

Frazer Park Pty Ltd

**Frazer Park Quarry
Pollution and Incident Response
Management Plan 2018
EPA Licence Number 1246**



Prepared by:

VGT Pty Ltd

in Conjunction with:

Frazer Park Pty Ltd

Project Site	Frazer Park Quarry
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1 Introduction

1.1 The Project Site

Frazer Park Quarry is described as Lots 1 and 2 DP 549905 and Portion 465 in the Parish of Wallarah. The quarry is located on the Pacific Highway at Frazer Park, near Catherine Hill Bay as presented in *Figure One*. The site is bounded by the Pacific Highway to the west, and Munmorah State Recreation area to the south.

Frazer Park Pty Ltd operates the site under an agreement with the landholder The Neil Schembri Trust.

1.2 Changes to the Legislation

A number of new requirements to improve the way pollution incidents are reported and managed have been established in NSW legislation from 2011. These provisions include a requirement for holders of environmental protection licences under the ***Protection of the Environment Operation Act 1997*** (PoEOA) to prepare, keep, test and implement a ***Pollution Incident Response Management Plan (PIRMP)***. The ***Protection of the Environment Operations (General) Regulation 2009*** has been amended to prescribe further details for these plans.

1.3 Scope

This plan was prepared by VGT Pty Limited for Frazer Park in accordance with:

- Protection of the Environment Operation Act 1997;
- Protection of the Environment Operations (General) Regulation 2009;
- The site Safety Management Plan.

This document will describe activities to be undertaken in response to a pollution incident and controls, training and testing that will be maintained over the life of the quarry. It forms part of the Safety Management Plan (SMP) developed for the Frazer Park site and should be implemented in conjunction with the SMP.

1.4 When to Implement this Plan

If a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened, the site must immediately implement the plan (Section 153F, POEOA).

If an incident or emergency occurs that does not include pollution, for example a bushfire or an unexpected find of heritage or environmental significance the site must immediately implement the plan.

1.4.1 Definition of a Pollution Incident (POEOA)

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.

1.4.2 Definition of Material Harm (POEOA)

Part 5.7Duty to notify pollution incidents

147 Meaning of material harm to the environment

(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 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.

(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.

2 Risk Assessment

2.1 Hazards

Refer to the *Frazer Park Mine Safety Management Plan* for procedures on how to identify hazards.

Table 1. EPA Compliance Audit Risk Analysis Matrix

		Likelihood of Environmental Harm Occurring		
		Certain	Likely	Unlikely
Level of potential Environmental Impact	High	Code Red	Code Red	Code Orange
	Moderate	Code Red	Code Orange	Code Yellow
	Low	Code Orange	Code Yellow	Code Yellow

Any non-compliance assessed as 'code red' suggests that the non-compliance is of considerable environmental significance and therefore must be addressed as a matter of priority.

A non-compliance assessed as 'code orange', while still considered to pose a significant risk of harm to the environment, can be given a lower priority than a code red non-compliance.

A non-compliance assessed as 'code yellow' suggests that the non-compliance could receive a lower priority but must still be addressed.

The following Hazard and Likelihood Risk Assessment and Corrective Control Measures table identifies hazards and the potential for material harm.

Table 2. Hazard and Likelihood Risk Assessment

Name/ reference of pollutant/chemical	Description of Hazard/Incident leading to Hazard	Level of Impact	Likelihood	Priority (Code)	Impact on Neighbours	Potential for Material Harm	Engage PIRMP
Sediment	Overtopping of Sediment Dams into downstream environment	Low	Unlikely		Yes (see <i>Figure Two</i>)	Yes	Yes
	Pumping of untreated sediment dam water offsite	Low	Unlikely		Yes (see <i>Figure Two</i>)	Yes	Yes
Fuel	Spill of fuel contaminating groundwater or surface water from trucks and plant	Low	Unlikely		No	No	No
Oils	Spill of oil contaminating groundwater or surface water from trucks and plant	Low	Unlikely		No	No	No
	Spill of oil contaminating groundwater or surface water from storage drums into bunded area	Low	Unlikely		No	No	No
Dust	Airborne dust blowing into neighbouring properties	Low	Likely		Yes (see <i>Figure Two</i>)	No	No

2.2 Emergency Plans

2.2.1 Bushfire

If a bushfire is sighted in the vicinity of the quarry, call 000 to report it immediately. Follow the directions of the Fire Brigade. If Fire Brigade attends the site, ensure they are aware of the location of the pollutants as located on *Figure Three*.

If evacuation is required, it is best to leave early. Ensure that the road is safe before travelling in that direction. If evacuation is not possible, take shelter inside the office or in the quarry pit.

The Lake Macquarie District Rural Fire Service can be contacted on 4914 4500, and fire updates are available on 1800 NSW RFS (1800 679 737) or 702 or 1233 AM radio.

2.2.2 Pollution Incidents

For incidents identified in *Table 2* that require engagement of the PIRMP the following procedures should be followed.

NOTE: the following should be implemented in conjunction with the MSMP should an emergency occur.

2.2.3 Release of Sediment

Table 3. Release of Sediment Response Actions

Action	Comments	Responsibility	Reference
Notification of supervisor/manager of incident	Quarry Manager will commence completion of the External Communication PIRMP Summary Worksheet	Employees, contractors	Appendix C
Notification of relevant Authorities	Notify Authorities in order prescribed	Supervisor/manager	Section 5.2
Notification of neighbours	Neighbours should be contacted as listed in Table 9	Supervisor/manager	See Table 9 and Table 4
Ensure the risk to staff is minimised	The risk of harm to staff from a release of sediment is very small. Staff are not required to evacuate the site, however staff should adhere to the MSMP at all times.	Supervisor/manager	MSMP
Undertake steps to mitigate harm to the environment	Steps to minimise harm to environment may include: <ul style="list-style-type: none"> • Sample and test the sediment laden water that has been released, including upstream and downstream samples, to determine the extent and concentration of the sediment. • Flocculate remaining water if required prior to release. • Construct emergency bunding to prevent further releases where possible. 	Supervisor/manager	See MSMP, OEMP

Action	Comments	Responsibility	Reference
Clean up and disposal of sediment	<p>Steps may include:</p> <ul style="list-style-type: none"> • Flushing down of stream beds where possible with clean water. • Containing sediment washed down stream within existing dams or specifically constructed dams. • Removal of sediment from water collected offsite (in dams) with addition of appropriate flocculants. • Release 'cleaned' water downstream and de-silt dams if required. • Continue monitoring of upstream and downstream environments to determine if clean-up efforts have been successful. 		
Reporting and re-preparedness	<ul style="list-style-type: none"> • Notify insurance company of incident • A post incident report will be prepared and submitted to the EPA within the time frame specified by the EPA. • The PIRMP shall be tested within one month of any pollution incident occurring and updated if required. 		

2.3 Early Warnings

The following table details the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the quarry.

Table 4. Impact on Neighbours Assessment- Early Warnings

Incident type/ Description	External Release	Neighbours Impacted/Extent of Impact	Communication Methods/Early Warnings	Pre-emptive Actions and Other Control Measures
Release of Sediment	Via waterways	See <i>Figure Two</i> For neighbours affected and extent of impact	<ul style="list-style-type: none"> • Neighbours will be provided early warning of an incident via telephone initially (see <i>Table 9</i>) for contact details). • If neighbours are unable to be contacted via phone, then a door knock will be undertaken. • Should a resident be absent from their residence, then a letter drop informing them of the incident will be undertaken. • Regular updates will be provided either by phone or in person or via a letter drop. 	<ul style="list-style-type: none"> • There is no risk of harm to the health of residents therefore no action to minimising their risk of harm are required to be undertaken. • Testing of the downstream environment will be undertaken to determine the concentration and extent of the sediment should a discharge occur. • The quarry has more than sufficient capacity to contain water from the sediment dams should they fail without discharging. • Staff are trained in the OEMP procedures for Soil and Water Management.

3 Inventory and Maps

3.1 List of Potential Pollutants

Table 5. List of Potential Pollutants

Pollutant/ Chemical Name	DG Class	DG Sub Risks	UN Number	Packaging Group	Maximum Quantity	Where Located (see Figure Three)
Sediment	N/A	N/A	N/A	N/A	N/A	Quarry
Dust	N/A	N/A	N/A	N/A	N/A	Quarry
Diesel	N/A	N/A	N/A	N/A	200L	Trucks and Plant
Oil	N/A	N/A	N/A	N/A	200L	Workshop
Fuel	N/A	N/A	N/A	N/A	20,000L	Fuel Tank Cell

3.2 Maps

See *Figure Three* for the location of potential pollutants on the site.

4 Controls and Testing

4.1 Pre-emptive Actions

Table 6. Pre-emptive Actions for Identified Risks of Harm to Environment

Name/ reference of pollutant/chemical	Description of Hazard/Incident leading to Hazard	Need for Early Warning	Pre-emptive Control Measures	Safety Equipment /Devices Required for Pollution Incident
Sediment	Overtopping of Sediment Dams to downstream environment	Yes	Frazer Park Plan of Management (POM) has been developed. Frazer Park Mine Operation Plan has been developed. The Environmental Management Plan (EMP) has been developed and is reviewed regularly (6 monthly). Staff are inducted and trained in site procedures.	No PPE is required by staff or neighbours affected. Pumps, silt fencing, earth bunds
	Pumping of untreated sediment dam water offsite	Yes	Frazer Park Plan of Management (POM) has been developed. Frazer Park Mine Operation Plan has been developed. The Environmental Management Plan (EMP) has been developed and is reviewed regularly (6 monthly). Staff are inducted and trained in site procedures.	No PPE is required by staff or neighbours affected. Pumps, silt fencing, earth bunds
Diesel Fuel	Spill of fuel from truck, plant or fuel tank cell contaminating groundwater or surface water Fuel Tank Cell leak contaminating groundwater or surface water	No	Frazer Park Mine Safety Management Plan (MSMP) has been developed and is reviewed regularly. Pre-emptive control measures are discussed in the Frazer Park Mine Safety Management Plan (MSMP). Staff are inducted and trained in site procedures.	Spill kits are held on site and by contractors. Re-fuelling is undertaken within bunded areas.
Oils	Spill of engine oil from trucks or plant contaminating ground or surface water	No	Frazer Park Mine Safety Management Plan (MSMP) has been developed and is reviewed regularly. Pre-emptive control measures are discussed in the Frazer Park Mine Safety Management Plan (MSMP). Staff are inducted and trained in site procedures. No large volumes of fuel are held in plant and trucks.	Spill kits are held on site and by contractors. Re-fuelling and maintenance is undertaken within bunded areas.
	Spill of engine oil from storage tank contaminating ground or surface water	No	Frazer Park Mine Safety Management Plan (MSMP) has been developed and is reviewed regularly. Pre-emptive control measures are discussed in the Frazer Park Mine Safety Management Plan (MSMP). Staff are inducted and trained in site procedures. Oil storage tank is located within bund that has capacity to hold all tank contents.	Spill kits are held on site and by contractors. Re-fuelling and maintenance is undertaken within bunded areas.

4.2 Pre-emptive Procedures-Training

Regular practice is essential to maintain preparedness. Training and Development will be conducted as required in the MSMP which includes training objectives, site inductions and emergency procedures and this PIRMP. Training records are kept detailing who was trained, the dates, and the nature of the training.

4.3 Testing of Plan

According to the PoEO regulation:

- (1) *The testing of a plan is to be carried out in such a manner as to ensure that the information included in the plan is accurate and up to date and the plan is capable of being implemented in a workable and effective manner.*
- (2) *Any such test is to be carried out:*
 - a. *at least once every 12 months, and*
 - b. *Within 1 month of any pollution incident occurring in the course of an activity to which the licence relates so as to assess, in the light of that incident, whether 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.*

As required above, testing records will also be maintained outlining the dates on which the plan has been tested, the name of the person who carried out the test, the dates in which the plan is updated, the manner in which the plan is to be tested and maintained (i.e. desktop simulations or practical exercise). Records will be held on site. The table below summarises this information.

Table 7. Testing record

Plan Test Date (minimum every 12 months)	Person(s) conducting the test	Form of testing (desktop or practical drills)	Date of Plan Update	Person Responsible for the Plan Management (including updates and testing)	Plan Update Authorisation
1/9/2012	Peter Walton	Desktop review of initial plan	N/A	Peter Walton	Peter Walton
30/08/2013	Peter Walton	Desktop review of initial plan	N/A	Peter Walton	Peter Walton
20/08/2014	Peter Walton	Desktop review of initial plan	N/A	Peter Walton	Peter Walton
24/06/2015	Peter Walton Tara O'Brian	Desktop review and onsite test/review	24/06/2015	Peter Walton	Peter Walton
20/06/2016	Lisa Morrall, VGT	Desktop	8/07/2016	Lisa Thomson	Peter Walton

5 Communications

5.1 Internal Emergency Communications

Should an incident occur on the premises, staff or contractors are required to notify the Quarry Manager immediately. The quarry manager is responsible for activating the PIRMP and managing the response. In the absence of the Quarry Manager the Supervisor may activate the PIRMP.

Table 8. Key Site Contacts

Name	Position	Day-time contact number	Mobile Phone Number
Mick Muscat	Director	0414 447 705	0414 447 705
Peter Walton	Quarry Manager	0414 887 344	0414 887 344

5.2 External Emergency Communications

Under Section 148 of the PoEO Act all relevant authorities must be notified **immediately**. The Quarry Manager is authorised to notify the relevant authorities. In the absence of the Quarry Manager the Supervisor may activate the PIRMP.

5.2.1 Key Authority Contacts

After calling 000, if the incident presents an immediate threat to human health or property, the relevant authorities **MUST** be notified **immediately** in the following order.

Name	Phone Number
EPA	131 555
Ministry of Health	Central Coast Public Health Unit Ph: (02) 4320 2111 24 Hours Hospital Main Switch will put you through to the Environmental Officer on call
Safe Work NSW	13 10 50 A "notifiable incident" under the work health and safety legislation relates to: <ul style="list-style-type: none"> • the death of a person • a serious injury or illness of a person • a potentially dangerous incident
Lake Macquarie City Council	(02) 4921 0333 Monday to Friday 8:00am – 5:00pm 02 4921 0333 after hours
Fire and Rescue NSW	1300 729 579 (If the situation warranted calling 000 as a first point of notification, you do not need to ring Fire and Rescue NSW again)
Local Police	The Entrance Police Station 4333 2999 Open 24hrs

5.2.2 Local Neighbour Contacts

The following is a list of key neighbour contacts that may be required to be contacted regarding the incident by the Quarry Manager or his delegate.

Table 9. Key Neighbour Contacts

Name	Phone Number	Address	Map Reference
Parks and Wildlife (Lake Munmorah office)	4972 9000	Blue Wren Dr Munmorah State Conservation Area 8:30 – 16:00 Monday to Friday	See <i>Figure Two</i>

Appendix A: Figures

Appendix B: EPA Licence

Appendix C: External Communication Worksheet