

MANAGEMENT PLAN

Pollution Incident Response Management Plan NEC-STE-MTP-009



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Key Contact: Environment Superintendent

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1 Preface

The NSWEC Pollution Incident Response Management Plan (PIRMP) ensures the comprehensive and timely communication about a pollution incident to staff at the premises, the relevant authorities specified in the Protection of the Environment Operations Act 1997 and people outside the facility who may be affected by the impacts of the pollution incident; minimise and control the risk of a pollution incident at the facility; and ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

2 Key Contacts and Roles and Responsibilities

Roles	Responsibilities
Environment Specialist	<ul style="list-style-type: none"> Ensure all MAC workers are trained in the use of this Plan. Ensure this plan is publicly available and that it is tested annually. Provide advice on environmental incidents to enable clean up and reporting guidance if Environment Superintendent is not available. Activate PIRMP as required and follow reporting protocols in Section 11 if Environment Superintendent is not available. Provide updates to Health, Safety, Environment Manager for internal communication to any Incident Management Teams (IMTs) if Environment Superintendent is not available.
Environment Superintendent	<ul style="list-style-type: none"> Support the Environment Specialist to ensure that the Plan is tested annually. Key contact for environmental incidents internally and externally. Provide advice on environmental incidents to enable clean up and reporting guidance. Activate PIRMP as required and follow reporting protocols in Section 11. Provide updates to Health, Safety, Environment Manager for internal communication to any Incident Management Teams (IMTs).
Health, Safety & Environment Manager	<ul style="list-style-type: none"> Secondary contact for environmental incidents internally and externally. Provide updates to Incident Management Teams (IMTs) and the Senior Leadership team where required.
Land Management & Access Specialist	<ul style="list-style-type: none"> Provide approval to access BHP owned off-site properties to facilitate further investigation or the implementation of control measures. Primary contact for notifying relevant external stakeholders who may be affected by the impacts of the pollution incident.
Land Access & Approvals Manager	<ul style="list-style-type: none"> Secondary contact for notifying relevant external stakeholders who may be affected by the impacts of the pollution incident.

3 Purpose

This Pollution Incident Response Management Plan (PIRMP) is a requirement of Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act). The objective of the PIRMP is to:

- ensure comprehensive and timely communication about a pollution incident to staff at the premises, the Environment Protection Authority (EPA), other relevant authorities specified in the POEO Act and people outside the facility who may be affected by the impacts of the pollution incident;

- minimise and control the risk of a pollution incident at the facility; and
- ensure that the plan is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the plan is regularly tested for accuracy, currency and suitability.

The PIRMP has been developed to meet the requirements of section 153C of the POEO Act and the *Protection of the Environment Operations (General) Regulation 2009* (POEO (G) Regulation). Any changes to supporting documents referenced by this PIRMP must ensure the requirements of section 153C of the POEO Act continue to be met.

Reporting a pollution incident to relevant authorities in accordance with this PIRMP and implementation of the PIRMP itself must be undertaken for any pollutant incident for which there is a risk of 'material harm to the environment' within the meaning of section 147 of the POEO Act.

4 References

- Incident Management Plan – NEC-STE-MTP-001
- Emergency Management Plan – NEC-STE-MTP-006
- Project Approval 09_0062 – MAC-HSE-STD-002
- Environment Protection Licence 11457 – MAC-HSE-STD-001
- Environmental Management Strategy – MAC-ENC-MTP-041
- Our Requirements – Risk Management
- *Protection of the Environment Operations Act 1997* (POEO Act)

5 Definitions

pollution incident (POEO Act Dictionary)	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.
notifiable pollution incident (POEO Act s148)	Pollution incidents causing or threatening material harm. A person must, immediately after the person becomes aware of the incident, notify each relevant authority of the incident and all relevant information about it.
material harm to the environment (POEO Act s147)	<p>Harm to the environment is material if –</p> <ul style="list-style-type: none"> (i) It involves actual or potential harm to the health or safety of human being or ecosystems that is not trivial, or (ii) It results in actual or potential loss or property damage of an amount, or an amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and (iii) 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. <p>Note: 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.</p>

6 Description of Hazards and Key Controls

Table 1 provides a summary of key hazards (to human health, or the environment associated with Mt Arthur Coal's activities, including the preventative controls to minimise risk.

Table 1 Summary of Pollution Hazards relevant to Mt Arthur Coal

Hazard	Key controls
Blast fume emission offsite	Product selection and quality testing, loading procedures, assessment of ground conditions, sleep time, groundwater, previous experience, detailed short-term weather condition review, assessment of weather conditions at time of blasting and postponement of blast if wind direction poor and high fume risk. Fume risk procedure, fume rating post shot.
Unauthorised discharge of mine affected water offsite	Monitoring system for dam levels, inspections by pump crew, integrated water management system (including water balance model), dewatering pipeline and dam locations within mine affected water management area as much as possible, survey water checks, weekly water checks, water quality monitoring program, geotechnical dam inspections, monthly reconciliations for water balance, maintenance program for key water infrastructure, Hunter River Salinity Trading Scheme regulations, controlled discharge point (manual locked valve), dam management plan, dam transfer pumps and reticulation infrastructure, dam maintenance.
Discharge of tailings outside containment structures	Daily visual inspections of tailings pipeline, vegetation management program in place to ensure line is visible during inspections, leak detection system in place (Citect), majority of the line is in the mine affected water management area, tailings line located in bunded area of the clean water catchment, auto flushing of the line to prevent build up and blockages.
Discharge of sewage outside of containment structures	Pump out tank system, licensed contractor, located within mine affected water management area, sewage treatment system maintenance procedure (regular 3-month, 6-month, annual & biannual checks & maintenance), weekly inspection, site sewage package plants (Industrial area and CHPP) drain within mine affected water management area, wetlands are used to polish the treated effluent from the Industrial Area plant.
Discharge of hydrocarbons outside of containment structures	Bunding and spill containment structures, spill response trailer, spill kits and absorbent material, servicing confined to controlled areas, spill response procedure, waste tracking procedure.
Discharge of hazardous materials outside of containment structures	Bunding and spill containment structures, hazardous materials management system, material safety data sheets (MSDS), substances are listed and risk assessed in Chemalert system, spill response trailer, spill kits and absorbent material, spill response procedure, waste tracking procedure.
Discharge of sediment offsite	Water diversion, collection drains and sediment dams established for sediment control established prior to disturbance, drainage controls disturbed areas, topsoil stockpiles are seeded, numbered and sign posted once completed, use of sumps for exploration drilling.
Unauthorised clearing outside disturbance boundary	Ground disturbance permit process, drainage controls, supervision of drilling contractors (geologist on site with drillers full time), clearing and topsoil stripping procedure, approval boundary reference layers maintained and referred to by mine planning engineers.
Incorrect or unauthorised disposal of waste	Total waste management contract, monthly reports from waste contractor, segregation of waste into specific bins for recycling, weekly monitoring program, tracking process for hazardous wastes routinely audited, chemical approval process evaluates environmental aspects of disposal, risk planning prior to major shutdowns during which waste management is considered, waste handling and disposal procedure.

Hazard	Key controls
Coal spillage outside containment structures	Coal loading system is designed to not overfill wagons, monthly inspections of rail corridor by contractor, CCTV monitoring during train loading, operator at train loading facility monitoring the process.
Spontaneous combustion	Spontaneous combustion management plan, selective material placement and burial with inert capping material, identification of high risk material, selective removal, regular inspections and monitoring, management of heating in the base of parts of the ROM pad, turnover of ROM and product coal to minimise residence time, stockpile separation.
Fire	Maintained graded fire breaks around assets and grazing leases to reduce fuel loads, large capacity water trucks, Bushfire Management Plan and Emergency Response Plan, restricted access, no smoking permitted in vehicles, fire extinguishers in all vehicles, fire extinguisher training.

7 Likelihood of Hazards Occurring

Table 2 below summarises the likelihood of the hazards in Table 1 occurring and includes some examples of conditions that could increase the likelihood.

Severity level and likelihoods have been applied in accordance with BHP's Our Requirements for Risk Management guidance tables.

Uncertainty	Frequency	Likelihood factor
Highly Likely	Likely to occur within a 1 year period.	3
Likely	Likely to occur within a 1 - 5 year period.	1
Probable	Likely to occur within a 5 - 20 year period.	0.3
Unlikely	Likely to occur within a 20 - 50 year period.	0.1
Highly Unlikely	Not likely to occur within a 50 year period.	0.03

Severity Level	Descriptor	Severity Factor
5	6 or more fatalities or 6 or more chronic life threatening illnesses; or Severe impact to the environment and where recovery of ecosystem function takes 10 years or more; or Severe impact on community lasting more than 12 months or a substantiated human rights violation impacting 6 or more people; or Severe impact on company reputation, investment attractiveness, legal rights or compliance, social value proposition or ability to access opportunities at a global level; or US\$2 billion or more ² .	1000
4	1-5 fatalities or 1-5 chronic life threatening illnesses; or Serious impact to the environment, where recovery of ecosystem function takes between 3 and up to 10 years; or Serious impact on community lasting 6-12 months or a substantiated human rights violation impacting 1-5 persons; or Serious impact on company reputation, investment attractiveness, legal rights or compliance, social value proposition or ability to access opportunities at a national level; or Between US\$250 million and up to US\$2 billion ² .	300
3	Life altering or long term/permanent disabling injury or illness to one or more persons; or Substantial impact to the environment, where recovery of ecosystem function takes between 1 and up to 3 years; or Substantial impact on community lasting 2-6 months; or Substantial impact on company reputation, legal rights or compliance, social value proposition, or ability to access opportunities at a sub national level (state, territory, province); or Between US\$50 million and up to US\$250 million ² .	100
2	Non-life altering or short-term disabling injury or illness to one or more persons; or Measureable but limited impact to the environment, where recovery of ecosystem function takes less than 1 year; or Measureable but limited community impact lasting less than one month; or Measureable but limited impact on company reputation, legal rights or compliance, or social value proposition at a local level (region, city, town); or Between US\$2 million and up to US\$50 million ² .	30
1	Low level impact resulting in first aid only; or Minor, temporary impact to the environment, where the ecosystem recovers with little intervention; or Minor, temporary community impact that recovers with little intervention; or Minor, temporary impact on company reputation, legal rights or compliance, or social value proposition; or Less than US\$2 million ² .	10

Table 2 Likelihood and Severity Levels of Identified Hazards Occurring

Hazard	Severity Level with no preventative controls in place	Likelihood with preventative controls in place	Conditions that may increase likelihood	Severity Level with preventative controls in place
Blast fume emission offsite	3	Likely	Adverse weather conditions, incorrect product selection, wet weather impacts, incorrect product selection.	2
Unauthorised discharge of mine affected water offsite	3	Likely	Adverse weather conditions, water infrastructure not adequately maintained.	2
Discharge of tailings outside of containment structures	3	Unlikely	Tailings lines and management infrastructure not adequately maintained.	2
Discharge of sewage outside of containment structures	3	Unlikely	Sewage Treatment Plant and associated infrastructure not adequately maintained.	2
Discharge of hydrocarbons outside of containment structures	3	Unlikely	Spills not contained or cleaned up and managed appropriately.	2
Discharge of hazardous materials outside of containment structures	3	Highly Unlikely	Hazardous materials not stored or managed appropriately.	2
Discharge of sediment offsite	3	Likely	Adverse weather conditions, water infrastructure not adequately maintained.	2
Unauthorised clearing outside disturbance boundary	3	Probable	Site disturbance process not communicated or followed (permit to disturb).	2
Incorrect or unauthorised disposal of waste	3	Highly Unlikely	Site waste disposal procedures not followed.	2
Coal spillage outside containment structures	3	Highly Unlikely	Infrastructure is not adequately maintained.	2
Spontaneous combustion	3	Unlikely	Adverse weather conditions and spontaneous combustion program is not implemented.	2
Fire	3	Unlikely	Adverse weather conditions, no preparation for fire season.	2

8 Inventory of Pollutants

The Chem Alert database contains an inventory of potential pollutants kept on the premises, including the maximum quantity of any potential pollutant that is likely to be stored at the premises. A detailed and current inventory of potential pollutants can be sourced by generating a stock holding report in the Chem Alert database. Contact the Environmental Team or the Warehouse Supervisor for access to the Chem Alert Database.

9 Safety Equipment

MAC resources are identified during the risk management event identification phase. Refer to Table 3 for a list of internal safety equipment used for environmental incidents utilised by MAC operation.

Table 3 List of Safety Equipment

Name	Description	Location
Rescue Truck	An all-terrain vehicle, operating on mine roads and under mine traffic conditions equipped to provide rapid response to emergency situations.	Rescue shed adjacent to main workshop
Fire Tender Trailer	Two wheeled trailer used as a back-up firefighting resource via dispensing of water.	Rescue shed adjacent to main workshop
Spill Response Trailer	Mobile trailer with contents used to allow rapid response to containing, controlling and cleaning-up oil and chemical spills.	Rescue shed adjacent to main workshop
Fire extinguishers, hose reels and blankets	Portable devices used to extinguish fires.	Located in light vehicles and buildings
Water carts	Water carrying vehicles with firefighting capabilities and used for dust suppression, laying water to maintain & control haul road conditions.	In pits
Fire suppression systems	Installed system used to control and extinguish fires without human intervention.	Surface mobile equipment, and Mining Equipment
Trauma kits	Medical kits containing first aid supplies used in the control and management of injuries associated with emergencies.	Light vehicles, shovels and excavators

10 Contact Details

The key individuals who are responsible for activating the response plans and managing the responses are detailed in the Emergency Management Plan (NEC-STE-MTP-006) with additional detail with regards to this plan in Section 2.

11 Internal Reporting of a Pollution Incident

In the event of any pollution incident, site personnel must notify their supervisor immediately and or the Statutory OCE (Production 11), who will then contact the following personnel:

- Environment Superintendent (Primary Contact) or Health Safety Environment Manager (Secondary Contact); and
- Relevant Department Superintendent or Manager.

If a pollution event is identified on the boundary of the MAC premises which has reached or has the potential to reach neighbouring properties (MAC owned or private), the Land Access & Approvals Team shall be notified immediately and can provide approval to access BHP owned off-site properties to facilitate further investigation or the implementation of control measures. The Land Access & Approvals Team is also accountable for notifying relevant external stakeholders who may be affected by the impacts of the pollution incident.

- Primary Contact: Specialist Access Tenements & Offset; or
- Secondary Contact: Land Access & Approvals Manager.

12 Reporting a Pollution Incident to the Relevant Authorities

The Environment Superintendent or delegate is responsible for reporting any pollutant incident where material harm to the environment is caused or threatened within the meaning of Section 148 of the POEO Act. After becoming aware of the incident, the Environment Superintendent or delegate shall immediately notify each of the relevant authorities outlined in Table 4 of the incident and all relevant information about it.

Section 149 of the POEO Act and the Regulation requires verbal notification to each relevant authority followed by notification in writing within 7 days of the date on which the incident occurred. The initial verbal notification and written notification report must include the following information, if known:

- Time, date and duration of the incident;
- Duration of the event;
- Locations where pollution is occurring or is likely to occur;
- Nature, estimated quantity or volume and concentration of any pollutants involved, if known*;
- Circumstances in which the incident occurred (including the cause of the incident, if known)*; and
- Action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known*.

** If this information is not known to the person when the initial notification is made but becomes known afterwards, that information must be notified immediately after it becomes known to each authority listed above.*

An EPA protocol for notifying the relevant authorities is available for reference at:
<http://www.epa.nsw.gov.au/pollution/notificationprotocol.htm>.

Table 4 Relevant Authorities

Relevant Authority	Verbal Notification Process	Written Notification Process
Department of Planning & Environment (DPE)	Local Compliance Officer or Singleton DPE Office.	To the local Compliance Officer and via the DPE Portal.
Environment Protection Authority (EPA)	Environment Line 131 555 Record the EPA event ID provided as it is required for other notifications.	info@epa.nsw.gov.au or relevant compliance officer.
Public Health Unit (Newcastle)	02 4924 6477 After hours ask for Environment Health Officer on call as this diverts to John Hunter Hospital. Provide EPA event record ID if requested.	HNELHD-PHEEnvironmentalHealth@health.nsw.gov.au
Safe Work NSW	131 050 Select option for notification of reportable incident. Provide EPA event record ID if requested. Record notification reference number if provided.	contact@safework.nsw.gov.au
Muswellbrook Shire Council	02 6549 3700 Contact customer service. Record notification reference number if provided.	council@muswellbrook.nsw.gov.au
Fire and Rescue NSW	000 Request Fire & Rescue NSW. Record notification reference number if provided.	ZoneRW2@fire.nsw.gov.au

13 Communicating with neighbours and the local community

Mt Arthur Coal is committed to providing early warnings and regular updates to the community about any pollution incident related to its mining operations. A contact list of nearby premises and community and government organisations is maintained by the Corporate Affairs team. Contact will be made only to those relevant to the pollution event.

14 Actions to be taken during or immediately after a pollution incident to minimise harm to persons

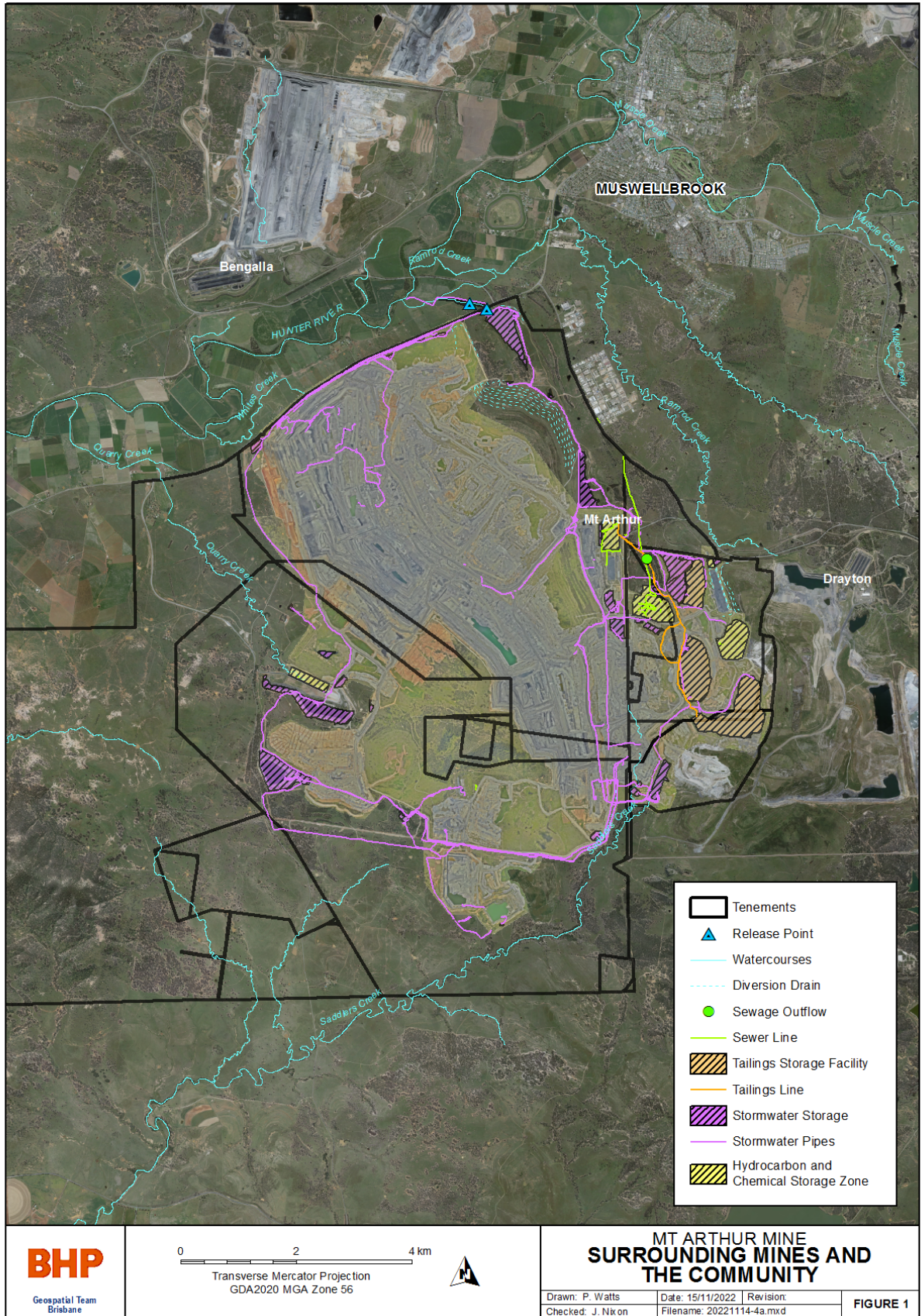
Mt Arthur Coal will provide its employees and contractors with early warnings and regular updates about any relevant pollution incident; communication methods may include email, 2-way radio communications and prestart briefings. The General Manager or delegate will make the decision on when communication is required for the pollution incident.

One of the primary objectives of the NEC-STE-MTP-001 Incident Management Plan (IMP) is to protect human safety. This includes the people who work at the operation, or who are directly affected by the coal operation (s20, *Coal Mine Health and Safety Act 2002*). The IMP provides specific arrangements to minimise the risk of harm to any persons who will be on the premises, who are likely to be on the premises or who are otherwise potentially affected should an incident occur.

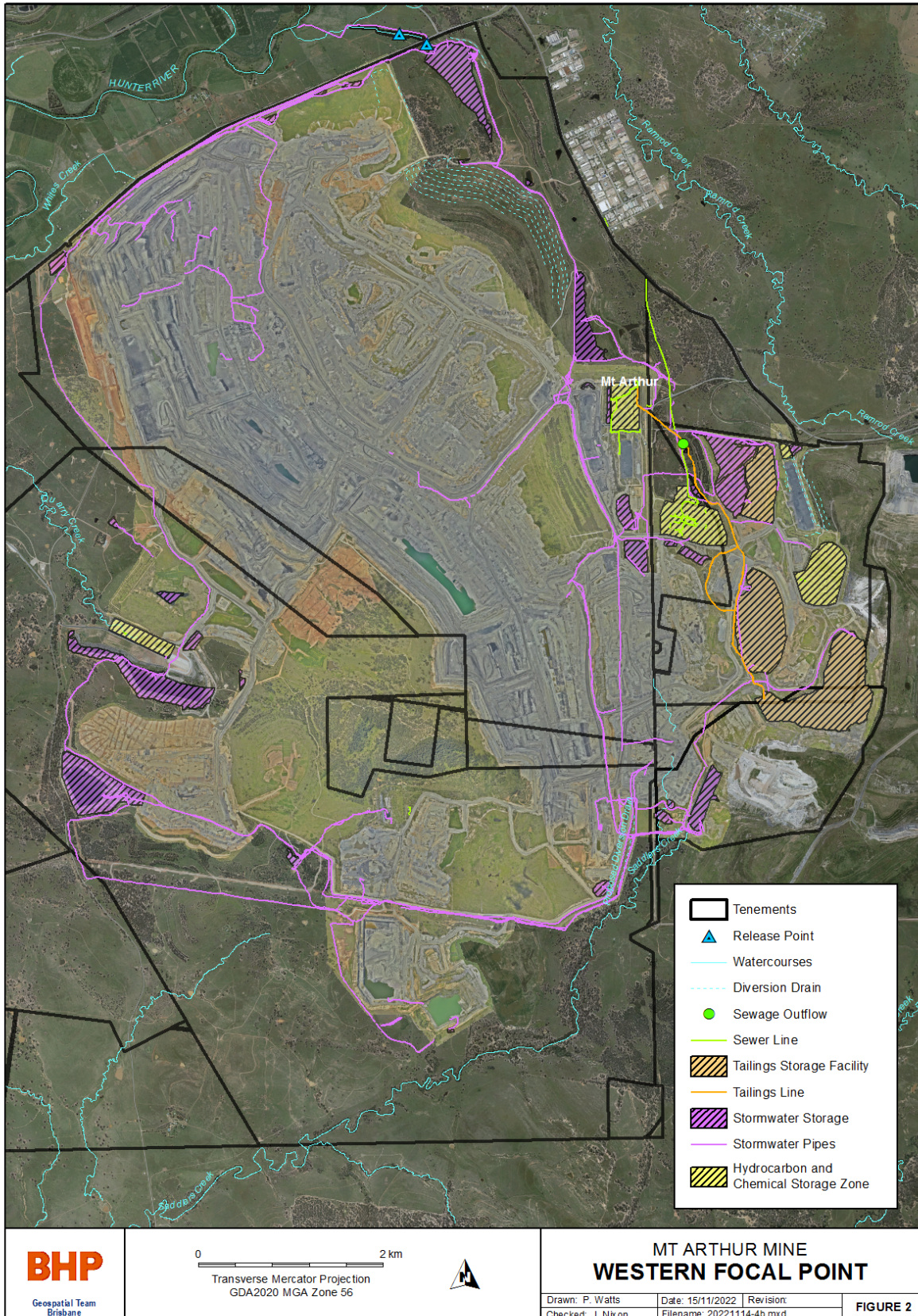
15 Maps

Figure 1, Figure 2, and Figure 3 show the maps of the location of the premises, the surrounding area that is likely to be affected by a pollution incident, the location of potential pollutants on the premises, location of stormwater drains, and discharge points relevant to Mt Arthur Coal's operations.

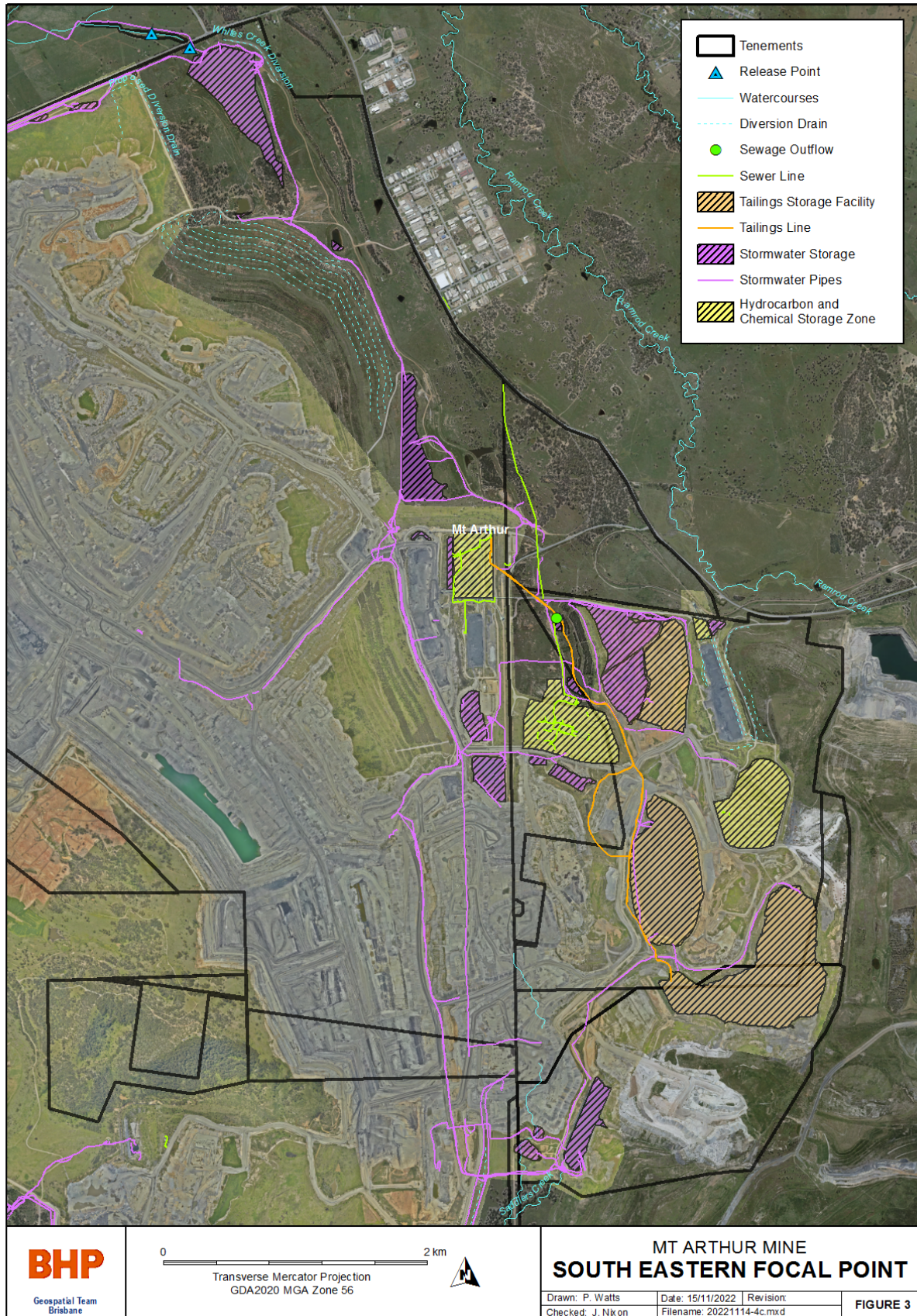
15.1 Figure 1: Map of Mt Arthur Coal in relation to the Hunter River, surrounding mine sites and the community



15.2 Figure 2: Map of Mt Arthur Coal with a focus



15.3 Figure 3: Map of Mt Arthur Coal with south eastern focal point



16 Training and testing of the PIRMP

This plan is tested to ensure the information is up to date and the plan is capable of being implemented. All employees and contractors undergo awareness training on this plan as part of their introduction to site.

The PIRMP will be tested by the Environment Team routinely at least once every twelve months OR within one month of an activation.

Training records and details of the testing, including dates and the person/s conducting the testing will be recorded in line with MAC-STE-FRM-296 Pollution Incident Response Management Plan Test.

17 PIRMP Test Records

Testing Date	Personnel Involved
10/10/2018	James Nixon – Principal HSE Kris Sheehan – HSE Superintendent
18/12/2018	James Nixon – Principal HSE Kris Sheehan – HSE Superintendent
05/11/2019	James Nixon – Principal HSE Kris Sheehan – HSE Superintendent
04/11/2020	Chloe Christensen – Environment Specialist James Nixon – Environment Superintendent
26/11/2021	James Nixon – Environment Superintendent
06/04/2022	James Nixon – Environment Superintendent Monica Esposito – Environment Specialist
30/11/2022	James Nixon – Environment Superintendent
25/05/2023	James Nixon – Environment Superintendent Monica Esposito – Environment Specialist
02/10/2023	Chloe Christensen – Principal Environment James Nixon – Environment Superintendent

Note: PIRMP test details have been included from 2018.

18 Version Management

Date	Version Control		Page(s)	Details
	Major	Minor		
05/02/14	1.0		1-9	Document Development
27/03/14	2.0		4-10	Updated hyperlink to HSEC risk register, removed hyperlink and reference to Critical Safety Equipment register, included section on reporting to the relevant authorities, and updated maps.
05/11/14	3.0		6	Removed disconnected mobile number for Department of Mines.
05/12/14	4.0		6,11	Included mobile number for Department of Planning and Environment. Including reference and map of MPL263.
20/04/15	5.0		6	Removed mobile number for Muswellbrook Shire Council.
29/02/16	6.0		1,2,5,6,7,12	Updated role titles, italicised reference to legislation, updated contact numbers for Department of Planning and Environment and Department of Mines, updated link to EPA protocol for notifying relevant authorities.
23/09/16	7.0		4,6,13	Updated link to report, updated contact numbers and updated titles.
13/10/16	8.0		6	Updated link to EPA protocol for notifying relevant authorities.
31/01/17	9.0		12	Addition of Figure 5.
10/10/18	10.0		5,6	Document reviewed following execution of observed opportunities during tailings spill - #420001507 25/05/20018. (Outcome - no material harm to environment) Updated roles, contact details and community notification details.
19/11/2020	11.0		All	Formatting changes and update to contact details
29/11/2021	12.0		All	Major review, introduction of escalation protocol for off-site properties, details for stakeholders / regulators updated.
13/04/2022		12.1	10	Update to section 14 to include requirement to test PIRMP 1 month post activation.
03/12/2022	13.0			Annual review, minor changes made, update to maps.
06/06/2023		13.1		Date updated on PIRMP
15/10/2023	14.0			Update following site incident included: addition of roles and responsibilities, definitions, likelihood of hazards occurring, testing records and updated EPA email address.