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Albion Park Quarry

Pollution Incident Response Management Plan

Albion Park Quarry - Pollution Incident Response Management Plan (PIRMP)

Revision/ Checking History

Revision Number	Date	Checked by	Issued by
1	Nov 2014	Daniel Lidbetter – NSW/ACT Planning & Environment Coordinator Darren Essex - Quarry Manager	Daniel Lidbetter
2	Nov 2015	Dan Lidbetter - NSW/ACT Planning & Environment Coordinator Darren Essex - Quarry Manager	Daniel Lidbetter
3	Nov 2016	Daniel Lidbetter - NSW/ACT Planning & Environment Coordinator Darren Essex - Quarry Manager	Daniel Lidbetter
4	Oct 2017	Amy Nelson – NSW/ACT Planning & Environment Coordinator Darren Essex - Quarry Manager	Amy Nelson
5	Oct 2018	Hema Vignaraja – SHE Reporting Analyst Darren Essex - Quarry Manager	Hema Vignaraja
6	Sept 2019	Hema Vignaraja – SHE Reporting Analyst Shilpa Shashi - NSW/ACT Planning & Environment Coordinator	Hema Vignaraja
7	Sept 2020	Shilpa Shashi - NSW/ACT Planning & Environment Coordinator Darren Essex – Quarry Manager	Shilpa Shashi

8	Nov 2021	Shilpa Shashi - NSW/ACT Planning & Environment Coordinator Darren Essex – Quarry Manager	Shilpa Shashi

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Appendices

A: Emergency Contact Details

B: Pollution Incident Response Test Checklist

C: Community Notification Strategy

D: Maps

Glossary of Acronyms

PIDS- Pollution Information Data Sheet

PPE- Personal Protective Equipment

SDS- Safety Data Sheets

PEOA- Protection of the Environment Operations Act 1997

1. Purpose

The purpose of this document is to detail the pollution incident response management plan for the Albion Park Quarry, to comply with Section 5.7A of the Protection of the Environment Operations (POEO) Act:

Protection of the Environment Operations Act 1997 No 156

Part 5.7A Duty to prepare and implement pollution incident response management plans

153A Duty of licence holder to prepare pollution incident response management plan

The holder of an environment protection licence must prepare a pollution incident response management plan that complies with this Part in relation to the activity to which the licence relates.

Maximum penalty:

(a) *in the case of a corporation—$1,000,000 and, in the case of a continuing offence, a further penalty of $120,000 for each day the offence continues, or*

(b) *in the case of an individual—$250,000 and, in the case of a continuing offence, a further penalty of $60,000 for each day the offence continues.*

153B EPA may direct other persons to prepare pollution incident response management plan

(1) *The EPA may, in accordance with the regulations, require the occupier of premises at which industry is carried out to prepare a pollution incident response management plan that complies with this Part in relation to activities at the premises.*

(2) *A person must not fail to comply with such a requirement.*

Maximum penalty:

(a) *in the case of a corporation—$1,000,000 and, in the case of a continuing offence, a further penalty of $120,000 for each day the offence continues, or*

(b) *in the case of an individual—$250,000 and, in the case of a continuing offence, a further penalty of $60,000 for each day the offence continues.*

(3) The regulations may make provision for or with respect to:

(a) *the class or classes of premises, or industries carried out at premises, that may be the subject of a requirement to prepare a pollution incident response management plan, and*

(b) *the circumstances in which some or all premises within those classes may be the subject of a requirement to prepare a pollution incident response management plan.*

153C Information to be included in plan

A pollution incident response management plan must be in the form required by the regulations and must include the following:

(a) *the procedures to be followed by the holder of the relevant environment protection licence, or the occupier of the relevant premises, in notifying a pollution incident to:*

(i) *the owners or occupiers of premises in the vicinity of the premises to which the environment protection licence or the direction under section 153B relates, and*

(ii) *the local authority for the area in which the premises to which the environment protection licence or the direction under section 153B relates are located and any area affected, or potentially affected, by the pollution, and*

(iii) *any persons or authorities required to be notified by Part 5.7,*

(b) *a detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant environment protection licence, or the occupier of the relevant premises, to reduce or control any pollution*

(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,*

(d) *any other matter required by the regulations.*

153D Keeping of plan

A person who is required to prepare a pollution incident response management plan under this Part must ensure that it is kept at the premises to which the relevant environment protection licence relates, or where the relevant activity takes place, and is made available in accordance with the regulations.

Maximum penalty:

(a) *in the case of a corporation—$2,000,000 and, in the case of a continuing offence, a further penalty of $240,000 for each day the offence continues, or*

(b) *in the case of an individual—$500,000 and, in the case of a continuing offence, a further penalty of $120,000 for each day the offence continues.*

153E Testing of plan

A person who is required to prepare a pollution incident response management plan under this Part must ensure that it is tested in accordance with the regulations.

Maximum penalty:

(a) *in the case of a corporation—$2,000,000 and, in the case of a continuing offence, a further penalty of $240,000 for each day the offence continues, or*

(b) *in the case of an individual—$500,000 and, in the case of a continuing offence, a further penalty of $120,000 for each day the offence continues.*

153F Implementation of plan

If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147) is caused or threatened, the person carrying on the activity must immediately implement any pollution incident response management plan in relation to the activity required by this Part.

Maximum penalty:

(a) in the case of a corporation—$2,000,000 and, in the case of a continuing offence, a further penalty of $240,000 for each day the offence continues, or
(b) in the case of an individual—$500,000 and, in the case of a continuing offence, a further penalty of $120,000 for each day the offence continues.

(c) Scope

The scope of this management plan includes:

Pollution Incident Response Management Plan (PIRMP) for environmental pollution generated at the Teven;

(d) Definitions

Pollution Incident - 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.

Material Harm - (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), It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs, and

Loss - 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.

(e) Associated Documentation

- Protection of the Environment Operations Act 1997
- Protection of the Environment (General) Amendment (Pollution Incident Response Management Plans) Regulation 2012
- Appendix A: Emergency Contact Details
- Appendix B: Pollution Incident Response Test Checklist
- Appendix C: Community Notification Strategy

(f) Responsibility

The following personnel are responsible for the PIRMP;

1) Activating the plans and managing the response: **Darren Essex- Quarry Manager**
2) Notifying and coordinating relevant authorities: **Darren Essex- Quarry Manager**
3) Implementation and management of this document: **Shilpa Shashi – NSW/ACT Planning & Environment Coordinator**

4) Annual review and testing of PIRMP – **Darren Essex – Quarry Manager**

(g) Record Retention

A copy of all Quarry pollution incident response records will be retained on site in accordance with SHE guideline 1.4 – Administrative and Legal Requirements. A copy will also be saved electronically on google drive in the 'Site PIRMPs Final' folder and linked with the site's SHE schedule.

Records must be made available to EPA officers and any person responsible for the PIRMP.

(h) Procedure

The following section outlines the management procedures for pollution incident response management. The protocol is split into three sections:

1) Key environmental hazards and mitigation measures

2) Pollutant and Safety equipment information and management of Pollution Incidents

3) Emergency Response Maps

7.1 Environmental Impact and Hazard Register

In order to effectively plan for a potential pollution event, a register of environmental hazards has been created. Each hazard has been assessed in accordance with the Holcim SHE Risk Assessment tool (see Table 1 below).

The hazards have been grouped according to the area of environmental impact. By identifying these hazards ahead of time, mitigation measures can be identified and implemented through site procedures to minimise the risk of a pollution event occurring (Table 2 below).

Table 1: Holcim SHE Risk Score Matrix

Step 1 - Consider the Consequence
What are the consequences of the most reasonable worst case scenario considering a credible failure of existing controls?

Consequence	Disaster	Severe	Serious	Significant	Minor
Environment On Site & Off Site	Major event, unconfined impact, severe permanent damage with low likelihood of recovery.	Significant permanent damage; reversible damage with recovery time of years; high potential for prosecution	Minor permanent damage; temporary damage that is widespread or that has moderate impact	Damage that is near source confined, temporary and minor	No measurable damage to environment
Compliance With Legal and Other Requirements	Blatant or serious breach of legal requirement, leading to operation being suspended or severely reduced. Prosecution expected.	Breach of external requirement (license, legislation, regulation, contract etc.) with high potential for prosecution and/or high impact.	Non-compliance with external requirement with moderate potential for impact.	Repeated non-compliance with internal procedure, non-compliance with external requirement with low potential impact	Minor non-compliance with internal procedures.
Community Perception and Reputation	Significant adverse media attention (state or national level), loss of reputation or work nationally or across product groups.	Prosecution, significant impacts on social license to operate, loss of reputation or ability to secure work across product groups.	Local adverse media attention, loss of reputation or ability to secure work in local area, complaints that result in changes to external requirements.	Multiple community complaints or complaints that require changes to internal operating procedures.	Community complaint resolved with no changes to existing operating procedures.

Note: Temporary environmental damage has a duration of up to approximately one week to rectify

Step 2 - Consider the Likelihood					
What is the likelihood that the proposed consequence will occur with a credible failure of existing controls?					
Likelihood	**Certain**	**Likely**	**Possible**	**Unlikely**	**Rare**
Description	Event that is expected to occur on multiple occasions	Event that is likely to occur at least once	Event that may occur	Event that is unlikely to occur	Event that may occur only in exceptional circumstances
Frequency	Event is likely to occur more than twice a year.	Event is likely to occur once or twice a year.	Event is likely to occur more than once or twice in a 10 year period	Event is likely to occur once or twice in a 10 year period	Event is likely to occur once or twice in a 100 year period

Step 3 - Determine Risk Rating from the Risk Matrix					
Liklihood	**Consequences**				
	Disaster	**Severe**	**Serious**	**Significant**	**Minor**
Certain	**High**	**High**	**High**	**Medium**	**Medium**
Likely	**High**	**High**	**Medium**	**Medium**	**Low**
Possible	**High**	**Medium**	**Medium**	**Low**	**Low**
Unlikely	**Medium**	**Medium**	**Low**	**Low**	**Low**
Rare	**Medium**	**Low**	**Low**	**Low**	**Low**

Table 2: Holcim Quarry Environmental Impact and Hazard Register

	Key Environmental Hazards	Risk			Mitigation Measures	Revised Risk		
		L	C	R		L	C	R
Air Quality								
1	Excessive dust emissions	Possible	Serious	Medium	▪ Complete monitoring & assess results monthly ▪ Review results & monitoring program quarterly ▪ Water carts/spraying ▪ Minimise disturbed areas ▪ Stop dust generating activities as necessary ▪ Progressively rehabilitate disturbed areas ▪ Dust minimisation training ▪ Maintenance of dust control equipment ▪ Report on iCare	Unlikely	Significant	Low
2	Health issues off site	Rare	Severe	Low	▪ As per (1) ▪ Complaints hot line ▪ Issue monitoring results ▪ Communicate construction activities to neighbours plus potential for dust	Rare	Serious	Low
3	Equipment exhaust emissions exceed limits	Unlikely	Significant	Low	▪ Inspect equipment engine emissions regularly ▪ All equipment is serviced and maintained to OEM requirements ▪ Excessive equipment emissions to trigger out of service procedures	Rare	Significant	Low
4	Release of dry powder emissions due to silo overpressure event	Unlikely	Serious	Low	▪ Installation of reverse pulse filters and pressure release valves ▪ Maintenance of filter units on a three-monthly schedule ▪ Maintenance of infill controls on six-monthly schedule. ▪ Tanker blow-in inspections ▪ Silo hatches and dipping points are air tight ▪ Check tank / silo integrity ▪ Tool Box Talk and training for Drivers, operators and key personnel	Rare	Significant	Low

5	Release of dry powder emissions due to silo overfill event	Unlikely	Serious	Low	▪ High level sensors installed as part of fail-safe fill system ▪ Maintenance of fail-safe fill system on six-monthly schedule ▪ Inspection and testing protocol of fail-safe fill system ▪ Full silo filtration service and defect check quarterly ▪ SRV Valve integrity ▪ Dust filtration unit between silos (if connected)	Rare	Significant	Low
Groundwater								
1	Groundwater contamination	Unlikely	Serious	Low	▪ Implement Monitoring and response plan ▪ Review monitoring results quarterly & action as necessary ▪ Ensure storage, handling and transport of dangerous goods are conducted in accordance with Australian Standards ▪ Identify, classify, quantify & appropriately store hazardous waste ▪ Develop & implement oil & fuel spillage controls ▪ Ensure hazardous waste is minimised ▪ Licenced contractors to remove hazardous waste from site ▪ Keep records of all hazardous waste movements ▪ Develop & implement oil & fuel spillage controls ▪ Implement bunding to appropriate areas ▪ Ensure adequate spill kits are available on site including adequate training ▪ Minimise hazardous waste storage quantities on site (Hazard and Risk register) ▪ Environmental review and audit for Regulatory Compliance ▪ Adherence to Environmental Management Plans ▪ Reported on iCare to capture findings and corrective and preventive actions.	Rare	Serious	Low
Surface Water								
1	Discharge of sediment	Possible	Serious	Medium	▪ Develop & implement Water Management Plan ▪ Implement Monitoring Program ▪ Review monitoring results quarterly & action as necessary ▪ Develop & implement Surface & Groundwater Response Plan ▪ Develop & implement Erosion & Sediment Control Plan ▪ Implement dust control procedures as per AIR	Unlikely	Serious	Low

2	Discharge of hazardous materials	Rare	Severe	Low	▪ As per 1 ▪ Ensure storage, handling and transport of dangerous goods are conducted in accordance with relevant Australian Standard ▪ Review monitoring results quarterly & action as necessary ▪ Identify classify, quantify & appropriately store hazardous waste ▪ Develop & implement oil & fuel spillage controls ▪ Implement bunding to appropriate areas ▪ Ensure adequate spill kits are available on site including adequate training for effective use ▪ Minimise hazardous waste storage quantities on site ▪ Appropriate location of hazardous materials storage areas to prevent off-site discharges ▪ Report on iCare	Rare	Serious	Low
3	Discharge of Transformer Oil	Rare	Severe	Low	▪ As per 1 and 2 ▪ Monitor delivery and servicing of transformer oils	Rare	Serious	Low
Blasting								
1	Blasting impacts	Unlikely	Serious	Low	▪ Develop & implement Blast Monitoring Program ▪ Develop & implement Blast Management Plan ▪ Detailed design & predictive modelling for each blast ▪ Monitoring of each blast with feedback to model ▪ Establish blast monitoring reference locations ▪ Notify sensitive receivers in accordance with site blasting plans ▪ Establish & advertise blasting hotline ▪ Drill accuracy is monitored via bore tracking procedures ▪ Establish site blasting procedures & train personnel including sirens etc ▪ Clear site to safe areas prior to blasts ▪ Clear off-site areas prior to blasts ▪ Data captured on the Monitoring spreadsheet (Published data) ▪ Exceedance during blasting is captured on ICare	Unlikely	Serious	Low

2	Vibration / airblast damage to off-site structures	Rare	Severe	Low	▪ As per 1 ▪ Monitor sensitive areas & review blast design as necessary ▪ inspect sensitive areas pre & post all blasts ▪ Reported on ICare to capture findings and corrective and preventive actions.	Rare	Serious	Low
Ecology								
1	Damage to local flora	Possible	Serious	Medium	▪ Develop & implement Biodiversity Action Plan ▪ Put in adequate physical protection measures including signage ▪ Monitor & report on site flora health regularly ▪ Suitable training re flora protection ▪ Removal of stock from sensitive areas ▪ Implement bushfire hazard reduction tasks ▪ Removal of feral animals from sensitive areas ▪ Noxious weed control in sensitive areas ▪ Reported on iCare to capture findings and corrective and preventive actions.	Unlikely	Significant	Low
2	Damage to site fauna	Unlikely	Serious	Rare	▪ As per 1 ▪ Information re local WIRES for distressed or injured fauna	Rare	Serious	Low
3	Dust pollution onto site sensitive ecological areas	Unlikely	Severe	Medium	▪ As per 1 ▪ Comply with site Management Plans ▪ Regular review of riparian areas (as per Management Plans) ▪ Reported on iCare to capture findings and corrective and preventive actions.	Unlikely	Significant	Low
Land								
1	Spill of liquid fuel whilst in storage	Possible	Severe	Medium	▪ Fuels stored according to Holcim's bunding requirements. ▪ Measures in place to ensure spills do not leave site boundaries ie diverting flow away from boundaries, stormwater drains. ▪ Bunding subject to regular inspection and maintenance	Unlikely	Significant	Low
2	Spill during delivery of fuel to mobile equipment	Possible	Severe	Medium	▪ Breakaway couplings installed on mobile fuel delivery vehicles. ▪ Drivers stay with vehicle during refuelling ▪ Emergency spill kits located on fuel delivery vehicles. ▪ Spill response equipment is regularly inspected and maintained ▪ Mobile refuelling takes place in the pit	Unlikely	Significant	Low

					▪ Drivers trained in spill response procedures. ▪ Refuelling takes place in designated refuelling areas. ▪ Spill Management response is activated ▪ Reported on iCare to capture findings and corrective and preventive actions.			
3	Spill during delivery of fuel to storage tank	Possible	Severe	Medium	▪ Supplier's fuel transfer procedure is known ▪ Fuel transfer is supervised against suppliers procedure ▪ Reported on iCare to capture findings and corrective and preventive actions.	Unlikely	Significant	Low
4	Spill of pre-coat	Possible	Severe	Medium	▪ Monitor production to ensure minimum amount is used ▪ Pre-coat aggregate stockpile areas drain through an oil-water separator or similar device ▪ Pre-coats stored according to Holcim's bunding requirements. ▪ Measures in place to ensure spills do not leave site boundaries ie diverting flow away from boundaries, stormwater drains. ▪ Bunding subject to regular inspection and maintenance ▪ Reported on iCare to capture findings and corrective and preventive actions.	Unlikely	Significant	Low
5	Improper storage of cementitious materials	Likely	Significant	Medium	▪ Ensure water leachate is contained on site ▪ Quantities held on site are minimised or capped ▪ Location of stockpiles close to processing point ▪ Cementitious materials are managed in accordance with approval conditions ▪ Excess cementitious materials are disposed of in accordance with legislative requirements ▪ Reported on iCare to capture findings and corrective and preventive actions.	Unlikely	Significant	Low
6	Land contamination	Likely	Significant	Medium	▪ Holcim land contamination strategy is known and applied ▪ Reported on iCare to capture findings and corrective and preventive actions.	Unlikely	Significant	Low

7.2 Pollutant and Safety Equipment Information

Legislative requirements under the Protection of the Environment Operations (POEO) Act dictate that the site is to provide information for all pollutants that are used and stored on the site. This information is required as it assists personnel responsible for coordinating spill responses to more effectively manage spills.

This information must be presented as a manifest detailing the pollutants stored at the site, the location of these storage areas, and the safety equipment to be made available at these areas. A Pollution Information Data Sheet (PIDS) has been prepared that includes the following information for each pollutant. Refer to table 3 below

- The intended use for the pollutant
- How the pollutant is stored
- SDS information
- 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
- PPE needed to safely manage a spill of the pollutant
- Procedure for cleaning up a spill of the pollutant.

In order to ensure the currency and reliability of the information in the PIDS, the information should be reviewed and updated on a monthly basis.

Table 3: Pollutant Information Data Sheet and clean-up methods

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
Fuel (Hydrocarbons, oil, petrol, diesel, solvents & Cleaning chemicals)	Diesel tanks, site and delivery vehicles	Yes	Sand, earth vermiculite	PVS gloves, safety glasses, goggles	**Large Spill** **Assess** Quickly assess the spill: Decide whether to handle the situation by yourself or if you require help. Advise your team of the hazard Post a guard or barricade Can you stop the source of the spill? **Ensure Personal Safety** First priority is to ensure safety of yourself and others in the area Consider evacuation and isolation. Do you or others require PPE Check Safety Data Sheet **Secure** Secure the spill If hazardous to public or other staff exists Post a guard immediately Enter barricades to prevent unintended access

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
					Contain Contain the spill quickly by surrounding with the booms which should be firmly secured in place. Find the source of the leak and stop it. Emergency stop, cap, plug, move, adjust Move other containers from that area to a bunded area In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. **Prevent** Prevent spillage to stormwater drains and entry into sewer, water courses, basements or confined areas. **Absorb** Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation. Recover product from the surface. Use spark-proof tools and explosive proof

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
					equipment. Dispose of via a licensed waste disposal contractor **<u>Disposal</u>** Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation. Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Monitor its disposal. The spill soiled bags need to be labelled and ear marked and placed in a leak proof container which is locked. SDS should be made available. **<u>Reporting</u>** Incident and Corrective and Preventative action should be captured on iCare.

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
					Small Spill Stop leak without risk. Move containers from spill area Absorb with an inert material and place in appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
Lubricants	Quarry Workshop, Transport Oil Store, Oil Store	Yes	Sand, earth, vermiculite, barrier equipment (booms, floats etc.)	PVC Gloves, safety glasses, goggles	**Large Spill** **Assess** Quickly assess the spill: Decide whether to handle the situation by yourself or if you require help. Advise your team of the hazard Post a guard or barricade Can you stop the source of the spill?

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
					Ensure Personal Safety First priority is to ensure safety of yourself and others in the area Consider evacuation and isolation. Do you or others require PPE Check Safety Data Sheet **Secure** Secure the spill If hazardous to public or other staff exists Post a guard immediately Enter barricades to prevent unintended access **Contain** Contain the spill quickly by surrounding with the booms which should be firmly secured in place. Find the source of the leak and stop it Emergency stop, cap, plug, move, adjust Move other containers from that area to a bunded are In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment.

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
					Prevent Prevent spillage to stormwater drains and entry into sewer, water courses, basements or confined areas. **Absorb** Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation. Recover product from the surface. Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor **Disposal** Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation. Use spark-proof tools and explosive proof

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
					equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Monitor its disposal. The spill soiled bags need to be labelled and ear marked and placed in a leak proof container which is locked. SDS should be made available. **Reporting** Incident and Corrective and Preventative action should be captured on the iCare. **Small Spill** Stop leak without risk. Move containers from spill area Absorb with an inert material and place in appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
Vehicle fluids	Bottom Workshop, Transport Oil Store, CAT equipment, Quarry Workshop, Oil Store	YES	Sand, earth, vermiculite	PVC Gloves, safety glasses	**Large Spill** 1) In the case of large spills contact relevant personnel 2) Stop leak without risk. 3) Move containers from spill area. 4) Approach the release from upwind 5) Prevent entry into sewer, water courses, basements or confined areas. 6) Wash spillages into an effluent treatment plant or proceed as follows. 7) Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation. 8) Contaminated absorbent material may pose the same hazard as the spilt product **Small Spill** 1) Stop leak without risk. 2) Move containers from spill area 3) Dilute with water and mop up, or absorb with an inert dry material and place in appropriate waste disposal container 4) Dispose of via a licensed waste disposal contractor.

Pollutant	Storage Location	Current SDS held Yes/No	Emission control equipment (1)	PPE (1)	Spill Clean Up Method (1)
Truck wash	Bottom workshop	YES	Sand, earth, vermiculite	PVC Gloves, safety glasses	**Large Spill** **Assess** Quickly assess the spill: Decide whether to handle the situation by yourself or if you require help. Advise your team of the hazard Post a guard or barricade Can you stop the source of the spill? **Ensure Personal Safety** First priority is to ensure safety of yourself and others in the area Consider evacuation and isolation. Do you or others require PPE Check Safety Data Sheet **Secure** Secure the spill If hazardous to public or other staff exists Post a guard immediately Enter barricades to prevent unintended access **Contain** Contain the spill quickly by surrounding with the booms which should be firmly secured in place.

					Find the source of the leak and stop it Emergency stop, cap, plug, move, adjust Move other containers from that area to a bunded area In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. **<u>Prevent</u>** Prevent spillage to stormwater drains and entry into sewer, water courses, basements or confined areas. **<u>Absorb</u>** Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place into a container according to local legislation. Recover product from the surface. Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor **<u>Disposal</u>** Contain and collect spillage with non-combustible, absorbent material e.g. sand,

					earth, vermiculite or diatomaceous earth and place into a container according to local legislation. Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Monitor its disposal. The spill soiled bags need to be labelled and ear marked and placed in a leak proof container which is locked. SDS should be made available. **Reporting** Incident and Corrective and Preventative action should be captured on the ICare. **Small Spill** Stop leak without risk. Move containers from spill area Dilute with water and mop up, or absorb with an inert dry material and place in appropriate waste disposal container Dispose of via a licensed waste disposal contractor.

Pre-coat Oil	Pre-coat Tank	YES	Sand, earth, vermiculite	PVC Gloves, safety glasses, goggles, overalls	**<u>Accidental release</u>** **<u>Assess</u>** First priority is to ensure safety of yourself and others in the area Consider evacuation and isolation. Do you or others require PPE Check Safety Data Sheet In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the relevant authorities. **<u>Ensure Personal Safety</u>** Wear full protective clothing including eye/face protection. All skin areas should be covered. Stop leak if safe to do so, and contain the spill. **<u>Secure</u>** Secure the spill If hazardous to public or other staff exists Post a guard immediately

					Enter barricades to prevent unintended access Absorb onto sand, vermiculite or other suitable absorbent material. If the spill is too large try to create a dike to stop material spreading or going into drains or water-ways Avoid using sawdust or other combustible material. **<u>Contain and Disposal</u>** Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose promptly. Use spark-proof tools and explosive proof equipment. Dispose of via a licensed waste disposal contractor. If it is possible that material harm to the environment has occurred relevant personnel should be contacted **<u>Reporting</u>** Incident and Corrective and Preventative action should be captured on the iCare.
Dust control agent	Bottom Workshop	YES	Sand, earth, inert material, vermiculite	PVC Gloves, safety glasses, goggles, overalls	**<u>Spills & Disposal</u>** 1) Slippery when wet

					2) Avoid accidents 3) Clean up immediately 4) Use absorbent (soil or san, sawdust, inert material, vermiculite) 5) Collect and seal in properly labelled drums for disposal 6) Observe local legislation 7) Wash away resides with water
Liquid Nitrogen	No onsite storage (delivery vehicles only)	YES	Nil	Goggles, Safety boots and insulated or leather gloves, air-line respirator (if inhalation risk exists)	**<u>Spillage</u>** 1) Release of liquid to atmosphere will generate vapour fog clouds which can travel considerable distances and affect visibility. 2) These clouds should be treated as asphyxiating atmospheres as the evaporated liquid will have displaced air 3) Refer to vessel operating instructions 4) In an emergency allow liquid and gas to escape to atmosphere 5) Monitor oxygen concentration in confined spaces 6) Contact relevant authorities for guidance 7) Leak checking may be done by pressure drop test or soapy water at joints and outlets 8) Shut liquid and gas valves to stop leak if possible and safe to do so.

Surfactant	Bottom Workshop	YES	Soil, sand, vermiculite	Safety glasses, PVC gloves	**Small spills** 1) Contain using sand or diatomaceous earth 2) Collect and seal in properly labelled drums 3) Wash residue with water **Large Spills** 1) Restrict access to area 2) Provide PPE 3) Remove chemicals which react with spill of material 4) Spills are slippery 5) Contain spill or leak 6) Do not allow entry to drains or water ways 7) Spilled material should be contained by dyking with inert material, sand, soil etc. 8) Solutions can be recovered or carefully diluted with water.
Hardeners and Resins	Quarry Workshop	YES	Sand, earth, vermiculite	Safety glasses, PVC gloves, Respirator	**Small Spills** 1) Contain spillage 2) Avoid breathing vapours and contact with skin and eyes 3) Control contact using PPE 4) Contain and absorb with sand, earth, inert material, vermiculite etc. 5) Small spills should be covered with inorganic absorbents and disposed of properly. Organic absorbents (Sawdust) may ignite.

					<u>Large Spills</u> 1) Contain spillage 2) Clear area of personnel and move upwind 3) Alert relevant authorities 4) Wear breathing apparatus & protective gloves 5) Prevent spill entering drains/ water courses
Transformer Oil	Delivery Trucks, Transformers	YES	Sand, earth, vermiculite	Safety glasses, PVC gloves	**<u>Protective Measures</u>** Eliminate all sources of ignition in vicinity of spilled material. **<u>Spill Management</u>** 1) Stop the source of the release if you can do it without risk. 2) Contain release to prevent further contamination of soil, surface water or groundwater. 3) Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. 4) Use appropriate techniques such as applying non-combustible absorbent materials or pumping. 5) Where feasible and appropriate, remove contaminated soil. 6) Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable

					regulations.
Dry Powders	Silo at concrete plant, silo at blending plant	YES	Access to council sweeper, soil, sand, vermiculite	Safety glasses, PVC Gloves,	**<u>Accidental Release Measures</u>** Emergency procedures: Prevent entry to area by unprotected personnel. Methods and material for containments and clean up 1) Vacuum or wet sweep material avoiding generation of dusts. 2) A fine water spray should be used to suppress dust when sweeping. 3) Product dampened with water may be collected with a clean shovel. 4) Seal all spilled product and wastes in vapour tight labelled plastic containers for reuse/recycle where possible or eventual disposal.
Explosives	Delivery trucks	YES	Soil, sand, vermiculite	Goggles, PVC gloves	**<u>Methods for containment</u>** Avoid dust formation. Do not breathe dust. **<u>Methods for cleaning up</u>** 1) Avoid the use of metal tools containing iron, copper or brass. 2) Be careful to avoid shock, friction, and contact with grit. 3) Collect product for recovery or disposal.

					4) For release to land, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. 5) Collect contaminated soil and water, and absorbent for proper disposal. 6) Notify applicable government authority if release is reportable or could adversely affect the environment.
Welding gas	Bottom workshop, Transport Workshop, Shed adjacent crushing plant	YES	Ventilation	Respirator	**<u>Occupational Release:</u>** 1) Avoid heat, flames, sparks and other sources of ignition. 2) Stop leak if possible without personal risk. 3) Reduce vapours with water spray 4) Keep unnecessary people away, isolate hazard area and deny entry. 5) Remove sources of ignition. 6) Ventilate closed spaces before entering.
Effluent	Transport workshop, office, crushing plant crib room, load and haul crib room	NO	Envirocycle process onto soil, sand, bleach, hydrated lime	PVC Gloves, goggles, overalls	**<u>Accidental Release Measures</u>** 1) Contaminated area must be clearly marked or cordoned off to restrict access. 2) Protective clothing should be worn when cleaning up a sewage spill. 3) If the spilled material can't be recovered using hand tools, a commercial vacuum / pump truck should be called to remove all visible liquid and solid material.

					4) When the area is visibly clean, either a chlorine / water solution or hydrated lime should be applied to the spill area to disinfect. 5) If a major spill has occurred hydrated lime should be applied to the area in place of chlorine bleach 6) . Enough hydrated lime should be applied to raise the pH to at least 12. By raising the pH to 12 for at least 1 hour, the area will be disinfected. 7) Because lime is a caustic material, access to the area treated with lime must be restricted during the disinfection period. 8) Report on iCare

(1) **This information is drawn from a review of the SDS or manufacturer / supplier technical information**

7.3 Emergency Response Map

In addition to the PIDS the site needs to prepare an emergency response map that provides the following information;

- address of site
- location of pollutant storage
- location of safety equipment
- emergency evacuation / muster points
- stormwater drains / flow paths
- sensitive receivers
- sediment dam overflow locations
- location of SDS
- surrounding area that is likely to be affected by a pollution incident
- discharge location of stormwater drains to nearest water coarse or water body
- Existing site maps that have been developed to comply with Holcim SHE system requirement 1.84 may be used if all the required items have been included. If an existing map is not available it should be created.
- It is important to clearly identify these items so as to be able to respond in an emergency situation.
- ***Refer to Albion Park Quarry Site Plan (Map Drawing number APQSHE 073)***


ENLARGEMENT 1
Scale 1:500
MSDS
MAIN OFFICE
EMERGENCY ASSEMBLY AREA
VISITORS PARKING
STAFF PARKING
DIESEL TANK 100,000L
CONCRETE PLANT
PPE
RESTRICTED ACCESS
WORKSHOP
CRIB ROOM
COMPOUND
MOBILE COMPOUND WORKSHOP
10


ENLARGEMENT 2
Scale 1:500
PRE-COAT PLANT
STOCKPILE AREA
ENLARGEMENT 3
Scale 1:500
STAFF PARKING
HAUL ROAD
WORKSHOP
PLANT
BLENDING PLANT
STOCKPILE AREA
LEGEND
SCALE
1:1000 (A0)
HOLCIM
TRAFFIC MANAGEMENT &
SAFETY HAZARD PLAN

7.4 PIRMP Review

Review of 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. Reviewing shall be undertaken in the following ways:

The PIRMP will be tested annually and any identified updates or changes will be made. The PIRMP will be tested and reviewed within one month from the date of any pollution event that triggers this PIRMP. The review will also consist of assessment of any additional hazards and control measures.

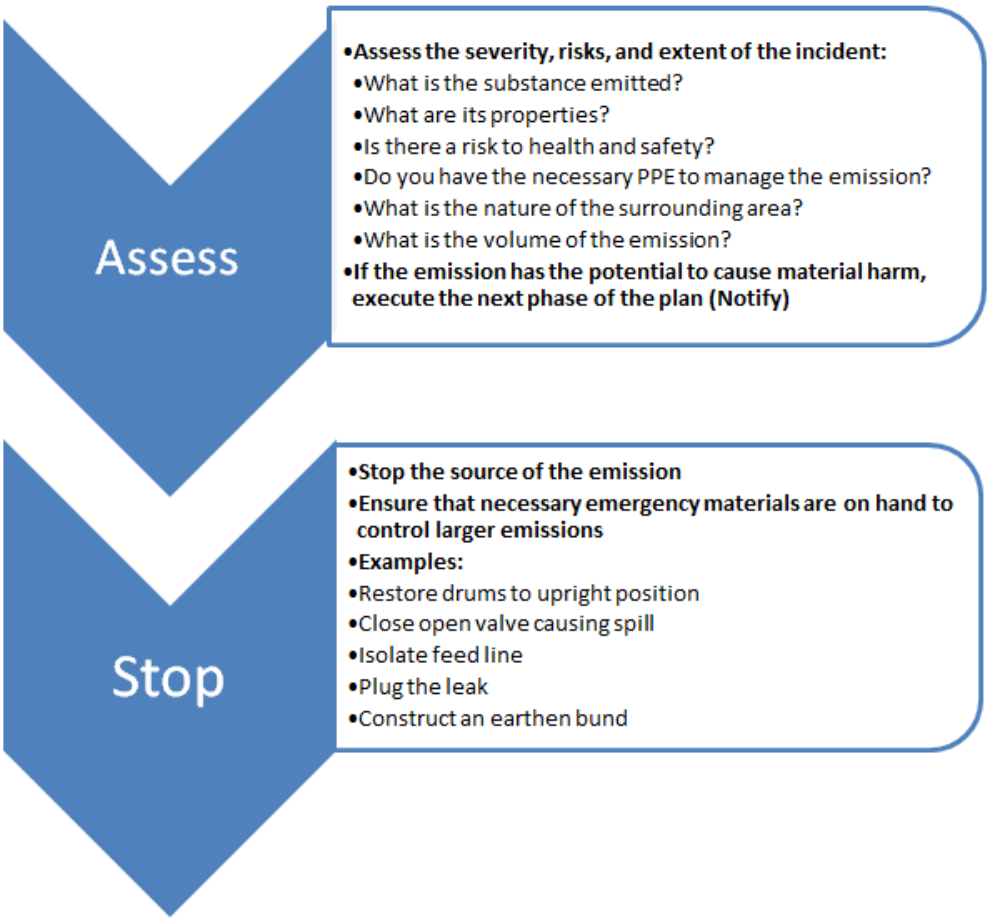
In addition to site evacuation drills, a mock environmental incident will be done once a year to ensure all site personnel are following training and correct procedures. The mock scenario will be set and all the actions will be captured on the check sheet. Based on these mock incidents, the Site manager and the Planning and Environmental Coordinator will review the site personnel preparedness and site procedures to identify gaps or areas for improvement. Records of the drill will be maintained, including follow up of opportunities for improvement identified during emergency drills.

7.5 Typical Holcim Response process

If it is suspected that an incident may cause material environmental harm the Pollution Incident Management Response Plan will be executed. This plan is based on seven phases:

1. Assess
2. Stop
3. Notify
4. Contain
5. Mitigate
6. Clean up
7. Review

Details of the requirements and responsibilities for each phase are explained below.



Notify

- **Contact key individuals**
  - Individuals responsible for activating and managing plans (nominated site representatives)
  - Individuals authorised to notify and coordinate relevant authorities (nominated site representatives)

- **Contact Relevant Authorities**
  - Firstly, call 000 if the incident presents an immediate threat to human health or property.
  - If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:
  - the Appropriate Regulatory Authority
  - EPA
  - Ministry of Health via the local Public Health Unit
  - WorkCover Authority
  - the local authority if this is not the ARA
  - Fire and Rescue NSW

- ***Specific contact details are provided in appendix A***

Contain

- Utilise barriers (absorbent booms, banks of soil or any other safe objects) or spill absorbent to prevent the emission from spreading.
- When an emission is on a hard surface use appropriate absorbent materials ie absorbent granules or sand
- The main priority is to prevent the emitted material from discharging off site

Mitigate

- Implement environmental controls downstream of pollution source to prevent/minimise further impact to receiving environment
- Example:
- A Fuel spill discharged into quarry dam. Mitigation controls to ensure this spill is not spread may include closing of weirs, or outlets, ensuring water cart does not fill from affected dam etc.

Clean -up

- Clean up and remedial actions to restore the environment
- Disposal of pollutants in accordance with regulations
- Refer to the Pollution Information Data Sheets (PIDS) for information on handling pollutants and the clean-up process.

Review

- Conduct an investigation into the event and assist the EPA and investigators with external enquiries
- Complete internal reporting;
- As per Holcim SHE requirement 5.1
- Test the effectiveness of Pollution Incident Response Management Plan annually and one month after the incident to ensure controls are replenished.
- *Testing protocol is provided in appendix B*

7.6 Communication Strategy

It is a legal requirement of the Protection of the Environment Operations (POEO) Act, to notify key stakeholders in neighbouring properties that may been affected by an incident.

Communicating with neighbours and the community in the event of an environmental incident is vital as they have a right to know about any spill that can potentially lead to material harm to their properties or themselves. The communication strategy in the PIRMP provides sites with a method of communicating with key stakeholders.

Key stakeholders include neighbouring residential and/or commercial properties, sensitive receivers ie farms, hospitals schools within the area of impact. Consideration must be given to sensitive receivers that may be affected if the emission reaches a water body. For example a farmer that is cultivating crops down river from your site will need to be informed of a spill to prevent him spraying his crops with polluted irrigation water.

The PIRMP must include details of the mechanisms that will be used for providing early warnings and regular updates to the owners and occupiers of premises who may be affected by an incident occurring at the premises.

The communication strategy should also make reference to any actions or arrangements that will be in place to minimise the risk of harm to any persons who will be on the premises or who are likely to be on the premises at the time of an incident. This is a legislative requirement that needs to be included in the PIRMP.

For a table detailing the communication strategy for this site:

Refer to Appendix C – Community Notification Strategy

8. *Staff Training*

Sites need to develop a toolbox talk based on the PIRMP. This training should be delivered to all appropriate personnel on site and be conducted to include potential scenarios that may require implementation of the plan.

Frequency of training

Training for site staff should be repeated annually, and after each update to the plan. In the event of an incident requiring the PIRMP to be activated a training drill should be carried within one month of the incident occurring.

How Records of training are kept

Training records should be stored on site and in the Chris 21 data base. This data base is the primary online tool for tracking individual staff training records and frequency for training and refresh courses. These records are to be made available to relevant authorities on request.

9. Continual Improvement

It is a legislative requirement for this plan to be tested and updated on an annual basis and within one month of an incident.

To complete this requirement a Pollution Incident Response Test Checklist has been prepared and provided as Appendix B. The checklist includes the major elements of the plan that require testing:

- Contact numbers
- Evacuation drills
- Desktop assessment
- Staff training and awareness
- Environmental controls & PPE

Desktop assessments require site personnel, responsible for testing the plan, to select a scenario from the hazard and impact register (table 2) and ensure that all the required controls for the scenario are in place. During the desktop assessment environmental control and PPE equipment supplies should be inspected to ensure that they are functional and that there are enough materials to ensure that emissions relating to the scenario can be controlled effectively and safely.

Appendix A - Emergency Contact Details

Contacts	Phone Number
Individuals responsible for activating the plans and managing the response	**Quarry Manager** **Darren Essex 0429 790 432**
Individuals Authorised to Notify and Coordinate Relevant Authorities	**Quarry Manager** **Darren Essex 0429 790 432**
Emergency Services	**000**
EPA	**131 555**
The Ministry of Health via the local Public Health Unit	**Wollongong Hospital** **(02) 4222 5000** **(Ask for Public Health Officer on call)**
WorkCover Authority	**13 10 50**
Local Council (If this is not DECCW) (List of NSW Local Council Phone Numbers www.dlg.nsw.gov.au/dlg/dlghome/dlg_localgovdirectory.asp)	**Shellharbour City Council** **(02) 4221 6111**
Fire and Rescue NSW	**000**
Other Organisations or agencies that need to be advised of the incident	**The Council of the Municipality of Kiama** **(02) 4232 0444**

Appendix B - Pollution Incident Response Test Checklist

Date:.....

Site:.....

Address:.....

Pollution Incident Scenario:.....

Instructions

1. Select an Environmental Incident applicable to the site to test in a Pollution Scenario (this may include a major spill, equipment failure or breaches of license consent that may cause impacts onsite and to the surrounding community);

2. Using the scenario conduct a desktop review using the Test Checklist as a prompt to ensure that each component of the PIRMP is up to date;

3. Sign off the checklist, scan and send to the NSW Planning & Environmental Coordinator;

4. Planning & Environmental Coordinator will make amendments to the plans and submit these to the site managers for review and approval;

5. Site Managers to hold a tool box talk with staff on the details of the PIRMP and keep a copy of the PIRMP onsite for future reference.

Are all contact details within the plan current and up to date? This list is to be verified at least annually and updated whenever an organization advises that a change has occurred.	**Phone Numbers**	
	Currency	**Updated Number**
Individuals responsible for activating the plans and managing the response		
Individuals Authorised to Notify and Coordinate Relevant Authorities		
Emergency Services		

EPA		
The Ministry of Health via the local Public Health Unit		
WorkCover Authority		
Local Council		
Fire and Rescue NSW		
Additional Contacts relevant to the licensee's premises		
Other Organisations or agencies that need to be advised of the incident		

Environmental Hazards and Control Standards	**Yes/ No**	**Actions**	**Person responsible**	**Due date**
Are the descriptions of environmental hazards up to date?				
Are the potential and likelihood of incidents that could occur still correct and relevant to the site operations?				
Are the pre-emptive actions for risk management of the relevant activity correct and relevant to the site?				
Is there an inventory of pollutants (including quantities of pollutants onsite)?				
Is the listed safety equipment & PPE correct and up to date?				
Is there a map/s located onsite detailing the following; - The site and the surrounding area likely				

to be affected in the event of an incident - The Locations of storage/ holding points of pollutants - Stormwater drains and discharge points offsite				
Are the nature and objectives of staff training set out in the plan?				
Are there details of mechanisms for providing early warnings and regular updates to the owners and occupiers?				
Is there a copy of the plan onsite and up to date?				

Has there been an evacuation drill in the last 12 months? .....

Date:.....

Notes:.....

Improvements to the Pollution Incident Response Management Plan:

-
-
-
-
-

Comments / Recommendations / Review

-
-
-
-
-

Pollution Incident Response Test Checklist Assessor:.....

Signed:.....

Appendix C – Community Notification Strategy

If there is an Environmental Incident that has the potential to cause harm to the following stakeholders they will be contacted by TELEPHONE

Stakeholder Component	Name	Contact Information
Schools	Albion Park Primary School	Phone: (02) 4256 1287 Address: Tongarra Rd Albion Park NSW 2527
	Mt Terry Primary School	Phone: (02) 4257 4370 Address: 175 Ashburton Dr Albion Park NSW 2527
	Albion Park Primary School	Phone: (02) 4256 1244 Address: Corner of Tongarra and Hamilton Rd Albion Park NSW 2527
	Oak Flats Primary School	Phone: (02) 4256 1405 Address: Griffiths St Oak Flats NSW 2527
	Albion Park High School	Phone: (02) 4257 1744 Address: Church St Albion Park NSW 2527
	Oak Flats High School	Phone: (02) 4256 1888 Address: The Esplanade Oak Flats NSW 2529
	Corpus Christi Catholic High School	Phone: (02) 4230 3300 Address: Industrial Rd Oak Flats NSW 2529
Nursing Aged Care	Warrigal Care	Phone: (02) 4257 7922 Address: 2 Pine St Albion Park NSW 2527
	Daintree Aged Care	Phone: (02) 4235 7600 Address: 95 Daintree Dr Albion Park NSW 2527
Nearby Properties	Dunster Farm and residents	Phone: Fiona Dunster: (02) 4256 1289 Mrs Dunster: (02) 4256 2406

		Phil/Shirley Auty: (02) 4256 0320 Address: 113 Dunsters La Croom NSW 2527
	Cleary Brothers Quarry	Phone: (02) 4256 9070 Address: East West Link Rd Albion Park Rail NSW 2527
	Boral Dunmore Quarry	Phone: (02) 4237 2000 Address: Tabbitta Rd Dunmore NSW 2529
Airport	Illawarra Regional Airport	Phone: (02) 4221 6111 Address: Cnr Princes & Illawarra Hwys Albion Park Rail NSW 2527