



Pollution Incident Response Management Plan

Environment Protection Licence 5590

710-005-EN-PLA-0005

DOCUMENT CONTROL

This plan must not be modified altered or changed unless authorised by the document owner.


Document Owner: Manager- Health, Safety and Environment

AMENDMENTS

Rev	Date	Developed By	Nature of Amendment
1	27/01/2014	Newcrest Mining Limited	Inclusion of Blayney Dewatering facility
2	27/01/2014	Newcrest Mining Limited	Removal of Environment Manager
3	26/11/2014	Newcrest Mining Limited	Distribution list
4	26/11/2014	Newcrest Mining Limited	Inclusion of Reg. 98E: Testing of the Plan.
5	26/11/2014	Newcrest Mining Limited	Inclusion of new mining lease.
6	20/05/2015	Newcrest Mining Limited	Testing of Plan Inclusion of quick reference incident classification Inclusion of incident controller to external notification authority
7	24/05/2015	Newcrest Mining Limited	Testing of Plan, Flow chart
8	26/05/2017	Newcrest Mining Limited	Test of Plan Update contact details Add information regarding water storages as per EPA Audit. Add document hierarchy information. Update potential pollutants list and map. Update equipment list and maps. Update legislative mapping table.
9	05/03/2018	Newcrest Mining Limited	Test of Plan Update contact details Add document hierarchy information. Update Integration with EMP Update A.14 flow chart Update PIRMP Quick guide flowchart
10	10/05/2019	Newcrest Mining Limited	Update Contact Details
11	06/05/2021	Newcrest Mining Limited	Update Template Update Contact Details Update Test Details Update in line with new Guideline Include Molybdenum Plant in content
12	12/08/2021	Newcrest Mining Limited	Update Contact Details Update Test Details Remove Potential Source Location 13 from Table
13	08/11/2022	Newcrest Mining Limited	Update Approval Update contact details for Internal Notification Update Test Details (Test 10)
14	13/06/2023	Newcrest Mining Limited	Update Approval Update contact details for Notification

Rev	Date	Developed By	Nature of Amendment
			Update test details (test 11)

APPROVAL

Revision No.	Approval Date	Signature
14		David Coe <i>Manager – Environment and Social Performance</i>

PLAN TESTED

No.	Date	Nature of Test
1	1/09/2012	Desk top review and test
2	07/08/2014	Desk top review and test
3	20/05/2015	Scenario Test (Dam Wall Failure)
4	23/05/2016	Desk top scenario Test (Diesel truck roll over)
5	26/05/2017	Desktop scenario – tailings embankment failure.
6	05/03/2018	Desktop scenario – Breached pipeline between CVO and Blayney at Flyers Creek.
7	09/05/2019	Desktop scenario – rolled truck on Ridgeway Access Road at Cadia Creek Weir, spilling PAX.
8	11/06/2020	Desktop scenario- Burst concentrate pipeline between Cadia and Blayney. Concentrate is spilling out onto agricultural land.
9	09/06/2021	Desktop scenario – Overflow of underground sewage tank at Cadia Warehouse. Raw sewage has flowed into the concrete lined drain on the apron of the warehouse and is heading towards Rodds Creek Dam
10	07/06/2022	Desktop test - Failure of sediment dam H19 with potential to enter Cadiangullong Creek. Wall failure from spillway being washed out
11	9/6/23	Scenario Test (Sewage overflow at Ridgeway offices. A blocked line had caused an overflow at an inspection point)

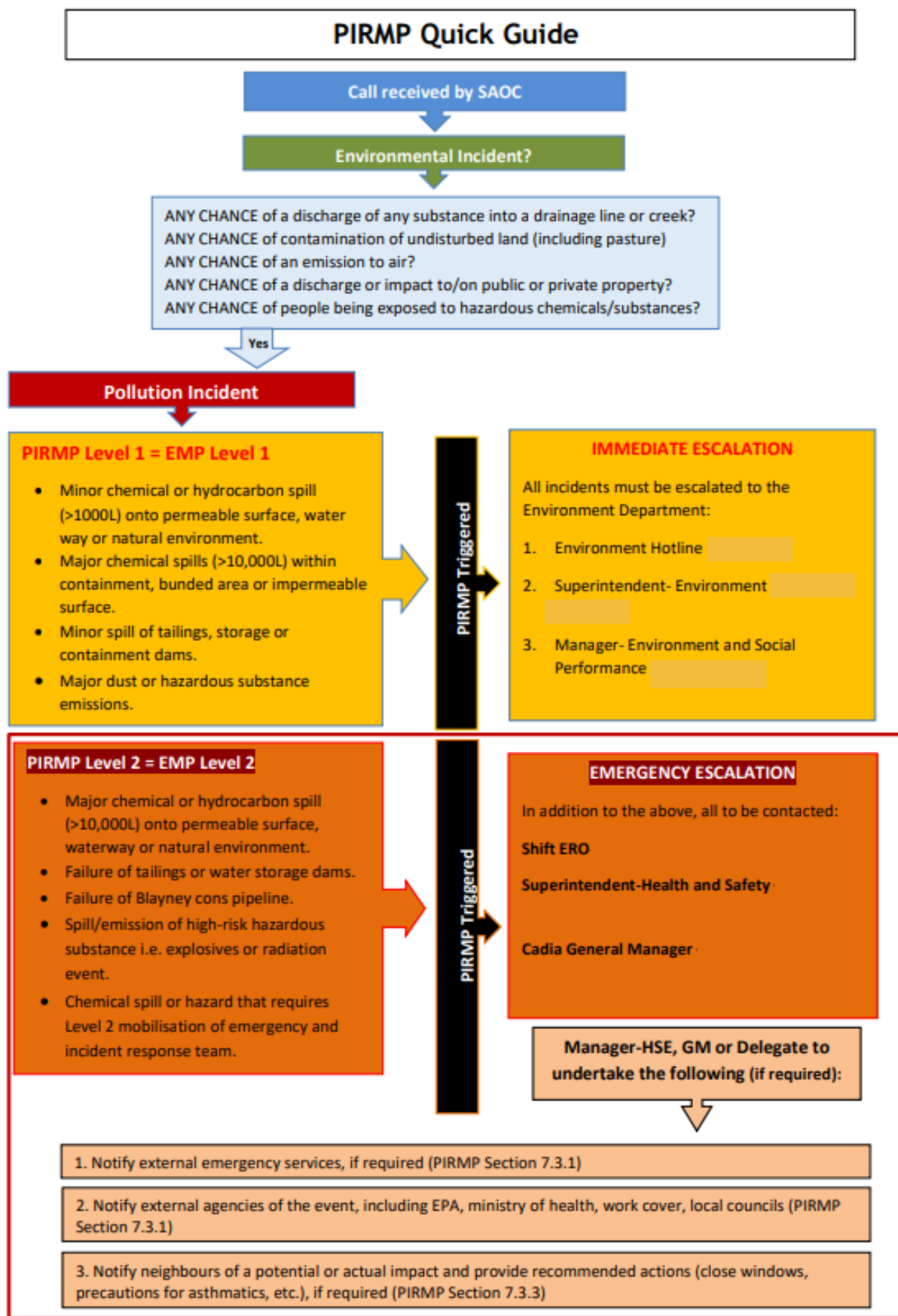


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1. ENVIRONMENT PROTECTION LICENCE 5590

Details of the Environment Protection Licence 5590 are outlined below. A current version of EPL 5590 can be accessed via the website link below.

Name of licensee (including ABN)	Cadia Holdings Pty Limited
EPL Number	5590
EPL Revision Date	19/4/2023
Premises name and address	Cadia Valley Operations Cadia Road CADIA, NSW, 2800
Company or business contact details	Newcrest Mining Limited Business hours: (02) 6392 2300 24 Hour Community Complaints Hotline: 1800 063 043 Email: cadiavalley@newcrest.com.au
Website address	www.cadiavalley.com.au
Scheduled activity/activities on EPL	<ul style="list-style-type: none"> ➤ Crushing, grinding or separating ➤ Mineral processing ➤ Mining for minerals
Fee-based activity/activities on EPL	<ul style="list-style-type: none"> ➤ Crushing, grinding or separating ➤ Mineral processing ➤ Mining for minerals

2. OVERVIEW

2.1 Scope

This Pollution Incident Response Management Plan (PIRMP) aims to cover preparations and responses to an actual or potential pollution incident associated with Cadia's mining, exploration and processing activities, including the Molybdenum Plant and the CVO Dewatering Facility.

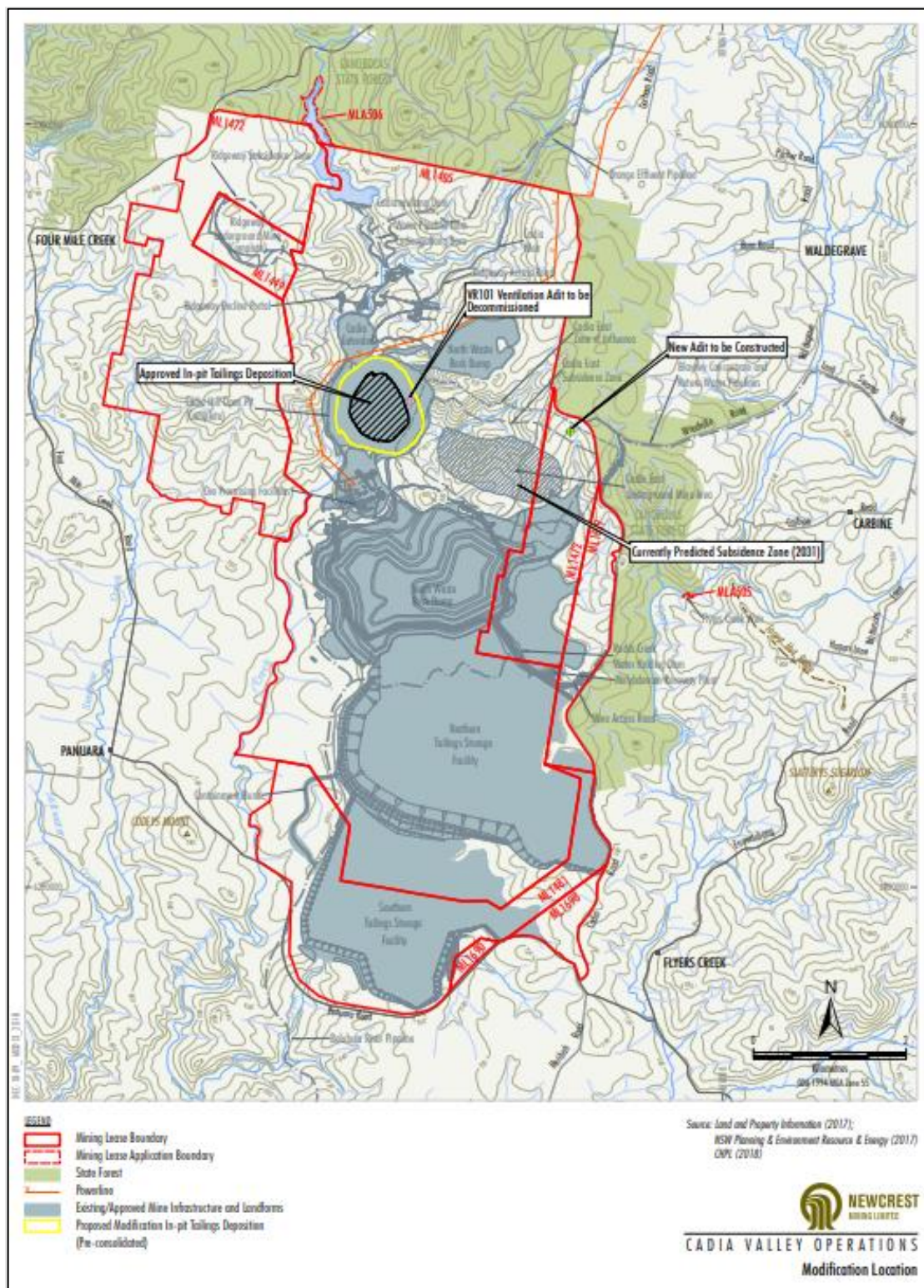
This plan should be the primary source of information for pollution incidents and the procedures outlined in Appendix A.14 of this plan should be carried out. If a pollution incident occurs that threatens health and safety of humans, this plan should be used in conjunction with the Emergency Management Plan (EMP).

A copy of this plan must be kept at the licenced premises and be made available on request by an authorised EPA officer and to any person who is responsible for implementing this plan.

Parts of the plan must also be available either on a publicly accessible website, or if there is no such website, by providing a copy of the plan to any person who makes a written request. The sections of the plan that are required to be publicly available are set out in the clause 98D of the Protection of the Environment Operations (General) Regulation 2009.

This plan does not cover an incident or set of circumstances involving only the emission of any noise (EPA Guidelines 2020). Noise emissions are managed under the industrial noise policy.

Cadia (Cadia Holdings Pty. Ltd) is a fully owned subsidiary of Newcrest Mining Ltd. Cadia is a gold/copper mining and processing complex in central west NSW near the town of Orange.



2.3 Mining Context

The Cadia complex comprises the Ridgeway, Ridgeway Deeps and Cadia East mines, minerals processing facilities and associated infrastructure. The Cadia Hill Open cut pit is now utilised for tailings storage while the Ridgeway underground mine is under care and maintenance. Mining commenced in 1998, with current approvals taking the project through to June 2031. The project mines and processes up to 32 million tonnes per annum.

2.4 Ore Processing Context

Ore from Cadia is processed through a plant comprising a crushing, grinding and flotation circuit to produce a gold, copper and molybdenum concentrate. A gravity circuit is also incorporated to recover gold and produce gold doré, which is smelted on-site. The molybdenum is separated from the gold and copper at the Moly Plant using a second flotation step.

The gold-copper concentrate is pumped to a filtration plant approximately 25 km from the Cadia Valley Operations to the nearby town of Blayney, where it is dewatered and then loaded onto trains for transport to Port Kembla.

2.5 Pollution Incident

A pollution incident means an incident or set of circumstances during or as a consequence of which there is or 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 the premises, but it does not include an incident or set of circumstances involving only the emission of noise.

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

- a) Harm to the environment is material if:
 - i) It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or
 - ii) It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such amount as is prescribed by the regulations, and
- b) Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

Notification is required even where 'harm to the environment is caused only in the premises where the pollution incident occurs', as specified in section 147(2).

3. PURPOSE

Cadia Holdings Pty Limited holds an Environment Protection Licence with the NSW Environment Protection Authority (EPA) for Cadia Valley Operations. As per the *Protection of the Environment Operations Act 1997* (the POEO Act), the holder of an Environment Protection Licence must prepare, keep, test and implement a pollution

incident response management plan (PIRMP) that complies with Part 5.7A of the POEO Act in relation to the activity to which the licence relates.

In summary, this Plan aims to:

- Minimise the risk of a pollution incident taking place as a result of licenced activities;
- Establish clear and effective notification, action and communication procedures to ensure the correct people are notified, warned and quickly provided with updates and information they may need; and
- Ensure staff are properly trained in the implementation of this Plan to minimise the risk from a potential or actual pollution incident.

4. ROLES AND RESPONSIBILITIES

Role	Responsibility
All Employees, Contractors and Subcontractors	<ul style="list-style-type: none"> ➤ Report all incidents immediately to their Supervisor; or ➤ Where appropriate, report an emergency as per Section 3.3 of the Emergency Management Plan (710-000-ER-PLA-0001)
General Manager	<ul style="list-style-type: none"> ➤ Authorise the PIRMP and subsequent updates; ➤ Ensure adequate resourcing for implementing the PIRMP; ➤ Ensure adequate resourcing for training in regards to the PIRMP for all Cadia employees and contractors; ➤ Liaise with the relevant authorities and community members.
Manager - Environment and Social Performance	<ul style="list-style-type: none"> ➤ Ensure employees and contractors are notified of updates to the PIRMP and are trained appropriately; ➤ Coordinate communications with relevant authorities; ➤ Manage the response to a pollution incident.
Manager- People and Social Performance	<ul style="list-style-type: none"> ➤ Coordinating communications with relevant stakeholders and affected community members.
Superintendent- Environment	<ul style="list-style-type: none"> ➤ Determine the need to notify authorities of pollution incidents and when the PIRMP is activated; ➤ Arrange testing and updating of the PIRMP.
Superintendent- Social Performance	<ul style="list-style-type: none"> ➤ Community and stakeholder communications, as per the Crisis and Incident Communications Standard Operating Procedure. ➤ Maintain and provide contact details for community members
Environment Team	<ul style="list-style-type: none"> ➤ Assist with responding to a pollution incident; ➤ Assist and coordinate with internal communications.
Emergency Response Team	<ul style="list-style-type: none"> ➤ Maintain emergency management procedures relating to combating hazardous material incidents
Emergency Response Officer	<ul style="list-style-type: none"> ➤ Designated role with responsibilities arising from a level 2 pollution incident
Incident Management Team	<ul style="list-style-type: none"> ➤ Deployed if the incident is Level 3 or higher (refer to EMP and reference that section here)

In the event of a pollution incident the Cadia HSE Manager must be called directly or notified via the Site Asset Operations Centre. The roles and descriptions for emergency

personnel are detailed in 'Duty Cards' contained in 'Duty Boxes' in the Cadia Emergency Management Plan. A full set of 'Duty Cards' are located at the Cadia Incident Control (Emergency Response) Centre which include:

- A copy of each role's Duty Statement;
- Supporting documentation and paperwork for each role;
- Safety vest with role identification;
- Stationery supplies; and
- Supporting equipment and notes.

Duty Cards for surface evacuations are located at the Incident Control (Emergency response) Room.

5. ACRONYMS

Acronym	Meaning
EPA	NSW Environment Protection Authority
ERO	Cadia Emergency Response Officer
ERT	Cadia Emergency Response Team
EPO	Cadia Emergency Pollution Officer
ICC	Incident Control Centre (Emergency Response Centre)
IMT	Cadia Incident Management Team
PIRMP	Pollution Incident Response Management Plan
SAOC	Site Asset Operations Centre

6. DEFINITIONS

Key Word	Definition
NSW EPA	NSW Authority responsible for managing industry
Immediately	Promptly and without delay
Senior Management	Superintendent level or above

7. NOTIFICATION AND CONTACT DETAILS

7.1 Internal

All pollution incidents must be reported immediately through the Procedure detailed in Section 3.3 of the Emergency Management Plan.

Once the incident has been classified as pollution, the PIRMP is to be activated by the following personnel or their delegate/s.

A summary of internal contacts is provided in the table below.

	Type	Role
PIRMP Activation	Primary	Manager- Environment and Social Performance
	Alternate	Superintendent - Environment
Notify Relevant Authorities	Primary	Manager- Environment and Social Performance
	Alternate	Superintendent - Environment
Management of Pollution Incident	Primary	Manager- Environment and Social Performance
	Alternate	Superintendent - Environment
Notify Neighbours and Community	Primary	SP Superintendent
	Alternate	Specialist Community Engagement
Molybdenum Plant	Primary	Specialist- Metallurgy Projects
Cadia Dewatering Facility	7-7 Roster	CDF Supervisor
	7-7 Roster	CDF Supervisor
Cadia Assay Laboratory	Primary	Assay Lab Superintendent

7.2 External

Persons or authorities who may require notification as per Part 5.7A of the POEO Act in the case of a pollution incident that threatens to cause material harm to the environment are listed in table below.

The Cadia General Manager and the Manager-Environment (or their delegate/s) are responsible and have the authority to notify external authorities of a pollution event at Cadia.

Relevant Authority	Contact Details
Emergency Services	000 (only if fire or rescue services are required)
NSW EPA	EPA Hotline 131 555
Natural Resource Access Regulator	1800 633 362
Ministry of Health	Public Health Hotline: 1300 066 055
Orange Base Hospital	(02) 6369 3000
Poisons Information	13 11 26
NSW Police	000 (in an emergency) Western Region District Office: (02) 6363 6399

Dams Safety NSW	0403 681 645
RMS	13 27 01
SafeWork NSW	13 10 50
Department of Planning, Industry and Environment	Industry: (02) 9338 6600 Planning: 1300 305 695 Environment, Energy and Science: 1300 361 967
NSW Resources Regulator	1300 814 609
Cabonne Shire Council	Business Hours: (02) 6392 3200 After Hours: (02) 6392 3234
Blayney Shire Council	Business Hours: (02) 6368 2104
Orange City Council	Business Hours: (02) 6393 8000 After Hours: 1300 650 511

7.3 Neighbours and Local Community

In the event of an emergency pollution incident, the Cadia Crisis and Incident Communications Standard Operating Procedure (CIC SOP) will be triggered. This will include the develop of an External Communication Plan that incorporates a scene assessment with the affected community members notified accordingly.

The Borealis stakeholder management software tool will be utilised to map stakeholders and develop bespoke contact lists based on the scene assessment. A landholder locality map is provided in Appendix F. As per the CIC SOP, community members and other stakeholders will be communicated with by the relevant members of the CIC team that has been mobilised in response to the incident. Communication modes may include: group email and texts, via media, individual meetings or phone calls, door knock or letter box drop. Cadia will provide timely initial notifications and regular updates, as a minimum updates will be provided every 24 hours of the initial contact.

8. EMERGENCY RESPONSE

Cadia has an incident control and emergency response station located adjacent to the central access office. The Cadia site emergency response facilities are designed to effectively and safely manage:

- Reporting and recording of communication in the event of an emergency;
- Initial response to an emergency;
- Tactical deployment of services (both internal and external of the mine site); and
- Post-recovery rehabilitation of the mine site.

The Cadia EMP details the various mechanisms for communicating to all site personnel in the event of an emergency. Site emergency communication systems include:

- Radio & telephone; and
- Radio broadcasts, site alarms and stench gas.

The Cadia EMP also outlines the various response equipment and facilities available at Cadia to minimise human harm such as:

- Fully equipped first aid room;
- Incident control center;
- Site ambulances;
- General rescue vehicles;
- Fire and HAZMAT rescue vehicles;
- Trained first aid personnel; and,
- Over 45 permanent and volunteer emergency response personnel.

In the event of a pollution incident, the ERO and/or an Environment Team member will initially assess the incident from the incident details, and if determined to be a Level 2 incident the Emergency Pollution Officer requirements will be activated (duty card in Appendix H) including determining if an emergency evacuation is required. The Cadia Emergency Evacuation Procedure details site evacuation procedures in Appendix G. This procedure is available to Cadia site personnel at Evacuation Warden points and on Cadia's CDMS. Cadia's general induction process includes site safety rules, hazard management and Cadia's emergency procedure.

For detailed information on Cadia Emergency Response Facilities and Resources see the Cadia Emergency Management Plan.

9. INCIDENT MANAGEMENT

The Emergency Call Receiver will notify the environment department or emergency response personnel of the incident according to the guidance below. A quick guide has been placed at the start to this document to assist first responders and call receivers.

Level 1 Incident	Level 2 Incident
Managed by ERO or Environmental Representative with assistance generally limited to incident response personnel only with minimal assistance.	Requires an emergency response, but more significantly, requires the activation and implementation of an Incident Management Team.

Level 1 Incidents: A Cadia Emergency Response Officer and/or a Cadia Environmental Team Member must attend all pollution incidents, irrespective of the minor nature of the event.

Examples of a Level 1 incident include:

- Minor chemical or hydrocarbon spill outside of bunded area;
- Major chemical or hydrocarbon spills within containment, bunded area or impermeable surface;
- Spill of storage or containment dams over spill way post major rainfall event
- Minor leak in Blayney cons pipe line; and,
- Dust lift off events at tailing storage facilities of operational areas

Level 2 Incidents: A Level 2 Incident requires an appropriate emergency response, but more importantly the mobilisation and implementation of an Incident Management

Team that is responsible for the control and coordination of the overall site response in co-operation with the Emergency Pollution Officer.

Examples of a Level 2 incident include:

- Major chemical or hydrocarbon spill outside of bunded area;
- Failure of tailings or water storage dams;
- Major failure of Blayney cons pipeline;
- Major release of H₂S gas from the Molybdenum plant; and
- Spill/emission of high-risk hazardous substance i.e. explosives or radiation event;

Whilst the transportation of concentrate from the Blayney Dewatering Plant to the Port Loading Facility is not included in EPL 5590, Cadia would consult with the contractor responsible for transporting and managing the concentrate if there was a pollution incident resulting from this activity. Cadia would request information from the contractor regarding notifications completed to check that it aligns with Cadia reporting requirements.

Arrangements for minimising risk of harm to people and the environment as result of a pollution incident are included in the Pollution Response Guidelines (see Appendix A.16). The Cadia EMP details the controls and resources to minimise health, safety and environment consequences.

9.1 Incidents involving release to streams, waterways or dams

Should an incident occur where a release to streams, waterways or dams occurs, or is likely to occur, the site Water Specialist must be contacted to confirm Sampling Design.

10. DESCRIPTION AND LIKELIHOOD OF HAZARDS

The potential major hazards at Cadia have been identified for the site as including:

- Emissions (such as hazardous chemicals) resulting in air contamination;
- Spills/leaks (such as hazardous goods and hydrocarbons) resulting in ground and surface water contamination;
- Spills/leaks (such as hazardous goods and hydrocarbons) resulting in land contamination; and
- Major unplanned contaminated? water, tailings discharge (such as dam failure).

The likelihood of environmental hazards has been reviewed in a Pollution Risk Assessment undertaken for Cadia which was facilitated by UGM Consultants on 28 June 2012. The purpose of the risk assessment was to identify significant environmental and community aspects and impacts across the site, the risks they pose to operations and the controls necessary to effectively manage them. Management of impacts is prioritised according to the level of risk each aspect is assigned. Hazard identification is carried out by all Cadia personnel via numerous methods outlined in the Cadia MSMP.

The Cadia Valley Operations Site Risk Register (710-000-RI-REG-0001) can be found on CDMS.

11. INVENTORY OF POLLUTANTS

Cadia keep an inventory of hazardous substances and dangerous good stored and used on site which are recorded and updated in a ChemAlert database. All site safety personnel have direct access to this ChemAlert inventory, and all site personnel have access through Cadia internal intranet. In addition to the ChemAlert inventory of pollutants, Cadia have access to Safety Data Sheets for pollutants on site via ChemAlert. As well, CVO-STA-WHS-2015 Hazardous Chemicals describes the management of potential pollutant substances.

A map of potential pollutant storage areas (and their details) on site is provided in Appendix A and B. Potential pollutants created as part of operations, and thus excluded from the inventory of pollutants include:

- Surface water runoff;
- Effluent waste; and,
- Process products.

12. SAFETY EQUIPMENT

Cadia have relevant pollution incident response equipment on hand to minimise harm to the environment and human health should an incident occur. Pollution Incident Response equipment is held onsite in relevant locations. The map and table provided in Appendix C identifies and details the location of pollution incident response equipment.

The emergency equipment includes but not limited to:

- Emergency spill kits;
- Self-contained air supply;
- Fire and chemical resistant suits;
- Containment booms;
- Water carts;
- Dust monitoring exceedance alarms;
- Gas detectors; and,
- Hazmat packs.

13. STAFF TRAINING

PIRMP awareness training will be carried out as a part of site inductions and will be available on the Cadia intranet. PIRMP awareness training will also be incorporated into Environment and Emergency training days, as required. Content may include the general awareness of the PIRMP and the legislative requirements behind this management plan. For key personnel awareness training may also include familiarisation with specific site environmental controls and community involvement/relation requirements.

14. TESTING AND UPDATING THE PIRMP

Testing of the PIRMP must include all components of the PIRMP. The methods of testing may include desktop simulations, emergency drills or practical exercises.

Regulation 98E testing of plan:

(1) The testing of a plan 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 the plan is capable of being implemented in a workable and effective manner.

(2) Any such test is to be carried out:

(a) Routinely at least once every 12 months; and,

(b) Within 1 month of any pollution incident occurring in the course of an activity to which the licence relates so as to assess, in the light of that incident, whether the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

Testing shall be undertaken in the following ways:

- The PIRMP will be tested by assessing and reviewing it and making any necessary changes as identified. Testing is taken to be either a desktop review or an environmental emergency drill procedure. Testing will include all components of the plan, including training requirements;
- A review and test of the PIRMP will occur every 12 months commencing from the date of authorisation. Contact details in this document must be kept current at all times; and,
- The PIRMP will be reviewed within one month from the date of any pollution incident that occurs in the course of an activity to which the EPL relates. This review will be undertaken in light of the incident, to provide the information included in the plan is accurate and up to date and the plan is still capable of being implemented in a workable and effective manner.

When a test, review or amendment is made to this PIRMP, details of the amendment or test must be recorded in the table in the front of this document. These details must include:

- The manner in which the PIRMP was tested or amended;
- The dates on which they have been tested or amended; and,
- The name of the staff member(s) who carried out the testing or amendment.

15. REFERENCES

- NSW EPA (2022). Guideline: Pollution Incident Response Management Plans
- Newcrest Mining Limited (2020). 710-000-ER-PLA-0001 Emergency Management Plan_23
- Newcrest Mining Limited (2021). Cadia Crisis and Incident Communications Standard Operating Procedure_DRAFT

16. APPENDICES

16.1 Appendix A - Potential Pollutant Storage Details

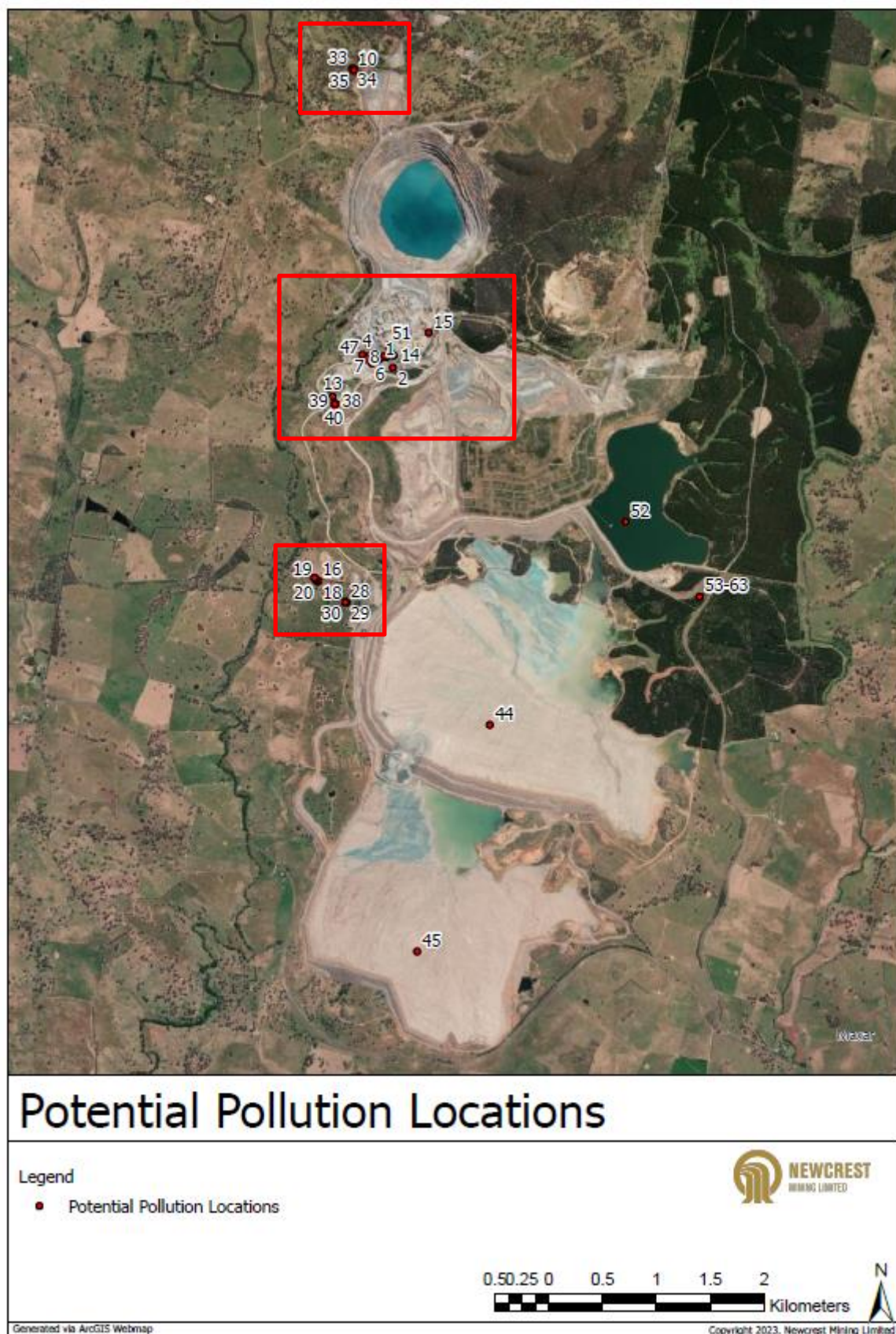




Fig 1. Potential Pollution Locations

Legend

- Potential Pollution Locations



0.07 0.04 0 0.07 0.14 0.21 0.28

Kilometers



Generated via ArcGIS Webmap

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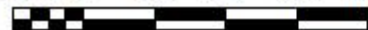
Fig 2. Potential Pollution Locations

Legend

- Potential Pollution Locations



0.01 0 0 0.01 0.01 0.02 0.03



Kilometers



Generated via ArcGIS Webmap

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POTENTIAL POLLUTANT DETAILS

Map ID	License ID	Chemical	Volume_max	Vol	Class	Hazard Comments
1		MEDAC	20	L		Corrosive - Acidic Detergent – Cleaning fluid
2		SULPHURIC ACID 98%	2	L		Corrosive
3		HYDROCHLORIC ACID (10-30%)	10	L		Corrosive
4		MERCURY	80	kg		Carcinogenic
5		HYDROCHLORIC ACID 33%	1	L		Corrosive
6		HYDROCHLORIC ACID 33%	20	L		Corrosive
7		SODIUM HYDROXIDE PELLETS	1	kg		Caustic
8		NALCO 73385	20	L		Corrosive - Biocide - Pesticide
9		Sulphuric Acid 98%	20	L		Corrosive
10		Caustic Soda - liquid (46-50%)	20	L		Caustic - cleaning liquid
11		FOAMCHLOR - NaOH 10%	20	L		Caustic - alkali liquid - Cleaning fluid
14	BFI 3-4	Diesel	220000	L	C1	Hydrocarbon - Flammable
15	BFI 5A-F	Diesel	870000	L	C1	Hydrocarbon - Flammable
16	CHMAG 1	Trojan 150 and 400 explosive type E	3000	kg	1.1D	Explosive
17	CHMAG 1	Boosters	2000	no .	1.1D	Explosive
18	CHMAG 1	Primcord 5 Det cord	7000	m	1.1D	Explosive
19	CHMAG 2	Trojan 150 and 400 explosive type E	3000	kg	1.1D	Explosive
20	CHMAG 2	Boosters	2000	no .	1.1D	Explosive
21	CHMAG 2	Primcord 5 Det cord	7000	m	1.1D	Explosive
22	CHMAG 3	Trojan 150 and 400 explosive type E	3000	kg	1.1D	Explosive
23	CHMAG 3	Boosters	2000	no .	1.1D	Explosive
24	CHMAG 3	Primcord 5 Det cord	7000	kg	1.1D	Explosive
25	CHMAG 4	Nonel Non-electric detonators	5000	no .	1.1B	Explosive

Map ID	License ID	Chemical	Volume_max	Vol	Class	Hazard Comments
26	CHMAG 5	Nonel Non-electric detonators	6000	no .	1.1B	Explosive
27	CHMAG 6	Nonel Non-electric detonators	6000	no .	1.1B	Explosive
28	DY 01-03	Ammonium Nitrate	69000	kg	5.1	Explosive
29	DY 04	Sodium Nitrate	1200	kg	5.1	Explosive
30	DY 05	Calcium Nitrate	1200	kg	5.1	Explosive
31	DY 07	Oxidising Liquid Toxic	72500	L	5.1	Corrosive
32	DY 08-12	Oxidising Liquid NOS	333500	L	5.1	Corrosive
33	RWMAG 1	Nonel Non-electric Detonators	3000	no .	1.1D	Explosive
34	RWMAG 1	Explosive, Blasting Type E (Trojan 150 a	15000	kg	1.1D	Explosive
35	RWMAG 1	Boosters	1000	no .	1.1D	Explosive
36	RWMAG 1	Detonators Electric	400	no .	1.1D	Explosive
37	RWMAG 1	Explosive, Blasting Type B	21000	kg	1.1D	Explosive
38	CE 1	Det Cord	10000	m	1.1D	Explosive
39	CE 1	Explosive Blasting Type B	1500	kg	1.1D	Explosive
40	CE 2	Detonators Electric	20	no .	1.1B	Explosive
41	CE 2	Nonel Non-electric Detonators	600	no .	1.1B	Explosive
42	CE 3	Oxidising Liquid Toxic	1000	L	5.1	Corrosive
43	CE 3	Oxidising Liquid NOS	24000	L	5.1	Corrosive
44		Northern Tailings Storage Facility	290	M L	N/A	Process Water
45		Southern Tailings Storage Facility	160	M L	N/A	Process Water
46		Hydrated Lime	531000	L	N/A	Corrosive
47		Collector	117508	L	1A	Corrosive
48		Frother	106300	L	1B	Corrosive
49		Flocculant	25000	L	C1	Combustible
50		Antiscalant	9092	L	N/A	N/A
51		Quick lime	130	L	N/A	N/A
52		Rodds Creek Dam	8866	T	N/A	Raw Water

Map ID	License ID	Chemical	Volume _max	Vol	Class	Hazard Comments
53		Sodium Hydrosulphide Solution	40200 0	L	8, 6.1	Toxic, Corrosive
54		Liquid Carbon Dioxide	50	T	2.2	Non-flammable, non-toxic gas
55		Sodium Hydroxide	2000	L	8	Corrosive
56		Sodium Hypochlorite	4000	L	8	Corrosive
57		Diesel	4000	L	C2	Combustible
58		Diesel Emulsifier – Flotisor AD 16642	167	L	C2	Combustible
59		Defoamer – FLOFOAM K 2710	4500	L	C2	Combustible
60		Frother – Interfloat F236N	4500	L	C1	Combustible
61		Antiscalant – Zalta MA1472	2000	L	NA	NA
62		Flocculant Powder – FLOPAAM AN 113 SH	5.6	T	NA	NA
63		0.25% (w/w) Flocculant Solution	3400	L	NA	NA

16.2 Appendix B - Potential Pollutant Storage Details (Potentially Contaminated Water)



POTENTIAL POLLUTANT STORAGE DETAILS (POTENTIALLY CONTAMINATED WATER)

Site Name	Volume_max	Vol.	Class
Site Runoff Pond	47.6	ML	Potentially contaminated water
Northern Leachate Dam	50.7	ML	Potentially contaminated water
Southern Leachate Dam	105.0	ML	Potentially contaminated water
ST14	22.8	ML	Potentially contaminated water
R2 ⁷	4.69	ML	Potentially contaminated water
CS	4.67	ML	Potentially contaminated water
CP1A	0.17	ML	Potentially contaminated water
AR1	1.89	ML	Potentially contaminated water
AR2-5 combined	3.47	ML	Potentially contaminated water
H18-19 combined	50.0	ML	Potentially contaminated water
T6	22.05	ML	Potentially contaminated water
CDGL	0.58	ML	Potentially contaminated water
CDHT	0.27	ML	Potentially contaminated water
CD15	0.49	ML	Potentially contaminated water
SB4A	1.85	ML	Potentially contaminated water
SB10	1.0	ML	Potentially contaminated water
SB12	0.82	ML	Potentially contaminated water
SB14	0.36	ML	Potentially contaminated water
SB15	0.47	ML	Potentially contaminated water
CP2	0.77	ML	Potentially contaminated water
CP3	0.92	ML	Potentially contaminated water
CP4	0.73	ML	Potentially contaminated water
CD11	0.40	ML	Potentially contaminated water
CD13	0.33	ML	Potentially contaminated water
CD14	0.12	ML	Potentially contaminated water

16.3 Appendix C - Pollution Incident Response Equipment Map

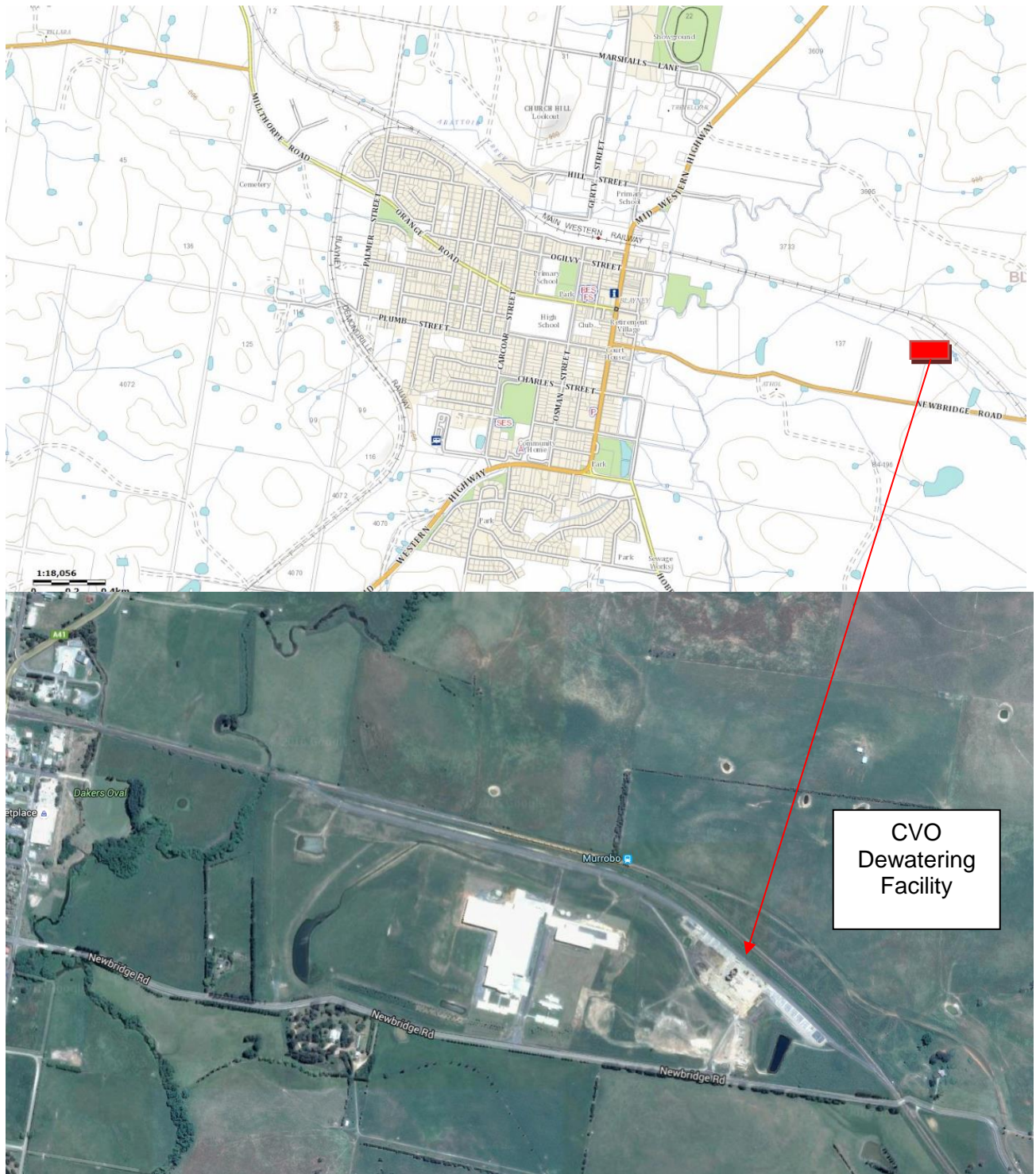


POLLUTION INCIDENT RESPONSE EQUIPMENT DETAILS

ID	Equipment	Purpose	Storage location	Service type
1	Fire 1 – FIREPAC 3000 MK3	Urban Fire Fighting Appliance	Emergency response station	Mobile
2	Fire 2 – Mitsubishi Canter (Crew Cab Tanker)	Firefighting - pollution haz response	Emergency response station	Mobile
3	Rescue 1 – Mitsubishi Canter (Crew Cab Tanker)	Emergency response vehicle	Emergency response station	Mobile
4	Rescue 2 – Toyota Hilux	Emergency response vehicle	Emergency response station	Mobile
5	Marine 1 – Zodiac Inflatable Vessel	Emergency response boat	Emergency response station	Mobile
6	Hazardous Material / Oil Spill Response Trailer	Hazardous Material / Oil Spill Response	Emergency response station	Mobile
7	Hazmat Storage Container	Hazardous Material / Oil Spill Response	Emergency response station	Stationary-refills and response
8	Chemical Spill Response Kit	Hazardous Material Response	HV workshop	Stationary
9	Chemical Spill Response Kit	Hazardous Material Response	Met Lab	Stationary
10	Chemical Spill Response Kit	Hazardous Material Response	Concentrator/Mill	Stationary
11	Chemical Spill Response Kit	Hazardous Material Response	Cadia Stores	Stationary
12	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	LV Workshop	Stationary
13	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	RWY HV workshop	Stationary
14	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	CE HV workshop	Stationary
15	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	HV workshop	Stationary
16	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Cadia Stores	Stationary
17	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	HV Fuel bay	Stationary
18	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	LV Fuel bay	Stationary
19	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	RWY Fuel bay	Stationary
20	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	CE Fuel bay	Stationary
21	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Cadia Lube Shed/BP shed	Stationary
22	Chemical Spill Response Kit	Hazardous Material Response	Dyno's	Stationary

ID	Equipment	Purpose	Storage location	Service type
23	Heavy earthmoving equipment	Hazardous Material Response	Cadia East Offices	Mobile
24	Heavy earthmoving equipment	Hazardous Material Response	Maintenance Area	Mobile
25	Heavy earthmoving equipment	Hazardous Material Response	Go Line for Trucks	Mobile
26	Heavy earthmoving equipment	Hazardous Material Response	Northern TSF	Mobile
27	Chemical Spill Response Kit	Hazardous Material Response	Moly Plant	Stationary
28	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Moly Plant	Stationary
29	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	HR02 Decant	Stationary
30	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	HR02 Decant	Stationary
31	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	LV Car Park	Stationary
32	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Eastern Haul Road	Stationary
33	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Eastern Haul Road	Stationary
34	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	HR02 Go Line	Stationary
35	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	HR02 Go Line	Stationary
36	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Caravan	Stationary
37	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Stockpile 7	Stationary
38	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Stockpile 7	Stationary
39	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	The Castle	Stationary
40	Hydrocarbon Spill Response Kit	Hydrocarbon Spill Response	Spare	Stationary
41	Safety Storage Container	Hazardous Material / Oil Spill Response	The Castle	Stationary-refills and response
42	Heavy earthmoving equipment	Hazardous Material Response	HR02	Mobile

16.4 Appendix D - Locality Map Blayney



16.5 Appendix E - Concentrate and Return Water Pipeline Routes



16.6 Appendix F - Landholder Localities Map

The landholder localities map is published on the Pollution Incident Response Management Plan on Cadia CDMS.

16.7 Appendix G - Cadia Evacuation Procedure

EVACUATION PROCEDURE

When the evacuation alarm is sounded, all personnel are to evacuate their work area and buildings.

Please Note– Some areas of the site, such as the Concentrators and Cadia Administration have a PRE-ALARM EVACUATION system – this system under strictly controlled circumstances will only go into a PRE-ALARM – an audible voice will announce “Prepare to Evacuate”, at this stage personnel are only advised of a potential need and no actions need to be taken. Emergency Response will still respond to the area and investigate, and the following may occur:

- a) An ALL CLEAR is given within a 10minute timeframe, the warning will be cancelled, and everybody returns to normal duties, or
- b) The Pre-Alarm will change to a FULL EVACUATION ALARM, requiring all personnel to assemble at their nearest EMERGENCY MUSTER POINT – STAGING AREA.

Chief Wardens – collect Evacuation Handbook and Visitors Sign-in Book, don red hard hat and red reflective vest, ensure you have a radio and ensure that all areas are being evacuated promptly to the nearest EMERGENCY MUSTER POINT – STAGING AREA.

Area Wardens – collect Evacuation Handbook, AREA WARDEN reflective vest, ensure you have a radio and proceed to evacuate our work area to the nearest EMERGENCY MUSTER POINT – STAGING AREA. If you do not have a radio, commandeer one as soon as possible

- Await further instructions:
 - ALL CLEAR IS GIVEN
All personnel may leave the Staging Areas and return to work
 - FULL EVACUATION
All personnel are to immediately move to the Emergency Muster Point, located in the main public car parks outside of Access Control.
- Report to your Area Warden on your arrival at the Emergency Assembly Area
- Advise Area Warden of any person who should be at your area or if you know their whereabouts.
- Comply with all directions given by Wardens.

16.8 Appendix H - Emergency Pollution Officer Duty Card.

The emergency pollution officer duty card is published on the Pollution Incident Response Management Plan on Cadia CDMS.

16.9 Appendix I - Internal Emergency Contact

Internal emergency contacts are published on the Pollution Incident Response Management Plan on Cadia CDMS.

16.10 Appendix J - Pollution Response Guidelines

The pollution response guidelines are published on the Pollution Incident Response Management Plan on Cadia CDMS.

16.11 Appendix K - Environmental Scene Assessment Considerations

Scene assessment and interaction considerations			
Air	Land	Surface Water	Ground Water
<ul style="list-style-type: none"> ➤ Electricity ➤ Machinery ➤ Isolations ➤ Fumes/smoke/heat ➤ /vapours ➤ Ventilation ➤ Compromised visibility ➤ Proximity to ➤ explosive/flammable materials ➤ Vehicle stability ➤ Structural stability ➤ Traffic control ➤ Explosion/fire ➤ Engulfment ➤ Bystanders 	<ul style="list-style-type: none"> ➤ Ground slope ➤ Ground material ➤ (Permeability etc.) ➤ Plant and equipment ➤ required ➤ Potential for ➤ water impacts 	<ul style="list-style-type: none"> ➤ Surface water networks ➤ Stream flow rate ➤ Opportunities for flow control or dilution ➤ Downstream water users ➤ Ecological communities 	<ul style="list-style-type: none"> ➤ Flow pathways ➤ Flow rates and connectivity ➤ Extraction points ➤ Mine working interactions

- Re-evaluate requirements for external assistance or notification. *As may be required:*
 - Contact external emergency services (fire, hazmat, ambulance)
 - report to EPA by HSE Manager;
 - report to other relevant authorities by HSE Manager;
 - notify neighbours of a potential or actual impact and provide recommended actions (cease river pumping, close windows, take precautions for asthmatics, etc.), if required (as determined by the HSE Manager);
- Appointment of Incident Management Team Roles; and,
- Manage the way the incident is mitigated and controlled.

IMT and/or site personnel

- Don PPE if required;
- Carry out incident response as per appointment;
- Start clean-up;
 - Stop the contamination release
 - Contain the contamination spread
 - Minimise secondary impacts

Incident Closure Management Recovery:

- Contain and suitably dispose of contaminated material;

- Decontaminate equipment and tools;
- Decontaminate or remediate location;
- Emergency Pollution Officer or ERO to carry out debrief to response personnel;
- Complete incident documentation- internal and external notification (if applicable);
- Refurbish pollution response resources;
- Review current controls and management plans including PIRMP; and,
- Conduct monitoring of actual or potential impact areas, for as long as required.

16.12 Appendix L - PIRMP mapping of legislative requirements

Legislative Requirement		Plan	Section
Description and Likelihood of Hazards [POEO Regulation, Clause 91 (1) (a) and (b)]	<input checked="" type="checkbox"/>	PIRMP Risk Assessment	
		PIRMP	3.1
Pre-emptive actions to be taken [POEO Regulation, clause 98C(1)(c)]	<input checked="" type="checkbox"/>	PIRMP	6.0
			A.14
Inventory of pollutants [POEO Regulation, clause 98C(1)(d) and (e)]	<input checked="" type="checkbox"/>	PIRMP	5.1
			A.4
Safety equipment [POEO Regulation, clause 98C (1)(f)]	<input checked="" type="checkbox"/>	PIRMP	5.2
		EMP	3
Contact details [POEO Regulation, clause* 98C(1)(g) and (h)]	<input checked="" type="checkbox"/>	PIRMP	7
			A.9
Communicating with neighbours and the local community [POEO Regulation, clause 98C(1)(i)]	<input checked="" type="checkbox"/>	PIRMP	7.3.3
			A.10
Minimising harm to persons on the premises [POEO Regulation, clause 98C(1) (j) and (l)]	<input checked="" type="checkbox"/>	PIRMP	5.3
			5.3
		EMP	A.11, A14 3, 4
Maps [POEO Regulation, clause 98C(1)(k)]	<input type="checkbox"/>	PIRMP	
➤ location of the premises,		PIRMP	A.1, A.2
➤ the surrounding area that is likely to be affected by a pollution incident,			A.2
➤ the location of potential pollutants on the premises,			A.3
➤ the location of any storm water drains on the premise			A.3
Staff training [POEO Regulation, clause 98C(1)(m)]	<input checked="" type="checkbox"/>	PIRMP	8.1
			8.2
Testing and updating plans [POEO Regulation, clauses 98C(1)(n), (o) and (p), 98E(1) and (2)]	<input checked="" type="checkbox"/>	PIRMP	Document Control
			8.3
Making plans available on site [POEO Regulation, clause 98D]	<input checked="" type="checkbox"/>	PIRMP	2.2
Particular information from the plan available on website [POEO Regulation, clause 98D]	<input checked="" type="checkbox"/>	PIRMP	2.2
		Cadia Website	

16.13 Appendix M - Notification Protocol for Regulators

Notification protocol for regulators is published on the Pollution Incident Response Management Plan on Cadia CDMS.