



**GRAFIL POLLUTION INCIDENT  
RESPONSE MANAGEMENT  
PLAN FOR EPL 12108**

Grafil Pty Ltd

**FINAL**

November 2022



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### Document Status

| Version No. | Reviewer     |                 | Approved for Issue |                 |
|-------------|--------------|-----------------|--------------------|-----------------|
|             | Name         | Date            | Name               | Date            |
| 1           | Rod Williams | 15 April 2021   | Rod Williams       | 15 April 2021   |
| 2           | Rhys Wilson  | 7 November 2022 | Luke Bettridge     | 7 November 2022 |

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# 1.0 Introduction

## 1.1 Background Scope

This Pollution Incident Response Management Plan (PIRMP) has been developed to satisfy the relevant requirements of the *Protection of the Environment Operations Act 1997* (POEO Act) and POEO (General) Regulation 2022.

Specific requirements of the PIRMP are set out in Part 5.7 of the POEO Act. These requirements include:

- holders of an EPL must prepare a pollution incident response management plan (Section 153A POEO Act)
- the plan must include the information detailed in the POEO Act (section 153C) and the POEO(G) Regulation (clause 72) and be in the form required by the POEO(G) Regulation (clause 72)
- Licensees must keep the plan at the premises to which the EPL relates (section 153D, POEO Act)
- Licensees must test the plan at least every 12 months and after a pollution incident in accordance with the POEO(G) Regulation (clause 72) and
- If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened within the meaning of Part 5.7 of the POEO Act, licensees must immediately implement the plan (section 153F, POEO Act).

As holder of EPL 12108, Grafil Pty Ltd (Grafil) is required to comply with the POEO Act. As such, this document been developed to satisfy the PIRMP requirements.

This document also details the procedures for notification of pollution incidents resulting in or having the potential to cause material harm to the environment. The notification of environmental incidents under this PIRMP is only required for those incidents causing or threatening to result in material environmental harm (a material harm incident) as defined in the POEO Act (refer to **Section 5.0**).

## 1.2 Regulatory Requirements

**Table 1.1** lists information mandated under Section 153C of the POEO Act and clause 72C of the POEO(G) Regulation and details where this information is located in this PIRMP.

**Table 1.1 PIRMP Requirements and where they are addressed in this document**

| Section 153C | Detail Required   | Location in Document |
|--------------|---|----------------------|
| (a)          | The procedures to be followed by the holder of the relevant EPL in notifying a pollution incident to:<br>(i) The owners or occupiers of premises in the vicinity of the premises to which the environment protection licence or the direction under section 153B relates, and<br>(ii) The local authority for the area in which the premises to which the environment protection licence or the direction under section 153B relates are located and any area affected, or potentially affected, by the pollution, and<br>(iii) Any persons or authorities required to be notified by Part 5.7 (of the POEO Act). | <b>Section 5.2</b>   |

| Section 153C | Detail Required  | Location in Document |
|--------------|--|----------------------|
| (b)          | A detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant EPL, or the occupier of the relevant premises, to reduce or control any pollution.   | Section 4.0          |
| (c)          | The procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made.   | Section 5.2          |
| (d)          | Any other matter required by the Protection of the Environment Operations (General) Regulation 2022 (as set out below):  |                      |
|              | 72 (1)(a)<br><i>A description of the hazards to human health or the environment associated with the activity to which the licence relates (the “relevant activity”).</i>   | Section 2.2          |
|              | 72 (1)(b)<br><i>The likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood.</i>  | Section 2.2          |
|              | 72 (1)(c)<br><i>Details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity.</i>   | Section 4.0          |
|              | 72 (1)(d)<br><i>An inventory of potential pollutants on the premises or used in carrying out the relevant activity.</i>  | Section 2.3          |
|              | 72 (1)(e)<br><i>The maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates.</i>  | Section 2.3          |
|              | 72 (1)(f)<br><i>A description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident.</i>  | Section 4.0          |
|              | 72 (1)(g)<br><i>The names, positions and 24-hour contact details of those key individuals who:</i><br><i>(i) are responsible for activating the plan, and</i><br><i>(ii) are authorised to notify relevant authorities under section 148 of the POEO Act, and</i><br><i>(iii) are responsible for managing the response to a pollution incident.</i> | Section 3.2          |
|              | 72 (1)(h)<br><i>The contact details of each relevant authority referred to in section 148 of the POEO Act.</i>   | Section 5.2          |
|              | 72 (1)(i)<br><i>Details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on.</i>   | Section 5.3          |
|              | 72 (1)(j)<br><i>The arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is being carried on.</i>   | Section 4.0          |

| Section<br>153C | Detail Required   | Location in Document   |
|-----------------|---|--|
|                 | <p>72 (1)(k)<br/>A detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any stormwater drains on the premises.</p> | <p><b>Figure 1.1</b><br/>Note: No stormwater drains are located on the premises.</p> |
|                 | <p>72 (1)(l)<br/>A detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce that risk.</p>                                       | <p><b>Section 4.0</b><br/>and<br/><b>Section 5.3</b></p>                             |
|                 | <p>72 (1)(m)<br/>The nature and objectives of any staff training program in relation to the plan.</p>   | <p><b>Section 6.1</b></p>  |
|                 | <p>72 (1)(n)<br/>The dates on which the plan has been tested and the name of the person who carried out the test.</p>   | <p><b>Section 6.2</b></p>  |
|                 | <p>72 (1)(o)<br/>The dates on which the plan is updated.</p>  | <p><b>Section 6.2</b></p>  |
|                 | <p>72 (1)(p)<br/>The manner in which the plan is to be tested and maintained.</p>   | <p><b>Section 6.2</b></p>  |



Source: Nearmap (2021)

0 0,5 1,0 1,5 km  
1:30 000

**Legend**

- EPL 13218 Premises Boundary
- EPL 12108 Premises Boundary
- Approved Extraction Areas
- North Stockton Catchment Area
- Location of Potential Pollutants

**FIGURE 1.1**

**Potential Impact Area and Location of Potential Pollutants**



## 2.0 Premises Details

### 2.1 Site Details

Activities undertaken at the Grafil site (refer to **Figure 1.1**) include washing and processing of sand products and other materials for landscape supplies. The operation also includes a site administration and workshop facilities located off Oakvale Drive. The Mackas Sand and Soils site is regulated through Port Stephens Council and by EPL 12108.

The site is located within the coastal zone of Stockton Bight and is predominantly surrounded by rural residential land and remnant bushland which could potentially be impacted by a pollution incident as a result of operations.

### 2.2 Main Hazards

An environmental risk review has been undertaken for Mackas Sand which identifies the potential hazards relevant to the site and this PIRMP. The potential hazards include the following:

- spills (e.g., hydrocarbon, chemicals, greases and oils etc.) resulting in land contamination and
- spills (e.g., hydrocarbon, chemicals, greases and oils etc.) resulting in potential contamination of water bodies (including groundwater).

The purpose of the risk review is to identify the environmental aspects and impacts resulting from operations. The risk review also identifies the potential hazards and the controls necessary to effectively manage the potential hazards. Environmental pollution hazards that have been identified on the premises of EPL12108 have been included in this PIRMP.

### 2.3 Chemicals and Potential Pollutants

The main chemicals likely to be held include:

- diesel (42,000 L capacity)
- waste oil (approximately 1500 L capacity) and
- hydraulic oil, greases and lubricants (2000 L capacity)
- the chemicals listed above are accompanied by the relevant Material Safety Data Sheets (MSDS).

Fuel is stored at the administration and workshop facilities (refer to **Figure 1.1**) and is transported to the Grafil operations site when equipment requires refuelling. The fuel storage and transport facilities have been designed and constructed to reduce the likelihood of potential pollution incidents.

Spill kits are also available to all vehicles and operating equipment entering the extraction area. The fuel storage facilities incorporate a bunded diesel storage area, and waste hydraulic oil are stored on concrete hardstand within an enclosed and bunded shed located at the administration and workshop facilities.

## 3.0 Management and Responsibilities

### 3.1 Legal Duty to Notify

All employees and contractors are responsible for alerting management personnel to all environmental incidents or hazards which may result in an environmental impact, regardless of the nature or scale.

Notification responsibilities are detailed in the POEO Act 1997 (Section 148), which encompasses all site personnel, including contractors and sub-contractors. These can be categorised broadly as:

- The duty of employee or any person undertaking an activity:
  - Any person engaged as an employee or undertaking an activity must, immediately after becoming aware of any potential incident that is believed to cause or threatens to cause material harm to the environment, notify the Quarry Manager of the incident and all relevant information about it. This is to be undertaken as per **Section 5.0**.
- The duty of the employer or occupier of a premises to notify:
  - An employer or occupier of the premises on which the incident occurs, who is notified (or otherwise becomes aware of) a potential pollution incident, must undertake notification to the appropriate regulatory authority of any 'material harm incidents', including relevant information. Notification shall be undertaken by the Quarry Manager.

### 3.2 PIRMP Management

The specific responsibilities associated with the management and implementation of the PIRMP is outlined in **Table 3.1**.

**Table 3.1 PIRMP Management Responsibilities**

| Name             | Contact Details | Position       | Responsibility  |
|------------------|-----------------|----------------|---|
| Robert Mackenzie | 0408 490 911    | Quarry Manager | <ul style="list-style-type: none"><li>• Determination and notification of material harm incidents to relevant authorities/stakeholders.</li><li>• Providing information as requested from relevant government agencies.</li><li>• Undertaking testing/updating of the PIRMP.</li><li>• Completing relevant training in regard to the implementation of the PIRMP, as required.</li><li>• Authorising the PIRMP and subsequent amendments.</li></ul> |

## 4.0 Incident Management

A pollution incident is defined in the POEO Act 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 noise.

In the case of an environmental incident, prior to any other action, the site must contact Fire and Rescue New South Wales (NSW) (000) if the incident presents an immediate threat to human health or property. Fire and Rescue NSW are the first responders, as they are responsible for controlling and containing incidents. Where there is no threat to human health or services, Fire and Rescue NSW must still be contacted for information purposes, but as the last point of contact as detailed in **Section 5.2**.

All possible actions should be taken to control the pollution incident in order to minimise health, safety and environmental consequences. These actions, to the maximum extent possible, aim to:

- provide for the safety of people at and within the vicinity of the site, and
- contain the pollution incident.

The following actions are to be implemented in the event of an incident:

1. secure the scene and contain the incident
2. undertake notification of material harm incident (as required)
3. gather information (i.e., environmental monitoring)
4. undertake investigation into the cause of the incident
5. review and classify information from investigation and identify any ongoing actions and
6. implement those actions identified.

Incident management at Macka's Sand focuses on actions to:

- provide and maintain response resources, including equipment and/or training to minimise the environmental impacts associated with the incident
- establish that response operations are carried out in a safe, well-organised, legal and effective fashion
- provide for the safety and welfare of all responders, employees, contractors and visitors (where applicable)
- continuously assess the incident to determine the adequacy of incident response operations
- minimise effects on people, the environment, property, production, and company reputation and
- where necessary, utilise environmental monitoring to quantify impacts as a result of the incident.

With regards to the main hazards identified in **Section 2.2**, the following actions shall be undertaken in the event of a spill (including hydrocarbons, greases, oils etc.) resulting in land or water contamination:

1. Identify the substance and control the spill by isolating the source.
2. Contain and clean up the spill by utilising spill kits located on the site. If the spill is too large to clean up immediately, a temporary bund will be constructed around the immediate area of the spill in order to reduce the lateral spread of the spilt material.
3. Dispose of the waste in accordance with the MSDS and if required, organise for the waste to be removed by a licensed waste contractor.

## 5.0 Notification Procedures

### 5.1 Definition of Material Harm

Following containment of the incident, immediate action must be taken to determine if the incident is to be classified as a 'material harm incident'. As defined by Section 147 of the POEO Act, a material harm incident has occurred if the incident:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial or
- results in actual or potential loss (including all reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment) or property damage of an amount, or amounts in aggregate, exceeding \$10,000.00 (or such other amount as is prescribed by the regulations).

It is possible for a material harm incident to occur on land that is within the boundary of the EPL. The determination of a material harm incident will be made by the Quarry Manager at the time of the incident.

### 5.2 Internal and External Notification

As discussed in **Section 3.1**, notification of an environmental incident is the responsibility of all site and contractor personnel. In the event of a 'material harm incident', response and notification must be undertaken as per **Table 5.1**. Note the agencies listed in **Table 5.1** must be contacted in the order listed.

**Table 5.1 PIRMP Notification Requirements**

| Agency   | Contact Details  |
|--|--|
| <b>To be contacted immediately in order of priority</b>    |  |
| <b>Fire and Rescue NSW</b>                                 | 000 OR 1300 729 579<br>To be contacted first if the incident presents an immediate threat to human health or property and emergency services are required. Fire and rescue to be contacted last if emergency response is not required. |
| <b>Environment Protection Authority – Environment Line</b> | 131 555  |
| <b>Ministry of Health</b>                                  | 24 Hour Line: 02 4924 6477 and ask to speak to the Environmental Health Officer  |
| <b>SafeWork NSW</b>  | 13 10 50   |
| <b>Port Stephens Council</b>                               | Work Hours: 02 4988 0255<br>After Hours: 02 4988 0255 and select options from menu. For urgent matters outside normal business hours or for emergencies, call SES on 132 500.  |
| <b>To be contacted within 24 hours of incident</b>         |  |
| <b>Department of Planning, Industry and Environment</b>    | Via Planning Portal (preferred) or 1300 305 695  |
| <b>Hunter Water Corporation</b>                            | 1300 657 657   |

On the identification of an environmental incident or hazard, personnel will report the issue immediately to the Quarry Manager. 'Immediately' is taken to mean 'promptly and without delay'.

**The decision on whether to notify the incident in accordance with Part 5.7 of the POEO Act should not delay immediate actions to provide the safety of people or contain a pollution incident. However, incident notification will be made as soon as it is safe to do so<sup>1</sup>.**

After initial notification of any 'material harm incident', it will be the responsibility of the Quarry Manager to liaise with any authority listed in **Table 5.1** that requests additional information or is providing directions for management of the 'material harm incident'. This may include incident investigation reports and ongoing environmental monitoring results.

### **5.3 Notification to Local Landholders and Community**

Community notification shall be undertaken at the determination of the Quarry Manager or Fire and Rescue (as relevant) and may be based on environmental monitoring results. **Appendix 2** outlines the community notification requirements.

The following notification methodology is proposed to be utilised as required:

- early warnings: same day telephone notification to landholders who may be affected by the incident over the subsequent 24 hour period and
- updates: follow up phone calls to all landholders who received an early warning notification or now require notification will be undertaken by relevant personnel. Updates are to be provided, as considered necessary, to the broader local community in affected areas via information sheets or newsletters, Community Consultative Committee meetings, Mackas Sand website, media statements or any other strategy as determined appropriate by the Quarry Manager.

Information provided to the community will be relevant to the incident and may include the following details:

- type of incident that has occurred
- potential impacts on the local landholders and the community
- site contact details and
- advice or recommendations based on the incident type and scale.

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<sup>1</sup> EPA, *Frequently Asked Questions Regarding the Duty to Notify of a Pollution Incident* (August 2017)

## 6.0 Training Testing and Communication

### 6.1 Training

The contents of this document will be included in site inductions. All site personnel and contractors shall be made aware of their reporting requirements with regards to environmental incidents.

### 6.2 Testing Review and Maintenance

Testing of the PIRMP will be undertaken to check that the information is accurate and current and that the plan is capable of being implemented in a workable and effective manner. Testing shall be undertaken in the following ways:

1. The PIRMP will be tested by assessing and reviewing it and making any necessary changes as required. Testing is taken to be either a desktop review or an environmental emergency drill procedure. Testing will include all components of the plan, including training requirements.
2. A review of the PIRMP will occur every 12 months commencing from the date of authorisation by the Quarry Manager. Dates on which the plan has been tested are shown in **Table 6.1**.
3. The PIRMP will be reviewed within one month from the date of any pollution incident that occurs in the course of an activity to which the EPL relates. This review will be undertaken in light of the incident, to provide the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

Records of testing and review will be included in **Table 6.1** of this plan, including:

- the manner in which the test was undertaken
- dates when the plan has been tested
- the person who carried out the testing and
- the date and description of any update of or amendment to the plan.

**Table 6.1 PIRMP Testing Dates**

| Date of Test | Name of Personnel Undertaking Test                    | Manner of Testing | Summary of Changes (include brief detail and section number)  | Date of Document Update |
|--------------|---|-------------------|---|-------------------------|
| 22/08/2017   | Brendan Rice (Umwelt)<br>Rob Mackenzie (Macka's Sand) | Desktop Review    | Agency Contact Details<br>Updates to Incident management and incident definitions                       | 23/08/2017              |
| 26/06/2019   | Kai Neville (Umwelt)/<br>Rob Mackenzie (Mackas Sand)  | Desktop Review    | General formatting changes<br>Verification and amendment of contact phone numbers in <b>Section 5.2</b> | 27/06/2019              |

| Date of Test | Name of Personnel Undertaking Test   | Manner of Testing | Summary of Changes (include brief detail and section number)   | Date of Document Update |
|--------------|--|-------------------|--|-------------------------|
| 2/12/2020    | Kai Neville (Umwelt)/<br>Rob Mackenzie (Mackas Sand)                           | Desktop Review    | General formatting changes<br>Verification and amendment of contact phone numbers in <b>Section 5.2</b>  | 8/12/2020               |
| 15/12/2021   | Thomas Hall (Umwelt)<br>Rob Mackenzie (Mackas Sand)                            | Desktop Review    | No changes required.   | N/A                     |
| 25/08/2022   | Rhys Wilson (Umwelt)<br>Luke Bettridge (Umwelt)<br>Rob Mackenzie (Mackas Sand) | Desktop Review    | Verification and amendment of contact phone numbers in <b>Section 5.0</b> .<br>Review and update of potential hazards relevant to the site in <b>Appendix 1</b> .<br>Addition of <b>Appendix 2</b> - Local Landowner Notification contact phone numbers. | 26/08/2022              |

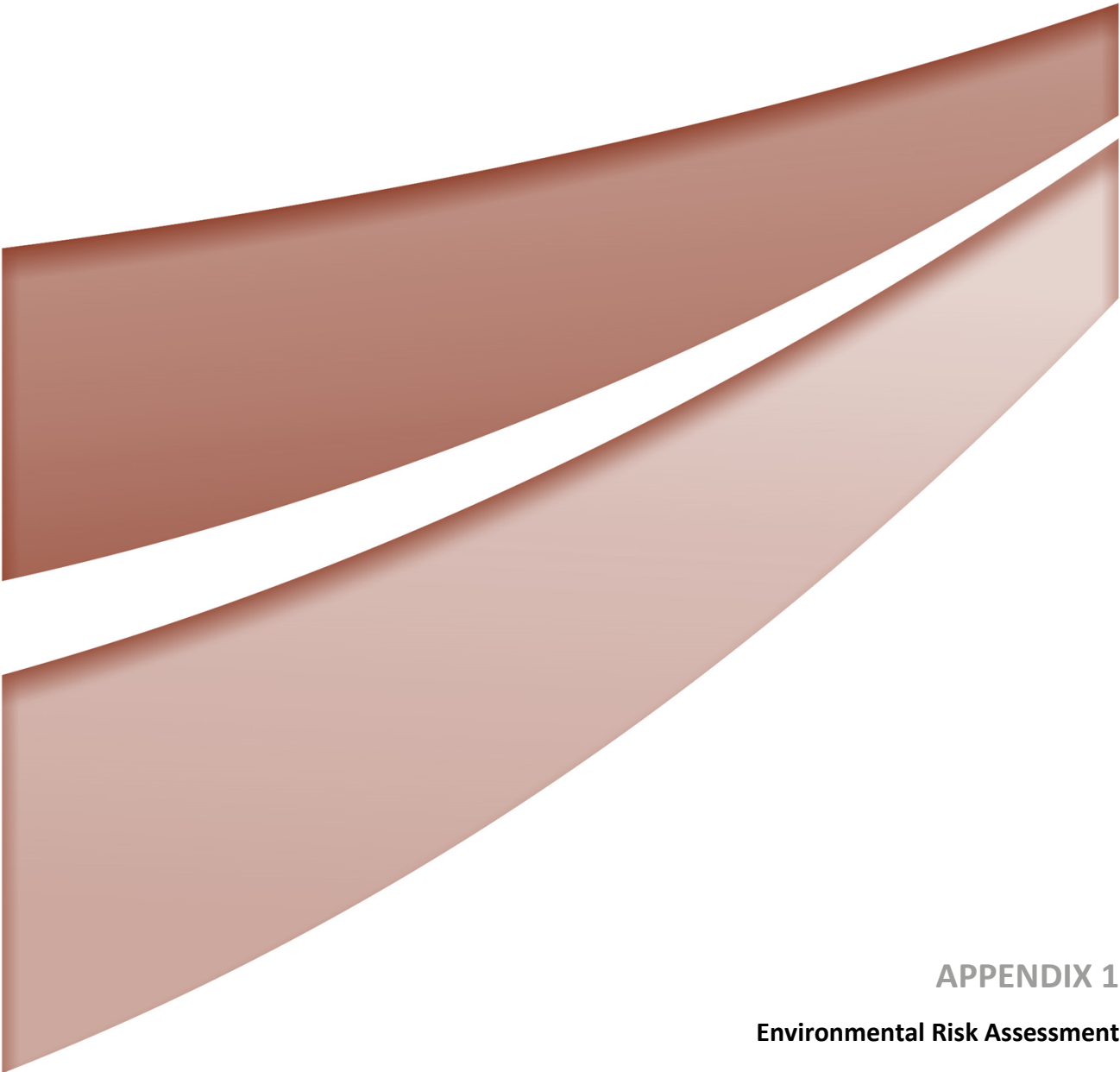
### 6.3 Availability of the PIRMP

The PIRMP shall be kept in written form at the EPL premises and shall be made available to all personnel responsible for implementing the plan, and to an authorised officer (as defined in the POEO Act) on request.

The PIRMP will be made publicly available within 14 days of approval by the Quarry Manager and following any subsequent revisions.

No personal information (within the meaning of the *Privacy and Personal Information Protection Act 1998*) will be made publicly available as part of the PIRMP.





## APPENDIX 1

### Environmental Risk Assessment

**Table A1 Qualitative Measures of Environmental Consequence**

| Severity Level       | Natural Environment   | Legal/Government  | Heritage   | Community/Reputation/<br>Media  |
|----------------------|---|---|--|---|
| (1)<br>Insignificant | Limited damage to minimal area of low significance.   | Low-level legal issue. On the spot fine. Technical non-compliance prosecution unlikely. Ongoing scrutiny/attention from regulator.                                | Low-level repairable damage to commonplace structures.   | Low level social impacts. Public concern restricted to local complaints. Could not cause injury or disease to people.   |
| (2)<br>Minor         | Minor effects on biological or physical environment. Minor short-medium term damage to small area of limited significance.  | Minor legal issues, non-compliances and breaches of regulation. Minor prosecution or litigation possible. Significant hardship from regulator.                    | Minor damage to items of low cultural or heritage significance. Mostly repairable. Minor infringement of cultural heritage values.             | Minor medium-term social impacts on local population. Could cause first aid injury to people. Minor, adverse local public or media attention and complaints.  |
| (3)<br>Moderate      | Moderate effects on biological or physical environment (air, water) but not affecting ecosystem function. Moderate short-medium term widespread impacts (e.g., significant spills). | Serious breach of regulation with investigation or report to authority with prosecution or moderate fine possible. Significant difficulties in gaining approvals. | Substantial damage to items of moderate cultural or heritage significance. Infringement of cultural heritage/scared locations.                 | Ongoing social issues. Could cause injury to people, which requires medical treatment. Attention from regional media and/or heightened concern by local community. Criticism by Non-Government Organisations. Environmental credentials moderately affected.  |
| (4)<br>Major         | Serious environmental effects with some impairment of ecosystem function. Relatively widespread medium-long term impacts.   | Major breach of regulation with potential major fine and/or investigation and prosecution by authority. Major litigation. Project approval seriously affected.    | Major permanent damage to items of high cultural or heritage significance. Significant infringement and disregard of cultural heritage values. | On-going serious social issues. Could cause serious injury or disease to people. Significant adverse national media/public or NGO attention. Environment/management credentials significantly tarnished.  |
| (5)<br>Catastrophic  | Very serious environmental effects with impairment of ecosystem function. Long term, widespread effects on significant environment (e.g., national park).                           | Investigation by authority with significant prosecution and fines. Very serious litigation, including class actions. License to operate threatened.               | Total destruction of items of high cultural or heritage significance. Highly offensive infringement of cultural heritage.                      | Very serious widespread social impacts with potential to significantly affect the wellbeing of the local community. Could kill or permanently disable people. Serious public or media outcry (international coverage). Damaging NGO campaign. Reputation severely tarnished. Share price may be affected. |

**Table A2 Qualitative Measure of Likelihood**

| Level | Descriptor     | Description  | Guideline                               |
|-------|----------------|--|---|
| A     | Almost Certain | Consequence is expected to occur in most circumstances.  | Occurs more than once per month.        |
| B     | Likely         | Consequence will probably occur in most circumstances.   | Occurs once every 1 month – 1 year.     |
| C     | Occasionally   | Consequence should occur at some time.                   | Occurs once every 1 year – 10 years.    |
| D     | Unlikely       | Consequence could occur at some time.                    | Occurs once every 10 years – 100 years. |
| E     | Rare           | Consequence may only occur in exceptional circumstances. | Occurs less than once every 100 years.  |

Source: Based on AS ISO 31000:2018 Risk Management - Guidelines.

**Table A3 Qualitative Risk Matrix**

| Likelihood of the Consequence | Maximum Reasonable Consequence |              |                 |              |                     |
|-------------------------------|--------------------------------|--------------|-----------------|--------------|---------------------|
|                               | (1)<br>Insignificant           | (2)<br>Minor | (3)<br>Moderate | (4)<br>Major | (5)<br>Catastrophic |
| (A) Almost certain            | High                           | High         | Extreme         | Extreme      | Extreme             |
| (B) Likely                    | Moderate                       | High         | High            | Extreme      | Extreme             |
| (C) Occasionally              | Low                            | Moderate     | High            | Extreme      | Extreme             |
| (D) Unlikely                  | Low                            | Low          | Moderate        | High         | Extreme             |
| (E) Rare                      | Low                            | Low          | Moderate        | High         | High                |

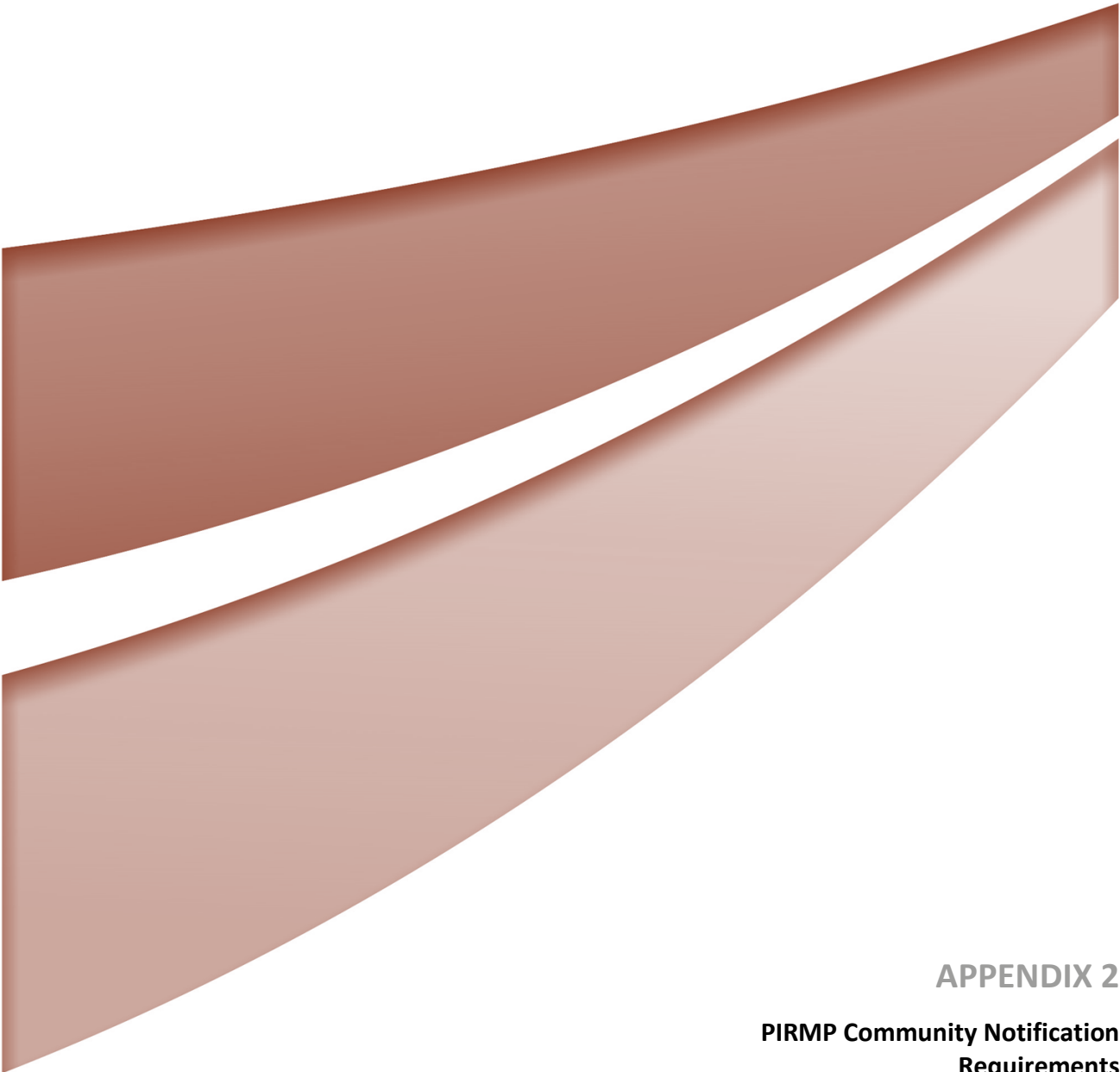
Source: Based on AS ISO 31000:2018 Risk Management - Guidelines.

**Table A4 Mackas Sand Environmental Risk Review – Grafil**

| Activity  | Aspect  | Potential Impact                      | Status and Implemented Control  | Risk Assessment with Controls Implemented |   |   | Further Assessment Requirements or Ongoing Actions   |
|---|---|---------------------------------------|---|---|---|---|--|
|   |   |                                       |   | C   | L | R |  |
| General Operations  | Water Quality                                 | Contamination of groundwater quality. | <ul style="list-style-type: none"> <li>Groundwater quality monitoring is undertaken both upstream and downstream of the quarry to assist in identification of potential impacts resulting from operations at the quarry.</li> </ul>   | 4   | D | H | Groundwater monitoring data is reviewed to identify any potential impacts from operations undertaken at Mackas Sand. Remedial measures / corrective measures to be developed if required based on monitoring data. |
|   | Fire  | Contamination of groundwater quality. | <ul style="list-style-type: none"> <li>Fire management equipment will be maintained on site.</li> </ul>   | 2   | D | L | No ongoing actions other than maintaining equipment.   |
| Equipment Refuelling and Maintenance  | Hydrocarbon spills during equipment operation | Spill to land/water.                  | <ul style="list-style-type: none"> <li>Regular maintenance and inspections will be undertaken of all equipment in operation.</li> <li>Spill kits will be maintained on site.</li> <li>Training will be made available to all staff as required.</li> </ul>  | 2   | D | L | Maintenance of equipment and inspections of controls will be ongoing throughout operations.  |
| Hydrocarbon Storage (including Diesel, Hydraulic oil, Greases and other Oils) | Damage to storage tanks.                      | Spill to land/water.                  | <ul style="list-style-type: none"> <li>Storage tanks to be positioned on an impervious surface and within bunding of a capacity determined appropriate through relevant standards and guidelines.</li> <li>Regular maintenance and inspections will be undertaken on storage tank integrity.</li> </ul> | 3   | E | M | Maintenance of equipment and inspections of controls will be ongoing throughout operations.  |
| Quarry Operations   | Explosion from unexploded ordnance            | Release of dust into atmosphere.      | <ul style="list-style-type: none"> <li>Employees aware of hazard and trained in action of discovery.</li> <li>Unexploded Ordnance Management Plan (MP.8)</li> </ul>   | 3   | E | M | No further actions other than implementation of existing controls.   |

| Activity | Aspect | Potential Impact        | Status and Implemented Control   | Risk Assessment with Controls Implemented |   |   | Further Assessment Requirements or Ongoing Actions              |
|----------|--------|-------------------------|--|---|---|---|---|
|          |        |                         |  | C   | L | R |   |
|          |        | Inadvertent combustion. | <ul style="list-style-type: none"> <li>• Employees aware of hazard and trained in action of discovery.</li> <li>• Unexploded Ordnance Management Plan (MP.8)</li> <li>• Fire management equipment will be maintained on site.</li> </ul> | 3   | E | M | Maintenance of equipment will be ongoing throughout operations. |

Notes: C = Consequence, L = Likelihood, R = Risk.



## APPENDIX 2

### **PIRMP Community Notification Requirements**



In accordance with privacy requirements, landholder information has intentionally been withheld from the publicly available document. The licensee holds a copy of this PIRMP that includes local landholder contact details in the event that community notification is required

