

HAERSES ROAD QUARRY

Environmental Management Strategy

May 2019



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Environmental Management Strategy

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

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Table of Contents

| | | |
|------------|--|-----------|
| 1.0 | Introduction | 9 |
| 1.1 | Background | 9 |
| 1.2 | Purpose and Scope | 9 |
| 2.0 | Regulatory Requirements | 13 |
| 2.1 | Development Consent Conditions | 13 |
| 2.2 | Other Approvals, Licences and Permits | 18 |
| 2.3 | Objectives | 18 |
| 2.4 | Environmental Management Plans | 19 |
| 3.0 | Environmental Management Framework | 20 |
| 4.0 | Roles and Responsibilities | 21 |
| 4.1 | Dixon Sand Managing Director | 21 |
| 4.2 | Quarry Manager | 21 |
| 4.3 | Environmental Officer(s) | 21 |
| 4.4 | Employees and Contractors | 22 |
| 5.0 | Environmental Risks | 23 |
| 6.0 | Inspections and Monitoring | 24 |
| 6.1 | Environmental Inspections | 24 |
| 6.2 | Environmental Monitoring | 24 |
| 7.0 | Incident Response | 27 |
| 7.1 | Pollution Incident Response | 27 |
| 7.1.1 | Notification of Environmental Harm | 27 |
| 7.1.2 | Emergency Incident Response | 28 |
| 7.2 | Non-Compliance Response | 28 |
| 7.3 | Incident and Non-Compliance Notification and Reporting | 28 |
| 7.3.1 | Incident and Non-Compliance Reporting | 28 |
| 7.3.2 | Notification to Landowners | 30 |
| 7.3.3 | Written Report | 30 |
| 8.0 | Reporting | 31 |
| 8.1 | Regular Reporting | 31 |
| 8.2 | Annual Review | 31 |
| 8.3 | EPL Annual Return | 32 |
| 8.4 | Adaptive Management | 32 |
| 9.0 | Auditing | 34 |
| 9.1 | Internal Audit and Review | 34 |

| | | |
|-------------|---|-----------|
| 9.2 | Independent Environmental Audit | 34 |
| 9.3 | Independent Review | 35 |
| 10.0 | Communication | 36 |
| 10.1 | Community Consultative Committee | 36 |
| 10.2 | Communication with Community Stakeholders | 36 |
| 10.3 | Access to Information | 36 |
| 10.4 | Complaints Management | 37 |
| 10.5 | Dispute Resolution | 38 |
| 10.6 | EMS Control and Distribution | 38 |
| 11.0 | Training and Awareness | 39 |
| 12.0 | Review and Continual Improvement | 40 |
| 13.0 | References | 41 |

Figures

| | | |
|------------|---------------------|----|
| Figure 1.1 | Locality Plan | 11 |
| Figure 1.2 | Haerses Road Quarry | 12 |

Tables

| | | |
|-----------|--|----|
| Table 2.1 | Environmental Management Strategy Development Consent Conditions | 13 |
| Table 5.1 | Key Environmental Risks | 23 |
| Table 6.1 | Summary of Key Environmental Monitoring | 25 |

Appendices

| | |
|-------------|--|
| Appendix 1 | Plan Preparation Checklist and Certification |
| Appendix 2 | DA 165-7-2005 Consolidated Consent |
| Appendix 3 | EPL 12513 and EPBC 2015/7608 (Note: EPL requires modification) |
| Appendix 4 | Pollution Incident Response Management Plan |
| Appendix 5 | Environment Monitoring Locations |
| 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 |
| Appendix 13 | Complaints Register Form |
| Appendix 14 | Site Induction for Drivers |

1.0 Introduction

1.1 Background

Dixon Sand (Penrith) 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 Development Consent was modified under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 22 January 2018 (Modification 1). The Development Consent was subsequently modified under Section 4.55(1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 29 January 2019 (Modification 2).

The Development Consent permits the extraction and processing of 250,000 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 also permitted.

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**.

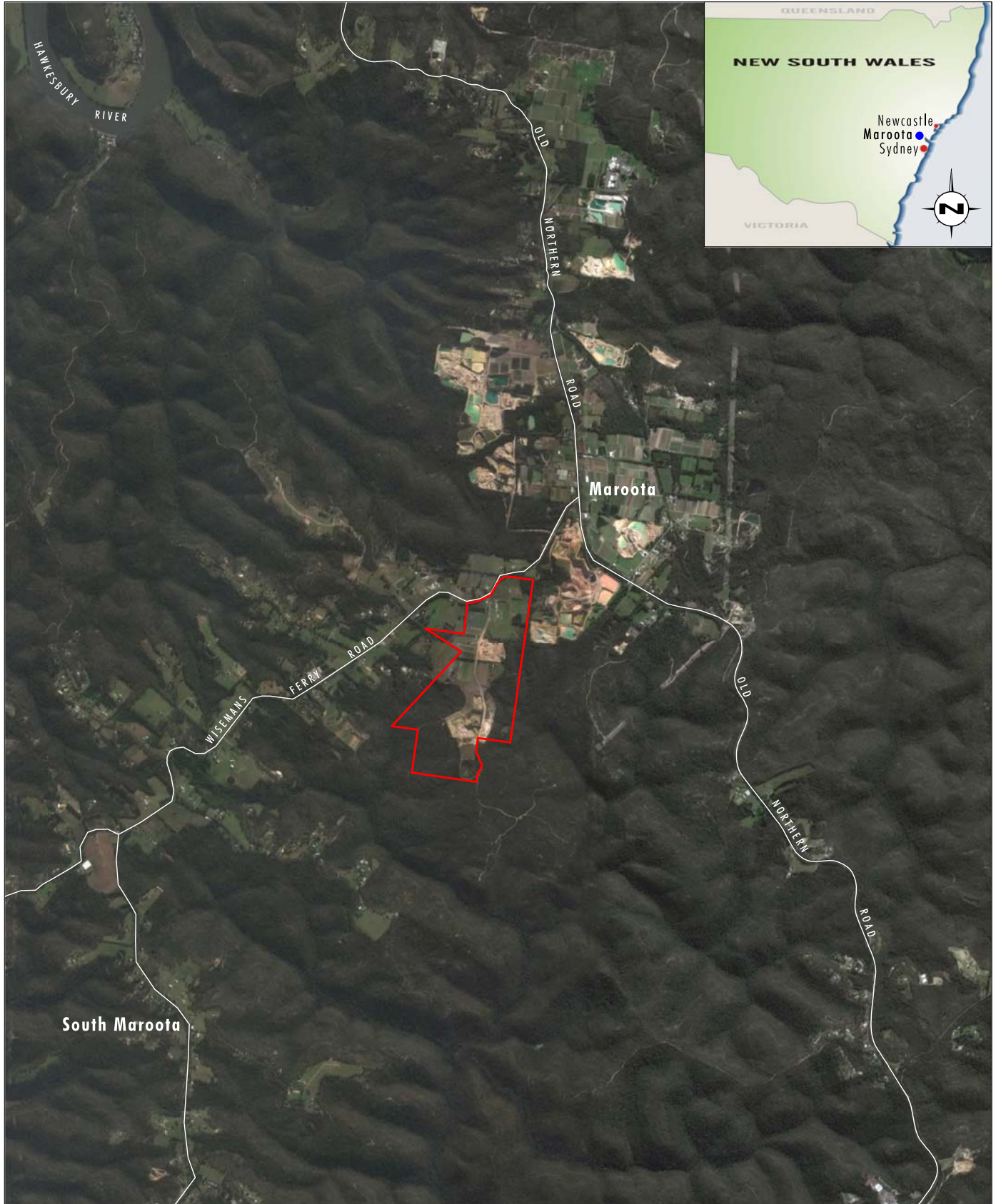


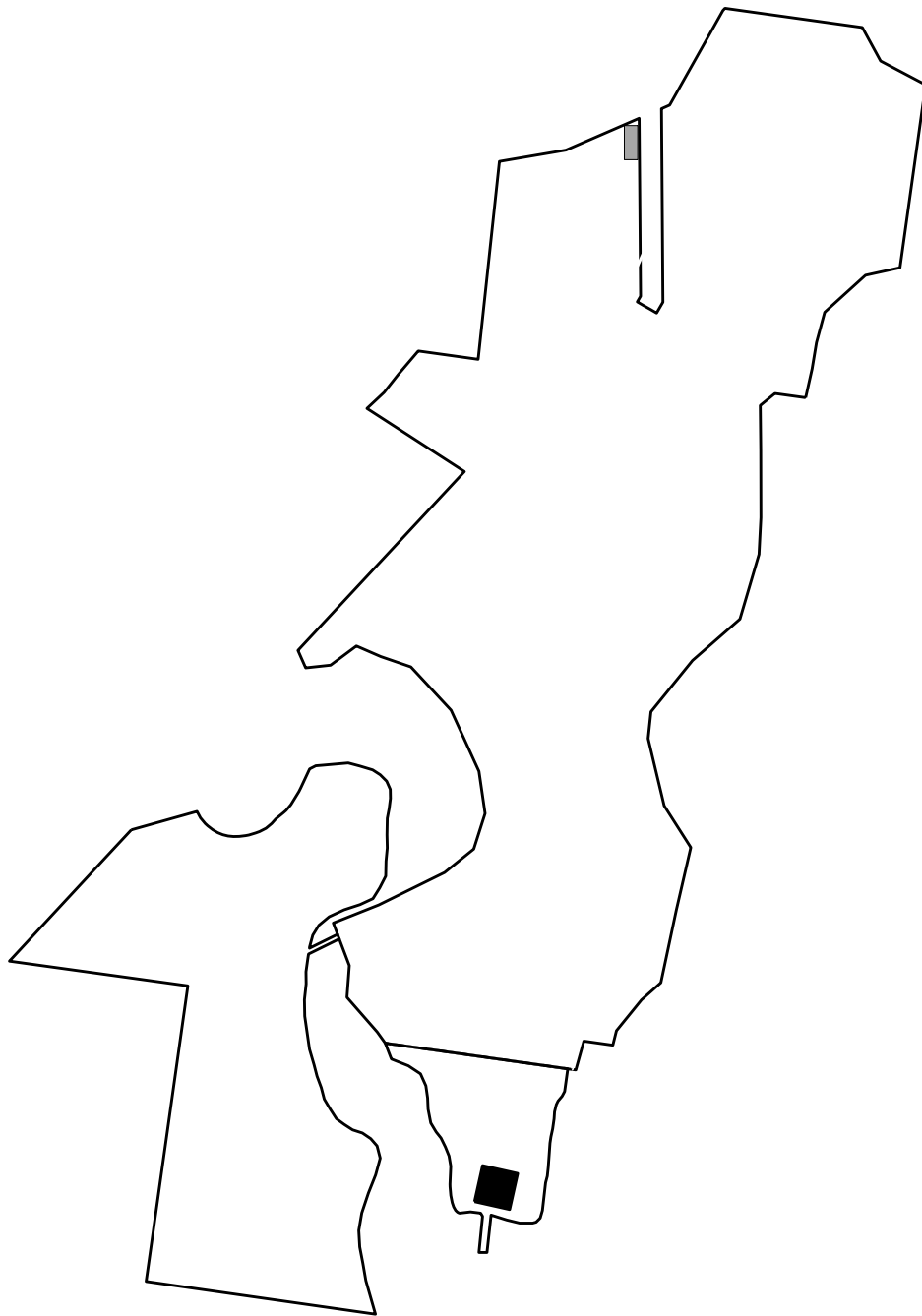
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Legend

 Haerses Road Quarry Site

FIGURE 1.1
Locality Plan



2.0 Regulatory Requirements

2.1 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 |
|--|--|---------------------|
| Schedule 5 – Environmental Management, Reporting and Auditing | | |
| Environmental Management Strategy | | |
| 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"> (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; (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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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. <p>The Applicant must implement any EMS as approved by the Secretary.</p> | Whole document |
| 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"> (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. | Appendix 6 to 11 |

| Condition | Description | Section/s Addressed |
|---|---|---------------------|
| 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"> (a) detailed baseline data; (b) a description of: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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. <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p> | Appendix 6 to 11 |
| 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 Mod 1. | Section 3.0 |
| Revision of Strategies, Plans and Programs | | |
| 5 | <p>Within 3 months of the submission of an:</p> <ul style="list-style-type: none"> (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, <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 12.0 |

| Condition | Description | Section/s Addressed |
|--|--|----------------------|
| 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 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 12.0 |
| Adaptive Management | | |
| 7 | <p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures 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&A Act or EP&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> <ul style="list-style-type: none"> (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not reoccur; (b) consider all reasonable and feasible options for remediation (where relevant); (c) within 14 days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measures or other course of action; and (d) implement remediation measures as directed by the Secretary; <p>to the satisfaction of the Secretary.</p> | Sections 7.0 and 8.0 |
| Community Consultative Committee | | |
| 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"> • <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> • <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> • <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> <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> | Section 10.0 |

| Condition | Description | Section/s Addressed |
|------------------------------------|---|---------------------|
| Incident Reporting | | |
| 9 | The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing to compliance@planning.nsw.gov.au and identify the development (including the development application number and name) and set out the location and nature of the incident. | Section 7.0 |
| Non-Compliance Notification | | |
| 10 | <p>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 to compliance@planning.nsw.gov.au 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.</p> <p>Note: A non-compliance which has been notified as an incident does not need to be notified as a non-compliance.</p> | Section 7.0 |
| 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. | Section 8.0 |
| Annual Review | | |
| 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"> (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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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. <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 |
|--|---|---------------------|
| Independent Environmental Audit | | |
| 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"> (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. | Section 9.0 |
| 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 9.0 |
| Access to Information | | |
| 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"> (a) make the following information publicly available on its website: <ul style="list-style-type: none"> • 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, <p>to the satisfaction of the Secretary.</p> | Section 10.0 |

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) 12513 issued by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations (POEO) Act 1997* for sand extraction operations at Haerses Road and intersection of Wisemans Ferry Road, Maroota NSW 2756. 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 12513 is provided in **Appendix 3**.

There is no licenced discharge point under the EPL for the Quarry. The requirement for off-site discharges will be monitored as the Quarry progresses and if required, an application will be made to the EPA for an EPL variation to incorporate a licensed discharge point.

- Two Water Access Licences (WALs) to extract surface water on Lot 170 DP 664767 and Lot B DP 407341.
- Commonwealth approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for the Haerses Road Quarry Extension, Maroota NSW (EPBC 2015/7608), granted on 6 August 2018. A copy of EPBC 2015/7608 is provided in **Appendix 3**.

A Controlled Activity Approval (CAA) is required under the *Water Management Act 2000* to authorise Dixon Sand to carry out a controlled activity in, on or under waterfront land. There are two first order streams which are tributaries of Stone Chimney Arm (a tributary of Little Cattai Creek) which will be intercepted by the Mod 1 extraction area. Dixon Sand will obtain a CAA prior to undertaking any works within 40 m from top bank of bank of the streams to be impacted (refer to Section 1.3 Soil and Water Management Plan (SWMP) in **Appendix 8**). The approvals required to be obtained by Dixon Sand will be detailed on an annual basis within the Annual Review.

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**).

2.3 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

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) and EA (Umwelt 2016) 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 |
|--|--|
| Vegetation Clearing | Soil erosion, water quality degradation, air emissions, noise generation, biodiversity impacts, visual amenity |
| Topsoil stripping | Soil erosion, water quality degradation, air emissions, noise generation, biodiversity impacts, visual amenity |
| Extraction of raw material | Soil erosion, water quality degradation, groundwater impacts, air emissions, noise generation, visual amenity |
| Handling and stockpiling of raw material | Loss of sediment, air emissions, noise generation |
| Processing of raw material | Water quality degradation, air emissions, noise generation |
| Handling, stockpiling and haulage of product | Water quality degradation, air emissions, noise generation |
| Water management system | Water quality degradation |
| Site Rehabilitation | Soil Erosion, water quality degradation, air emissions, noise generation, biodiversity impacts, not achieving final landform/land use at the site. |
| Maintenance activities | 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. 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"> • Temperature • Rainfall • Wind speed and direction Sigma theta | <ul style="list-style-type: none"> • Continuous • Averaging period: 15 min/ 1 hr/ 24 hr | 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"> • LA_{eq} (15 min) • LA_{eq}(1hour) | 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"> • PM₁₀ Dust deposition | <ul style="list-style-type: none"> • PM₁₀ - continuous 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"> • Quantity of products transported • Total truck movements | 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"> • pH • Total suspended solids • Electrical conductivity • Turbidity • Stream flow | 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"> • Daily for high risk controls such as when works are undertaken within drainage lines; • Weekly for all other controls; and • Prior to significant forecasted rainfall events; and • After significant rainfall events. <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"> • Groundwater levels • Groundwater quality | <ul style="list-style-type: none"> • Levels monitored monthly • Levels monitored continuously in Mod 1 extraction area • Water quality monitored 6 monthly | 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"> • Water storage levels | <ul style="list-style-type: none"> • Continuous | Environmental Officer or delegate | Storage records indicate water managed within site water management system and license limits |
| Biodiversity <ul style="list-style-type: none"> • Ecological • Threatened species • BioBank Site Photo Monitoring | <ul style="list-style-type: none"> • Ecological monitoring – annually • Threatened species monitoring – annually • BioBank site photo monitoring – annually | 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"> • 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. | 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 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; 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

Hazards at the Quarry are managed in accordance with the PIRMP (refer to **Appendix 4**) and the Bushfire Management Plan Part 2: Emergency Management and Evacuation Plan (Umwelt, 2018b), refer to <http://www.dixonsand.com.au/environment>. Contact details for relevant emergency response and notification agencies are provided in the PIRMP.

7.2 Non-Compliance 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 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 and Non-Compliance Reporting

In accordance with Conditions 9 and 10 Schedule 5 of the Development Consent, 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 leading to 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 to compliance@planning.nsw.gov.au and clearly identify the development (including development application number and name) and the location and nature of the incident.

Additionally, within 7 days of the date of the incident, Dixon Sand will provide the Department 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 Development Consent.

The Quarry Manager or delegate will notify the Department of any non-compliance within 7 days of becoming aware of the non-compliance. The notification is to be in writing to compliance@planning.nsw.gov.au and clearly identify the development (including development application number and name), set out the condition of

the consent the quarry is non-compliant with, the nature of the non-compliance and the reason for the non-compliance (if known), the actions taken or that will be taken to address the non-compliance.

In accordance with the Development Consent, a non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

7.3.2 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).

7.3.3 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 to the licensee a copy of the form that must be completed and returned to the EPA.

The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period. Dixon Sand will 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.

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/or performance measures 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&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, Dixon Sand will, as soon as becoming aware of the exceedance and to the satisfaction of the Secretary:

- 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);
- within 7 days of the exceedance occurring, submit a report to the Secretary describing these remediation options and any preferred remediation measures or other course of action; and
- implement remediation measures as directed by the 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 Auditing

9.1 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 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.

9.2 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.

9.3 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.

10.0 Communication

10.1 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.

10.2 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

10.3 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.

10.4 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.

10.5 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.

10.6 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:

- Dixon Sand (Penrith) Pty Ltd
- Department of Planning and Environment (NSW)
- Environment Protection Authority (NSW)
- Office of Environment and Heritage
- Roads and Maritime Services
- The Hills Shire Council
- Community Consultative Committee (CCC).

11.0 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.

12.0 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.

13.0 References

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

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.

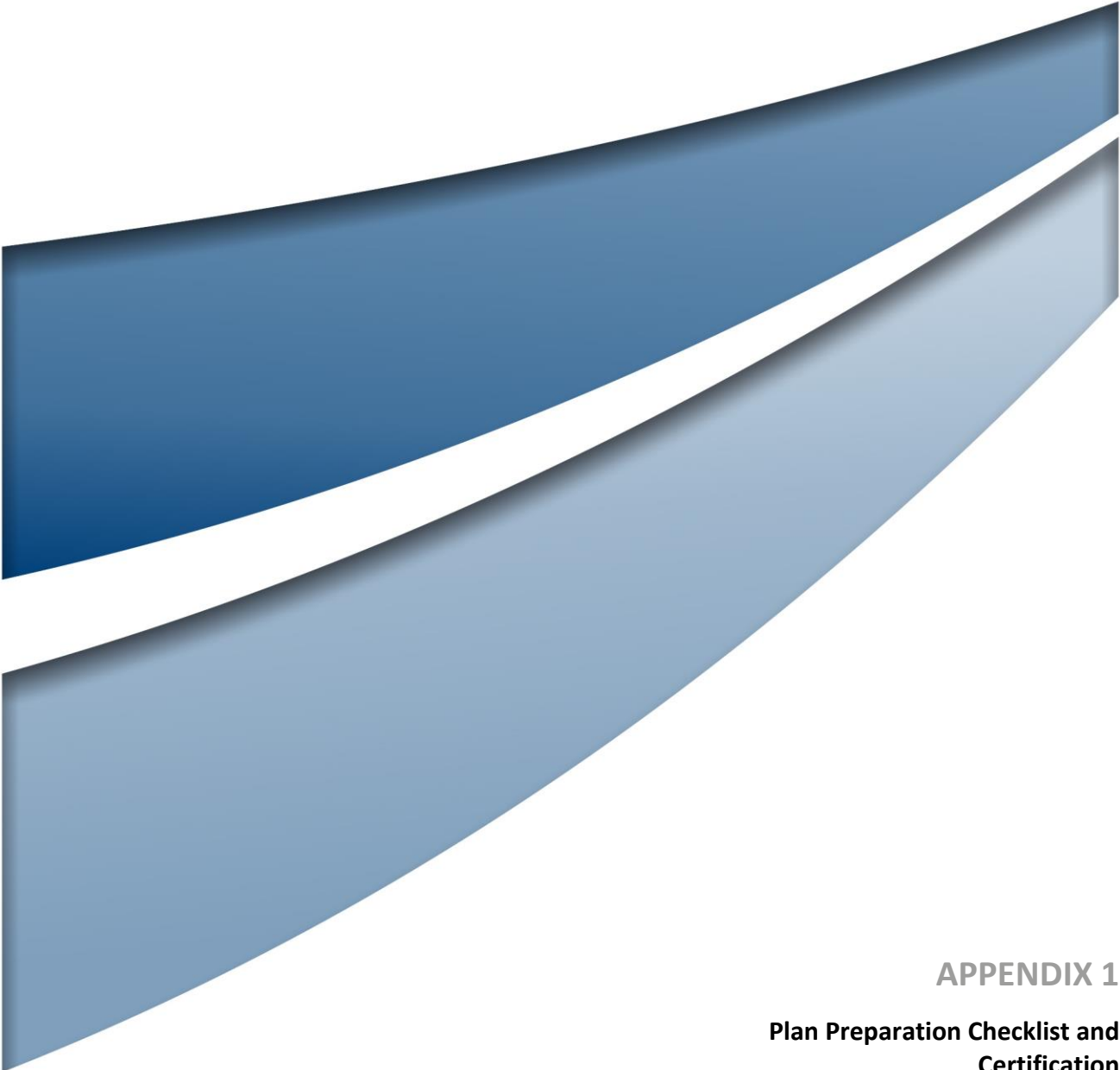
Environmental Resources Management Australia Pty Ltd (ERM), 2005, *Proposed Sand Quarry at Haerses Road, Maroota, Environmental Impact Statement*, Report prepared for Dixon Sand (Penrith) Pty Ltd.

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.

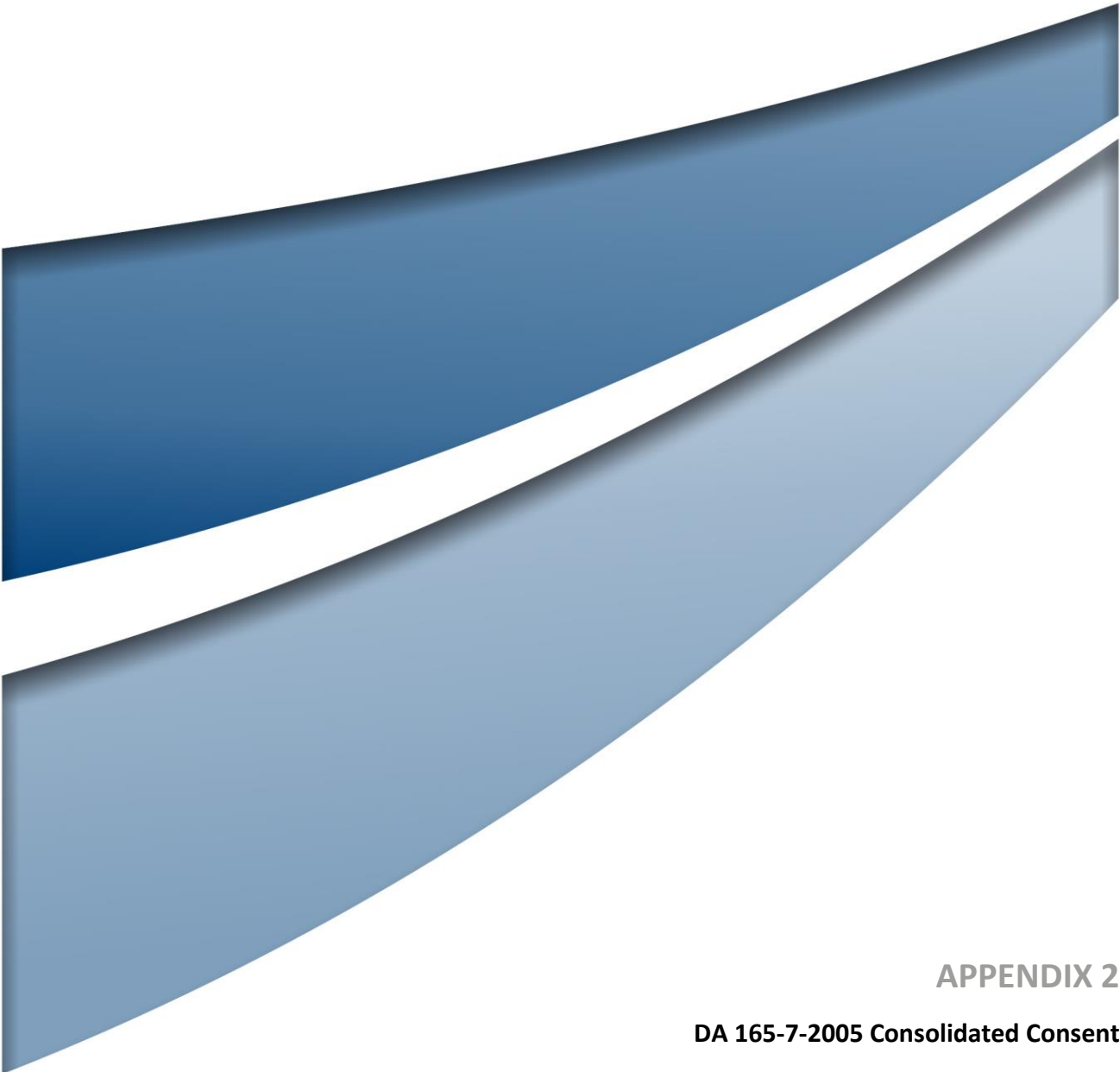
Umwelt (Australia) Pty Ltd, 2018a, *Haerses Road Quarry Bushfire Management Plan Part 1: Environmental Management*, Report prepared for Dixon Sand (Penrith) Pty Ltd.

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.



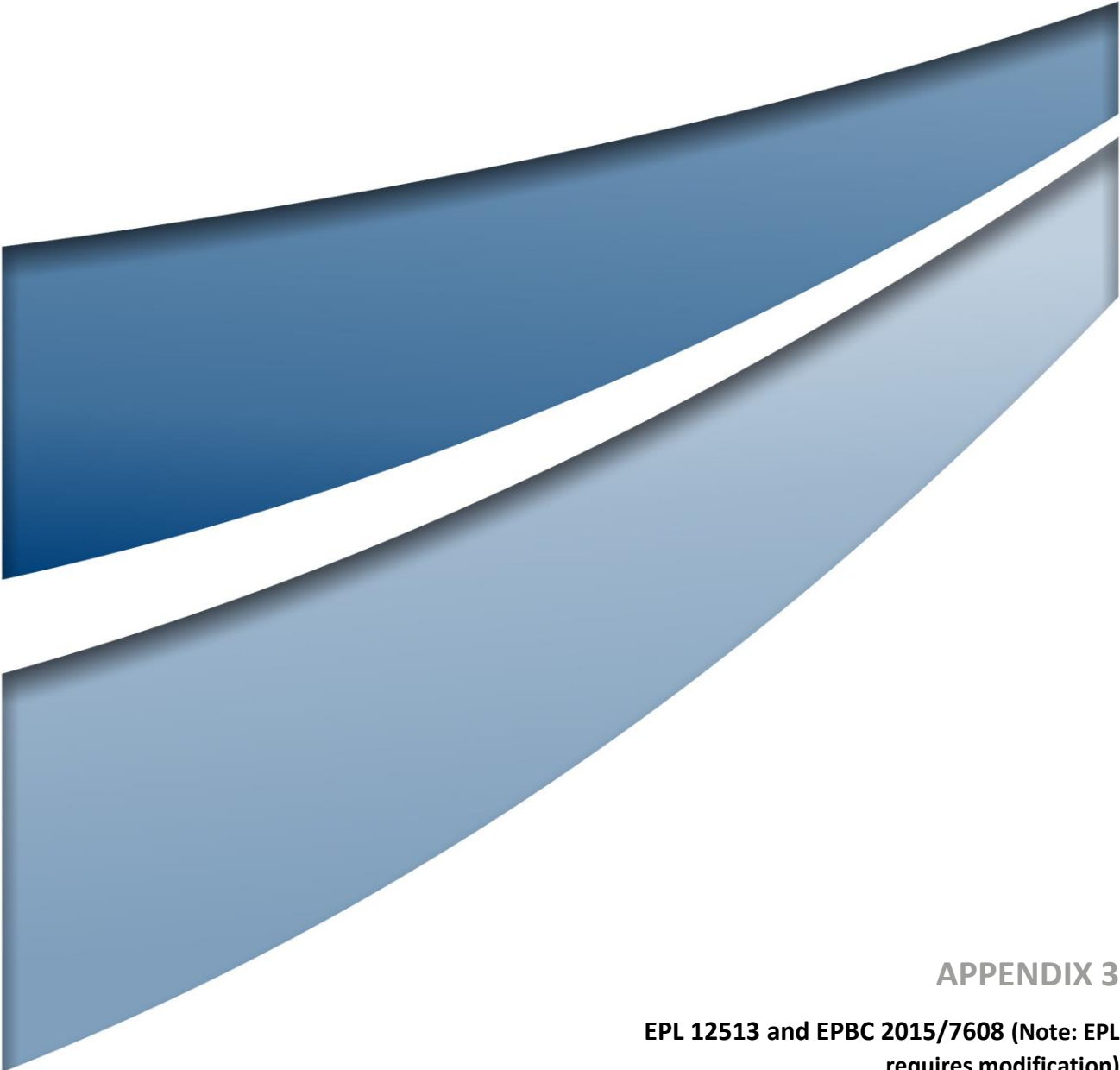
APPENDIX 1

Plan Preparation Checklist and Certification



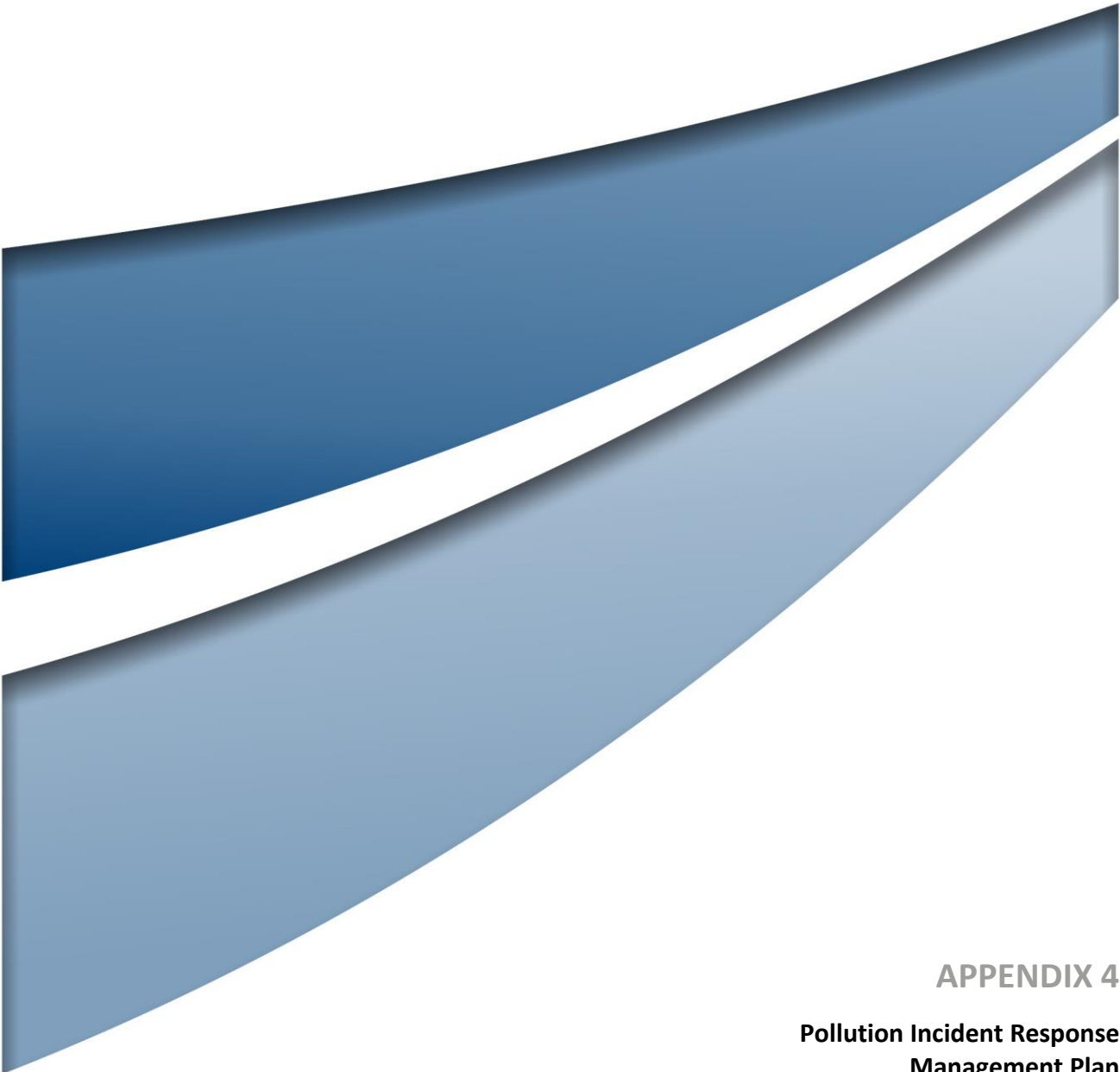
APPENDIX 2

DA 165-7-2005 Consolidated Consent



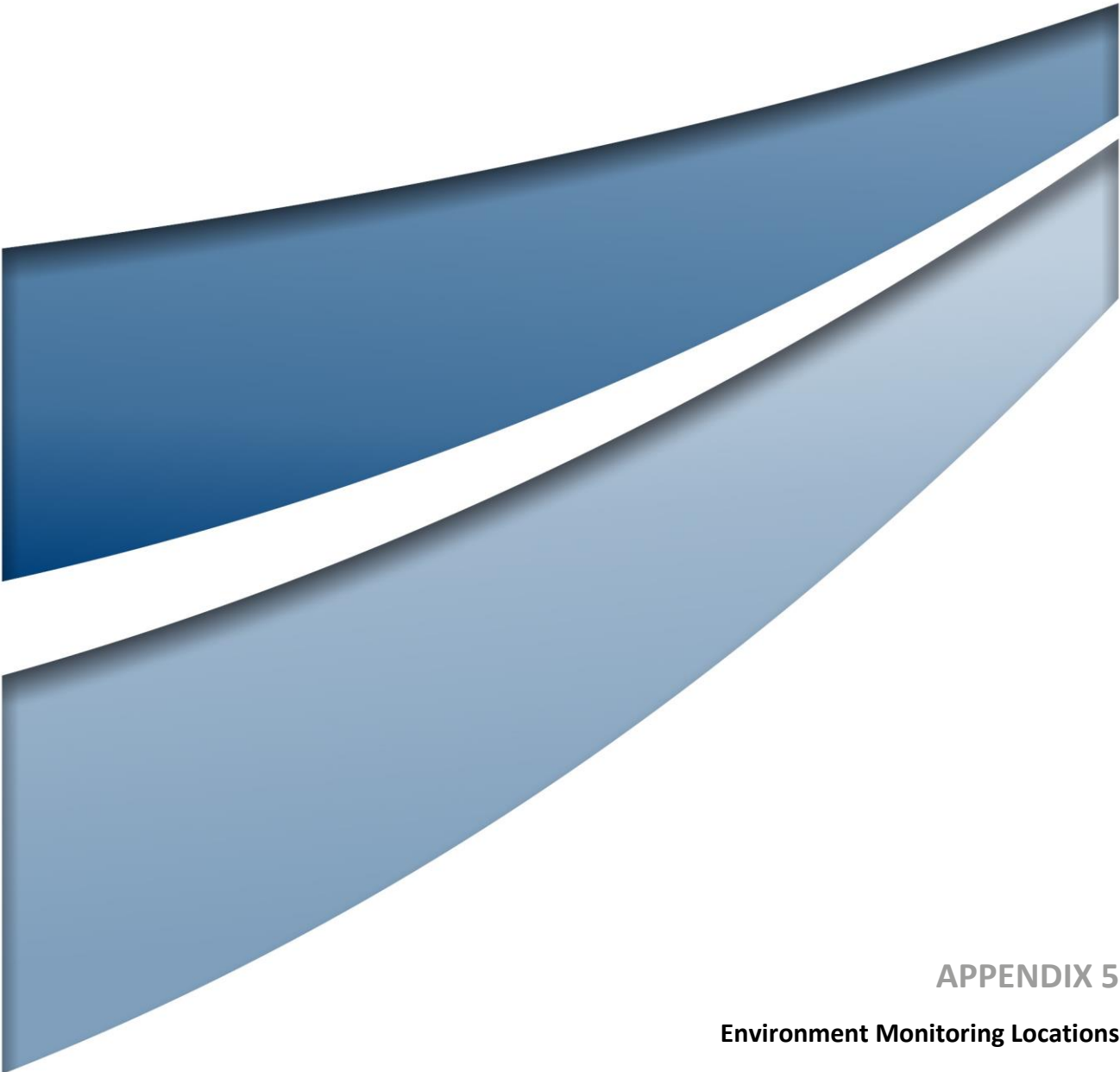
APPENDIX 3

**EPL 12513 and EPBC 2015/7608 (Note: EPL
requires modification)**



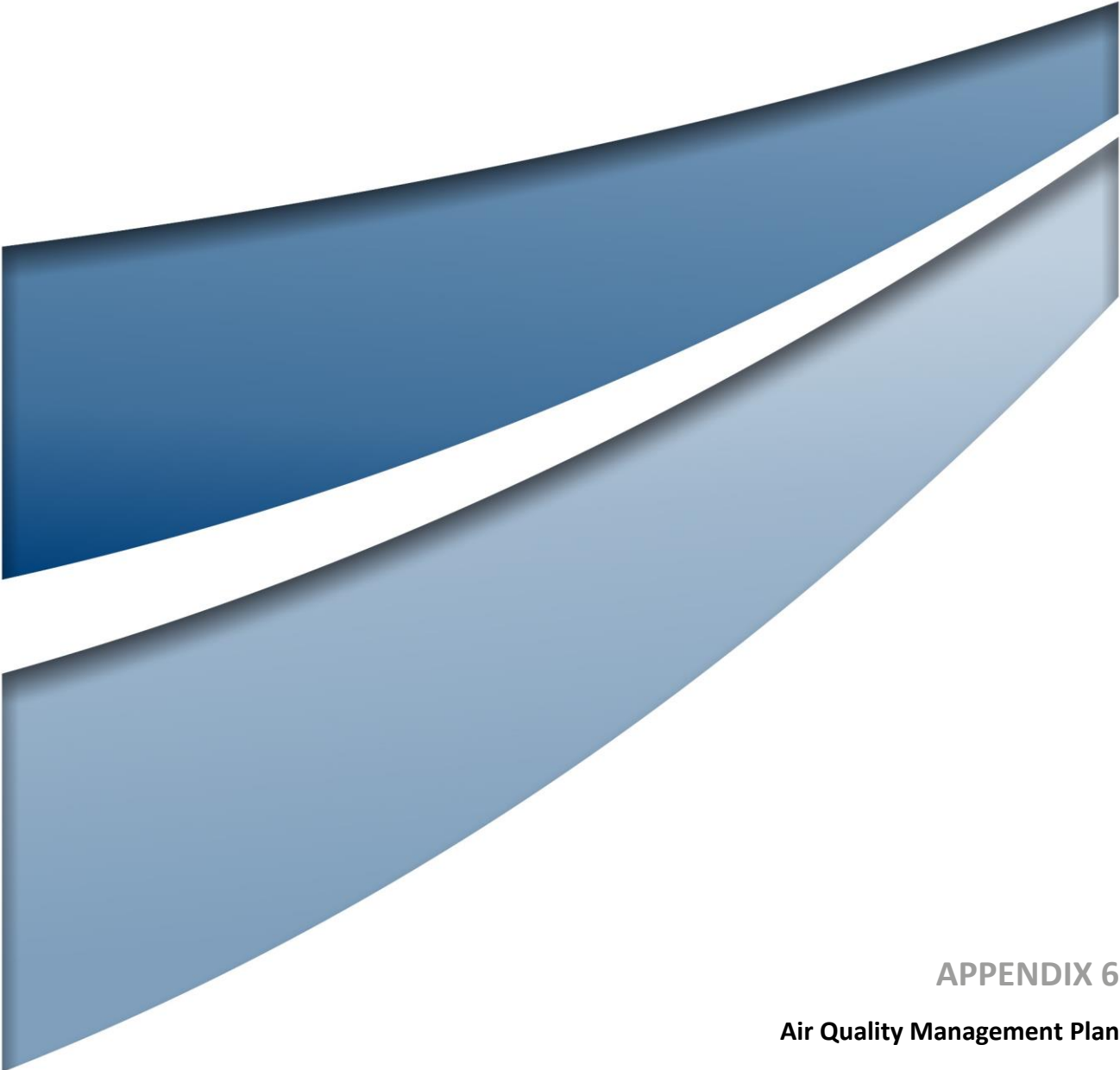
APPENDIX 4

Pollution Incident Response Management Plan



APPENDIX 5

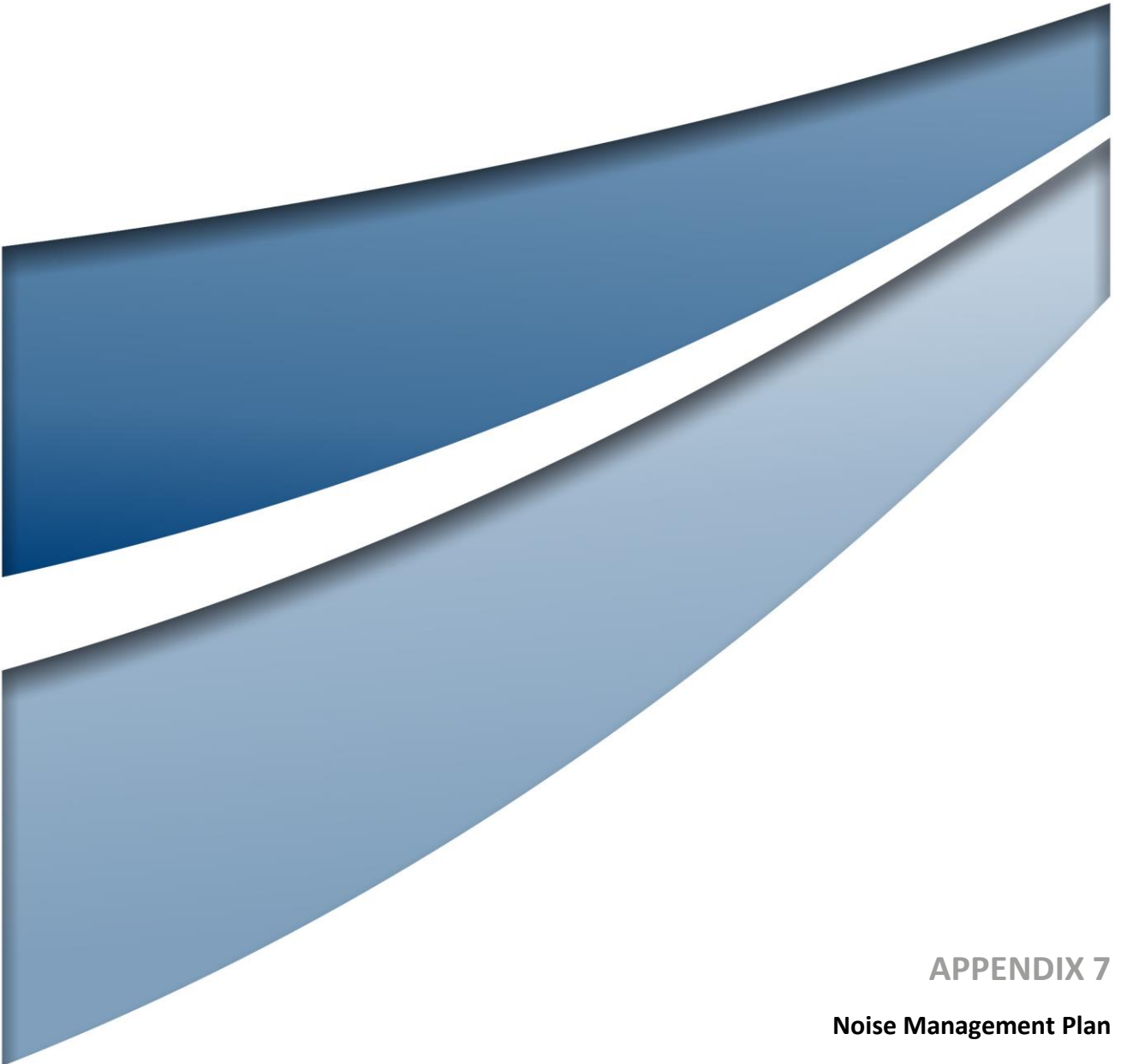
Environment Monitoring Locations



APPENDIX 6

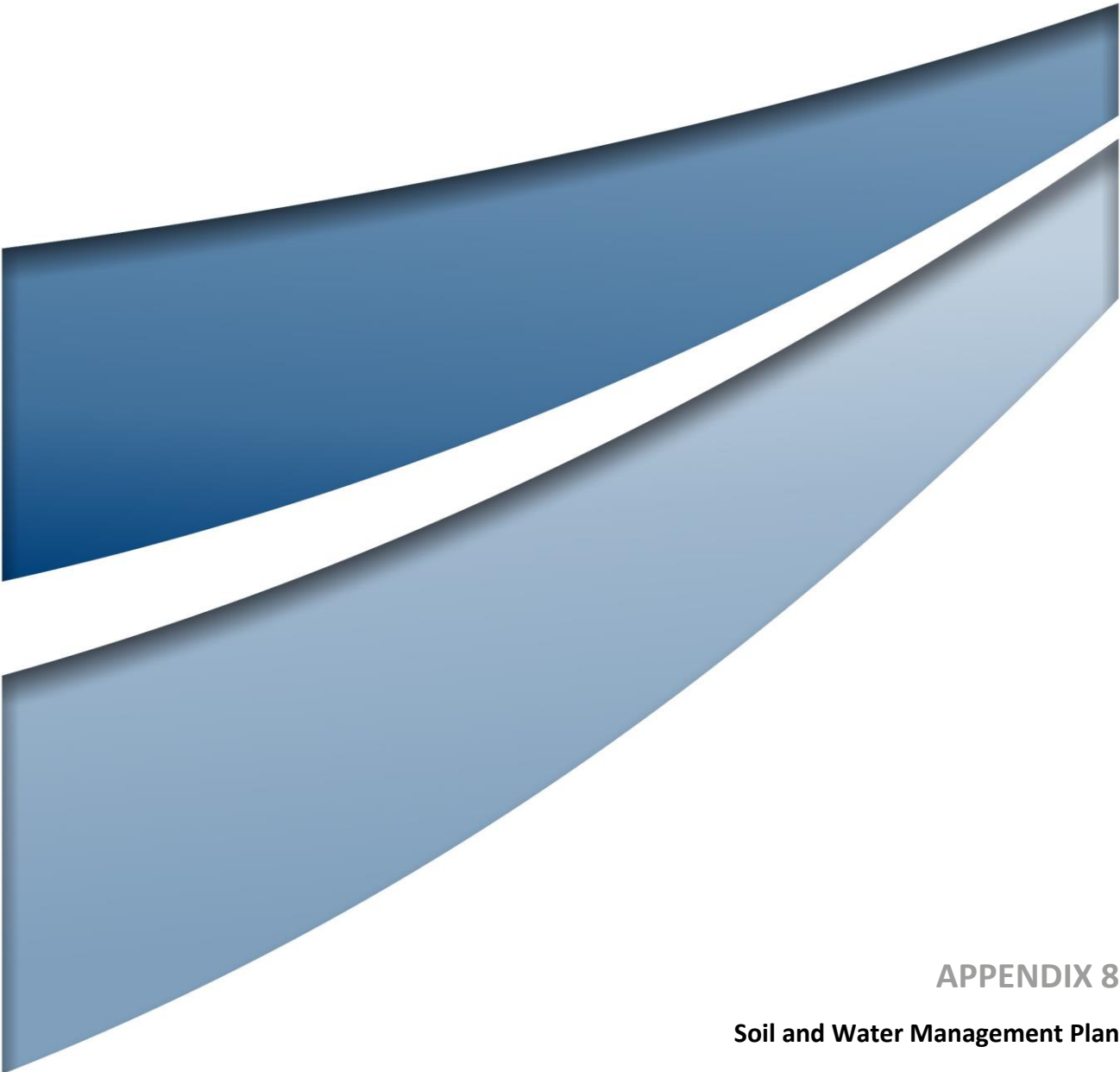
Air Quality Management Plan

To be added



APPENDIX 7
Noise Management Plan

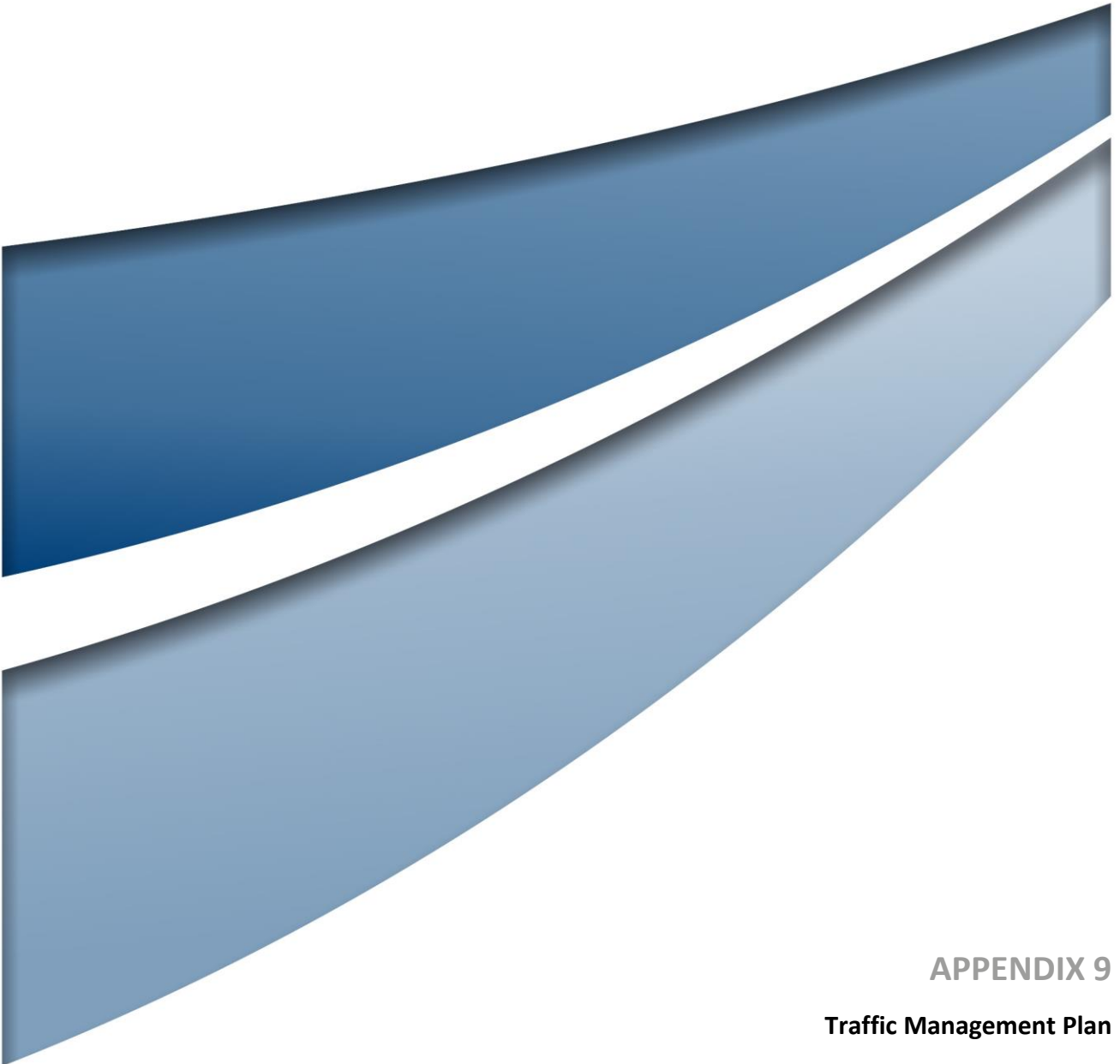
To be added



APPENDIX 8

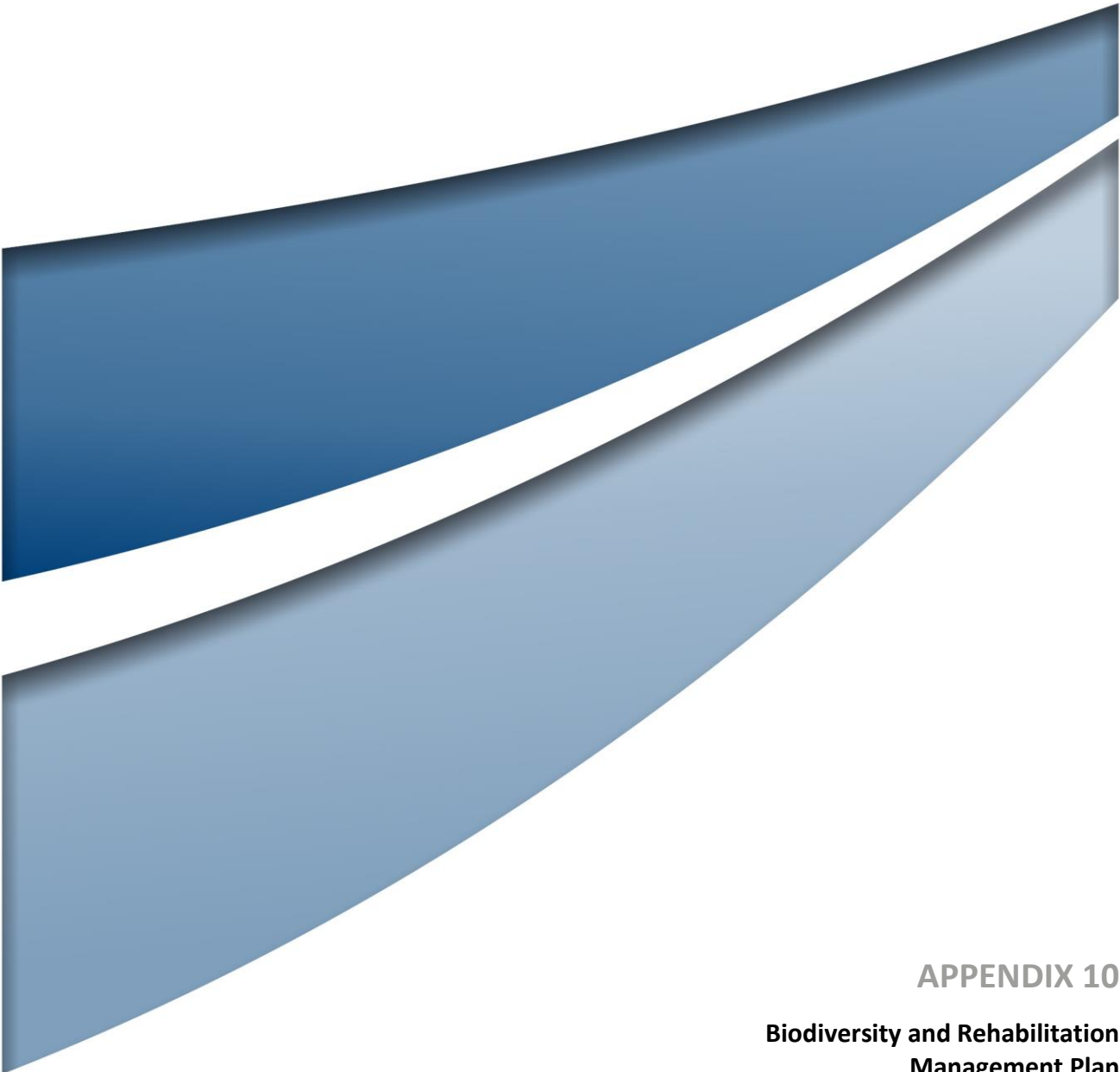
Soil and Water Management Plan

To be added



APPENDIX 9
Traffic Management Plan

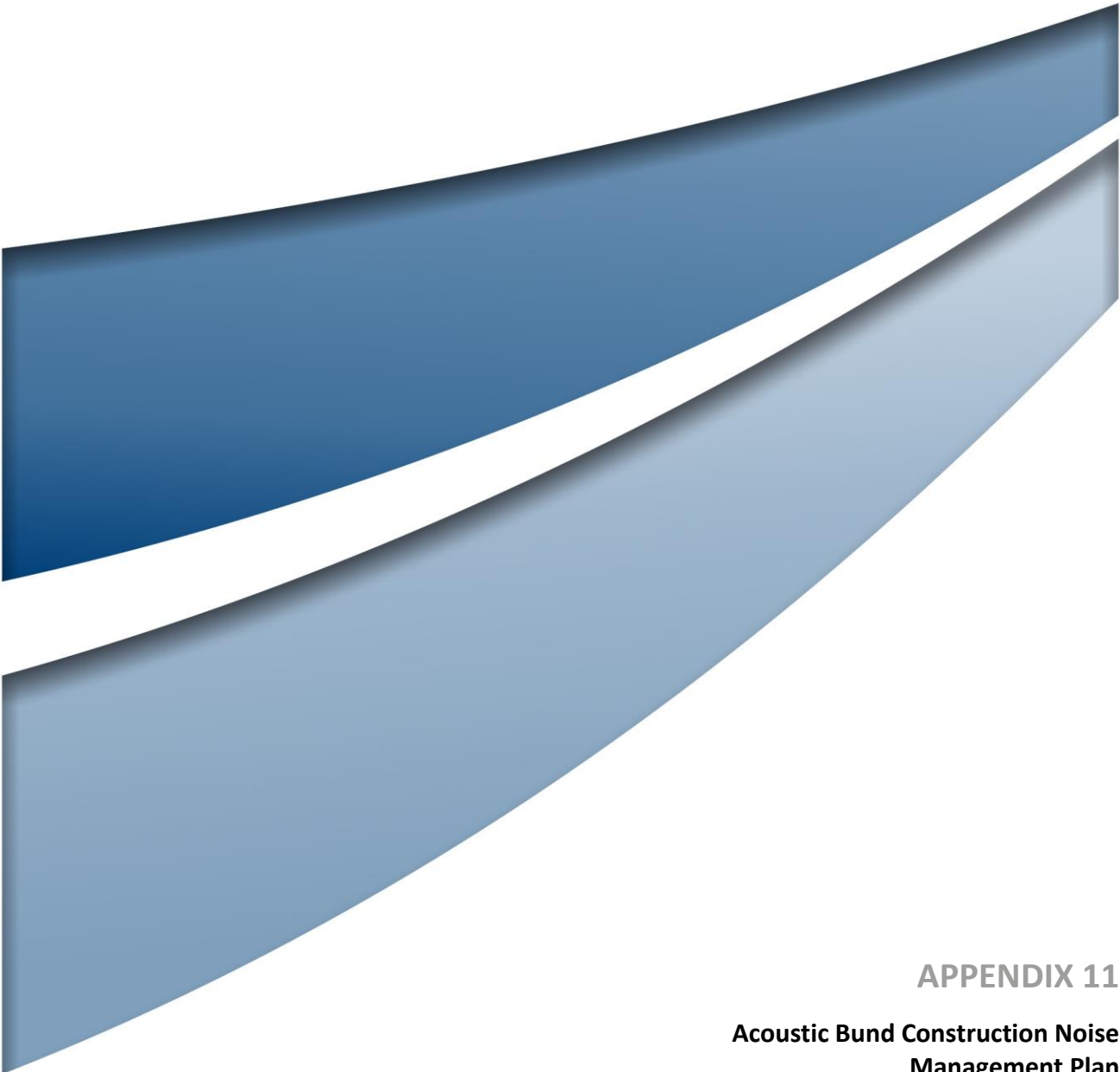
To be added



APPENDIX 10

**Biodiversity and Rehabilitation
Management Plan**

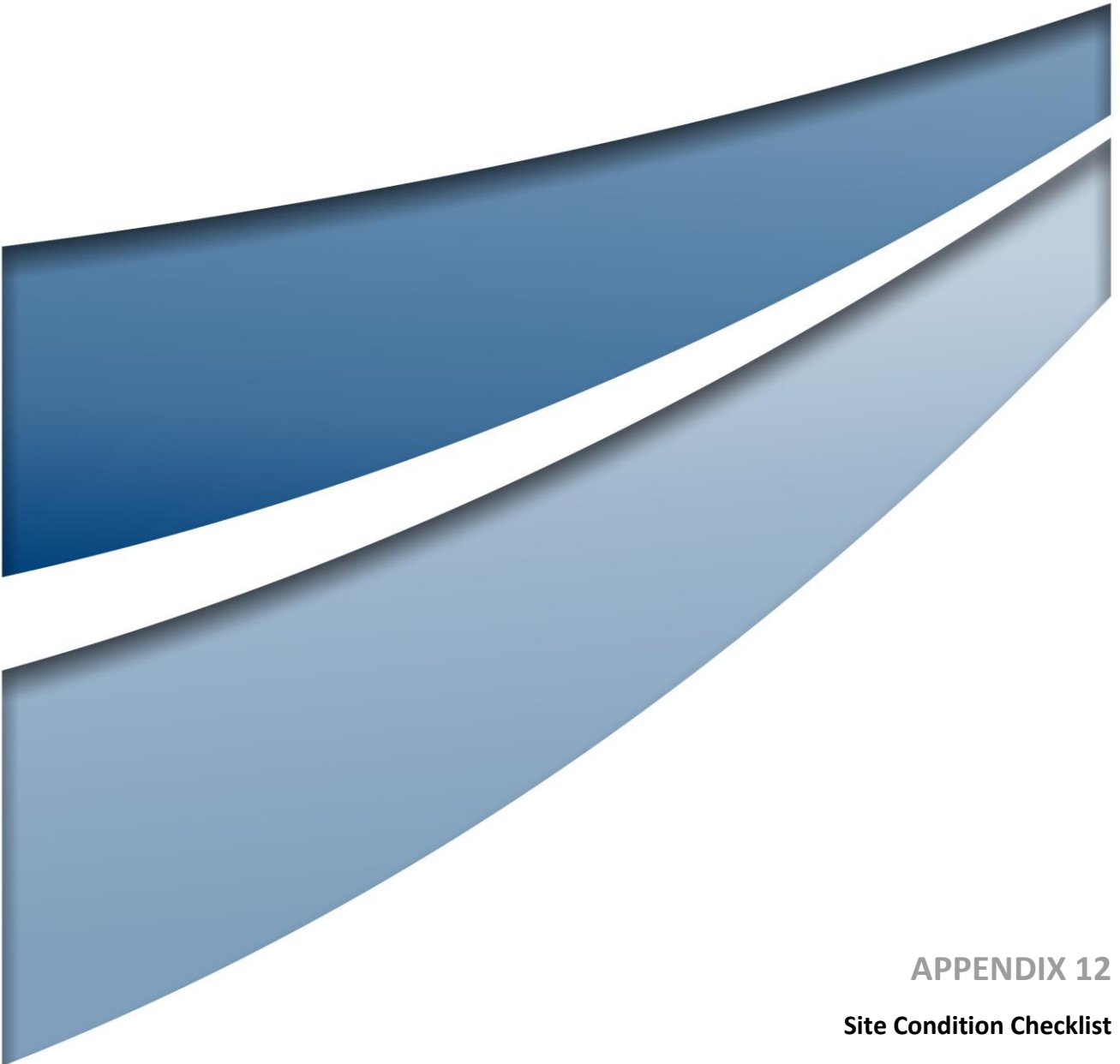
To be added



APPENDIX 11

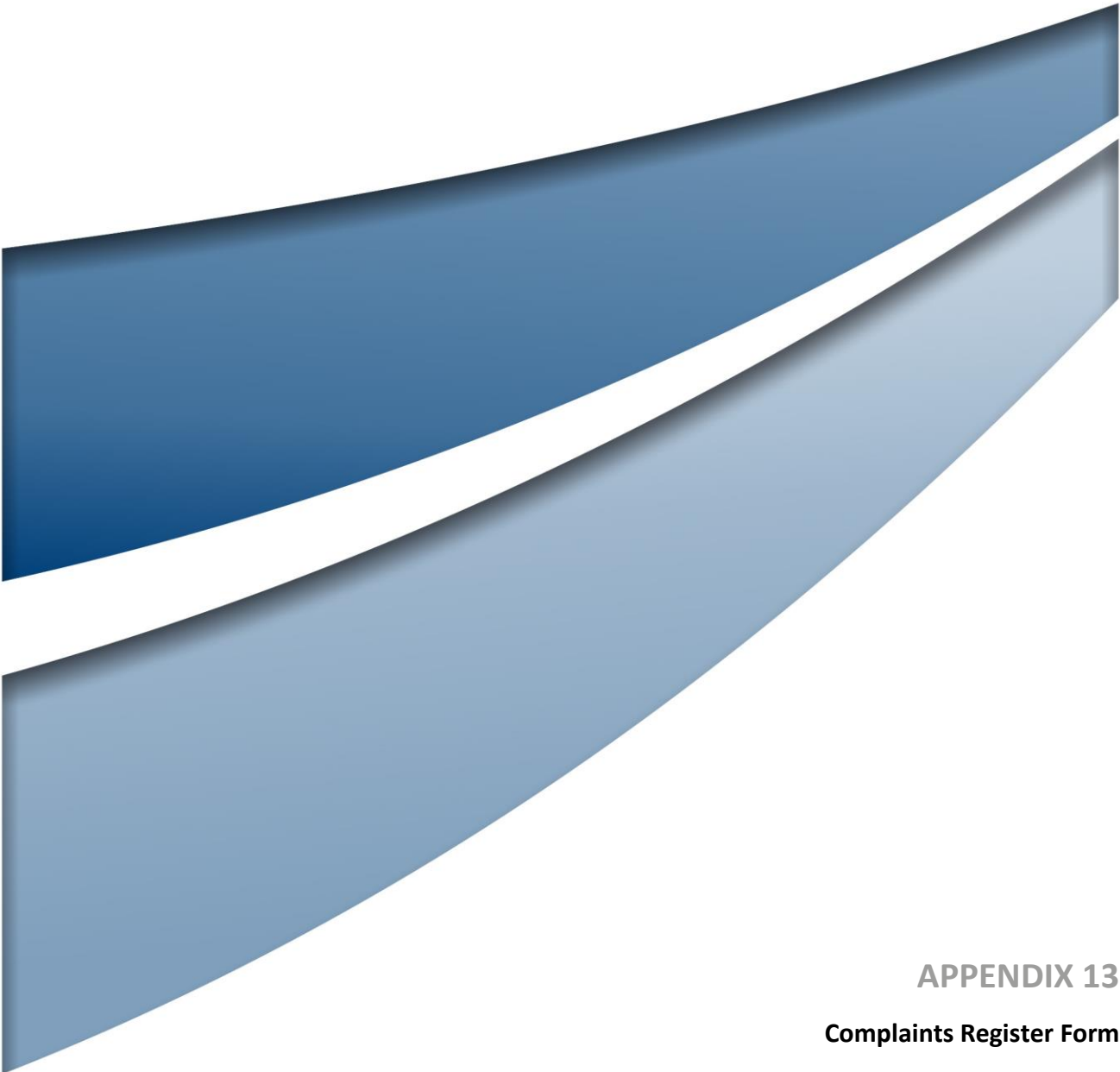
**Acoustic Bund Construction Noise
Management Plan**

To be added



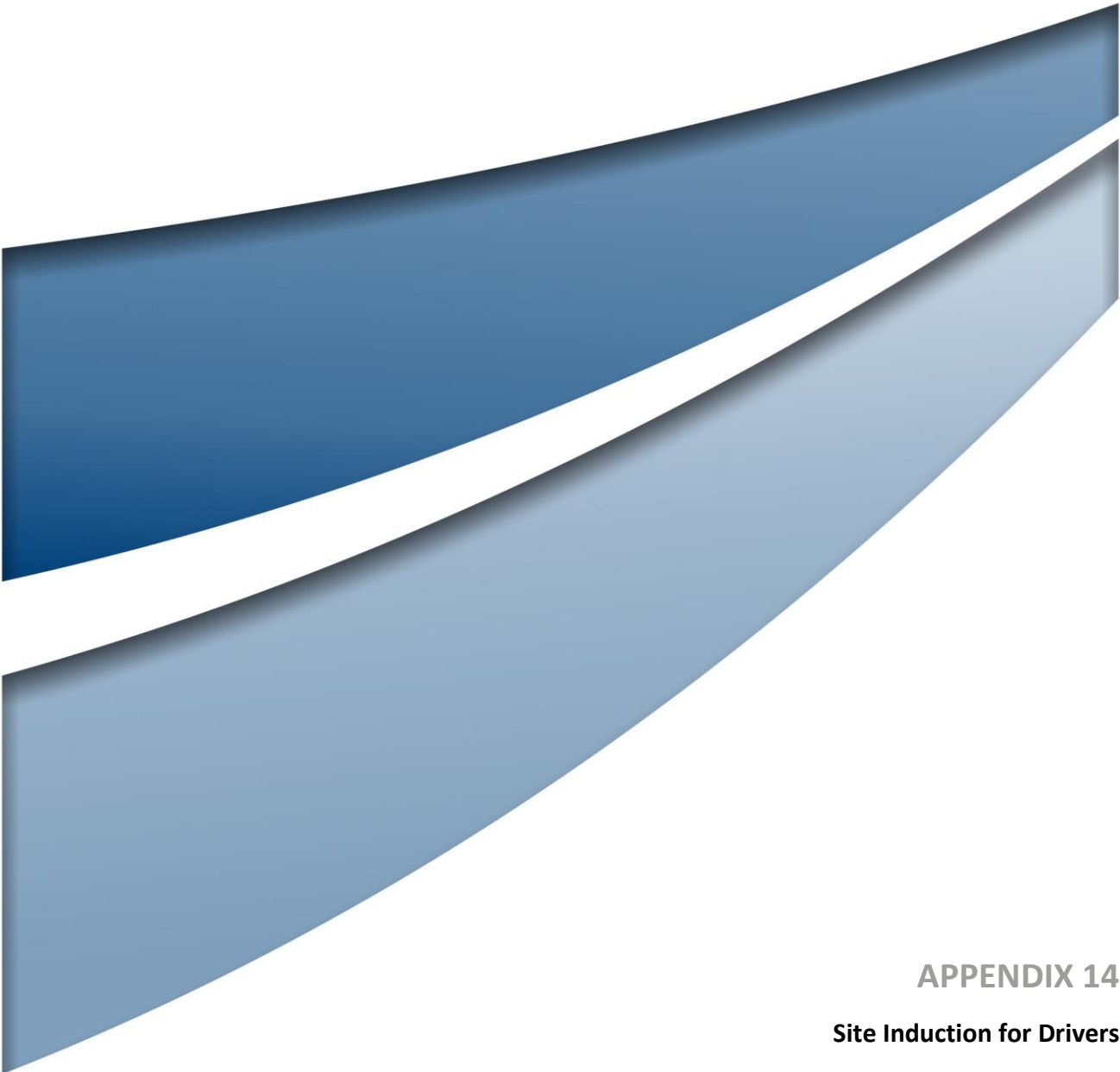
APPENDIX 12
Site Condition Checklist

To be added



APPENDIX 13
Complaints Register Form

To be added



APPENDIX 14
Site Induction for Drivers

To be added



Newcastle

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Teralba NSW 2284

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Perth

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West Perth WA 6872
7 Havelock Street
West Perth WA 6005

Ph. 1300 793 267

Canberra

PO Box 6135
56 Bluebell Street
O'Connor ACT 2602

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