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BERRIMA COLLIERY

MINE SAFETY MANAGEMENT SYSTEM Pollution Incident Response Management Plan

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Site Maps

1 Objectives

This document details Berrima Colliery's Pollution Incident Response Management Plan. It provides a management plan designed to outline an appropriate response to a pollution event either on the surface or within the underground workings.

This plan ensures compliance with the requirements of NSW's Protection of the Environment Legislation Amendment Act 2011 (POELA Act) as part of the environmental management guidance at Berrima Colliery. This plan forms part of the Safety Management Plan prepared under the Mines Health and Safety Act 2002 Part 5, Division I, Subdivision 5, Clause 47.

2 Document Purpose

The purpose of this Plan is to assure compliance of Berrima Colliery in terms of management of pollution events and notification requirements in NSW in case of pollution incidents that cause or threaten to cause material harm to people or environment.

3 Document Definitions

Term	Definition
<i>Act</i>	A legal document created from the results of deliberation of a legislative body. In Australia, Acts are passed by State and Commonwealth Parliaments
<i>ARA</i>	Appropriate Regulatory Authority. This includes EPA, relevant Local Authority, Fire Brigade, WorkCover and a local Public Health Unit plus any other Public Authority that is a statutory authority for the matter in question, if different from above
<i>Material harm</i>	In terms of the POEO Act, <i>material harm</i> caused by a pollution incident relates to "actual or potential harm to the health or safety of people or ecosystems that is not trivial, or loss or property damage exceeding \$10,000, either offsite or onsite". The \$10,000 threshold includes any investigation costs associated with the pollution incident.
<i>POELA Act</i>	Protection of the Environment Legislation Amendment Act 2011, issued by NSW Government to regulate environmental incident reporting and disclosure of environmental monitoring data
<i>PIRMP</i>	Pollution Incident Response Management Plan. A detailed emergency response plan that needs to be implemented at all EPA-licensed sites in NSW by 1 September 2012
<i>SOP</i>	Standard Operating Procedure. A formal procedure for undertaking complex and recurring tasks where neither physical nor environmental layout will change

4 Mandatory Requirements

The minimum mandatory requirements for compliance to this Plan are outlined in the table below:

Requirement	Examples of Evidence/Verification
The Mine Manager and Environmental Officer for Berrima Colliery share responsibility to notify immediately the relevant Authorities and community of Medway township as specified in this document following a serious environmental incident	Details of notifications summarised in the Incident Report

5 Roles and Responsibilities

The mine is in transition to closure. As such site representatives will vary from a Mine Manager while the underground mine is still open, Site Manager and Environmental Sustainability Manager, Boral Cement during the final rehabilitation process. The Environmental Officer position will be the nominated Boral representative under the Environmental Protection Licence.

Position	Responsibility
<i>Employees and Contractors</i>	Immediately alerting the Mine Manager/Site Manager or Environmental Officer of any environmental incidents or near-misses.
<i>Mine Manager and/or Mine Environmental Officer and/or Environmental Sustainability Manager Boral Cement</i>	Assessing whether the incident has caused or threatens "material environmental harm" and, if so, immediately notifying all Appropriate Regulatory Authorities. Ensuring that investigations are undertaken to a level corresponding to the level of risk and impact.

6 New NSW Regulations

A set of new requirements was introduced in NSW in the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act). The requirements included the following issues:

- Immediate notification of an expanded list of relevant statutory authorities in case of a pollution incident
- Establishment of a Pollution Incident Response Management Plan (PIRMP)
- Making publicly available any Licence related monitoring data

7 Pollution Incidents Causing Material Harm

Any pollution incident that cause or threaten material harm to the environment must now be notified by a person to an expanded list of government authorities immediately upon becoming aware of the incident. In case new information comes to hand following the initial notification, this information must also be reported immediately. The failure to do so incurs the maximum penalty to \$2,000,000 for a corporation, with \$240,000 for each day the offence continues.

The definition of "material harm" has not been amended in the 2011 changes to the POEO Act. Material harm caused by a pollution incident relates to "actual or potential harm to the health or safety of people

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or ecosystems that is not trivial, or loss or property damage exceeding \$10,000, either offsite or onsite". The \$10,000 threshold includes any investigation costs associated with the pollution incident. As such, the incident need not be a significant one as this threshold could be quite easily exceeded within the context of a relatively minor environmental impact if it requires investigation and remediation. This also includes environmental harm caused only on site.

7.1 Possible Pollution Incidents at the Medway Mine

Berrima Colliery went into Care and Maintenance in November 2013, and transitioned into the Closure phase in July 2014. The Mine has been non-operational since that time and hence the risk of any Pollution Incident has been greatly reduced. The potential, albeit not necessarily likely, pollution incidents at the Medway Mine include:

- ❑ **On-site spills or leaks of fuel, oil or hydraulic fluid (including electrical transformer oils) that cause or threaten environmental harm, property damage or personal injury**
 - Likelihood- Low. As the mine is in care and maintenance, minimal handling of fuels etc are occurring.
 - Consequence – Moderate: Localised and measurable localized impact on soils or onsite storage basin.
 - Pre-emptive Actions - Majority of handling within contained or basin capture areas. Onsite spill kits available within workshop area and near hayshed oil storage. Routine inspections on equipment.

- ❑ **Bushfire near or around the site** which threatens the safety of the workforce or nearby residents
 - Likelihood – Medium. Heavily vegetated property. Hot work permits in place, but other ignition sources beyond site control could cause fire.
 - Consequence – Major: Fire that could threaten Medway village residents.
 - Pre-emptive Actions - Regular engagement with Rural Fire Service, organizing back burning or allowing access for back burning.

- ❑ **Truck spills on public roads** within or near the site premises which may cause fuel, lubricants or other products to enter the site or threaten to enter water ways
 - Likelihood – Low. As the site is in care and maintenance there are fewer truck movements.
 - Consequence – Moderate: Localised and measurable impacts on soils and potentially waterways.
 - Pre-emptive Actions: Majority of vehicles carry spill kits.

- ❑ **In-rush** leading to the uncontrolled release of ground water above licence limits eg suspended solids. Also significant potential of visual discoloration of waters from Iron and Manganese content. (Note: As confirmed by WaterNSW there are no water users downstream of the adit prior to the Bushcamp at Biloela.)
 - Likelihood – Low. Bulkheads designed and installed in 2019. Routine monitoring in place.
 - Consequence – Major. Localised impact on Wingecarribee River for >1km. Minimal risk to human health.
 - Pre-emptive Actions: Routine monitoring of bulkhead water levels and data on volume and quality of waters passing the bulkheads. Pumps installed and maintained to pump

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water through limestone treatment system if required.

Please refer to the Site Safety Management Plan for further risk assessments.

The only Hazardous Substances or Dangerous Goods stored on site at Berrima Colliery is diesel which is stored in an above ground self-bunded storage tank. This 15,000 L tank is located near the equipment storage shed. There are other materials that are stored or delivered to the site that can cause harm if they leave the site and enter the Wingecarribee River or associated tributaries. These include 20 L and 105 L drums of oils and hydraulic fluids which are stored in the main storage shed in bunds and minor workshop supplies. The main hazard though is considered fire, either generated on site or progressed to the site from the surrounding area. Further details on all chemicals can be found within the site's MSDS Chemical Register.

This Pollution Incident Response Management Plan provides information from previous risk assessments covering events and activities which may cause pollution incidents involving material harm. These assessments have described:

- Existing controls to prevent pollution incidents
- Incident response actions to mitigate potential incidents
- Immediate reporting of pollution incidents to relevant statutory authorities
- Maintaining communications with Appropriate Regulatory Authorities during incident response
- Reporting of incidents to stakeholders including local communities
- Site specific roles and responsibilities in incident response and reporting.

7.2 Pollution Incident Emergency Response

In the event of a pollution incident the risk of harm to human health will be minimised by engaging an appropriate pollution response as outlined below:

1. **Isolate the area:** In the event of oil, fuel or hydraulic fluid spill or leak, the area should be isolated and barricaded if required to reduce the risk of exposure to people. This must occur without exposure to danger. In the event of any uncontrolled release of waters through the Adit, as access is restricted within the gorge, any isolation of the area will be limited to signage within the area of the adit, however this may not occur as step 1.
2. **Stop the source:** If it is safe to do so, stop the process causing the spill/leak or other environmental incident. In the event of water released via the Adit, flow restrictors will be placed on the outlet pipe to reduce the volume of waters that can release.
3. **Commence early notification:** The Mine Manager/ Site Manager or Environmental Officer must be notified immediately of the environmental incident. Should the incident threaten environmental harm, they in turn must immediately proceed with the notification of Authorities as detailed in this Plan. If the environmental incident threatens the nearby community of Medway, the nominated person implements early notification procedures to the relevant Authorities including emergency services and alerts potentially affected neighbours, with regular updates provided as needed. If the incident threatens the Wingecarribee River contact will be made with WaterNSW and Biloela camp ground. (Note as notified by WaterNSW there are no water users between the adit and Biloela camp ground).
4. **Provide a 1st aid response (if required):** First aid kits including instruction on use are available at the Mine Office and Workshop. Appropriate PPE is worn by all staff during periods of potential

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exposure as outlined in relevant MSDS.

5. **Identify the release to the greatest extent possible:** Do so without being at risk. This includes identifying:
 - a. the type of material released, e.g.
 - i. Class 2 Gases - compressed, liquefied or dissolved under pressure.
 - ii. Class 3 Flammable Liquids
 - iii. Solid material spill
 - iv. Discharge waters – suspended solids, metals
 - b. The label and Material Safety Data Sheet for the product should give information on safe cleanup.
 - c. The size of the release and whether the release has stopped;
 - d. Whether chemicals involved may be potentially incompatible; and
 - e. Any unusual features such as foaming, odour, smoke, etc.
6. **Determine the level of emergency:** review chemical risk assessments, seek internal advice from area specialists, review MSDSs and seek professional advice from the fire brigade and/or hazardous material specialists.
7. **Determine if evacuation is required** and consider the impact that wind, rain, local geographical features such as hills and stormwater drainage systems may have in exposing persons at emergency assembly points. The Mine Manager or authorised site Competent Person is to determine if evacuation of the site is to occur.
8. **Stop further release (if not done prior):** prevent further release by isolating the source of the release. (Trained personnel only with suitable PPE)
9. **Stop the release from spreading (if safe to do so): if applicable** deploy spill kits to prevent further contamination dispersal:
 - a. **Liquid spills.** Use appropriate absorbent/containment materials such as socks (land) and booms (water), plug drains to prevent contamination of stormwater. Spill kits are provided in the Workshop and Storage Shed.
 - b. **Ensure** that pollution control ponds remain as nil discharge by checking pumps are operable.
 - c. **Powdered solid spills:** direct surface ground water to dirty water dam(s) and remove spill
 - d. **Large spills:** Summon specialist spill emergency response contractors (e.g. Transpacific Industrial Solutions, 1800 SPILLS). Although the quantities of materials stored on site are minor, this procedure is relevant if there is an incident involving a delivery truck.
 - e. Dispose of contaminated spill clean materials and wastes using a licensed contractor
 - f. If required, remediate the site.
10. **Fire Surface:** Call 000 and report fire.
 - a. Connection available to two by 108kL Concrete Water Storage with Stortz fitting for firefighting water supply
 - b. Evacuate surface personnel and assemble in the emergency assembly area adjacent to water tanks in carpark
 - c. Evacuate underground workforce and assemble in the carpark
 - d. Once all personnel are accounted, evacuate the mine site if safe to do so.

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8 Procedure for Calling Emergency Services

Dial 000

Ask for Ambulance/ Fire Brigade/Police. Be prepared to state:

Berrima Colliery calling
Medway Road
Medway

Nature of Emergency:

Fire
Serious Injury — number of injured and nature of injury
Entrapment — number of personnel

Colliery Telephone Number:

4877 1206

Give your name

Directions to colliery:

Approaching from the north:

Take Berrima turn-off off Sydney to Melbourne freeway, turn right under freeway into Medway Road.
Colliery is 4.7 Kms. at the end of the road, just through Medway Village.

Approaching from the south:

Follow directions to Berrima turn-off the Melbourne to Sydney freeway at Three Legs of Man bridge, turn right under the freeway towards Berrima village.
Turn left at the roundabout just before Berrima village off the Old Hume Highway onto Medway Road. The Colliery is 5.7 Kms. at the end of the road just through Medway Village.

GPS Coordinates

34° 29' 11" S; 150° 16' 04" E

Ask for estimated time of arrival at Colliery and log same: ETA

9 Evacuation Procedures

All employees, contractors and visitors are inducted prior to entering site. All visitors must sign into the visitors book so the operations know who is on site at any time.

In the event of a decision being made to evacuate the site, all instructions relating to the evacuation will emanate from the Mine Manager/ authorised site Competent Person.

The evacuation of personnel shall be under the supervision and control of the Mine Manager/ authorised site Competent Person present at the time.

In the event of these officials services being required to assist in dealing with the emergency they will nominate a competent person from among the employees to supervise and control the evacuation.

The Mine Manager/ authorised site Competent Person is to make known, (if possible), all relevant and current information regarding the emergency/evacuation so that the evacuating team can plan their course of action taking into regard this updated information and advice.

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It will be the responsibility of the Mine Manager/ authorised site Competent Person to check and contact all personnel under his control and relay to them the following information as briefly as possible:-

1. The nature of the emergency.
2. The route to be travelled.
3. The availability, or otherwise, of transport (it may be that the evacuation is to commence on foot).
4. If possible confirm with the Mine Manager/ authorised site Competent Person 1, 2 & 3 and confirm the number and names of those within your party. Inform the Mine Manager/ authorised site Competent Person of any known absentees from your crew.

For further information please refer to the site Mine Safety Plan.

10 Removal Of Power U/G & To The Main Ventilation Fan

Refer to the Berrima Colliery Control Plan, Emergency Plan Rev 7; SafeWork Procedure – Bush Fire Response

11 Emergency Equipment

. . .

11.1 Escape Equipment to be Available in Emergencies

Refer to the Berrima Colliery Safe Work Procedure – Evacuation Procedure Rev 6

11.2 Person to be in Attendance on the Surface at the Mine

12 Testing and Implementation of incident Response Plan

The Mine Manager / Site Manager ensures that emergency systems are maintained and that their effectiveness is evaluated at least once a year. The testing of the PIRMP is to be carried out in such a manner as to ensure that the information included in the plan is accurate and up to date, and that each plan is capable of being implemented in a workable and effective manner. Testing will involve undertaking desktop simulations of incidents and if necessary completing exercises or drills. Testing will need to cover all the components of the PIRMP, including the effectiveness of training.

The testing of this plan was last undertaken on:

3 October 2019, with a desktop exercise on managing groundwater release from an underground strata failure.

19 October 2020, with a desktop exercise on managing the release of transformer oils onto the ground and potentially into onsite dams from a failure of the electrical transfer.

13 Immediate Notification Procedure

13.1 Internal Notification

Any pollution incident satisfying the material harm threshold must be immediately reported to relevant statutory authorities by either the Mine Manager, Mine Environmental Officer or the Boral Cement Site/Operations Manager or delegated Manager, Site Environmental Coordinator or Environmental Sustainability Manager: National Operations.

In cases where “material harm” level cannot be immediately assessed or insufficient information comes

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to hand on the severity of the incident, the general advice is to err on the side of caution and notify the Relevant Authorities with a qualification that the situation could not yet be fully assessed.

Although the listed personnel are authorised to contact the relevant agencies, as always, it is every employee's responsibility to immediately call 000 in the event of emergency particularly if there is injury or rescue is required.

13.2 Internal Contact List

Name	Function	Phone number	Mobile number
	Mining Engineering Manager		
	Mine Environmental Manager/Officer		
	Mechanical Engineer Manager		
	Electrical Engineer Manager		
	Boral Cement Plant Operations Manager		
	H&S Business Partner		
	Environmental Sustainability Manager		
	National GM Operations – Boral Cement		
	Project Manager – Boral Cement		

13.3 Notification Details

The Mine Manager or authorised site Competent Person or Environmental Sustainability Manager is authorised to enact the necessary notification and must be done immediately upon becoming aware of the pollution incident.

The initial notification should include as much of the following information (if known) as possible:

- location and time of the pollution incident
- type of the incident (spill, fire, unlicensed harmful discharge, etc)
- assessed level of incident gravity and extent
- whether the Emergency Services have been required to attend.

All notifications must be documented in the Notification Log (form attached) with the details of time of notifications and the persons who took to the call.

13.4 Pollution Incident Authority Contact List

The following contact list include compulsory notification and a supplementary list which require notification depending on the nature of the incident.

Note: Firstly, call 000 if the incident presents an immediate threat to human health or property.

Government Authority - Compulsory Notifications	Emergency notification phone number
EPA – Environment Line	131 555
Department of Planning and Environment	1300 814 609
NSW Fire and Rescue	1300 729 579
Wingecarribee Shire Council	4868 0888
Safe Work NSW	131050 Company ABN asked: 62 008 528 523
NSW Resources Regulator	1300 814 609
Public Health Unit (Sydney South West) – Camperdown Office	BH: 9515 9420; AH: 9515 6111 Ask for Public Health Officer on call
Government Authority – If Relevant	Emergency notification phone number
Mines Rescue	4286 5499
NSW Police and Ambulance	000
Sydney Catchment Authority	1800 061069
Roads and Maritime Services (road spills)	132 701
NSW Office of Water	8838 7885
Bush Fire Control Officer	1800 049933
Poisons Information Centre	131 126
Bowral hospital	4861 0200
Bowral police	48 629 299
Endeavour Energy (power line emergencies)	131 003

13.5 Resident Contact List

In case of pollution incidents that may potentially pose a threat to health or safety of the neighbours the nearby residents need to be urgently notified. As it is likely that not all residents can be contacted by phone, it will be the responsibility of the Mine Manager/delegate or Environmental Officer to make arrangements for available employees to door knock around the village.

The Environmental Officer will undertake the early warning of the neighbourhood in the first instance by phone or by door knock. The most recent phone contact list for neighbours is provided below. The initial notification should be brief and contain only a description of the environmental threat together with instructions what to do. For example:

- Due to a fire on site or bushfire nearby, we are experiencing elevated dust emissions from the site.

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Please keep your doors and windows closed until further notice.

- An accidental discharge occurred from the site. There maybe emergency vehicles using the Medway Road.
- Due to a diesel spillage onto a street from the site, a cleanup operation is being organised. Please be watchful for road closures in relation to this operation.

Follow up information on the resolution of emergency situation would be timely conducted also on the phone. If required, further information would be disseminated by means of leaflets in a letterbox drop.

In the event of a release into the Wingecarribee River contact should be made with the Bushcamp Biloela – Outdoor Education Group –

Resident Name	Resident Address	Contact Phone Number
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13.6 Implementation and Training Requirements

The mine’s Environmental Officer or HSE Advisor is responsible for dissemination and training of the requirements of this Plan to all site staff and contractors. The PIRMP will be reviewed annually or after any incident enacting the PIRMP, this will typically occur prior to the end of the licence reporting period.

All employees will be tool boxed on the PIRMP annually along with a simulated drill to test the adequacy of the plan. Records of attendance will be maintained within the site PIRMP folder.

Any changes to the document required after the drill or annual review are to be communicated to personnel in a timely manner.

Audits and checks will verify that the implementation and compliance to this Plan are monitored.

13.7 Record Keeping

An accurate record of immediate notifications is to be kept in all cases. A Notification Log format as attached is preferable. Other proforma record cards are attached.

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All training and induction records are to be kept at the mine by the Mine Manager and entered into the training register. Records of any toolbox talks are to be maintained by the relevant supervisor using the toolbox talk meeting minutes' proforma. Record of incident review and corrective action is to be generated and retained to provide evidence of complying with this Plan.

PIRMP Drill Exercises

- 2022 – Underground water treatment system failure, Uncontrolled mine water discharge
- 2021- Water treatment dosing system failure_ Hydrated lime release
- 2020 – High Voltage Electrical Transformer failure_ transformer oil discharge
- 2019 – Air Compressor condensate uncontrolled release
- 2018 – Passive water treatment trial uncontrolled release of chemicals
- 2017 – Diesel fuel tank failure uncontrolled release of fuel

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Attachments

Pollution Incident Immediate Notification Log

Person undertaking notification (Name/Function):		
Date and time when first become aware of the incident:		
Incident type:		
Comments:		

Initial immediate notification log				
Appropriate Regulatory Authority	Time of call	Respondent's name/function	Approximate call duration	Comments
EPA				
"Depart" of Planning and Environment Mines Department				
Public Health Unit				
NSW Fire Brigade				
Police/Ambulance 000				
Emergency Services				
Mines Rescue				
Sydney Catchment Authority				
Wingecarribee Council				
WorkCover				
Other:				
Summary of initial communication:				

Person undertaking notification (Name/Function):		
Date and time when additional information become available:		
Comments:		

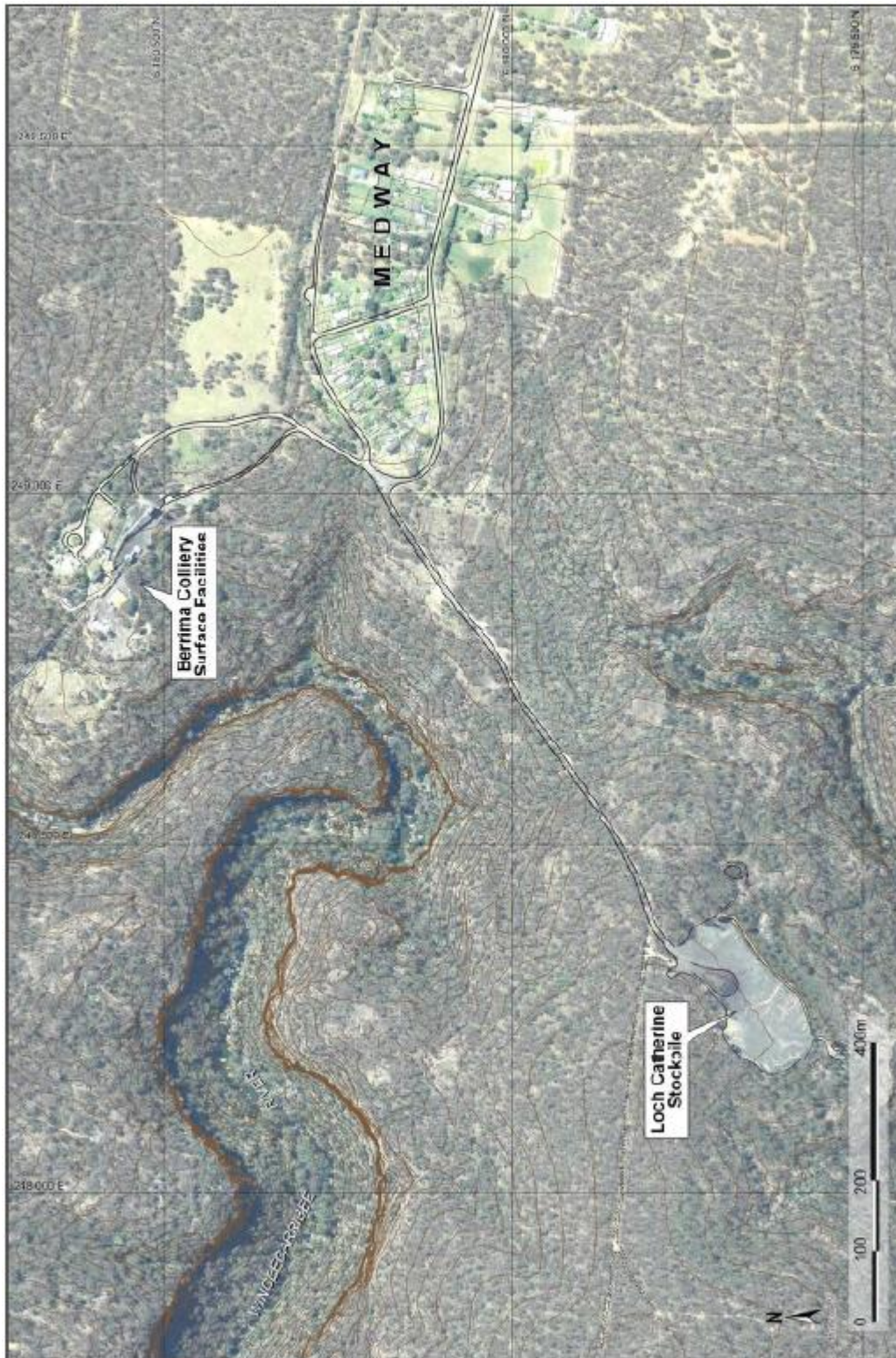
Immediate notification of further pertinent information (if applicable)				
Appropriate Regulatory Authority	Time of call	Respondent's name/function	Approximate call duration	Comments
EPA				
Depart ⁿ of Planning and Environment Mines Department				
Public Health Unit				
Fire & Rescue				
Local Council				
Work Cover				
Other:				
Other:				
Summary of additional communication				

STAGE 1— WHAT HAS HAPPENED

INFORMATION REQUIRED FOR AN ACCIDENT/EMERGENCY SITUATION	
Name of person reporting emergency	
Telephone number from where the person is calling	
Location of accident or emergency	
Type of accident or emergency	
Name and number of injured	
Type of injuries	
Assistance required	
Make sure someone stays at the phone, if this is not possible arrange a method for further contact	
Log time of call and information received, commence a diary of events	
STAY CALM. THINK BEFORE YOU ACT REPEAT THE MESSAGE TO THE CALLER TO ENSURE YOU HAVE THE CORRECT INFORMATION	

Notes:.....

Locality Map





Biloela Campground downstream from mine adit discharge point