DURALIE COAL MINE
Pollution Incident Response Management Plan

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POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN

Revision Status Register

Section/Page/ Annexure	Revision Number	Amendment/Addition	Author	Distribution	Date
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All	12-787-R-003	Review following 2014 annual PIRMP audit	DCPL	EPA	October 2014
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ALL	12-787-R-005	2017 review and amendments from EPA dams compliance audit 2016.	DCPL	EPA	April 2017
All	12-787-R-006	2018 Review and updates	DPCL	EPA	Jan 2019
All	12-787-R-007	Revision following Annual PIRMP Audit 2021. Revision following incident triggering PIRMP in Mar 2021.	DCPL	EPA	April 2021
All	12-787-R-008	Updates to reflect current status of DCM and mine closure planning.	DCPL	EPA	TBC
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November 2023
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1 INTRODUCTION

1.1 DURALIE COAL MINE

The Duralie Coal Mine (DCM) is an existing mine situated approximately 35 kilometres (km) south of Gloucester in the Gloucester Valley, New South Wales (NSW) (**Figure 1**). Duralie Coal Pty Ltd (DCPL) (a wholly owned subsidiary of Yancoal Australia Limited [Yancoal]) owns and operates the DCM. The NSW Minister for Urban Affairs and Planning granted Development Consent for the DCM in August 1997 and coal production commenced in 2003.

Development of the DCM is approved under Mining Leases (MLs) 1427 and 1646 and NSW Project Approval (08_0203). Condition 5, Schedule 2 of Project Approval (08_0203) authorised mining operations to be carried at the DCM until 31 December 2021.

Accordingly, DCPL has commenced the mine closure phase (i.e. following the cessation of mining operations on 31 December 2021). Prior to closure the DCM consisted of an open cut, truck and excavator mine producing run of mine (ROM) coal, which was railed to the Stratford Mining Complex (SMC) and processed at the SMC Coal Handling and Processing Plan (CHPP).

Operations at the DCM now reflect mine closure:

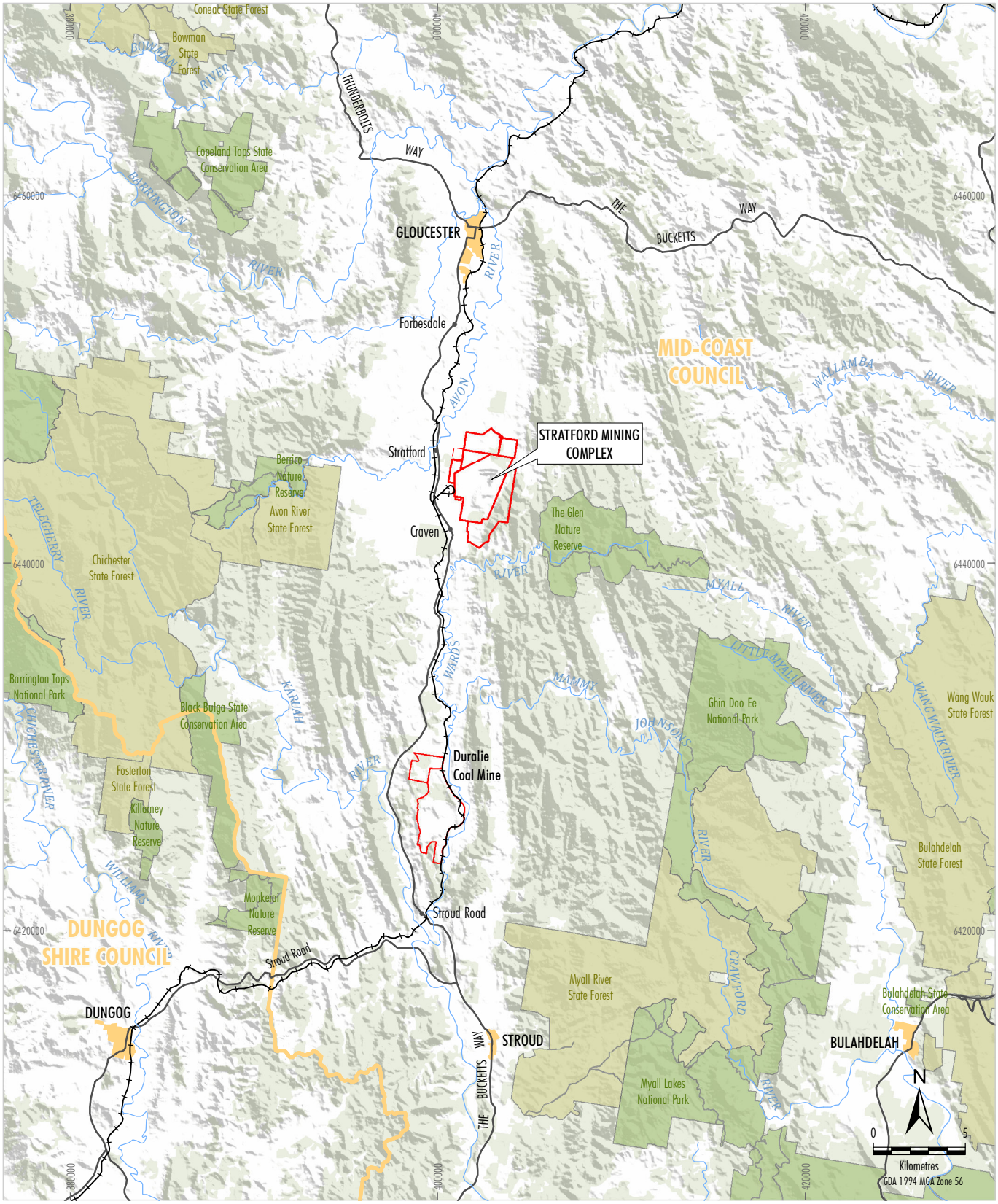
- **Clareval Open Pit**: mining of the Clareval Open Pit is completed, and dewatering of the pit has ceased. Partial backfilling with waste rock mined from the Weismantel Open Pit has commenced, along with shaping of the pit area to its final landform design.
- **Weismantel Open Pit**: mining of the Weismantel Open Pit continued up to 31 December 2021. Progressive backfilling of completed areas of the Weismantel Open Pit has been undertaken.
- **DCM Water Management System Changes**:
  - Following the cessation of mining of the Clareval Open Pit (now final void) and the Clareval void becoming available as a water storage, Weismantel Open Pit dewatering is preferentially transferred to the Clareval void and not stored within the Main Water Dam (MWD). As a result, all irrigation activities for the purpose of reducing the total site water inventory at the DCM have ceased and the DCM's Irrigation Area irrigation system has been decommissioned and removed.
  - Decommissioning of other redundant water management structures has also commenced. Auxiliary Dam No. 1 has been dewatered, decommissioned and rehabilitated.
- **Vegetation Clearance**: No new disturbance areas (within approved surface disturbance areas) are proposed.
- **Closure Planning**: The DCM Mine Closure Plan and Schedule includes technical assessments and works that will be undertaken and implemented as part of the DCM mine closure phase. Key components of the DCM Mine Closure Plan and Schedule include:
  - Preparation of a detailed final landform design, including final void design.
  - Review and update of the site groundwater model and site water balance (including final void water balance) based on the refined final landform design.
  - Preparation of other key strategies and assessments (including a detailed Decommissioning Strategy for Mine Water Dams; and preparation of the final Coal Shaft Creek Reconstruction Plan).
  - Undertaking Stakeholder Engagement to communicate the DCM's mine closure process with relevant stakeholders.
  - Review and update as required, existing environmental management plans for the rehabilitation and mine closure stage of operations.

DCM Activities following Cessation of Mining Operations

Following the completion of rehabilitation earthworks at the DCM there will be several changes to DCM operations relevant to this Pollution Incident Response Management Plan. These include:

- cessation of the scheduled activity “Mining for Coal”.
- cessation of mining operations and bulk rehabilitation earthworks and subsequent removal of the majority of plant, machinery, equipment and vehicles from the DCM. Consequently, the quantities of chemical, fuels and oils stored on-site would be significantly reduced.
- the cessation of waste rock generation and waste generated by mining-related activities and the significant reduction in volume of general recyclable and non-recyclable wastes and sewage and effluent generated. Accordingly, waste management measures relevant to these waste streams gradually reduce and/or become redundant.

DCPL would update this Pollution Incident Response Management Plan following the completion of rehabilitation earthworks at the DCM, to ensure the plan reflects the closed rehabilitation site. DCPL would also submit an Environment Protection Licence (EPL) variation to reflect the cessation of activities as described above.



YAN-21-40 MP2021 CF_201A

LEGEND

- Mining Lease Boundary
- Mining Lease Application Boundary *
- NSW State Forest
- National Park, Nature Reserve or State Conservation Area
- Local Government Area Boundary

**MLA1 is a proposed future Mining Lease Application (MLA) area and has not yet been lodged.*

Source: Geoscience Australia (2006); Yancoal (2019); NSW Department of Planning & Environment (2017)

STRATFORDCOAL
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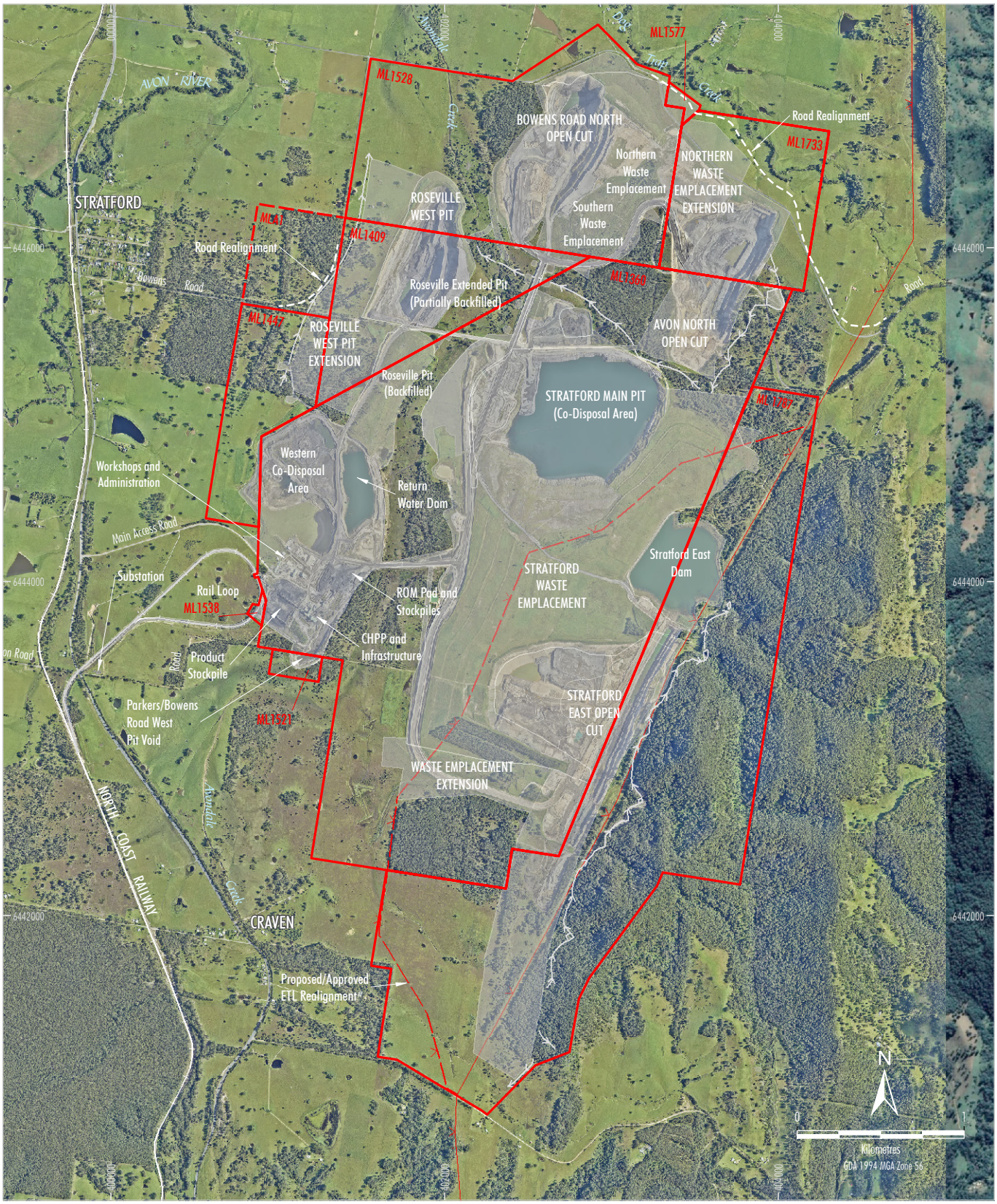
STRATFORD EXTENSION PROJECT

Regional Location

Figure 1



YAN-21-40 MP2021 CF_202A

LEGEND

- Mining Lease Boundary
- Mining Lease Application Boundary*
- Electricity Transmission Line
- Approximate Extent of Existing/Approved Surface Development
- Conceptual Up-Catchment Diversion

**MLA1 is a proposed future Mining Lease Application (MLA) area and has not yet been lodged.*

 # Not yet Constructed

Source: Orthophoto - Yancoal (2021); LPI (2016); NSW Department of Planning & Environment (2017)

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STRATFORD EXTENSION PROJECT

Approved General Arrangement

Figure 2

1.2 PURPOSE AND SCOPE

This Pollution Incident Response Management Plan (PIRMP) has been prepared by DCPL, in accordance with Part 5.7A of the *Protection of the Environment Operations Act, 1997* (POEO Act) and Part 3A of the *Protection of the Environment Operations (General) Regulation, 2022* (the Regulation). DCPL holds EPL No.11701 (EPL11701) for the DCM. The EPL covers the following scheduled activities:

1. Coal Works; and
2. Mining for Coal.

The objectives of this PIRMP are to provide DCM personnel and the local community with:

- a system designed to manage and report any potential pollution incidents to which EPL11701 relates;
- chemical, physical and toxicological information regarding potential site contaminants and/or hazardous substances that may be encountered in the event of a pollution incident;
- information regarding the main exposure pathways of potential site contaminants or hazardous substances they may encounter during possible pollution incidents; and
- practical methods to eliminate or reduce potential pollution incidents to 'as low a level as is practicable'.

The DCM Organisation Environmental Management Structure is shown on **Figure 3**.

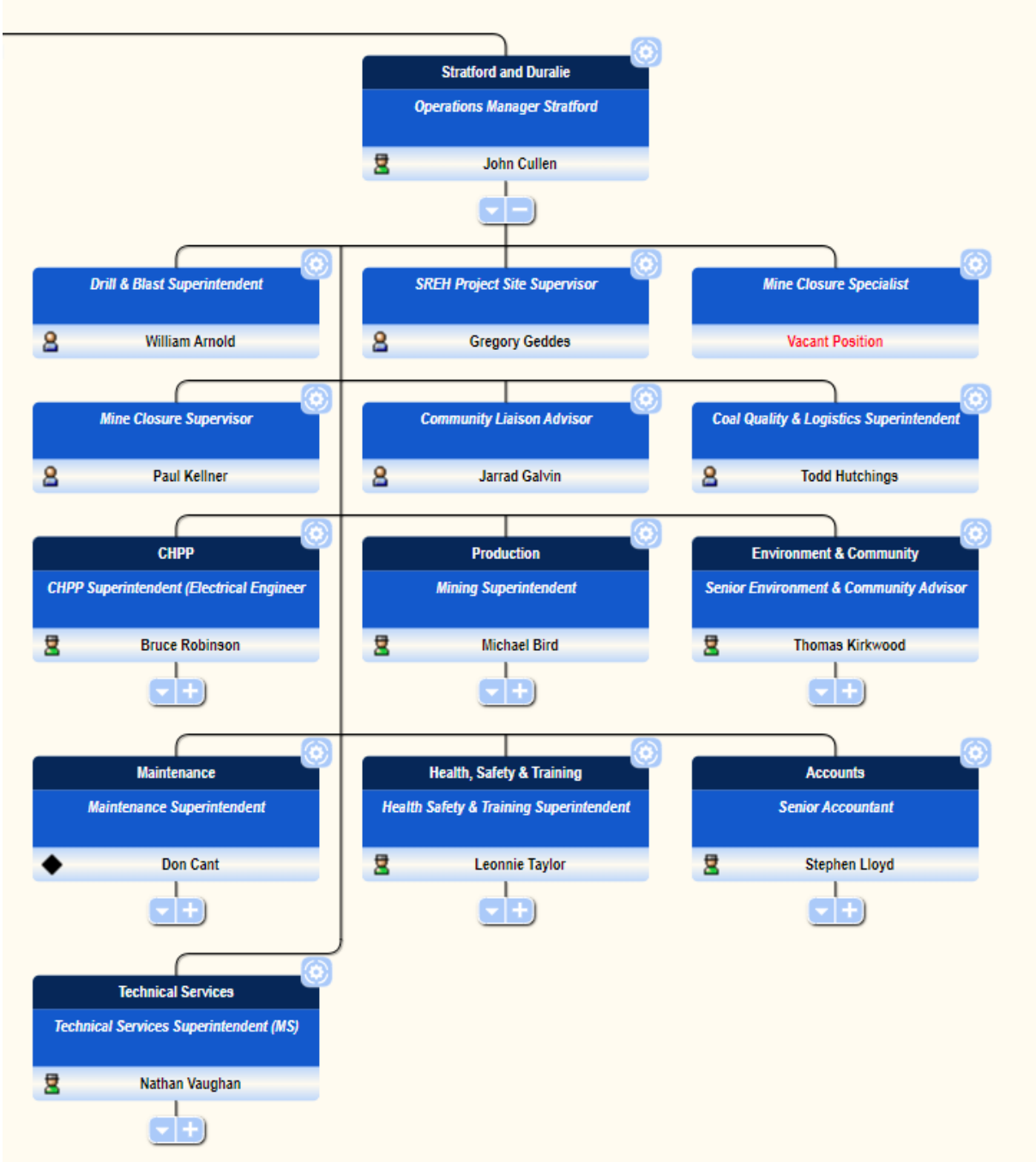
This revision of the PIRMP has been prepared by DCPL to:

- describe the current status of operations at the DCM and the anticipated changes in operations and site activities leading into and during the mine closure phase; and
- describe the anticipated change in pollutants generated and/or stored at the DCM during the mine closure phase.

Stratford and Duralie

Organisational Structure

November 2023



1.3 DEFINITION OF A POLLUTION INCIDENT

The POEO Act defines a *'pollution incident'* as being:

> *"**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."*

The POEO Act defines '*pollution'* in the following terms:

> ***"pollution** means:*
>
> *(a) water pollution, or*
> *(b) air pollution, or*
> *(c) noise pollution, or*
> *(d) land pollution."*

Note:

***"water pollution** or **pollution of waters** means:*

(a) placing in or on, or otherwise introducing into or onto, waters (whether through an act or omission) any matter, whether solid, liquid or gaseous, so that the physical, chemical or biological condition of the waters is changed, or

(b) placing in or on, or otherwise introducing into or onto, the waters (whether through an act or omission) any refuse, litter, debris or other matter, whether solid or liquid or gaseous, so that the change in the condition of the waters or the refuse, litter, debris or other matter, either alone or together with any other refuse, litter, debris or matter present in the waters makes, or is likely to make, the waters unclean, noxious, poisonous or impure, detrimental to the health, safety, welfare or property of persons, undrinkable for farm animals, poisonous or harmful to aquatic life, animals, birds or fish in or around the waters or unsuitable for use in irrigation, or obstructs or interferes with, or is likely to obstruct or interfere with persons in the exercise or enjoyment of any right in relation to the waters, or

(c) placing in or on, or otherwise introducing into or onto, the waters (whether through an act or omission) any matter, whether solid, liquid or gaseous, that is of a prescribed nature, description or class or that does not comply with any standard prescribed in respect of that matter,

and, without affecting the generality of the foregoing, includes:

(d) placing any matter (whether solid, liquid or gaseous) in a position where:

> *(i) it falls, descends, is washed, is blown or percolates, or*
> *(ii) it is likely to fall, descend, be washed, be blown or percolate,*
>
> *into any waters, onto the dry bed of any waters, or into any drain, channel or gutter used or designed to receive or pass rainwater, floodwater or any water that is not polluted, or*

(e) placing any such matter on the dry bed of any waters, or in any drain, channel or gutter used or designed to receive or pass rainwater, floodwater or any water that is not polluted,

if the matter would, had it been placed in any waters, have polluted or have been likely to pollute those waters."

***"waters** means the whole or any part of:*

(a) any river, stream, lake, lagoon, swamp, wetlands, unconfined surface water, natural or artificial watercourse, dam or tidal waters (including the sea), or

(b) any water stored in artificial works, any water in water mains, water pipes or water channels, or any underground or artesian water."

***"air pollution** means the emission into the air of any air impurity."*

***"land pollution** or **pollution of land** means placing in or on, or otherwise introducing into or onto, the land (whether through an act or omission) any matter, whether solid, liquid or gaseous:*

(a) that causes or is likely to cause degradation of the land, resulting in actual or potential harm to the health or safety of human beings, animals or other terrestrial life or ecosystems, or actual or potential loss or property damage, that is not trivial, or

(b) that is of a prescribed nature, description or class or that does not comply with any standard prescribed in respect of that matter,

but does not include placing in or on, or otherwise introducing into or onto, land any substance excluded from this definition by the regulations."

The POEO Act, section 147 defines the meaning of "***material harm to the environment***" as being:

"(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."

1.4 STRUCTURE OF THE PIRMP

The PIRMP is structured as follows:

Section 2: Describes the process for review and update of the PIRMP.

Section 3: Outlines the statutory requirements applicable to the PIRMP.

Section 4: Outlines the pollution incident notification process of the PIRMP.

Section 5: Describes how DCPL will communicate any incidents with the community.

Section 6: Outlines the responsibilities and duties of personnel.

Section 7: Outlines how an incident will be reported to the authorities.

Section 8: Discusses the potential pollutants on site.

Section 9: Outlines the inventory of potential pollutants.

Section 10: Outlines the process for the risk assessment undertaken.

Section 11: Describes how training will be managed.

Section 12: Describes the annual audit and testing of the PIRMP.

Section 13: Provides a Contingency Plan to manage any unpredicted impacts and their consequences.

Section 14: Outlines the management and reporting of complaints.

Section 15: Describes how DCPL will deal with any non-compliances of statutory requirements.

2 PIRMP REVIEW AND UPDATE

The PIRMP must be kept at all times at the premises to which EPL11701 relates and implemented in the case of an incident. In accordance with clause 98E of the Regulation it must be tested every twelve (12) months, and within one (1) month of any reportable pollution incident.

If necessary after every test, the PIRMP will be revised to the satisfaction of the Environmental Protection Authority (EPA), to ensure the PIRMP is updated on a regular basis and to incorporate any recommended measures to improve environmental performance.

The PIRMP is to be reviewed and updated as required if one or any combination of the following occurs:

- annually; or
- when a potential pollutant or chemical is introduced to the site that may be stored in quantities that may cause a pollution incident; or
- when a potentially polluting activity that may cause a pollution incident changes or commences on the premises to which EPL11701 relates; or
- when a regulating authority requests the PIRMP to be updated.

The revision status of this PIRMP is indicated on the title page of each copy. The distribution register for controlled copies of the PIRMP is described in **Section 2.1**.

2.1 DISTRIBUTION REGISTER

In accordance with clause 98D of the Regulation, DCPL will make the PIRMP publicly available on the Duralie Coal website. A hard copy of the PIRMP will also be maintained at the Duralie Coal Mine site and will be provided to all personnel responsible for implementing the PIRMP. Permanent Mining Contractors on-site will also be provided a copy of the PIRMP.

DCPL recognises that various agencies have different distribution requirements, both in relation to whom documents should be provided to and in what format. The following details to whom and how the PIRMP will be distributed:

- **NSW EPA** - electronic;
- **DCPL employees** - local computer network access will be able to view the controlled electronic version of this PIRMP on the company local area network (intranet) and DCM website;
- **Permanent mining contractors** - to be provided controlled electronic version (may place on their own system for their employees' reference) or advise available on website; and
- **Public** - available on the DCM Website.

Please note that DCPL will not be responsible for maintaining uncontrolled copies beyond ensuring the most recent version is maintained on DCM computer system and the DCM website.

3 STATUTORY REQUIREMENTS

DCPL statutory obligations for its operations are contained in:

- the conditions of EPL11701;
- the conditions of NSW Project Approval (08_0203) and Commonwealth Approval [EPBC 2010/5396];
- relevant licences and permits, including conditions attached to mining leases; and
- other relevant legislation.

The specific requirements for pollution incident response management plans are set out in Part 5.7A of the POEO Act and the Regulation. In summary, these require the following:

- Section 153A of the POEO Act, requires all holders of environment protection licences (EPLs) to prepare a PIRMP by 1 September 2012.
- the PIRMP must include the information detailed in the section 153C of the POEO Act and be in the form required by the POEO(G) Regulation (clause 98B).
- DCPL must keep the PIRMP at the premises to which the EPL11701 relates in accordance with section 153D of the POEO Act.
- DCPL must test the PIRMP in accordance with clause 98E of the Regulation.
- if a pollution incident occurs in the course of an activity so that *material harm* to the environment is caused or threatened, DCPL must immediately implement the PIMRP (section 153F, POEO Act).

Section 148 of Part 5.7 of the POEO Act, requires that a person carrying on the activity must, immediately after the person becomes aware of a pollution incident causing or threatening material harm to the environment; notify each relevant authority of the incident and all relevant information about it.

The requirements for DCM's PIRMP are identified in **Table 3-1** along with where each requirement is addressed in this PIRMP.

Table 3-1

Pollution Incident Response Management Plan Requirements

Requirement	PIRMP Section
Notification Procedures - *POEO Act Section 148, 149*	***Sections 4 and 5*** *and Flow chart in* ***Appendix C***
Action to be taken following a pollution incident- *POEO Act Section 153C (b) and POEO Reg 98C (1)(l)*	*Risk Assessment in* ***Appendix A*** *and* ***Section 4 and Appendix C***
Procedures for coordinating with the EPA, Local Council, Ministry of Health, WorkCover Authority and Fire and Rescue NSW - *POEO Act Section 153C (c)*	*Flow chart in* ***Appendix C,*** *Pollution Incident Notification Form and Authorities Notification Form in* ***Appendix B***
Description of hazards to human health or environment associated with the relevant activity - *POEO Act Section 153C (d)*and *POEO Reg 98C(1)(a) and (b)*	***Section 10*** *and Risk Assessment in* ***Appendix A***
Likelihood of hazards occurring - *POEO Act Section 153C (d)*	***Section 10*** *and Risk Assessment in* ***Appendix A***
Pre-emptive actions to minimise or prevent risk of harm to human health or environment - *POEO Act Section153C (d)*and *POEO Reg Section 98C(1)(c)*	***Section 10*** *and Risk Assessment in* ***Appendix A***
Inventory of potential pollutants - *POEO Act Section 153C (d)*and *POEO Reg 98C(1)(d) and (e)*	***Section 9*** *and Hazardous Chemical Inventory in* ***Appendix D***
Maximum quantity of pollutant to which the licence relates – *POEO Act Section 153C (d)*	*Hazardous Chemical Inventory in* ***Appendix D***
Safety equipment to minimise the risks to human health or environment - *POEO Act Section 153C (d)*and *POEO Reg 98C(1)(f)*	***Section 10.1.3*** *and* ***Figure 4***
Names, positions and contact details - *POEO Act Section 153C (d)*	*Flow chart in* ***Appendix C***
Contact details of each relevant authority - *POEO Act Section 148* and *POEO Reg 98C(1)(g) and (h)*	*Flow chart in* ***Appendix C***
Early warning mechanisms for people off-site - *POEO Act Section 153C(a), (d)*and *POEO Reg 98C(1)(i)*	***Section 5***
Arrangements for minimising risk of harm to persons on the premises - *POEO Act Section 153C (d)* and *POEO Reg 98C(1)(j)*	*Risk Assessment in* ***Appendix A***
Training - *POEO Act Section 153C (d)* and *POEO Reg 98C(1)(m)*	***Section 11***
Testing of PIRMP - *POEO Act Section 153C (d),* and *Section 153E POEO(G) Reg (Cl 98E)*	***Section 12***
Updating of PIRMP - *POEO Act Section 153F* and *POEO(G) Reg 98E*	***Sections 2*** *and* ***12***
Manner in which PIRMP is tested and maintained - *POEO Act Section 153C (d)*	***Sections 2*** *and* ***12*** *and Pollution Incident Response Management Plan Audit* ***Appendix B***
Detailed maps - *POEO Reg 98C (1)(k)*	***Figures 1, 2, 3 and 4***

3.1 LICENCES, PERMITS AND LEASES

In addition to the above legislative requirements, all activities at or in association with the DCM will be undertaken in accordance with the following licences, permits and leases which have been issued or are pending issue (**Table 3-2**).

Table 3-2

List of Current Consents, Leases and Licences

Instrument	Relevant Authority	Date of Grant	Duration of Approval
NSW Project Approval (08_0203) (As modified)	DPIE	05/12/2014	The Applicant may carry out mining operations on site until 31 December 2021.
Mining Lease (No. 1427)	NSW Resources Regulator	16/04/1998	Renewed 28 March 2023 by Regional NSW - Mining, Exploration and Geoscience
Mining Lease (No. 1646)	NSW Resources Regulator	4/1/2011	21 years.
Commonwealth Approval (EPBC 2010/5396)	Department of Agriculture, Water and the Environment	22/12/2010	31/12/2025
Environment Protection Licence (No. 11701).	NSW EPA	04/09/2002	Until the licence is surrendered, suspended or revoked.
Water Supply Works Approval 20WA202053	DPIE-Water	1/7/2004	01/10/2028
Monitoring and test bore licences	DPIE-Water	Various	Various.
Water Access Licence WAL 41518	DPIE-Water	22/09/2002	Until the licence is surrendered, suspended or revoked.

3.2 FAILURE TO COMPLY

All aspects of the PIRMP **must** be complied with. All requirements are outlined in **Table 3-1**. Penalties for failure to comply with the requirements are outlined in **Table 3-3**.

Table 3-3

Penalties for not complying with the POEO Act

Requirement	Description	Maximum Penalty
Notification	A person who contravenes Part 5.7 of the POEO Act (duty to notify pollution incidents) is guilty of an offence.	(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.
Preparation of the PIRMP	The holder of an environment 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.	(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.
Compliance	The EPA requires the occupier of premises at which industry is carried out to prepare a PIRMP that complies with Part 5.7A (Duty to prepare and implement pollution incident response management plans) of the POEO Act in relation to activities at the premises	(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.
Keeping of PIRMP on premises	A person who is required to prepare a PIRMP under Part 5.7A (Duty to prepare and implement pollution incident response management plans) of the POEO Act must ensure that it is kept at the premises to which the relevant environment protection licence relates.	(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.
Testing of the PIRMP	A person who is required to prepare a PIRMP under Part 5.7A (Duty to prepare and implement pollution incident response management plans) of the POEO Act must ensure that it is tested in accordance with the regulations.	(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.
Implementation of the PIRMP	If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of Section 13 of the PIRMP) 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 Part 5.7A (Duty to prepare and implement pollution incident response management plans) of the POEO Act.	(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.

4 NOTIFICATION OF POLLUTION INCIDENTS

The POEO Act, section 148, requires that a person carrying on the activity must, immediately after the person becomes aware of a pollution incident causing or threatening material harm to the environment; notify each relevant authority of the incident and all relevant information about it.

DCPL will report any pollution incidents or exceedances of EPL11701 criteria in accordance with Part 5.7 of the POEO Act and relevant conditions of EPL11701. Pollution incidents that are considered to cause or have the potential to cause material harm to the environment (see definition in **Section 1.3)** will be reported immediately to the relevant authorities in the PIRMP flowchart (**Appendix C** and **Section 4**).

The procedure to follow in the event of an incident is described in the PIRMP flowchart in **Appendix C**. Following an incident, the Environment & Community Superintendent must be contacted immediately to determine the risk to the environment (see Flowchart in **Appendix C**). Pollution incidents (as defined in **Section 1.3**) that cause or threaten material harm to the environment must be reported immediately to the EPA, NSW Health, Fire and Rescue NSW, SafeWork NSW and the local council as described in the flow chart in **Appendix C**. '*Immediately*' has its ordinary dictionary meaning of "*promptly and without delay"*. Information relating to the pollution incident that is unknown in the first notification instance, and later becomes known, must also be given to the relevant authority immediately.

Minor pollution incidents or statutory non-compliances which are not considered to cause material harm to the environment (as described in **Section 1.3**) are to be reported to the Environment & Community Superintendent and notified to relevant authority as described in **Section 4.2** and any other agencies where required.

4.1 REPORTING REQUIREMENTS

The relevant information to be provided to the EPA about a pollution incident required under section 150 of the POEO Act*,* 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.

This information will be recorded in the **Pollution Incident Notification Form** in **Appendix B** and submitted / communicated to the Person Authorised to Activate the PIRMP. The Person Authorised to Activate the PIRMP will complete the notifications using the **Authorities Notification Form** in **Appendix B**.

Further, in accordance with section 153C of the POEO Act, the appropriate action to be taken immediately after a pollution incident is identified, must be implemented for that particular pollution incident. Incident response advice from the authorities notified is to be enacted upon in liaison with the relevant authorities.

4.2 MINOR INCIDENTS & STATUTORY NON-COMPLIANCES

Any minor pollution incidents or statutory non-compliances unlikely to pose a threat to the environment that constitutes the definition as described in **Section 1.3** of this PIRMP, will be reported to the Environment & Community Superintendent and notified to the relevant authority in accordance with EPL11701 and further notification to other agencies as required by the DCM Environmental Management Strategy (EMS).

In the event that an incident is deemed by the Environment & Community Superintendent to be unlikely to pose a threat to the environment that constitutes the definition as described in **Section 1.3** of this PIRMP, then the following steps are to be undertaken.

1. Complete incident report form.
2. Assess best clean-up/response procedures for each incident based on the nature of the incident, product type and site issues in coordination with the Environment & Community Superintendent or relevant supervisor.
3. Remove and contaminated material or sources of pollution, including used spill control equipment, to an appropriate place within the licensed premises for licensed waste disposal and/or remediation.

4.3 INCIDENT RESPONSE AND FOLLOW UP ACTIONS

The procedure to follow in the event of an incident is described in the PIRMP flowchart in **Appendix C**.

In accordance with section 153C of the POEO Act, the appropriate action to be taken immediately after a pollution incident is identified, must be implemented for that particular pollution incident. Incident response advice from the authorities notified is to be enacted upon in liaison with the relevant authorities.

Subsequent to an incident, either material (**Section 4**) or minor (**Section 4.2**), the following must be undertaken:

- implement actions to reduce or control any further pollution/environmental impacts.
- undertake further monitoring/ testing if required.
- complete incident report (**Appendix B**).
- implement any necessary clean-up and remediation measures.
- complete government reporting requirements and any follow-up reporting, as necessary.
- record and implement corrective actions to avoid reoccurrence of incident.
- organise restocking of any incident management or spill control equipment.
- review the effective implementation of the PIRMP.
- test the PIRMP within one month of the incident.

5 COMMUNICATING WITH THE COMMUNITY

DCPL takes a risk based approach to the management of all risks associated with pollution incidents. Having assessed these risks, DCPL asserts that the following community notification procedures are adequate:

- person Authorised to Activate the PIRMP (Section 6) will immediately notify specific residences/sensitive receivers that have the potential to be impacted by a pollution incident.
- notification in conjunction with authorities and emergency services, as necessary.
- notification via Duralie Coal Website (www.duraliecoal.com.au), as necessary.

Where an early warning of an incident is necessary, notification to the community will include instructions for mitigation of the pollution incident, such as to close windows and doors and remain inside for incidents involving emission of air pollutants, or avoiding the use of water in creeks or rivers affected, or likely to be affected, by a pollutant discharge. The procedures outlined in the Stratford Coal Emergency Management Principal Control Plan and Emergency Response Procedure are to be followed when notifying the community of any pollution incidents.

Specific residents that have the potential to be impacted by a pollution incident will be provided regular updates as information becomes available during and following the incident. The procedures outlined in the DCM's Emergency Response Procedure are to be followed when notifying the specific residents of additional information regarding a pollution incident.

6 RESPONSIBLITES AND DUTIES

If a pollution incident occurs in the course of an activity at the DCM premises so that material harm to the environment (within the meaning outlined in **Section 1.3**) is caused or threatened, the person carrying out the activity must immediately implement this PIRMP and notify the person authorised to activate the PIRMP. In the event that the person authorised to activate the PIRMP is not able to be contacted, the person notifying the incident must complete the Pollution Incident Notification Form (**Appendix B**) and use the Authorities Notification Form (**Appendix B**) and notify authorities in accordance with section 148 (3) of the POEO Act. The flowchart in **Appendix C** outlines the key steps in responding to a Pollution Incident.

Requirement	Responsible person
Notification Procedures - *POEO Act Section 148, 149*	**Sections 4 and 5** and Flow chart in **Appendix C**
Duty to implement this PIRMP	The person carrying out the activity who becomes aware of an incident
Duty to immediately notify supervisor and Person authorised to activate the PIRMP	The person carrying out the activity who becomes aware of an incident
Duty to complete the **Pollution Incident Notification Form**	The person carrying out the activity who becomes aware of an incident
Person authorised to activate the PIRMP	Environment & Community Superintendent or Operations Manager
Duty to complete the **Authorities Notification Form** and notify all relevant authorities immediately	Environment & Community Superintendent or Operations Manager
Duty to implement incident response measures	In accordance with Emergency Management Principal Control Plan

7 WRITTEN REPORTING REQUIREMENTS

The manner and form of notifying pollution incidents is described under section 150 of the POEO Act.

DCPL will provide written reports following the initial notification of any pollution incidents in accordance with the conditions of EPL11701. Condition R2.2 of EPL11701 states that the licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Further, Condition R3 of EPL11701 provides the information which is required to be provided in the written report. EPL5161 Condition R3.3 states a written report includes any or all of the following information:

a. the cause, time and duration of the event;

b. the type, volume and concentration of every pollutant discharged as a result of the event;

c. the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;

d. the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;

e. action taken by the licensee in relation to the event, including any follow-up contact with any complainants;

f. details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and

g. any other relevant matters.

8 POTENTIAL POLLUTANTS

Various substances have the potential to become a pollutant if it is of a sufficient quantity and / or is impacting a sensitive environmental or community receptor. DCPL has employed a risk based approach in the development of the PIRMP to ensure that all substances that have the potential to cause material harm are assessed prior to use (within the meaning outlined in **Section 1.3**). This PIRMP has not included in the pollution incident risk assessment, chemicals that are essentially benign in nature and/or are stored in such low quantities that they pose a low risk to cause a pollution incident as defined in the POEO Act.

A range of substances are utilised at the DCM. They are used for a number of purposes including but not limited to cleaning and machinery maintenance. The majority of the chemicals stored on site are in small quantities. Due consideration is given to appropriate storage of hazardous substances. A list of potential pollutants and the maximum chemical quantities stored on site during the mining operations phase is available in **Appendix D.**

Chemicals (including fuels) with large volumes stored at the DCM (see **Figure 4**) are contained within a bunded area on a concrete sealed surface. DCPL employs use of Transtank (double skinned) storage for large quantities of diesel fuels and oils (engine, hydraulic, waste). Potential pollutants and chemicals that are stored on site that have the potential to cause a major incident as defined in **Section 3** have been included in the Risk Assessment in **Appendix A**. Other chemicals stored on site that are considered a low risk of causing a pollution incident (as defined in **Section 1.3**) due to the quantities stored on site, are not included in the Risk Assessment.

In addition to chemical and fuel storage on site, environmental emergencies such as flooding and serious vehicle incidents are identified within the Risk Assessment (**Appendix A**). Safety Emergency Plans are available for prescribed dams on site to address specific events which are considered to present a threat to dam integrity such as nearby overburden blasting or a significant rain or seismic event.

DCPL takes all due care to manage risks, however, the risk-based approach accounts for potential failure in the management measures and assesses the possible consequence if these measures fail. Chemicals or activities that may have the potential to cause a pollution incident as defined in **Section 1.3**, (if the management measures fail) are deemed a ‘high risk’ or ‘extreme risk’ and are highlighted in yellow.

Mine Closure Phase

Following the cessation of mining operations and bulk rehabilitation earthworks, all major fleet, plant and equipment will be removed from the DCM. Blasting activities will also permanently cease after the completion of bulk rehabilitation earthworks. At this stage, large volumes of chemicals (including fuels and oils, and explosives) will no longer be required to support DCM operations and activities, and the range of (types) and quantities of chemicals stored on-site will significantly reduce.

Once revegetation activities are complete and activities at the DCM are limited to post-closure monitoring and maintenance activities, only small volumes of chemicals (primarily fuels and oils for light vehicles) will be stored on-site.

9 INVENTORY OF POTENTIAL POLLUTANTS

A list of hazardous substances and the maximum quantities stored on site during the mining operations phase is available in **Appendix D** (see **Figure 4** for relevant storage locations). As described in **Section 8**, following the cessation of mining operations and bulk rehabilitation earthworks (including blasting activities), the range of (types) and quantities of chemicals stored on-site will significantly reduce. At this stage, DCPL will revise this PIRMP to reflect the inventory of pollutants applicable to the closed DCM.

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LEGEND
Chemical Store
Spill Kit

DURALIECOAL
Part of the Yancoal Australia Group

DURALIE COAL MINE

Location of Chemical Stores and Spill Kits

Source: © NSW Spatial Services (2019)
Orthophoto: Flow April 2009 and June 2014

Figure 4

10 RISK ASSESSMENT

The Risk Assessment in **Appendix A** has evaluated the potential pollution incidents and likelihood of the pollutant causing harm and the severity of that harm (as relevant to the mining operations phase of the DCM). It has been undertaken in conjunction with those who have the potential to be affected by the pollutant.

In preparing the Risk Assessment, the following activities were undertaken:

1. Evaluate the likelihood of a spill occurring and the likely severity of that spill, using the risk assessment matrix to assign a risk rating (Yancoal Risk Assessment Template).
2. Identify the factors that may be contributing to the risk.
3. Where available, review health and safety information that is relevant to the particular hazard (such as Codes of Practice, WorkCover guidelines and Safety Data Sheets).

The risk assessment methodology used to undertake the risk assessment is outlined in the Yancoal Coal Risk Assessment Procedure on Intelex.

DCPL has a procedure for introducing new chemicals to site using Chemalert, which requires a high level review of the potential risks associated with the introduction to site of the chemical being assessed. Where this high level assessment indicates that it is warranted, the Risk Assessment in the PIRMP will be updated (i.e. where the chemical approval process identified that the chemical is potentially harmful enough).

The PIRMP Risk Assessment (**Appendix A)** will be reviewed during mine closure, noting that once the majority of plant, machinery, equipment and vehicles have been removed from site and blasting activities have permanently ceased, the quantities of chemicals, fuels and oils stored on-site significantly reduced, the likelihood of these pollutants causing harm will be significantly reduced to low or negligible.

10.1 HOW RISKS TO HUMAN HEALTH AND THE ENVIRONMENT CAN BE REDUCED

Once risks have been assessed, action must be taken by DCPL personnel (in consultation with other staff, Contractors/Subcontractors, and in some cases, clients) to eliminate or control risks. Whilst the most effective action is to eliminate risks, this is not always possible, so control measures must be implemented according to the hierarchy of control (see below). The DCM Emergency Management Principal Control Plan outlines the Procedures and Controls for risks associated with an emergency on site.

The Hierarchy of Control will assist in determining the most appropriate course of action to control the risk identified in the Hazard report form. The Hierarchy of Control ranks risk control strategies from the most effective to the least effective. Not all strategies will be practicable and a combination of strategies may be needed to achieve the best protection.

Eliminate the risk (most effective)

Examples of elimination strategies are:

- removing chemicals that are not necessary to operations so that unnecessary high risk chemicals are no longer present on site.

Minimise the risk

a. Substitution

This is achieved by replacing hazardous substances / chemicals with those that are safer.

b. Modification

This is achieved by modifying the workplace or work practices.

c. Isolation

Use of isolation strategies such as redesigning the workspace (e.g. the use of appropriate barriers), to create exclusion zones to prevent harm to workers and others that can potentially be caused by chemicals etc.

Engineering Controls

This is achieved by using mechanical solutions to control the risk such as bunding and concrete sealed surfaces.

Administrative Controls

Examples of administrative controls are:

- training.
- increasing supervision of staff.
- implementing safe work practices and standard operating procedures.
- job rotation.

Personal Protective Equipment (PPE) (least effective)

Personal protective equipment is the least satisfactory solution to risks as it does not address the hazard but merely provides a shield to protect the employee. It should only be used when it is not reasonably practicable to address the risk any other way or to supplement other risk strategies.

Personal protective equipment and clothing must be:

- carefully selected and appropriate for the task.
- correctly fitted and comfortable to wear.
- always worn where indicated/instructed.

Examples of personal protective equipment are:

- gloves, safety glasses, protective footwear, ear plugs.

10.1.1 Pre-emptive Actions to Reduce Risk of Harm

The Risk Assessment contained in **Appendix A** describes how pre-emptive actions can reduce the risk of harm. All relevant DCPL personnel and contractors are trained in the appropriate use of safety equipment and devices to minimise possible incidents.

10.1.2 Events that may Increase the Likelihood of an Incident Occurring

The risks outlined in **Appendix A** may be increased in the case of extreme weather conditions (i.e. floods, wind storms, etc.) or human error. DCPL operates under a risk based approach and provides management to mitigate the effects from these events through the use of best practices and employee training.

10.1.3 Safety Equipment / Devices to Minimise Risk

Activities must be carried out in a competent and responsible manner. This includes the handling, movement and storage of material and substances used to carry out the activity and the transport and disposal of waste generated by the activity. All plant equipment installed at the site or used in connection with the activity is maintained in a proper and efficient condition and operated in a proper and efficient manner.

Refer to the DCM Emergency Management Principal Control Plan for full detail of the emergency resources and equipment at DCM. On-Site Emergency Resources and devices include:

- Emergency First Aid Room;
- Emergency Response Team;
- Emergency Response Team Equipment (ERT Container and Fire Trailer);
- Fire Fighting Equipment (Hydrants, Reels, Extinguishers, Water Trucks with Cannon and Foam Generation Capability, Self-contained 1000 Litre Water Trailer);
- First Aid Kits;
- Spill Kits;
- Eye Wash;
- Body Wash Station / Safety Showers;
- Mine Site Compliant Light Vehicles (containing fire extinguisher and first aid kit and used to transport personnel and material as required during an emergency); and
- Mobile Lighting Plants.

Off-site emergency resources may also be required to be sourced for an onsite emergency. The DCM has an Emergency Response Team (ERT), the members of which are all trained in Mines Rescue and incident/emergency response.

An approved and certified contractor inspects all spill kits monthly and provides a report on the condition of the spill kits and if any replacements are required. **Figure 4** shows the locations of the spill kits and devices for the site.

11 TRAINING

All staff, employees, contractors and visitors shall be familiarised with the requirements of the PIRMP:

- initially, as part of induction training;
- then, by periodic refresher training; and
- if there are amendments to the PIRMP requirements.

Training in the content of the PIRMP and assessment competency will be conducted as part of the DCM Site Induction. DCPL staff training for the PIRMP require the following:

- awareness of the potential for harm to people and the environment from the materials held on-site;
- information on the sensitivity of the environment surrounding the site;
- the environmental responsibilities of DCPL;
- use of the correct personal protective equipment and any appropriate and/or necessary health and safety training;
- reporting procedures if there's a risk of surface water, groundwater or land contamination;
- reporting to the environmental manager if a discharge to the sewer or stormwater is involved;
- safe and correct use of all spill clean-up equipment or pollution prevention structures and/or devices on site;
- safe handling and legal disposal of contaminated materials and wastes resulting from an incident, including:
- arrangements for using specialist contractors and services; and
- appropriate and safe decontamination.

12 PIRMP AUDIT AND REVIEW

In accordance with POEO(G) Regulation (clause 98E), DCPL will test the PIRMP annually.

The PIRMP must be tested in accordance with the PIRMP Testing Procedure (see **Appendix B**) and results of the test communicated to relevant staff identifying any non-compliances during the testing procedure. Non-compliances are to be followed up immediately and rectified.

Testing should also be carried out within one (1) month of any material pollution incident occurring in the course of an activity to which the licence relates. In light of the incident, it should be assessed whether the information included in the PIRMP is accurate and up to date and that the PIRMP is capable of being implemented in a workable and effective manner. The PIRMP is to be subject to constant review and up to date with contemporary practices and procedures.

12.1 PERFORMANCE INDICATORS

The performance indicator criteria for the PIRMP are:

- the PIRMP is tested every twelve (12) months, and within one (1) month of any material pollution incident (in accordance with section 98E of the POEO(G) Regulation);
- in accordance with section 98D of the POEO(G) Regulation, DCPL will make the PIRMP publicly available on the Duralie Coal website; and
- the PIRMP is effectively activated if a material harm pollution incident occurs.

The following table considers the requirements of the performance of the PIRMP.

Performance Indicator	Completed (Yes/No)	Undertaken / authorised by	Date
Annual review / audit of PIRMP			
No non-compliant results within audits of PIRMP			
PIRMP available on website			
Following any pollution incidents was the PIRMP implemented successfully			

The results of the testing are to be kept in a PIRMP Performance Register including any requirements for changes to the PIRMP.

12.2 DOCUMENT CONTROL

This document will be a controlled document on the Company Intranet (Intelex) in a suitable format. The Site Health and Safety Coordinator is responsible in ensuring that the most current documents are available.

13 POTENTIAL CONTINGENCY MEASURES

In the event that monitoring of the PIRMP indicates that a non-compliance or issue with implementation of the PIRMP has been identified, DCPL will conduct an investigation, and identify and assess potential rectification measures. Potential rectification measures could include:

- an audit of the PIRMP, including existing management measures;
- identification of potential system improvements such as staff training; and
- the conduct of additional monitoring or review (e.g. increase in frequency) to inform the proposed contingency measures.

14 COMPLAINTS

A protocol for the managing and reporting of complaints has been developed and is provided in the DCM's Environmental Management Strategy, which is made publicly available on the DCM's website.

15 NON-COMPLIANCES WITH STATUTORY REQUIREMENTS

A protocol for the managing and reporting of non-compliances with statutory requirements has been developed and is provided in the DCM's Environmental Management Strategy.

APPENDIX A

PIRMP

RISK ASSESSMENT

DURALIE COAL MINE - PIRMP RISK ASSESSMENT TABLE

Potential Pollutant	Description of Hazard	Potential Release Pathway (Media)	Potential Receptor Pollution Risk	Inherent Risk			Pre-emptive / Management Actions	Managed Risk			Pollution Incident Response
				Likelihood	Consequence	Risk		Likelihood	Consequence	Risk	
Emulsion	Accidental spill or loss of integrity of storage container	Surface water	Local creek	E	4	10(M)	Drainage reports to on site storage dam. spill kits available and personnel are trained in the use of spill kits and emergency response procedures	E	4	10(M)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
		Groundwater	Groundwater aquifer	C	3	High	Spill kits available and personnel are trained in the use of spill kits and emergency response procedures	C	3	High	
Liquid Petroleum Gas	May be accidently left open or mishandled for gas to be released	Air	Air	B	2	12(M)	Stored in bunded area, spill kit available, and personnel are trained in the use of spill kits and emergency response procedures.	B	2	12(M)	Report to Environmental Manager as outlined in PIRMP flowchart. Follow Spill procedure outlined in Yancoal Emergency Management Plan
Diesel	Diesel tank/separator system may leak over a period of time unnoticed or have its integrity compromised and fail	Surface water	Local Creek	B	4	21 (E)	Fuel storage is in a transtank (double skinned) storage , spill kits available and personnel are trained in the use of spill kits and emergency response procedures. Soil bunding to prevent release. Routine pumping out of clean water tank	D	4	14(H)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	D	4	14(H)		E	4	10(M)	
		Groundwater	Groundwater aquifer	B	4	21 (E)		D	4	14 (H)	
		Soil	Local creek	D	3	9(M)		E	3	6(M)	
Hydrocarbons	Oil/Fuel Water Separator (workshop) may overflow during large wet weather events	Surface water	Local creek	B	2	12 (M)	Drainage reports to on site prescribed dam. Concrete bunded area and personnel are trained in the use of spill kits and emergency response procedures.	D	2	5 (L)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
		Groundwater	Groundwater aquifer	C	2	8 (M)	Concrete bunded area and personnel are trained in the use of spill kits and emergency response procedures.	E	2	3 (L)	
		Soil	Local creek	D	2	5 (L)	Concrete bunded area and personnel are trained in the use of spill kits and emergency response procedures.	E	2	3 (L)	
Oils (Engine, Hydraulic) and Diesel	Failure in machinery causing a spill to the environment	Surface water	Groundwater aquifer	B	2	12 (M)	Spill kits available and personnel are trained in the use of spill kits and emergency response procedures.	C	2	8 (M)	Report to Environmental Manager as outlined in PIRMP flowchart. Follow Spill procedure outlined in Yancoal Emergency Management Plan
			Local creek	B	3	17 (H)	Spill kits available and personnel are trained in the use of spill kits and emergency response procedures.	C	3	13 (H)	
Oils (Engine, Hydraulic, Waste)	May be spilt within the workshop area	Surface water	Groundwater aquifer	C	2	8 (M)	Stored in transtank. Spill kits available	D	2	5 (L)	Report to Environmental Manager as outlined in PIRMP flowchart. Follow Spill procedure outlined in Yancoal Emergency Management Plan

Potential Pollutant	Description of Hazard	Potential Release Pathway (Media)	Potential Receptor Pollution Risk	Inherent Risk			Pre-emptive / Management Actions	Managed Risk			Pollution Incident Response
				Likelihood	Consequence	Risk		Likelihood	Consequence	Risk	
			Local creek	C	2	8 (M)	Stored in transtank. Spill kits available	C	2	8 (M)	
Gear Lubricant	May be spilt within the work shed or when used on site	Surface water	Local Creek	C	2	8 (M)	Stored in transtank. Spill kits available	C	2	8 (M)	Report to Environmental Manager as outlined in PIRMP flowchart. Follow Spill procedure outlined in Yancoal Emergency Management Plan
			Nearby residents	D	2	5 (L)	Stored in transtank. Spill kits available	D	2	5 (L)	
Grease	May be spilt within the work shed or when used on site	Surface water	Local Creek	C	2	8 (M)	Stored in chemical workshop that has a concrete cap. Stored in low quantities and personnel are trained in the use of spill kits and emergency response procedures.	D	2	5 (L)	Report to Environmental Manager as outlined in PIRMP flowchart. Follow Spill procedure outlined in Yancoal Emergency Management Plan
			Nearby residents	D	2	5 (L)	Stored in chemical workshop that has a concrete cap. Stored in low quantities and personnel are trained in the use of spill kits and emergency response procedures.	E	2	3 (L)	
Paints	May be spilt within the work shed or when used on site	Surface water	Nearby residents	D	2	5 (L)	Stored in chemical workshop that has a concrete cap. Stored in low quantities. Spill kits available	E	2	3 (L)	Report to Environmental Manager as outlined in PIRMP flowchart. Follow Spill procedure outlined in Yancoal Emergency Management Plan
			Local creek	E	2	3 (L)	Stored in chemical workshop that has a concrete cap. Stored in low quantities. Spill kits available	E	2	3 (L)	
Absorbents (spent oil spill material)	Incorrect disposal	Surface water	Local creek	C	2	8 (M)	All disused of material is disposed of in appropriate containers supplied.	D	2	5 (L)	Report to Environmental Manager as outlined in PIRMP flowchart. Follow Spill procedure outlined in Yancoal Emergency Management Plan
			Nearby residents	D	2	5 (L)	All disused of material is disposed of in appropriate containers supplied	E	2	3 (L)	
Water Storage Dams	May overflow during extreme wet weather events or have its integrity compromised and fail	Surface water	Local creek	C	3	13(H)	Dams all have been designed to with stand flood events. All dams have management standards and operation manuals.	D	3	9(M)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2 For each prescribed dam there is an EMERGENCY PLAN, these plans are to be used for management of a breach. Technical Services are contracted to manage the prescribed dams and must be notified of all breaches.
			Nearby residents	C	3	13(H)	Dams all have been designed to with stand flood events. All dams have management standards and operation manuals.	D	3	9(M)	
			Onsite workers	B	3	17(H)	Dams all have been designed to with stand flood events. All dams have management standards and operation manuals.	B	3	17(H)	

Potential Pollutant	Description of Hazard	Potential Release Pathway (Media)	Potential Receptor Pollution Risk	Inherent Risk			Pre-emptive / Management Actions	Managed Risk			Pollution Incident Response
				Likelihood	Consequence	Risk		Likelihood	Consequence	Risk	
		Groundwater	Groundwater aquifer	B	3	17(H)	Dams all have been designed to with stand flood events. All dams have management standards and operation manuals.	B	3	17(H)	
Fuel supply trucks (diesel) (ON YANCOAL MINING LEASE)	May have an accident whilst entering the site and have fuel released to the environment	Surface water (in case of accidents)	Local Creek	C	3	13(H)	Speed limits on road ways.	D	3	9(M)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	D	3	9(M)	No nearby residents (near haul road)	E	3	6(M)	
		Groundwater (in case of accidents)	Local creek	B	3	17(H)	Speed limits on road ways.	B	3	17(H)	
Coal trucks leaving the surface facilities area (whilst still on Yancoal property)	May have an accident leaving the surface facilities area (whilst still on Yancoal property)	Surface water (in case of accidents)	Local creek	C	3	13(H)	Speed limits on road ways.	D	3	9(M)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	D	3	9(M)	Speed limits on road ways.	E	3	6(M)	
		Groundwater (in case of accidents)	Local creek	B	3	17(H)	Speed limits on road ways. Unlikely to penetrate to groundwater aquifer through the soil profile	B	3	17(H)	
Coal trains leaving the surface facilities area (whilst still on Yancoal property)	May have an accident leaving the surface facilities area (whilst still on Yancoal property)	Surface water (in case of accidents)	Local creek	C	3	13(H)	Speed limits on rail lines, limited nearby receptors, ballast regularly checked and cleaned	D	3	9(M)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	D	3	9(M)	Speed limits on rail lines, limited nearby receptors, ballast regularly checked and cleaned	E	3	6(M)	
		Soil	Groundwater aquifer	D	2	5(L)	Speed limits on rail lines, limited nearby receptors, ballast regularly checked and cleaned	E	2	3(L)	
		Groundwater (in case of accidents)	Local creek	B	3	17(H)	Speed limits on rail lines, limited nearby receptors, ballast regularly checked and cleaned	D	3	9(M)	
Sewage	May back up during extreme wet weather events or have a pipe leak or burst.	Surface water	Nearby residents	B	2	12(M)	Fully enclosed pipeline. Regular inspection and maintenance program. Spill kits available in the event of a sewage back up.	C	2	8(M)	Any overflows, leaks or broken pipes report immediately to Environment Manager.

Potential Pollutant	Description of Hazard	Potential Release Pathway (Media)	Potential Receptor Pollution Risk	Inherent Risk			Pre-emptive / Management Actions	Managed Risk			Pollution Incident Response
				Likelihood	Consequence	Risk		Likelihood	Consequence	Risk	
			Local creek	B	2	12(M)	Fully enclosed pipeline, storage dam captures partial run off from effluent area. Regular maintenance program. Spill kits available in the event of a sewage back up.	E	2	3(L)	
		Groundwater	Local creek	B	2	12(M)	Fully enclosed pipeline, groundwater monitored therefore any leaks may be detected early. Regular inspection and maintenance program	D	2	5(L)	
			Nearby residents	C	2	8(M)	Fully enclosed pipeline, groundwater monitored therefore any leaks may be detected early. Regular inspection and maintenance program	E	2	3(L)	
Effluent removal trucks (possible onsite accident)	May have an accident leaving the surface facilities area (whilst still on Yancoal property)	Surface water	Nearby residents	B	3	17(H)	Speed limits on road ways. Personnel are trained in the use of spill kits and emergency response procedures.	C	3	13(H)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Local creek	B	3	17(H)	Speed limits on road ways. Personnel are trained in the use of spill kits and emergency response procedures.	C	3	13(H)	
		Groundwater	Local creek	D	2	5(L)	Speed limits on road ways. Personnel are trained in the use of spill kits and	D	2	5(L)	
			Nearby residents	D	2	5(L)	Speed limits on road ways. Personnel are trained in the use of spill kits and emergency response procedures.	D	2	5(L)	
Diesel Trucks On Site	Onsite trucks for filling machinery - possible accident and spill released to the environment.	Surface water	Local creek	B	2	12(M)	Spill kits available. personnel are trained in the use of spill kits and emergency response procedures.	E	2	3(L)	
			Nearby residents	C	2	8(M)	Spill kits available. personnel are trained in the use of spill kits and emergency response procedures.	E	2	3(L)	
			Groundwater aquifer	B	2	12(M)	Spill kits available. personnel are trained in the use of spill kits and emergency response procedures.	B	2	12(M)	
		Soil	Groundwater aquifer	B	2	12(M)	Spill kits available. personnel are trained in the use of spill kits and emergency response procedures.	C	2	8(M)	
		Groundwater	Local creek	C	1	4(L)	Spill kits available. personnel are trained in the use of spill kits and emergency response procedures.	E	1	1(L)	
Unleaded Petrol	May be spilt within the work shed or when used on site	Surface water	Local Creek	C	2	8(M)	Drainage reports to on site prescribed dam. Spill kits available. personnel are trained in emergency response procedures.	C	2	8(M)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2

Potential Pollutant	Description of Hazard	Potential Release Pathway (Media)	Potential Receptor Pollution Risk	Inherent Risk			Pre-emptive / Management Actions	Managed Risk			Pollution Incident Response
				Likelihood	Consequence	Risk		Likelihood	Consequence	Risk	
			Nearby residents	E	3	6(M)	Drainage reports to on site prescribed dam. Spill kits available. personnel are trained in emergency response procedures.	E	3	6(M)	
		Groundwater	Local creek	C	2	8(M)	No bunding however, GW aquifer is very deep. Spill kits available. personnel are trained in emergency response procedures.	D	2	5(L)	
		Soil	Groundwater aquifer	D	3	9M)	Small quantities kept on site in concreted area, spill kits available and personnel are trained in emergency response procedures.	E	3	6(M)	
Dirty Water Runoff	There may be excessive runoff from large rain events that could possibly enter the clean water diversion drain	Surface water	Local creek	B	2	12(M)	Runoff from operational areas are intercepted and channelled to containment storage across the site. personnel are trained in emergency response procedures.	B	2	12(M)	Report any overflows that are not diverted to storage dams and channels to Environmental Manager. Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	C	2	8(M)	Runoff from operational areas are intercepted and channelled to containment storage across the site. personnel are trained in emergency response procedures.	E	2	3(L)	
		Soil	Groundwater aquifer	B	2	12(M)	Runoff from operational areas are intercepted and channelled to containment storage across the site. personnel are trained in emergency response procedures.	C	2	8(M)	
		Groundwater	Local creek	B	3	17(H)	Runoff from operational areas are intercepted and channelled to containment storage across the site. personnel are trained in emergency response procedures. Unlikely to enter groundwater	B	3	17(H)	
Bushfires	Bushfires may encroach onto property with coal and chemicals possibly being set alight	Air	On site workers	B	3	17(H)	Bushfire management plan in place, back burning undertaken regularly	C	3	13(H)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	B	3	17(H)	Bushfire management plan in place, back burning undertaken regularly	C	3	13(H)	
			Surface water	C	2	8(M)	Bushfire management plan in place, back burning undertaken regularly	D	2	5(L)	
		Surface water	On site workers	C	2	8(M)	Bushfire management plan in place, back burning undertaken regularly	D	2	5(L)	
			Nearby residents	C	2	8(M)	Bushfire management plan in place, back burning undertaken regularly	D	2	5(L)	
			Groundwater aquifer	D	2	5(L)	Bushfire management plan in place, back burning undertaken regularly	E	2	3(L)	

Potential Pollutant	Description of Hazard	Potential Release Pathway (Media)	Potential Receptor Pollution Risk	Inherent Risk			Pre-emptive / Management Actions	Managed Risk			Pollution Incident Response
				Likelihood	Consequence	Risk		Likelihood	Consequence	Risk	
Blasting - dust plumes	Blasting may have the potential to cause dust plumes	Air	On site workers	B	3	17(H)	Blasts are controlled and conducted by suitably trained personnel	C	3	13(H)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	B	3	17(H)	Blasts are controlled and conducted by suitably trained personnel	C	3	13(H)	
			Local creek	C	2	8(M)	Blasts are controlled and conducted by suitably trained personnel	D	2	5(L)	
		Odour	On site workers	B	3	17(H)	Blasts are controlled and conducted by suitably trained personnel	C	3	13(H)	
			Nearby residents	C	3	13(H)	Blasts are controlled and conducted by suitably trained personnel	C	3	13(H)	
Sediment Dams - overflows and accidental releases	May overflow during extreme wet weather events or have its integrity compromised and fail	Surface water	Local creek	C	3	13(H)	Runoff from operational areas are intercepted and channelled to containment storage across the site.	D	3	9(M)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Nearby residents	C	3	13(H)	Runoff from operational areas are intercepted and channelled to containment storage across the site.	D	3	9(M)	
		Groundwater	Local creek	B	3	17(H)	Runoff from operational areas are intercepted and channelled to containment storage across the site. However, in the case of flood events ponding may cause excessive leaching to groundwater	B	3	17(H)	
Sediment laden water	Breach in the integrity of the clean or dirty water diversion drains may cause a release to the environment	Surface Water	Nearby residents	B	3	17(H)	Diversion drains are regularly checked and cleaned out to prevent breaches. personnel are trained in emergency management procedures.	C	3	13(H)	Follow the Flowchart in Appendix C to activate the PIRMP. Follow the procedure outlined in Section 7.2
			Local creek	C	2	8(M)	Diversion drains are regularly checked and cleaned out to prevent breaches. personnel are trained in emergency management procedures.	C	2	8(M)	
		Groundwater	Nearby residents	C	2	8(M)	Diversion drains are regularly checked and cleaned out to prevent breaches. personnel are trained in emergency management procedures.	D	2	5(L)	
			Local creek	C	2	8(M)	Diversion drains are regularly checked and cleaned out to prevent breaches. personnel are trained in emergency management procedures.	D	2	5(L)	

APPENDIX B

POLLUTION INCIDENT NOTIFICATION FORM

PIRMP AUTHORITIES NOTIFICATION FORM

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN AUDIT

Duralie Coal Mine

Pollution Incident Response Management Plan

Pollution Incident Notification Form

1) INCIDENT DATE & TIME:
2) REPORTED DATE, TIME, NAME & POSITION:
3) INCIDENT LOCATION:
4) ACTIVITY BEING UNDERTAKEN AT THE TIME OF INCIDENT:
5) WHO WAS INVOLVED IN THE INCIDENT:
6) INCIDENT DESCRIPTION & CIRCUMSTANCES (provide accurate information only, if some parameters (i.e. chemical type) are unknown **DO NOT SPECULATE):**
7) TYPE OF INCIDENT (injury/damage/near miss/environmental):
8) EXTENT OF / POTENTIAL FOR POLLUTION (i.e. quantity of spill, duration):
9) MAXIMUM REASONABLE POTENTIAL FOR POLLUTION FROM THESE CIRCUMSTANCES:
10) INITIAL REMEDIAL ACTIONS TAKEN:
11) NOTIFICATION PROVIDED TO (name and position):
12) OTHER INFORMATION

Duralie Coal Mine

Pollution Incident Response Management Plan

PIRMP Authorities Notification Form

DATE:
NAME & POSITION:
SITE NAME:
SITE TYPE:

This form is to be used in conjunction with the Pollution Incident Notification Form.

The following authorities **MUST** be contacted following an incident (as described in **Section 4** of the Pollution Incident Response Management Plan):

Authority	**Contact details**
Environment Protection Agency	Pollution Line 131 555
NSW Minister for Health	(02) 4924 6477 (diverts to John Hunter Hospital) ask for Environmental Health Officer on call
NSW Fire and Rescue	000 (Emergency) (02) 6558 1703 (Gloucester Fire Station)
Safe Work NSW	Switchboard 13 10 50
MidCoast Council (Great Lakes Council)	(02) 6538 5250

The following information MUST be provided to the relevant authorities:

Time ☐

Date ☐

Nature of Incident (i.e. spill of unknown chemical, dam release with unknown properties etc.) ☐

Duration of Incident (i.e. how long ago did it occur if known) ☐

Location of Incident (i.e. Metropolitan Coal Mine – underground, surface etc.) ☐

Location where pollution is likely to occur (**IF KNOWN, DO NOT SPECULATE**) ☐

Estimated quantity of any pollutants involved (**IF KNOWN, DO NOT SPECULATE**) ☐

Concentration of any pollutants involved (**IF KNOWN, DO NOT SPECULATE**) ☐

Actions being undertaken to control spill ☐

Duralie Coal Mine

Pollution Incident Response Management Plan Audit

An audit of the effectiveness of the Pollution Incident Response Management Plan (PIRMP) must be undertaken annually with the outcomes of the audit logged on this document and reported in the PIRMP Performance Register. There are two types of audits that can be used for the review, a major incident mock scenario or an audit of personnel knowledge of the PIRMP. The person undertaking the audit will decide the most appropriate method of audit to be carried out.

DATE:
NAME & POSITION:
SITE NAME:
SITE TYPE:

Audit Scenario Type

1) Major Incident Mock Scenario ☐
2) Personnel Knowledge Check ☐

Major Incident Mock Scenario

Personnel involved:

NAME	POSITION

Incident scenario:

Audit Review: Major Incident Mock Scenario

TEST	PASS (yes/no)	Comments
Did the personnel correctly identify the incident?		
Did the personnel assess the risks involved and clear the area if safe to do so?		
Did the personnel identify chemicals and check the SDS label for spill response (if applicable)?		
Did the personnel put in place any controls to prevent further spillage or losses?		
Did the personnel involved then notify the Control Room/Supervisor?		
Was the Pollution Incident Notification Form completed?		
Did the control room/supervisor immediately contact the person authorised to activate the PIRMP?		
Did the person notifying the authorities know who to contact and where this information is available?		
Did the person who was authorised to activate the PIRMP notify the person responsible for implementing the response?		
Was the response for activating the PIRMP done so in a timely manner?		
Was the response effective in containing any further pollution?		

Results of audit (include requirements for further training):

Personnel Knowledge Check Scenario

NAME OF PERSONNEL BEING TESTED:
POSITION:

Testing of the Pollution Incident Response Management Plan:

QUESTION	Answer	PASS (yes/no)
Are you familiar with Pollution Incident Response Management Plan?		
What is the procedure to follow after a pollution incident has occurred?		
Who should you notify in the event of a pollution/ environmental incident?		
Who should you notify if the person above is unavailable?		
Where are copies of the PIRMP located?		
Do you know where Safety Data Sheets (SDS) are located?		
Where is the nearest spill control equipment located in your work area?		

Results/Comments:

AUTHORISED:
SIGNED:
DATE:

APPENDIX C

POLLUTION INCIDENT RESPONSE MANAGEMENT PLAN
FLOW CHART

DURALIE COAL MINE

POLLUTION INCIDENT RESPONSE FLOW CHART

Person involved in incident to complete

OCE or Supervisor to complete

E&C Manager to complete

Pollution Incident Occurs

Assess Risks
- Make the area safe – prevent further harm
- Deliver 'First Aid' if persons are injured & ensure safety of people.

Isolate Pollution/Spill Source and Contain
- Remove pollution or ignition sources - materials/objects, chemicals, flames, sparks, smoking.
- If safe to do so, stop the pollution/spill & turn off equipment.
- Prevent further pollution to waterways/land/air - use spill kits, absorbent material and earth mounds.

Notify OCE/Control Room or Supervisor
- By two-way radio - **Channel 4** or Phone **– Geoff Bright 0432 033 883**
- State "Emergency Emergency Emergency".
- Follow instructions from OCE. Notify emergency services if required.
- Complete POLLUTION INCIDENT NOTIFICATION FORM.

Notify Person Authorised to Activate the PIRMP
- Senior Environment and Community Advisor – Thomas Kirkwood 0437 174 781

Notify Operations Manager
- Operations Manager - John Cullen – **0459 149 450**
- Complete AUTHORITIES NOTIFICATION FORM.

Environment &Community Department Notify EPA Pollution Line 131 555

Major Pollution Incident Advice
- Confirm the incident response required with EPA?
- Determine whether license exceedance / pollution incident requires further notification?
- Are the relevant authorities required to be notified?

YES

NO

Notify Relevant Authorities
- **NSW Minister for Health** (02) 4924 6477 ask for public health officer
- **NSW Fire and Rescue** 000 (Emergency) or **Gloucester Fire Station** (02) 6558 1703
- **SafeWork NSW** 13 10 50 (Switchboard)
- **MidCoast Council** (02) 6538 5250

Implement Response
- Follow Incident Response Procedure and advice from E & C Supt.

Implement Response
- Follow instructions of authorities contacted and ***Yancoal Emergency Management Principal Control Plan (refer Intelex) and incident Response Procedure.***

APPENDIX D

PIRMP
POTENTIAL POLLUTANTS INVENTORY &
MAXIMUM CHEMICAL STORAGE QUANTITIES

Duralie Coal Mine

Pollution Incident Response Management Plan

POTENTIAL POLLUTANTS INVENTORY &
MAXIMUM CHEMICAL STORAGE QUANTITIES (>1000 L)

Pollutant/Chemical	Capacity	Location	Status
Mine Water	4590 ML	Mine Water Storage Dams	Storage in use
Sediment Laden Water (Sediment dams only)	20ML	Sediment Dams and Dirty Water Drains	Storage in use - Potential for generation
Dust	N/A	Exposed areas	Potential for generation
Diesel	70,000 L	DCPL Fuel Farm	In use
Grease: Talcor Super HD2 M5	6.5 T	DCPL Workshop	In use
Engine Oil: Delo 400 15W-40	17,000 L	Bulk Oil Storage Tank at DCPL Workshop	In use
Gear Oil: Caltex Torque Fluid 434	17,000 L	Bulk Oil Storage Tank at DCPL Workshop	In use
Gear Oil: Caltex Final Drive SAE60	10,000 L	Bulk Oil Storage Tank at DCPL Workshop	In use
Gear Oil Caltex Thuban 85W-140	3,000 L	DCPL Workshop	In use
Gear Oil: Caltex Rando – HD46-	6,500 L	Bulk Oil Storage Tank at DCPL Workshop	In use
Gear Oil: Caltex Rando 32	1,000 L	DCPL Workshop	In use
Compressor Oil: Caltex Cetus PAO46	1,000 L	DCPL Workshop	In use
Coolant: TEC Infinity	6,500 L	Bulk Oil Storage Tank at DCPL Workshop	In use
Tyre Sealant: Sealzit	1,000L	Tyre Pad	In use
Waste Oil	28,000 L	Bulk Waste Oil Storage Tank at DCPL Workshop	In use
Caltex Tough Clean	2,000 L	DCPL Workshop	In use