CSA Mine

Pollution Response Incident Management Plan

Internal - PIRMP

Approvals

	Name	Position	Date
Originator	Huw Rabone	Environmental Advisor	16/7/2015
Checked	Tanya Gilbert	HSET Manager	28/7/2015
Approved	Tanya Gilbert	HSET Manager	28/7/2015

Revisions

	Date	Description	By	Check	Approved
1	5/4/2024	MAC Update	HR	HR	MP

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1. PURPOSE

This plan has been prepared in accordance with the NSW Environmental Protection Authority's (EPA) Guidelines for the Preparation of Pollution Incident Response Management Plans (2012) to satisfy the requirements of the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act) for the CSA Mine Environmental Protection Licence 1864.

The objectives of this plan are to:

- Ensure comprehensive and timely communication about a pollution incident at the CSA Mine to workers, the EPA, and other relevant authorities, and stakeholders outside the facility who may be affected by the impacts of the pollution incident
- Minimise and control the risk of a pollution incident at the facility through the identification of risks and the development of planned actions to minimise and manage those risks
- Ensure pollution incident response is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring the plan is regularly tested for accuracy, currency and suitability

2. SCOPE

The CSA Mine is approximately 11 km north of Cobar in western NSW. The CSA mine is an underground copper mine which has a history dating back to its first discovery in 1871. The CSA mine consists of two shafts, a decline, processing plant, tailings dam and associated infrastructure.

This PIRMP (Pollution Incident Response Management Plan) relates to the CSA Mine including employees, contractors, visitors and associated activities and its immediate surrounds.

The PIRMP will be implemented in conjunction with the CSA Mine Emergency Management Plan (MHP-006) and key External Emergency Services providers (NSW Fire Brigade, SES, NSW Ambulance, Police, Rural Fire, Hospital) local, state and federal government authorities where contingencies are required.

2.1 Definition of "Pollution Incident"

The definition of pollution incident is: "*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.

Pollution incidents are required to be reported as outlined in this management plan if there is a risk of 'material harm to the environment', which is defined in section 147 of the Protection of the Environment Operation Act 1997 (POEO) as an incident or set of circumstances:

- Involves actual or potential harm to the health or safety of human beings, or to ecosystems that is not trivial
- It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000

For further clarification, a categorical environmental matrix has been developed to enable simplistic determination of the severity of actual and potential incidents or sets of circumstance. The matrix is attached as Appendix 1.

All incidents or circumstances meeting or exceeding the defining criteria of category 3 immediately trigger this Pollution Incident Response Management Plan. Category 1 and 2 incidents or circumstances are immediately communicated to area supervisors for determination of appropriate escalation and/or remediation. All incidents are recorded and reported through CSA's internal document management system.

3. CONTACTS

3.1 Emergency Contacts

3.1.1 Internal Contacts

COMPANY	ROLE	CONTACT NO.
CSA Mine	ESO Services Officer - Emergency Number	All hours: (02) 6836 5555 All hours: (02) 6836 5600 Mobile: 0417 365 148
CSA Mine	General Manager	T: +61 2 6836 5122 M: +61 438 525 022
CSA Mine	Mining Manager	T: +61 2 6836 5329 M: +61 423 726 437
CSA Mine	Ore Processing Manager	T: +61 2 6836 5104 M: +61 438 144 193
MAC	Environment Manager	T: +612 6836 5100 M: +61 458 295 341
CSA Mine	Environment Superintendent	T: +612 6836 5100 M: +61 428 013 639
CSA Mine	Pitram Operators	All hours: (02) 6836 5235
CSA Mine	Shift Supervisor	Mobile: 0448 022 398

3.1.2 External Contacts

Notifications of external contacts will be by the Environment Manager, General Manager or delegate as required.

COMPANY	ROLE	CONTACT NO.
NSW Fire and Rescue	n/a	Emergency: 000 Business: (02) 9265 2999
NSW State Emergency Service (SES)	n/a	All hours: 1300 737 326
Cobar SES Branch	n/a	Office: (02) 6836 1102
Cobar Shire Council	General Manager	Office: (02) 6836 5888
NSW Dam Safety Committee	Executive Engineer	Office: (02) 9842 8070
NSW Environmental Protection Authority	Regional Operations Manager (Dubbo)	Mobile: (02) 6883 5367 Pollution hotline: 131 555
NSW Department of Trade and Investment	Orange Office	Office: (02) 6391 3100
Australian Rail and Track Authority	Emergency Line	All hours: (02) 4902 9410
NSW Ministry of Health (Dubbo Office)	n/a	Office: (02) 6809 8979
SafeWork NSW	n/a	Office: 13 10 50

4. REQUIREMENTS

4.1 Regulatory Requirements

The POEO Act Part 5.7A and the *Protection of the Environment Operations* (General) Regulation 2009 set out the specific requirements for pollution incident response management plans. In summary they are:

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

4.2 Hazards and Preventative Controls

As stipulated in NSW EPA's Guidelines, Cobar Management Propriety Limited (CMPL) have conducted a risk assessment to identify and characterize potential pollution mechanisms, their likelihood of occurrence, and potential consequences. A categorical summary of this risk assessment is presented below.

DUST & AEROSOLS	
Hazard Description	Emission of dust and/or aerosol from the CSA Mine above occupational exposure standards or deposition limits specified by SafeWork NSW and NSW EPA respectively. Potential sources of dust emissions include: • Operation of vehicles and equipment; • Exposed stockpiles of waste rock, topsoil, ore and/or additional materials; • Tailings Storage Facility surface; • Crushing, grinding and transfer of ore; • Topsoil stripping and spreading; • Surface drilling; • Underground mine ventilation exhaust; and/or • Construction projects. Due to the nature of operations and the preventative controls in place it is unlikely that a dust pollution incident will occur at the CSA Mine.
Preventative Controls	• Water sprays in high risk areas both underground and on surface; • Water trucks utilized for dust suppression of roadways underground and on surface; • Concentrates are stored in covered sheds; • Restricted speed limits imposed to reduce the amount of dust generated by traffic on all roads and tracks on the CSA Mine; • Exploration Environmental Management Plan (PLN-016); • Monthly environmental (depositional) dust monitoring program; • Asbestos Air Monitoring; • Quarterly irrespirable occupational health dust monitoring for potential health impacts; • Progressive rehabilitation (i.e., use of green waste material to prevent wind/water erosion.
STORAGE, TRANSPORT AND USAGE OF HAZARDOUS SUBSTANCES	
Hazard Description	Storage, transport and use of chemicals may lead to a chemical spill to land or water due to: • Equipment failure; • Overfilling of containment vessels; • Spills while transferring or using materials; and/or • Illegal dumping of hazardous waste. Storage, transport and use of chemicals may lead to a release of hazardous gases due to: • Failure of equipment; • Uncontrolled reactions; and/or • Fire or explosion. Due to the physical layout of the CSA Mine and the preventative controls in place, the likelihood of a discharge to the environment is unlikely.
Preventative Controls	Chemicals and hazardous substances are managed in accordance with the CMPL Hazardous Substances and Dangerous Goods Management Plan (PLN-046) and the *Storage and Handling of Dangerous Goods Code of Practice (2005)*, all applicable Australian Standards and EPA licensing requirements.

	Fuel and chemical storage facilities are inspected by the Shift Supervisor (underground) and Superintendents regularly to ensure they meet full compliance; A site Dangerous Goods Register & Site Manifest that lists all hydrocarbon and chemical products maintained on site with their storage locations is maintained; An electronic chemical safety management system, ChemAlert is used to store, access and manage Safety Data Sheets (SDS), and an inventory of hazardous substances on site; Safety Data Sheets are stored near proximity of the area substances is being used and main areas of operations including the Emergency Services Office, Mill Control Room, Surface Workshop, and Underground Shift Supervisor Office, 9 and 11 Level Workshops and the Surface Store; Oil water separators; Annual asbestos sampling; An Asbestos Register is maintained noting the locations of all Asbestos Containing Material on site; Spill containment kits available in all operational areas; Chemical approval system. All new hazardous substances must go through an approval procedure and, if they are approved for use, added to the hazardous substance register at the CSA Mine; Appropriately designed storage areas; Licenced waste contractors; Fortnightly bin inspections; CMPL Waste Management Plan (PRO-189).
TAILINGS AND CONCENTRATE	
Hazard Description	Discharge of tailings from Tailings Storage Facility, pipes, or thickeners due to: • Failure of pipes or plant; • Piping erosion (seepage); • Embankment movement (static conditions); • Dynamic embankment movement (earthquake); and/or • Embankment over topping (flooding). Due to the physical layout of the CSA Mine and the preventative controls in place the likelihood of a discharge of tailings to the environment is unlikely. Should extreme weather events occur then the likelihood may increase
Preventative Controls	Dam Safety Emergency Plan; Inspections of Tailings Storage Facilities (TSF) is undertaken by Mill personnel daily, weekly and monthly; Quarterly surveys of TSF undertaken by qualified surveyors; Annual surveillance audits conducted by specialist Dam Engineers; TSF Operations Manual; Ore Processing Environmental Training Package; Freeboard of 300mm maintained on TSF; Pumping equipment is used to maintain capacity of storage; Erosion inspections conducted by Environment Team post rainfall vents >25mm; and Concentrate stored in roofed sheds.
EFFLUENT WASTE	
Hazard Description	Discharge of partially-treated or raw effluent due to: • Error in connections; • Failure of equipment and pumps; and/or • Excessive rainfall causing overflows. Due to the location of the effluent storage areas and the presence of contained catchments on site a discharge of effluent to the environment is considered unlikely.
Preventative Controls	CSA Mine Water Management Plan; Drainage designs; Design of sceptic tanks; Pumping equipment; Licenced plumber used; and Pumping equipment is used to maintain capacity of storage.
CONTAMINATED WATER	
Hazard Description	Discharge of contaminated process or sediment laden water due to: • Failure of pumps or other equipment; • Embankment overtopping; • Embankment failure; and/or • Drainage alterations. The CSA Mine is a non-discharge site, catchments are contained on site, and therefore a discharge of contaminated water to the environment is unlikely with preventative controls in place.
Preventative Controls	The CSA Mine is a non-discharge site. Drainage has been designed to ensure all run off from site is captured in a network of water holding facilities; Surface Water Management Plan; Environmental Monitoring Program; Erosion inspections conducted by Environment Team post rainfall events >25mm; Pumps available on site to maintain capacity of water storages; and Process water dam workplace inspections.

4.3 Inventory of Pollutants

4.3.1 Bulk Hazardous Goods Storage

Location	Hazardous Good Details				Storage Capacity
	Name	Class	UN No.	PG	
Dyno Nobel Yard	Ammonium Nitrate Emulsion	5.1	3375	II	70,000 kg
Stores Yard	Oxalic Acid	8	1759	III	2, 000 kg
Surface Store	Oil	C1	N/A	N/A	19,000 L
Surface Store	Diesel	C1	N/A	N/A	3,200 L
Brace Diesel Tanks	Diesel	C1	N/A	N/A	2,500 L
Bulk Storage Tanks	Diesel	C1	N/A	N/A	132,000 L
Refrigeration Plant	Ammonia Anhydrous	2.3	1005	N/A	2,450 kg
Admin Building	CO_2 Cylinder	2.2	1013	N/A	800 L
First Aid Building	Oxygen, Compressed	2.2	1072	N/A	7,400 L
L8960 UG Tank	Diesel	C1	N/A	N/A	2,500 L
L9105 Magazine	Explosive blasting type B	1.1D	0082	N/A	12,200 kg
L9105 Magazine	Explosive blasting type E	1.1D	0241	N/A	7,725 kg
L9105 Magazine	Boosters (w/o detonator)	1.1D	0042	N/A	880 kg
L10 UG Tank	Diesel	C1	N/A	N/A	10,000 L
L9 UG Tank	Diesel	C1	N/A	N/A	10,000 L
L11 UG Tank	Diesel	C1	N/A	N/A	10,000 L

4.3.2 Water Catchments and Containment Facilities

Catchment Description	Classification	Area (ha)
North-western Rehabilitation Area; encompassing excised area "Little Mt Brown" and four sub-catchments.	Contaminated	16.4
North-eastern area; encompassing the mine decline portal, paste fill plant and excised area "Big Mt Brown".	Contaminated	9.2
Main site area; encompassing site infrastructure.	Contaminated	44.3
East area; encompassing the road to the TSF and natural areas.	Contaminated	30.0
South-western area; encompassing the main access road and the valley south of the site.	Clean	12.9

Facility	Capacity	Classification	Catchment
1ML Tank	1ML	Raw	N/A
3ML Tank	3ML	Raw	N/A
Potable Tank	36kL	Potable	N/A
Mill Raw Tank	30kL	Raw	N/A
Paste Raw Tank	250kL	Raw	N/A
Paste Process Tank	500kL	Contaminated	N/A
Pork Pie Dam	23.4ML	Contaminated	0.86ha
Borrow Pit Dam	11.9ML	Contaminated	44.3ha
TSF Decant Dam	93ML	Contaminated	Approx. 70ha
Settling Ponds	4.9ML	Contaminated	N/A
Old Mine North Dam	9ML	Contaminated	Approx. 587ha
Old Mine South Dam	~25ML	Contaminated	Approx. 138ha

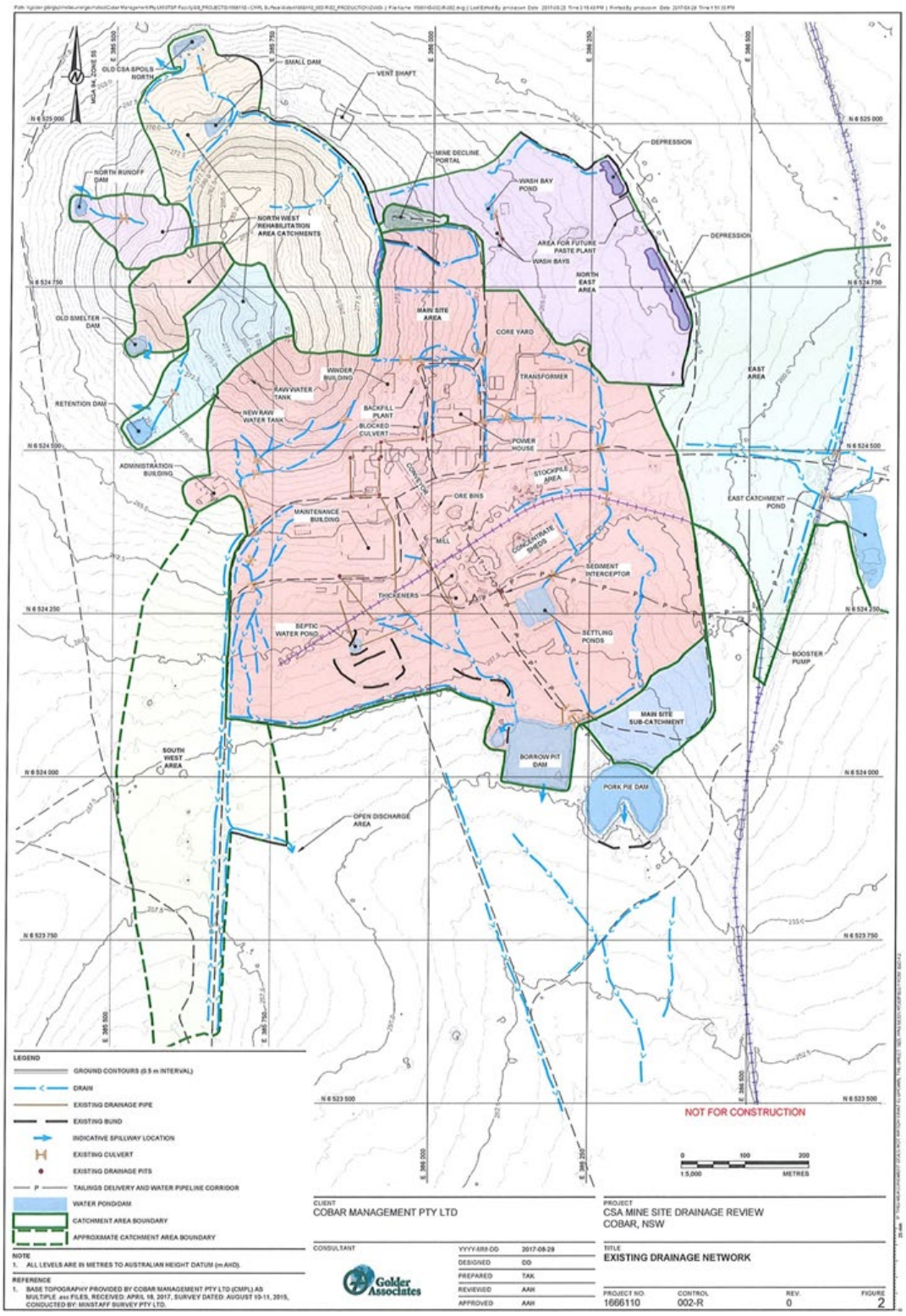


Figure 1 Surface Water Catchments

4.4 Safety Equipment

The CSA Mine is equipped to respond to pollution incidents. Response equipment for responding to pollution incidents is available in work areas including:

- Oil water separators
- Glove
- Safety glass and hat
- Spill kits
- Fire extinguishers
- Half Faced Respirator (P2 particulate respirator)
- SDS

Emergency equipment for responding to pollution incidents is maintained by the Mines Rescue Team and available via the HSET Team or Mines Rescue team members including:

- Fully encapsulated gas suits
- Decontamination facilities
- Gas monitors
- Fire rescue appliance with both foam and water capacity
- Mutual aid agreement with Peak, Tritton, Hera and Endeavour Mines

4.5 Communicating with Neighbours and the Community

The CSA Mine is distant from any community facilities or neighbours. Direct impacts on any neighbouring properties and communities from on-site pollution incidents are expected to be minimal.

In the event of an emergency/incident that has the potential to affect neighbouring properties or the community, all relevant neighbours and community stakeholders will be contacted immediately. Appropriate responsible personnel will be allocated to notify and coordinate with affected community members. Contact details for neighbouring properties can be found in Section 3.9.

The following mechanisms appropriate to the circumstances of the incident may be adopted to notify and update the surrounding community of an incident:

- Local media sources
- The CSA Mine web page
- Telephone calls or door knocking (where appropriate)

CSA Mine operates a 24-hour telephone complaints line (see Section 3) for the purpose of receiving concerns from members of the public in relation to activities conducted at the CSA Mine site, exploration leases and/or associated vehicles and mobile plant.

4.6 Minimising Harm to Persons on the Premises

Should a pollution incident threaten harm to the health of persons working at the site, the CSA Mine Emergency Procedures will be enacted, and the mine will be evacuated.

Expert consultants and health care specialists may be consulted or engaged to provide expert advice to minimise the risk of adverse health effects of persons working at the site.

4.7 Actions During or Immediately After a Pollution Incident

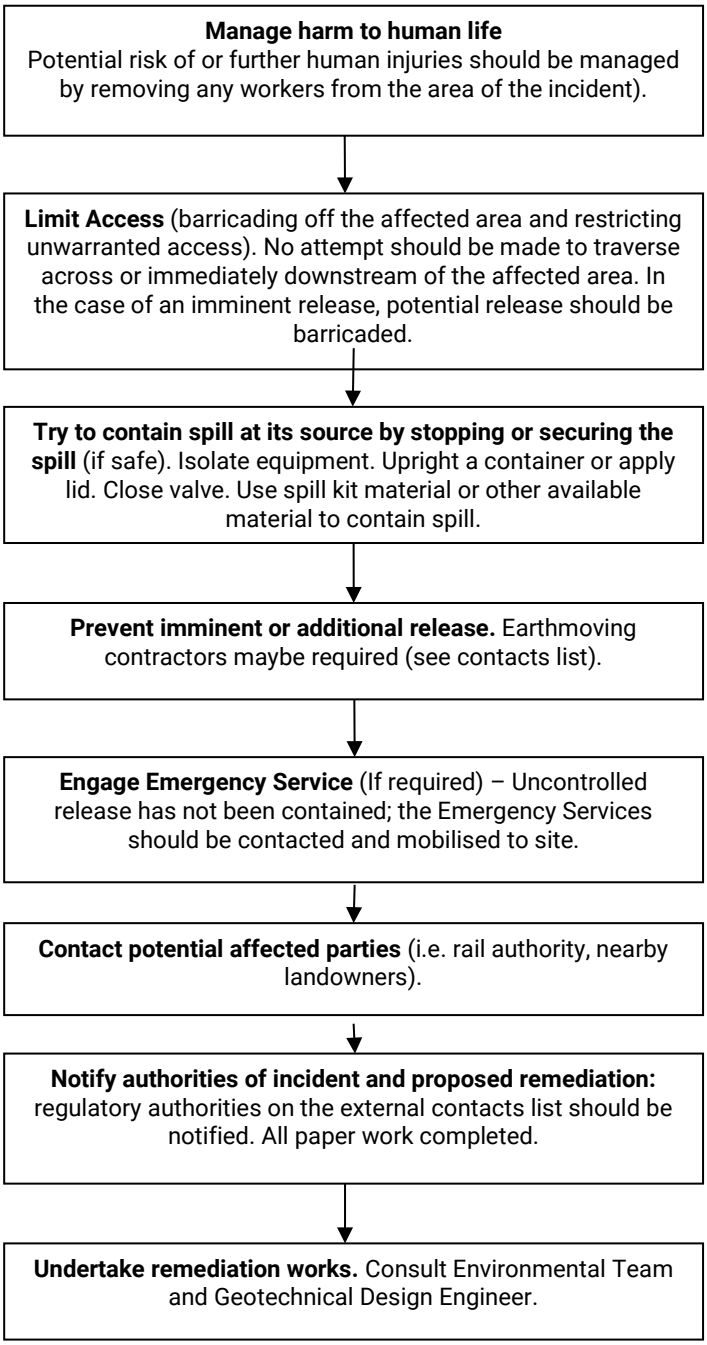
4.7.1 Hazardous Substance Spillage Response

In the event of a spill, which involves the release of a type or quantity of chemical that poses an immediate risk to human health or the environment or involves a risk of fire or explosion, you must

- Immediately evacuate the building or work area
- Enact emergency procedures by phoning 555 or calling over the radio and giving details of the incident including location, types of hazardous materials and whether there is personal injury

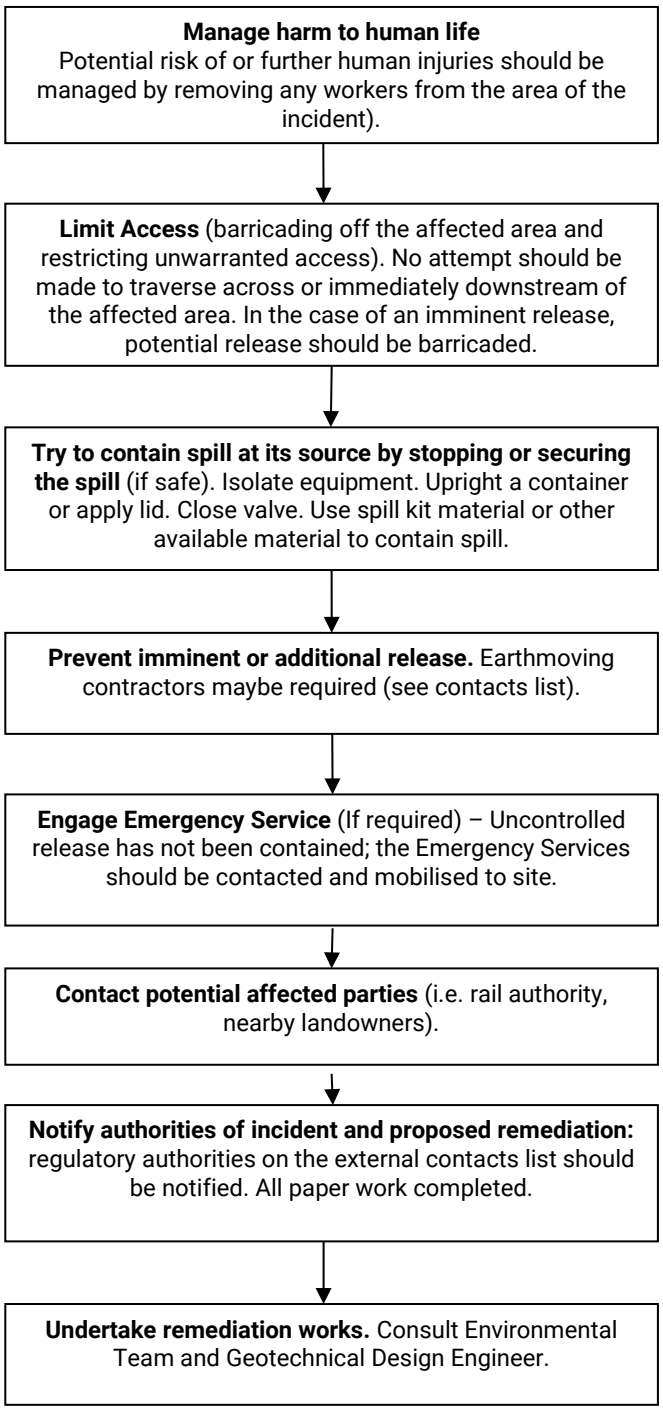
Workers should contain and/or clean up spills themselves **ONLY if properly trained and protected**. Workers who are not trained in spill containment procedures should report the spill immediately to Supervisor or Area Responsible person(s), warn other workers and evacuate the area.

The following risk controls are to be administered in the event of a major spill.



4.7.2 Tailings or Contaminated Water Release Response

The following risk controls are to be administered in accordance with the CSA Mine Dam Safety Emergency Plan:



4.7.3 Emergency Response

- The most senior Mine Official will assume the role of the Incident Controller in the event of an emergency pollution incident
- Where not immediately obvious by the nature of the incident, the Incident Controller shall decide whether or not to call in the site Health & Safety Advisor and external Emergency Services such as the Mine Rescue Teams from mutual aid mines
- When it is immediately obvious to the Health & Safety Advisor or the Incident Controller that external Emergency Services are required they shall be requested forthwith
- In the event that external Emergency Services are called in and arrive on site:
    - If appropriate, the senior external Emergency Services Officer may assume command of a surface incident until it is brought under control, however, the Incident Controller shall retain control of all underground activities until a rescue plan has been agreed on
    - Operational personnel and the Mines Rescue Team will provide technical advice, operational support and other assistance to external Emergency Services until the emergency is under control
    - When external Emergency Services involvement is complete, control of the surface facilities will return to the Incident Controller
- Where appropriate, the Incident Controller will direct all of the CSA Mine operations to return the mine to normal production. When the mine is ready to resume operations, the Incident Controller will formally terminate the state of emergency

4.8 Incident Reporting and Investigation

4.8.1 Notification of Pollution Incidents

In accordance with the Office of Environment and Heritage Protocol for industry Notification of Pollution Incidents, the relevant authorities must be notified in the following order:

- Emergency services if required
- The Environmental Protection Authority
- The Ministry of Health
- SafeWork NSW
- Cobar Shire Council
- Fire and Rescue NSW

The appropriate contacts for the relevant authorities are provided in Section 3.

4.8.2 Investigation

Following any pollution incident, the CSA Mine will conduct actions and an investigation to identify incident causes and prevent its recurrence.

These may include:

- Debrief all participants and record the history of the event
- Conduct an accident/incident investigation and prepare a full report for relevant authorities
- Consult with internal and external organisations and people involved in the incident to review, confirm or improve the Emergency Response Plan, emergency systems, methods and procedures and amend where required
- Appropriately dispose of waste arising from the emergency
- Train all personnel regarding any changes
- Close out administrative actions arising from the incident

4.9 Staff Training

The CSA Mines Rescue Team is trained in Pollution Incident Response. Each team member undertakes approximately 30 hours of live practical training per year.

All workers are given awareness training through the surface and underground inductions in the areas of:

- Hazardous substances and dangerous goods management
- Spill response
- Environmental awareness
- Emergency procedures

Specialised training packages are completed by workers in key risk areas.

5. ACCOUNTABILITIES

Role	Accountabilities
All personnel	Enact emergency procedure in the event of an incident that may cause material harm to the environment or human health; Prevent immediate release of pollution where safe to do so.
Manager / Superintendent Environment	Identify critical training requirements; Inform the CEO who acts as the spokesperson to represent CMPL; Coordinate notifications to external stakeholders; Coordinate mitigation measures.
Health & Safety Advisor	Control all activities of the Internal/External Mine Rescue Teams related to Surface/Underground emergency response incidents in conjunction with the Mines Rescue Team Leader and Incident Controller; Establish the number of Mines Rescue Teams needed; Ensure correct (Mine Rescue) procedures are in place and maintained; Identify, procure and maintain all emergency response equipment; Monitor physical condition of Mine Rescue Team.
Incident Controller	Direct emergency activities in accordance with the needs of the operation; Identify the need to suspend all or part operations; Commit and direct the Mines Rescue Teams and External Emergency Services; Identify required resources and coordinate response to the emergency.
Environmental Advisor	Provide advice to the Mines Rescue Team on hazard identification and risk management; Oversee the clean-up and monitoring; Notify EPA immediately.
Emergency Services Officers	Provision of First Aid where required; Managing any injury resulting from a pollution incident; Determining the need for additional medical assistance; Liaising with external medical services; Monitor physical condition of Mine Rescue Team.

6. MEASUREMENT AND MONITORING

Internal auditing of the Plan process will be conducted annually by the Environment Manager as well as an annual test of the plan must be undertaken. The last test was undertaken on 5th December 2023.

Any non-conformance to this Plan that is found by audits may generate an incident investigation. This request will be issued to the Supervisor of the area found to be nonconforming, to ensure that the breaches identified, are corrected.

7. DOCUMENT REVIEW

A formal review of the Plan will be undertaken after it has been enacted, there is a substantial change in operational procedures or annually as part of the PIRMP test process.

8. REFERENCES AND ASSOCIATED DOCUMENTS

8.1 Legislation

- Protection of the Environment Operations Act 1997
- Protection of the Environment Legislation Amendment 2011
- Protection of the Environment Operations (General) Regulation 2009

9. APPENDIX 1 ENVIRONMENTAL MATRIX

Category	Definition	Hydrocarbon / Chemical Spills	Discharges (both controlled & uncontrolled)	Emissions to Atmosphere + Dust emissions (both controlled & uncontrolled)	Solids and Waste	Subsidence / Sink Holes	Biodiversity and Rehabilitation / Land	Noise, Odour, Blast / Vibration	Archaeological Heritage or Cultural Heritage
Cat 1	• Near source and confined; • No lasting environmental damage or effect; • Requires minor or no remediation.	• Spill to the ground other than a disturbed mine work area or site water body < 205 L; • Spill to a disturbed mine work area (above or underground) of less than 1,000 L that requires minor or no remediation; -> with no lasting environmental damage (re note below).	• Negligible exceedance in water quality criteria during a licensed discharge; • Discharge of dirty water on-site into a drainage line or water body in a clean water catchment; • Sewage spill within a contained on-site catchment that can be remediated greater than 200 L and less than 2,000 L; • On-site Sewage Treatment Plant and storage not working within acceptable limits / licence criteria for a sustained period (e.g. >1 week); -> with no lasting environmental damage.	• Visible uncontrolled discharge of pollutant to atmosphere / carried offsite; • Negligible exceedance of air emission thresholds within license conditions; -> with no lasting environmental damage.	• Where onsite waste disposal is permitted - incorrect disposal of hazardous / regulated waste onsite requiring minor or no remediation; -> with no lasting environmental damage.	• Negligible damage or disturbance as a result of unplanned subsidence or other impacts outside of approved performance criteria; -> with no lasting environmental damage requiring minor or no remediation.	• Unauthorised disturbance to vegetation or ground on-site within planned mine disturbance footprint; • Breach of Permit to Clear conditions requiring minor or no remediation; • Negligible loss or impact on land or water based flora, fauna & habitat and no negative effect on the ecosystem; -> no lasting environmental damage.	• One-off exceedance of noise criteria; • Generation of odour causing periodic inconvenience with negligible impact; • Failure to comply with blast related conditions in an approval other than set limits (e.g. max # of blasts, restricted blast hours etc.); -> with no lasting environmental damage.	• Infringement of archeological or cultural heritage locations; -> with negligible / no lasting environmental damage.
Cat 2	• Near source; • Short-term impact; • Requires minor remediation.	• Spill to an off-site water body; • Spill to the ground other than a disturbed mine work area greater than 205 L; • Spill to a disturbed mine work area (above or underground) greater than 1,000 L; -> requiring minor remediation with short-term impact.	• Any discharge or release that is non-compliant with water quality conditions requiring the need for minor remediation (this would typically be an incident that requires reporting to a regulatory authority); • Unauthorised discharge of mine water off-site; • Sewage spill within on-site catchment that can be remediated greater than 2,000 L; • Sewage spill or discharge off-site having short term impact requiring minor remediation; -> with short-term impact.	• Sustained visible uncontrolled discharge of pollutant to atmosphere / carried offsite; • Any license limit that is exceeded for a medium time period (few hours); -> with short-term impact.	• Incorrect disposal / spillage of waste offsite resulting in minor remediation or leading to regulatory action; • Where onsite waste disposal is permitted - systematic incorrect disposal of hazardous / regulated waste onsite requiring minor remediation; -> with short-term impact.	• Minor damage or disturbance as a result of unplanned subsidence or other impacts outside of approved performance criteria; -> with short-term impact and requires minor remediation.	• Unauthorised disturbance to vegetation or ground on-site outside of planned mine disturbance footprint requiring minor remediation; • Unauthorised disturbance / clearing of vegetation off-site; • Some loss or reversible impact on land or water based flora, fauna & habitat, with minor impact on the ecosystem (< 1ha); -> with short-term impact.	• Sustained noise exceedance of licence or approval conditions leading to non-compliance; • Generation of odour causing short term inconvenience with minor impact; • Non-compliance with blast license limits or approval conditions; -> with short-term impact.	• Infringement of archeological or cultural heritage locations; -> with short-term impact.
Cat 3	• Medium-term (<2 years) impact; • Requires moderate remediation.	• Moderate spills (larger than Cat 2) of hydrocarbons, chemicals or other substances; -> where moderate remediation is required with medium-term impact.	• Any discharge or release that is non-compliant with water quality conditions and that result in the need for moderate remediation; -> with medium-term impact.	• Moderate uncontrolled discharge of pollutant to atmosphere carried offsite; • Any license limit that is exceeded for an extended time period (> 1 day); -> with medium-term impact.	• Spillage of waste to public or private land requiring moderate remediation; -> with medium-term impact.	• Moderate damage or disturbance as a result of unplanned subsidence to rehabilitated / protected / biodiversity rich areas / structures / infrastructure; -> with medium-term impact.	• Moderate loss or impact on land or water based flora, fauna & habitat, with medium-term impact on the ecosystem (< 10ha); • Partial destruction of native habitat leading to impact on local species numbers or disruption to breeding cycles; • Medium-term disruption of protected fauna breeding cycle; -> with medium-term impact.	• Generation of noise, odour or vibration causing inconvenience or disruption to the community and the environment; -> with medium-term impact.	• Infringement of archeological or cultural heritage locations; -> with medium-term impact.
Cat 4	• Long-term (2 to 10 years) impact; • Requires significant remediation.	• Major spills (larger than Cat 3) of hydrocarbons, chemicals or other substances; -> where significant remediation is required with long-term impact.	• Significant and persistent discharge of pollutant to water to offsite location; • Extensive contamination / pollution of groundwater or water catchment areas; -> where significant remediation is required with long-term impact (2 to 10 years).	• Significant or persistent uncontrolled discharge of hazardous pollutant to offsite atmosphere; • Significant risk to human health or the environment; -> with long-term impact.	• Spillage of hazardous waste to public or private land requiring significant remediation; -> with long-term impact.	• Major damage or disturbance as a result of unplanned subsidence to rehabilitated / protected / biodiversity rich areas / structures/ infrastructure;	• Major loss or long-term impact on land or water based flora or fauna (< 100ha); • Destruction of ecologically significant habitat endangering viability of species, habitat or ecosystem; -> with long-term impact.	• Generation of noise, odour or vibration causing long-term impacts to off-site properties, the environment or human health; -> with long-term impact.	• Infringement of archeological or cultural heritage locations; -> with long-term impact.
Cat 5	• Unconfined and widespread; • Environmental damage or effect (permanent; >10 years); • Requires major remediation.	• Catastrophic spills (larger than Cat 3) of hydrocarbons, chemicals or other substances; • Persistent contamination of land / water; -> where major remediation is required with long-term / permanent impact.	• Catastrophic and persistent discharge of pollutant to water to offsite location; • Extensive contamination / pollution of groundwater or water catchment areas; -> where major remediation is required with long-term / permanent impact (Permanent (>10 years).	• Catastrophic or persistent uncontrolled discharge of hazardous pollutant to offsite atmosphere; • Catastrophic risk to human health or the environment; -> with long-term / permanent impact.	• Spillage of hazardous waste to public or private land requiring major remediation; -> with long-term / permanent impact.	• Catastrophic damage or disturbance as a result of unplanned subsidence to rehabilitated / protected / biodiversity rich areas/ structures / infrastructure; -> with long-term / permanent impact.	• Permanent impact on land or water based flora or fauna (>= 100ha); • Destruction of ecologically significant habitat endangering viability of species, habitat or ecosystem; -> with long-term / permanent impact.	• Generation of noise, odour or vibration causing permanent impact to off-site properties, the environment or human health; -> with long-term / permanent impact.	• Infringement of archeological or cultural heritage locations; -> with long-term / permanent impact.