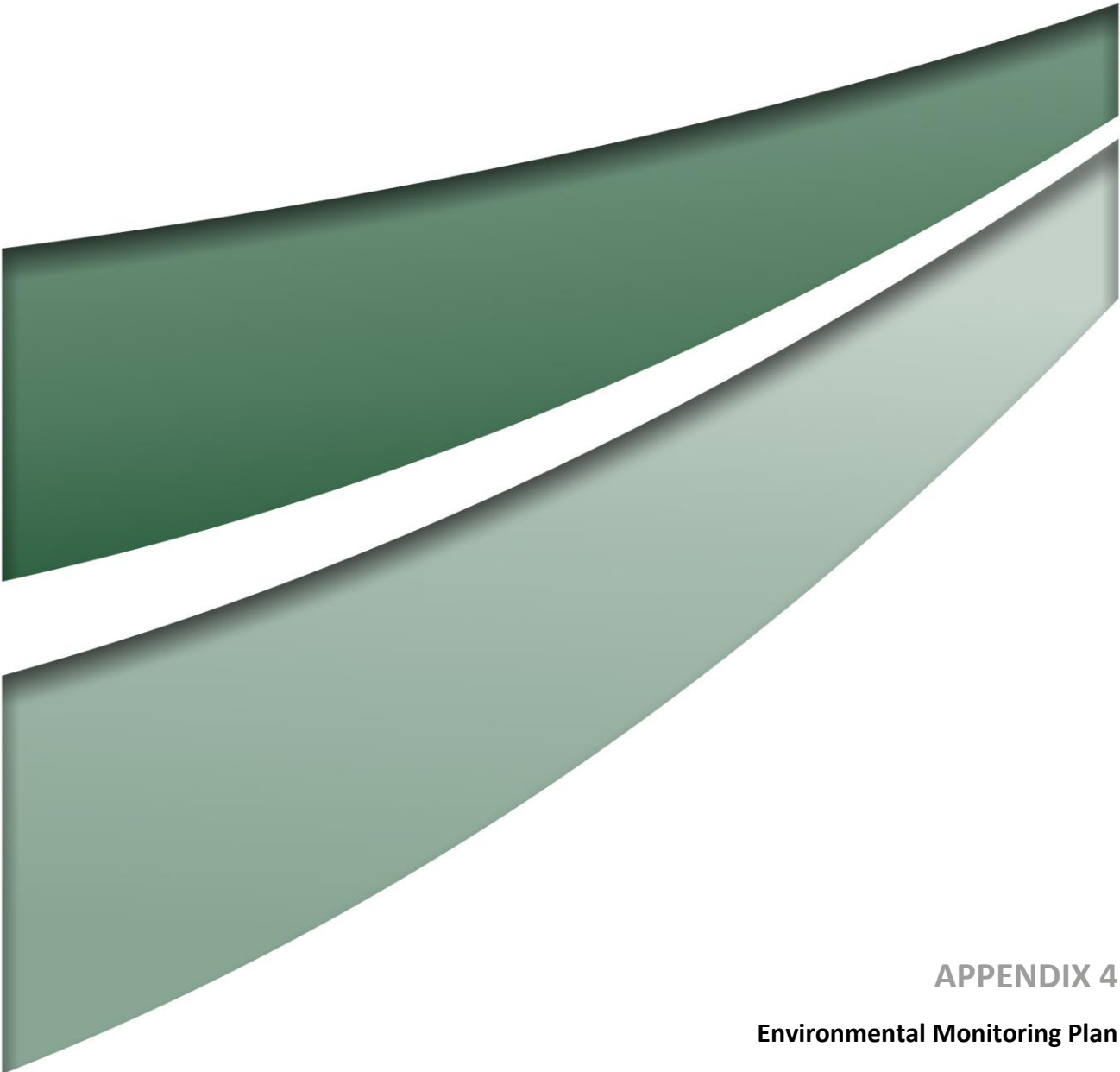
## APPENDIX 2

**DA 250-09-01 Consolidated Consent**



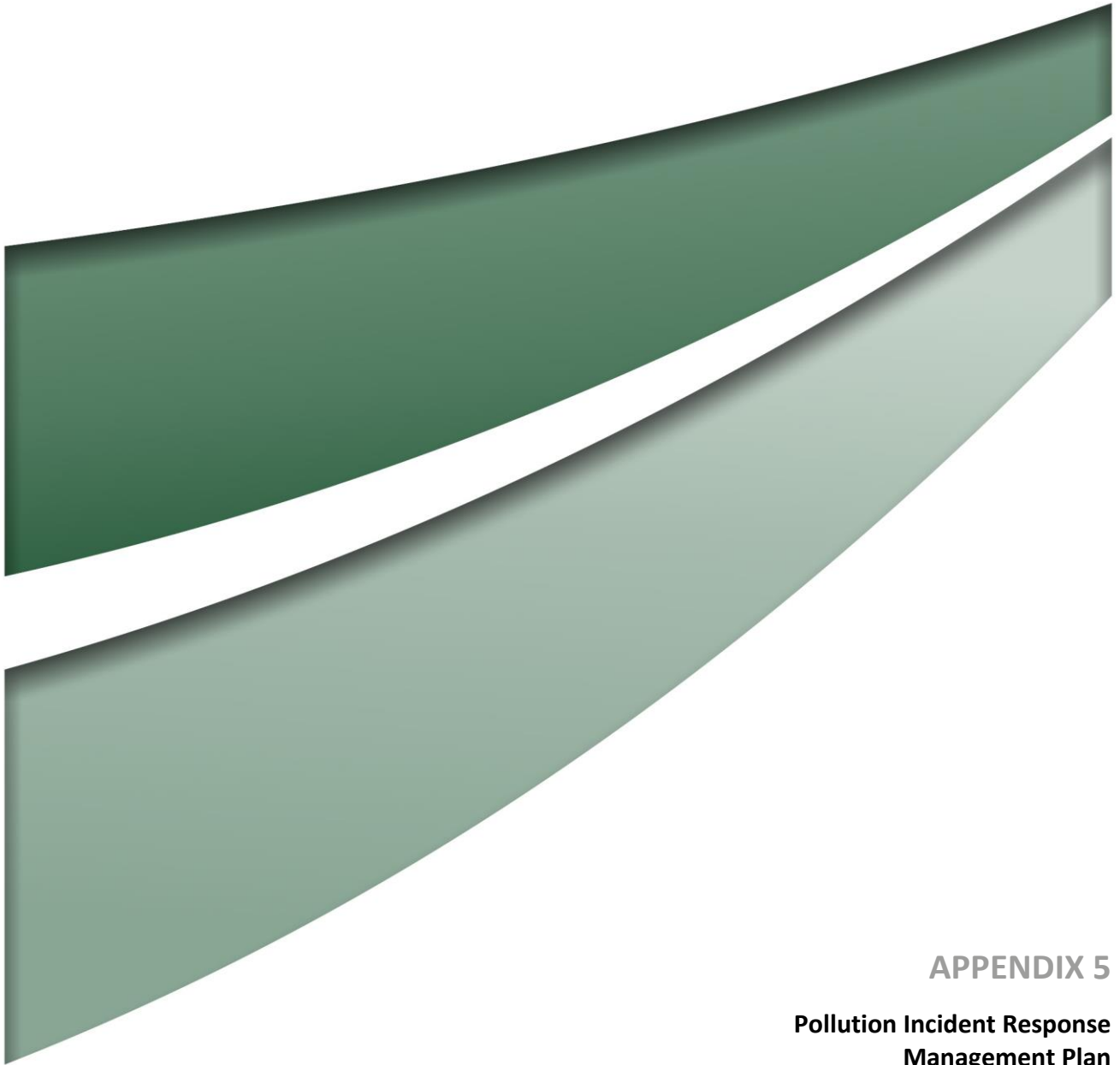
## APPENDIX 3

**Environmental Protection Licence 3916**



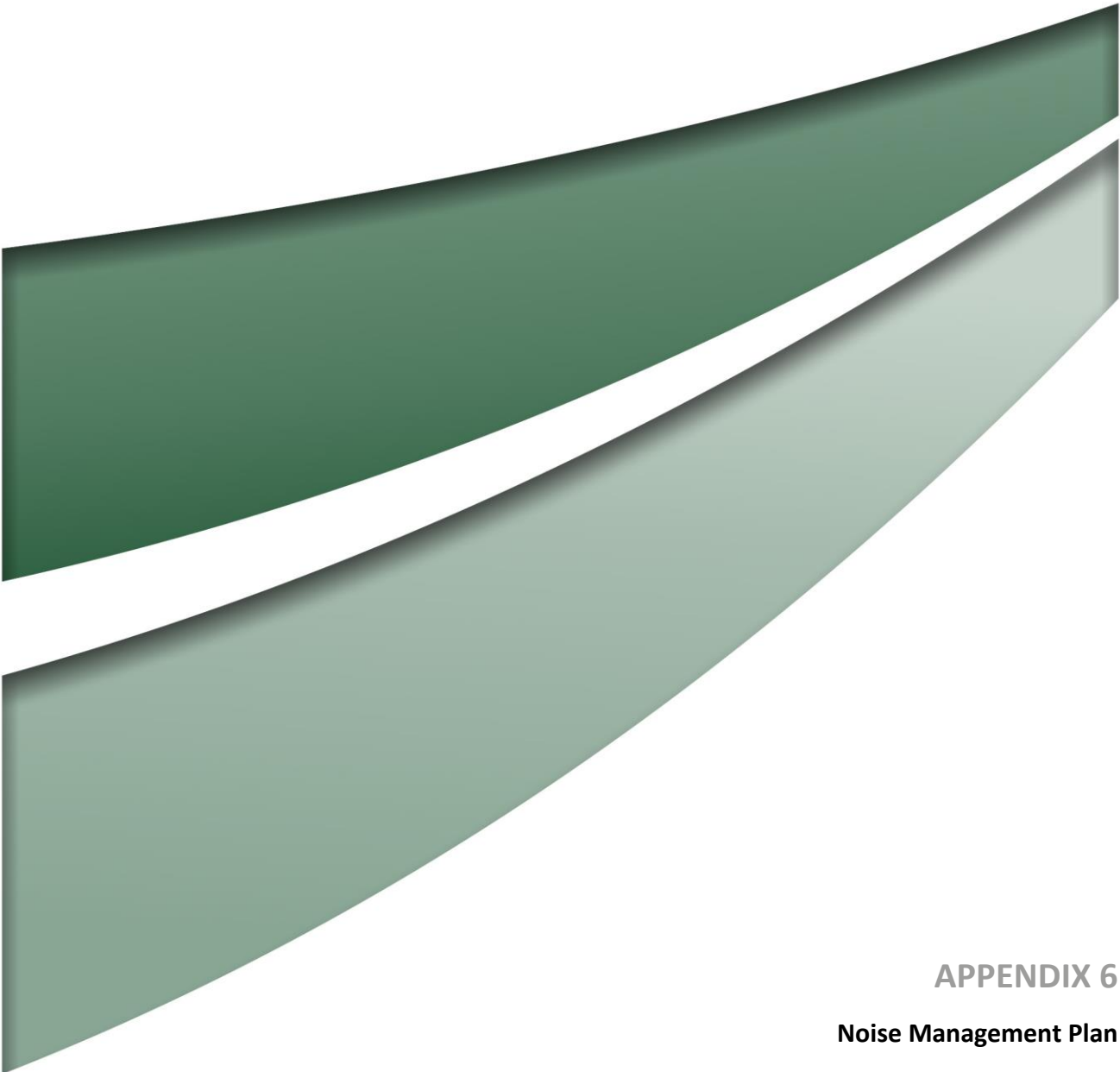
## APPENDIX 4

### Environmental Monitoring Plan



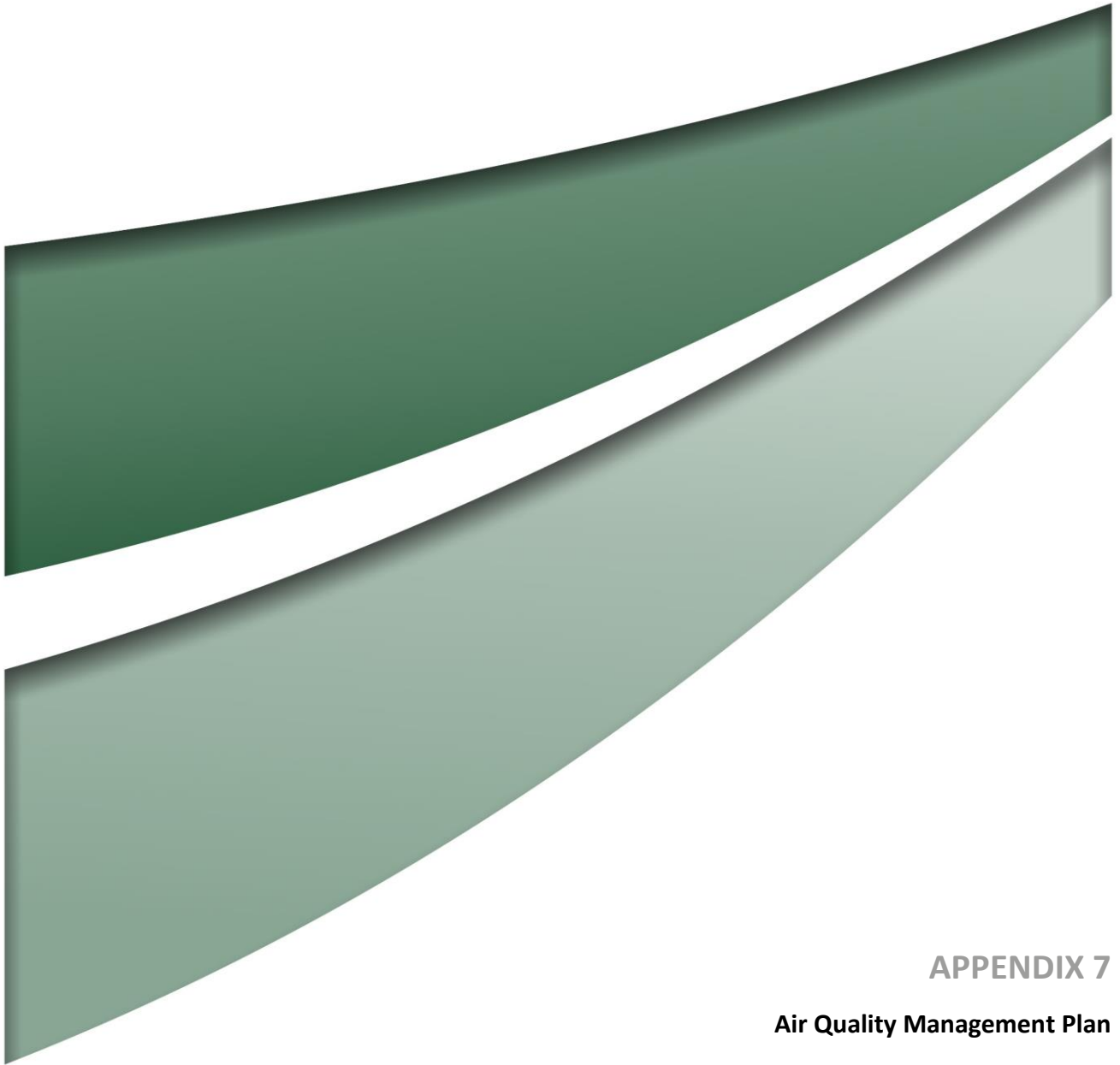
## APPENDIX 5

### Pollution Incident Response Management Plan



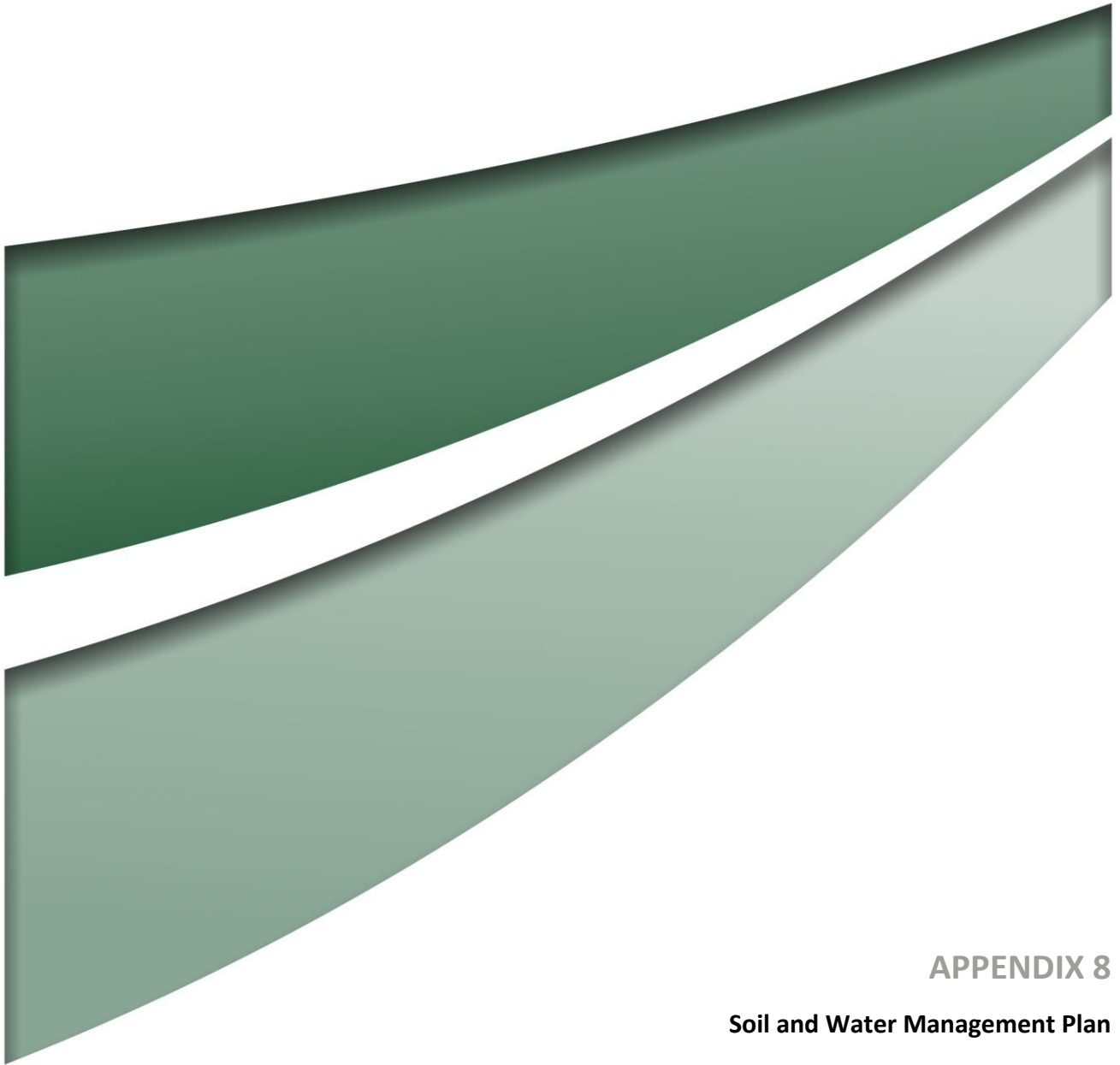
## APPENDIX 6

### Noise Management Plan



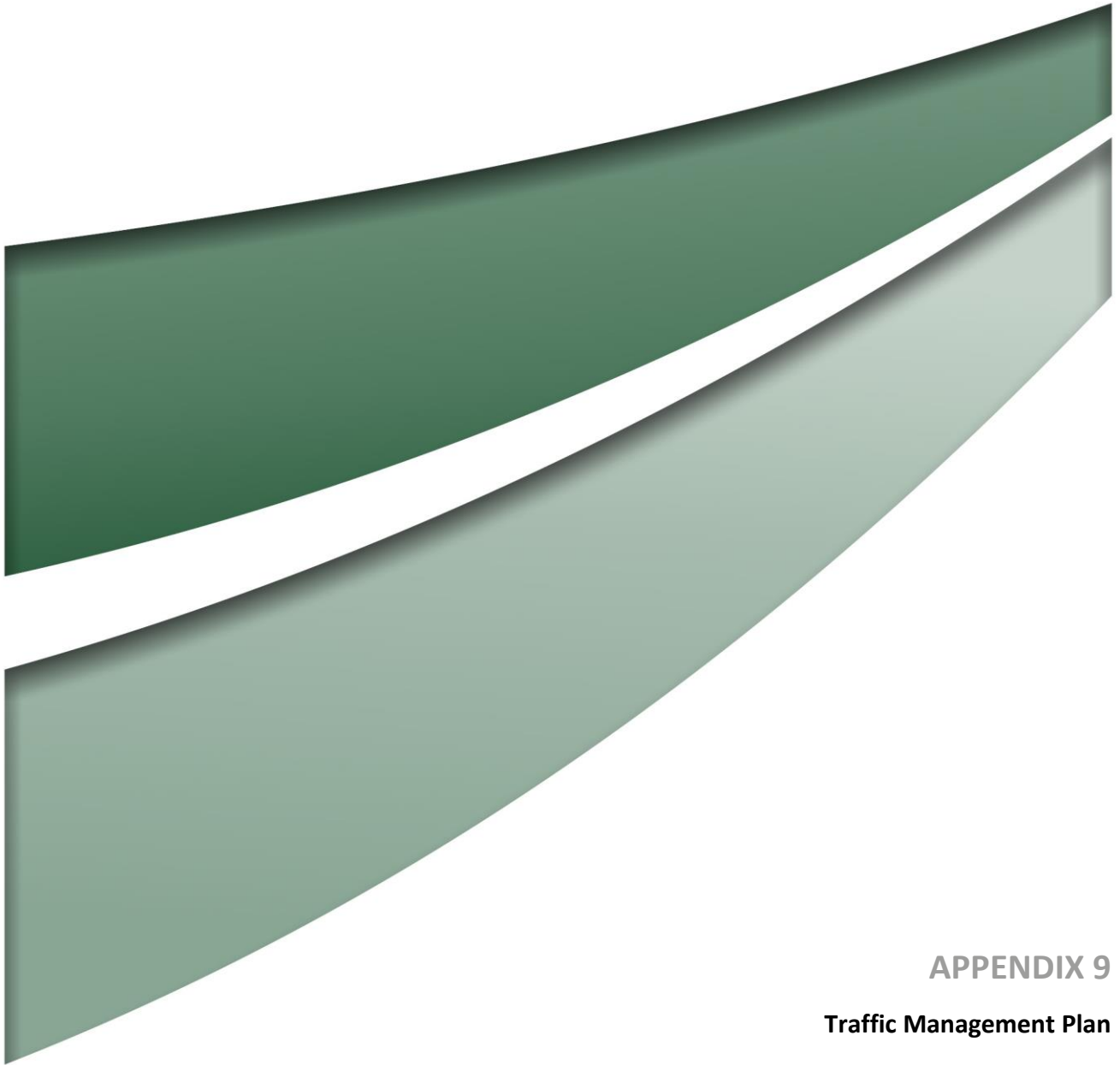
## APPENDIX 7

### Air Quality Management Plan



## APPENDIX 8

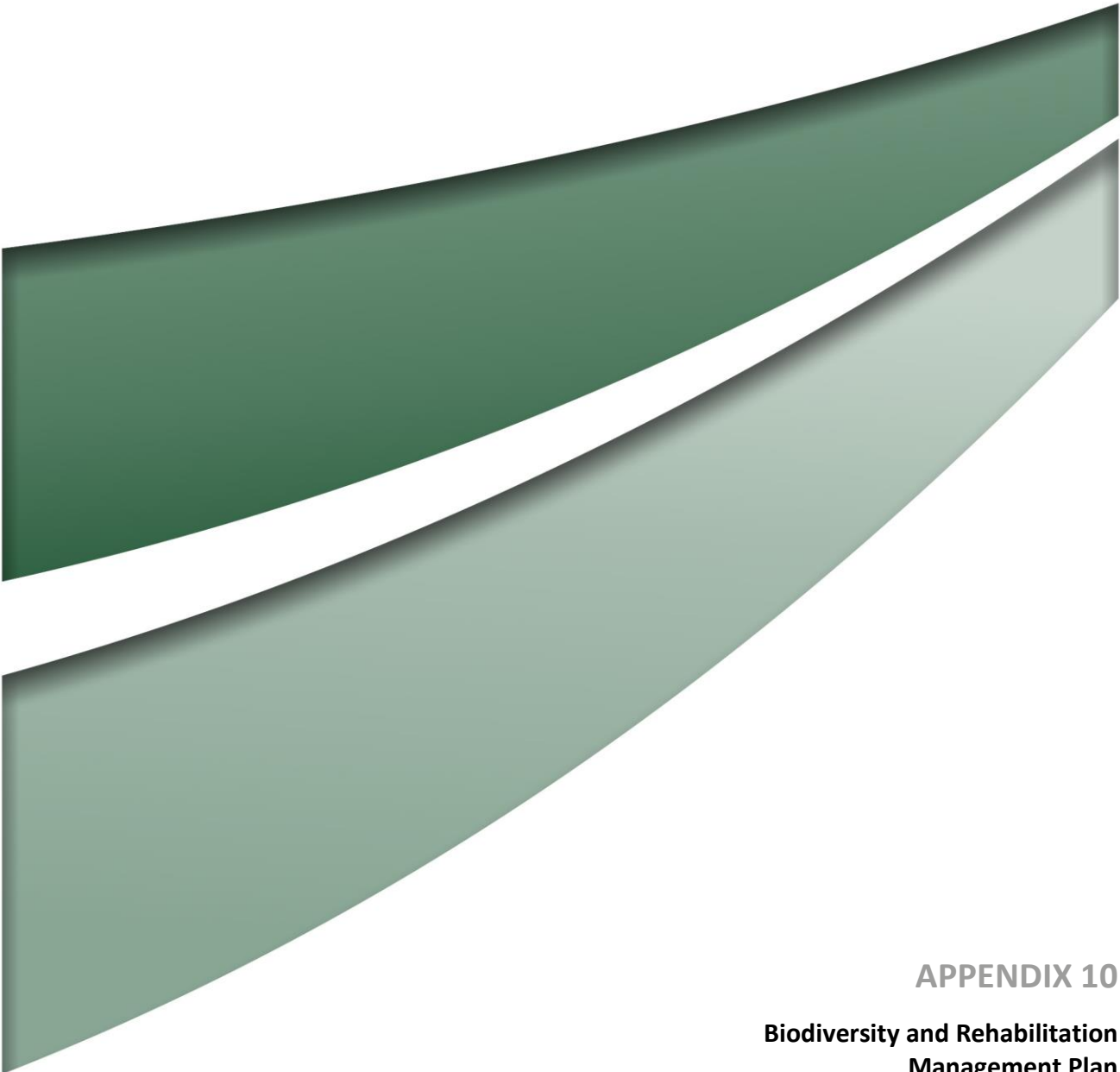
### Soil and Water Management Plan



## APPENDIX 9

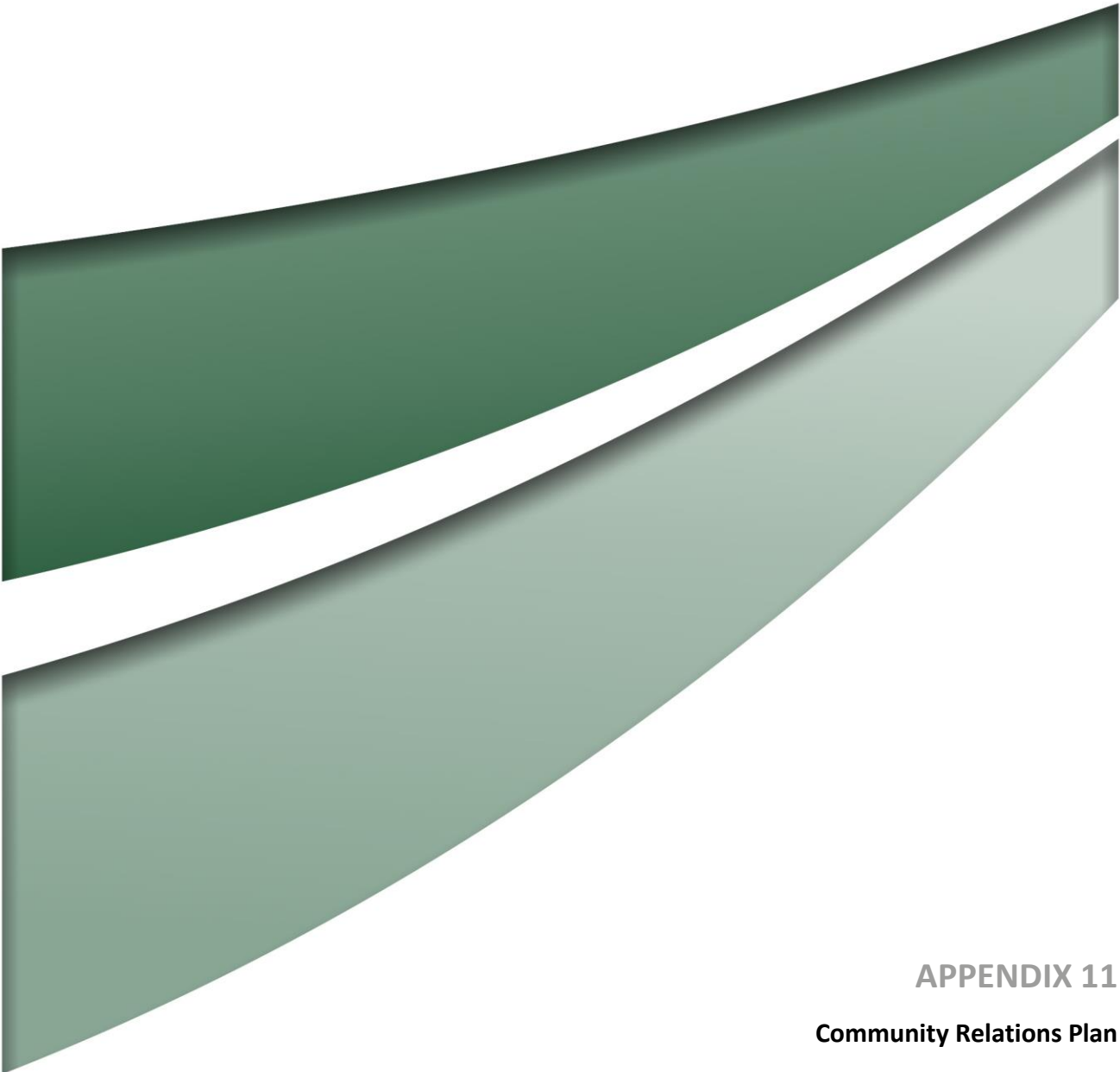
### Traffic Management Plan





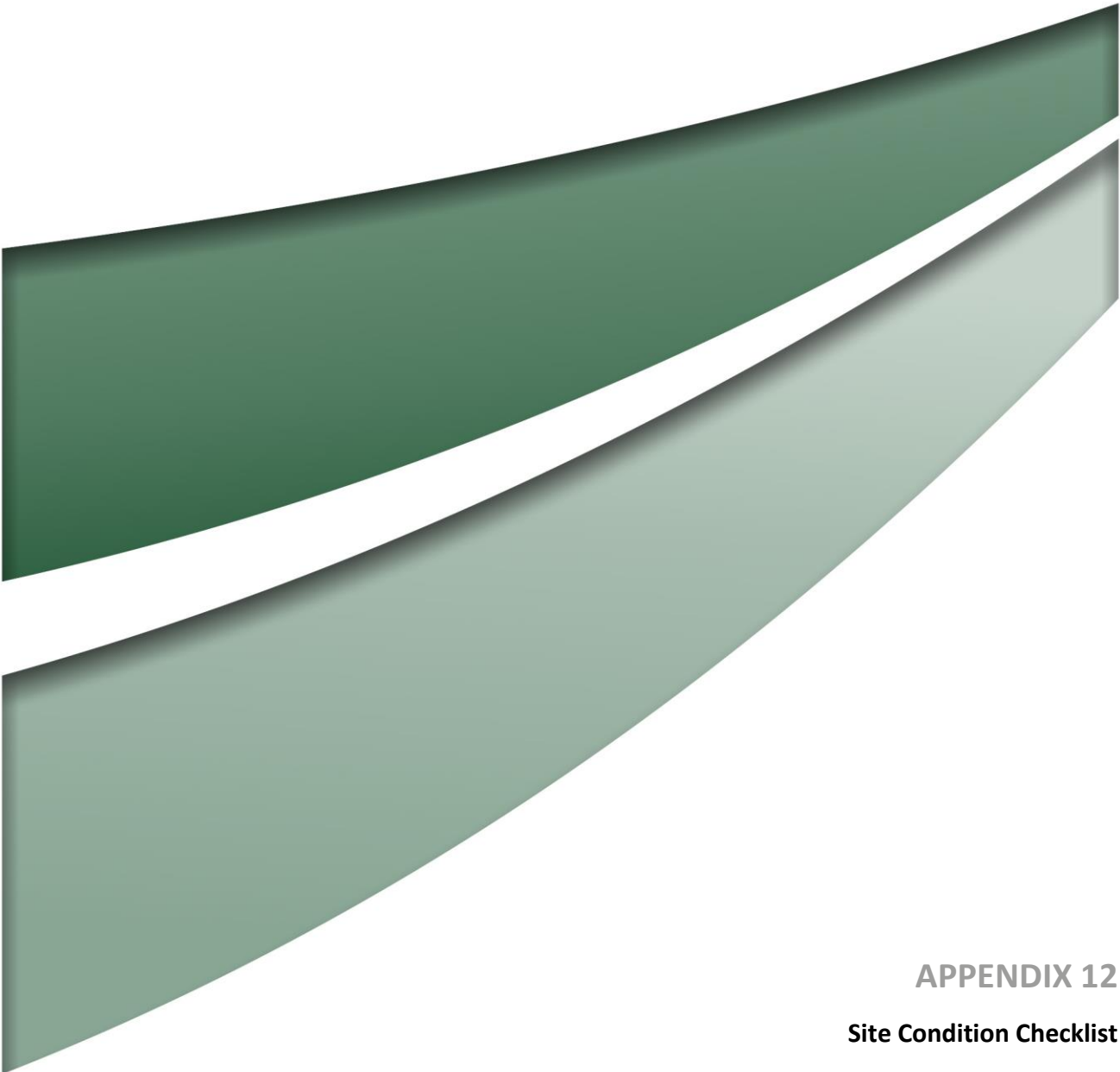
**APPENDIX 10**

**Biodiversity and Rehabilitation  
Management Plan**

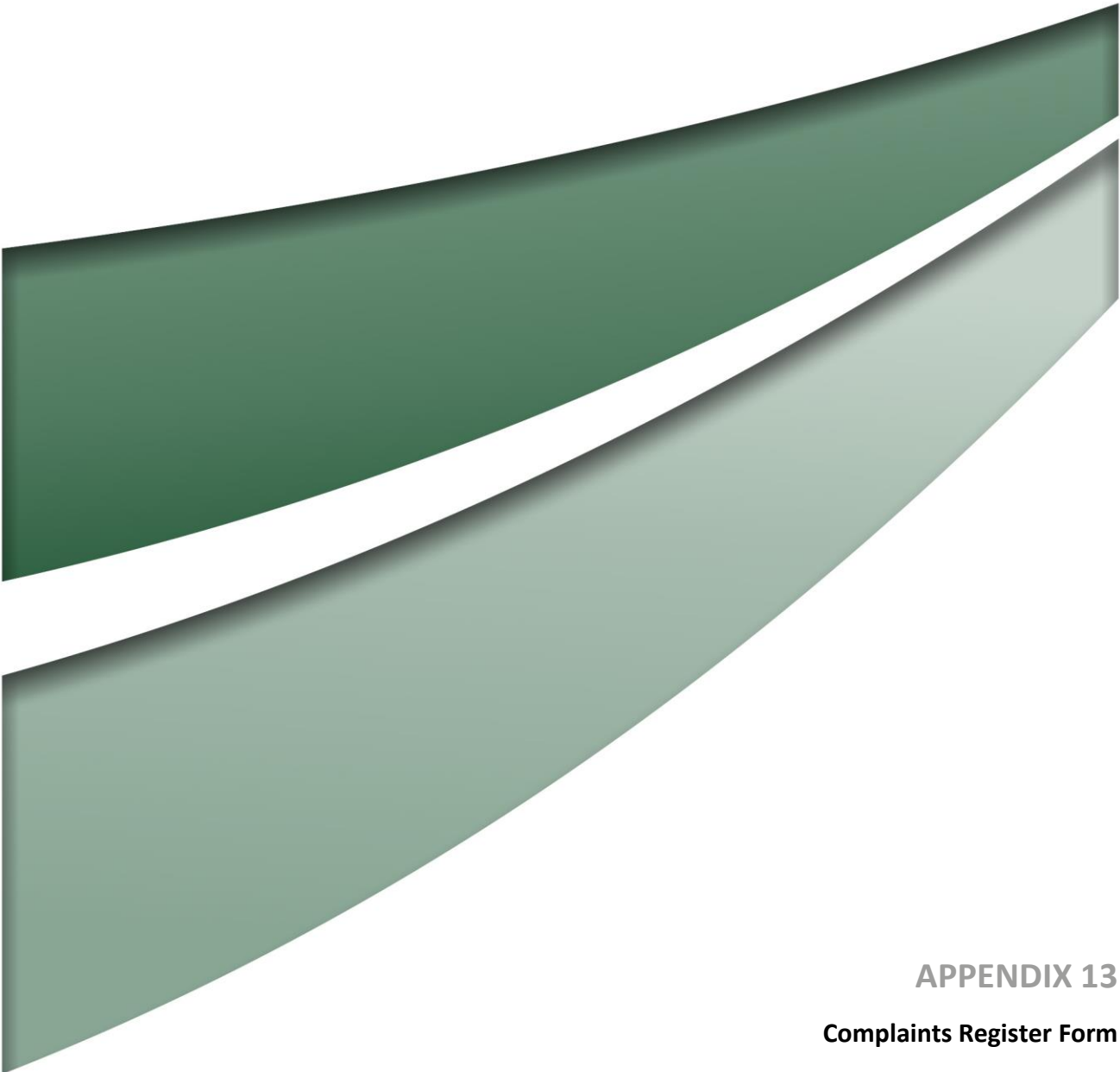


## APPENDIX 11

### Community Relations Plan



**APPENDIX 12**  
**Site Condition Checklist**



**APPENDIX 13**

**Complaints Register Form**



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