POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

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1.0 Quick Reference Guide

A 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" (POEO Act).

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

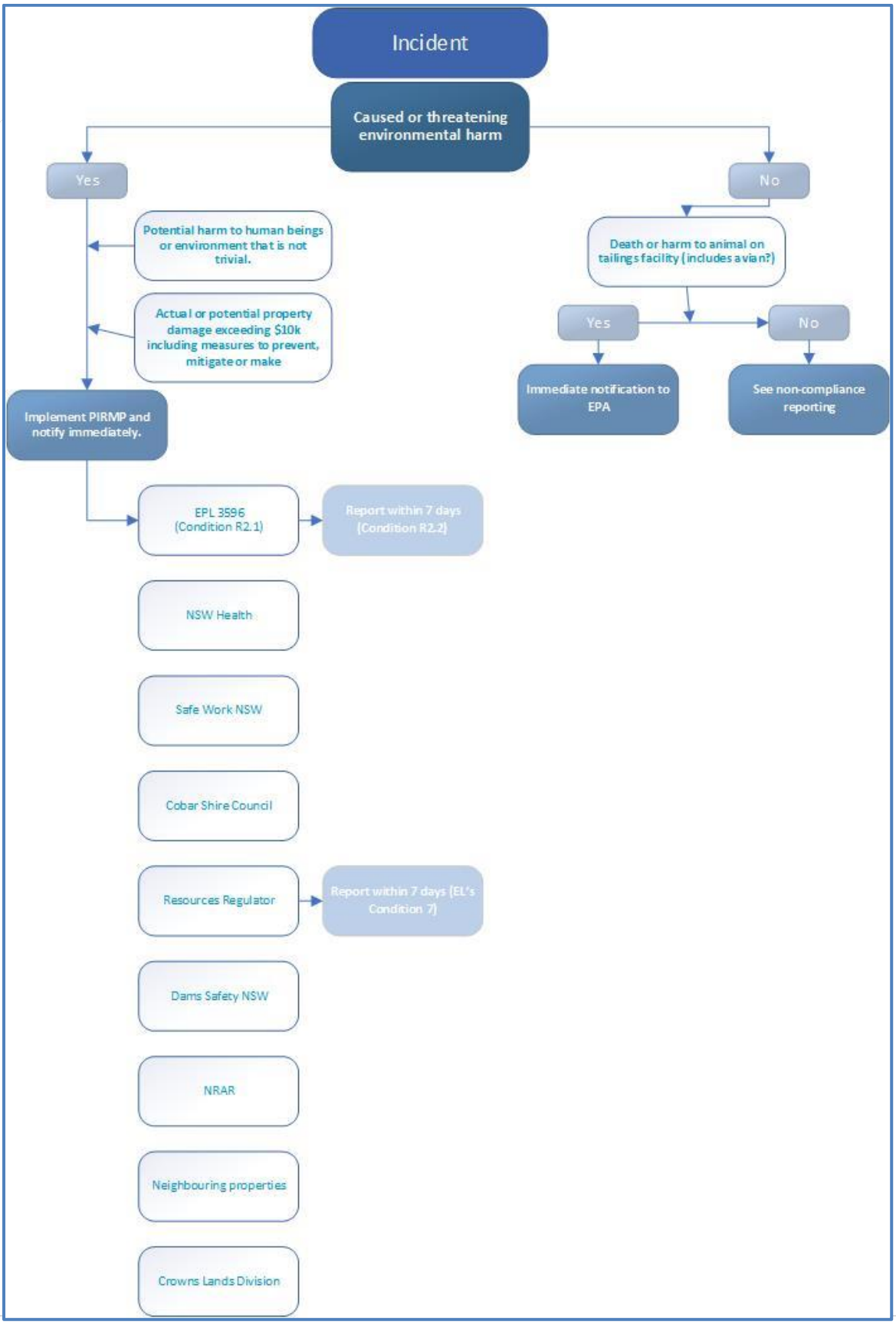
(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations), and

(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.

If in doubt, report proactively once GM has been advised.

The below is from the Emergency Duty Cards and flow chart is to be used as reference guide understand if an incident is reportable and immediate steps to take. Further information located in Appendix 1.

Environmental Coordinator Responsibilities • Supports the coordination and control of the clean-up activities after the areas have been deemed safe • Ensuring containment structures have been implemented • Implementing the remediation and monitoring programs • Ensuring all relevant external stakeholders have been contacted • Providing regular updates to the General Manager and External Regulators.	**Tick box when complete**
Consult with First Responders to identify the extent of the event and potential impact	
Coordinate the implementation of containment structures that are of an adequate size and nature	
Coordinate the General Manager to contact any potentially impact neighbouring properties	
Notify the General Manager if government regulators are required to be notified	
Contact the required government regulators detailing the incident **(forms at back) Ref pages 31-36**	
Contact surrounding neighbours if expected to be impacted (only if required)	
Initiate the remediation works in line with the Response Guideline	
Coordinate monitoring to be undertaken/ data to be collected- consider water, soil, air, dust, weather, vibration etc. as appropriate.	
Post event	
Coordinate the removal of any contaminated material if required using regulated waste management provider	
Conduct follow up sampling	
Complete 7-day report and send to required agencies	


Incident
Caused or threatening environmental harm
Yes
No
Potential harm to human beings or environment that is not trivial.
Actual or potential property damage exceeding $10k including measures to prevent, mitigate or make
Implement PIRMP and notify immediately.
Death or harm to animal on tailings facility (includes avian?)
Yes
No
Immediate notification to EPA
See non-compliance reporting
EPL 3596 (Condition R2.1)
Report within 7 days (Condition R2.2)
NSW Health
Safe Work NSW
Cobar Shire Council
Resources Regulator
Report within 7 days (EL's Condition 7)
Dams Safety NSW
NRAR
Neighbouring properties
Crowns Lands Division

2.0 Introduction

Peak Mines is an underground metalliferous mine owned by Aurelia Metals Limited (Aurelia). The mine has two respective sites (New Cobar Complex and Peak Complex) in which this plan applies. The New Cobar Complex is located within CML 6, and Peak Complex is located within CML 8, approximately 3km and 10km respectively, southeast of Cobar in far west New South Wales (NSW) (Figure 1).

This Pollution Incident Response Management Plan (PIRMP) has been prepared in response to amendments to the Protection of the Environment Legislation Amendments 2011 as set out in Part 5.7A of the Protection of the Environment Act 1997 (POEO Act) in accordance with the Environmental Planning and Assessment Act 1979 (EPA Act). The purpose of this PIRMP is to detail:

- SPECIFIC measures implemented to minimise the risk of an incident occurring due to spillage, storage of hazardous materials or fire;
- INVENTORY of potential pollutants on site;
- MINIMUM safety equipment requirements;
- COMMUNICATION with the community;
- MINIMISING harm to persons;
- TRAINING and awareness of personnel; and
- REVIEW of the PIRMP through desktop trials / mock incidents.

The Company has numerous documents in place that complement the PIRMP and will also assist with pollution management. These include:

- Emergency Management Plan;
- Chemical Spill Form;
- Cyanide Response Protocol;
- Cyanide Spill Form;
- Dam Breach or Failure Form;
- Crisis Management Procedure;
- Waste Management Plan;
- Biodiversity and Land Management Plan;
- TSF Management Plan;
- Air Quality Management Plan;
- Waste Rock Management Plan; and
- Water Management Plan.

Environmental Management

This section describes the legal requirements, objectives and outcomes, personnel roles and responsibilities and the necessary training and awareness required to ensure the management and prevention of pollution incidents.

2.1 Legal and other requirements

As defined in the POEO Act, 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*".

A pollution incident is required to be reported if there is a risk of 'material harm to the environment', which is defined in Part 5.7 of the POEO Act and replicated in **Table 1**.

Table 1: Requirements as per Part 5.7 of the POEO Act

Duty to Notify Pollution Incidents	
147 Meaning of material harm to the environment	(1) For the purposes of this Part: (a) harm to the environment is material if: (i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or (ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations); and (b) loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.
	(2) For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.
148 Pollution incidents causing or threatening material harm to be notified	(1) Kinds of incidents to be notified: This Part applies where a pollution incident occurs in the course of an activity so that material harm to the environment is caused or threatened.
	(2) Duty of person carrying on activity to notify: A person carrying on the activity must, immediately after the person becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.
	(3A) Duty of employee engaged in carrying on activity to notify: A person engaged as an employee in carrying on an activity must, immediately after the person becomes aware of the incident, notify the employer of the incident and all relevant information about it. If the employer cannot be contacted, the person is required to notify each relevant authority.

	(3B) Duty of employer to notify: Without limiting subsection (2), an employer who is notified of an incident under subsection (3A) or who otherwise becomes aware of a pollution incident which is related to an activity of the employer, must, immediately after being notified or otherwise becoming aware of the incident, notify each relevant authority of the incident and all relevant information about it.
	(4) Duty of occupier of premises to notify: The occupier of the premises on which the incident occurs must, immediately after the occupier becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.
	(5) Duty on employer and occupier to ensure notification: An employer or an occupier of premises must take all reasonable steps to ensure that, if a pollution incident occurs in carrying on the activity of the employer or occurs on the premises, as the case may be, the persons engaged by the employer or occupier will, immediately, notify the employer or occupier of the incident and all relevant information about it.
	(6) Extension of duty to agents and principals This section extends to a person engaged in carrying on an activity as an agent for another. In that case, a reference in this section to an employee extends to such an agent and a reference to an employer extends to the principal.
	(7) Odour not required to be reported This section does not extend to a pollution incident involving only the emission of an odour.
	(8) Meaning of "relevant authority" In this section: relevant authority means any of the following: (a) the appropriate regulatory authority; (b) if the EPA is not the appropriate regulatory authority—the EPA; (c) if the EPA is the appropriate regulatory authority—the local authority for the area in which the pollution incident occurs; (d) the Ministry of Health; (e) the SafeWork NSW; and (f) Fire and Rescue NSW.
149 Manner and form of notification	(1) If the regulations prescribe the manner or form of notifying pollution incidents under section 148, the notification is to conform to the requirements of the regulations.
	(2) Without limiting subsection (1), the regulations: (a) may require that verbal notification be followed by written notification; and (b) may provide that notification to a designated person or authority is taken to be notification to the relevant person or authority under section 148.

150 Relevant information to be given	(1) The relevant information about a pollution incident required under section 148 consists of the following: (a) the time, date, nature, duration and location of the incident; (b) the location of the place where pollution is occurring or is likely to occur; (c) the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known; (d) the circumstances in which the incident occurred (including the cause of the incident, if known); (e) the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known; and (f) other information prescribed by the regulations.
	(2) The information required by this section is the information known to the person notifying the incident when the notification is required to be given.
	(3) If the information required to be included in a notice of a pollution incident by subsection (1) (c), (d) or (e) is not known to that person when the initial notification is made but becomes known afterwards, that information must be notified in accordance with section 148 immediately after it becomes known.
151 Incidents not required to be reported	(1) A person is not required to notify a pollution incident under section 148 if the person is aware that the incident has already come to the notice of each person or authority required to be notified.
	(2) A person is not required to notify a pollution incident under section 148 if the incident is an ordinary result of action required to be taken to comply with an environment protection licence, an environment protection notice or other requirement of or made under this Act.
151A EPA may require other notification of pollution incidents	(1) This section applies to the occupier of premises where a pollution incident has occurred in the course of an activity so that material harm to the environment is caused or threatened.
	(2) The EPA may direct a person to whom this section applies to notify such other persons of the incident as the EPA requires.
	(3) The direction is not required to be given in writing.
	(4) The direction may specify the manner or form of notifying the pollution incident and the information that must be provided.
	(5) The direction may require that an initial verbal notification be followed by written notification. (6) A person must not fail to comply with a direction given under this section.
	(7) This section does not extend to a pollution incident involving only the emission of an odour.
	(8) If a direction under this section is given to a person who is carrying out an activity, is engaged as an employee in carrying out an activity, or is the employer of such a person, the obligations under this section are in addition to, and not in derogation of, the obligations under section 148 (except as provided by section 151 (1)).
152 Offence	A person who contravenes this Part is guilty of an offence. 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.
153 Incriminating information	(1) A person is required to notify a pollution incident under this Part even though to do so might incriminate the person or make the person liable to a penalty.
	(2) Any notification given by a person under this Part is not admissible in evidence against the person for an offence or for the imposition of a penalty.
	(3) Subsection (2) does not apply to evidence obtained following or as a result of the notification.

A requirement for holders of an Environment Protection License (EPL) is to prepare, keep, test and implement a PIRMP. The PIRMP must comply with the requirements listed in (**Table 2**) (Part 5.7A of the POEO Act).

This Management Plan will be made publicly available within 14 days of finalisation.

Table 2 Requirements as per Part 5.7A of the POEO Act

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 Environmental 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 the persons through whom all communications are to be made; and (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—$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.
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—$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.
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.

2.2 Objectives and Outcomes

Table 3 lists the objective and outcomes for pollution incident management on the site.

Table 3: Objectives and Outcomes

Objective	Outcome
Make sure comprehensive and timely communication about a pollution incident is carried out with staff at the premises, the Environmental Protection Authority and other relevant authorities and any community members which may be impacted by the incident	Development and implementation of a communication plan and correct execution of communication plan
Minimise and control the risks of a pollution incident at the site by identifying risks and develop actions to minimise and manage the risks	Develop a site-based risk / hazard assessment and mitigation measures
Make sure the Pollution Incident Response Management Plan is properly implemented and identifies personnel responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability	A comprehensive and up to date Pollution Incident Response Management Plan

2.3 Roles and Responsibilities

Table 4 lists the roles and responsibilities for the PIRMP.

Table 4: Roles and Responsibilities

Position	Accountable Task
General Manager	• Ensure the resources are available for the implementation of this Pollution Incident Response Management Plan; and • Accountable for the overall environmental performance of the Project, including the outcomes of this Pollution Incident Response Management Plan.
Environment Advisor	• Ensure the implementation of this PIRMP; • Ensure the onsite induction includes environmental awareness training; and • Ensure managers and superintendents are provided with sound environmental advice to effectively manage their areas of responsibility.
All personnel	• Ensure adequate understanding of chemical storage, spill action plan, appropriate waste disposal and prevention of fires; • Ensure sound knowledge of site emergency evacuation procedure; • Report all pollution incidents to their supervisors and the Environment Advisor; and • Seek environmental advice as required.

2.4 Competence and Awareness Training

All site personnel will conduct the site induction program before entering site.

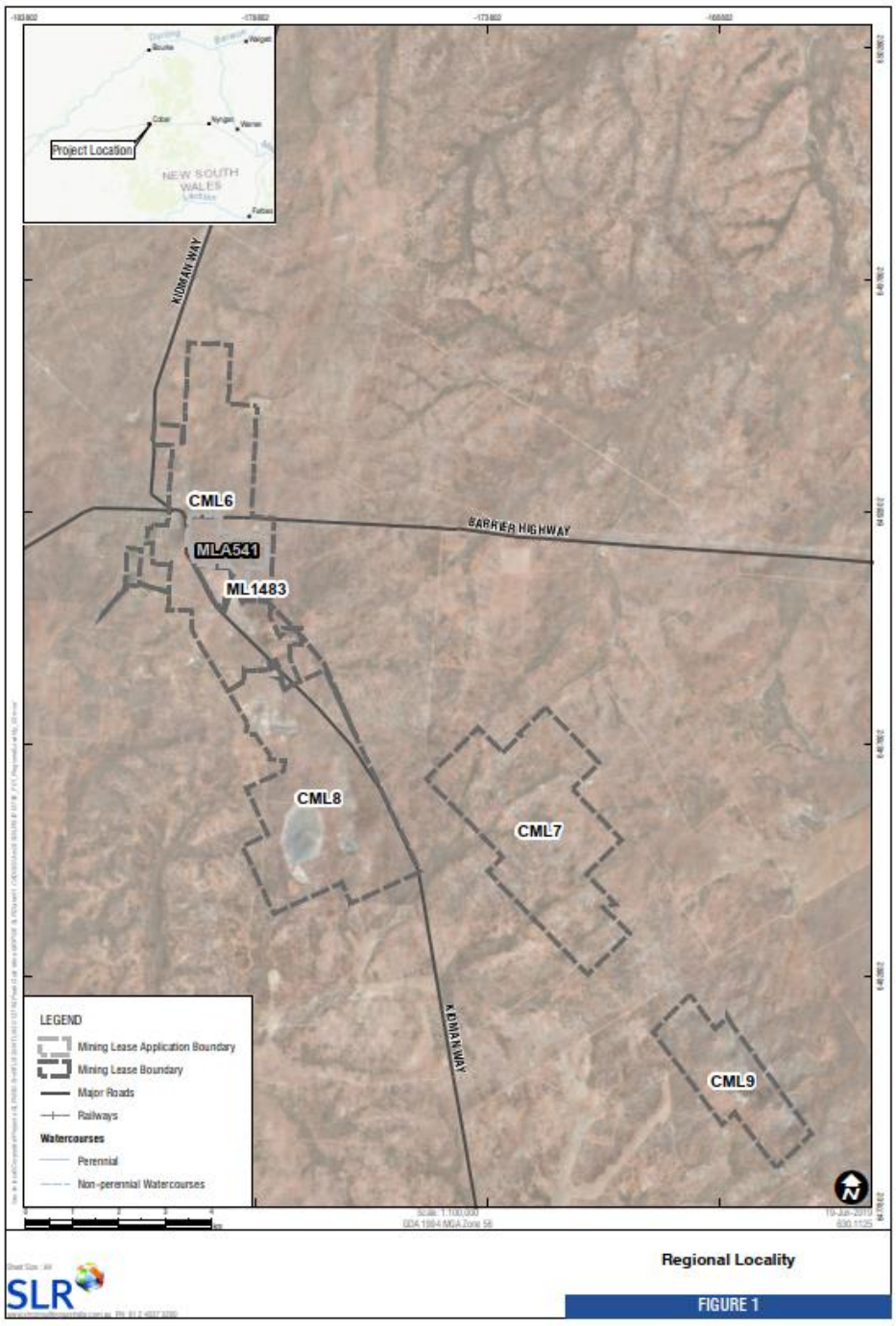
The Emergency Response Team will be trained in handling hazardous material products and emergency response. Specific procedures for training employees in environmental safety and health are included in the Emergency Management Plan. This management plan is available to all site personnel.

3.0 Implementation of Pollution Management

3.1 Site Information

3.1.1 Site Details

The New Cobar Complex (located in CML 6) and Peak Complex (located in CML 8) are located on Hillston Road, Cobar, NSW. (**figure 1).**



3.1.2 New Cobar Complex

New Cobar Complex is situated in a rural area, bounded by private property and Crown Land (**Figure 1**).

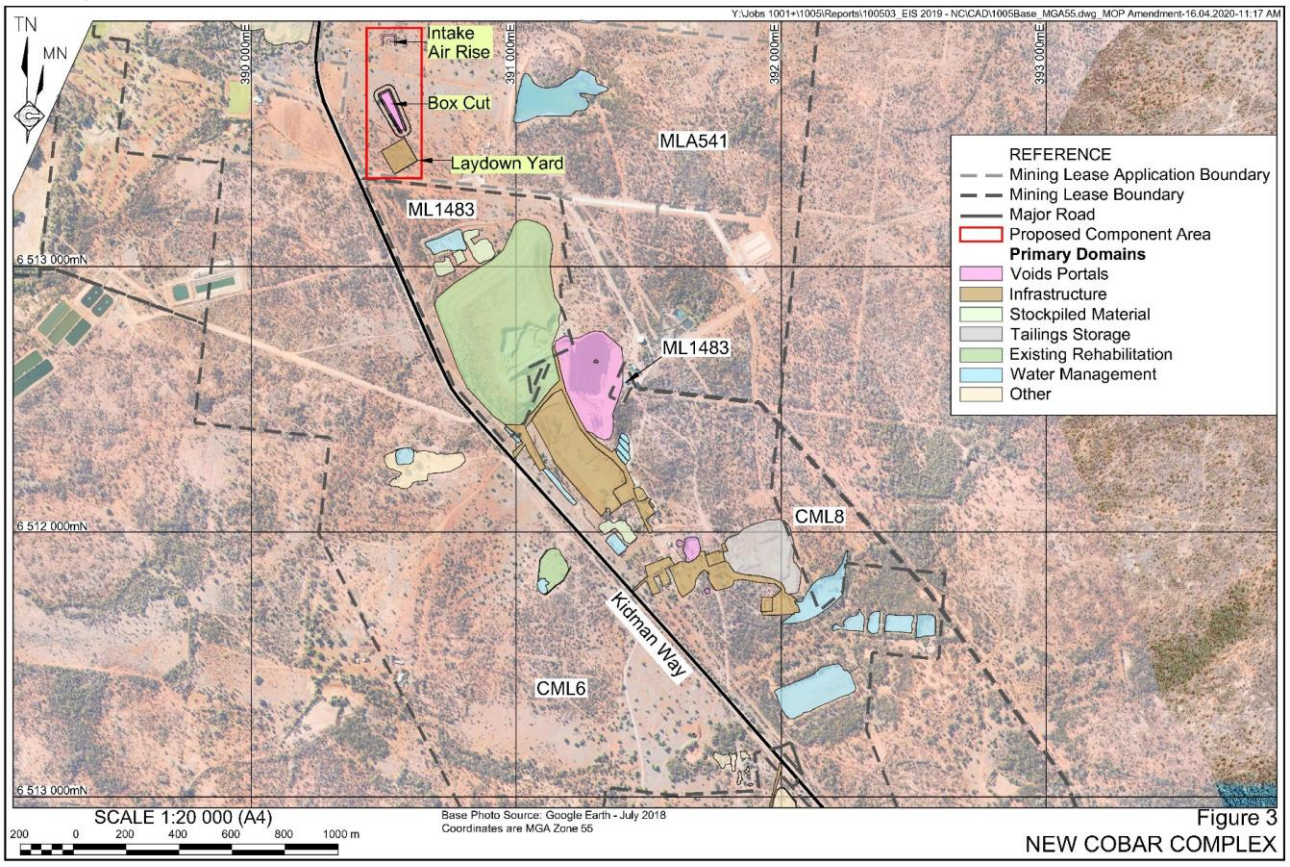


Figure 1 The New Cobar Complex

3.1.3 Peak Complex

Peak Complex is situated in a rural area, bounded by private property and Crown Land (**Figure 2**).

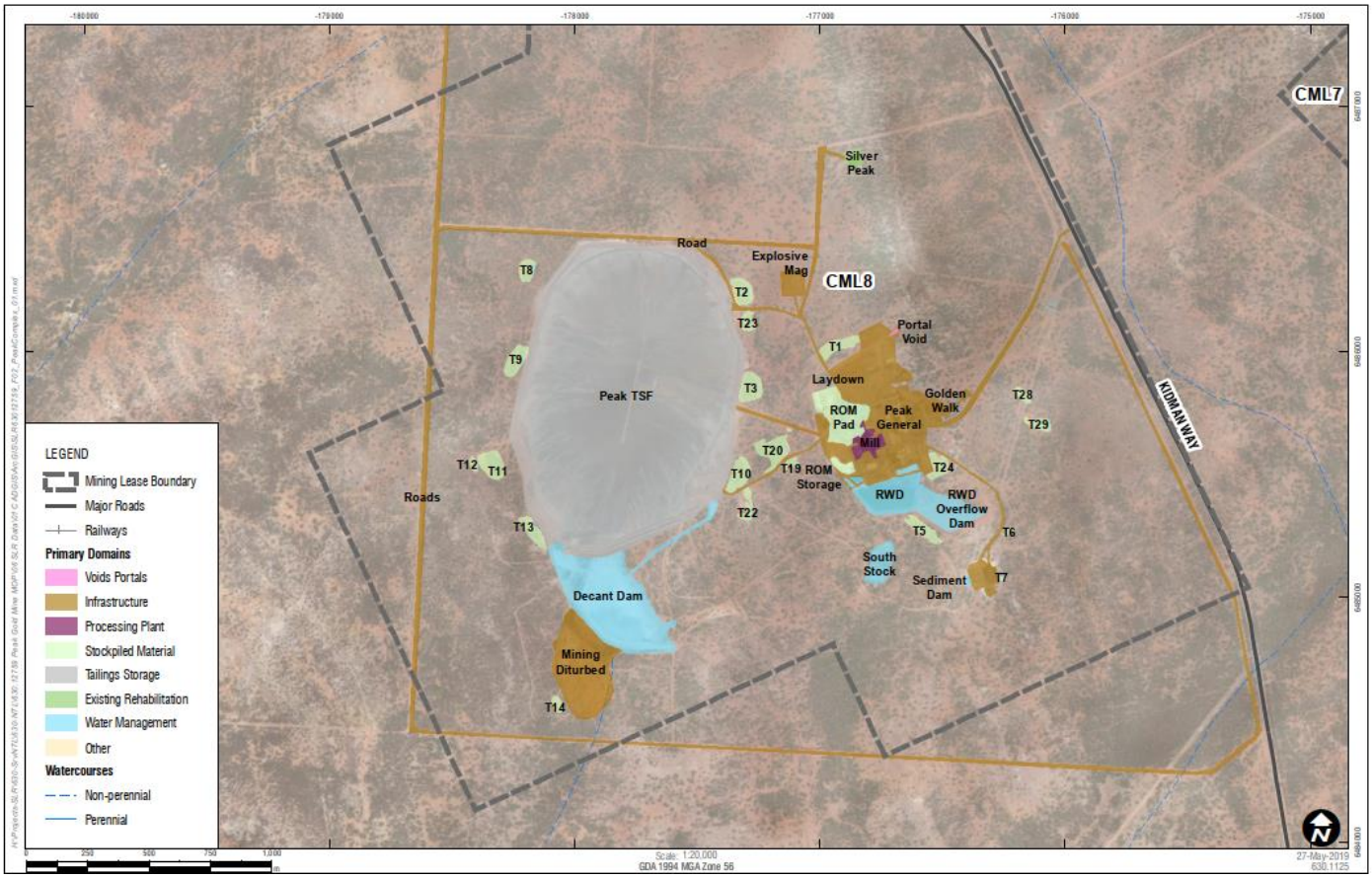


Figure 2 Peak Mine Complex

3.1.4 Surrounding Sensitive Environments

No endangered ecological communities or populations were recorded or are predicted to occur within the surrounds of the complexes. There are no continual flowing creeks in or within the surrounds of the complexes.

3.2 Description and Likelihood of Hazards (Risk Analysis)

The major hazards which have been identified for the complexes are listed in (**Table 5**). The likelihood of these potential hazards occurring has been captured using the methodology defined in **Table 6**

Table 6. Major pollution incidents have been based on worst case scenario, where all hard and soft management controls fail simultaneously. The likelihood of these events occurring and impacting on neighbouring properties or the local community is very rare however, the consequence would be major to catastrophic.

Table 5 Hazards and their likelihood

Locality	Hazard	Volume	Likelihood	Containment	Risk/Action
Peak Complex Explosive Magazine	ANFO	50KL	Rare	Bunded explosive magazine.	**Risk:** Potential for fire and explosion. Bunding/contained catchment will prevent liquid from leaving site. **Action:** Notify neighbouring community if a fire is present or if potential for explosion.
Peak Complex Reagents Storage	Nitric Acid 70%	0.05KL	Rare	Covered Storage Area	**Risk:** If catastrophic failure of liquid chemicals occurred in the reagent storage area, chemicals could potentially drain into the Process Overflow Sump (Netted Dam). **Action:** In case of fire or vaporisation of the chemicals, area is to be evacuated. Residents (Including Cobar Township) to be notified of the potential hazard. Sump is not to be pumped out into the RWD until chemical have been suitably neutralised or rendered harmless.
	Hydrated Lime	20KL			
	Copper Sulphate	30 Tonne			
	Zinc Sulphate	30 Tonne			
	Sodium Metabisulphate	30 Tonne			
Peak Complex Mill	Sodium Hydroxide	22KL	Rare	Concrete Bunded	
	Hydrochloric Acid	20KL			
Peak Complex Cyanide Bulk Tank – Reagent Storage	Cyanide Solution N.O.S	165KL Tank ~30KL Truck	Unlikely	Above ground cyanide tank. Tank is concrete bunded. Cyanide delivery bund at location. Cyanide delivery truck.	
Peak Complex Mill	Sodium Isobutyl Xanthate	4KL	Rare	IBC's	**Risk:** Supports combustion and may cause fire/explosion and toxic gas. **Action:** In case of fire/ explosion or vaporisation, area is to be evacuated. Notify neighbouring community if a fire is present or if potential for explosion. Only held onsite when required.
Peak Complex Mill	Oxygen Tank	45KL	Rare	Fenced Cylinder	**Risk:** Supports combustion and may cause fire/explosion. **Action:** In case of fire, area is to be evacuated. Notify neighbouring community if a fire is present or if potential for explosion.
Peak Complex Mill	Liquefied Petroleum Gas	15KL	Rare	Above Ground Tanks	**Risk:** Highly flammable substance. **Action:** If cylinder presents leaks, area is to be evacuated. In case of fire/explosion or vaporisation, notify neighbouring community.
	Diesel	85KL	Rare		

Peak Complex Fuel Bay	Waste Oil	15KL		Above ground tank with concrete bund.	**Risk:** Failure of bund or leakage during fuel/oil transfer could result in fuel/oil leaking into the Recycled Water Dam. No risk of release offsite in liquid form. **Action:** Stop water transfer from the RWD to all areas onsite until all hydrocarbons are removed. In case of fire, notify neighbouring community of the incident and smoke potential depending on wind direction.
Peak Complex Recycled Water Dam (RWD)	Contaminated Water	50400 KL	Rare	Earthen dam with rock lined spillway into the RWD Overflow dam	**Risk:** If dam wall became compromised water would overflow into the South Stock farm dam and potentially drain off site through natural drainage lines.
Peak Complex RWD Overflow	Contaminated Water	25900 KL	Rare	Earthen dam	
Locality	**Hazard**	**Volume**	**Likelihood**	**Containment**	**Risk/Action**
Peak Complex Netted Dam	Process Water	1900KL	Possible	Lined Dam, designed to overflow into RWD.	**Risk:** Cyanide levels in the dam normally range from 80mg/l to 200mg/l. **Action:** If Netted dam overflows, stop water transfer from the RWD to all areas onsite until detox has occurred.
Peak Complex TSF Decant Dam	Process Water	223,600KL	Unlikely	Earthen dam with wall. Capacity to return water to the Netted Dam. Designed to capture overflow from the TSF up to a 1:100y 72h rainfall event.	**Risk:** Water will potentially contain elevated levels of cyanide. If catastrophic failure would occur water would flow to the southwest to main drainage lines. The closest permanent residence is ~4km downstream. **Action:** Detox should be applied to the water. Notify neighbouring community of the incident.
Peak Complex Tailing Storage Facility (TSF)	Process water	223,600KL	Rare	Central discharged tailings dam. No ponding of water on dam. Southern and northern end of the facility have walls constructed of earth and tailings of which are rock armoured.	**Risk:** Key risk is liquefaction, likely caused by excessive, long periods of rainfall and subsequent earthquake activity. Issues arising from the identified pressure may lead to wall failure. **Action:** Notify neighbouring community of the incident. Notify Dam Engineer. For additional information on the TSF refer to the TSF Operations and Maintenance Manual.
New Cobar Fuel Bay - surface workshop	Diesel	55KL	Rare	Above ground tank with concrete bund.	**Risk:** Failure of tank and bunk or leakage during fuel transfer may result in fuel leaking into NC4 dam. No risk of release off site in liquid form. **Action:** Stop water transfer from NC4 to the sediment cells until hydrocarbons are removed from the dam. In case of fire neighbouring community are to be notified of incident and smoke potential depending on wind direction.

New Cobar Explosive Magazine	ANFO	50KL	Rare	Bunded explosive magazine.	**Risk:** Potential for fire and explosion. Bunding/contained catchment will prevent liquid from leaving site. **Action:** If fire or explosive potential exists neighbouring community are to be notified of incident and smoke potential depending on wind direction.
New Cobar Young Australia Complex	Contaminated Water	131,300KL	Rare	Catchment Dam below Chesney historic workings.	**Risk:** In the event of dam failure, public access roads on Crown Land could be damaged or cut-off. Small potential for Kidman Way Highway to be impacted. **Action:** Cobar Shire Council, Crown Lands and neighbouring community to be notified.
New Cobar Spain's Dam	Contaminated Water	59,700 KL	Unlikely	Catchment Dam with Earthen Wall.	**Risk:** In the event of dam failure, public access roads on Crown Land could be damaged or cut-off. Small potential for Kidman Way Highway to be impacted. **Action:** Cobar Shire Council, Crown Lands and neighbouring community to be notified.

Table 6 Methodology used to determine likelihood

Occurrence (Likelihood)	Description
Rare	Will occur every +20 years. <5% likelihood.
Unlikely	Will occur once every 5-20 years. 5% to 25% likelihood.
Possible	Will probably occur at least once 2-5 years. 25% to 75% likelihood.
Likely	Will occur multiple times in a year. 75% to 95% likelihood.
Almost Certain	Will occur at least once or multiple times each year. >95% likelihood.

3.3 Inventory of Pollutants

3.3.1 Peak Site Hazardous Chemicals

Peak Site hazardous chemicals are detailed in Table 7. The storage location of each substance has been identified in Figure 4. All chemicals are accompanied by their Safety Data Sheets (SDS) as required by work, health and safety regulations.

Table 7 Peak Site Dangerous Goods, Hazardous Substances, and Chemical Reagents

Hazardous Substance	Storage ID	Storage Type	Location	X Coordinate	Y Coordinate	Typical Quantity (L)	UN No.
Diesel	DGL 20	Above Ground Tank	Peak (Fuel Bay)	393,428	6,507,101	85KL	3082
Waste Oil	DGL 4	Above Ground Tank	Peak (Fuel Bay)	393,421	6,507,098	15KL	None Allocated
Sodium Cyanide	DGL 19	Above Ground Tank	Peak (Mill)	393,385	6,507,149	165KL	3414
Hydrochloric Acid	DGL 8	Above Ground Tank	Peak (Mill)	393,427	6,507,208	20KL	1789
Caustic Soda	DGL 7	Above Ground Tank	Peak (Mill)	393,420	6,507,206	20KL	1719
Copper Sulphate	DGL 1	1 Tonne Bulk Bags	Peak (Mill)	393,262	6,507,148	30 Bags	3077
Liquefied Petroleum Gas	DGL 6	Above Ground Tank	Peak (Mill)	393,411	6,507,250	15KL	1075
Zinc Sulphate	DGL 1	1 Tonne Bulk Bags	Peak (Mill)	393,310	6,507,132	30 Bags	3077
Oxygen	DGL 18	Above Ground Tank	Peak (Mill)	393,432	6,507,167	45KL	1073
Hydrated Lime	DGL 5	Above Ground Tank	Peak (Mill)	393,332	6,507,172	20KL	None Allocated
Nitric Acid 70%	DGL 22	20L Container	Peak (Mill)	393,337	6,507,153	0.05KL	2031
Ammonium Nitrate	DGL23	Above Ground Tank	Peak (magazine pad)	393,103	6,507,845	50KL	2067
Sodium Metabisulphate	DGL 3	Above ground tank	Peak (Mill)	393,310	6,507,132	10KL	1759
Mixed solution	DGL 2	1 tonne bulk bags	Peak (Mill)	393,313	6,507,166	30 bags	2693

Figure 3 Peak site Plan of hazardous substances

3.3.2 New Cobar Hazardous Chemicals

New Cobar hazardous chemicals are detailed in (**Table 7**). The storage location of each substance has been identified in **Figure 5**. All chemicals are accompanied by their Safety Data Sheets (SDS) as required by work, health and safety regulations.

Table 7 New Cobar Site Dangerous Goods, Hazardous Substances, and Chemical Reagents

Hazardous Substance	Storage ID	Storage Type	Location	X Coordinate	Y Coordinate	Typical Quantity (L)	UN No.
Diesel	DGL 24	Above Ground Tank	New Cobar (workshop)	391,509	6,512,104	55KL	3082
Ammonium Nitrate	DGL25	Above Ground Tank	New Cobar (magazine pad)	391,952	6,511,727	50KL	2067

Figure 5 New Cobar site plan of hazardous substances

4.0 Pre-Emptive and Control Measures

4.1 Health and Safety

Before responding to a pollution incident, health and safety risks are to be identified and assessed by suitably qualified personnel. Any relevant risk assessment that has been developed shall be followed in the event of an emergency. If the complexes are required to be evacuated as a result of a pollution event, relevant site evacuation procedures must be followed. The Peak Complex muster point is the Southern Carpark. The New Cobar Complex muster point in the administrative building carpark.

All health and safety issues will be managed by the Work, Health and Safety Advisor.

4.2 Spill Response

Figure 4 details the Peak Complex plan of hazardous substances, **Figure 5** details the New Cobar Complex plan of hazardous substances. The spill action plan for both sites is outlined in **Figure 6.**

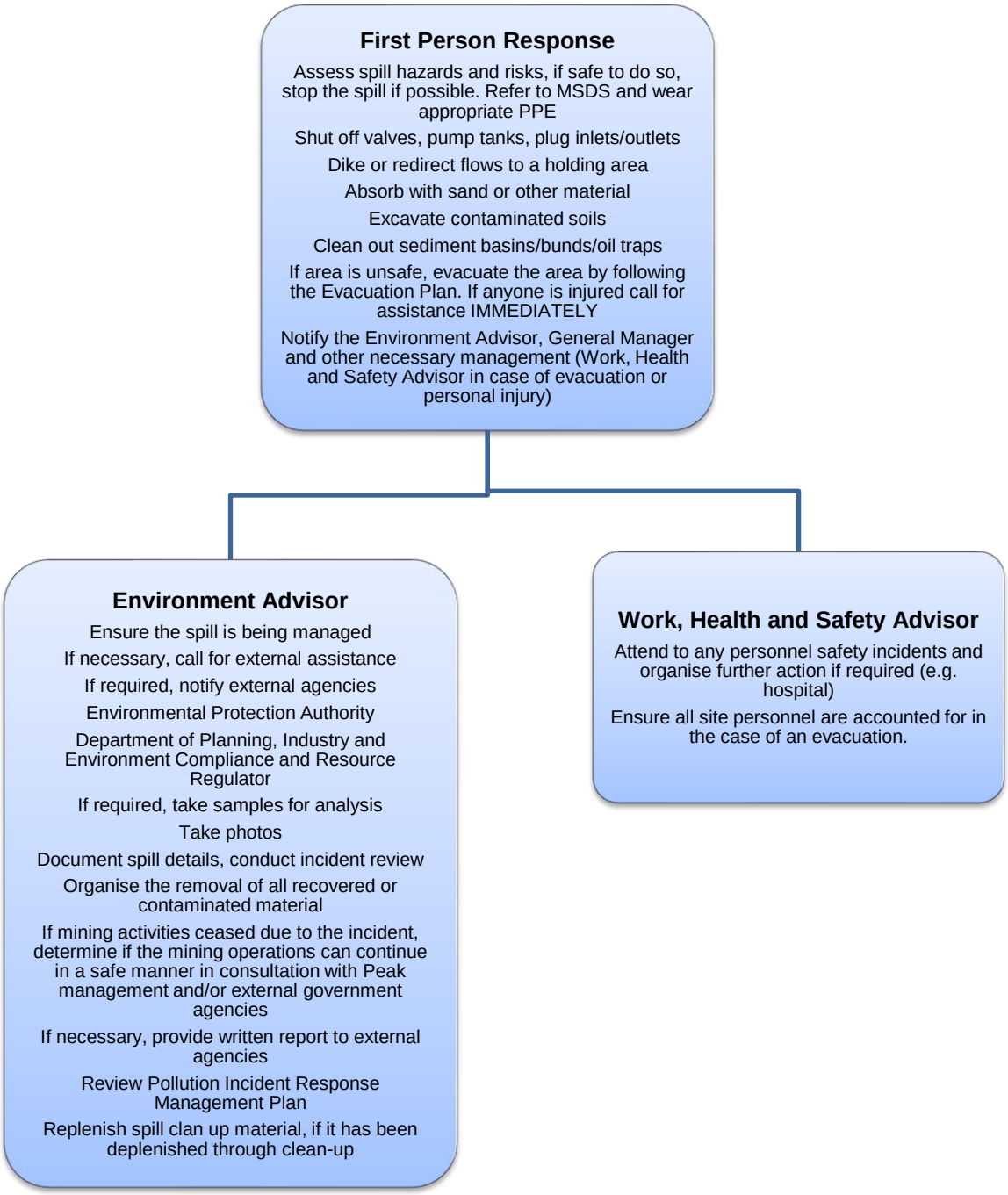


Figure 6 Spill Action Response Plan

4.3 Pollution Control Measures

Preventative and mitigation controls established at the site are detailed in the sections below.

4.3.1 Fuel

- All diesel fuel is stored in self bunded tanks;
- A compacted refuelling area is located adjacent to fuel tanks;
- All fuel storage is bunded to ensure 110% of the largest liquids stored can be captured within the bund;
- Spill kits are located at all fuel storages; and
- SDS are located either at the fuel storage or in the Emergency Services Offices.

4.3.2 Hazardous Chemical Storage of liquids

- Bund and cover all liquid storage areas – ensure 110% of the largest liquids stored can be captured within the bund;
- Ensure chemicals have appropriate transport, handling, storage and application procedures to prevent chemical spillage;
- Store minimum volume of chemicals onsite as per requirement for the ongoing operation of the Mine;
- Personnel who use chemicals would be provided with the appropriate training in handling techniques;
- Ensure records are kept of water quality checks, discharges and any remedial actions taken;
- Where possible, install containment measures such as sandbags, booms, earth bunds or cut drains to capture and retain spilled material and prevent it from leaving site, entering watercourse or impacting on vegetation stands;
- The Emergency Response Team will be trained in clean-up of chemical / hazardous material spills.

4.3.3 Fire

Fires may be ignited as a result of truck accidents during transport of chemicals, vehicle collisions, equipment failure, use of electrical equipment, overhead power lines and grass fires in adverse weather conditions (hot and dry). Specific emergency response plans are detailed in the Emergency Management Plan. The below measures would be taken to minimise the risk of fires:

- Firefighting equipment is available on site to facilitate an immediate response to a fire incident and help ensure the safety of public and property including fire extinguishers in all vehicles;
- Equip personnel and vehicles involved in such activities with firefighting and safety gear;
- Construct fire breaks and tracks along the site boundary;
- Conducting regular reviews and inspections of firefighting equipment to ensure it is operational; and
- Site Mines Rescue Team will be trained in how to combat fires.

5.0 Emergency Response

5.1 Communication Plan

This section describes the communication plan to be undertaken with the relevant agencies (**table 8**) and community (**table 9**) in the event of a notifiable pollution incident that has the potential to cause harm to people or the environment.

5.1.1 Government Agencies

Table 8 presents the agencies to be contacted in order and what stage in the event of a notifiable pollution incident. The Incident Notification Record Sheet (**Appendices 1**) is to be completed when notifying relevant agencies on the details of externally reportable incidents.

Table 8 Government Agency Contacts

Trigger	Agency	Contact Details
An incident that presents an immediate threat to human health or property.	Fire and Rescue NSW NSW Police NSW Ambulance Service	Call 000
An incident that: • does not require an initial combat agency; or • once the 000 call has been made. Notify the authorities in the following order.	Environment Protection Authority	Environment Line 131 555
	NSW Health	Cobar District Hospital Phone (02) 6879 9500 Dubbo Base Hospital Phone (02) 6809 6809 Mary Urquhart 0400 363 777
	SafeWork NSW	Phone 13 10 50
	Cobar Shire Council	Business Hours (02) 6836 5888 After Hours 0419 281 115 (Peter Vlatko – General Manager)
	Cobar Fire and Rescue	02 6822 9156
	Agency	**Contact Details**
Relevant agencies to be contacted depending on type of pollution incident:	Dams Safety NSW	(02) 9842 8073 or 0403 681 645
	Natural Resources Access Regulator	1800 633 362
	Crown Lands Division	(02) 6836 3018
Note: Complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation or legislation administered by SafeWork NSW.		

5.1.2 Community

Table 9 presents the residents of neighbouring properties that are to be contacted in the event of an incident.

Table 9 Residents - Neighbouring Community Properties

Neighbouring Property Owners	
Neighbour	Nixon's Tank
Langton's Lease	Merrises
Mafeesh Station & Barrowvale	Steve Roberts block
Dellavale Homestead	

5.1.3 Phases, Roles and Responsibilities

This section identifies the phases and responsibilities for the site personnel for the implementation of the emergency response procedures in the event of a notifiable pollution incident. Table 11 Key Management Responsibilities**.** In summary, the phases to be implemented include the following:

- **Alert Phase** – Monitor incident;
- **Stand by Phase** – Prepare state of readiness if incident has the potential to escalate;
- **Call Out Phase** – Activate the emergency response procedures;
- **Clean Up Phase** - Clean-up when area declared safe; and
- **Stand Down Phase** – Deploy response and implement a de-briefing and review of the Hazardous Materials Management Plan and emergency response procedures.

Table 10 Community Communication Plan

Source of Risk	Method of Communication1	Warning Provided	Stage
Discharge of Hydrocarbons, Chemicals or Reagents.	Telephone Text message Email Letter box drop Door knocking Community Representatives.	General warning to downstream residents to avoid the use of water in creeks.	Alert phase if pollution incident involves onsite discharge only. Operational phase if pollution incident involves offsite discharge. Stand down phase when the incident has been controlled and there is no harm present.
Discharge of chemical or saline - laden water.	Telephone Text message Email Letter box drop Door knocking Community Representatives.	General warning to downstream residents to avoid the use of water in creeks (depending on scale of discharge).	Alert phase if pollution incident involves onsite discharge only. Operational stage if pollution incident involves offsite discharge. Stand down phase when the incident has been controlled and there is no harm present.
Discharge of sediment-laden water	Telephone Text message Email Letter box drop Door knocking Community Representatives.	General warning to downstream residents to avoid use of water in creeks if water appears cloudy.	Alert phase if pollution incident involves onsite discharge only. Operational stage if pollution incident involves offsite discharge. Stand down phase when the incident has been controlled and there is no harm present.
Discharge of Tailings material associated with a catastrophic failure of the Tailings Storage Facility.	Public announcements - Radio - Television - Loudspeaker Telephone Text Message Email Letter box drop Door knocking Community Representatives.	General warning to downstream residents to avoid the use of water in creeks. Specific warning to evacuate high risk properties (if required).	Standby phase if evidence of failure of Tailings Storage Facility. Callout phase if actual failure of Tailings Storage Facility. Clean-up phase once discharge stabilised.
Discharge of gaseous	Telephone Text message	General warning to Cobar township to	Alert phase if pollution incident involves harm to people.

material/vaporisation.	Email Letter box drop Door knocking Community Representatives.	keep windows and doors closed and report any respiratory symptoms.	Operational stage if pollution incident involves risk of harm to people. Stand down phase when the incident has been controlled and there is no harm present.
Discharge of particulate material to air as a result of the failure or under performance of the proposed dust control measures.	Telephone Text message Email Letter box drop Door knocking Community Representatives.	General warning to Cobar residents regarding higher dust levels within the vicinity of Peak Mines.	Alert phase if pollution incident involves potential harm to people. Operational stage if pollution incident involves harm to people. Stand down phase when the incident has been controlled and there is no harm present.
Note[1]: The company has established a communication database identify individuals preferred method of communication.			

Table 11 presents the anticipated key management positions that will be responsible for any pollution incident response. All Health and Safety issues will be managed by the Health and Safety Advisor.

Table 11 Key Management Responsibilities

ROLES	PHASE	RESPONSIBILITY
Position: General Manager **24 Hr Contact Details:** **Angus Wyllie** 0447 654 576 **Mine Manager** **24 Hr Contact Details:** **Clive Jones** 0407 108 772 **Lachlan Mahaffey** 0478 102 574 **Riaan Smith** 0415 135 729	**Alert**	Must ensure adequate resources are available to enable implementation of emergency response procedures. Review and monitor reported incident.
	Stand-By	Give direction to notify the responsible personnel of the incident and prepare for a state of readiness if incident has the potential to escalate or is a notifiable incident.
	Call Out	Notify all relevant agencies (**Table 8**) of the detail of the pollution incident. Activate the community communication plan (**Table 10**). Control the overall situation and coordinate activities and resources. Determine the priority of actions of employees until agencies and emergency services arrive and liaise with relevant agencies as required. Ensure that perimeters are established and access to the site is controlled.
	Clean Up	Give direction to clean up the incident following advice that the area is declared safe.
	Stand Down	Give direction to Stand Down following satisfactory management of the incident.
Position: Process Manager or Delegate **24 Hr Contact Details:** **Todd Whitla** 0437 934 535	**Alert**	As soon as aware, advise the General Manager of a pollution incident. Monitor reported incident.
	Stand-By	Notify the responsible personnel of the incident and prepare for a state of readiness if incident has the potential to escalate or is a notifiable incident.
	Call Out	If the General Manager cannot be contacted, activate the emergency response procedures in the event of a pollution incident. Notify all relevant agencies (**Table 8**) of the detail of the pollution incident. Activate the community communication plan (**Table 10**). Control the overall situation and coordinate activities and resources. Determine the priority of actions of employees until agencies and emergency services arrive and liaise with relevant agencies as required. Ensure that perimeters are established and access to the site is controlled.

	Clean Up	Monitor the situation and following confirmation that the area is safe, advise the General Manager.
	Stand Down	Give direction for a de-briefing and review of the emergency response procedures.
	General	Ensure that this Emergency Management Response is tested every 12 months. Ensure this Pollution Incident Response Management Plan is reviewed as identified in Section **7.0**. Ensure a hard copy is retained on site.
Position: Environment Advisor **24 Hr Contact Details:** **Diana Barnes** 0429 672 846	**Alert**	As soon as aware, advise the General Manager of a pollution incident. Monitor the reported incident.
	Stand-By	Prepare for state of readiness when directed to by the General Manager.
	Call Out	If neither the General Manager nor Processing Manager can be contacted, activate the emergency response procedures in the event of a pollution incident response. Contact the community and implement the required warning system (**Table 10**). Provide owners and occupiers of land updates of any spill incidents as required.
	Clean Up	Assist with clean-up of the incident when advised that area is safe.
	Stand Down	Coordinate and manage de-briefing and review as directed by the General Manager.
	General	Ensure employees are competent in environmental management through training and awareness programs. Ensure visitors and contractors are inducted and aware of emergency pollution incident management procedures. Take photos of the incident if considered safe to do so. Ensure that all accidents, incidents and potential incidents are appropriately investigated.
Emergency Services Officer (ESO)	**All**	As soon as aware, advise supervisor of a pollution incident. In the absence of the supervisor, advise the Environment Advisor. In their absence advise the Mine Manager or General Manager.
All personnel	**All**	As soon as aware, advise supervisor of a pollution incident. In the absence of the supervisor, advise the Environment Advisor. In their absence advise the General Manager. If safe to do so, undertake spill response procedures as outlined in **Figure 7**.

5.2 Evacuation Plan

The following evacuation procedures will be implemented in the event of an incident that will cause harm to the environment and people:

1. Employers will be given notification either verbally or by mobile / two-way radio;
2. All employees will be evacuated to the carpark outside the surface facility area gate;
3. An employee will be assigned to the front of the property to keep out unauthorised persons;
4. The surface facility area gate will be locked after all employees have been accounted for; and
5. A sign will be placed on the front gate declaring the area contaminated.

6.0 Management Plan Monitoring and Review

6.1 Incident Reporting

In the event that an investigation concludes there are exceedances of the relevant trigger values which is directly attributed to activities associated with the complexes, the event will be reported without delay to the Environmental Protection Agency, Cobar Shire Council and the Resources Regulator. Depending on the nature of the incident, notification may be required to the Natural Resources Access Regulator, Division of Water and/or the relevant Council. Within seven days of the incident, the company will submit a detailed written report.

Environmental incident reports must include the following information:

- The time, date, location, nature and duration of the incident;
- The location of the place where the environmental harm has, or is likely to occur;
- The potential and / or observed impacts of the incident;
- The circumstances in which the incident occurred (including the cause of incident, if known);
- The action taken or proposed to be taken to deal with the incident and any resulting environmental harm;
- Any actions that have, or will be, taken to deal with the incident and any resulting environmental harm; and
- Any actions that have, or will be, taken to prevent similar incidents from occurring in the future.

Additional Information (such as photos, monitoring data, plans etc.) should be included in the report if relevant.

6.2 Testing of plan

This management plan will be tested at least once every 12 months to ensure that the information contained within the plan is accurate and up to date, and that the plan is capable of being implemented in a workable and effective manner.

The primary method for testing the plan will be via desktop simulations which will be supplemented by periodic exercises or drills.

7.0 Review

This management plan will be reviewed post every desktop simulation trial or once per annum.

8.0 Appendices

Appendix 1: Incident Notification Record Sheet

INCIDENT NOTIFICATION RECORD SHEET

(To be used when reporting incidents externally)

Incident: _____

Your Name: _____

Organisation Contacted: _____

Date: _____ Time: _____

Name of person notified: _____

Position of person notified: _____

Phone No. called: _____

Reference No. _____ INX ref: _____

Nature of Incident (type of incident, estimated quantities/concentrations):

Circumstances which led to the incident (cause):

Actions being taken or proposed to be taken:

Other information provided:

Follow up required: Y / N

Details:

INCIDENT NOTIFICATION RECORD SHEET

(To be used when reporting incidents externally)

Incident: _____

Your Name: _____

Organisation Contacted: _____

Date: _____ Time: _____

Name of person notified: _____

Position of person notified: _____

Phone No. called: _____

Reference No. _____ INX ref: _____

Nature of Incident (type of incident, estimated quantities/concentrations):

Circumstances which led to the incident (cause):

Actions being taken or proposed to be taken:

Other information provided:

Follow up required: Y / N

Details:

INCIDENT NOTIFICATION RECORD SHEET

(To be used when reporting incidents externally)

Incident: _____

Your Name: _____

Organisation Contacted: _____

Date: _____ Time: _____

Name of person notified: _____

Position of person notified: _____

Phone No. called: _____

Reference No. _____ INX ref: _____

Nature of Incident (type of incident, estimated quantities/concentrations):

Circumstances which led to the incident (cause):

Actions being taken or proposed to be taken:

Other information provided:

Follow up required: Y / N

Details:

INCIDENT NOTIFICATION RECORD SHEET

(To be used when reporting incidents externally)

Incident: _____

Your Name: _____

Organisation Contacted: _____

Date: _____ Time: _____

Name of person notified: _____

Position of person notified: _____

Phone No. called: _____

Reference No. _____ INX ref: _____

Nature of Incident (type of incident, estimated quantities/concentrations):

Circumstances which led to the incident (cause):

Actions being taken or proposed to be taken:

Other information provided:

Follow up required: Y / N

Details:

INCIDENT NOTIFICATION RECORD SHEET

(To be used when reporting incidents externally)

Incident: _____

Your Name: _____

Organisation Contacted: _____

Date: _____ Time: _____

Name of person notified: _____

Position of person notified: _____

Phone No. called: _____

Reference No. _____ INX ref: _____

Nature of Incident (type of incident, estimated quantities/concentrations):

Circumstances which led to the incident (cause):

Actions being taken or proposed to be taken:

Other information provided:

Follow up required: Y / N

Details:

INCIDENT NOTIFICATION RECORD SHEET

(To be used when reporting incidents externally)

Incident: _____

Your Name: _____

Organisation Contacted: _____

Date: _____ Time: _____

Name of person notified: _____

Position of person notified: _____

Phone No. called: _____

Reference No. _____ INX ref: _____

Nature of Incident (type of incident, estimated quantities/concentrations):

Circumstances which led to the incident (cause):

Actions being taken or proposed to be taken:

Other information provided:

Follow up required: Y / N

Details:

INCIDENT NOTIFICATION RECORD SHEET

(To be used when reporting incidents externally)

Incident: _____

Your Name: _____

Organisation Contacted: _____

Date: _____ Time: _____

Name of person notified: _____

Position of person notified: _____

Phone No. called: _____

Reference No. _____ INX ref: _____

Nature of Incident (type of incident, estimated quantities/concentrations):

Circumstances which led to the incident (cause):

Actions being taken or proposed to be taken:

Other information provided:

Follow up required: Y / N

Details:

Site contacts notified:

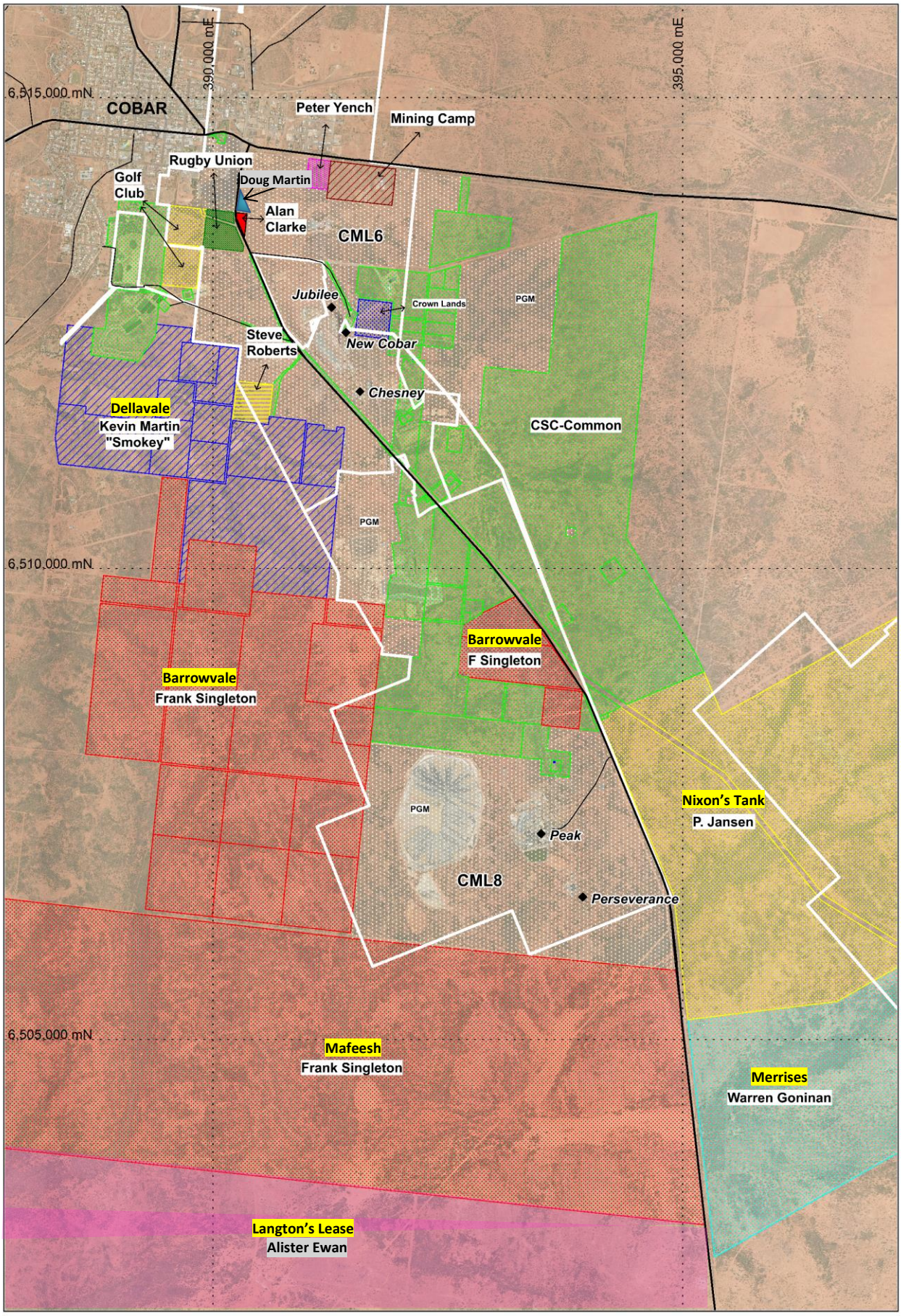
Site Personnel	Contact Details	Notified Y/N and time
General Manager		
Environment Manager		

Authorities notified:

Trigger	Agency	Contact Details	Notified Y/N and time
An incident that presents an immediate threat to human health or property.	Fire and Rescue NSW NSW Police NSW Ambulance Service	Call 000	
An incident that: • does not require an initial combat agency; or • once the 000 call has been made. Notify the relevant authorities in the following order.	Environment Protection Authority	Environment Line 131 555	
	NSW Health	Cobar District Hospital Phone (02) 6879 9500 Dubbo Base Hospital Phone (02) 6809 6809 Mary Urquhart 0400 363 777	
	SafeWork NSW	Phone 13 10 50	
	Cobar Shire Council	Business Hours (02) 6836 5888 After Hours 0419 281 115 (Peter Vlatko – General Manager)	
	Cobar Fire and Rescue	02 6822 9156	
Trigger	**Agency**	**Contact Details**	
Agencies to be contacted depending on type of pollution incident:	Dams Safety NSW	(02) 9842 8073 or 0403 681 645	
	Natural Resources Access Regulator	1800 633 362	
	Crown Lands Division	(02) 6836 3018	
	Other relevant agencies e.g. Heritage, Crown Lands		
Note: Complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation or legislation administered by SafeWork NSW.			

Neighbouring properties notified (as per map location below):

Neighbour	Property name	Contact	Notified Y/N
Alister Ewan	Langton's Lease		
Frank Singleton	Mafeesh Station & Barrowvale		
Kevin Martin "Smokey"	Dellavale Homestead		
P. Jansen or Ian Foreman	Nixon's Tank		
Warren Goninan	Merrises		
Steve Roberts			
Doug Martin			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395,000 mE
6,515,000 mN
6,510,000 mN
6,505,000 mN
COBAR
Peter Yench
Mining Camp
Rugby Union
Golf Club
Doug Martin
Alan Clarke
CML6
Jubilee
Crown Lands
PGM
Steve Roberts
New Cobar
Chesney
Dellavale
Kevin Martin "Smokey"
CSC-Common
Barrowvale
F Singleton
Barrowvale
Frank Singleton
Nixon's Tank
P. Jansen
Peak
CML8
Perseverance
Mafeesh
Frank Singleton
Merrises
Warren Goninan
Langton's Lease
Alister Ewan