MACHEnergy

# MOUNT PLEASANT OPERATION

# POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

| | | | |
|---|---|---|---|
| **Document ID:** | MP001-0000-ENV-PLN-0009 | | |
| **Company:** | MACH Energy Australia Pty Ltd | | |
| **Effective Date:** | November 2017 | **Status:** | Issued for Use |
| **Endorsed By:** | Klay Marchant | **Revision Number:** | 00 |

## TABLE OF CONTENTS

**1 INTRODUCTION ..... 1**
1.1 PURPOSE AND SCOPE ..... 3
1.2 OBJECTIVES ..... 5
1.3 DEFINITIONS ..... 5
1.4 STRUCTURE OF THE PIRMP ..... 6
**2 HAZARD IDENTIFICATION ..... 8**
2.1 GENERAL HAZARDS ..... 8
2.2 HAZARDS OF INCREASED LIKELIHOOD ..... 8
2.3 INVENTORY OF POTENTIAL POLLUTANTS ..... 8
**3 PREVENTATIVE ACTIONS ..... 9**
3.1 WATER MANAGEMENT ..... 9
3.2 HAZARDOUS MATERIALS MANAGEMENT ..... 9
3.2.1 Chemicals and Hydrocarbons ..... 9
3.2.2 Potentially Acid Forming Material ..... 10
3.3 BLAST MANAGEMENT ..... 10
3.4 SAFETY EQUIPMENT ..... 11
**4 CONTACT DETAILS ..... 12**
**5 INCIDENT RESPONSE AND REPORTING PROCEDURE ..... 13**
5.1 DURING A POLLUTION INCIDENT ..... 13
5.2 NOTIFICATION OF A POLLUTION INCIDENT ..... 13
5.2.1 Authorities ..... 14
5.2.2 Community ..... 14
5.3 FOLLOWING A POLLUTION INCIDENT ..... 16
5.4 CRISIS MANAGEMENT ..... 16
**6 TRAINING ..... 17**
**7 PLAN AVAILABILITY ..... 18**
**8 REVIEW AND TESTING ..... 19**
**9 RESPONSIBILITIES ..... 20**
**10 REFERENCES ..... 21**

## LIST OF FIGURES

Figure 1 Project Location

Figure 2 Environmental Management System Structure Summary

Figure 3 Pollution Incident Response Flowchart

## LIST OF TABLES

Table 1 Pollution Incident Response Management Plan *Protection of the Environment Operations Act 1997* Information Requirements

Table 2 Pollution Incident Response Management Plan *Protection of the Environment Operations (General) Regulation 2009* Information Requirements

Table 3 Contact Details for Personnel Authorised to Notify External Parties

Table 4 Authority Contact Details

Table 5 Record of Testing

Table 6 Pollution Incident Response Management Plan Responsibilities

## LIST OF APPENDICES

Appendix 1 Environment Protection Licence Premises Map

Appendix 2 Dangerous Goods Storage Locations

Appendix 3 Dangerous Goods Inventory

# 1 INTRODUCTION

The Mount Pleasant Operation (MPO) area is located in the Upper Hunter Valley of New South Wales (NSW), north-west of Muswellbrook and approximately 50 kilometres (km) north-west of Singleton (Figure 1). The villages of Aberdeen and Kayuga are located approximately 5 km north-northeast and 1 km north of the MPO Mining Lease boundary, respectively.

The development application for the MPO was made in 1997. This was supported by an Environmental Impact Statement prepared by Environmental Resources Management (ERM) Mitchell McCotter (ERM Mitchell McCotter, 1997). On 22 December 1999, the then Minister for Urban Affairs and Planning granted Development Consent DA 92/97 to Coal & Allied Operations Pty Ltd. This allowed for the "Construction and operation of an open cut coal mine, coal preparation plant, transport and rail loading facilities and associated facilities" at Mount Pleasant. The consent allowed for the extraction of 197 million tonnes (Mt) of run-of-mine (ROM) coal over a 21-year period, at a rate of up to 10.5 Mt of ROM coal per year.

The MPO Modification (MOD 1) was submitted for approval on 19 May 2010, with a supporting Environmental Assessment (EA) prepared by EMGA Mitchell McLennan (EMGA Mitchell McLennan, 2010), with the following changes proposed:

- The provision of an infrastructure envelope for siting the mine infrastructure.
- The provision of an optional conveyor/service corridor linking the MPO facilities with the Muswellbrook-Ulan Rail Line.
- Modification of the existing Development Consent DA 92/97 boundaries to accommodate the optional conveyor/service corridor and minor administrative boundary changes.

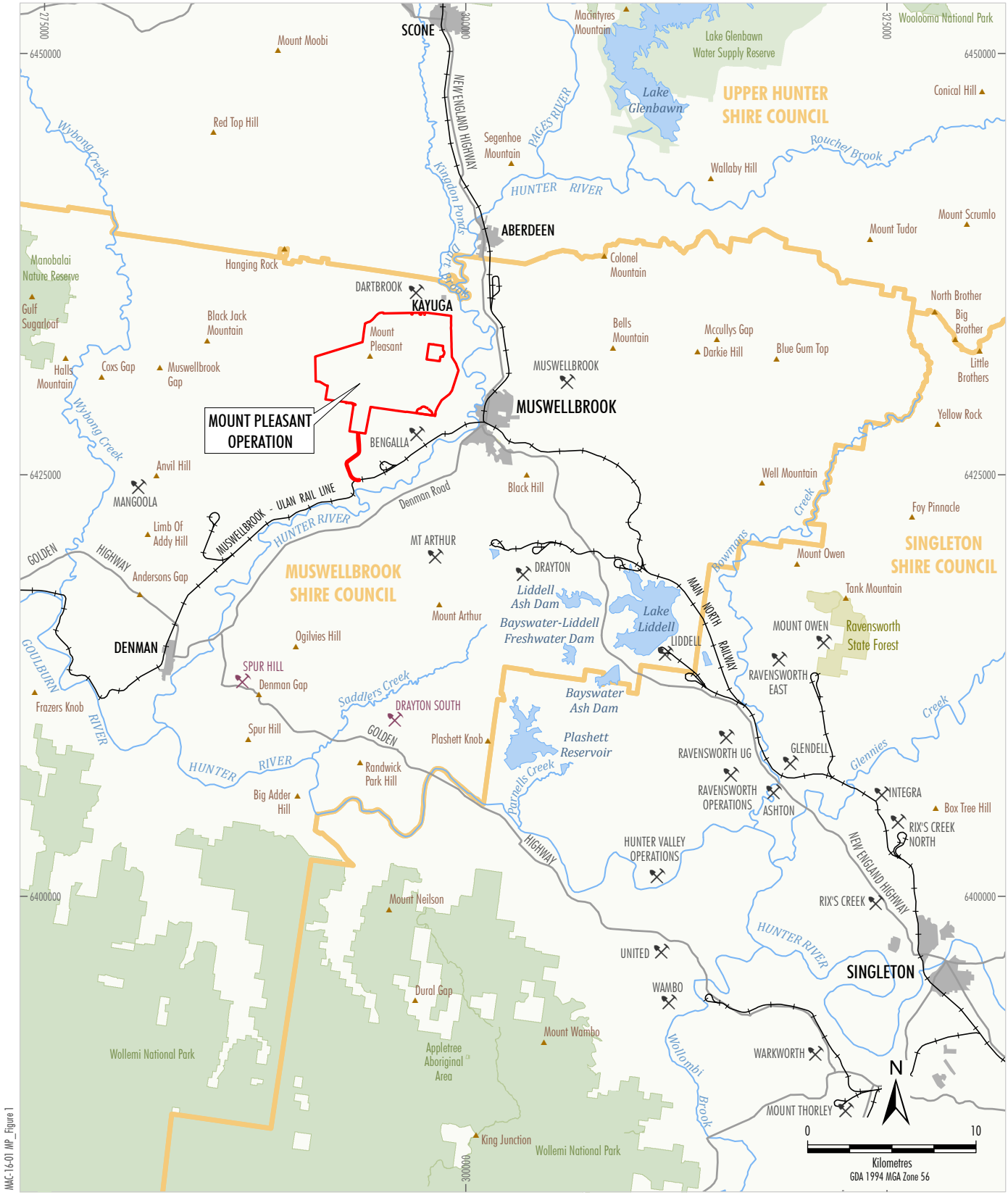
MOD 1 was approved on 19 September 2011.

The MPO South Pit Haul Road Modification (MOD 2) was submitted for approval on 30 January 2017 with a supporting EA prepared by MACH Energy Australia Pty Ltd (MACH Energy) (MACH Energy, 2017).

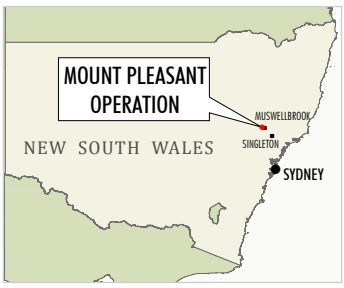
MOD 2 proposed to realign an indicative internal haul road to enable more efficient access to the South Pit open cut, with no other material changes to the approved MPO.

MOD 2 was approved on 29 March 2017.

The proponent of the MPO is MACH Energy. MACH Energy purchased the MPO from Coal & Allied Operations Pty Ltd on 26 January 2016 and the acquisition was completed in August 2016.




MAC-16-01 MP_Figure 1




LEGEND

- Mining Operation
- Proposed Mining Operations (Application Lodged)
- Mining Lease Boundary (Mount Pleasant)
- Railway
- Local Government Boundary
- State Forest
- National Parks and Wildlife Estate

*Source: Geoscience Australia (2006); NSW Division of Resources & Energy (2017); Land and Property Information (2017)*

MACHEnergy

MOUNT PLEASANT OPERATION

Project Location

**Figure 1**

## 1.1 PURPOSE AND SCOPE

This Pollution Incident Response Management Plan (PIRMP) has been prepared by MACH Energy to satisfy the requirements under Condition O4.1 of Environment Protection Licence (EPL) 20850. As the holder of EPL 20850, MACH Energy is required to prepare this PIRMP in relation to the following activities undertaken at the MPO:

- coal works; and
- mining for coal.

This PIRMP has been prepared to manage pollution incidents associated with initial establishment and development works, open cut mining, operation of the coal handling and preparation plant, rail spur/loop and tailings dam, and the supply of water to the MPO operations.

The PIRMP applies to all employees and contractors at the MPO, and covers all areas within the MPO boundary (defined in EPL 20850 and provided in Appendix 1).

Condition O4.1 requires that the PIRMP include information detailed in section 153 of the *Protection of the Environment Operations Act 1997* (POEO Act). Table 1 below lists the information requirements in section 153 and the corresponding section of this PIRMP where the requirement is addressed.

**Table 1**
**Pollution Incident Response Management Plan *Protection of the Environment Operations Act 1997* Information Requirements**

| Protection of the Environment Operations Act 1997 section 153 (c) | Section where addressed in this PIRMP document |
|---|---|
| *A pollution incident response management plan must be in the form required by the regulations and must include the following:*<br><br>*(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* | Section 5.2.2 |
| *(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* | Section 5.2.1 |
| *(iii) any persons or authorities required to be notified by Part 5.7,* | Section 5.2 |
| *(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,* | Section 5.3 |
| *(c) the procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,* | Section 5 |
| *(d) any other matter required by the regulations.* | See Table 2 below |

Under clause 98C of the *Protection of the Environment Operations (General) Regulation 2009, the* PIRMP is required to include the additional matters listed in Table 2 below.

**Table 2**
**Pollution Incident Response Management Plan *Protection of the Environment Operations (General) Regulation 2009* Information Requirements**

| Protection of the Environment Operations (General) Regulation 2009 clause 98 (c) | Section where addressed in this PIRMP document |
|---|---|
| *(1) General The matters required under section 153C (d) of the Act to be included in a plan are as follows:* | |
| *(a) a description of the hazards to human health or the environment associated with the activity to which the licence relates (the relevant activity),* | Section 2 |
| *(b) the likelihood of any such hazards occurring, including details of any conditions or events that could, or would, increase that likelihood,* | Section 2.2 |
| *(c) 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,* | Section 3 |
| *(d) an inventory of potential pollutants on the premises or used in carrying out the relevant activity,* | Appendix 3 |
| *(e) the maximum quantity of any pollutant that is likely to be stored or held at particular locations (including underground tanks) at or on the premises to which the licence relates,* | Appendix 3 |
| *(f) 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,* | Section 3.4 |
| *(g) the names, positions and 24-hour contact details of those key individuals who:*<br>*i) are responsible for activating the plan, and*<br>*ii) are authorised to notify relevant authorities under section 148 of the Act, and*<br>*iii) are responsible for managing the response to a pollution incident,* | Section 4 |
| *(h) the contact details of each relevant authority referred to in section 148 of the Act,* | Section 5.2.1 |
| *(i) details of the mechanisms for providing early warnings and regular updates to the owners and occupiers of premises in the vicinity of the premises to which the licence relates or where the scheduled activity is carried on,* | Section 5.2.2 |
| *(j) 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 being carried on,* | Section 3 |
| *(k) 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 stormwater drains on the premises,* | Appendix 1 and Appendix 2 |
| *(l) 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 that risk,* | Sections 3 and 5 |
| *(m) the nature and objectives of any staff training program in relation to the plan,* | Section 6 |
| *(n) the dates on which the plan has been tested and the name of the person who carried out the test,* | Section 8 |
| *(o) the dates on which the plan is updated,* | Cover Page |
| *(p) the manner in which the plan is to be tested and maintained.* | Section 8 |

## 1.2 OBJECTIVES

This PIRMP will be implemented by MACH Energy in the event of a pollution incident. Specifically, the objectives of the PIRMP are to provide a framework to:

- provide comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), Muswellbrook Shire Council, NSW Ministry of Health, Department of Planning and Environment (DP&E), SafeWork NSW, Fire and Rescue NSW, and anyone outside the facility who may be affected by the impacts of the pollution incident;
- minimise and control the risk of a pollution incident at the facility by identifying risks and developing actions to minimise and manage those risks; and
- adequately implement the plan by training staff, identifying persons responsible for implementing the plan, and regularly testing the plan for accuracy, currency and suitability.

A written copy of the PIRMP will be made available to any authorised EPA officer and to any person who is responsible for implementing the plan.

## 1.3 DEFINITIONS

The following definitions are taken from the *Environmental Guidelines: Preparation of Pollution Incident Response Management Plans* (NSW EPA, 2012). The definition of a pollution incident is:

- *An incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.*

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

- *harm to the environment is material if:*
  - *it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
  - *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*
- *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.*

Under section 148 of the *POEO Act*, MACH Energy is required to report pollution incidents immediately to the EPA, NSW Health, the DP&E, Fire and Rescue NSW, SafeWork NSW and the Muswellbrook Shire Council.

## 1.4 STRUCTURE OF THE PIRMP

This PIRMP will form part of the Environmental Management System Structure for the MPO (Figure 2).

The remainder of the PIRMP is structured as follows:

Section 2: Describes the hazards identified at the MPO.

Section 3: Outlines the preventative actions proposed to minimise any risks associated with pollution incidents.

Section 4: Provides contact details of personnel authorised to initiate the PIRMP.

Section 5: Outlines the pollution incident response and reporting procedure.

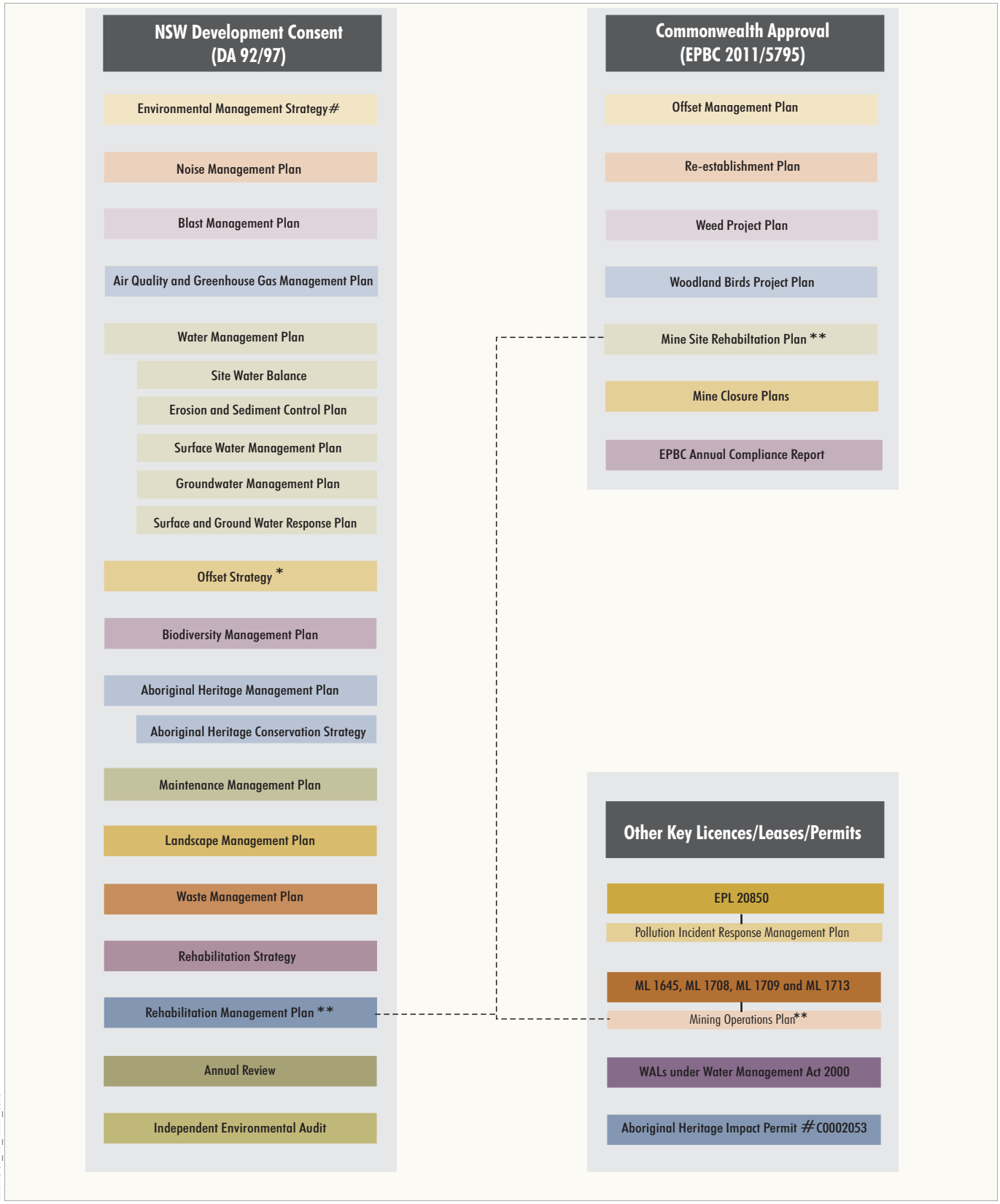
Section 6: Details the training proposed to be undertaken at the MPO, relevant to this PIRMP.

Section 7: Describes how this PIRMP will be made available.

Section 8: Describes the review and testing process of this PIRMP.

Section 9: Outlines the responsibilities which have been delegated as part of this PIRMP.

Section 10: Lists the references cited in this report.




MAC-16-01_MP_PIRMP_001B

Notes:

\# In accordance with Condition 1, Schedule 5 of Development Consent DA 92/97, an Environmental Management Strategy is only necessary if the Secretary of the DP&E requires it.

* In accordance with Condition 29, Schedule 3 of Development Consent (DA 92/97), this Offset Strategy is not required if MACH Energy Australia Pty Ltd does not carry out any development in the conveyor/service corridor.

** The approved Mining Operations Plan has been developed to meet the requirements for a Rehabilitation Management Plan (Condition 56, Schedule 3 of Development Consent [DA 92/97]). The Mine Site Rehabilitation Plan (Conditions 19 and 20 of EPBC 2011/5795) may be incorporated into the Mining Operations Plan.

MACHEnergy

MOUNT PLEASANT OPERATION

Environmental Management System
Structure Summary

**Figure 2**

# 2 HAZARD IDENTIFICATION

The following section lists the hazards identified at the MPO which are relevant to this PIRMP.

## 2.1 GENERAL HAZARDS

The following potential hazards to human health and the environment are generally associated with an open cut coal mining operation:

- pollution of waters as a result of unauthorised discharge of water (sediment laden and/or contaminated) from site;
- pollution of air arising from activities generating blasting, dust and fume impacts;
- pollution of land and/or site water as a result of uncontrolled runoff from disturbed areas, spills and leaks of chemicals (including diesel) as a result of a failure of diversion or containment structures; and
- pollution of land and/or waters from waste materials as a result of a failure to adequately capture and dispose of waste.

## 2.2 HAZARDS OF INCREASED LIKELIHOOD

The following are considered to have an increased likelihood at the MPO:

- unauthorised discharge of contaminated water as a result of failure of water management structures;
- discharge of hydrocarbons from site; and
- dust and fume impacts generated by the handling of waste rock material, clearing vegetation to leave exposed surfaces, and blasting undertaken on-site.

## 2.3 INVENTORY OF POTENTIAL POLLUTANTS

All chemicals stored on site will be accompanied by the relevant Safety Data Sheet (SDS) as required by Work Health and Safety regulations.

The locations of all potential pollutants stored on-site are shown in Appendix 2. All potential pollutants are currently located within the MPO Construction Area. Additionally, a full inventory of potential pollutants, including maximum quantities, is provided in Appendix 3. The inventory within Appendix 3 will be updated progressively if additional pollutants are stored on-site.

# 3 PREVENTATIVE ACTIONS

MACH Energy has implemented a number of management measures including standard work practices, hazard reporting, take 5s and site specific management plans (Figure 2) to minimise potential impacts and reduce the likelihood of a pollution incident occurring on site. The specific measures used to reduce the likelihood of the high risk potential pollution incidents, as outlined in Section 2, are described below.

A description of the safety equipment and other devices that are used to minimise the risks to human health, and to contain or control a pollution incident, are also detailed below.

## 3.1 WATER MANAGEMENT

A Water Management Plan (WMP) has been prepared by MACH Energy to satisfy the requirements under Development Consent DA 92/97. The WMP describes the water management measures to be implemented at the site to minimise the risk of contaminated discharges. These include, but are not limited to:

- Separation of runoff from disturbed and undisturbed areas, where practicable.
- Progressive rehabilitation/stabilisation of infrastructure and mining areas.
- Management of runoff from mining and infrastructure areas through the MPO water management system.
- Construction of suitable erosion and sediment controls such as drains, diversion banks and sediment dams to contain and manage sediment laden surface runoff.
- Rehabilitation and management of Final Voids.
- Controlling all discharges from the site and ensuring they are licensed and meet all relevant water quality discharge requirements.
- Implementing a procedure for the management and reporting of incidents, complaints and non-compliances related to surface and ground water.

Personnel at the MPO will be trained to put their safety first by identifying hazards and the risks associated with water management.

## 3.2 HAZARDOUS MATERIALS MANAGEMENT

### 3.2.1 Chemicals and Hydrocarbons

Chemicals and hydrocarbons will be managed through the procedures for site contamination prevention and control described below. These procedures will minimise the potential for land and water contamination from the handling, storage and disposal of these substances.

Chemicals and hydrocarbons will be transported and stored on-site in accordance with the NSW *Work Health and Safety Act 2011* and *Work Health and Safety (Mines and Petroleum Sites) Act 2013*.

On-site controls will include storage within properly sealed containers and controlled areas, bunded for medium to long-term storage requirements. These storage and waste receival areas will be isolated from clean water catchments to minimise the risk of land or water pollution should an unplanned spill occur.

The response to any accidental spills or ground contamination will be assessed on a case-by-case basis and remediated using biodegradable spill absorbent (Section 3.4). Emergency response procedures will also be enacted as required, in accordance with the relevant environmental procedures. An Emergency Response Team (ERT) in consultation with MACH Energy will be formed and maintained by Principal Contractors at the MPO, which will assist in the control and clean up in the event of a chemical/hydrocarbon spill. Hydrocarbon or chemical spills will be reported in the mine site incident reporting and management system with corrective and preventative measures taken as appropriate.

### 3.2.2 Potentially Acid Forming Material

As outlined in Section 3.2.3 of the MPO Mining Operations Plan, due to the low acid forming potential of the mine leachate at the site, dilution and neutralisation is anticipated to negate any acid forming effects. Notwithstanding, MACH Energy will exclude the material identified as potentially being acid forming (i.e. non-economic coal and identified coal seam roof and floor rock from the Wynn Seam) from the final face of the overburden emplacement to reduce any residual risk.

## 3.3 BLAST MANAGEMENT

Blasting activities are undertaken in accordance with the Blast Management Plan (BMP) which has been prepared in accordance with Condition 17, Schedule 3 of the Development Consent DA 92/97. The BMP outlines management measures to control blasting risks associated with the MPO, including management of overpressure, vibration, flyrock and fume risks.

Blast management procedures proposed in the BMP include, but are not limited to:

- training all relevant personnel on blast-related obligations and explosives management;
- use of appropriate initiation and detonation systems and adherence to blast loading and initiation designs;
- use of adequate burden, stemming lengths and stemming material to confine explosives;
- designing all blasts to comply with airblast overpressure and ground vibration limits;
- monitoring of blasts at all prescribed locations;
- implementation of procedures to mitigate fumes for all blast events;
- calibration of site-specific blast models over time, using monitored data from previous blasting, to enable refinement and assessment for future blast events;
- development of a blast records system which captures sufficient information to allow appropriate characterisation and comparison of blasts and meteorological conditions;
- periodic review of blasting procedures to evaluate performance; and
- evaluation of new technology and alternative blasting methodologies.

Blast monitoring results will be incorporated in the Annual Review.

## 3.4 SAFETY EQUIPMENT

Personal Protective Equipment for the safe handling of all chemicals stored on-site is available at the MPO. In addition, spill kits will be available at various high risk locations at the site, and will include:

- bags of absorbent material;
- absorbent pads;
- gloves for handling contaminated substances; and
- absorbent booms.

# 4 CONTACT DETAILS

The following personnel (listed in Table 3 below) have the authority to activate this PIRMP and notify the relevant authorities (listed in Table 4) and communicate with external stakeholders regarding pollution incidents at the MPO.

**Table 3**
**Contact Details for Personnel Authorised to Notify External Parties**

| Position | Contact | Phone Number |
|---|---|---|
| General Manager Operations | Philip Price | 0439 534 145 |
| Project Director Construction | Simon Bower | 0420 788 401 |
| Health Safety Environment Manager | Shane Downer | 0419 165 069 |
| Environmental Superintendent | Klay Marchant | 0400 239 291 |

# 5 INCIDENT RESPONSE AND REPORTING PROCEDURE

Sections 5.1 to 5.3 below detail the incident response and notification procedure. The overall pollution incident response procedure is outlined in Figure 3.

If a pollution incident is classified as a 'Crisis' (i.e. with potential to result in significant environmental degradation and/or community disruption, particularly when it may be life threatening), the procedures outlined in Section 5.4 will also be undertaken.

## 5.1 DURING A POLLUTION INCIDENT

The PIRMP will be activated when:

- an MPO employee, contractor or supplier becomes aware of a pollution incident or potential pollution incident that has caused, or threatens to cause, material harm to the environment; or
- a notification from an external party provides evidence that a pollution incident or potential pollution incident may have occurred at the MPO.

Upon activation of the PIRMP the following internal and external notification process is to be followed:

1. Report potential pollution incident to supervisor immediately.
2. If there is an immediate threat to life or property, declare an emergency situation and contact 000 immediately. Activate the ERT and refer to Emergency Response Plans.
3. Supervisor reports incident to Environmental Superintendent immediately. Where not available, contact authorised persons listed in Table 3 and provide the following details:
    a. exact location of incident;
    b. date, time and nature of incident;
    c. extent of incident;
    d. actions taken; and
    e. whether emergency services are required, or have been contacted.
4. Authorised personnel (Table 3) will notify relevant authorities (Table 4) immediately upon becoming aware of the incident in accordance with Section 5.2 below. Relevant authorities will be provided with factual information.
5. Where other stakeholders may be impacted (e.g. community members) or where directed by the EPA, other stakeholders are to be contacted.

## 5.2 NOTIFICATION OF A POLLUTION INCIDENT

Following containment of the incident, immediate action must be taken to determine if the incident could be classified as a 'material harm incident', i.e. considered to be causing or threatening material harm.

As defined by section 147 of the POEO Act, a material harm incident has occurred if the incident:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- results in actual or potential loss (including all 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) or property damage of an amount, or amounts in aggregate, exceeding $10,000.00 (or such other amount as is prescribed by the regulations). The determination of a material harm incident will be made by the General Manager Operations and/or Project Director in consultation with the Heath Safety Environment – Manager and Environmental Superintendent. It is possible for a material harm incident to occur on land that is within the boundary of the EPL.

### 5.2.1 Authorities

If a pollution incident on-site occurs where material harm to the environment is caused or threatened, MACH Energy must immediately implement this PIRMP. The authorities listed in Table 4 shall be notified immediately of the pollution incident by an authorised person. All pollution incidents causing or threatening material harm to the environment are to be reported immediately. As stated above, in the event of an emergency, 000 will be called prior to informing the authorities within Table 4.

**Table 4**
**Authority Contact Details**

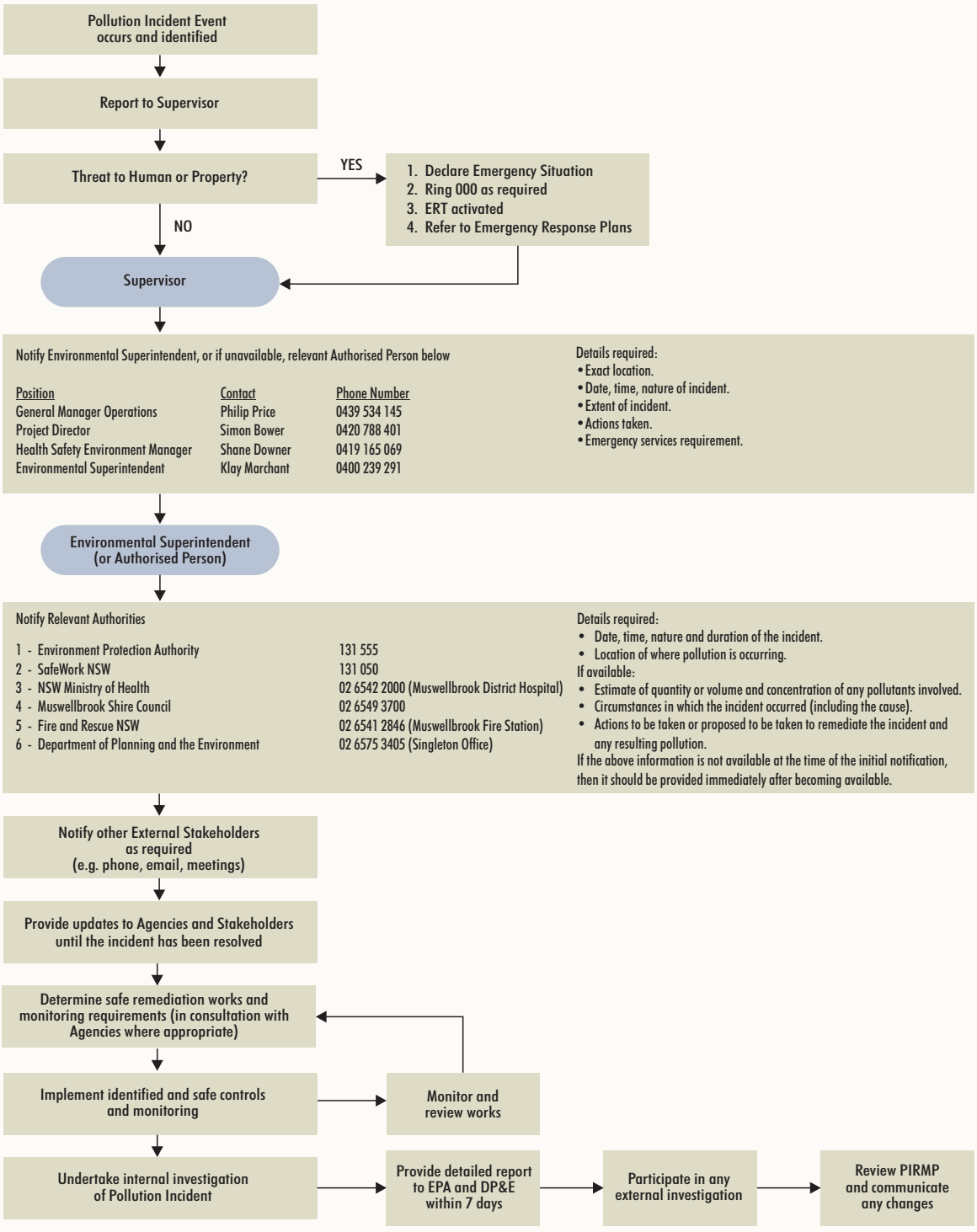
| Authority | Phone Number |
|---|---|
| Environment Protection Authority | 131 555 |
| SafeWork NSW | 131 050 |
| NSW Ministry of Health via Local Public Health Unit | 02 6542 2000 (Muswellbrook District Hospital) |
| Muswellbrook Shire Council | 02 6549 3700 |
| Fire and Rescue NSW | 02 6541 2846 (Muswellbrook Fire Station) |
| Department of Planning and the Environment | 02 6575 3405 (Singleton Office) |

### 5.2.2 Community

Any pollution incident causing or threatening material harm to the environment will be communicated to all potentially impacted stakeholders as soon as practicable by an authorised person (listed in Table 3). For water and hydrocarbon related pollution incidents, the closest private water user downstream of the operations will be notified of the incident. Ongoing communication will continue until the incident has been controlled and impacts as a result of the incident have been rectified.

MACH Energy will contact those affected by a pollution incident in conjunction with emergency services by either direct contact or telephone. Updates will be provided to the broader local community in affected areas via newsletters, information sheets, the MACH Energy website (www.machenergyaustralia.com.au) or media statements. The method and content of communication will depend on the pollution incident and the actions required to protect human health.

For a fume related incident, if a blast fume of Level 3 or above is expected to leave the site, MACH Energy will notify the surrounding sensitive receivers (refer to BMP). Contact registers for MACH Energy's stakeholders are maintained on-site.




MAC-16-01_MP_PIRMP_002F

MACHEnergy

MOUNT PLEASANT OPERATION

Pollution Incident Response Flowchart

**Figure 3**

## 5.3 FOLLOWING A POLLUTION INCIDENT

Following a pollution incident at the MPO the following actions will be undertaken:

- assessment of the incident to determine necessary controls and remedial works. Remediation works may include:
  - sampling and/or monitoring;
  - installation of controls;
  - engagement of specialist consultants and/or contractors;
  - procurement of additional/replacement supplies (e.g. spill kit material); and
  - consultation with agencies or stakeholders;
- updates of agencies and stakeholders;
- internal investigation of the pollution incident;
- a detailed report of the pollution incident to be provided to the DP&E and any relevant agencies within 7 days of the date of the incident in accordance with Condition 7, Schedule 5 of Development Consent DA 92/97, which outlines the following:
  - date, time and nature of the pollution incident;
  - identifying the cause (or likely cause) of the pollution incident;
  - describing what action has been taken to date; and
  - describing proposed measures to address the pollution incident;
- participation in any external investigation of the pollution incident;
- review of the PIRMP for effectiveness; and
- appropriate communication of any changes to the PIRMP.

## 5.4 CRISIS MANAGEMENT

If upon becoming aware of the pollution incident, the MACH Energy Crisis Management Team (CMT) Leader classifies the pollution incident as a ‘Crisis’, the following procedures (outlined in the MACH Energy Crisis Management Plan) will be undertaken:

1. The CMT Leader will mobilise the CMT at the Crisis Command Centre (the Primary Crisis Command Centre is located at the meeting room of Level 17, 10 Eagle Street, Brisbane, Queensland).
2. The CMT will manage all external consequences which arise from the crisis, including those relating to the community, environment, finances, legalities and media. The CMT will report the details of the incident to all relevant internal stakeholders within related organisations.
3. An Incident Management Team (IMT) will be formed, whose purpose is to support the ERT and provide consistent updates to the CMT throughout the incident.
4. The IMT will provide regular updated information regarding the incident to the CMT, and work with the CMT to agree on appropriate responses to the incident as information becomes available. The IMT will coordinate the implementation of these responses.
5. The IMT will plan and implement all external communication with community and environmental stakeholders.

Once the crisis situation is being managed and is deemed under control (as outlined in the MACH Energy Crisis Management Plan), the CMT is responsible for closing-out the crisis as soon as possible. This team will also lead evaluation exercises conducted in relation to the crisis.

# 6 TRAINING

A training program has been developed with the objective of informing personnel of the appropriate implementation of the PIRMP. As part of the training program, the following actions will be undertaken:

- communication with employees and contractors informing them about the existence and purpose of the PIRMP in inductions;
- informing personnel of the appropriate methods of notification of environmental incidents;
- communication with relevant personnel outlining their role and responsibilities under the PIRMP; and
- providing updates to personnel when the PIRMP is revised.

In addition to the above, the MPO ERT training schedule will contain hazardous materials training for ERT members. Records of training will be kept in accordance with the MPO training management system.

# 7 PLAN AVAILABILITY

A copy of this plan will be maintained at the MPO site and will be readily available to MACH Energy personnel and to any authorised EPA officer on request.

In addition, a copy of the plan will be made publicly available on the MACH Energy website (www.machenergyaustralia.com.au).

# 8 REVIEW AND TESTING

A copy of the PIRMP will be kept at the MPO at all times and implemented in the case of a pollution incident. The PIRMP will be reviewed:

- within 3 months of any changes to licence conditions relating to pollution incidents;
- following a pollution incident at the MPO;
- following an independent environmental audit which recommends changes to the PIRMP; and
- if there is a relevant change in technology or legislation.

The PIRMP will be tested regularly in such a manner as to ensure that the information included in the plan is accurate, up to date and is capable of being implemented in an effective manner. Testing will be undertaken by desktop simulation or using practical drills at the following intervals:

- at least once every 12 months (i.e. prior to November each year); and
- within one month of any pollution incident occurring.

A record of testing undertaken on the PIRMP is provided in Table 5 below. This table will be progressively updated over time.

**Table 5**
**Record of Testing**

| Testing Date | Personnel |
|---|---|
| 24 March 2017 (Desktop) | Environmental Superintendent - Klay Marchant |
| 20 November 2017 (Desktop) | Environmental Superintendent - Klay Marchant |

# 9 RESPONSIBILITIES

The responsibilities assumed under this PIRMP are listed in Table 6 below.

**Table 6**
**Pollution Incident Response Management Plan Responsibilities**

| Role | Responsibility |
|---|---|
| General Manager Operations /Project Director | • Provide adequate resources to implement the requirements of the PIRMP. |
| Health Safety Environment Manager | • Notify relevant authorities and potentially affected external stakeholders of pollution incidents.<br>• Coordinate the response to pollution incidents.<br>• Prepare reports relating to pollution incidents.<br>• Provide all employees and contractors adequate training in environmental awareness, legal responsibilities, and pollution incident response.<br>• Coordinate relevant reviews of the PIRMP. |
| Environmental Superintendent | • Assist with the response to pollution incidents.<br>• Assist with the notification and reporting of pollution incidents.<br>• Maintain records of training relating to the PIRMP. |
| Managers | • Notify relevant authorities and potentially affected external stakeholders of pollution incidents.<br>• Coordinate the response to pollution incidents. |
| Supervisors | • Notify the Environmental Superintendent and department manager of pollution incidents.<br>• Coordinate the response to pollution incidents.<br>• Undertake routine area inspections. |
| All Employees and Contractors | • Report pollution incidents and potential pollution incidents to their immediate supervisor.<br>• Ensure all chemicals, hydrocarbons and hazardous substances are stored and handled appropriately. |

# 10 REFERENCES

EMGA Mitchell Mclennan (2010) *Mount Pleasant Project Modification Environmental Assessment Report.* Prepared for Coal and Allied Operations Pty Limited.

Environmental Resources Management Mitchell McCotter (1997) *Mount Pleasant Operation Environmental Impact Statement.*

MACH Energy Australia Pty Ltd (2017) *Mount Pleasant Operation (DA 92/97) – South Pit Haul Road Modification.*

New South Wales Environment Protection Authority (2012) *Environmental Guidelines: Preparation of Pollution Incident Response Management Plans.*

# APPENDIX 1

# ENVIRONMENT PROTECTION LICENCE PREMISES MAP

NOTE:
APPROXIMATE BENGALLA EPL6538 BOUNDARIES, CW1 PIPELINE, EPL, HRSTS DISCHARGE LOCATIONS AND MET STATION INFORMATION AS RECEIVED FROM BENGALLA ON 10/11/2016

MACH ENERGY EASEMENT
MACH ENERGY OWNED LAND
CROWN LAND
ROAD
WATER COURSE
RAILWAY

N-AT2
A-PF5
ML 1708
ML 1645
ML 1645
AUTH 459
ML 1645
AUTH 459
ML 1645
DORSET RD
BELGRAVE RD
COAL CREEK RD
M-WS4
CASTLEROCK RD
KAYUGA RD
AUTH 459
N-AT3
ML 1709
ML 1645
CASTLEROCK, WYBONG, DORSET, KAYUGA, BENGALLA AND OLD BENGALLA ROADS AND MUSWELLBROOK MERRIWA RAILWAY EXCLUDED FROM EPL
ML 1645
ML 1711 (BENGALLA)
ML 1645
ML 1750
ML 1645
AUTH 459
N-AT4
A-PF2
MUSWELLBROOK
B-VOC
ML 1713
SEE INSET
ML 1645
WYBONG RD
MUSWELLBROOK MERRIWA RAILWAY
HUNTER RIVER
N-AT5
0 1 2
KILOMETRES
ROXBURGH RD
BENGALLA RD
N-AT1
ML 1645
WYBONG RD
ML 1713
ML 1645
HUNTER RIVER
BENGALLA RD
ROXBURGH RD
N-AT1
BENGALLA RD
N-AT6
MUSWELLBROOK MERRIWA RAILWAY

| MACH Site ID | EPL ID | Type |
|---|---|---|
| A-PF2 | Point 1 | Air Quality - Palas Fidas |
| A-PF5 | Point 2 | Air Quality - Palas Fidas |
| B-VOC | Point 3 | Blasting (Vibration/Overpressure) |
| M-WS4 | Point 4 | Weather Station |
| N-AT1 | Point 5 | Noise – Attended (NAG 1) |
| N-AT2 | Point 6 | Noise – Attended (NAG 2) |
| N-AT3 | Point 7 | Noise – Attended (NAG 3/4/5) |
| N-AT4 | Point 8 | Noise – Attended (NAG 6/7) |
| N-AT5 | Point 9 | Noise – Attended (NAG 8/9) |
| N-AT6 | Point 10 | Noise – Attended (NAG 10/11) |

I, ROSS PEASLEY, REGISTERED LAND SURVEYOR UNDER THE SURVEYING & SPATIAL INFORMATION ACT 2002, HEREBY CERTIFY THE LINES SHOWN HEREON THAT ARE COINCIDENT WITH EXISTING MINING LEASE TENEMENT OR EXISTING TITLE BOUNDARIES HAVE BEEN ACCURATELY DETERMINED BY SURVEY. CONFIRMATION OF THESE LINES ON THE GROUND SHOULD BE UNDERTAKEN BY A REGISTERED LAND SURVEYOR SHOULD ANY SIGNIFICANT WORKS OR OTHER MATTERS NEAR OR ON THE BOUNDARY ARISE.

18/5/17

MACHEnergy

MACH Energy Australia
Mt Pleasant Project

Drawn By: SC
Date: 17/05/17
Layout: A3
Projection: MGA 56
Location: Muswellbrook
Contour: N/A
Version: 09

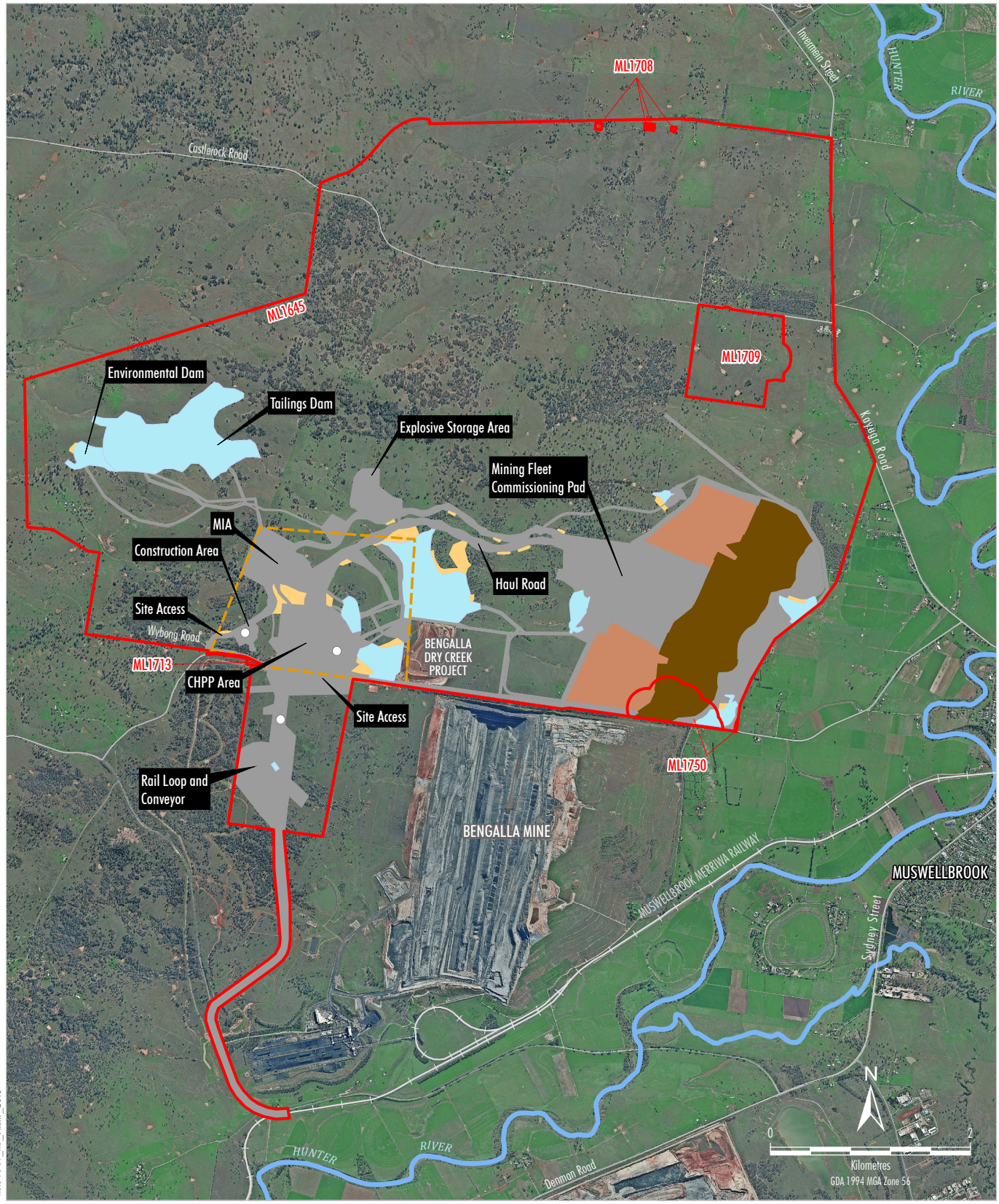
MACH ENERGY HELD TENEMENT
MOUNT PLEASANT EPL
MOUNT PLEASANT DEVELOPMENT CONSENT BOUNDARY
ENVIRONMENTAL MONITOR

**Environment Protection Licence Premises Map**

Worksapce Ref: MACH EPL 170510.wor
PDF Ref: MACH EPL 170517.PDF

# APPENDIX 2

# DANGEROUS GOODS STORAGE LOCATIONS




MAC-16-01_MP_PIRMP_201D

LEGEND

- Mining Lease Boundary
- Infrastructure Area Envelope
- Active Mining Area
- Active Overburden Emplacement Area
- Water Management
- Topsoil Stockpile
- Infrastructure Area and Access Roads
- Pollutant Storage Location

*Source: NSW Land & Property Information (2015); NSW Department Resources & Engery (2016);*
*Orthophoto: MACH Energy (August 2016)*

MACHEnergy

MOUNT PLEASANT OPERATIONS

Dangerous Goods Storage Locations

**Figure A-1**

# APPENDIX 3

# DANGEROUS GOODS INVENTORY

**Table 3-1**
**Pollutant Inventory**

| Pollutant | Location[1] | Approximate Quantity |
|---|---|---|
| Diesel | Construction Area | 25,000 L (1 tank) |
| Diesel | Construction Area | 55,000 L (1 tank) |
| Diesel | Construction Area | 55,000 L (1 tank) |
| Oil | Construction Area | 6000 L |
| Coolant | Construction Area | 1000 L |
| EnviroBlue | Construction Area | 1000 L |
| Waste Oil | Construction Area | 12,500 L |
| Diesel | CHPP | 2,000 L (2 fuel trailers) |
| Diesel | Rail Loop & Conveyor | 10,000 L |

Note: L = Litres.
[1] The pollution storage location is shown in Appendix 2.