

Pollution Incident Response Management Plan

Echo No. 1 Quarry
Lot 132 DP754099
Bango

May 2022



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Quality Assurance

This document has been prepared, checked and released in accordance with the *Protection of the Environment Operations Act 1997* by Australian Resource Development Group Pty Limited.

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A	20 April 2022	Rev 2	JM/DB
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This document has been authorised by



Dr Justin Meleo

Date: 9 May 2022

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1 Introduction

1.1 Background and Scope

The NSW *Protection of the Environment Operations Act 1997* (POEO Act) provisions include a requirement for holders of Environment Protection Licences (EPLs) to prepare, keep, test and implement a Pollution Incident Response Management Plan (PIRMP). This PIRMP has been prepared by Australian Resource Development Group Pty Limited (ARDG) to address this legislative requirement for Echo No. 1 Quarry. The location of Echo No. 1 Quarry is shown in **Figure 1.1**.

Specific requirements for PIRMPs are set out in Part 5.7A of the POEO Act and the Protection of the Environment Operations (General) Regulation 2009 (POEO(G) Regulation), which includes the following:

- Holders of EPLs 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 98C) and be in the form required by the POEO(G) Regulation (clause 98B)
- 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 98E); 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).

Being a ‘Scheduled Activity – Premises based’, ARDG is required to comply with the POEO Act and as such, this document has been developed to satisfy the PIRMP requirements, including those detailed above.

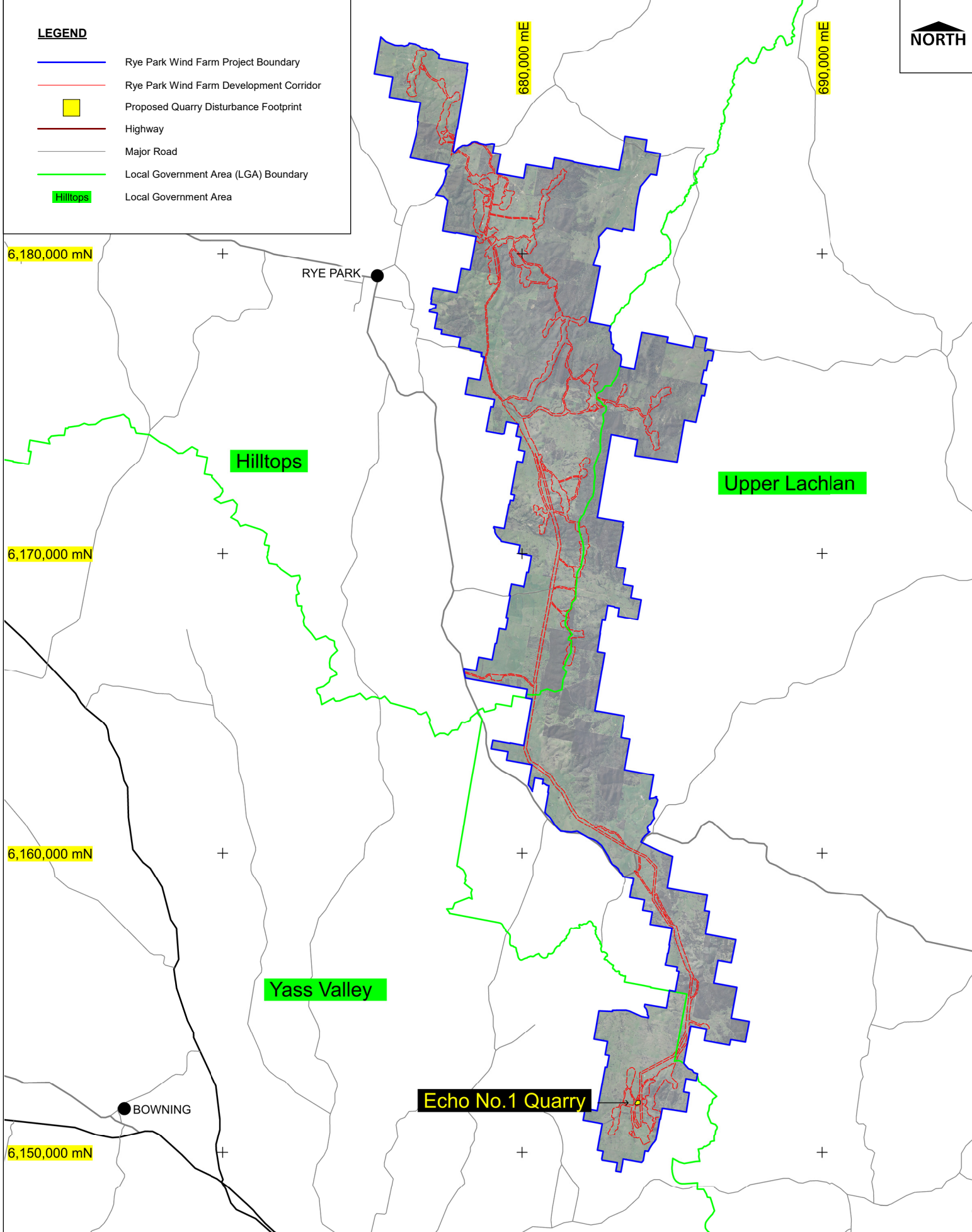
This document also details the procedures for notification of pollution incidents resulting in or having the potential to cause material harm to the environment, as defined in the POEO Act (refer **Section 3.1**).

1.2 Regulatory Requirements

Specific detail is required for inclusion in the PIRMP. **Table 1.1** lists information mandated under Section 153C of the POEO Act and clause 98C of the POEO(G) Regulation and details where this information is located in this document.

LEGEND

- Rye Park Wind Farm Project Boundary
- Rye Park Wind Farm Development Corridor
- Proposed Quarry Disturbance Footprint
- Highway
- Major Road
- Local Government Area (LGA) Boundary
- Hilltops Local Government Area



<p>Australian Resource Development Group</p> <p>130 Young St, Carrington, NSW, 2294 www.ardg.com.au</p>	Project: RYE PARK QUARRIES PROJECT			Figure 1.1
	Title: Echo No.1 Quarry - Project Site Location			
	Author: DMB	Date: January 2021	Scale: n/a	Grid: MGA Zone 55 (GDA94)
	Source:			

Table 1.1 PIRMP Document Directory		
Section 153C POEO Act	Detail Required	Addressed in Section
(a)	The procedures to be followed by the holder of the relevant EPL in notifying a pollution incident to: (i) The owners or occupiers of premises in the vicinity of the premises to which the EPL relates, and	Section 5.3
	(ii) The local authority for the area in which the premises to which the EPL relates are located and any area affected, or potentially affected, by the pollution, and	Section 5.2
	(iii) Any persons or authorities required to be notified by Part 5.7 (of the POEO Act).	Section 5.2
(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 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 2009 (as set out 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 2.2
	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 2.2 and Appendix 2
	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 4
	98C (1)(d) An inventory of potential pollutants on the premises or used in carrying out the relevant activity.	Section 2.4
	98C (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 2.4

Table 1.1 PIRMP Document Directory		
Section 153C POEO Act	Detail Required	Addressed in Section
	<p>98C (1)(f)</p> <p>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.</p>	Section 2.5 and Section 4
	<p>98C (1)(g)</p> <p>The names, positions and 24-hour contact details of those key individuals who:</p> <p>(i) are responsible for activating the plan, and</p> <p>(ii) are authorised to notify relevant authorities under section 148 of the POEO Act, and</p> <p>(iii) are responsible for managing the response to a pollution incident.</p>	Section 3.2
	<p>98C (1)(h)</p> <p>The contact details of each relevant authority referred to in section 148 of the POEO Act</p>	Section 5.2
	<p>98C (1)(i)</p> <p>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.</p>	Section 5.3
	<p>98C (1)(j)</p> <p>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.</p>	Section 4.0
	<p>98C (1)(k)</p> <p>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>Figure 1.1</p> <p>Note: No stormwater drains are located on the premises. Potential pollutants to be kept as described in Section 2.4.</p>
	<p>98C (1)(l)</p> <p>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>	Section 4.0 and 5.3
	<p>98C (1)(m)</p> <p>The nature and objectives of any Workers training program in relation to the plan.</p>	Section 6.1

Table 1.1 PIRMP Document Directory		
Section 153C POEO Act	Detail Required	Addressed in Section
	98C (1)(n) The dates on which the plan has been tested and the name of the person who carried out the test.	Section 6.2
	98C (1)(o) The dates on which the plan is updated.	Section 6.2
	98C (1)(p) The manner in which the plan is to be tested and maintained.	Section 6.2

2 Premise Details

2.1 Site Details

The Quarry is located on 'Echo No. 1', a privately-owned property approximately 12 km northeast of Yass (**Figure 1.1**). The property comprises 26 individual parcels totalling approximately 695 ha and is owned by the Day family. The Project is located on one of the parcels, Lot 132 DP754099, approximately 1.6 km north of the Bushs Road crossing of the main southern rail line (**Figure 1.1**).

Land use surrounding the Project area consists of agricultural land uses, primarily grazing, consistent with the RU1 Primary Production land zoning. The surrounding area which could potentially be impacted by a pollution incident include the following:

- Land holders adjacent to the Quarry; or
- Private dwellings including the closest sensitive receptor located approximately 2.15 km to the south of the Quarry.

2.2 Quarrying Operations

Stage 1 of extraction operations will be initiated via a single blast after which broken rock will be loaded by excavator into dump trucks for transport to the processing area. If required, a second, in-pit blast would be undertaken for the second stage of operations at the site, during the second 12-month operational period. The blasting would be completed by an appropriately licensed and experienced contractor, with no requirement to store explosives or detonators on-site.

Following confirmation by the drill and blast contractor that the blasting operation has been successful and that no explosives remain undetonated, the material in the quarry will be extracted using an excavator and loaded directly into mobile crushing and screening plant. A wheel loader will be used to transfer processed rock from the mobile crushing and screening plant to product stockpiles and to load trucks for delivery of materials to the RPWFP and associated roadworks. Material will be transported from the Quarry site directly to the (adjacent) internal road network of the Rye Park Wind Farm Project. All vehicles entering the Quarry site are to operate in accordance with the Traffic Management Plan detailed in the EMP for the project.

2.3 Main Hazards

The potential main hazards relevant to this PIRMP which have been identified for Echo No. 1 Quarry operations are:

- spills (e.g. hydrocarbon, chemicals, greases and oils etc.) resulting in land contamination;
- spills (e.g. hydrocarbon, chemicals, saline or sediment laden water, etc.) resulting in contamination of local creeks;
- water discharge (e.g. sediment basin failure); and
- explosions.

The likelihood of environmental hazards occurring at Echo No. 1 Quarry is addressed in **Appendix 1**.

The risk assessment was undertaken generally in accordance with the risk assessment process detailed within AS/NZS ISO 31000:2009. The purpose of the risk assessment was to identify the potential environmental aspects and impacts resulting from operations at Echo No. 1 Quarry. The hazards which have been identified with a moderate or higher risk ranking have been included in this PIRMP and are considered the main hazards for the operation.

2.4 Chemicals and Potential Pollutants

The following is noted with respect to chemicals and/or hydrocarbons storage:

- Fuel for mobile equipment will be stored on site in a mobile self-bunded/contained fuel storage unit. Refuelling will be undertaken as per Safe Work Method Statement procedures for refuelling.
- Minor quantities of grease and oil will be stored in the site office. Any such materials handled on site will be done so appropriately to minimise the potential for contamination of the Project area.
- All waste oil and grease will be collected and will be removed from the site by a mobile mechanic/appropriately licensed contractor with all relevant waste tracking documentation completed.
- Workshop wastes including oil filters and tyres will be removed from the site by the mobile mechanic providing replacement parts if and as required.
- Spill kits and clean up protocols will be established for the operations and detailed in the EMP.
- If contaminated soils are uncovered during the works, all works within the vicinity must cease immediately and Yass Valley Council be notified.

2.5 Safety Equipment

Minimum Personal Protection Equipment (PPE) requirements are in place for workers, contractors and visitors are communicated to relevant personnel by the Quarry Manager or their delegate.

Other onsite safety related equipment and monitoring includes:

- onsite safety sign-in and inductions for all workers, contractors and visitors;
- fire extinguishers/fire blankets;
- emergency stop/shut down and alarm points;
- spill kits;
- MSDS Register;
- appropriate process and chemical identification signage and labelling;
- first aid kits;
- restricted chemical access;
- communication via two-way radio; and
- regular maintenance inspections.

3 Management and Responsibilities

3.1 Legal Duty to Notify

All workers and contractors at Echo No. 1 Quarry are responsible for alerting the Quarry Manager 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 (Section 148), which encompasses all site workers, including contractors and sub-contractors. These can be categorised broadly as follows:

- The duty of Workers or any person undertaking an activity:
 - Any person engaged as an employee or undertaking an activity (at the Quarry) must, immediately after becoming aware of any potential incident that is believed to cause or threatened 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 5.2**; and
- 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 an ARDG representative (or their delegate) as per **Section 5.2**.

3.2 PIRMP Management

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

Name	Contact Details	Authority	Responsibility
Justin Meleo Damon Bird	0427 180 923 0437 313449	ARDG – Licensee	<ul style="list-style-type: none"> ▪ Determination and notification of material harm incidents to relevant authorities/stakeholders. ▪ Responsible for undertaking notification to external authorities as defined in this PIRMP. ▪ Responsible for coordinating communications with external stakeholders including the local landholder and relevant regulatory authorities. ▪ Providing information as requested from relevant government agencies. ▪ Undertaking testing/updating of the PIRMP.
Dan Murrell	0432 495 759	Quarry Supervisor	<ul style="list-style-type: none"> ▪ Managing the response to a pollution incident in consultation with ARDG. ▪ Completing relevant training regarding the implementation of the PIRMP, as required.

4 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) (1300 729 579 or 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.

Included in the pre-emptive actions to minimise risk, diversion drains have been constructed around the disturbance area which ensures that any sediment-laden water is directed to an onsite sediment pond.

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 Echo No. 1 Quarry 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 2.3**, the actions detailed below shall be undertaken.

4.1 Spills

In the event of spills (including hydrocarbons or chemicals) resulting in land or water contamination, workers shall stop the source of the spill (if safe to do so), utilise spills kits located on site and any other resources available to ensure that spills are contained or directed in such a manner as to be captured by existing controls (*i.e.* sediment basins).

4.2 Discharge

Discharge of dirty water (*e.g.* dam failure) resulting in land or water contamination. Operational water requirements for the Quarry will primarily be supplied by a licenced groundwater bore and capturing runoff from within the quarry pit and processing area. The quarry pit has been designed to enable capture and reuse of water as part of operations. If required, water from the operational area would be directed into a sediment basin for storage until required for reuse. In the case of failure of the sediment basin or overtopping, where possible water will be redirected (or pumped) into alternative containment areas (*e.g.* in-pit sump).

4.3 Explosions and Fire

The use of explosives will be managed by utilising appropriately qualified personnel. All workers at Echo No. 1 Quarry will follow the instruction of these qualified personnel for the management of blasting activities. In the case of an unintended fire and/or explosion, standard evacuations proceedings will be followed in accordance with site emergency management and evacuation procedures. It is noted that ARDG has no authority to undertake pollution control activities outside the property boundary.

5 Notification Procedures

5.1 Determination of Material Harm

Following containment of the incident, immediate action must be taken to determine if the incident can 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 an ARDG representative at the time of the incident.

5.2 Internal and External Notifications

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’, the agencies listed in **Table 5.1** must be contacted immediately in the order shown.

Agency	Contact Details
1. Fire and Rescue NSW	000 (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).
2. NSW Environment Protection Authority – Environment Line	131 555
3. Ministry of Health (via Public Health Unit)	1300 066 055
4. SafeWork NSW	13 10 50
5. Yass Valley Council	(02) 6226 1477

On the identification of an environmental incident or hazard, personnel will report the issue immediately to their manager, who in turn shall report it to the Quarry Manager on site. 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 so¹.

After initial notification of any ‘material harm incident’, it will be the responsibility of the ARDG representative or delegated person to liaise with any authority listed in **Table 5.1** that requests additional information, or, that 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 ARDG representative or Fire and Rescue (as relevant) and may be based on environmental monitoring results.

Contact details for stakeholders are included in **Table 5.1**. It is not envisaged that notification of local landowners will be required. However, in the event of an incident, local landholders will be contacted by ARDG.

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

- Early warnings: same day telephone notification to landholders whom 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 to the broader local community in affected areas via phone consultation. Other forms of communication will be utilised as required.

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.
- Advice or recommendations based on the incident type and scale.

¹ EPA, *Frequently Asked Questions Regarding the Duty to Notify of a Pollution Incident*
<<http://www.epa.nsw.gov.au/legislation/poefaqsnofity.htm>>

6 Training, Testing and Communication

6.1 Training

The contents of this document will be included in standard site inductions. All workers 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 ARDG.
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 **Appendix 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.

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 ARDG of the original or 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 and Community Risk Assessment

Table A1.1 Echo No. 1 Quarry Qualitative Measures of Environmental Consequence

Consequence	Natural Environment	Legal/Government	Heritage	Community/Reputation/ Media
(1) 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) 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) 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) 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.

Table A1.1 Echo No. 1 Quarry Qualitative Measures of Environmental Consequence

Consequence	Natural Environment	Legal/Government	Heritage	Community/Reputation/ Media
(5) Catastrophic	Very serious environmental effects with impairment of ecosystem function. Long term, widespread effects on significant environment (<i>e.g.</i> 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 A1.2 Echo No. 1 Quarry Qualitative Measures 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

Table A1.3 Echo No. 1 Quarry Qualitative Risk Matrix

Likelihood of Consequence	Maximum Reasonable Consequence				
	(1)	(2)	(3)	(4)	(5)
	Insignificant	Minor	Moderate	Major	Catastrophic
(A) Almost Certain	Medium	Medium	High	High	High
(B) Likely	Medium	Medium	High	High	High
(C) Occasionally	Low	Medium	Medium	High	High
(D) Unlikely	Low	Low	Medium	Medium	High
(E) Rare	Low	Low	Low	Medium	Medium

Table A1.4 Echo No. 1 Quarry Environmental Risk Assessment

Activity	Aspect	Potential Impact	Status and Implemented Control	Risk Assessment with Controls Implemented			Further Assessment Requirements or Ongoing Actions
				C	L	R	
General Quarry Operations	Ground Disturbance	Loss of Native Flora and Fauna	<ul style="list-style-type: none"> ▪ No ground disturbance outside approved disturbance limits will be undertaken without appropriate regulatory approval. ▪ Clear demarcation of the disturbance area so that the boundaries for areas to be disturbed and those to be left intact are clearly defined. 	1	D	Low	Should ground disturbance be required outside the current approved disturbance area, an environmental assessment will be undertaken and approval sought as require by regulatory authorities for the activity.
		Sedimentation of waterways	<ul style="list-style-type: none"> ▪ Appropriate erosion and sediment control measures to be adhered to. ▪ Operations undertaken within the dirty water management system. ▪ Erosion and sediment controls implemented and maintained as required. ▪ Construction / operations Soil Water Management Plan (SWMP) developed. 	2	D	Low	<p>Erosion and sediment controls will be inspected as part of routine site activities.</p> <p>Erosion control measures will be implemented in accordance with SWMP.</p>

Table A1.4 Echo No. 1 Quarry Environmental Risk Assessment

Activity	Aspect	Potential Impact	Status and Implemented Control	Risk Assessment with Controls Implemented			Further Assessment Requirements or Ongoing Actions
				C	L	R	
	Fire	Potential offsite impacts	<ul style="list-style-type: none"> ▪ Fire extinguishers, fire blankets and water truck are available on site for firefighting purposes. ▪ Equipment maintained and operated in accordance with Daracon procedures. ▪ All workers are trained in evacuation procedures. 	2	D	Low	All workers, contractors and visitors to site receive a safety induction which covers evacuation and firefighting requirements.

Table A1.4 Echo No. 1 Quarry Environmental Risk Assessment

Activity	Aspect	Potential Impact	Status and Implemented Control	Risk Assessment with Controls Implemented			Further Assessment Requirements or Ongoing Actions
				C	L	R	
Equipment Refuelling and Maintenance	Hydrocarbon spills during equipment operation / refuelling	Spill to land/water	<ul style="list-style-type: none"> ▪ Regular maintenance and inspections will be undertaken of all equipment in operation. ▪ Controlled refilling of fuel unit and filling of plant and equipment by experienced operators in accordance with Safe Work Method Statements. ▪ Spill kits will be maintained on site. ▪ Training will be made available to all workers as required. ▪ Water diversions are installed and sedimentation ponds have been constructed to capture dirty water on site. 	1	C	Low	Maintenance of equipment and inspections of controls including water diversions and sedimentation ponds will be ongoing throughout operations.

Table A1.4 Echo No. 1 Quarry Environmental Risk Assessment

Activity	Aspect	Potential Impact	Status and Implemented Control	Risk Assessment with Controls Implemented			Further Assessment Requirements or Ongoing Actions
				C	L	R	
Hydrocarbon Storage (including Diesel, Hydraulic oil, Greases and other Oils)	Damage to storage tanks	Spill to land	<ul style="list-style-type: none"> Self-bunded fuel unit on site. 	1	E	Low	As above
Quarry Operations	Dust generation	Failure to meet EPA air quality goals.	<ul style="list-style-type: none"> Water carts will be utilised as appropriate. Stockpiles will be consistently watered as deemed necessary by the operator to minimise dust generation. Tipping distance will be reduced where possible. Controls implemented in accordance with EMP. 	1	D	Low	Implement controls in accordance with site EMP.

Table A1.4 Echo No. 1 Quarry Environmental Risk Assessment

Activity	Aspect	Potential Impact	Status and Implemented Control	Risk Assessment with Controls Implemented			Further Assessment Requirements or Ongoing Actions
				C	L	R	
	Noise Generation	Degradation to noise amenity for nearby receivers.	<ul style="list-style-type: none"> ▪ Operations will be undertaken during daytime hours, being Monday to Saturday 7am to 6pm. ▪ Scheduling the use of noisiest equipment at the least-sensitive time of day where practicable. ▪ Controls implemented in accordance with EMP. 	1	D	Low	Implement controls in accordance with site EMP.
	Blast Management	Blast impacts on privately owned residences	<ul style="list-style-type: none"> ▪ Blasting activities will be managed solely by appropriately licensed and qualified sub-contractors. ▪ Controls will be implemented in accordance with the EMP. ▪ Limited number of blasts required for quarry operations. 	2	D	Low	Implement controls in accordance with site EMP.

NB: C = Consequence, L = Likelihood, R = Risk

Appendix 2

PIRMP Testing and Review Record

Table A2.1 Echo No. 1 Quarry PIRMP Testing Dates and Review Record

Date of Test/Document Review	Name of Personnel Undertaking Test/Review	Name of Personnel Approving Test/Review	Manner of Testing	Summary of Changes (include brief detail and section number)