



# **Tarcoola Quarries**

## **Tarcoola Compliance Services**

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

May 2018



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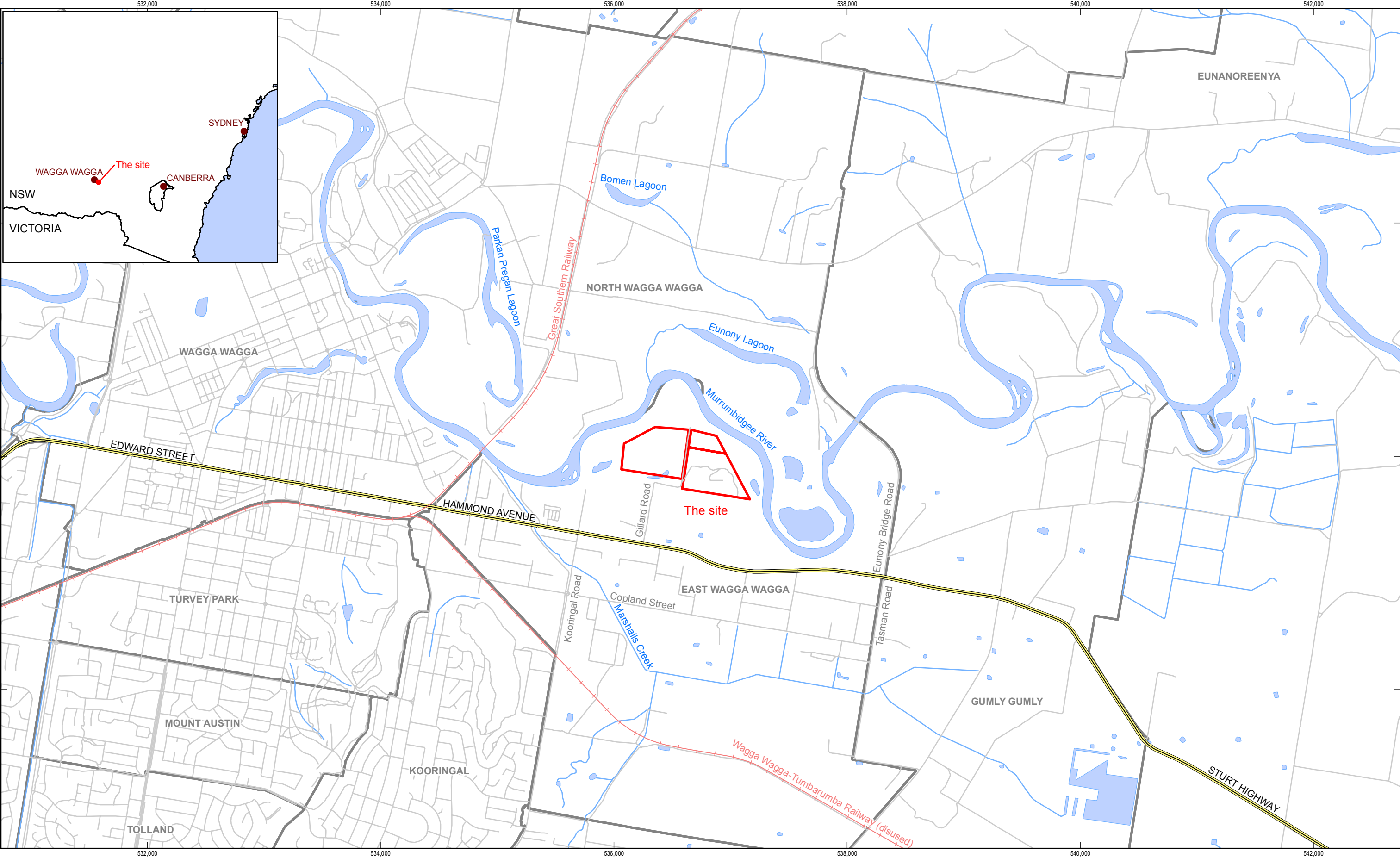
# 1. Introduction

## 1.1 Tarcoola Quarry

Tarcoola Quarries currently operate a quarry and weighbridge at East Wagga Wagga. The site is located approximately 3.5 kilometres east of the Central Business District and sits 100 metres south of the Murrumbidgee River. The site can be accessed via Gillard Road off the Sturt Highway (Hammond Avenue).

The quarry has been under operation for the past 23 years, and it currently supplies the Wagga Wagga and Riverina region with sand and aggregate for construction and civil purposes. The existing facilities include two extraction pits on the east; a Northern pit and a Southern pit which are both fully operational. There is a turf farm on the west side of the site and the Site Office is south of the facility. The quarry has slowly increased its production to meet the local demands of the Wagga Wagga and Riverina region and therefore have an Environment Protection Licence (EPL 20543) for the expanded Extractive Activities issued in March 2015.

A map displaying an overview of Tarcoola Quarries is shown in Figure 1.



1:30,000 @ paper size A3

0 250 500 1,000

Metres

Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 55

LEGEND

Drainage line	Waterbody
Railway line	Suburb
Road	The site
Highway	

CLIENTS | PEOPLE | PERFORMANCE

Tarcoola Quarries PIRMP  
Tarcoola Compliance Services

Job Number	23-15471
Revision	0
Date	23 Jun 2015

### Location of Tarcoola Quarry Figure 1

## 1.2 Pollution Incident Response Management Plan

Tarcoola Quarries obtained an Environment Protection Licence (EPL 20543) for Extractive Activities for their expansion operations in March 2015. All holders of an EPL must comply with the new requirements introduced by the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) to improve the way pollution incidents are reported, managed and communicated to the general community. Under the POELA Act there is a new requirement to prepare, keep, test and implement a Pollution Incident Response Management Plan (PIRMP).

The purpose of the PIRMP is to assist Tarcoola Quarries to comply with the requirements of the POELA Act when dealing with a pollution incident.

This PIRMP was last updated in May 2017.

This PIRMP was last tested on 28 June 2017 by Ken Tyson. The PIRMP will be tested annually and the next test is due on or around the 22 June 2018.

## 1.3 Definition of 'Pollution Incident'

A pollution incident is defined by the *Protection of the Environment Operations Act 1997* (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 any noise.*

A pollution incident is required to be notified if there is a risk of 'material harm to the environment,' which is defined in section 147 of the POEO Act as:

Material harm is defined by the POEO Act as:

(1) *For the purposes of this Part:*

(a) *harm to the environment is material if:*

- (i) *it involves actual or potential harm to the health or safety of human being or to ecosystems that is not trivial, or*
- (ii) *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), and*
- (iii) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*

(b) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*

(2) *For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.*

## 1.4 Legislation

The requirements of a PIRMP are found in Part 5.7A of the POEO Act which requires that:

- All holders of an EPL must prepare a PIRMP



- The PIRMP must include relevant information specified in the POEO Act
- Licensees (i.e. Tarcoola Quarries) must keep the PIRMP at the premises to which the licence relates
- Licensees (i.e. Tarcoola Quarries) must test the PIRMP in accordance with the POEO Act

Table 1 lists specific information referenced in the POEO Act and details where this information is located within this document.

**Table 1: Document Directory**

Section 153C	Details Required	Location in Document
(a)	The procedures to be followed by the holder of the relevant EPL in notifying a pollution incident to: <ul style="list-style-type: none"> <li>(i) The owners or occupiers of premises in the vicinity of the premises to which the EPL relates, and</li> <li>(ii) The local authority for the area in which the EPL premises relates, and any area affected, or potentially affected, by the pollution, and</li> <li>(iii) Any persons or Authorities required to be notified by Part 5.7 (of the POEO Act)</li> </ul>	Section 3.6 Section 3.1
(b)	A detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant EPL to reduce or control pollution.	Section 3.1 and Appendix A
(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 3.3 and Appendix A
(d)	Any other matter required by the POEO (General) Regulation, 2009 (as detailed below) 98C (1)(a) A description of the hazards to human health or the environment associated with the activity to which the licence relates (the “Relevant Activity”).	Section 2.1
	98C(1)(b) The likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood.	Section 2.1
	98C(1)(c) 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.	Section 2.1
	98C(1)(d) An inventory of potential pollutants on the premises or used in carrying out the relevant activity(ies).	Section 2.2.1
	98C (1)(e) The maximum quantity of any pollutant that is likely to be stored or held at particular locations (including tanks above & underground), at the premises to which the licence relates.	Section 2.2.1



	98C(1)(f) A description of the safety equipment or the devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident.	Section 2.2.2
	98C (1)(g) The Names, Positions and 24-hour contact details of those key individuals who: (i) are responsible for activating the plan, and (ii) are authorised to notify relevant authorities under section 148 of the POEO Act, and (iii) are responsible for managing the response to a pollution incident	Section 3.4
	98C (1)(h) The contact details of each relevant authority referred to in section 148 of the POEO Act.	Section 3.5
	98C (1)(i) Details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in vicinity to the licenced facility, or where scheduled work is carried on.	Section 3.2
	98 (1)(j) 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.	Section 2.3
	98C (1)(k) 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.	Figure 2
	98C (1)(l) 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.	Section 3.2
	98C (1)(m) The nature and objectives of any staff training program in relation to the plan.	Section 4
	98C (1)(n) The dates on which the plan has been tested and the name of the person who carried out the test. (annual testing required)	Section 6
	98C (1)(o) The dates on which the plan is updated.	Section 6
	98C (1)(p) The manner in which the plan is to be tested and maintained.	Section 5 and 6

If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees (i.e. Tarcoola Quarries) must immediately implement the PIRMP.

## **1.5 Limitations**

This report: has been prepared by GHD for Tarcoola Quarries and may only be used and relied on by Tarcoola Quarries for the purpose agreed between GHD and the Tarcoola Quarries as set out in section 6 of this report.

GHD otherwise disclaims responsibility to any person other than Tarcoola Quarries arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Tarcoola Quarries and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

## 2. Identification and Likelihood of Hazards

### 2.1 Risk Assessment

Risk assessments were conducted between GHD and site personnel through February to March 2015. The main hazards and pollutants at the Tarcoola Quarry site are identified in Table 2 along with the likelihood and pre-emptive controls.

**Table 2 Risk Assessment**

Hazard	Factors increasing likelihood	Likelihood of material harm	Pre-emptive Controls
Generation of dust	Site Operations Windy conditions Dry conditions	Low	Water trucks for dust suppression Regulatory monitoring on site and neighbouring properties Dust gauges analysed quarterly by external laboratory Sealing of doorways and openings Weather monitoring Limit the height drop of the excavated material Access road maintenance PPE in high dust areas
Generation of noise	Site Operations Unauthorised access Wind direction (towards sensitive receivers)	Low <sup>1</sup>	Use noise barriers where work is carried out Rubber lining of steel equipment Time restrictions on use of plant and equipment Acoustic lining of site sheds TTQ Safety Management Plan PPE-earmuffs Signage Regulatory monitoring
Land Pollution – Waste	Site Operations Wrongful disposal	Low	Install appropriate disposal facilities Ensure only authorised personnel access the site
Runoff of sediment laden water	Site Operations Floods Heavy Rainfall	Low	Sediment ponds to capture runoff Regular inspections and maintenance on sediment ponds

Hazard	Factors increasing likelihood	Likelihood of material harm	Pre-emptive Controls
Spill of chemicals/fuels/oils	Failure of valves during refuelling Inadequate storage Vehicle maintenance	Very Low	Refuel vehicles off site or on refuelling hardstand established in the quarry laydown/processing area Implement and use spill kits Training of personnel in use of spill kits Lubricants stored off site Ensure all drums of oils and fuel are bunded Ensure all mobile plant and equipment undergo a prestart and regular maintenance
Air Pollution – Fires	Site Operations	Very Low	Refuelling occurs off site or on the refuelling hardstand established in the quarry laydown/processing area. Lubricants stored off site Truck & shovel maintenance occurs off site Fire extinguishers present in all vehicles Maintain clean work areas to prevent fire hazards No smoking in work areas
Major unlicensed water discharge (during flood event)	Heavy rains and flood events causing Murrumbidgee River to flood		Remove all mobile plant and equipment from processing area Remove any hazardous materials from processing area Refer to the Tarcoola Quarries Flood Management and Evacuation Plan

<sup>1</sup> The POEO Act states that a pollution incident does not include an incident or set of circumstances involving only the emission of noise.

## 2.2 Inventories

### 2.2.1 Pollutant Inventory

No potential pollutants are stored on site. All fuels and lubricants are stored off site and any refuelling and maintenance required by the vehicles is carried out off site. Stationary plant and machinery is refuelled by a mobile tanker and if any vehicles need refuelling onsite it is undertaken in the approved refuelling bund.

No water is discharged off site.

### 2.2.2 Safety Equipment Inventory

The description, location and use of safety equipment on site must be kept on the premises and are provided in Table 3.

**Table 3 Safety Equipment for Incidents and General Handling Inventory**

Safety Equipment	Description	Location	Use
Fire Extinguisher	Active fire protection device in accessible position	(in building, on equipment, in vehicles, near welding equipment, etc.)	To extinguish and/or control small fires
Spill Kit	Collection of equipment and absorbents	(in building, on equipment, in vehicles, etc.)	Designed to contain, control, and clean up hazardous liquids
PPE	Safety boots, hard hats, eye protection, hearing protection, clean and fitted clothing	Each truck has PPE for personnel use  Lunch room near Pit also has PPE for staff	Protect personnel from potential injury
First Aid Kit	Industrial First Aid Kit  Vehicle First Aid Kit	1 kit in Office; 1 kit in lunch room near Pit  Each loader contains 1 First Aid kit	To stabilise and control injury, if necessary, until Emergency Services reach the site

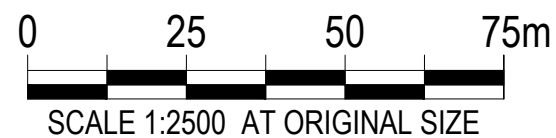
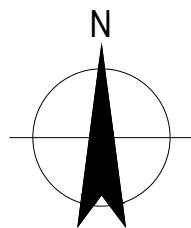
## 2.3 Harm Minimisation to Personnel on Site

To minimise the harm to personnel on the premises, Tarcoola Quarries should correctly implement the pre-emptive controls stated in Table 2.

If a significant pollution incident occurs, the Site Supervisor needs to implement any evacuation procedures stated in the site safety plan and all staff shall not leave the assembly point until instructed otherwise by the relevant authorities.

## 2.4 Site Safety Map





Tarcoola Quarries  
WHS Site Plan

Job Number	23-15471
Revision	0
Date	June 2015

Figure 2



## 2.5 Availability of PIRMP

PIRMP must be available in written form on the licensee (i.e. Tarcoola Quarries) premises as well as a written copy available for an authorised EPA officer upon request and to any person who is responsible for implementing the plan.

In addition, a copy of each plan must be maintained at the premises to which the relevant licence relates, or where the relevant activity takes place, so the plan is readily available for its implementation or for when it is requested.

Some sections of the plan must be made available to the public within 14 days of the plan being prepared. This can be done by placing the plan on a publicly accessible website or providing written copies (free of charge) to persons upon a written request if the licensee does not have a website. The information that must be available to the public includes:

- The procedures for contacting the relevant authorities (Refer to Section 3.5)
- The procedures for communicating with the community (Refer to Section 3.6)

# 3. Pollution Incident Response

The following section details the information, actions and responsibilities of designated Tarcoola Quarries staff and contractors during a pollution incident. It also details management measures for minimising the risk of harm to site personnel during a pollution incident and the actions to be taken during and immediately after a pollution incident.

## 3.1 Details and responsibilities during a pollution incident

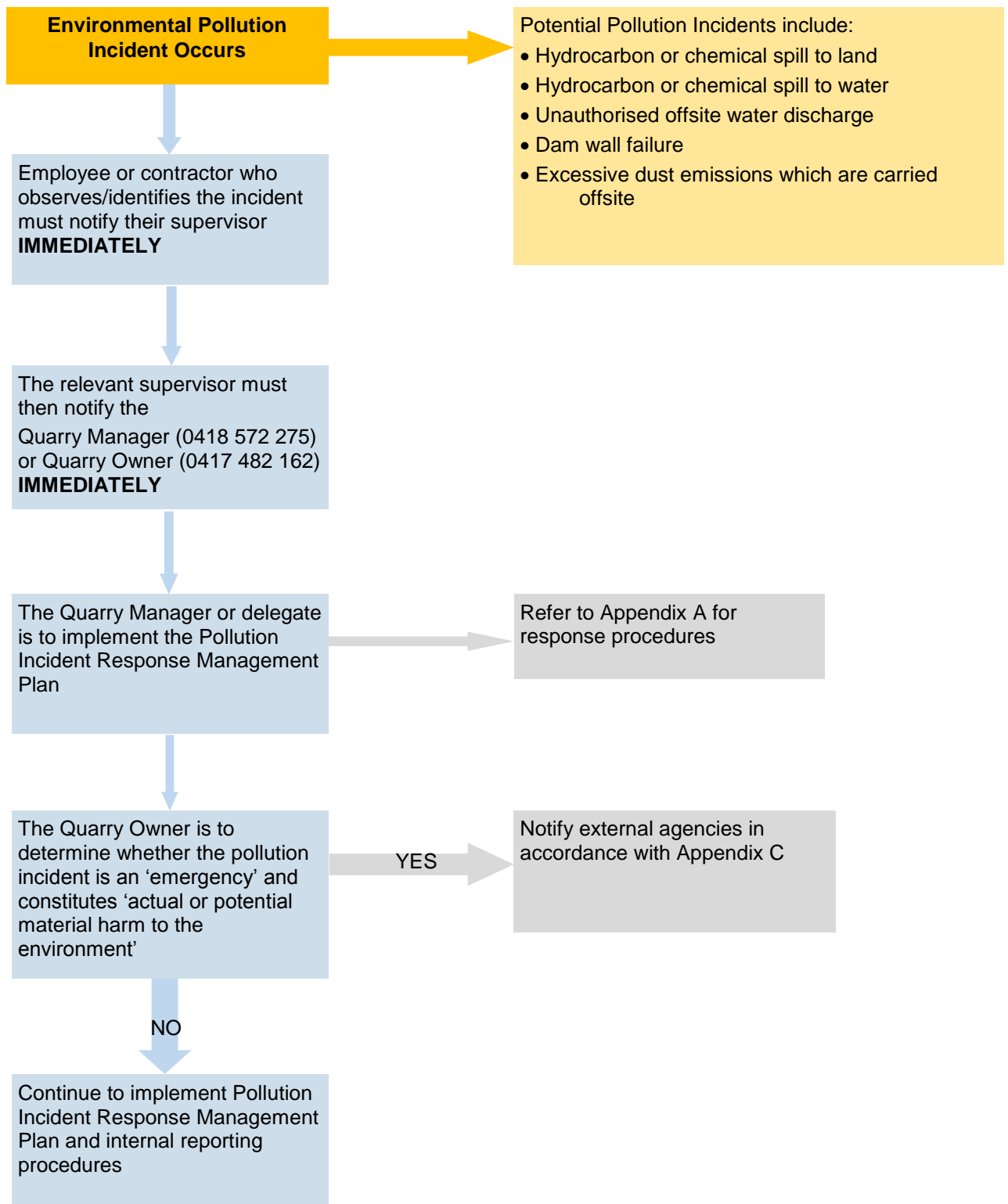
Tarcoola Quarry staff or contractors that discover an actual or potential pollution incident are responsible for immediately notifying the Quarry Manager or Quarry Owner. The Manager will report the incident to the Quarry Owner and provide the following information:

- a. The time, date, nature, duration and location of the incident
- b. the location of the place where pollution is occurring or is likely to occur
- c. the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known
- d. the circumstances in which the incident occurred (including the cause of the incident, if known)
- e. the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known
- f. other information prescribed by the regulations.

Figure 3 below provides a flow chart summarising the process to follow if an incident occurs.



## POLLUTION INCIDENT RESPONSE FLOWCHART



**Figure 3: Pollution Incident Response Flowchart**

## **3.2 Measures to prevent/minimise a pollution incident**

There are some basic controls that can be implemented by all site personnel to prevent or minimise a pollution incident. These include:

- Frequent and consistent site inspections
- Formal training
- Regular monitoring and maintenance of equipment
- Environmental Management plans
- Proper use of equipment

The Tarcoola Quarries site should implement these measures to prevent and minimise a pollution incident. However if a pollution incident does occur, the PIRMP is to be enforced and relevant parties from Table 4 contacted.

## **3.3 Actions to be taken during and immediately after a pollution incident**

### **3.3.1 Control and containment action**

It is imperative that action be taken quickly to contain any spill. This action, determined by the Tarcoola Quarries Manager and implemented by the team member or contractor, is to be aimed at achieving isolation and containment of the spill to prevent any further leakage or spread to the surrounding environment. If the spill is minor, clean-up procedures will be implemented as required.

Tarcoola Quarries has procedures that contain specific direction related to management of spills (refer Appendix A) and a safety management plan (refer Appendix B).

### **3.3.2 Incident response procedure**

Tarcoola Quarries has an incident response process outlined above which details the actions to be taken by staff and contractors during and after a pollution incident to reduce or control any pollution. The incident response process is to be followed where there is NO threat to the safety of site personnel responding to the incident.

Tarcoola Quarries also have an external notification procedure which is to be followed if the incident involves external authorities (refer Appendix C).

### **3.3.3 Pollution incident clean-up**

Procedures for the clean-up of pollution incidents will largely depend on the type and extent of the pollution incident.

Clean-up procedures will take into account the following:

- Type of pollutant
- Extent/area of pollution
- Medium in which pollution has occurred (land, air, water)
- Requirements for specialist advice in relation to the removal and remediation of the pollution
- Potential additional environmental impacts by the proposed clean-up processes
- Costs to remove the polluted material to a waste facility licensed to accept the waste.

The Quarry Manager is responsible for determining the method of clean-up, in consultation with the Quarry Owner. Funding of clean-up procedures will be determined by the Quarry Owner.

Relevant incident procedures are attached in Appendix A and C.

### 3.3.4 Measures after a pollution incident

After a pollution incident occurs, the PIRMP will have to be tested within a month of the incident, and, if necessary, be updated accordingly.

Key aspects of the pollution incident should be reported to all quarry staff, with any new or refresher training to be provided if required.

## 3.4 Quarry Management and Staff roles and responsibilities

**Table 4 Quarry Management**

Quarry Management	Contact Details
Quarry Owner	Ken Tyson - 0417 482 162
Quarry Manager	Brian Burgess - 0418 572 275
Quarry Site Supervisor	Al Tyler - 0448 380 613

**Table 5 Staff Roles**

Position	Role & Responsibility
Employees and Contractors	If a pollution incident occurs, immediately notify the Quarry Site Supervisor  Follow any procedures outlined in the PIRMP
Quarry Manager	Assess the extent of the pollution incident, and if required immediately alert the relevant authorities (refer Table 6)
Quarry Site Supervisor	Implement relevant PIRMP procedures corresponding to the extent of the pollution incident  Manage the response to the pollution incident relevant to the PIRMP controls after implementation of procedures

## 3.5 Incident Contact Details

In the case of a pollution incident the contact details of all relevant parties are listed in Table 6.

**Table 6 Incident Contact Details**

Name	Contact Number
Wagga Wagga City Council	1300 292 442
NSW Ministry of Health	(02) 9391 9000
EPA (Environment Protection Authority)	131 555
WorkCover NSW	131 050

Name	Contact Number
Fire and Rescue NSW, Police and Ambulance	000
Wagga Wagga Rural Referral Hospital	02 5943 1000
Roads and Maritime Services (road spills )	132701
DPI - water	02 9338 6600

### 3.6 Notification and communication

Tarcoola's internal communications structure is detailed below:

- Staff member or contractor discovers actual or potential pollution incident
- Staff member or contractor notifies Quarry Manager or Site Supervisor of incident, providing information detailed in Section 3.1
- Quarry Manager notifies Quarry Owner.

The Quarry Manager will determine the potential extent and consult with environmental professionals or notify the required authorities as required.

If a pollution incident occurs that constitutes 'actual or potential material harm to the environment', then the licensee (Tarcoola Quarries) must immediately report the incident to the following:

- Environment Protection Authority (EPA)
- NSW Ministry of Health
- Fire and Rescue NSW
- WorkCover NSW
- The local council.

The relevant contact details are provided in Section 3.5 (Table 6).

### 3.7 Notifying neighbours and the community

If the pollution incident is significant and the PIRMP is implemented Tarcoola Quarries will contact surrounding neighbours and the community, with priority to those closest to the pollution incident. In the event of an immediate notification incident, responsibilities for incident management area are as follows:

- Site Supervisor is responsible for actioning response to the incident.
- Site Supervisor is responsible for notifying external authorities, potentially affected community and ensuring adequate resources are available for incident response.

Depending on the extent of the incident, the Quarry Manager shall determine the most appropriate means of contacting potentially affected community including:

- Direct phone contact
- Door knocking
- Social media
- Mailbox drops
- Local media

- Emails
- Signage.

Information that may be relevant for the surrounding neighbours and community may include:

- Description of the incident
- Status of the incident
- Response actions
- Actions to minimise harm
- Likely duration.

As per the EPL, the licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

## 4. Training and review

### 4.1 Training

Any personnel involved in quarry operations must take part in training to assist in the response to potential incidents and to test the adequacy of incident response procedures and plans. Details of the training are provided in Table 7.

**Table 7 Incident response training**

Type of training	Personnel involved	Frequency	Records
Induction	New quarry staff	Once	Induction register Induction questionnaire
	Contractors – low risk	Once	Induction register Induction questionnaire
	Contractors – medium/high risk	Once Annual refresher	Induction register Induction questionnaire
Toolbox meetings	All quarry staff	Daily	Daily log
PIRMP refresher	All quarry staff	Annual	HR
Incident debrief	Personnel involved in incident Independent chair	Within one month of an incident	Minutes

### 4.2 Review

The PIRMP will be reviewed when there is a material change to operations including but not limited to:

- Modification of EPL 20543
- Changes in standard operating procedures referred to in this PIRMP
- Change in legislative requirements
- Recommendations arising from an incident debrief, emergency drill or emergency simulation exercise.

The Quarry Manager/Owner is responsible for reviewing the PIRMP.

An update of the PIRMP would trigger all staff to undergo refresher training as part of team toolbox meetings as per Table 7.

## 5. Testing the PIRMP

The plan must be tested routinely at least once every 12 months. The plan must be tested in such a way that the information included in the plan is correct as well as up to date, and that the plan is implemented in an efficient and effective manner.

There are two usual methods of testing the PIRMP, which include:

- Desktop simulations such as communications that would occur in the event of a Pollution Incident
- Practical exercises or drills based on possible incident scenarios

The tests must cover **ALL** aspects of the plan, including the effectiveness of the training.

## 6. Review and Testing Register

**Table 8: Document review register**

Date of review	Name of Personnel undertaking review	Summary of changes
4/5/2017	Belinda Fourie	Minor changes
10/5/2018	Belinda Fourie	Complete detailed review adding procedures as required by Section 153C of the POEO Act

**Table 9: PIRMP test register**

Date of test	Name of personnel undertaking test	Manner of testing	Summary of changes
23/6/2016	Ken Tyson	Desktop Review	Plan checked – no changes
28/6/2017	Ken Tyson	Desktop Review	Plan checked – no changes



## **Appendices**

# Appendix A – Pollution Incident Response Procedures

## HYDROCARBONS OR CHEMICAL SPILL TO LAND

If spill is too large to be controlled and contained by site personnel, contact Fire and Rescue for assistance.

1. Stop work, shut down equipment or **control** spill at the source if safe to do so.
2. Restrict access to the area and ensure safeguards are in place for human life and property.
3. Access the nearest Spill Response Kit to the incident.
4. **Contain** the spill and prevent the spill from spreading or entering drains.
5. Surround spill with banks of dirt or sand, absorbent booms to prevent from further impacting the environment.
6. Identify the substance spilled and refer the Safety Data Sheet (SDS) for appropriate safety and clean up procedures
7. Conduct a hazard assessment, including weather conditions such as rainfall.
8. Wearing person protective equipment as specified in the SDS **clean up** the spill.
  - a) For spills on sealed surfaces it is recommend that absorbent pads, and/or sand is used
  - b) For spills on unseal surfaces it is recommended to use appropriate absorbent material provided in sill response kits.
9. Label container, bag or drum containing hazardous material
10. Remove absorbent material and containment soil or material if possible.
11. Do not hose down contaminants into drains
12. Implement reporting protocols to appropriate external authorities.
13. Seek advice on appropriate disposal options.

## HYDROCARBON OR CHEMICAL SPILL TO WATER

1. Immediate cease all pumping of water.
2. Follow steps 1-3 above.
3. **Contain** spill by placing the floating boom around the spill, downstream or block drains in any way possible to prevent spreading.
4. Identify the substance spilled and refer the Safety Data Sheet (SDS) for appropriate safety and clean up procedures
5. Conduct a hazard assessment, including weather conditions such as rainfall.
6. Wearing person protective equipment as specified in the SDS clean up the spill.
7. **Clean up** substance by applying absorbent pad over the spill.
8. If the spill is large, call in the use of a sucker truck to remove spill.
9. Label a water proof container or drum containing hazardous material.
10. Remove absorbent pads, add new pads if necessary.
11. Implement reporting protocols to appropriate external authorities.
12. Seek advice on appropriate disposal options.

## **Appendix B** – Safety Management Plan 2001



# **SAFETY MANAGEMENT PLAN**

## **For Tarcoola Quarries**

**Hammond Avenue, Wagga Wagga. N.S.W. 2650.**

**Prepared by Brian Burgess  
31/7/2001**



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<b>PART C</b>	<b>INDUCTION ACKNOWLEDGMENTS</b>
<b>PART D</b>	<b>ACTIVITY RISK ANALYSIS &amp; SAFE WORK METHOD STATEMENTS</b>

## STATEMENT OF RESPONSIBILITIES

To satisfy the requirements of the OH&S ACT the key roles and responsibilities for the management of occupational health and safety at the Tarcoola Quarries.

are as follows:

1. Manage compliance with occupational health, safety and rehabilitation legislation, regulations, standards and codes - Brian Burgess as being the mine owner.
2. Initially assess employee's capabilities to meet occupational health and safety requirements during the carrying out of Mining of Sand and Gravel.
3. Ensure each subcontractor meets occupational health and safety requirements
4. Manage the acquisition and dissemination of occupational health, safety and rehabilitation information to supervisors and the work force -
5. Conduct Induction and safety training for all employees on site -
6. Maintain first aid stocks
7. Provide first aid - M. Noack, Mines Manager.
8. Manage the development and implementation of accident and emergency procedures
9. Ensure that the site is made safe from the general public and that on the site unsafe work areas, materials, materials, plant and equipment shall be quarantined M. Noack.
10. Investigate and report incidents and accidents in accordance with established /Legislative requirements and initiate appropriate corrective/preventive action - M. Noack.
11. Conduct site 'Activity Risk Analysis' and where appropriate develop work method statements and/or safe working rules M. Noack.
12. Provision of the overall verification of compliance of the above through ongoing surveillance, monitoring and inspection of site activities M. Noack.

All accidents involving damage to equipment and materials, including motor vehicle accidents, shall be reported to the Site Manager at once, so that an investigation may be immediately actioned to establish the cause of the accident and determine that a safe condition prevails.

## **5. GENERAL CONDITIONS & SITE SAFETY RULES**

### **5.1 MANUAL HANDLING**

Never attempt to lift beyond your capacity. If in doubt test the objects weight before handling it; If it appears too heavy or bulky, obtain a mechanical lifting aid and/or somebody to help.

If heavy lifting is anticipated direction should be given to ensure this is conducted properly and for continuous operations a work method review undertaken to minimise any change of injury.

### **5.2 GENERAL CONDUCT**

No person shall present themselves for work under the influence of alcohol or drugs.

No unauthorised person shall be allowed to bring alcoholic beverage or non prescribed drug into the mine.

Fighting on job will not be tolerated.

Horseplay, practical jokes and rowdiness will not be tolerated.

Infringement of any of the above rules will result in the immediate removal of those persons from the site.

No visitors, children or pets shall be permitted on site without prior permission from the Mine Manager.

### **5.3 PERSONAL PROTECTION**

It is a requirement for all site employees to be equipped with the appropriate Personal Protective Equipment (PPE) to safely carry out their assigned job function. Wear clothing which is suitable for the job at hand and keep it as clean as possible. Avoid wearing loose or torn clothing, particularly around moving machinery.

**Safety footwear conforming with the relevant Australian Standard must be worn by all personnel on site. Hard hats must be worn by all personnel at all times and in all areas designated as hard hat areas.**

Eye protection is compulsory in designated eye protection areas, or when using power or machinery tools, or when in the vicinity of electric arc welding. Eye protection must be worn at any time where there is a risk of foreign bodies entering the eye.

Hearing protection shall be worn wherever high noise levels have been identified; e.g. jack-hammer, grinding, explosive power tools, pile driving, impact tools earthmoving machinery.



Power Leads - Keep all power leads off the ground, place them so that they cannot be damaged. Electric leads must be properly earthed and must not exceed 30m in length. Double adaptors must not be used.

## **5.7 MOVEMENT ON SITE**

Use recognised walkways wherever possible when travelling to and from your job site.

When sent to another part of the site to work travel by the most direct route with due regard for safety.

All vehicles, loaders, trucks etc. are limited to 4 km/hr in the area of the mine and haul roads.

Beware of mobile equipment and motor vehicles while moving around the site.

Observe all safety requirements stipulated by way of signs. e.g. 40

Entry to, movement on and exit from the Site will only be by authorised personnel. Should visitors enter the site politely instruct them to visit the site office for any enquiries.

All haul roads to be maintained without ruts or potholes, safety barriers must be maintained at all times e.g. berms.

## **5.8 UNSAFE CONDITIONS**

If, in your opinion, an unsafe condition exists and requires urgent attention; correct it yourself if possible. If you can not do so, make it as safe as you can and report the condition to the Mine Manager immediately.

## **5.9 WARNING SIGNS**

Appropriate warning signs are to be erected where access needs to be restricted and/or site personnel need to be alerted to the presence of hazardous plant/activities (eg welding, explosive tools in operation). Warning signs are placed for your protection. Read them and heed their warning.

The removal, shifting or destruction of any warning sign is forbidden without authorisation.

Should any sign be removed or destroyed accidentally, notify the Mine Manager immediately and ensure the hazard covered by the sign is not left unprotected in the meantime.

Effective barricades, fencing will be provided for the protection of all workers and the public on or near the Mine. Please ensure all barricades, fencing berms is kept in good working order.

# **6. ACCESS**

## **6.1 LADDERS**

Only approved ladders shall be used. They shall comply with relevant Australian Standards and legislation. No electrically conductive ladder shall be used around power cables.

Before using any ladder, check for faulty rungs or side rails. Do not use if damaged. Report any damage to your Mine Manager. Where possible, place the ladder clear of walkways and traffic ways.

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Hand tools shall be used for their intended purpose only. The design capacity of hand tools shall not be exceeded by unauthorised attachments.

All tools on issue to employees and all tools used by them in their normal work should be inspected periodically to ensure that they are in safe working condition. Any tools which do not meet this standard are to be repaired or replaced.

Do not use saws or other power tools unless fitted with correctly adjusted guards, cutouts or other appropriate safety devices.

#### **7.4 POWER TOOLS**

Electrically powered tools and equipment shall be earthed at all times when in use, except double insulated tools.

Air hose connections shall be secured to prevent accidental separation. Operating switches or levers requiring constant pressure for operation shall not be tampered with to make the tool operate without constant hand or finger pressure.

Grinding wheel speeds shall conform to the manufacturers' recommended speeds. Eye and/or face protection conforming with relevant Australian standards shall be used at all times.

#### **7.5 COMPRESSED AIR**

Employees required to handle compressed air hoses, receivers, etc must always shut off all air bleed lines before disconnecting couplings. Use compressed air only for the jobs for which it is intended. Those required to use this equipment shall be appropriately trained.

#### **7.6 CRANE OR HOIST WORK** (only applicable when deconstruction of screens).

Obey any instructions given by a dogman or rigger who is directing crane operations on-site in your work area.

When operating mobile cranes attention shall be given to side and overhead clearance, particularly in the vicinity of power lines.

Do not leave any load suspended without an operator at the controls.

Only certified or approved operators (refer plant/operators register) are permitted to carry out slinging operations and direct crane movements.

The Mine Manager or someone officially designated by him shall review the specific operation of a crane when the crane must operate in the vicinity of an overhead power line where any part of the crane can come within 5 metres of the overhead line. This must be done prior to the crane moving into the exposed area. Overhead lines within the work area shall be marked with warning signs, two metres above the ground.

Outriggers shall be used at all times except when travelling. If the crane is travelling with a load, every reasonable effort shall be made to keep the outriggers extended as far as is practical.

Riding on the outside of the crane, hooks or loads is strictly forbidden.

Erection, dismantling, rigging and boom changes shall be made by a competent person under the supervision of a qualified person.



Vehicles and equipment should always be parked on level ground with the handbrake applied. When equipment not in use ignition keys should be removed and be retained by the operator or designated person.

Obey project speed limit signs.

## 9. FIRE PREVENTION AND CONTROLS

Flammable liquids like petrol are not to be used as cleaning agents. Use only approved cleaning solvents. Flammable liquids are to be stored in properly labelled/approved containers.

Store all flammable or combustible liquids and gases in a well ventilated designated storage area.

Do not remove or tamper with fire extinguishers installed on equipment, vehicles, or in other locations. Extinguishers are required when using open flame tools when cutting or welding. Extinguishers are inspected monthly, serviced yearly, and must be serviced or recharged immediately after every use.

Access to fire fighting equipment must be kept free from obstacles that could delay emergency use. Familiarise yourself with the location and use of the project's fire fighting equipment. Know the exit routes from buildings and work areas.

Storage of flammable substances on equipment or vehicles is prohibited unless designed for such use.

## 10. GENERAL SAFETY RULES (for plant operators)

### 10.1 General Instructions.

- ❖ Read and understand all warning decals in your cab.
- ❖ Walk around your machine before you mount it. Check for other people and safe clearance. Look for signs of fluid leaks, tyre, track or implement damage.
- ❖ Inspect your machine for potential hazards. Report any defect before you move the machine.
- ❖ Mount and dismount using the steps and grab handles. Use both hands and face the machine.
- ❖ Never attempt to get on or off a moving machine. Never jump off a machine.
- ❖ Keep all deck plates, steps, and handles repaired and free of mud, grease and oil.
- ❖ Do not start a machine or move any controls if there is a **Do Not Start Tag** on the machine.
- ❖ Make certain no one is working on, under, or close to the machine before you start it.
- ❖ Check all fluid levels and move the transmission and implement controls to neutral and engage parking brake before starting.
- ❖ Inspect the seat belt, mounting hardware and seat suspension.
- ❖ Adjust operator's seat and fasten the seat belt.
- ❖ Those operating equipment with ROPS structures must wear a seat belt while operation.
- ❖ Make certain the area in your direction of travel is clear of people and obstructions before moving. Use a spotter if necessary.



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### 10.3 CRANES

- ❖ Rated load capacity charts, recommended operating speeds, special hazard warnings and other essential information must be conspicuously posted in all cranes, hoists, and other equipment. Follow these directions at all time.
- ❖ Never attempt to lift more than the rated capacity of your machine or its rigging.
- ❖ The capacity of a crane varies with its boom's radius, use of outriggers, and quadrant of operation. Boom radius is measured from the machine's centre point to the load's centre of gravity. When figuring boom radius which occurs when you swing the load, or lower the boom.
- ❖ Outriggers must be fully extended with tyres off the ground to realise the machine's full capacity, in a specific quadrant of operation.
- ❖ Your machine must be set up on firm level ground to prevent damage to the boom or the machine's overturning. Check all brakes before hoisting the load more than a few inches.
- ❖ Operators must take signals from only one person; in an emergency, however, a STOP signal can be given by anyone.
- ❖ Routine maintenance, fuelling or repairs must not be performed while the equipment is in use.
- ❖ Check the load line thoroughly. In the running line, if there are randomly distributed broken wires in one lay or broken wires in any one strand in one lay, the line should be taken out of service. If there is wear, or any other distortion of the rope structure, the rope should be taken out of service.
- ❖ Accessible areas within the swing radius of all cranes must be barricaded to prevent employees from being crushed by the counterweight.
- ❖ A fire extinguisher must be located in the cab of each crane.
- ❖ Safety latches are required on all crane hooks. Taglines should be used when handling loads that must be guided. The taglines should be synthetic fibre or other electrically non-conductive material.
- ❖ No crane or other equipment shall be operated within 3 metres of energised electrical transmission or distribution lines. Any overhead line must be considered energised unless it is disconnected and physically grounded. The operator must avoid swinging loads over worker's heads.
- ❖ A designated employee must observe clearance of the equipment and give timely warning for all operations where the operator's vision is obstructed.
- ❖ Never leave your machine with a load suspended.

### 10.4 MACHINERY LOADING, UNLOADING OR TRANSFERRING

- ❖ In the loading or unloading of machinery to and from trucks or floats take special precautions.
- ❖ Stand clear of machinery when it is being unloaded or transferred from one level to another. Ensure that loading ramps are of adequate width to accommodate passage of machinery onto or from trucks, trailers,
- ❖ Machinery being transported on a float or any other vehicle must be securely blocked and tied down to prevent movement. Where it overhangs either the sides or end of the vehicle, you must display warning flags by day and lights at night.
- ❖ Before hauling or walking a machine, check the manufacturer's manuals for proper procedures to be followed.



# TARCOOLA MINES

## SITE SAFETY RULES

It is a condition of entry to this site that the following safety rules are complied with by all employees and visitors.

- 1 All employees are to be clean and of tidy appearance when turning up for work. This safety rule must be observed.
- 2 Site Induction: All persons working on or visiting the site must attend a Site Induction.
- 3 Safety helmets must be worn by all supervisors, employees, and visitors in the mining and construction area at all times.
- 4 Safety footwear must be worn at all times by all supervisors, employees, and visitors in the mining and construction area. The footwear must comply with AS2210.
- 5 Glass Containers are not allowed on the site, other than in lunch rooms.
- 6 Alcohol and Drugs: The consumption of alcohol and illegal drugs on this site during work hours is prohibited.
- 7 Personal protective Equipment (PPE) such as safety eye protection, hearing protection, safety gloves and masks etc, must be worn eg. when welding, drilling and on all other tasks with similar risks.
- 8 Accidents and Injuries must be reported immediately to the mine manager representative in charge.
- 9 First Aid: All persons requiring first aid treatment are to contact the first aid officer who will administer the treatment and record the injury in the WorkCover Register of Injuries, including; the persons name and the nature of the injury.
- 10 Fire Prevention must be employed by all persons. An appropriate fire extinguisher must be on hand for each welding set brought onto the site.
- 11 Work Areas must be kept clean and tidy, with rubbish and other safety hazards, cleaned up promptly.
- 12 Electrical: All temporary electrical work and electrical plant must comply with the Workcover Code of practice for Electrical Practices for Construction Work (February 1992).
- 13 Plant: Every owner of plant shall ensure leads and power tools are inspected and tagged by a licensed electrician prior to their use and thereafter at monthly intervals. All details of their inspection are to be recorded in a site log book. Details on the tags and in the log book shall include:
  - The licence number of the electrician.
  - Date of the inspection
  - The owners plant number of the item inspected.
  - The maximum length of any power lead shall not exceed 30 metres.
- 14 Chemicals and Hazardous Substances must be used and stored in compliance with material Safety Data Sheets (MSDS).
- 15 Height Work must be in accordance with WorkCover requirements.
- 16 Preventing Public Access: Fencing and security measures must be used to prevent unauthorised access by the public to the mining area.
- 17 It is also advised that all employees familiarise themselves with the mines inspection regulation book of general rules available from the mines manager.



# TARCOOLA QUARRIES

## SITE SAFETY RULES

*Those employees on deliveries must be dressed in a tidy fashion and clean when arriving for work.*

<b>HOUSEKEEPING</b>	It is Important that materials and waste are stacked in safe locations.
<b>SAFETY SIGNS</b>	Safety signs and appropriate barricading is to be erected for any work activity that may cause injury. Site workers must observe safety signs on all occasions. The signs are erected for your safety.
<b>REPORT HAZARDS, INCIDENTS &amp; ACCIDENTS</b>	All potential hazards, accidents and near misses must be reported immediately to the first aid officer and Site Supervisor or Project Manager.
<b>MISCONDUCT</b>	No worker will conduct himself in a manner which is likely to cause an accident or injury to himself or others.
<b>ALCOHOL &amp; ILLEGAL DRUGS</b>	No persons under the influence of alcohol or illegal drugs are allowed on site. No alcohol or illegal drugs to be consumed on site.
<b>MOBILE EQUIPMENT</b>	Mechanical mobile equipment are to be operated by those authorised for use and are approved licensed operators. No other person shall be allowed to ride or drive equipment.
<b>ACTIVITY RISK ASSESSMENT</b>	An activity risk assessment is to be completed for all site activities that may involve the risk of injury and/or death.
<b>ELECTRICAL EQUIPMENT</b>	Do not interfere with electrical equipment or wiring at any time unless you are a qualified electrician.
<b>ASBESTOS</b>	No asbestos based product is to be used or brought onto the site.
<b>MSDS</b>	All hazardous materials brought onto site must have a Material Safety Data Sheet.

## ACKNOWLEDGMENT OF INDUCTION.

### TARCOOLA QUARRIES

I have received and read the copy of your "SITE SAFETY RULES", and agree to comply with the instructions contained. I have also been involved in an **activity risk analysis** for the work functions I will be performing and will submitted the appropriate Materials Safety Data Sheets for all hazardous materials I bring on site.

NAME:

WORK FUNCTION:

APPROPRIATE  
QUALIFICATIONS  
LICENCE/TICKETS ETC:

SIGNATURE:

DATE

Issuing Officer Signature

(sight tickets/quals, complete risk  
analysis and collect MSDS's)



# Work Method Statement (Part 1)

Project:

Signed off / Dated by Responsible Officer:

Contractor:

Work Activity:

Area:

Procedure (in steps):

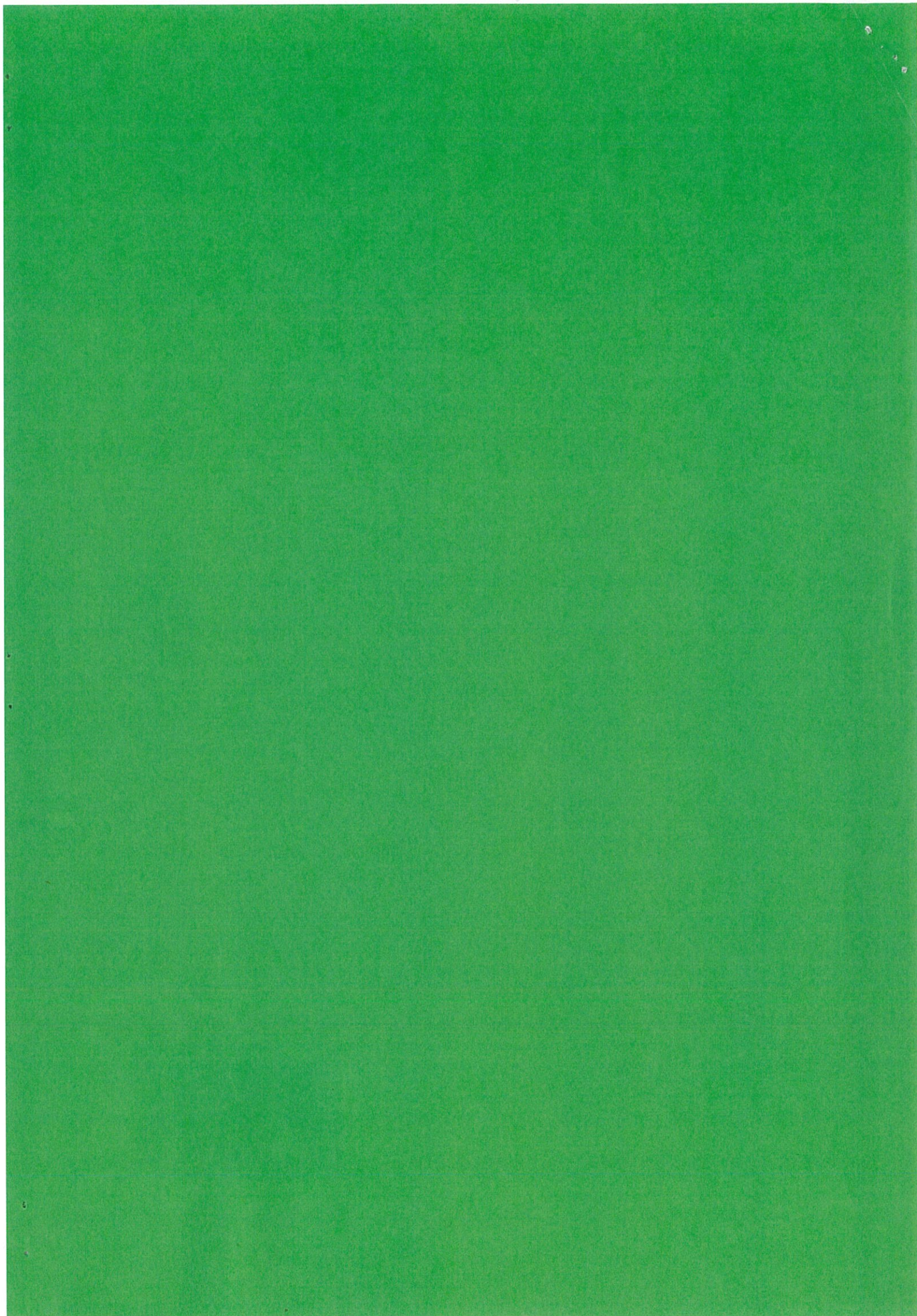
Possible Hazards:

Safety Controls:

1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		









We are committed to ensuring our employees have a safe work environment. We would like to be sure that you are fully informed of Company policies, rules and procedures. Could you please complete the following questionnaire by placing a tick in column one if you know the answer to the question or a tick in column two if you would like more information. If you have any difficulty please ask your supervisor for assistance.

**Do you understand:**

- Yes, I know and understand
- I would like more information

- Yes, I know and understand
- I would like more information

**Employees signature:**

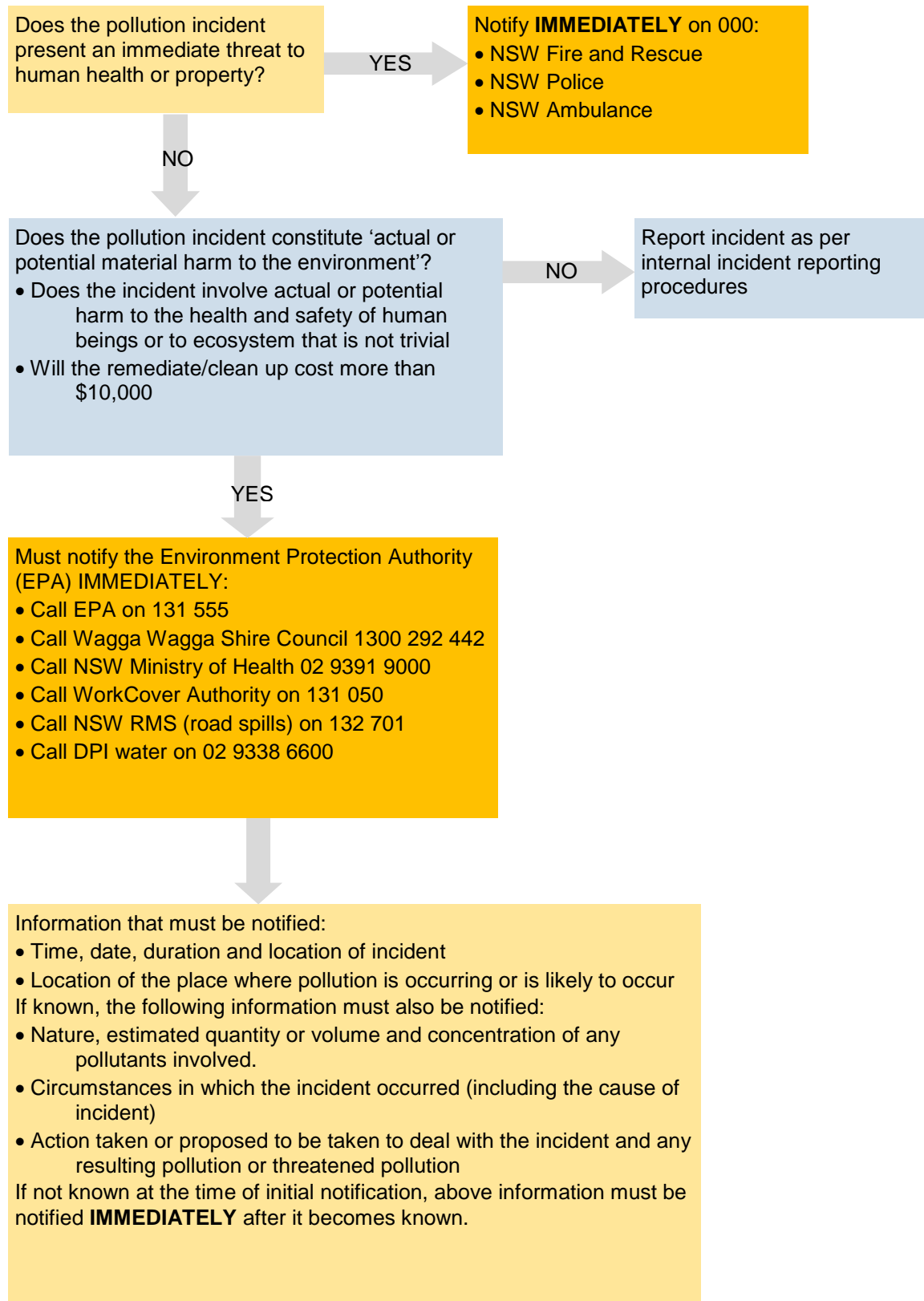
Date \_\_\_\_\_

Supervisore eliminare:

Date \_\_\_\_\_

# Appendix C – External Notification Procedure

## EXTERNAL NOTIFICATION PROCEDURE







GHD

Suite 3, Level 1, 161-169 Baylis Street  
Wagga Wagga NSW 2650







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