



Pollution Incident Response Management Plan (PIRMP)

Tea Gardens Quarry

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APPENDICES

APPENDIX 1 – Pollution Risk Assessment for the Tea Gardens Quarry

DOCUMENT REVIEW HISTORY

Revision	Date	Description
1	August 2012	Initial document prepared to meet the PIRMP guidelines.
2	March 2013	Update to Fire and Rescue Details.
3	June 2014	General update to PIRMP
4	March 2017	General update to PIRMP

TESTING OF THE PLAN HISTORY

Issue	Date	Description
1		
2		

1.0 INTRODUCTION

1.1 Background to the PIRMP

The *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) introduces several changes to improve the way pollution incidents are reported, managed and communicated to the general community. The Act includes a new requirement under Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) to prepare, keep, test and implement a pollution incident response management plan (PIRMP).

The objectives of these PIRMPs are to:

- Ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the Act (such as local councils, NSW Ministry of Health, WorkCover NSW, and Fire and Rescue NSW) 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.
- Ensure that the PIRMP is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the PIRMP is regularly tested for accuracy, currency and suitability.

1.2 Background to Tea Gardens Quarry

Hunter Quarries Pty Limited (HQPL) is the owner of the Tea Gardens Quarry located at Lot 64, DP 705955 Parish of Cowembah, Myall Road, Tea Gardens NSW 2324.

The site is a hard rock quarry and is used by HQPL on an as needs basis. There are no permanent employees on the site.

The Quarry has an Environmental Protection Licence (EPL 12133), which covers the premises. The EPL outlines specific conditions for environmental monitoring and reporting.

Figures have been prepared which outline the site.

1.3 Key Aspects of the PIRMP

This PIRMP covers the key actions to minimise the occurrence of a pollution incident and manage a pollution incident if one occurs (during and after a pollution incident). The PIRMP does not have procedures for the treatment of injured persons or the remediation of the environment following a pollution incident.

The PIRMP has been prepared for managing the impact to human health (employees and nearby neighbours) and the environment (onsite and offsite).

2.0 REQUIREMENT TO PREPARE THE PIRMP

2.1 Legislative Requirement

The specific requirements for PIRMPs are set out in *Part 5.7A* of the *Protection of the Environment Operations Act 1997* (POEO Act) and the *Protection of the Environment Operations (General) Regulation 2009* (POEO(G) Regulation). In summary, this provision requires the following:

- All holders of environment protection licences must prepare a PIRMP (*section 153A, POEO Act*).
- The PIRMP must include the information detailed in the *POEO Act* (*section 153C*) and be in the form required by the *POEO(G) Regulation* (*clause 98B*).
- Licensees must keep the PIRMP at the premises to which the environment protection licence relates or, in the case of trackable waste transporters and mobile plant, where the relevant activity takes place (*section 153D, POEO Act*).
- Licensees must test the PIRMP in accordance with the *POEO(G) Regulation* (*clause 98E*).
- If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, licensees must immediately implement the PIRMP (*section 153F, POEO Act*).

Holders of an existing environment protection licence were required to prepare and be able to implement a PIRMP by 1 September 2012.

2.2 Structure of the PIRMP

Table 1 outlines the structure of the PIRMP, as per the requirements of the POEO (G) Regulation.

Table 1: Requirement to Prepare a PIRMP

Clause Number	Requirement	Section in PIRMP
98 C (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 5 Appendix 1
98 C (1) (b)	The likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood,	Section 5 Appendix 1
98 C (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 9.1 Appendix 1
98 C (1) (d)	An inventory of potential pollutants on the premises or used in carrying out the relevant activity,	Section 6
98 C (1) (e)	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,	Section 6
98 C (1) (f)	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,	Section 7
98 C (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 Act, and (iii) are responsible for managing the response to a pollution incident,	Section 10.1
98 C (1) (h)	The contact details of each relevant authority referred to in section 148 of the Act,	Section 10.2
98 C (1) (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,	Section 9.1
98 C (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 8
98 C (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,	Figures 1 and 2
98 C (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 9 Appendix 1
98 C (1) (m)	The nature and objectives of any staff training program in relation to the plan,	Section 12
98 C (1) (n)	The dates on which the plan has been tested and the name of the person who carried out the test,	Section 14
98 C (1) (o)	The dates on which the plan is updated,	After table of contents
98 C (1) (p)	The manner in which the plan is to be tested and maintained.	Section 14

Clause 98 B (2) of the POEO (G) Regulation states that the PIRMP can form part of another statutory document.

3.0 DEFINITION OF A POLLUTION INCIDENT

The POEO Act 1997 defines a pollution incident as:

“pollution incident means 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 licensee is required to notify the relevant regulatory authorities of a pollution incident if there is a risk of ‘material harm to the environment’, which is defined in section 147 of the POEO Act as:

- (a) *harm to the environment is material if:*
- (i) *it involves actual or potential harm to the health or safety of human beings 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*
- (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.*

4.0 IMMEDIATE NOTIFICATION OF POLLUTION INCIDENT

Licensees will now be required to report pollution incidents "immediately" instead of "as soon as practicable" (section 148 POEO Act). This means that licensees need to report pollution incidents without delay.

Licensees must notify all relevant authorities about the incidents. These include:

- Environment Protection Authority (EPA);
- Ministry of Health;
- WorkCover Authority;
- Great Lakes Council; and
- Fire and Rescue NSW.

5.0 DESCRIPTION AND LIKELIHOOD OF HAZARDS AND PRE-EMPTIVE ACTIONS

This section has been prepared to meet the requirements of clause 98C (1) (a), (b) and (c) of the *POEO(G) Regulation*.

A pollution incident risk assessment for the Quarry (**Appendix 1**) has been prepared to:

- Describe the hazards to human health and the environment;
- Describe the likelihood of any such hazards occurring;
- Outline existing controls to prevent pollution incidents occurring; and
- Outline key pollution response measures.

6.0 INVENTORY OF POTENTIAL POLLUTANTS

There are no chemicals stored at the quarry as the site.

7.0 INVENTORY OF SAFETY EQUIPMENT FOR POLLUTION RESPONSE

There are no activities at site, hence there is no requirement to store any safety equipment. If required in the case of a fire, the main dam can be used as a water source.

8.0 MINIMISING HARM TO PERSONS ON THE PREMISES

There are no persons on the premises hence there is no proposed risk to persons working at the premises. Inspections are completed quarterly at the site. The site gate is locked at all times and a new security fence has been erected.

9.0 ACTIONS TO BE TAKEN BEFORE, DURING OR IMMEDIATELY AFTER A POLLUTION INCIDENT

9.1 Actions to Minimise a Pollution Incident

The Pollution Risk Assessment (**Appendix 1**) outlines potential pollution incidents at the Quarry. For each potential pollution risk, there are a number of controls outlined.

The site will make all attempts to ensure pollution incidents do not occur.

The site makes all attempts to prevent pollution incidents; but in a situation where a pollution incident is imminent and may potentially cause detrimental impacts to human health or the environment, the site will contact the necessary stakeholders (neighbours, Appropriate Regulatory Authorities (ARA's)) to provide as much early warning as possible.

9.2 Actions During a Pollution Incident

Appendix 1 outlines the following specific actions. The only potential pollution incident at site which has been identified by HQPL is the uncontrolled discharge of surface water. As the site is rarely accessed and quarrying activities are only completed intermittently, other environment and community risks are considered to be low.

Surface Water Discharge

- Assess the situation;
- Contact the ARA's in accordance with the PIRMP;
- If safe and possible to do so, undertake immediate measures such as reducing water levels through watercarts (dust management), repair of erosion and sediment control structures and flocculating sediment basins.
- Seek immediate assistance from specialist environmental consultants (if required);
- Regularly monitor flow rate and water quality parameters during discharge as per requirements of the EPL;
- Take direction from the ARA's as required; and
- Complete incident investigation and send report to relevant ARA's.

Licensees are required to report pollution incidents *“immediately”* (without delay) to the ARA's listed in **Section 10**.

In the event of a pollution incident, the person who has identified the incident should immediately contact the Quarry Manager. The person reporting the pollution incident should provide the following key details:

- Their name and contact details;
- Location of the pollution incident/emergency;
- Nature of the pollution incident/emergency; and
- Details of any assistance required.

The details of any emergency call will be recorded. Incidents are to be recorded using the Incident Report Form.

9.3 Actions Following a Pollution Incident

If a pollution incident occurs, there will be a detailed incident investigation and a report will be sent to the relevant ARA's. The HQPL Incident Report Form will be completed. If the Quarry was notified of the pollution incident by the public then the complaint will be logged as per the Complaint Form and the Incident Report Form will also be completed.

Within a month following a pollution incident, the PIRMP will be reviewed and tested. The Quarry will continue to liaise with the relevant ARA's to reduce the likelihood of the pollution incident occurring.

Any staff completing work at the quarry will receive refresher training, and the key outcomes of the incident investigation will be reported to staff and contractors.

10.0 CONTACT DETAILS

This section has been prepared to meet the requirements of clause 98C (1) (l) of the *POEO(G) Regulation*.

10.1 Details for those Managing the Response

The following quarry personnel outlined in **Table 2** are responsible for reporting the environmental incidents.

Table 2: Quarry Contact Details

Key Contact	Position	Contact Details
Mr Greg Dressler	Quarry Manager	Phone (02) 4997 5966 0401 455 128 Email greg.dressler@hunterquarries.com.au

10.2 Details for Appropriate Relevant Authorities

This section has been prepared to meet the requirements of clause 98C (1) h of the *POEO(G) Regulation*. The following table (**Table 3**) outlines the contact details for the appropriate regulatory authorities (ARA's) for reporting pollution incidents from the Tea Gardens Quarry.

Table 3: Contact Details for ARA's

ARA	Key Contact	Contact Details
NSW Office of Environment and Heritage Sub department: Environment Protection Authority	<i>This will result in the incident being recorded and the appropriate person being contacted</i>	131 555
NSW Ministry of Health	Hunter New England Local Health District, New Lambton	(02) 4921 3000
WorkCover	Incident Notification Hotline (Response Management Team):	131 050
Local Authority (Council)	Great Lakes Council Front Desk	(02) 6591 7222
Fire and Rescue & Police	Hotline	1300 729 579

10.3 Details for Surrounding Receptors

Table 4 provides contact details for surrounding receptors.

Table 4: Surrounding Receptors

Receptor	Key Contact	Contact Details
Receptor 1		
Receptor 2		
Receptor 3		
Receptor 4		

Whilst personal contact details for the following are available in the Controlled on site Pollution Incident Response Management Plans they do not appear in this public document under provision of the Privacy and Personal Information Protection Act 1998.

11.0 COMMUNICATION WITH NEIGHBOURS AND THE LOCAL COMMUNITY

In the event of a pollution incident, the Quarry has the following processes for contacting the community:

- When an incident occurs, the Quarry will immediately contact the five ARA's listed in **Table 5**.
- The Quarry will consult with these ARA's to determine if the community is to be notified of the pollution incident. The Quarry will discuss with the ARA's regarding the most relevant communication strategy (eg. media release, direct contact with those potentially impacted).
- Contact with the community to be then completed as per the agreed communication strategy.
- The results of the investigation of any pollution incident from the Quarry are to be made publicly available within 14 days of obtaining the data.

12.0 STAFF TRAINING

This section has been prepared to meet the requirements of clause 98C (1) (m) of the *POEO(G) Regulation*.

There are no staff currently at the site with the exception of the Quarry Manager who visits the site for monthly inspections. The Quarry Manager oversees the Tea Gardens Quarry and the Karuah Quarry. The Quarry Manager is aware of the requirements under the *POEO(G) Regulation* and the PIRMP Guidelines.

13.0 AVAILABILITY OF THE PIRMP

A copy of the PIRMP (electronic and hard copy) is to be kept at the premises. The Quarry will provide the NSW OEH (EPA) a copy upon request.

14.0 TESTING OF THE PIRMP

The PIRMP will be tested every twelve months as per the requirement of the *POEO(G) Regulation*. The testing of the PIRMP is to be carried out in such a manner as to ensure that the information included in the

PIRMP is accurate and up to date, and that each PIRMP is capable of being implemented in a workable and effective manner.

Testing will involve undertaking desktop simulations of incidents and if necessary completing exercises or drills. Testing will need to cover all the components of the PIRMP, including the effectiveness of training.

The PIRMP must also be tested within one month of any pollution incident occurring in the course of an activity to which a licence relates to assess, in the light of that incident, whether the information included in the PIRMP is accurate and up to date, and the PIRMP is still capable of being implemented in a workable and effective manner.

15.0 REFERENCES

NSW Office of Environment and Heritage, Environmental Protection Licence (EPL) 12133.

Environmental Protection Authority 2012, Guideline for the Preparation of Pollution Incident Response Management Plans.

Protection of the Environment Operations (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012.

APPENDIX 1

POLLUTION RISK ASSESSMENT FOR THE TEA GARDENS QUARRY

					Version:- A Date:- xx			
Risk Category	Risk Ref. Number	Potential Hazard / Risk (Impact)	Relevance to Project	Inherent			Existing Controls / Management Response	Pollution Response Measures
				C	L	Rating		
Surface Water and Groundwater	001	Discharge during heavy rainfall causing erosion and sedimentation causing impact to human health.	Low risk of discharge of sediment laden water causing impact to human health	5	E	5E 25 (L)	1. Erosion and sediment control structures (main dam). 2. Surface water monitoring as required 3. Inspections. 4. Ability to pump water.	1. Assess the situation. 2. Contact the ARA's in accordance with the PIRMP. 3. If safe and possible to do so, undertake immediate measures that prevent further damage, such as repair of erosion and sediment control structures, flocculating sediment basins. 4. Regularly monitor flow rate and water quality parameters during discharge as per requirements of the EPL. 5. Take direction from the ARA's as required. 6. Complete incident investigation and send report to relevant ARA's.
	002	Discharge during heavy rainfall causing erosion and sedimentation impact to the environment.	Relevant as potential impacts from erosion and sedimentation could occur on site. Sediment Dam 2 may discharge into adjacent creek line.	4	D	4D 21 (L)		
	003	Contamination of surface water by hydrocarbons causing impact to human health	Relevant as storage tank remains at site.	3	D	3D 17 (L)		
	004	Contamination of surface water by hydrocarbons causing impact to the environment		3	C	3C 13 (M)		
	005	Contamination of groundwater by hydrocarbons causing impact to human health		3	D	3D 17 (L)		
	006	Contamination of groundwater by hydrocarbons causing impact to the environment		3	C	3C 13 (M)		
Dust	007	Dust emissions from site causing impact to human health	Relevant as dust could still be produced at the site during care and maintenance	5	E	5E 25 (L)	1. No further clearing of vegetation. 2. Minimal disturbance area.	No response
	008	Dust emissions from site causing impact to the environment		5	E	5E 25 (L)		
Waste	009	Incorrect handling, use, storage and/or disposal of hazardous/toxic waste causing impact to human health.	No waste stored on site.	N/A			Not relevant	No response
	010	Incorrect handling, use, storage and/or disposal of hazardous/toxic waste causing impact to the environment.	No waste stored on site.	N/A				
Noise	011	Noise emissions from site causing impact to human health	Not relevant as no operations, therefore no source of noise.	N/A			Not relevant	No response
	012	Noise emissions from site causing impact to the environment	Not relevant as no operations, therefore no source of noise.	N/A				