Permit

Environmental Protection Act 1994

Environmental Authority

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994*.*

Environmental authority number: EPML03337715

Environmental authority takes effect on 30 June 2026

The anniversary date of this environmental authority is 15 September. The payment of the annual fee will be due each year on this day.

An annual return will be due each year on 1 April.

Environmental authority holder(s)

Name(s)	Registered address
Umal Consolidated Pty Ltd	Level 14, 480 Queen Street BRISBANE CITY QLD 4000 Australia
BHP COAL PTY LTD	
BHP Queensland Coal Investments Pty Ltd	
QCT INVESTMENT PTY. LTD.	Level 16 480 Queen Street BRISBANE CITY QLD 4000 Australia
MITSUBISHI DEVELOPMENT PTY LTD	
QCT MINING PTY. LTD.	
QCT RESOURCES PTY LIMITED	

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 13: Mining black coal	ML1763, ML70421
Ancillary 08 - Chemical Storage 1: Storing a total of 50t or more of chemicals of dangerous goods class 1 or class 2, division 2.3 under subsection (1)(a)	ML1763, ML70421
Ancillary 62 - Resource recovery and transfer facility operation 1: Operating a facility for receiving and sorting, dismantling, baling or temporarily storing (c) category 2 regulated waste	ML1763, ML70421

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Environmentally relevant activity/activities	Location(s)
Ancillary 63 - Sewage Treatment 1: Operating sewage treatment works, other than no-release works, with a total daily peak design capacity of (c) more than 1500 but not more than 4000EP	ML1763, ML70421

Additional information for applicants

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority (EA) is issued is a restatement of the ERA as defined by legislation at the time the EA is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an EA as to the scale, intensity or manner of carrying out an ERA, the conditions prevail to the extent of the inconsistency.

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Mobile and temporary activities

If you operate a mobile and temporary ERA, other than regulated waste transport, you are required to maintain a work diary. You must:

- use the approved form for a work diary (ESR/2015/1696);
- keep the work diary records for 2 years after the last entry;
- inform the administering authority within 7 days of the work diary being lost or stolen;
- record the information required in the work diary for each location within 1 day of leaving the location.

Contaminated land

It is a requirement of the EP Act that an owner or occupier of land give written notice to the administering authority if they become aware of the following:

- the presence of, or happening of an event involving, a hazardous contaminant on the land that is causing, or is reasonably likely to cause, serious or material environmental harm (notice must be given within 24 hours); or
- if the land is contaminated land – a change in the condition of the land that is causing, or is reasonably likely to cause, serious or material environmental harm (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the land (notice must be given within 20 business days).

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term ‘duty to notify’.

Take effect

Please note that, in accordance with section 200(1) of the EP Act, an EA has effect:

(a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority—on the nominated day; or

(b) if the authority states a day or an event for it to take effect—on the stated day or when the stated event happens; or

(c) otherwise—on the day the authority is issued.

However, in accordance with section 200(2) of the EP Act, the day that the EA takes effect may not be before:

(a) if the authority is for a resource activity—the day the relevant tenure is granted to the applicant; or

(b) if a development permit for a material change of use of premises under the *Planning Act 2016* is necessary for carrying out an activity that related to the authority—the day the development permit takes effect; or

(c) if an SDA Approval under the *State Development and Public Works Organisation Act 1971* is necessary for carrying out an activity that relates to the authority—the day the approval takes effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid EA.

Signature

30 June 2026

Date

Juliana McCosker

Department of the Environment, Tourism, Science and Innovation
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:

Business Centre Coal
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Phone: 07 4987 9320
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Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this EA, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to restore the environment (section 319C)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443).

Other permits required

This permit only provides an approval under the EP Act. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department, and other State and Federal Government agencies prior to commencing any activity at the site. For example, this may include permits or approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access State controlled roads), the Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development (to clear vegetation), and the Department of Primary Industries (to clear marine plants or to obtain a quarry material allocation).

Obligations under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

Matters of national environmental significance (MNES) are regulated under the Commonwealth EPBC Act rather than under state legislation. You may need to submit a referral if your project potentially impacts any matters protected under the EPBC Act. For more information on self-assessments, and referral and assessment processes, please visit the Australian Government Department of Climate Change, Energy, the Environment and Water's website at www.dcceew.gov.au/environment/epbc/advice.

Obligations under the *Aboriginal Cultural Heritage Act 2003* and *Torres Strait Islander Cultural Heritage Act 2003* (the Cultural Heritage Acts)

The Cultural Heritage Acts require anyone who carries out a land-use activity to exercise a duty of care. This 'duty of care' means land users must take all reasonable and practicable measures to ensure their activity does not harm Aboriginal or Torres Strait Islander cultural heritage, and applies to any activity where Aboriginal or Torres Strait Islander cultural heritage is located. For more information on your obligations under this legislation, please visit the Department of Women, Aboriginal and Torres Strait Islander Partnerships and Multiculturalism webpage at, www.dwatsipm.qld.gov.au.

Conditions of environmental authority

Schedule A: General	
Condition number	**Condition**
A1	This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.
A2	In carrying out the mining activity authorised by this environmental authority, disturbance of land may occur in the areas marked as green on the map that is shown in **Annexure 1 Red Hill Mine Area of Disturbance** of this environmental authority.
A3	The holder of this environmental authority must: (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; (b) maintain such measures, plant and equipment in a proper and efficient condition; (c) operate such measures, plant and equipment in a proper and efficient manner; and (d) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.
A4	**Monitoring** Except where specified otherwise in another condition of this environmental authority, all monitoring records or reports required by this environmental authority must be kept for a period of not less than **5 years**.
A5	**Notification of emergencies, incidents and exceptions** The holder of this environmental authority must notify the administering authority by written notification within **24 hours**, after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.
A6	Within **10 business days** following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the latter, further written advice must be provided to the administering authority, including the following: (a) results and interpretation of any samples taken and analysed; (b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and (c) proposed actions to prevent a recurrence of the emergency or incident.

A7	**Complaints** The holder of this environmental authority must record all environmental complaints received about the mining activities including: (a) name, address and contact number for of the complainant; (b) time and date of complaint; (c) reasons for the complaint; (d) investigations undertaken; (e) conclusions formed; (f) actions taken to resolve the complaint; (g) any abatement measures implemented; and (h) person responsible for resolving the complaint.
A8	The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority within **10 business days** of completion of the investigation, or no later than **10 business days** after the end of the timeframe nominated by the administering authority to undertake the investigation.
A9	**Third party reporting** The holder of this environmental authority must: (a) within **1 year** of the commencement of this environmental authority, obtain from an appropriately qualified person a report on compliance with the conditions of this environmental authority; (b) obtain further such reports at regular intervals, not exceeding **3 yearly** intervals, from the completion of the report referred to above; and (c) provide each report to the administering authority within **90 days** of its completion.
A10	Where a condition of this environmental authority requires compliance with a standard, policy or guideline published externally to this environmental authority and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must: (a) comply with the amended or changed standard, policy or guideline within **2 years** of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures conditions in this environmental authority; and (b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.

Schedule B: Air	
Condition number	**Condition**
B1	When requested by the administering authority or as a result of a complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer), dust and particulate monitoring must be undertaken, and the results thereof notified to the administering authority within **14 days** following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected dust sensitive place.
B2	The holder of the environmental authority shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that the dust and particulate matter generated by the mining activities do not exceed the following levels when measured at any sensitive or commercial place: (a) dust deposition of 120 milligrams per square metre per day, averaged over 1 month, when monitored in accordance with the most recent version of Australian Standard AS3580.10.1 Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter – Gravimetric method. (b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, for no more than 5 exceedances recorded each year, when monitored in accordance with the most recent version of either: Australian Standard AS3580.9.6 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 high volume sampler with size-selective inlet – Gravimetric method; or Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 low volume sampler—Gravimetric method; or Australian Standard AS3580.9.8 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 continuous direct mass method using a tapered element oscillating microbalance analyser; or Australian Standard AS3580.9.11 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM10 beta attenuation monitors.

Schedule C: Water	
Condition number	**Condition**
C1	**Contaminant release** Contaminants that will, or have the potential to, cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.
C2	The release of mine affected water to internal water management infrastructure installed and operated in accordance with a Water Management Plan that complies with condition **C6** is permitted.
C3	**Water reuse** Mine affected water may be piped or trucked or transferred by some other means that does not contravene the conditions of this environmental authority and deposited into artificial water storage structures, such as farm dams or tanks, or used directly at properties owned by the environmental authority holder or a third party (with the consent of the third party).
C4	**Annual water monitoring reporting** The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority in the specified format: (a) the date on which the sample was taken; (b) the time at which the sample was taken; (c) the monitoring point at which the sample was taken; (d) the measured or estimated daily quantity of mine affected water released from all release points; (e) the release flow rate at the time of sampling for each release point; (f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority; and (g) water quality monitoring data must be provided to the administering authority in the specified electronic format upon request.
C5	**Temporary interference with waterways** Destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with mining operations must be undertaken in accordance with Department of Natural Resources and Mines (or its successor) *Riverine protection permit exemption requirements, WSS/2013/726 Version 1.01*.
C6	**Water management plan** A Water Management Plan must be developed by an appropriately qualified person and implemented.
C7	**Stormwater and water sediment controls** An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.

C8	Stormwater, other than mine affected water, is permitted to be released to waters from: (a) erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by condition **C7**; and (b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with condition **C6**, for the purpose of ensuring water does not become mine affected water.

Schedule D: Noise	
Condition number	**Condition**
D1	The holder of this environmental authority must ensure that noise generated by the mining activities does not cause the criteria in **Table D1 Noise Limits** to be exceeded at a sensitive place or commercial place.
D2	The holder of this environmental authority must ensure that blasting does not cause the limits for peak particle velocity and air blast overpressure in **Table D2 Blasting Noise Limits** to be exceeded at a sensitive place or commercial place.
D3	In the event of periodic and/or complaint/s, noise monitoring and recording must include the following descriptor characteristics and matters: (a) LAN,T (where N equals the statistical levels of 1, 10 and 90 and T = 15 mins); (b) background noise LA90; (c) the level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels; (d) atmospheric conditions including temperature, relative humidity and wind speed and directions; (e) effects due to any extraneous factors such as traffic noise; (f) location, date and time of monitoring; (g) if the complaint concerns low frequency noise, Max LpLIN,T and one third octave band measurements in dB(LIN) for centre frequencies in the 10 – 200 Hz range; and (h) if the complaint concerns sleep disturbance, attended LAMax 1 minute logging during a continuous two-night period.
D4	The holder of this environmental authority must develop and implement a blast monitoring program to monitor compliance with **Table D2 Blasting noise limits** for: (a) all blasts undertaken on this site at the nearest sensitive place or commercial place; and (b) all blasts conducted during any time period specified by the administering authority at the nearest sensitive place or commercial place.

Table D1 Noise Limits

Sensitive Place						
Noise level dB(A) measured as:	**Monday to Saturday**			**Sundays and Public Holidays**		
	7am to 6pm	**6pm to 10pm**	**10pm to 7am**	**9am to 6pm**	**6pm to 10pm**	**10pm to 9am**
$L_{Aeq, adj, 15mins}$	CV = 50 AV = 5	CV = 45 AV = 5	CV = 40 AV = 0	CV = 45 AV = 5	CV = 40 AV = 5	CV = 35 AV = 0
$L_{A1, adj, 15mins}$	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5
Commercial Place						
Noise level dB(A) measured as:	**Monday to Saturday**			**Sundays and Public Holidays**		
	7am to 6pm	**6pm to 10pm**	**10pm to 7am**	**7am to 6pm**	**6pm to 10pm**	**10pm to 7am**
$L_{Aeq, adj, 15mins}$	CV = 55 AV = 10	CV = 50 AV = 10	CV = 45 AV = 5	CV = 50 AV = 10	CV = 45 AV = 10	CV = 40 AV = 5

Table D1 Noise limits notes:
1. CV = Critical Value
2. AV = Adjustment Value
3. To calculate noise limits in Table D1:
If bg ≤ (CV – AV): Noise limit = bg + AV
If (CV – AV) < bg ≤ CV: Noise limit = CV
If bg > CV: Noise limit = bg + 0
4. In the event that measured bg (LA90, adj, 15 mins) is less than 30 dB(A), then 30 dB(A) can be substituted for the measured background level
5. bg = background noise level (LA90, adj, 15 mins) measured over 3-5 days at the nearest sensitive receptor
6. If the project is unable to meet the noise limits as calculated above alternative limits may be calculated using the processes outlined in the Planning for Noise Control guideline.

Table D2 Blasting Noise Limits

Parameter	**Sensitive or commercial place blasting noise limits**	
	7am to 6pm	**6pm to 7am**
Airblast overpressure	115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time	No blasting
Ground vibration peak particle velocity	5mm/second peak particle velocity for 9 out of 10 consecutive blasts and not greater than 10 mm/second peak particle velocity at any time	

Schedule E: Groundwater	
Condition number	**Condition**
E1	The holder of this environmental authority must not release contaminants to groundwater.
E2	All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person. Groundwater monitoring should be conducted in accordance with the *Queensland Water Quality Guidelines, Version 3* (DEHP, 2013b).
E3	The holder of the environmental authority must implement a groundwater monitoring program prior to the commencement of mining activities which has been developed by an appropriately qualified person. The program must be able to detect a significant change to groundwater quality values and standing water levels (consistent with the current suitability of the groundwater for domestic and agricultural use) due to activities that are part of this mining project.
E4	The holder of the environmental authority must report the results and analysis of groundwater monitoring to the administering authority on request.
E5	Groundwater affected by the mining activities must be monitored at compliance bores within the nominated geologies and minimum frequencies defined in **Table E1 Groundwater Monitoring Locations and Frequency**.
E6	If the groundwater investigation trigger levels defined in **Table E2 Groundwater Quality Triggers and Limits** are exceeded, the environmental authority holder must complete an investigation into the potential for environmental harm and notify the administering authority within **28 days** of receiving the analysis results.
E7	The environmental authority holder must not cause an exceedance of any contaminant limits in **Table E2 Groundwater Quality Triggers and Limits** and must notify the administering authority within **28 days** of receiving the analysis results.
E8	Where it is identified that there is potential for environmental harm under condition **E6** or condition **E7**, an action plan to mitigate potential environmental harm must be developed by an appropriately qualified person and implemented within **3 months** of the completion of the investigation under condition **E6** or condition **E7**.
E9	**Determining contaminant trigger level and limit type** The background groundwater quality for each aquifer must be determined from hydraulically isolated background bore(s) that have not been affected by any mining activities. The groundwater contaminant trigger levels and limit type as per **Table E2 Groundwater Quality Triggers and Limits** must be determined and submitted to the administering authority within **24 months** from the date of commencement of mining activities.
E10	**Bore construction and maintenance and decommissioning** The construction, maintenance and management of groundwater bores (including background and compliance groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring. Construction and decommissioning must be in accordance with the *Minimum Construction Standard for Water Bores in Australia*.

Table E1 Groundwater Monitoring Locations and Frequency

Monitoring Point [1, 2]	Easting (GDA20)	Northing (GDA20)	Location	Aquifer	Parameters and Monitoring Frequency[1,2]
Reference Bores					
TBA	TBA	TBA	TBA	TBA	TBA
Compliance Bores					
TBA	TBA	TBA	TBA	TBA	TBA

Note:
1 To be completed three months prior to the commencement of mining activities authorised by this Environmental Authority
2 Relevant geology/ies, number of bores and monitoring frequencies to be determined by a suitably qualified person.

Table E2 Groundwater Quality Triggers and Limits

Parameter	Unit	Trigger Level	Contaminant Limit
Groundwater Level	RL	Greater than 2m drawdown from the background level	
pH	pH units	6.5 to 8.5	
Electrical Conductivity	µS/cm	80th percentile of baseline results per unit to be provided as per condition E9	90th percentile background to be provided as per condition E9
Total Dissolved Solids	mg/L		
Calcium	mg/L		
Magnesium	mg/L		
Sodium	mg/L		
Potassium	mg/L		
Chloride	mg/L		
Sulphate	mg/L		
Carbonate	mg/L		
Bicarbonate	mg/L		
Total Nitrogen	mg/L		
Nitrogen Oxides	mg/L		
Ammonia	mg/L		
Phosphate	mg/L		
Aluminium	mg/L		
Arsenic	mg/L		
Iron	mg/L		
Mercury	mg/L		
Antimony	mg/L		
Total Petroleum Hydrocarbons (C6-C40)	mg/L		

Schedule F: Land	
Condition number	**Condition**
F1	**PRCP schedule** Progressive rehabilitation of the disturbed land must be carried out in accordance with the approved Progressive Rehabilitation and Closure Plan (PRCP) schedule P-PRCP-100779248 for this environmental authority
F2	The holder of the environmental authority must minimise the potential for contamination of land by hazardous contaminants.
F3	**Matters of State Environmental Significance** Despite condition **A2**, activities are only authorised to occur within Matters of State Environmental Significance as shown in **Annexure 2 Matters of State Environmental Significance** and in accordance with condition **J1** if: (a) the activities are no greater than the maximum authorised residual impact area for each Matter of State Environmental Significance as listed in **Table F1 Matters of State Environmental Significance (for Broadmeadow underground mine extension), Table F2 Matters of State Environmental Significance (for Red Hill project)** and the disturbance extents listed in **Table J1 (Exploration Program Temporary Disturbance Limits to MSES)**; and (b) if the activity is deemed to have a significant residual impact in **Table F1 Matters of State Environmental Significance (for Broadmeadow underground mine extension)**, an offset must be delivered subject to conditions **F3 to F5**, inclusive.
F4	**Agreed delivery arrangement** An appropriately qualified person must prepare an offset delivery plan and determine any proposed financial settlement offset.
F5	**Post-stage analysis** An appropriately qualified person must prepare a report for each annual return period which includes: (a) the actual extent of all completed impacts on Matters of State Environmental Significance referred to in condition **F3**; and (b) a notice of election to address outstanding offset debits for the authorised activity.

Table F1 Matters of State Environmental Significance (for Broadmeadow underground extension)

Prescribed matters of state environmental significance with significant residual impacts			Maximum authorised residual impact area (ha)
Regulated vegetation	**Regional Ecosystem**	**VM Act[1] Status**	**TOTAL**
Connectivity Areas			71.9
Protected Wildlife Habitat	**Regional Ecosystem**	**NC Act[2] Status**	**TOTAL**
Ornamental snake habitat*	11.4.2	Vulnerable	25.76
Koala habitat*	11.4.2	Special Least Concern	25.76
	11.5.3		7.89
	11.5.9		38.78

Notes:
** These MSES overlap with Matters of National Environmental Significance and will be conditioned for Offsets by the Commonwealth.*
1 Vegetation Management Act 1999
2 Nature Conservation Act 1992

Table F2 Matters of State Environmental Significance (for Red Hill Project)

Prescribed matters of state environmental significance with significant residual impacts			Maximum authorised residual impact area (ha)
Regulated vegetation	**Regional Ecosystem**	**VM Act[1] Status**	**TOTAL**
	11.3.1	Endangered	63.55
	11.3.2	Of Concern	174.5
	11.3.4	Of Concern	135.08
	11.4.2	Of Concern	366.25
	11.4.7	Endangered	57.63
	11.4.8	Endangered	55.80
	11.4.9	Endangered	125.53
	11.5.16	Endangered	28.09
	11.9.1	Endangered	0.64
Connectivity Areas			853.01
Protected Wildlife Habitat	**Regional Ecosystem**	**NC Act[2]Status**	**TOTAL**
Koala habitat*	11.3.2	Special Least Concern	174.5
	11.3.3		7.01
	11.3.4		135.08
	11.3.25		135.12
	11.4.2		366.25
	11.4.7		57.63
	11.4.8		55.80
	11.5.3		512.55
	11.5.9		0.07
Ornamental Snake habitat*	11.3.1	Vulnerable	63.55
	11.3.2		174.50
	11.3.3		7.01
	11.3.4		135.08
	11.4.2		366.25
	11.4.7		57.63
	11.4.8		55.80
	11.4.9		125.53
	11.3.25		135.12
	500m buffer around known locations		43.07
Squatter Pigeon habitat*	11.5.3	Vulnerable	252 (within 1km of permanent water)
	11.5.9		
	11.5.16		
Wetlands and Watercourses			**Maximum authorised residual impact area (ha)**
Stream order 1			25.52
Stream order 2			22.24
Stream order 3			80.20
Stream order 5			316.44

Notes:
** These MSES overlap with Matters of National Environmental Significance and will be conditioned for Offsets by the Commonwealth.*
1 Vegetation Management Act 1999
2 Nature Conservation Act 1992
Deemed conditions in Sections 18, 22, 24 and 25 of the Environmental Offsets Act 2014 are taken to be conditions of this environmental authority. The holder of the environmental authority must provide an environmental offset for significant residual impacts on Matters of State Environmental Significance in accordance with the requirements of the Environmental Offsets Act 2014 (including deemed conditions), the Environmental Offsets Regulation 2014 and the Queensland Environmental Offsets Policy 2014.

F6	**Subsidence management plan** A Subsidence Management Plan must be developed and implemented by the holder of this environmental authority prior to the commencement of activities that result in subsidence.

F7	The Subsidence Management Plan must be developed to the satisfaction of the administering authority in accordance with the departmental guideline *Watercourse subsidence – Central Queensland Mining Industry* or any subsequent versions, and must include the following components: (a) provide for proper and effective management of the actual and potential environmental impacts resulting from the mining activity and ensure compliance with the conditions of the environmental authority; (b) the condition of the existing watercourse (including baseline assessment); (c) the proposed impacts of subsidence on land, watercourses and floodplains within the area of disturbance, including, but not limited to: (i) physical condition of surface drainages: (1) erosion (2) areas susceptible to higher levels of erosion such as watercourse confluences (3) incision processes (4) stream widening (5) tension cracking (6) lowering of beds and banks (7) creation of in stream waterholes (8) changes to local drainage patterns (ii) overland flow: (1) capture of overland flow by subsided long-wall panels (2) increased overbank flows due to lowering of high bank of watercourses (3) the portion of local and large-scale catchment likely to be captured by subsided longwall panels and the associated impacts on downstream users (iii) water quality: (1) surface water (2) groundwater (3) overland flow water detained in subsided longwall panels (iv) land condition: current land condition to be impacted by subsidence (v) infrastructure: detail of existing infrastructure (pipelines, railway, power lines and haul roads) should be identified where there is a potential impact from the effects of land subsidence (d) proposed options for mitigating any impacts associated with subsidence and how these mitigation methods will be implemented; (e) a risk assessment; (f) a monitoring, evaluation and maintenance program; (g) cumulative impacts on watercourses or catchments; and (h) impacts on groundwater.

F8	The holder of this environmental authority must not commence subsidence of a longwall panel unless the holder has submitted **two copies** of the Subsidence Management Plan with certification by a suitably qualified and experienced person, that the plan is compliant in all respects with the environmental authority, to the administering authority.
F9	**Annual inspection** The holder of this environmental authority must arrange for each subsided longwall panel to be inspected annually by a suitably qualified and experienced person, in accordance with conditions **F10** to **F13**.
F10	The annual inspection required by condition **F9** must be conducted prior to **1 November** of each year.
F11	At each annual inspection, the condition of each subsided longwall panel must be assessed, including the structural, geotechnical and hydraulic adequacy of the subsided longwall panel and the adequacy of the works with respect to the Subsidence Management Plan.
F12	For each inspection, two copies of the report must be certified by a suitably qualified and experienced person and be provided to the administering authority within **28 days** of the inspection.
F13	The report must detail any remedial works that have been undertaken and the outcomes of these works.
F14	**Remedial works** The holder of the environmental authority, if directed by the administering authority, shall carry out any remedial works that are deemed necessary to minimise impacts on the physical integrity of the watercourse from subsidence.
F15	**Surrender** The holder must meet the conditions and rehabilitation and improvement milestones under the PRCP schedule P-PRCP-100779248 prior to the surrender of the environmental authority.

Schedule G: Sewage Treatment	
Condition number	**Condition**
G1	The only contaminant permitted to be released to land is treated sewage effluent in compliance with the release limits stated in **Table G1 Contaminant release limits to land**.
G2	The holder of this environmental authority must, **3 months** prior to the start of mining activities, submit a plan of the nominated area(s) where effluent will be disposed. Treated sewage effluent may only be released to land in accordance with the conditions of this approval at the following locations: (a) within the nominated area(s); and (b) other land for the purpose of dust suppression and/or fire-fighting.
G3	The application of treated effluent to land must be carried out in a manner such that: (a) vegetation is not damaged; (b) there is no surface ponding of effluent; and (c) there is no run-off of effluent.
G4	If areas irrigated with effluent are accessible to employees or the general public, prominent signage must be provided advising that effluent is present and care should be taken to avoid consuming or otherwise coming into unprotected contact with the effluent.
G5	All sewage effluent released to land must be monitored at the frequency and for the parameters specified in **Table G1 Contaminant release limits to land**.
G6	The daily volume of effluent release to land must be measured and records kept of the volumes of effluent released.
G7	When circumstances prevent the irrigation or beneficial reuse of treated sewage effluent such as during or following rain events, waters must be directed to wet weather storage or alternative measures must be taken to store/lawfully dispose of effluent.
G8	The holder of this environmental authority must provide to the administering authority prior to the start of construction, a description of the minimum area of land, excluding any necessary buffer zones, to be utilised for the irrigation and/or beneficial reuse of treated sewage effluent.
G9	Treated sewage effluent must only be supplied to another person or organisation that has a written plan detailing how the user of the treated sewage effluent will comply with their general environmental duty under section 319 of the Act whilst using the treated sewage effluent.

Table G1 Contaminant release limits to land

Contaminant	Unit	Release Limit	Limit Type	Frequency
5 day Biochemical oxygen demand (BOD)	mg/L	20	Maximum	Monthly
Total suspended solids	mg/L	30	Maximum	Monthly
Nitrogen	mg/L	30	Maximum	Monthly
Phosphorous	mg/L	15	Maximum	Monthly
E. coli	Organisms / 100mL	1000	Maximum	Monthly
pH	pH units	6.0 to 9.0	Range	Monthly

Schedule H: Regulated Structures	
Condition number	**Condition**
H1	**Assessment of consequence category** The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* at the following times: (a) prior to the design and construction of the structure, if it is not an existing structure; or (b) prior to any change in its purpose or nature of its stored contents; or (c) following any change in surroundings or in the conditions downstream
H2	A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence assessment for more than one structure.
H3	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.
H4	All regulated structures must be designed by, and constructed* under the supervision of a suitably qualified and experienced person in accordance with the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*. **Certification of design and construction may be undertaken by different persons.*
H5	Construction of a regulated structure is prohibited unless: (a) the holder has submitted a consequence category assessment report and certification to the administering authority; and (b) certification for the associated operating procedures has been certified by a suitably qualified and experienced person in compliance with the relevant condition of this authority.
H6	Certification must be provided by the suitably qualified and experienced person who oversees the preparation of the design plan in the form set out in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635),* and must be recorded in the Regulated Dams/Levees register.
H7	Regulated structures must: (a) be designed and constructed in accordance with and conform to the requirements of the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*; (b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: (i) floodwaters from entering the regulated dam from any watercourse or drainage line; and wall failure due to erosion by floodwaters arising from any watercourse or drainage line.
H8	Certification by the suitably qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure, and state that: (a) the 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; and (b) construction of the regulated structure is in accordance with the design plan.

H9	**Operation of a regulated structure** Operation of a regulated structure, except for an existing structure, is prohibited unless: (a) the holder has submitted to the administering authority: (i) one paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with condition **H6**; (ii) a set of 'as constructed' drawings and specifications; (iii) certification of those 'as constructed drawings and specifications' in accordance with condition **H8**; (iv) where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the Design Storage Allowance (DSA) volume across the system, a copy of the certified system design plan; (b) the requirements of this authority relating to the construction of the regulated structure have been met; (c) the holder has entered the details required under this authority, into a Register of Regulated Dams; and (d) there is a current operational plan for the regulated structures.
H10	Each regulated structure must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitated, in a manner that is consistent with the current operational plan and, if applicable, the current design plan and associated certified 'as constructed' drawings.
H11	**Mandatory reporting level** Conditions **H12 to H15** inclusive only apply to Regulated Structures which have not been certified as low consequence category for 'failure to contain – overtopping'.
H12	The Mandatory Reporting Level (MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.
H13	The holder must, as soon as practical and within **48 hours** of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.
H14	The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence of any unauthorised discharge from the regulated dam.
H15	The holder must record any changes to the MRL in the Register of Regulated Structures.
H16	**Design storage allowance (DSA)** The holder must assess the performance of each regulated structure or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken prior to **1 July** of each year.
H17	By **1 November** of each year, storage capacity must be available in each regulated structure (or network of linked containment systems with a shared DSA volume), to meet the DSA volume for the dam (or network of linked containment systems).
H18	The holder must, as soon as possible and within **48 hours** of becoming aware that the regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on **1 November** of any year, notify the administering authority.

H19	The holder must, immediately on becoming aware that a regulated structure (or network of linked containment systems) will not have the available storage to meet the DSA volume on **1 November** of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.
H20	**Annual inspection report** Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.
H21	At each annual inspection, the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include recommended actions to ensure the integrity of the regulated structure.
H22	The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.
H23	The holder must: (a) within **20 business days** of receipt of the annual inspection report, provide to the administering authority: (i) the recommendations section of the annual inspection report; and (ii) If applicable, any actions being taken in response to those recommendations; and (b) if, following receipt of the recommendations and (if applicable) actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this to the administering authority within **10 business days*** of receipt of the request. **Please note that for some model conditions, such as model conditions for dams associated with a resource activity - non mining activity, the notification requirements may be located in a separate part of the conditions of an environmental authority (e.g. under notification requirement conditions).*
H24	**Transfer arrangements** The holder must provide a copy of any reports, documentation and certifications prepared under this authority, including but not limited to any Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this authority.
H25	**Register of regulated structures** A Register of Regulated Structures must be established and maintained by the holder for each regulated structure.
H26	The holder must provisionally enter the required information in the Register of Regulated Structures when a design plan for a regulated structure is submitted to the administering authority.
H27	The holder must make a final entry of the required information in the Register of Regulated Structures once compliance with condition **H9** has been achieved.
H28	The holder must ensure that the information contained in the Register of Regulated Structures is current and complete on any given day.
H29	All entries in the Register of Regulated Structures must be approved by the chief executive officer for the holder of this authority, or their delegate, as being accurate and correct.
H30	The holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated Structures, in the electronic format required by the administering authority.

Schedule I: Waste	
Condition number	**Condition**
I1	Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.
I2	The holder of this environmental authority may burn vegetation cleared in the course of carrying out extraction activities provided the activity does not cause environmental harm at any sensitive place or commercial place.
I3	**Disposal of tyres** Disposing of scrap tyres resulting from the authorised activities in spoil emplacements is acceptable, provided tyres are placed as deep in the spoil as reasonably practicable. A record must be kept of the number and location for tyres disposed.
I4	**Acid sulfate soils** The holder of this environmental authority must treat and manage acid sulfate soils in accordance with the latest edition of the *Queensland Acid Sulfate Soil Technical Manual*.
I5	**Tailings disposal** The holder of this environmental authority must not dispose of any tailings at this site.

Schedule J: Exploration Activities	
Condition number	**Condition**
J1	Exploration activities associated with the Seismic and Drilling Programs must: (a) only be conducted in the areas marked "Exploration Area 1 – Seismic" and "Exploration Area 2 – Drilling" respectively in **Annexure 3 Exploration Program Areas** and generally in accordance with **Annexure 4 Seismic Program Layout** and **Annexure 5 Drilling Program Layout**; (b) only result in temporary impacts to matters of state environmental significance; (c) not result in impacts that would change the remnant vegetation communities onsite; (d) not exceed the extent of impact listed in **Table J1 Exploration Program Temporary Disturbance Limits to MSES**; (e) include an equipment exclusion zone around the endangered semi-evergreen vine thicket ecosystems (RE 11.8.3 and RE 11.8.13); and (f) include an equipment exclusion zone of at least 25m around mapped watercourses shown in **Annexure 4 Seismic Program Layout**.

Table J1 Exploration Program Temporary Disturbance Limits to MSES

Matter of State Environmental Significance	Seismic Program disturbance extent (ha)	Drilling Program disturbance extent (ha)
Regulated vegetation		
Endangered regional ecosystem – 11.3.1	2.63	0.17
Endangered regional ecosystem – 11.4.8	3.37	0.00
Endangered regional ecosystem – 11.4.8/11.8.15	0.00	0.29
Endangered regional ecosystem – 11.4.9	4.15	0.00
Endangered regional ecosystem – 11.4.9/11.4.8	0.00	0.06
Endangered regional ecosystem – 11.8.13	0.97	0.00
Endangered regional ecosystem – 11.8.15	0.25	0.00
Of concern regional ecosystem – 11.3.2	0.00	0.02
Of concern regional ecosystem – 11.3.3	5.77	0.03
Of concern regional ecosystem – 11.3.4	0.00	0.15
Of concern regional ecosystem – 11.8.11	37.94	1.58
Of concern regional ecosystem – 11.8.3	0.12	0.00
Protected wildlife habitat		
Habitat for a plant that is vulnerable wildlife – *Dichanthium queenslandicum* (King Bluegrass)	37.90	1.64
Habitat for an animal that is vulnerable wildlife – *Phascolarctos Cinereus* (Koala)	17.70	0.80
Habitat for an animal that is vulnerable wildlife – *Denisonia Maculata* (Ornamental Snake)	92.20	5.15
Habitat for an animal that is vulnerable wildlife – *Geophaps scripta scripta* (Squatter Pigeon)	165.40	25.00
Habitat for an animal that is a special least concern animal – *Tachyglossus Aculeatus* (Short-Beaked Echidna)	166.10	25.00

J2	The following mitigation measures must be implemented for any exploration activities: (a) laydown areas and access tracks must be located in existing cleared areas where feasible; (b) speed limits must be strictly enforced on machinery and vehicles within the areas identified in **Annexure 3 Exploration Program Areas** to minimise the risk of wildlife collisions; (c) activities must only be conducted during daylight hours; (d) a licensed fauna spotter-catcher must be present at all times that vegetation is disturbed; (e) a pre-clearance fauna survey must be completed by a licensed fauna spotter-catcher prior to each vegetation disturbance event; (f) if an active breeding site for protected wildlife is identified by a licensed spotter-catcher prior to or during disturbance, an exclusion zone which includes a sufficient buffer must be established for the duration of the disturbance or until the breeding individual(s) have relocated naturally; and (g) all equipment and machinery used must be thoroughly cleaned before entering the project areas and upon departure to prevent the spread of weeds and invasive species.
J3	The holder of the environmental authority must consult with the landowner prior to establishing any new roads and tracks.
J4	When constructing new roads and tracks, the holder of the environmental authority must ensure that the area and duration of disturbance to land, vegetation and watercourses is minimised.
J5	The holder of the environmental authority must not dispose of more than **50 tonnes** of general waste on the mining tenement per year.
J6	The holder of the environmental authority must ensure that all chemical, fuel and oil storage facilities less than **10,000L** on a mining tenement, must be designed and operated in accordance with Australian Standard 1940 – 'The storage and handling of flammable and combustible liquids', Section 2, Minor Storage.
J7	The holder of the environmental authority must ensure that: (a) all chemical, fuel and oil storage facilities of more than **10,000L** on a mining tenement, must be bunded to contain at least **one hundred percent** of the volume of the largest container, plus **twenty-five percent** of the storage capacity of the largest container up to a maximum of 10,000L, together with **ten percent** of the storage capacity beyond 10,000L; and (b) the facility must be operated and maintained in accordance with the Australian Standard 1940 – "The Storage and Handling of flammable and combustible liquids".

Seismic Program	
J8	**Seismic Program Disturbance** Exploration activities associated with the Seismic Program must: (a) not exceed **64ha** of temporary vegetation disturbance in areas mapped as remnant vegetation; (b) not exceed a total area of **1ha** of disturbance to establish new laydown areas and access tracks; (c) not conduct topsoil stripping in MSES areas; (d) prepare seismic corridors by blade-up stick raking and slashing in a way that retains the base, rootstock and seedbank of the impacted vegetation; (e) minimise seismic corridors to the maximum extent possible and not exceed a maximum width of **4m**; (f) avoid trees (including hollow-bearing trees) greater than 5m in height or greater than 10cm in diameter at breast height; and (g) conduct any line preparation work (excluding minor maintenance) during the dry season.
J9	The holder of the environmental authority must plan and determine the final position of gridlines and geophysical lines in consultation with the landowner.
Drilling Program	
J10	**Drilling Program Disturbance** Exploration activities associated with the Drilling Program must: (a) minimise the size of drill pads where feasible; (b) not exceed **1,500m^2** in size for each drill pad; and (c) minimise access tracks to the maximum extent possible and not exceed **6m** in width.
J11	The holder of the environmental authority must ensure: (a) all marker pegs are marked with contrasting colour so as to be clearly visible; (b) all marker pegs are removed from the tenement at the completion of exploration activities; and (c) all permanent markers (example, concrete plugs or steel plates) are installed at ground level and made safe.
J12	When drilling, excavating or sampling, the holder of the environmental authority must ensure that the area and duration of disturbance to land and vegetation is minimised.
J13	The holder of the environmental authority must not drill, excavate or clear vegetation: (a) in standing waters, wetlands or lakes; or (b) on the sloped banks or within **3m** of the top of the bank or **5m** of the toe of the bank; or (c) within, or on the levee banks of the normal flow channel.
J14	The holder of the environmental authority must not directly or indirectly release wastewater to any watercourse, waterway, groundwater, wetland or lake.

J15	If the only ERA carried out under this environmental authority is Exploration activities (ERA9), the requirements under the following conditions of this environmental authority do not apply: (a) Condition C6 – Water Management Plan (b) Condition C7 – Erosion and Sediment Control Plan (c) Condition E5 and E9 – Groundwater Monitoring (d) Condition F6 – Subsidence Management Plan (e) Condition G2 – Effluent Disposal Plan.

END OF CONDITIONS

Definitions

Key terms and/or phrases used in this document are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Airblast overpressure means energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dBL).

Annual exceedance probability or AEP means the probability that at least one event in excess of a particular magnitude will occur in any given year.

Annual inspection report means an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan);

(a) against recommendations contained in previous annual inspections reports;

(b) against recognised dam safety deficiency indicators;

(c) for changes in circumstances potentially leading to a change in consequence category;

(d) for conformance with the conditions of this authority;

(e) for conformance with the 'as constructed' drawings;

(f) for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after **31 May** each year but prior to **1 November** of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems);

(g) for evidence of conformance with the current operational plan.

Appropriately qualified person means a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods or literature.

Assessed or assessment by a suitably qualified and experienced person in relation to a consequence assessment of a dam, means that a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment:

exactly what has been assessed and the precise nature of that determination;

the relevant legislative, regulatory and technical criteria on which the assessment has been based;

the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and

the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.

Associated works in relation to a dam, means:

(a) operations of any kind and all things constructed, erected or installed for that dam; and

(b) any land used for those operations.

Authority means an environmental authority or a development approval.

Bed and banks for a waters, river, creek, stream, lake, lagoon, pond, swamp, wetland or dam means land over which the water of the waters, lake, lagoon, pond, swamp, wetland or dam normally flows or that is normally covered by the water, whether permanently or intermittently; but does not include land adjoining or adjacent to the bed and banks that is from time to time covered by floodwater.

Beneficial use in respect of dams means that the current or proposed owner of the land on which a dam stands, has found a use for that dam that is:

(a) of benefit to that owner in that it adds real value to their business or to the general community,

(b) in accordance with relevant provisions of the Environmental Protection Act 1994,

(c) sustainable by virtue of written undertakings given by that owner to maintain that dam, and

(d) the transfer and use have been approved or authorised under any relevant legislation.

Blasting means the use of explosive materials to fracture:

(a) rock, coal and other minerals for later recovery; or

(b) structural components or other items to facilitate removal from a site or for reuse.

Bunded means within bunding consistent with Australian Standard 1940.

Certification means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by this authority, including design plans, 'as constructed' drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (2A)).

Chemical means:

(a) an agricultural chemical product or veterinary chemical product within the meaning of the *Agricultural and Veterinary Chemicals Code Act 1994 (Commonwealth)*; or

(b) a dangerous good under the dangerous goods code; or

(c) a lead hazardous substance within the meaning of the *Workplace Health and Safety Regulation 1997*; or

(d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers' Advisory Council and published by the Commonwealth; or

(e) any substance used as, or intended for use as:

  i. a pesticide, insecticide, fungicide, herbicide, rodenticide, nematicide, miticide, fumigant or related product; or

  ii. a surface active agent, including, for example, soap or related detergent; or

  iii. a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or

  iv. a fertiliser for agricultural, horticultural or garden use; or

(f) a substance used for, or intended for use for:

  i. mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or

  ii. manufacture of plastic or synthetic rubber.

Commencement of mining activities means commencement of construction activities associated with the Red Hill Mine project and does not include activities associated with coal exploration drilling (drill pads and exploration boreholes, groundwater bores, tracks and minimal sumps if required) and seismic exploration.

Commercial place means a work place used as an office or for business or commercial purposes, which is not part of the mining activity and does not include employees accommodation or public roads.

Construction or constructed in relation to a dam includes building a new dam and modifying or lifting an existing dam, but does not include investigations and testing necessary for the purpose of preparing a design plan.

Consequence in relation to a structure as defined, means the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.

Consequence category means a category, either low, significant or high, into which a dam is assessed as a result of the application of tables and other criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)*.

Dam means a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.

Dam crest volume means the volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (for example, via spillway).

Design plan is a document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.

Design storage allowance or DSA means an available volume, estimated in accordance with the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority, must be provided in a dam as at **1 November** each year in order to prevent a discharge from that dam to an annual exceedance probability (AEP) specified in that Manual.

Designer for the purposes of a regulated dam, means the certifier of the design plan for the regulated dam.

Disturbance of land includes:

(a) compacting, removing, covering, exposing or stockpiling of earth;

(b) removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;

(c) carrying out mining within a watercourse, waterway, wetland or lake;

(d) the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;

(e) temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after the mining activity has ceased; or

(f) releasing of contaminants into the soil, or underlying geological strata.

However, the following areas are not included when calculating areas of disturbance:

(a) areas off lease (e.g. roads or tracks which provide access to the mining lease);

(b) areas previously disturbed which have achieved the rehabilitation outcomes;

(c) by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);

(d) areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be left by agreement with the landowner; or

(e) disturbance that pre-existed the grant of the tenure.

Effluent means treated waste water released from sewage treatment plants.

Emergency action plan means documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam owners to annually update contact.

Environmental authority means an environmental authority granted in relation to an environmentally relevant activity under the *Environmental Protection Act 1994*.

Environmental authority holder means the holder of this environmental authority.

Environmentally relevant activity means an environmentally relevant activity as defined under section 18 of the *Environmental Protection Act 1994*.

Equipment exclusion zone means a defined area within which no mechanical vegetation disturbance may occur and only walk-in access is permitted.

Existing structure means a structure that was in existence prior to the adoption of this schedule of conditions under the authority.

Exploration activity has the same meaning as explore.

Explore means take action to determine the existence, quality and quantity of minerals on, in or under land or in the waters or sea above land by—

(a) prospecting;

(b) using instruments, equipment and techniques appropriate to determine the existence of any mineral;

(c) extracting and removing from land for sampling and testing an amount of material, mineral or other substance in each case reasonably necessary to determine its mineral bearing capacity or its properties as an indication of mineralisation;

Extreme Storm Storage means a storm storage allowance determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority

Flowable substance means matter or a mixture of materials that can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.

Hydraulic performance means the capacity of a regulated dam to contain or safely pass flowable substances based on the probability (AEP) of performance failure specified for the relevant hazard category in the *Site Water Management Technical Guideline for Environmental Management of Exploration and Mining in Queensland* (DME 1995).

Infrastructure means water storage dams, roads and tracks, buildings and other structures built for the purpose of mining activities but does not include other facilities required for the long-term management of mining impacts or the protection of potential resources. Such other facilities include dams, waste rock dumps, voids, or ore stockpiles and buildings as well as other structures whose ownership can be transferred and which have a residual beneficial use for the next owner of the mining leases or the background land owner.

Land in the “land schedule” of this document means land excluding waters and the atmosphere.

Leachate means a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.

Levee means an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of water or flowable substances at any other times.

Low consequence dam means any dam that is not a high or significant consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635*).

m means metres.

Mandatory reporting level or MRL means a warning and reporting level determined in accordance with the criteria in the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.

Manual means the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.

Mine affected water

(a) means the following types of water:

i. pit water, tailings dam water, processing plant water;

ii. water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2008 if it had not formed part of the mining activity;

iii. rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;

iv. groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;

v. groundwater from the mine's dewatering activities;

vi. a mix of mine affected water (under any of paragraphs i)-v) and other water.

(b) does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in contact with:

i. land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or

ii. land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example:

a. areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site;

b. evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or

iii. both.

Measures include any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.

Modification or modifying (see definition of 'construction')

NATA means National Association of Testing Authorities, Australia.

Operational plan includes:

(a) normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance);

(b) contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure.

Peak particle velocity or ppv means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).

Receiving environment, in relation to an activity that causes or may cause environmental harm, means the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to):

(a) a watercourse;

(b) groundwater;

(c) land; and

(d) sediments.

Receiving waters means the waters into which this environmental authority authorises releases of mine affected water.

Register of Regulated Structures includes:

(a) Date of entry in the register;

(b) Name of the dam, its purpose and intended/actual contents;

(c) The consequence category of the dam as assessed using the Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635);

(d) Dates, names, and reference for the design plan plus dates, names, and reference numbers of all document(s) lodged as part of a design plan for the dam;

(e) Name and qualifications of the suitably qualified and experienced person who certified the design plan and 'as constructed' drawings;

(f) For the regulated dam, other than in relation to any levees –

i. The dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam;

ii. Coordinates (latitude and longitude in GDA20) within five metres at any point from the outside of the dam including its storage area

iii. Dam crest volume (megalitres);

iv. Spillway crest level (metres AHD).

v. Maximum operating level (metres AHD);

vi. Storage rating table of stored volume versus level (metres AHD);

vii. Design storage allowance (megalitres) and associated level of the dam (metres AHD);

viii. Mandatory reporting level (metres AHD);

(g) The design plan title and reference relevant to the dam;

(h) The date construction was certified as compliant with the design plan;

(i) The name and details of the suitably qualified and experienced person who certified that the constructed dam was compliant with the design plan;

(j) Details of the composition and construction of any liner;

(k) The system for the detection of any leakage through the floor and sides of the dam;

(l) Dates when the regulated dam underwent an annual inspection for structural and operational adequacy, and to ascertain the available storage volume for **1 November** of any year;

(m) Dates when recommendations and actions arising from the annual inspection were provided to the administering authority;

(n) Dam water quality as obtained from any monitoring required under this authority as at **1 November** of each year.

Regulated dam means any dam in the significant or high consequence category as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (EM635)* published by the administering authority.

Regulated structure includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.

Rehabilitation means the process of reshaping and revegetating land to a stable landform and in accordance with the milestone criteria set out in the PRCP schedule P-PRCP-100779248.

Release event means a surface water discharge from mine affected water storages or contaminated areas.

Representative means a sample set that covers the variance in monitoring or other data due to either natural changes or operational phases of the mining activities.

RL means reduced level, relative to mean sea level as distinct from depths to water.

Sensitive place means:

(a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or

(b) a motel, hotel or hostel; or

(c) an educational institution; or

(d) a medical centre or hospital; or

(e) a protected area; or

(f) a public park or gardens.

* NOTE: A mining camp (i.e., accommodation and ancillary facilities for mine employees or contractors or both, associated with the mine the subject of the environmental authority) is not a sensitive place for that mine or mining project, whether or not the mining camp is located within a mining tenement that is part of the mining project the subject of the environmental authority.

Structure means dam or levee.

Spillway means a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges form the dam, normally under flood conditions or in anticipation of flood conditions.

Suitably qualified and experienced person in relation to regulated structures means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, and has demonstrated competency and relevant experience:

(a) for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design.

(b) for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments.

Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in either geomechanics, hydraulic design or engineering hydrology.

Suitably qualified and experienced person in relation to watercourse subsidence means one who holds relevant professional qualifications to the satisfaction of the administering authority; AND the administering authority is satisfied that person has knowledge, suitable experience and demonstrated expertise in relevant fields, as set out below:

(a) knowledge of engineering principles related to the structures, hydrology, hydraulics and environmental impact of watercourse subsidence; and

(b) a total of five years of suitable experience and demonstrated expertise in the following categories:

i. hydrology with particular reference to flooding, estimation of extreme storms or water management.

ii. hydraulics with particular reference to sediment transport and deposition and erosion control.

iii. hydrogeology with particular reference to seepage, groundwater.

System design plan means a plan that manages an integrated containment system that shares the required DSA and/or ESS volume across the integrated containment system.

The Act means the *Environmental Protection Act 1994*.

Void means any constructed, open excavation in the ground.

Watercourse has the meaning in Schedule 4 of the Environmental Protection Act 1994 and means a river, creek or stream in which water flows permanently or intermittently—

(a) in a natural channel, whether artificially improved or not; or

(b) in an artificial channel that has changed the course of the watercourse.

Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.

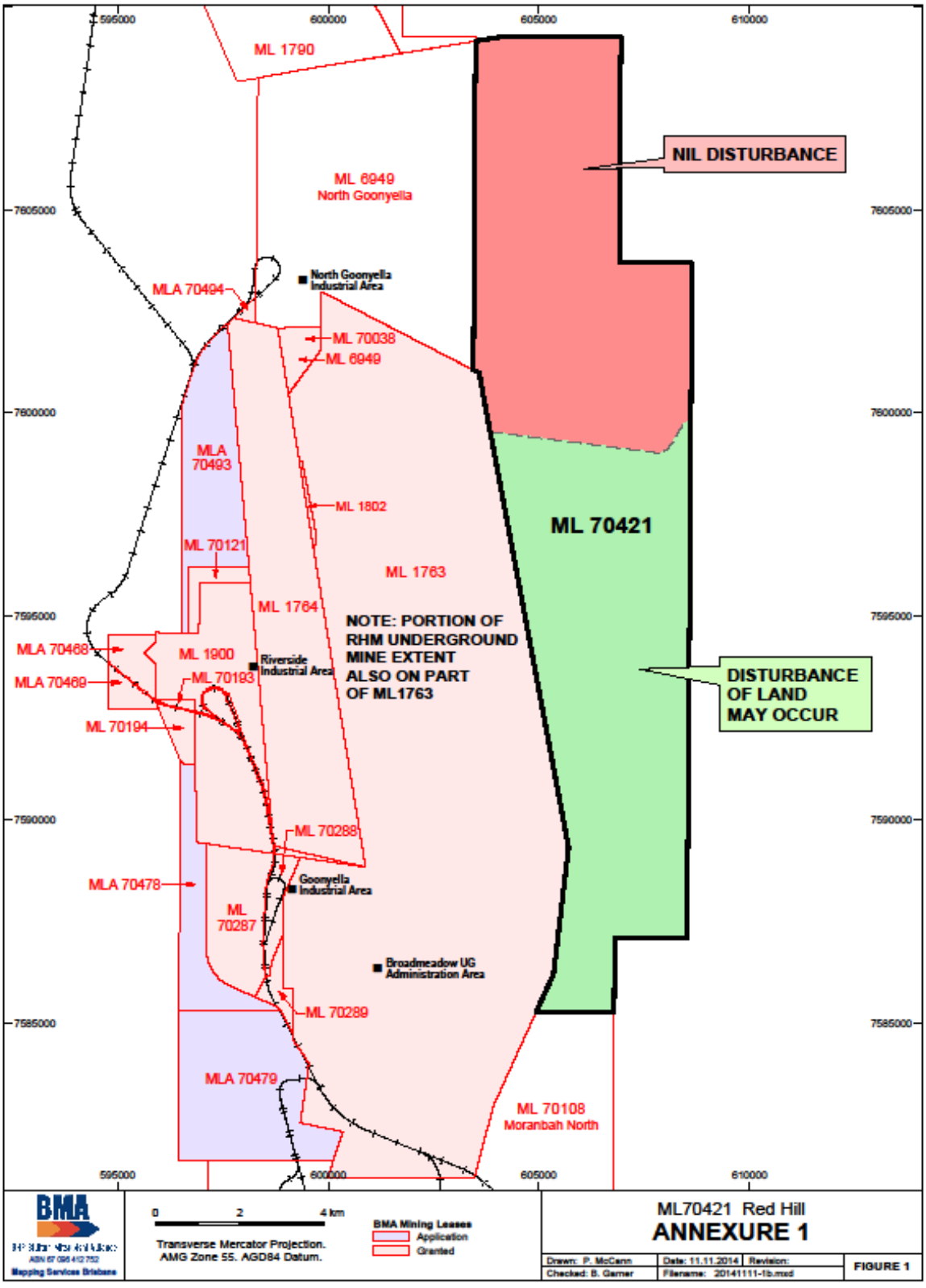
Waters includes all or any part of a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water in natural or artificial watercourses, bed and banks of a watercourse, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater.

µS/cm means microsiemens per centimetre.

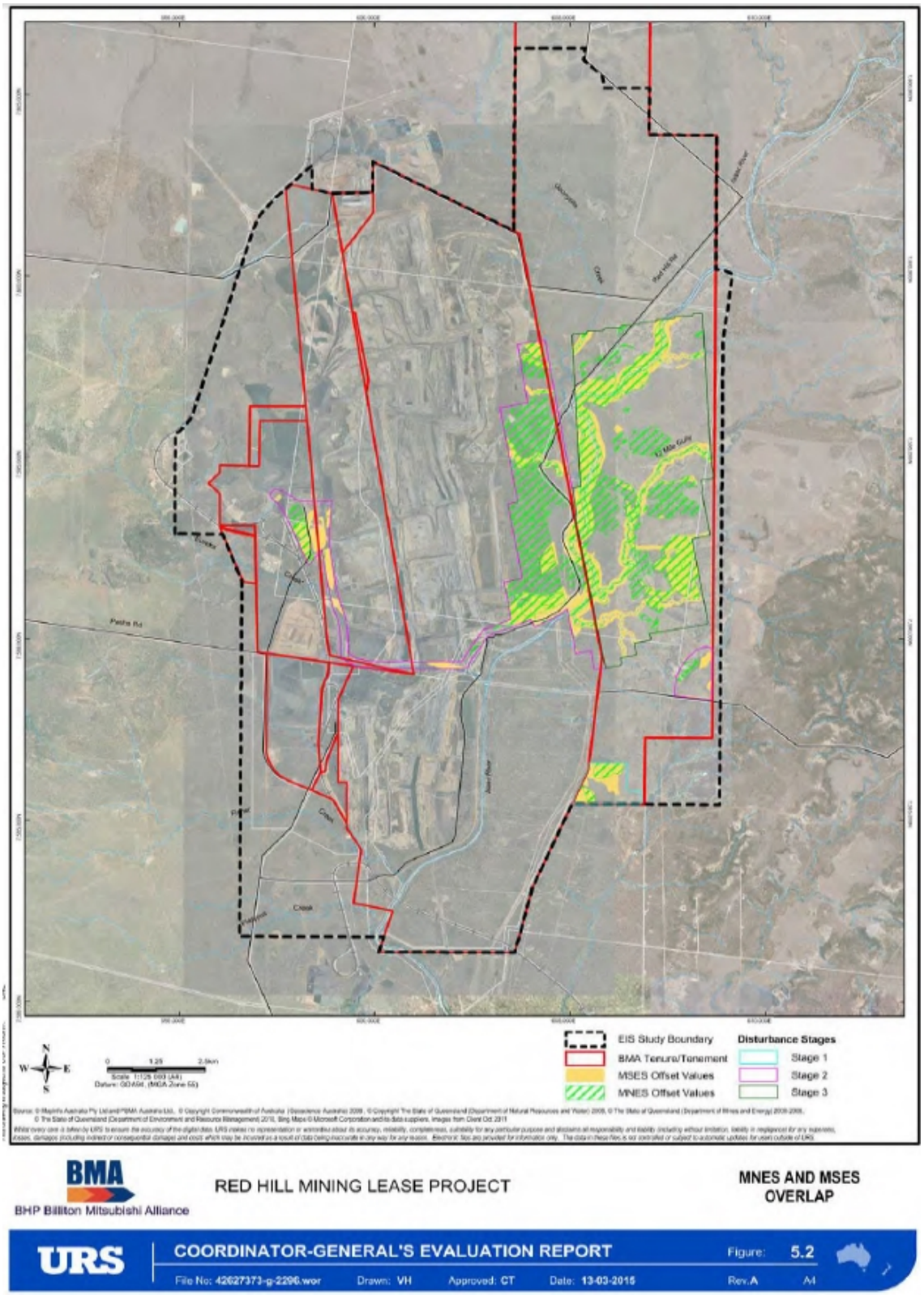
END OF DEFINITIONS

Appendices

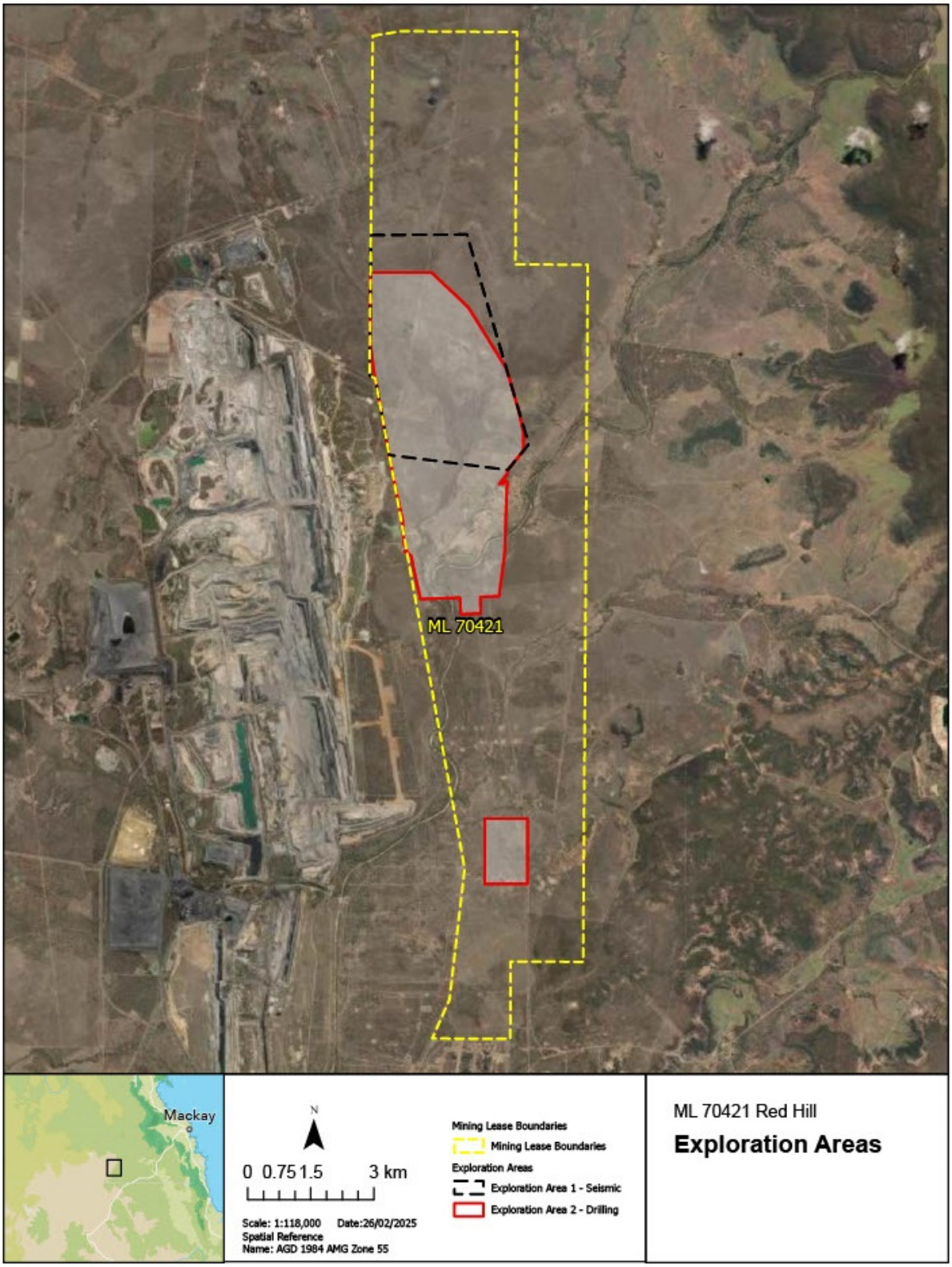
Annexure 1 Red Hill Mine Area of Disturbance



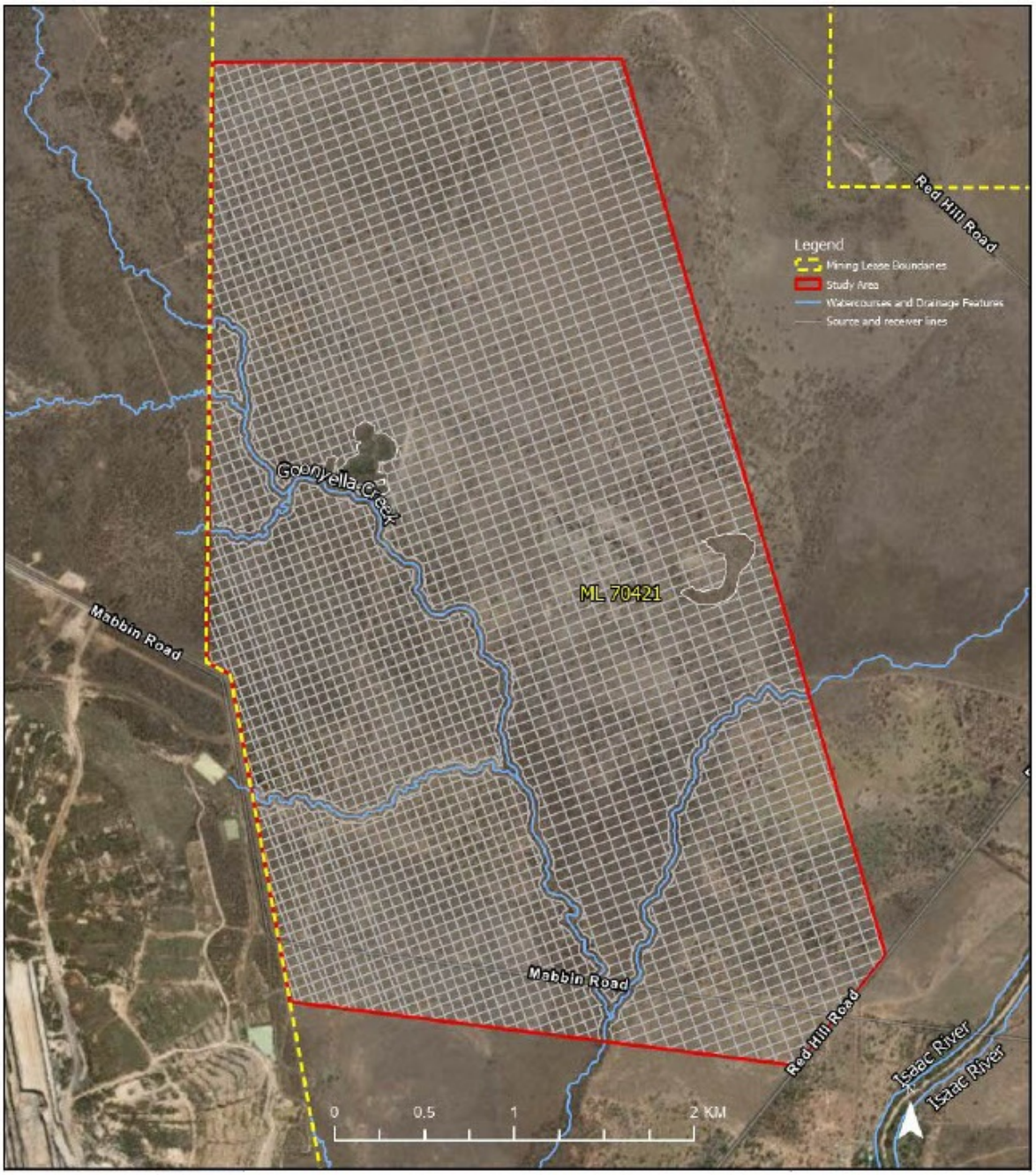
Annexure 2 Matters of State Environmental Significance



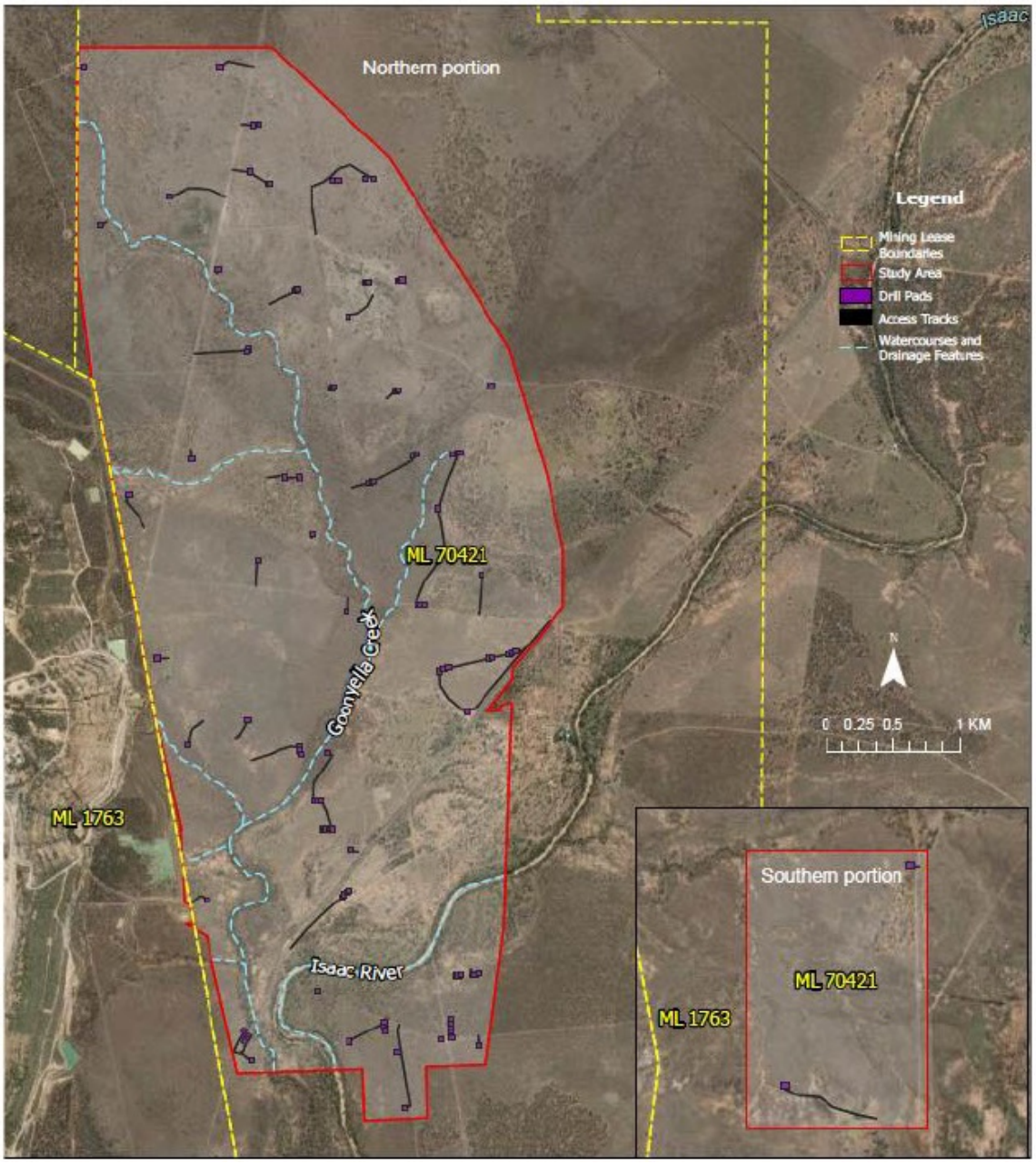
Annexure 3 Exploration Program Areas



Annexure 4 Seismic Program Layout



Annexure 5 Drilling Program Layout



END OF ENVIRONMENTAL AUTHORITY