

Energy Australia NSW

Pine Dale Mine

Pollution Incident Response Management Plan (Care and Maintenance)

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1 Introduction

1.1 Title

This document is titled Pollution Incident Response Management Plan (PIRMP) for the Pine Dale Coal Mine.

1.2 Objectives

The Pollution Incident Response Management Plan (PIRMP) has been prepared in accordance with the requirements described under the *Protection of the Environment Operations Act 1997* (POEO Act) and the *Protection of the Environment Operations (General) Regulation 2021* (POEO (G) Regulation). The PIRMP covers the key actions to minimise the occurrence of a pollution incident and manage any potential environmental harm if one occurs. The PIRMP has been prepared for managing the impact to human health including employees, nearby neighbours and the environment.

The PIRMP has been developed to meet the requirements of EnergyAustralia (EA) and POEO legislation and nominates the appropriate responsibilities and actions assigned to Pine Dale Mine staff to ensure the requirements of this procedure are strictly adhered to.

1.3 Scope

This PIRMP shall be applicable to ALL EA staff, visitors and contractors to EEA's Pine Dale Mine site.

The PIRMP sets out the responsibilities and specific requirements in relation to notifying, responding to and managing pollution incidents as defined in the POEO Act.

A pollution incident is required to be notified to the Environmental Protection Authority (EPA) and other regulatory agencies as detailed in the POEO Act where there is a risk of actual or potential 'material harm' to the environment. Material harm is defined in Section 1.5 of this PIRMP.

This PIRMP shall specifically list the Pine Dale Mine staff designated as responsible by the Mine, for ensuring that actions and requirements nominated in this PIRMP are carried out as specified.

1.4 Pine Dale Mine Operations

EA owns Enhance Place Pty Ltd (Enhance Place) which operates the Pine Dale Mine near Lithgow in the Western Coalfields of New South Wales. Pine Dale Mine is located at Blackmans Flat, 16km north of Lithgow on the Castlereagh Highway. The site is approximately 3km by road from the Mt. Piper Power Station (MPPS) and immediately across the Highway from the Springvale Joint Venture Coal Preparation & Handling Facility.

The original Pine Dale Coal Mine covers an area of approximately 83ha whilst the Pine Dale Coal Mine – Yarraboldy Extension covers an additional area of approximately 27ha directly north of the original Pine Dale Coal Mine.

The Federal approval for the Yarraboldy Extension at the Pine Dale Mine was granted by the Minister of the Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC) on 26 October 2011. Pine Dale Mine operates in accordance with State Planning Approval (PA) 10_0041 which was granted by the Minister for Planning, as modified, in March 2012. The Pine Dale Mine operates in accordance with Environmental Protection Licence (EPL) 4911 issued by the EPA.

The Yarraboldy Extension provides approval for the extraction of up to 800,000 tonnes (t) of Run of Mine (ROM) coal over the life of the project at a maximum rate of 350,000 tonnes per annum (tpa). It also allows for export of up to 350,000 tpa of coal from the site to the MPPS via the Private Haul Road (Coal Link Road). Coal deliveries from the Yarraboldy Extension to the MPPS commenced in February 2012.

The Pine Dale Mine has been placed in care and maintenance following cessation of all coal extraction in April 2014. While in Care and Maintenance, Pine Dale Mine will continue to meet environmental approvals and obligations. The PIRMP has been updated to reflect activities while the site is in care and maintenance. The current PIRMP has been prepared in accordance with the requirements described under the POEO Act and the POEO (G) Regulation, and will remain in place for the duration of the care and maintenance term.

1.5 Definition of a 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.

A pollution incident is required to be notified if **‘material harm to the environment is caused or threatened’**, 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) of the POEO Act.

Section 148 of the POEO Act sets out additional pollution incident notification requirements

2 Legislative Requirements

2.1 POEO Act 1997

The specific requirements for PIRMP's are set out in Part 5.7A of the POEO Act. In summary, this provision requires the following:

- All holders of an Environment Protection License must prepare a PIRMP (section 153A, POEO Act);
- The plan must include the information detailed in the POEO Act (section 153C);
- Licensee must keep the plan at the premises to which the EPL relates (section 153D, POEO Act);
- Licensees must implement their PIRMP immediately if a pollution incident occurs that causes or threatens material harm to the environment (section 147, section 153F, POEO Act); and
- 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).

2.2 POEO (General) Regulation 2021

The additional requirements for PIRMP's are set out in the POEO (G) Regulation. In summary, this provision requires the following:

- The plan must be in the form required by the POEO (G) Regulation (clause 130);
- The plan must include the additional matters outlined by the POEO (G) Regulation (131);
- The plan must be readily available and accessible in the form required by the POEO (G) Regulation (clause 132); and
- Licensees must test the plan in accordance with the POEO (G) Regulation (clause 133).

2.3 Document structure

This PIRMP has been prepared to address the specific requirements of the POEO (G) Regulation (clause 130).

Table 1 outlines the structure of the PIRMP, as per the requirements of the POEO Act (section 153) and the POEO (G) Regulation (Part 4).

Table 1 Requirements of PIRMP

Section/Clause	Requirement	Section in Plan
POEO Act		
153 C (a)	<i>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> <i>(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,</i> <i>(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</i> <i>(iii) any persons or authorities required to be notified by Part 5.7</i>	Section 3
153 C (b)	<i>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.</i>	Section 3.3
153 C (c)	<i>The procedures to be followed for coordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made.</i>	Section 4.1 Section 4.2 Section 4.3 Section 4.4
153 C (d)	<i>Any other matter required by the regulations.</i>	See POEO (G) Regulation below
POEO (General) Regulation		
131 (1) (a)	<i>A description of the hazards to human health or the environment associated with the activity to which the licence relates (the relevant Activity)</i>	Section 5.2 Table 3
131 (1) (b)	<i>The likelihood of any such hazards occurring, including details of any condition or event that could, or would, increase that likelihood</i>	Section 5.2 Table 3
131 (1) (c)	<i>Details of the pre-emptive action to be taken to minimise or prevent any risk of harm to human health or the environment arising out of the relevant activity.</i>	Section 5.4 Table 3
131 (1) (d)	<i>An inventory of potential pollutants on the premises or used in carrying out the relevant activity.</i>	Section 5.3 Table 4
131 (1) (e)	<i>The maximum quantity of any pollutant that is likely to be stored or held at particular locations or at or on the premises that the licence relates.</i>	Section 5.3 Table 4
131 (1) (f)	<i>A description of the safety equipment or other devices that are used to minimise the risks to human health or the environment and to contain or control a pollution incident</i>	Section 5.5 Table 5
131 (1) (g)	<i>The names, position and 24-hour contact details of those key individuals who:</i> <i>i) are responsible for activating the plan, and</i> <i>(ii) are authorised to notify relevant authorities under section 148 of the Act, and</i> <i>) are responsible for managing the response to a pollution incident.</i>	Section 4.1 Section 4.3 Table 2

Section/Clause	Requirement	Section in Plan
131 (1) (h)	<i>The contact details of each relevant authority referred to in section 148 of the Act.</i>	Section 4.3 Table 2
131 (1) (i)	<i>Details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of the premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on.</i>	Section 4.5
131 (1) (j)	<i>The arrangements for minimising the risk of harm to any persons who are on the premises or who are present where the scheduled activity is carried on.</i>	Section 3.2
131 (1) (k)	<i>A Detailed map (or set of maps) showing the location of the premises to which the licence relates, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises and the location of any storm water drains on the premises.</i>	Figure 1.2 Figure 4.4 Figure 1.7
131 (1) (l)	<i>A detailed description of how any identified risk of harm to human health will be reduced, including (as a minimum) by means of early warnings, updates and the action to be taken during or immediately after a pollution incident to reduce the risk.</i>	Table 3 Section 5.4
131 (1) (m)	<i>The nature of the objectives of any staff training program in relation to the plan.</i>	Section 4.6
131 (1) (n)	<i>The dates on which the plan has been tested and the name of the person who carried out the test.</i>	Section 6
131 (1) (o)	<i>The dates on which the plan is updated.</i>	Revision History (page i)
131 (1) (p)	<i>The manner in which the plan is to be tested and maintained.</i>	Section 6
132 (1)	<i>The plan is to be made readily available to an authorised office on request and be kept at the premises to which the relevant licence relates, or where the relevant activity takes place, to any person responsible for implementing the plan.</i>	Section 7
132 (2) (a)	<i>The plan is to be made publicly available in the following manner within 14 days after it is prepared: in a prominent position on a publicly accessible website of the person who is required to prepare the plan.</i>	Section 7 PDM Website

3 Pollution incident response

The following section details responsibilities of designated Pine Dale Mine staff during a pollution incident. It also details management measures for minimising the risk of harm to site personnel during a pollution incident and the actions to be taken during and immediately after a pollution incident.

3.1 Responsibilities during a pollution incident

The Open Cut Examiner is the nominated Emergency Co-ordinator and is required to assess and initiate the notification process in accordance with the requirements of the POEO Act.

Refer to Section 3.1 of this PIRMP for the notification process

Pine Dale Mine staff that discover an actual or potential pollution incident are responsible for immediately notifying the Open Cut Examiner of the incident and providing the following information:

- 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,
- f) other information prescribed by the regulations.

Pine Dale Mine's emergency response protocols nominate the Open Cut Examiner or the Mining Engineering Manager (MEM) as the Emergency Co-ordinator and the Emergency Communicator.

The Open Cut Examiner will maintain the Emergency Co-ordinator role until other arrangements are in place. The Open Cut Examiner / Emergency Co-ordinator is to;

- 1. Assess the Situation, refer to **Figure 1**
- 2. Activate the Response, refer to **Figure 2**
- 3. Direct the Response, refer to **Figure 3**

3.2 Management measures to minimise harm to site personnel

The safety of personnel involved in the pollution incident response must be given the highest priority. Only properly trained personnel equipped with appropriate safety gear and protective clothing may be permitted to take part in operations where the risk of injury is evident. Any response action is to consider the requirements for support systems such as back-up personnel and equipment, first aid, showers, hoses etc.

Pine Dale Mine also has safety mechanisms in place at the site. All site personnel and contractors are inducted when first attending the site and advised of the evacuation procedures, audible warning alarms and muster locations as required.

In the event of a pollution incident that has the potential to impact site staff, the OCE will notify emergency response staff of an incident. In the event that the site requires evacuation an order to evacuate site shall be announced over the Emergency UHF Channel (Channel #10) using the words “emergency, emergency, emergency”. In this circumstance, personnel are directed to the appropriate muster point.

3.3 Actions to be taken during and immediately after a pollution incident

3.3.1 First Strike Action

It is imperative that first-strike action be taken quickly to contain any spill. This first strike action, determined by the Open Cut Examiner and implemented by the plant operators emergency team, is to be aimed at achieving isolation and containment of the spill to prevent any further leakage or spread to the surrounding environment. If the spill is minor, clean-up procedures will be implemented as required.

3.3.2 Incident Response Procedures

EnergyAustralia / Pine Dale Mine has an incident response Standard Operating Procedure which detail the actions to be taken by staff after a pollution incident to reduce or control any contamination. The incident response procedures are to be followed where there is NO threat to the safety of site personnel responding to the incident.

The Hydrocarbon Spill Response Flowchart is available in Appendix A.

Figure 1 Assess the Situation

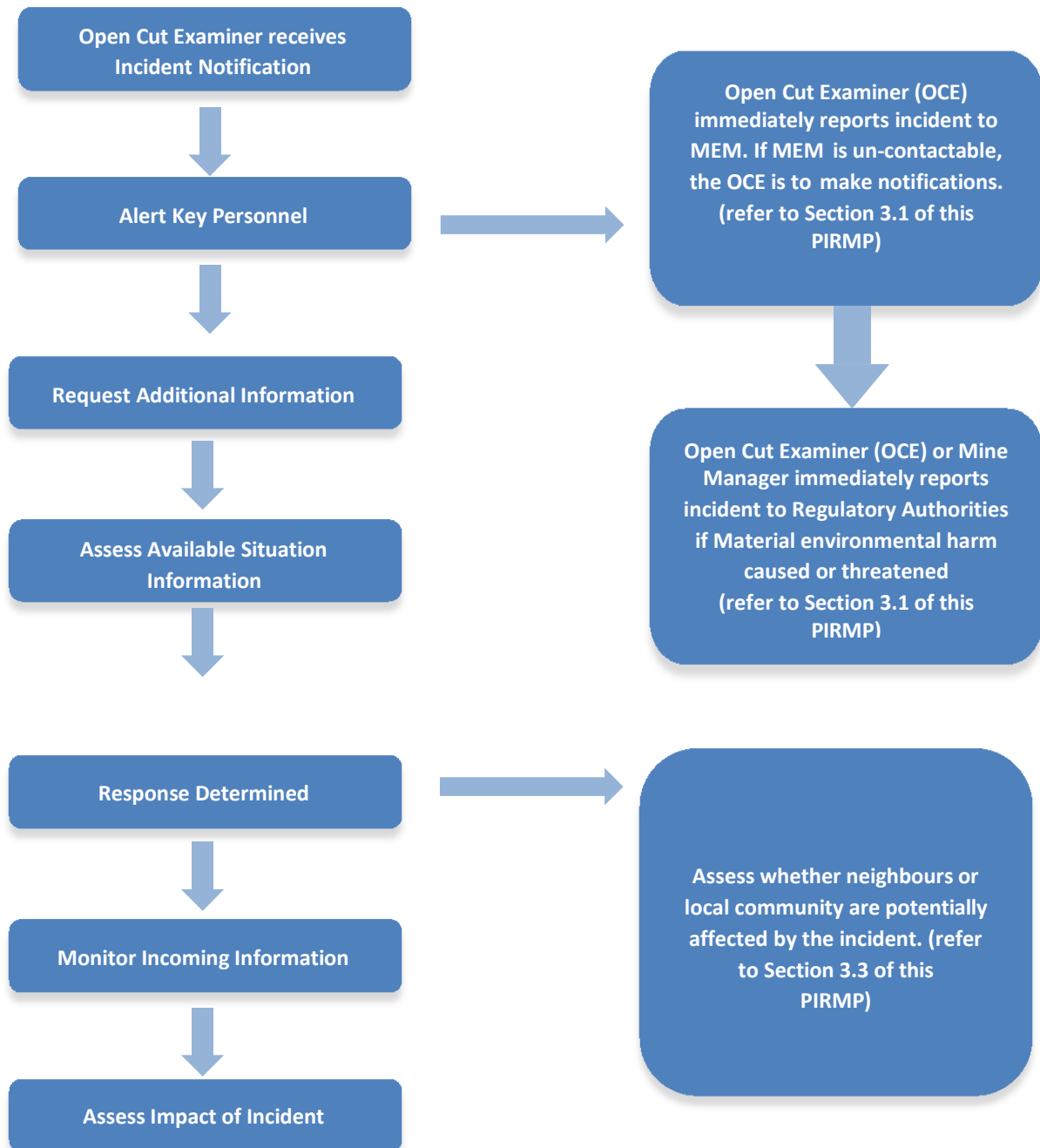
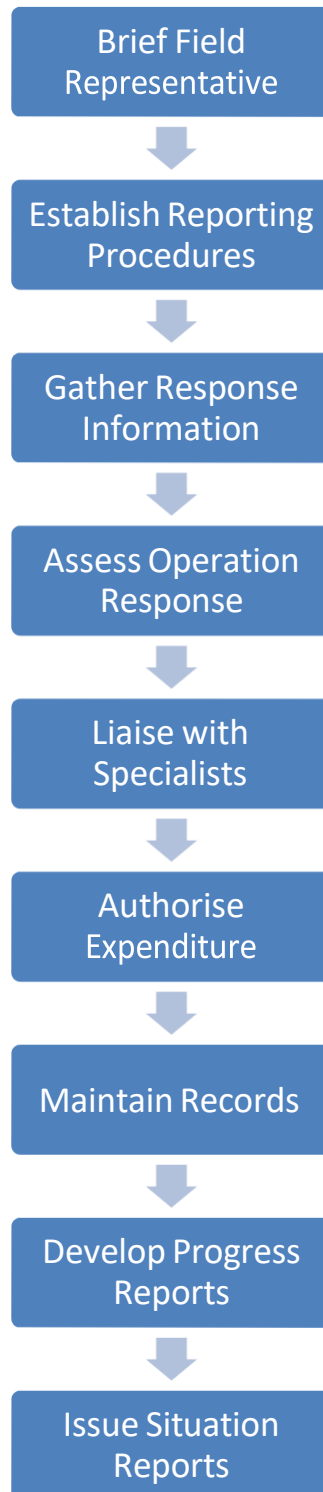


Figure 2 Activate Response



Figure 3 Direct Response



3.3.3 Pollution Incident Clean-Up

Procedures for the clean-up of pollution incidents will largely depend on the type and extent of the pollution incident.

Clean-up procedures will take into account the following:

- Type of pollutant;
- Extent/Area of contamination;
- Medium in which pollution has occurred (soil, air, water);
- Requirements for specialist advice in relation to the removal and remediation of the contamination;
- Potential additional environmental impacts by the proposed clean-up processes; and
- Costs to remove the contaminated material to a waste facility licensed to accept the waste.

The Open Cut Examiner is responsible for determining the method of clean-up, in consultation with the MEM and Environmental consultants (where required). Funding of clean-up procedures will be determined by the MEM.

4 Pollution Incident Communications and Training

The following section provides the contact details and requirements for Pine Dale Mine staff, Regulators and other stakeholders during a pollution incident. The section also details how, and in what circumstances neighbours will be advised of an incident.

For additional detail on general emergency procedures and fire procedures, refer to the Pine Dale Mine Fire Control Management System (PD-EMMP-002).

4.1 Immediate Notifications of Incident to Relevant Authorities

Pine Dale Mine is required to immediately notify the following regulatory authorities in accordance with the POEO Act s148 where a pollution incident has occurred **that is causing or threatening material harm to the environment**:

- NSW EPA (where the EPA is not the regulatory authority);
- NSW Health (local Public Health Unit) – Ministry of Health;
- SafeWork NSW;
- The local authority for the area in which the pollution incident occurs (Local Council); and
- Fire and Rescue NSW.

‘Immediately’ has its ordinary dictionary meaning of promptly and without delay.

The Open Cut Examiner is required to report all pollution incidents and all relevant information about it to the MEM immediately after becoming aware of the incident.

Using the relevant information of the incident the MEM will promptly and without delay assess if the incident is causing or threatening material harm to the environment. If it is deemed so, or it is uncertain, then he/she will immediately notify the relevant authorities.

If the MEM cannot be contacted within 30 minutes, the Open Cut Examiner is required to notify each relevant authority.

The Environmental Incident Record Sheet of the Pine Dale should be used to document the agency notification.

The information required to be provided as part of the notification process (as required by section 150 of the POEO Act) includes:

- 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,
- f) other information prescribed by the regulations.

The information required above, is information known to the person notifying the incident when the notification is required to be given. Lack of any of the above information should not prevent the responsible manager from making an immediate notification in the case where the incident has been deemed to be causing or threatening material harm to the environment. As additional information becomes available, it should be communicated with all the relevant agencies immediately.

The Incident Record Sheet should be updated as required and used to document any information updates made to the relevant agencies.

4.2 Other Notifications of Incident to Relevant Authorities

Department of Planning, Infrastructure and the Environment (DPIE)

Schedule 5, Condition 6 of the Pine Dale Mine Project Approval PA 10_0041, requires:

The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident

The incident report to the DPIE must include the following details:

- a) describes the date, time, and nature of the exceedance / incident;
- b) identifies the cause (or likely cause) of the exceedance / incident;
- c) describes what action has been taken to date; and
- d) describes the proposed measures to address the exceedance / incident

The notification report should be lodged via the DPIE Planning Portal ([Major Projects \(nsw.gov.au\)](https://majorprojects.nsw.gov.au)). The MEM (or their delegate) is responsible for notifying DPIE.

NSW Resources Regulator

In accordance with the requirements of the Pine Dale Mine's Mining Lease (ML) authorisations, the NSW Resources Regulator shall be notified within 24 hours of an environmental incident causing or threatening material harm to the environment (ML 1637, Condition 5), and provide a report within 7 days of the incident (ML 1664, Condition 5). The incident report should include the following details ([Contact us - NSW Resources Regulator](#)):

- Details of the mining title
- Contact details of the title holder
- 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 and likely causes
- The circumstances in which the incident occurred (including the cause of the 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 prevent similar incidents from occurring in the future
- And additional information (such as photos, monitoring data, plans, etc) if relevant

Incidents should be reported by calling 1300 814 609 (option 2, then option 5) within 24 hours and emailing nswresourcesregulator@service-now.com within 7 days.

4.3 Contact details

Table 2 contains details of the key personnel within Pine Dale Mine and details of regulatory agencies and other stakeholders that require notification in the event of a pollution incident.

Table 2 Pine Dale Mine Incident Contact Details

Contact Name	24 hour - Contact Phone Number
MEM – Graham Goodwin	Mobile: 0418 830 598
Open Cut Examiner – Chris Schofield	Mobile: 0408 595 108
EPA Pollution Incident Hotline	131 555
NSW Health - Penrith Public Health Unit	(02) 4734 2022
SafeWork NSW	131 050
NSW Fire, Rescue & Police	1300 729 579
Lithgow City Council	(02) 6354 9999

4.4 Communicating with neighbours and the local community

Pine Dale Mine has a community database for communicating with the community in the event of an incident which has the potential to affect neighbours or the local community and is listed in *SMS 2017 – Emergency Contact Phone Numbers from Fire Control and Emergency System*. The database will also be used, where required, for general communication with neighbours and the local community.

The database:

- Facilitates quick contact with large number of stakeholders either through email, SMS or phone or mail drop;
- Provides one central location for storing up to date contact information;
- Allows tailored message and stakeholder segmentation; and
- In the event of a material incident, subject to advice from the regulatory authorities, the following methods of communication are able to be used to communicate with the local community.

4.4.1 Recorded Voice Announcement (mandatory)

A recorded voice announcement will be placed on the Community Information Hotline. This enables local residents to receive information on the nature of the incident and any arrangements following an

incident.

4.4.2 Optional Communication Modes

The following optional communication modes may be implemented:

- Updating web page;
- Newsletter drop; and
- Advertisements.

4.5 Information to be provided to the Community

Decisions to notify neighbours and the local community will be made in consultation with regulatory authorities based on an initial risk assessment (for example, considering the type of pollutant, concentration of emission, prevailing wind and height of the emission).

Advice provided to the community will depend on the type and extent of the pollution incident and guidance from the regulatory authorities. The following example is provided as a guide:

- Uncontrolled release of contaminated water into a waterway – Advise local community to avoid fishing in affected waterways, to restrain pets from entering affected waterways or utilising the waterway for recreation (e.g. swimming) until the waterway is deemed safe to use following sampling and monitoring.

The Pine Dale Mine Emergency Communicator will be responsible for co-ordinating the notification and update of information to neighbours, the local community and regulatory authorities.

Notification of the Community and Media is to be undertaken in accordance with the Energy Australia NSW Business Continuity and Emergency Communication Plan.

4.6 Staff training

Environmental awareness training is delivered to all staff every 3 years, and within three months of employment at operational sites. Training records are maintained by the MEM.

The Environmental Awareness Training Package is designed to provide our employees with an awareness of the importance of:

- their roles and responsibilities in achieving conformance with our Environment Policy and procedures;
- the requirements of the Pine Dale Mine Environmental Management Strategy (EMS);
- our significant environmental aspects and impacts (actual or potential) of their work activities;
- the environmental benefits of improved personal performance;
- the potential consequences of departure from specified operating procedures;
- performing duties in an efficient and competent fashion;
- reporting environmental incidents and “near-miss” events;
- active participation in Pine Dale Mine’s environmental management process; and
- knowledge of regulatory requirements.

The MEM is responsible for ensuring that PIRMP environmental emergency response exercises are conducted at least yearly as required by clause 133 in the POEO (G) Regulation. Where possible these are incorporated into site general emergency response exercises.

Full documentation is to be maintained of the exercise, with lessons learnt and steps taken to improve future response.

5 Pollution incident response planning

The following section details the main hazards Pine Dale Mine, including an inventory of pollutants and associated safety equipment. Pre-emptive measures for minimising risks associated with hazards and pollutants are also detailed below.

5.1 Pollution incident response maps

Pollution incident response maps have been prepared to facilitate planning for incident response and provide readily accessible and accurate information to support the assessment of an incident and assist in the implementation of incident response procedures and clean-up.

The maps will be reviewed on an ongoing basis in order to present accurate information. The following maps are provided in **Appendix B**:

- Locality map (Figure 1.1) – showing the location of the premises,
- Surrounding Landholders (Figure 4.4) – showing the sensitive receivers;
- Main hazard map (Figure 2.4) – showing areas of main potential pollutants on the site;
- Drainage maps (Figure WM1) – showing the main drainage lines and direction of drainage within the site.

It should be noted that the current water management system at Pine Dale Mine is a closed loop system whereby water is drawn from the old underground workings when required via a dewatering bore. Drainage of surface water follows the natural topography of the site and/or diversion bunds. Surface water is directed to the underground workings through temporary sediment ponds / sumps.

5.2 Main hazards at Pine Dale Mine

A hazard risk assessment was undertaken at Pine Dale Mine to identify the main hazards that pose a risk of causing actual or potential material harm to the environment (human beings and ecosystems). The main hazards identified in this risk assessment are detailed in Table 3.

The degree to which an incident has the potential to threaten or cause material harm will depend on the extent and nature of the incident. **In most cases, the threat of environmental harm should be low (trivial) if the incidents are quickly identified and effectively managed in accordance with the management measures identified in Table 3.**

Table 3 Pine Dale Mine Main Hazards & Environmental Risks

Item	Hazard	Description	Likelihood of causing or threatening material environmental harm	Consequence	Management Measure	Circumstances that may increase likelihood of causing or threatening material environmental harm
Community Relations Land and Property Management						
1	Bushfire within Pine Dale Mine boundary	Bushfire within Pine Dale Mine property.	Low	Localised air pollution	Bushfire Management Plan developed for Pine Dale Mine. Firefighting equipment kept on-site. Fire training conducted for first response	Adverse weather conditions. Lack of routine maintenance in bushfire protection zones
2	Erosion from site entering waterways	Erosion of soils within the site leading to discharge of sediment- laden water into Neubecks Creek.	Low	Discharge of sediment-laden water. Non-compliance with EPL	Water Management Plan Maintenance of haul roads, access tracks and boundaries Sediment control ponds and traps	Major storms during earthwork projects with poor sediment control systems in place
Diesel / Oil Storage & Refuelling Area						
3	Diesel storage tank failure/spill onto soil and/or into stormwater drains	Diesel tank and/or pipe failure/overflow leading to spill outside of bund walls and/or contaminated water drains. Spill during refuelling of diesel tank.	Low	Contamination of soil and stormwater drains with hydrocarbons. Non-compliance with EPL.	All tanks are bunded. Emergency spill equipment kept on-site.	Tank structural failure / human error leading to uncontrolled spill to the environment (waterways or land)
4	Oil spills from storage tanks into stormwater drains	Lubricant/ Waste oil tank/drum and/or pipe failure leading to spill outside of bund walls and beyond contaminated water drains. Spill during refuelling of storage tanks.	Low	Contamination of soil and stormwater drains with hydrocarbons. Non-compliance with EPL.	All tanks are bunded. Emergency spill equipment kept on site.	Tank structural failure / human error leading to uncontrolled spill to the environment (waterways or land)
Water Utilisation and Management						
5	Contaminated discharge from Sediment Retention Dam A	The Sediment Retention Dam A collects water surface runoff from disturbed catchments such as the active mine area, processing area, run-of-mine (ROM) and product stockpiles. Contamination from these areas affects the water quality in the sediment retention dam, and water flow into the old underground workings in the event of a discharge.	Low	Contamination of water within Underground Workings Non-compliance with EPL.	Runoff from the crushing and stockpiling area will be captured in a Sediment Trap. An in-pit sump will be maintained within the open cut area and all in-pit drainage, including any groundwater inflows, will be directed to the sump. When the in-pit sump is required to be dewatered, the dirty water is pumped via piping to Retention Dam A. If discharge is required following significant rainfall events to maintain capacity in the dam to accept water from the in pit sump, water can be pumped to the existing sediment dams within the Pine Dale Coal Mine footprint before being discharged to Neubecks Creek via LDP13.	Storm events leading to prolonged contaminated discharge to the environment (waterways).

5.3 Inventory of pollutants

A number of potential pollutants may be stored, used and disposed of at Pine Dale Mine. These include fuels, oils, sediment-laden water and waste materials. A list of potential pollutants is detailed in **Table 4** below.

Table 4 Pine Dale Mine potential pollutants

Area	Pollutant	Max Quantity	Current Inventory
Fuel Oil tanks	Fuel Oil	1,000L	0L
Diesel Generators	Diesel Fuel	500L	0L
Coal Crushing Plant	Diesel Fuel	2,500L	0L

5.4 Pre-emptive actions to minimise risks

The following general pre-emptive actions are undertaken by Pine Dale Mine in order to minimise risks to human health and/or the environment arising from the activities undertaken at the Mine.

- Provision, training and use of spill containment kits;
- Bunding of fuel and oil storage containers;
- Installation and use of fire-containment infrastructure and water tanks;
- Maximisation of the capacity of storage ponds;
- Regular and routine condition assessments of key infrastructure;
- Regular and routine environmental inspections across the sites;
- External audits assessing environmental compliance of the sites with Conditions of Approvals, Environmental Management Plans and general environmental performance;
- Maintaining minimal quantities of chemicals, fuels and oils on site, particularly during care and maintenance;
- Training of staff in the safe handling and use of chemicals, fuels, oils and lubricants.

5.5 Emergency equipment at Pine Dale Mine

Emergency equipment is stored at Pine Dale Mine for use during emergencies. Table 5 outlines the safety equipment kept on site as per the requirements of clause 131 (1) (f) of the POEO (G) Regulation.

Table 5 Inventory of Equipment

Product Name	Location of where equipment is stored	Calibration/Maintenance Requirements
Fire Extinguishers	Mobile plant, Workshops, Administration, Crib Rooms, First Aid Rooms, Fuel Storage Areas and Crushing Plant	Applicable section of AS1851
Spill Kits	Fitters Workshops	Annually
PPE	Administration	Annually
MSDS's	Administration, Document System	Annual Review
First AID Kits	All Light Vehicles, Crushing Plant and Site First Aid Room	Annual Review or as required
Safety Signage	Workshops	Annually
Absorbent Pads & Booms	Spill Kits and Fitters Workshop	Annual Review

6 Testing of the PIRMP

Pine Dale Mine will test the PIRMP on a routine basis at least once every 12 months and within one month of a notifiable incident.

Testing of the PIRMP will generally be run in conjunction with testing of the overall Emergency Response Plan as required. The program for testing is provided below:

- Testing of the PIRMP will either be in the form of a simulation or a practical exercise.
- Pine Dale Mine will maintain records in the EMS pertaining to the exercise, lessons learnt, and steps taken to improve responses.
- Documented records of the PIRMP tests will be kept on file within the Pine Dale Mine site office and reported at the six-monthly Community Consultative Committee (CCC) meetings.

Table 6 Details of previous PIRMP tests

Date of Test	Personnel Undertaking Test	Manner of Test	Summary of changes	Date of Update
13/04/2015	G. Goodwin	Testing including simulation of diesel oil spill from ruptured tank incident.	No changes required.	No update required.
05/05/2016	G. Goodwin, P. Griffiths, A. de Vos	Testing including simulation of bund failure following a major diesel spill.	No changes required.	No update required.
18/07/2017	G. Goodwin, B. Eastwood	Desktop testing including test of contact list.	No changes required.	No update required.
18/8/2018	B Eastwood, G Goodwin, J Teare and T. Nolan	<p>A complaint received on 23/5/2018 relating to a white residue in Neubecks Creek was used to test the PIRMP. The incident did not meet the definition of 'material harm' under the POEO Act and was not related to activities at PDM.</p> <p>A desktop review of the PIRMP was completed and contact numbers tested and updated.</p>	Contact numbers updated	1/8/18

Date of Test	Personnel Undertaking Test	Manner of Test	Summary of changes	Date of Update
6/9/2019	G Goodwin and B Eastwood	<p>A bushfire occurred in the neighbouring area of Lidsdale on 6/9/2019.</p> <p>Desktop test and review of PIRMP and definition of material harm following fire. Incident was not deemed to be material harm as it only caused minimal damage to paddocks within Pine Dale Mine property, i.e. no structural damage.</p>	Update of Section 6, Table 6 to reflect test.	9/9/2019
25/11/2020	G Goodwin and E White	Testing including simulation of diesel spill into Wangcol Creek from the ruptured tank of a drilling rig. Desktop test and contact numbers for notification (Table 2) tested and/or checked	Update of Section 6, Table 6 to reflect test. Update contact from WorkCover to SafeWork	25/11/2020
17/11/2021	G Goodwin and E White	Testing included simulation of a dam burst (dirty water flowing into Wangcol Creek) following heavy rainfall, notified via the Community Complaints Hotline. Desktop test and contact numbers for Hotline and notification (Table 2) tested and/or checked.	<p>PIRMP updated to take account of the new POEO (G) Regulation 2021.</p> <p>Contact numbers updated</p> <p>DPIE notification requirements updated</p>	24/11/2021
7/12/2022	G Goodwin, A DeVos and J Lulham	Testing included simulation of an EA light vehicle that spilled its engine oil contents during a site inspection. The mock spill occurred in a wet part of the site that had flow that entered Wangcol Creek. Notified via the Mt Piper Emergency number (555) and G Goodwin.	Update of section 6 Table 6 to reflect test.	15/12/2022

Date of Test	Personnel Undertaking Test	Manner of Test	Summary of changes	Date of Update
15/11/2023	G Goodwin, A DeVos and J Lulham	Testing included simulation of contractors that were sampling a remote groundwater bore when they had an accident and their vehicle spilled its engine oil and coolant. Notified via Graham Goodwin (MEM)	Update of section 6 Table 6 to reflect test.	15/12/2023

7 Availability of the PIRMP

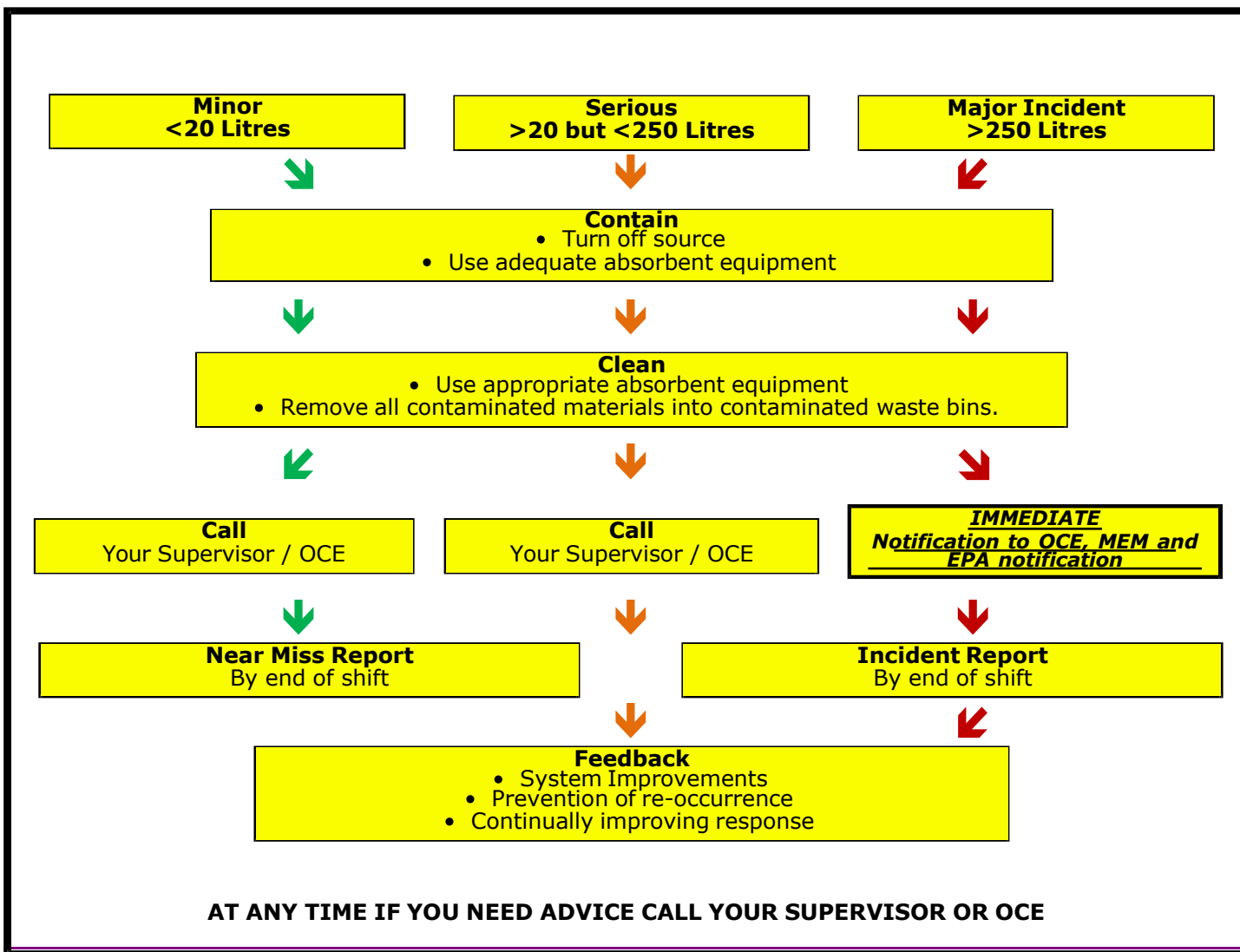
This is the full version of the PIRMP. A hard copy and electronic copy of the PIRMP is maintained at the premises. This document is readily available to the persons responsible for implementing the plan. A copy of this document shall be provided to an authorised officer of the EPA, or any interested party on request. The PIRMP is publicly available on the Pine Dale Mine website at the following link:
(<https://www.energyaustralia.com.au/about-us/energy-generation/pine-dale-coal-mine/yarraboldy-stage-1>).

8 References

- *Pine Dale Mine Fire Control Management System* (PD-EMMP-002)
- Environmental Protection Authority 2020, *Guideline: Pollution Incident Response Management Plans*, NSW EPA
- NSW Dept. of Planning & Environment 2010, *Project Approval 10_0041 Yarraboldy Extension*
- *Protection of the Environment Operations Act, 1997*
- *Protection of the Environment Operations (General) Regulation, 2021*

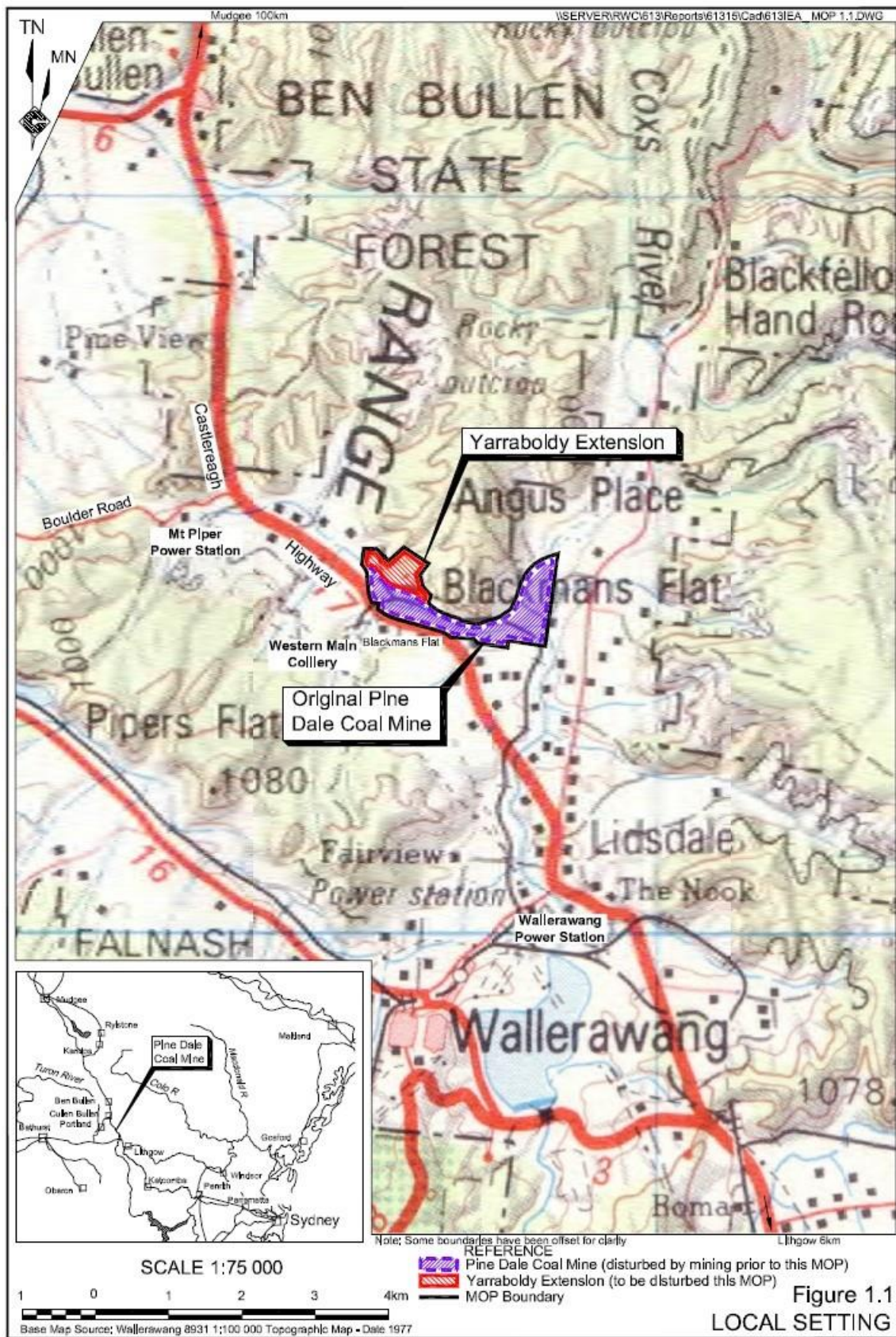
Appendix A

Hydrocarbon Spill Response Flowchart



Appendix B

Pollution Incident Response Maps



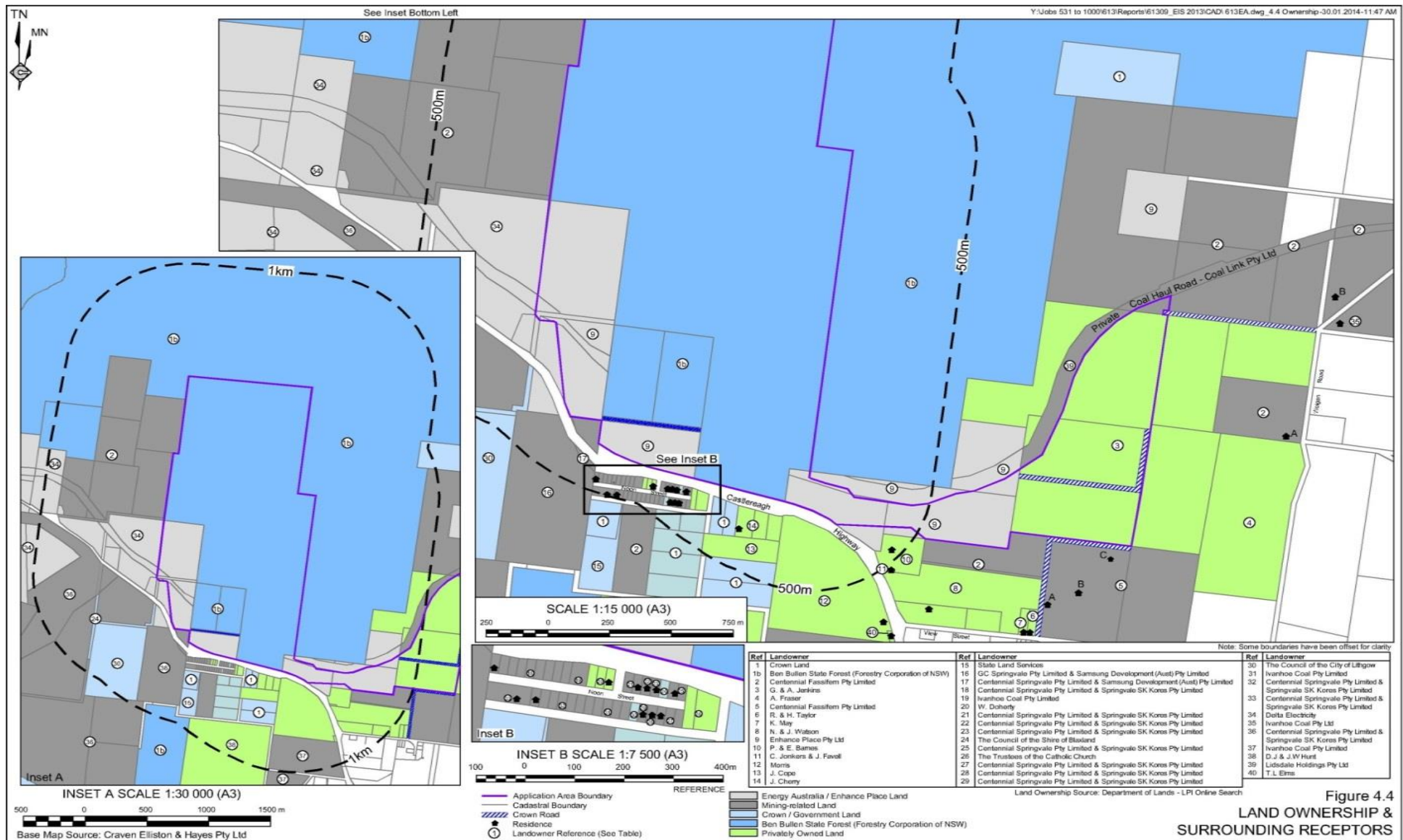


Figure 4.4
LAND OWNERSHIP &
SURROUNDING RECEPTORS

