Environment Specific

ELEMENT 6: Environment

PIRMP – Pollution Incident Response Management Plan

Anna Bay Sand Quarry

Version Control:

Version	Date	Comments	Authority
1	13.11.17	Final	Risk Manager
2	24.6.22	Review of Document	Risk Manager
3	28.8.22	Final Document	Risk Manager
3	18.10.24	Review of Document	Compliance Administrator
4	31.10.24	Final Document	Risk Manager
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Record of Testing:

(record table introduced as part of Version 4 review)

Date Tested	Version Tested	Responsible Person	Review or Incident
04.04.2025	4	Mo Yunusa	Review

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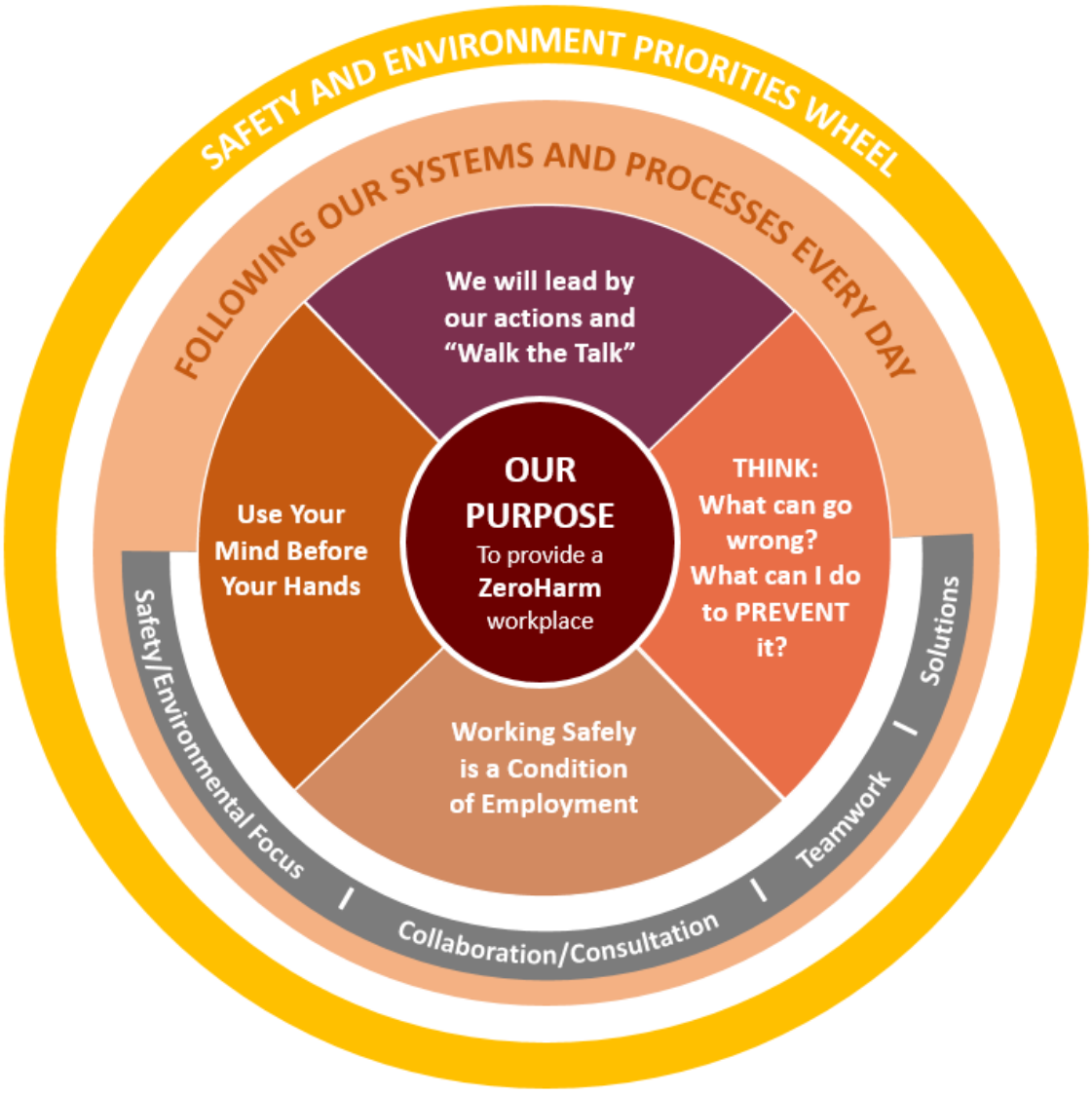
Safety and Environment Priorities Wheel



1. Purpose

The purpose of the Metromix Anna Bay Sand Quarry Pollution Incident Response Plan is to provide direction to all workers on the correct response actions to a pollution incident at the Quarry. It ensures timely communication with staff, relevant external authorities, and all other persons outside the operation who may be affected by a pollution incident.

The plan aims to minimise and control the risk of a pollution incident at the Quarry by identifying risks and planning actions to manage those risks. It also details training requirements, identifies the responsible persons to implement the plan, and ensures that the plan is tested yearly for accuracy, currency, and suitability.

2. Scope

A pollution Incident Response Management Plan (PIRMP) for potential environmental pollution generated at Anna Bay Sand Quarry

This PIRMP must be followed by employees, contractors and visitors of Anna Bay Sand Quarry, to assist in the early response to and reporting of a pollution incident.

3. References

- Work Health and Safety Act 2011
- Work Health and Safety Regulations 2017
- Work Health and Safety (mines and petroleum sites) Act 2013
- Work Health and Safety (mines and petroleum sites) Regulation 2022
- Protection of the Environmental Operations Act 1997
- EPA Guideline to Pollution Incident Response Management Plans 2022

4. Definition of Pollution Incident

A 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.

5. Response Actions

1. ASSESS	Identify the severity, risk & extent of the incident. • What is the substance emitted? • Is there a risk to health & safety? • What is the nature of the surrounding area? • What is the volume of the emission? • If the emission has the potential to cause material harm, execute the next phase of the PIRMP
2. ALERT	• Emergency Co-ordinator/Warden to take control. • Call emergency services on **000**, if the incident presents an immediate threat to human health or property. • Notify other person(s) within the vicinity if the incident is likely to affect them.
3. STOP	• Stop the source of the emission (e.g. close open valve causing spill) • Ensure that necessary emergency material is on hand to control larger emissions;
4. CONTAIN	• Utilise barriers (absorbent booms, banks of sand) or spill absorbent to prevent the emission from spreading • The main priority is to prevent the emitted material from discharging off site
5. MITIGATE	• Implement environmental controls downstream of pollution to prevent/minimise further impact to receiving environment.
6. NOTIFY	Notify relevant authorities in the following order: • EPA on 131 555 • Newcastle Public Health Unit on 02 4924 6477 • Resources Regulator on 1300 814 609 • Council (LGA) on 02 4988 0255 • Fire & Rescue NSW on 000
7. CLEAN UP	• Clean-up & remedial actions to restore the environment. • Refer to Safety Data Sheet (SDS) for information around accidental release measures.
8. REVIEW	• Investigate the event and assist the EPA & investigators with external enquires. • Enter pollution incident into Online Event Reporting System then conduct and complete and internal investigation.

6. Notification Requirements of a Pollution Incident

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

(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

Notification is required even where 'harm to the environment is caused only in the premises where the pollution incident occurs', as specified in section 147(2).

Anna Bay Quarry is required to report pollution incidents immediately to the EPA, NSW Health, Fire and Rescue NSW, Department of Primary Industries – Resource Regulator and Port Stephens Council.

7. Notification and Communication

Any pollution incident satisfying the material harm threshold must be immediately reported to relevant statutory authorities.

The individuals in the table in the table presented in Clause 6.1 are;

a) responsible for activating the PIRMP

b) authorised to notify relevant authorities, including all relevant authorities under section 148 of the POEO Act

c) responsible for managing the response to a pollution incident

7.1. Internal Notification – Responsible Persons

Name	Position	Phone Number	24 Hour Contact?
Mo Yunusa	Manager of Quarries	0423 832 077	Yes
Vik Nath	Sales Manager	0439 262 500	Yes
Janelle Caban	Risk Manager	0439 154 686	Yes
Daniel McKay	Quarry Caretaker	0422 638 708	No
Michael Sloan	Leading Hand	0458 597 440	No

In cases where “material harm” level cannot be immediately assessed or insufficient information comes to hand on the severity of the incident, the general advice is to err on the side of caution and notify the relevant authorities with a qualification that the situation could not yet be fully assessed.

7.2. External Notification - Notifying the Authorities

The following relevant authorities must be contacted by one of the above people responsible for activating the PIRMP.

Relevant Authority	Phone Number
EPA – Environment Line	131 555
Fire and Rescue NSW (FRNSW)	1300 729 579
Port Stephens Council	(02) 4988 0255
Public Health Unit – Population Health – HNE Health	1300 066 055
Department of Primary Industries – Resource Regulator	(02) 4931 6666

7.3. Notifying the Community

Communication should be fit-for-purpose and tailored to the;

- nature of the incident.
- phase of response (e.g. initial community notifications, update communications, clean-up/recovery)
- types of neighbours who need to receive information.

As appropriate to the circumstances, communication can make use of:

- Incident notifications on the licensee's website.
- Social media.
- Telephone calls, SMS or other messaging systems.
- Emails to community representatives (as agreed through a community consultation process).
- Letterbox drops.
- Doorknocking of affected community members.

7.4. Notifying the Community – During an Event

Metromix has established a protocol for communicating with neighbouring residences in the event of an emergency. This protocol includes direct communication through phone calls or door-to-door visits by a Metromix representative. In situations where additional support is needed, assistance from emergency services will be sought to ensure effective communication.

Appendix B outlines an area of potential immediate threat based around a proximity assessed risk.

A red, highlighted polygon indicating areas approximately < 500m from the current operation boundaries is shown.

Person(s) within the area are identified as "high risk" and deemed a priority for notification if the risk presents an immediate danger to the surrounding community.

7.5. Notifying the Community – Post Event

All community stakeholders that may be affected by pollution harm will be notified.

If a spill presents a significant risk of causing “material harm” to persons, property and/or the environment to an area that is not trivial, any community stakeholder within these areas will be notified at the earliest convenience.

When it has been established that a community stakeholder is at risk from a spill that has the potential to cause harm the following process will be implemented:

(a) Community stakeholders will be contacted immediately after the relevant authorities have been contacted by telephone

(b) Stakeholders will be advised of recommended actions that can be taken to prevent or minimise material harm, e.g. evacuate area, shut doors and windows, cease drawing water for irrigation purposes.

(c) After the spill has been contained and managed by key personnel and authorities, subsequent communication will be undertaken by the Manager of Quarries and/or Risk Manager. These may include:

- Follow up telephone calls and/or face to face contact.
- Meetings with stakeholders.
- Written correspondence containing updates in regards to safety and environmental concerns associated with the pollution incident.
- Information posted on the Metromix website or through social media avenues.

8. Roles and Responsibilities

Position	Responsibility
Employees and Contractors	• Following the procedures outlined in the PIRMP and related documents. • Immediately alerting Supervisor or Leading Hand of any environmental incidents or near-misses.
Emergency Coordinator	• Following the procedures outlined in the PIRMP and related documents. • Ensure life, personal safety and environment takes precedence over asset protection. • Ordering immediate assistance such as; first aid, spill kits, gate warden as deemed necessary. • Ringing 000 and providing information relevant to the situation if required. • Co-ordinating an evacuation of the site if deemed necessary
Quarry Caretaker/Leading Hand	• Following the procedures outlined in the PIRMP and related documents. • Immediately alerting Quarry Manager or, in case of their unavailability, Environmental Representative or Environment Manager of any potentially material environmental incidents or near-misses. • Conducting incident investigations.
Manager of Quarries	• Authorisation of the PIRMP. • Administration, maintenance, implementation and testing of the PIRMP. • Assessing whether the incident has caused, or threatens “material environmental harm” and, if so, immediately notifying all Appropriate Regulatory Authorities. • Ensuring that investigations are undertaken to a level corresponding to the level of risk and impact.

Should the emergency coordinator be absent from site, they shall appoint a suitably trained person(s) to assume their duties.

9. Testing

PIRMPs **must** be tested routinely at least once every 12 months and within one month of any pollution incident occurring that caused or threatened material harm to the environment.

PIRMPs may be updated following testing or a change to the contact details for the individuals who are to be contacted or who are responsible for contacting others in the case of a pollution incident, or as part of a general review of the PIRMP.

If significant changes are made to plant and equipment at the premises or the operation of the premises, it is recommended the PIRMP be reviewed to ensure it remains relevant. This may include when the site increases its production capacity, when significant new plant and equipment is installed or upgraded and when the layout of the plant is changed (e.g. a chemical storage area is moved).

A new risk assessment should be done to determine if the risks have changed (their nature and/or location), whether new preventative measures are needed to minimise the risks and potential impact of an incident, and to ensure the PIRMP is effective if it needs to be activated.

Records of all testing performed shall be stored at the location of the site relevant to the PIRMP and kept accessible.

10. Potential Polluting Substances

The following table lists the main hazards to human health and the environment at Anna Bay Sand Quarry

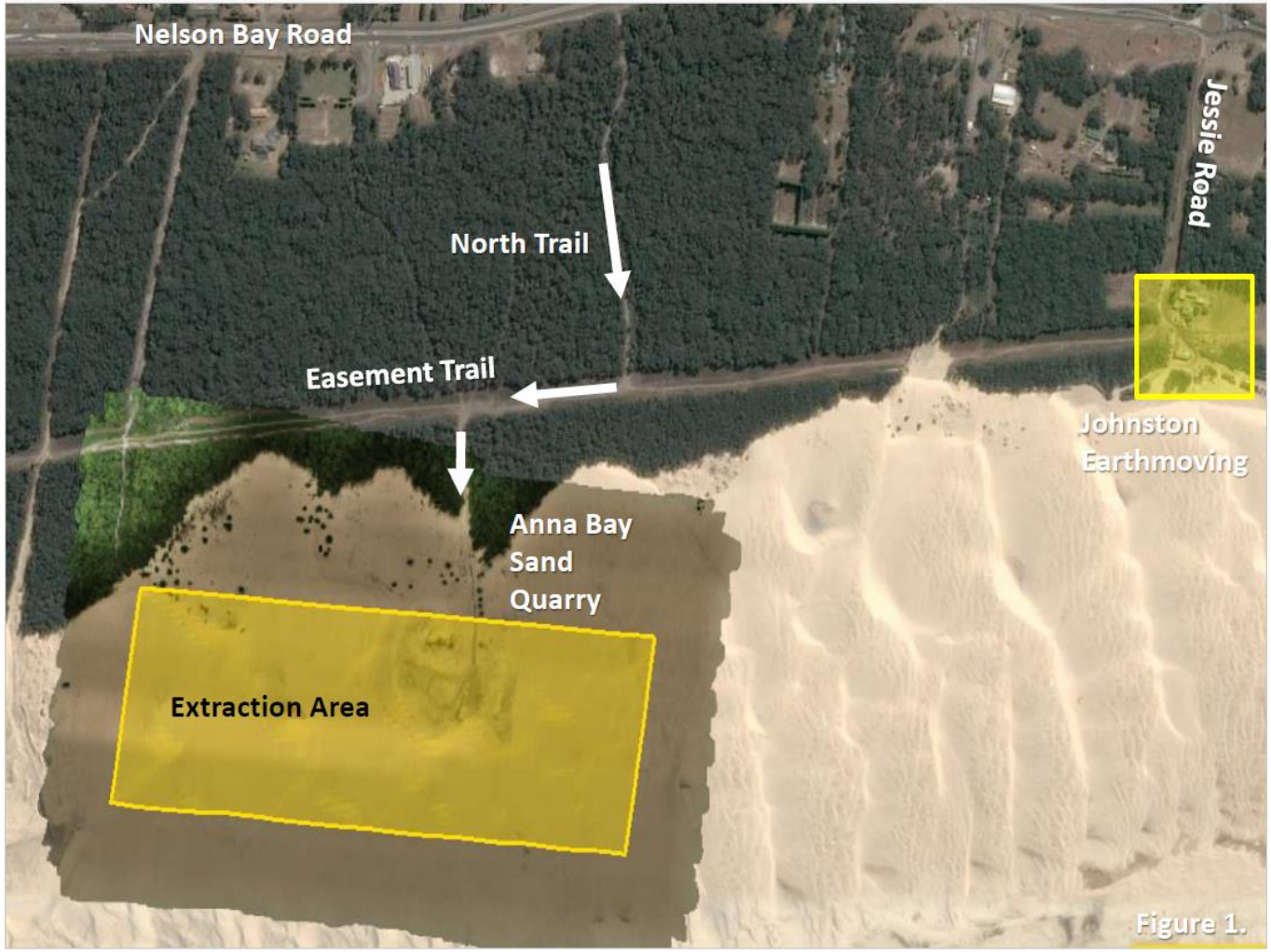
Description	POTENTIAL POLLUTANTS AT ANNA BAY SAND QUARRY				
	Quantity Potentially Stored On-site (max)	Location	Potential Incident	Existing Controls to Minimise Potential of Polluting	Map Reference
Diesel	No permanent diesel storage on site.	Roads and loading areas.	Spill on the haul road or in pit during travel around site. Spill from customer or contractor trucks and vehicles.	Spill kits. Inductions and training. Firefighting equipment. Ground water quality monitoring. SDS register. Spill response procedure 6.12B.	N/A

Description	POTENTIAL POLLUTANTS AT ANNA BAY SAND QUARRY				
	Quantity Potentially Stored On-site (max)	Location	Potential Incident	Existing Controls to Minimise Potential of Polluting	Map Reference
Oils	No permanent oil storage on site.	Haul road and loading areas.	Spill on the haul road or in pits during travel around site. Spill from customer or contractor trucks and vehicles.	Spill kits. Inductions and training. Fire Fighting Equipment. Ground water quality monitoring. SDS register. Spill response procedure 6.12B.	N/A
Hydrocarbon Products: Hydraulic Oil Engine Oil Lubricants Gear Oil Torque Oil Adblue	No permanent hydrocarbon storage on site.	Haul road and loading areas.	Spill on the haul road or in pit during travel around site. Spill from customer or contractor trucks and vehicles.	Spill kits. Firefighting equipment. SDS register. Spill response procedure 6.12B.	N/A

Description	POTENTIAL POLLUTANTS AT ANNA BAY SAND QUARRY				
	Quantity Potentially Stored On-site (max)	Location	Potential Incident	Existing Controls to Minimise Potential of Polluting	Map Reference
Airborne dust from stockpiles, plant or traffic areas	Variable	Various – refer to Appendix A.	Dust from mechanical handling operations such as grading process. Dust from vehicle movements around the quarry. Dust from plant and/or stockpiles during high winds.	Water Cart supplied by Johnstons Earthmoving used on roadways and traffic areas to minimise dust generated by vehicle movements. Directive MET-010 – Dust Management.	N/A

Description	POTENTIAL POLLUTANTS AT ANNA BAY SAND QUARRY				
	Quantity Potentially Stored On-site (max)	Location	Potential Incident	Existing Controls to Minimise Potential of Polluting	Map Reference
Vehicle/Bush Fires	Variable	Haul road and loading areas. Surrounding vegetation areas.	Air and ground pollution from truck fires. Air pollution from bush fire smoke.	Call emergency services 000. Water Cart supplied by Johnstons Earthmoving used on roadways and traffic areas to minimise dust generated by vehicle movements. Firefighting equipment.	N/A

Appendix A – Anna Bay Sand Quarry Location



Appendix B – Immediate Community Notification Risk Map

Appendix C – Risk Assessment

Task / Site / Workers Details

Type of Assessment Undertaken:	Risk Assessment (RA) ☒	Job Safety & Environmental Analysis (JSEA) ☐	Safe Work Method Statement (SWMS) ☐
Site: Anna Bay	Authorised By: Mo Yunusa	Position: Manager Of Quarries	
Context/Scope of Assessment:	Pollution Incident	Date of Assessment: 31/10/24	
Development and Consultation Team:		Date of Review: 31/10/25	

Name:	Name	Position	Name	Position
Name:	Renee Young	Position: Compliance Officer	Name: Adam Dwyer	Position: Technical Manager
Name:	Luke Cormick	Position: Quarry Supervisor	Name:	Position:

Mandatory PPE Requirements						Area Specific	Hazardous Work Permits (Tick if Required)						PERMITS
LONG SLEEVED PANTS & SHIRT	ANKLE HIGH LACE UP & ZIPPERED STEEL CAP BOOTS	SAFFETY GLASSES	HARD HAT	HIGH VISIBILITY SAFETY VEST OR CLOTHING	SEAT BELT	HEARING PROTECTION (Only Where Sign Posted)	EXCAVATION	DE-DAGGING	WORKING AT HEIGHTS	HOT WORKS	CONFINED SPACE ENTRY	WORKING ALONE	PERMITS ARE MANDATORY FOR THESE TASKS
							☐	☐	☐	☐	☐	☐	

LIST PLANT & EQUIPMENT TO BE USED FOR THIS TASK						SAFETY INSPECTIONS PERFORMED ON PLANT & EQUIPMENT					
☐	Forklift	☐	FEL	☐	Welder (TIG / MIG/ARC)	☐	Pre-operational check	☐	Test and tag (on tools and leads)	☐	Inspections
☐	Crane	☐	Fall Arrest System	☐	Lifting Equipment	☐	Scheduled Maintenance	☐	Other:		

☐	CAT 775	☐	HD405	☐	HD325	☐	CAT 980	☐	PC700	☐	HL 770	☐	WA 500	☐	CAT 740	☐	PC35-M	☐	CAT 349	☐	CAT226D	☐	CAT336

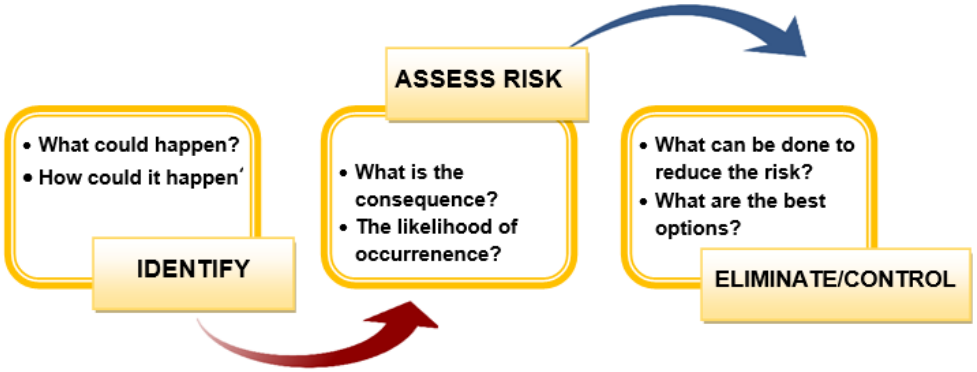
LIST OF CHEMICALS USED DURING TASK	CURRENT SDS AVAILABLE AND REVIEWED
Chemicals listed as "Dangerous Goods" are detailed in the accompanying **SDS book kept in all RDB vehicles** Brake Clean, Electra Clean, WD 40, Degreaser. Personnel have been directed to use these in ventilated areas wearing required PPE including gloves and respirators	**Hazardous Chemicals used for this work:** List any hazardous chemicals which will be used for the Work. **Note:** All person/s must be familiar with and have available all relevant Safety Data Sheets. Poison Information Centre number: 13 11 26

Have you considered information related to the following:-

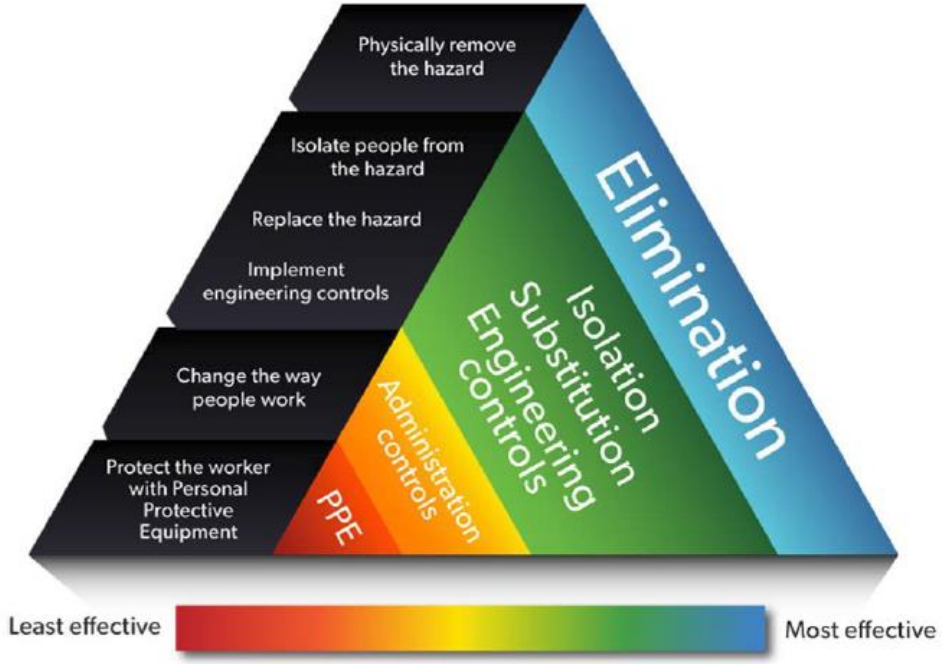
☒ WHS Act 2011	☒ WHS Regulations 2017	☒ Work Health & Safety (Mines & Petroleum Sites) Reg 2022		☒ Australian Standards
☒ METROMIX SHEMS	☒ METROMIX Policies & Directives	☒ Health and Safety Rules	☒ Safety Alerts ☒ Operator Equipment Manual	☒ Industry Codes of Practice
Other:	Moving Plant on Construction Site, Noise Management and Protection of Hearing at Work, Risk Assessment, Work in Hot and Cold Environments, MDG 1010: Risk Management Handbook, MDG 25: Safe Cutting and Welding at mines, Utilities Working at Heights Resource, Safe Working at Heights: Guide, Preventing Slips Trips and Falls: Guide and Factsheet, Noise, Product Safety Data Sheets, Safety Line Systems, Workcover Guides: - Skin Cancer, Portable Ladders, Fall arrest systems, Workcover Position Paper on Measures used to control the risk associated with working at height, AS/NZ 189.4: 2009 - Industrial Fall Arrest Systems and devices			

PREPARATION FOR COMPLETING THIS FORM			
1. Is the Development/Consultation Team familiar with the Risk Management process?	☒	6. Is lockout and/or isolations required to perform this task? NO	☐
2. Does the RA/JSEA/SWMS involve the Leader and people performing the job?	☒	7. Can the job be moved to a safer/more appropriate location? NO	☐
3. Is there an existing Work Procedure (WP) or similar RA/JSEA/SWMS for the Job?	☒	8. Has the effect to others working nearby & surrounding environment been considered?	☒
4. Has all planning including organising for resources been completed prior to the task?	☒	9. Is additional PPE required? NO	☐
5. Are Chemicals involved? Review and include Safety Data Sheets (SDS). NO	☐	10. Other considerations? NO	☐

COMPLETION OF A QUALITY JSEA/SWMS		
1. Identify each step of the job	2. Identify the potential risks for each step	3. Identify controls for each step to reduce the risks to As Low As Reasonably Practical (ALARP) always considering the **HIERARCHY OF CONTROLS** – starting with Elimination.


IDENTIFY
• What could happen?
• How could it happen
ASSESS RISK
• What is the consequence?
• The likelihood of occurrenence?
ELIMINATE/CONTROL
• What can be done to reduce the risk?
• What are the best options?

The **Hierarchy of Controls** showing the highest to lowest level of protection. This shall be applied when identifying controls:



Hierarchy of Control – Legend:

- El – Elimination
- S - Substitution
- Eng – Engineering
- Is – Isolation
- G - Guarding
- A – Administration
- T – Training
- PPE
- In - Inspection
- M – Monitoring
- HM – Health Monitoring

Risk Assessment Matrix

Risk Score Matrix

CONSEQUENCE

LIKELIHOOD	RISK RATING	5 Disaster	4 Severe	3 Serious	2 Significant	1 Minor
	A Certain	HIGH	HIGH	HIGH	MED	MED
	B Likely	HIGH	HIGH	MED	MED	LOW
	C Possible	HIGH	MED	MED	LOW	LOW
	D Unlikely	MED	MED	LOW	LOW	LOW
	E Rare	MED	LOW	LOW	LOW	LOW

Personal Consequence Categories

5 Disaster	Injuries that result in a fatality or multiple fatalities.
4 Severe	Severe injury resulting in lost time.
3 Serious	Serious injury resulting in restricted work without lost time.
2 Significant	Significant injury resulting in medical treatment.
1 Minor	Minor injury requiring first aid treatment.

HAZARD ANALYSIS

EI – Elimination S-Substitution Is-Isolation Eng-Engineering A-Admin PPE T-Training G-Guarding HM-Health Monitoring M-Monitoring Ins-Inspection

Job Steps/Area Assessed	Hazard (What could cause harm?)	Current Risk Ranking (What is the risk now?)			Existing Controls (What is currently in place to manage the risk? Reduce risk to ALARP)	Proposed Controls (What else could be done to reduce the risk?)	Check the applicable box/es	Risk Ranking After Proposed Controls			Person Responsible
		Conse-quence	Likeli-hood	Risk Rank			Hierachy of Controls	Conse-quence	Likeli-hood	Risk Rank	
Mobile Plant and Roads	Excessive dust displaced by loader movements, high traffic areas have potential to cause harm to human health or the environment	**Serious**	**Possible**	**Medium**	PPE – P2 dust mask, eye protection. Watercart wetting down roads. Inductions and training. Window up policy for all vehicles. iTake2 personal risk assessments. Broadbrush Risk Assessment Roads & Other Vehicles Operating Areas Control Plan. Fire & Explosion Principal Hazard Management Plan Principal Mining Hazards Management Plan.		☐ **EI** ☐ **S** ☐ **Is** ☐ **Eng** ☐ **G** ☒ **A** ☒ **PPE** ☒ **T** ☒ **In** ☒ **M** ☒ **HM**	**Significant**	**Unlikely**	**Low**	**All Quarry Operators** **Management** **Contractors**

El – Elimination S-Substitution Is-Isolation Eng-Engineering A-Admin PPE T-Training G-Guarding HM-Health Monitoring M-Monitoring Ins-Inspection

Job Steps/Area Assessed	Hazard (What could cause harm?)	Current Risk Ranking (What is the risk now?)			Existing Controls (What is currently in place to manage the risk? Reduce risk to ALARP)	Proposed Controls (What else could be done to reduce the risk?)	Check the applicable box/es	Risk Ranking After Proposed Controls			Person Responsible
		Conse-quence	Likeli-hood	Risk Rank			Hierachy of Controls	Conse-quence	Likeli-hood	Risk Rank	
Diesel and other Hydrocarbons	Uncontrolled loss of Diesel or other hydrocarbon from loader or road vehicles could result in harm to the environment or human health	**Significant**	**Likely**	**Medium**	Training & Inductions. Spill Kits. Fire Fighting Equipment. SDS Register. Spill response Procedure 6.12B. Emergency Control Plan.		☐ **El** ☐ **S** ☐ **Is** ☐ **Eng** ☐ **G** ☒ **A** ☒ **PPE** ☒ **T** ☒ **In** ☒ **M** ☒ **HM**	**Significant**	**Unlikely**	**Low**	**All Quarry Operators** **Management Contractors**