

Permit

Environmental Protection Act 1994

Environmental authority EA0002467

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

Environmental authority number: EA0002467

Environmental authority takes effect on 27 August 2020

Environmental authority holder

Name(s)	Registered address
STANMORE IP SOUTH PTY LTD	Level 15 133 Mary St BRISBANE CITY QLD 4000 Australia

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Ancillary 33 - Crushing, milling, grinding or screening Crushing, grinding, milling or screening more than 5000t of material in a year	MDL137
Schedule 3 10: Investigating the potential development of a mineral resource by large bulk sampling or constructing an exploratory shaft, adit or open pit	MDL137

Additional information for applicantsEnvironmentally 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).

Contaminated land

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

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (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 contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

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

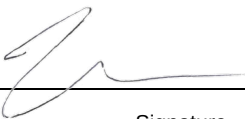
Please note that, in accordance with section 200 of the EP Act, an EA has effect:

- 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, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Sustainable Planning Act 2009* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken 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 environmental authority.



Signature

27 August 2020

Date

Juliana McCosker
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date Issued: 27 August 2020

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Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, 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 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)

Conditions of environmental authority

The environmentally relevant activities conducted at the location as described above must be conducted in accordance with the following site specific conditions of approval.

Agency interest: General	
Condition number	Condition
A1	General 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	Authorised activities In carrying out the activities authorised by this environmental authority disturbance of land: a) is authorised for all purposes in the areas marked 'A'; and b) is not authorised in the areas marked 'B'; and c) is only authorised in areas marked 'C' to the extent reasonably necessary for infrastructure and exploration. The areas stated in a) to c) of this condition, are shown in Appendix 1, Figure 1: Authorised activities – MDL 137 of this environmental authority.
A3	Scope of Activity This environmental authority authorises the mining of 970,000 tonnes of run of mine (ROM) coal over a two-year period following commencement of overburden material and coal extraction.
A4	Prevent and /or minimise likelihood of environmental harm In carrying out the mining activity the environmental authority holder must take all reasonable and practicable measures to prevent and/or to minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could have been prevented, shall be carried out in a proper manner in accordance with the conditions of this environmental authority.
A5	Estimated Rehabilitation Cost (ERC) The environmental authority holder must not carry out, or allow the carrying out of the activity under this authority unless: a) an ERC decision is in effect for the activity when the activity is carried out;

	b) the environmental authority holder has paid a contribution to the scheme fund or given a surety for the authority under the <i>Mineral and Energy Resources (Financial Provisioning) Act 2018</i>; and c) the environmental authority holder has complied with the requirements under the <i>Mineral and Energy Resources (Financial Provisioning) Act 2018</i> for paying a contribution to the scheme fund, or giving a surety for the authority, as required from time to time.
A5	New ERC decision before expiry When an ERC decision is in force for this environmental authority, the environmental authority holder must apply, under section 298 of the <i>Environmental Protection Act 1994</i>, for a new ERC decision, at least three (3) months before the ERC period to which the decision relates ends.
A6	When the environmental authority holder must re-apply for ERC decision When an ERC decision is in force for this environmental authority, the environmental authority holder must re-apply within ten (10) business days under section 298 of the <i>Environmental Protection Act 1994</i> for an ERC decision when: a) there is an increase in the likely maximum amount of disturbance to the environment as a result of the environmental authority holder carrying out the resource activity; or b) there is a change relating to the carrying out of the resource activity that may result in an increase in the ERC for the resource activity.
A7	Maintenance of measures, plant and equipment The environmental authority 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.
A8	Monitoring records 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 five (5) years.
A9	All records, reports, plans and programs required by this environmental authority, must be made available to the administering authority within five (5) business days of the administering authority's request.
A10	Monitoring and determinations required under any condition of this environmental authority must be conducted by a suitability qualified person(s).
A11	Notification of emergencies, incidents and exceptions

	The environmental authority holder must notify the administering authority via the Pollution Hotline, (or WaTERS) within twenty four (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.
A12	If the environmental authority holder is required to give notification to the administering authority of an event or incident under Condition A11, the notification must include the following information: a) the number of the environmental authority; b) the holder of the environmental authority; c) the name and telephone number of a designated contact person who is able to talk with the administering authority on behalf of the environmental authority holder in relation to the event or release; d) the location of the event or release, including a physical address, lot on plan description (if available), GPS coordinates and any other information necessary to identify the specific location of the event or release; e) the time and date of the event or release (if known); f) the time the environmental authority holder became aware of the event or release; g) if the event or release has impacted, or may impact on, a person's land — whether the person whose land has been, or may be, impacted by the event or release has been notified; h) the suspected cause of the incident; i) the environmental harm caused, threatened, or suspected to be caused by the incident; j) actions taken to prevent any further incident and mitigate any environmental harm caused by the incident.
A13	Within ten (10) business days following the initial notification as per Condition A11 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; c) proposed actions to prevent a recurrence of the emergency or incident.

A14	Complaints The environmental authority holder must record all environmental complaints received including: a) name, address and contact details for the complainant; b) time and date of complaint including the location of the issue subject to the 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.
A15	The environmental authority holder must investigate any complaint of nuisance or environmental harm. If the complaint is validated, immediately implement abatement measures so that the environmental harm or nuisance to which the complaint relates ceases or no longer negatively impacts the complainant.
A16	The environmental authority holder must, when requested by the administering authority undertake relevant specified monitoring to investigate any complaint of environmental harm or nuisance. The environmental authority holder must: a) within a timeframe nominated or agreed to by the administering authority, commence monitoring; b) undertake the monitoring for a duration nominated or agreed to by the administering authority; and c) provide the results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, to the administering authority via WaTERS within ten (10) business days of completion of the investigation or monitoring, or no later than ten (10) business days after the end of the timeframe nominated by the administering authority to undertake the investigation.
A17	If the monitoring undertaking in accordance with Condition A16 indicates the occurrence of environmental harm or nuisance then the environmental authority holder must: a) address any complaint including the use of appropriate dispute resolution if required; and b) immediately implement abatement measures so that the environmental harm or nuisance to which the complaint relates ceases or no longer negatively impacts the sensitive receptor.

A18	Risk management The environmental authority holder must develop and implement a risk management system for all stages of activities which mirrors the content requirement of the Standards Australia Risk management – Principles and guidelines (AS/NZS ISO 31000), or the latest edition of a Standards Australia for risk management, to the extent relevant to environmental management, prior to conducting the mining activity.
A19	Third-party reporting The environmental authority holder must nominate a suitability qualified independent, third party auditor to audit compliance with the conditions of this environmental authority. The third party audit must be completed one year from commencement of the mining activity, and then at regular intervals not exceeding thirty-six (36) months.
A20	Within ninety (90) days of completing the audit, a written report must be provided to the administering authority that has been certified by the suitability qualified independent third party auditor, detailing any non-compliance issues that were found (if no non-compliance issues were found this should be stated in the report). If non-compliance issues were found the report must also address: a) actions taken by the environmental authority holder to ensure compliance with this environmental authority; and b) actions taken to prevent a recurrence of any identified non-compliance.
A21	Where a condition of this environmental authority requires compliance with a standard, policy or guideline and the standard is amended or changed subsequent to the issue of this environmental authority, the environmental authority holder: a) comply with the amended or changed standard, policy or guideline within two (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 referred to in Conditions I1 to I31 inclusive, the time specified in that condition; 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.

Agency interest: Air	
Condition number	Condition
B1	The release of dust or particulate matter or both resulting from the authorised activities must not cause an environmental nuisance, at any sensitive receptor or commercial place.

B2	When requested by the administering authority or as a result of a complaint, dust and particulate monitoring must be undertaken, and the results thereof notified to the administering authority within fourteen (14) days following completion of the monitoring period. Dust and particulate matter emissions generated by the authorised activities must not exceed the following levels when measured at any sensitive receptor 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 <i>Methods for sampling and analysis of ambient air—Determination of particulate matter—Deposited matter – Gravimetric method</i>. 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, monitored in accordance with the most recent version of either: i. <i>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</i>; or ii. <i>Australian Standard AS3580.9.9 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter— PM₁₀ low volume sampler— Gravimetric method</i>; or iii. <i>Australian Standard AS3580.9.11 Methods for sampling and analysis of ambient air—Determination of suspended particulate matter— PM₁₀ beta attenuation monitors</i>. c) A concentration of particulate matter with an aerodynamic diameter of less than 2.5 micrometres (PM_{2.5}) suspended in the atmosphere of 25 micrograms per cubic metre over a 24-hour averaging time, when monitored in accordance with the most recent version of AS/NZS3580.9.10 <i>Methods for sampling and analysis of ambient air—Determination of suspended particulate matter—PM (sub)2.5(/sub) low volume sampler—Gravimetric method</i>. d) A concentration of particulate matter suspended in the atmosphere of 90 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of AS/NZS3580.9.3:2003 <i>Methods for sampling and analysis of ambient air-Determination of suspended particulate matter - Total suspended particulate matter (TSP) - High volume sampler gravimetric method</i>. Where possible the sampling frequency will be 1 day in 3 as required, or two days per week based on 6 days of operation per week.
B3	If the monitoring indicates an exceedance of the relevant limits in Condition B2, then the environmental authority holder must investigate whether the exceedance is due to emissions from the activity. If the authorised activities are found to be the cause of the exceedance then the environmental authority holder must immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.
B4	If during the monitoring period nominated as per Condition B2, there is an exceedance of the relevant limits listed in Condition B2, the environmental authority holder must notify the administering authority within seven (7) days of the exceedance occurring. The notification must also include the actions taken in accordance with Condition B3.

B5	Dust management plan Prior to the commencement of mining activity for the project, the environmental authority holder must develop and implement an Ambient Dust Monitoring Program, to specify how the ambient dust impacts of the project will be monitored. The Program shall include, but not necessarily be limited to: a) procedures for monitoring dust emissions from the project, in accordance with the requirements of this approval; b) locations, frequencies and methods for monitoring PM₁₀, PM_{2.5}, TSP and deposited particulate matter (dust deposition); c) the environmental authority holder shall utilise real-time monitoring data to inform environmental management decisions associated with the project; and d) a framework for identifying actual and potential dust impacts, and for applying pro-active and reactive mitigation and management measures to address those impacts.
B6	The dust management plan required by Condition B5 must also include: a) a preventative management system for PM₁₀, PM_{2.5} and TSP; b) real time monitoring program for PM₁₀ and PM_{2.5} between the bulk sample on MDL 137 and the Township of Moranbah; c) Trigger Action Response Program; and d) procedures for updating the website to enable public access to the monitoring results.
B7	An annual report on the dust management plan required by Condition B6 must be developed by a suitability qualified person and submitted to the administering authority with each annual return. The report must include: a) a review of the suitability of the preventative dust management system and the trigger action response program; b) recommendations or improvements to the dust management plan, including whether additional monitoring locations are required; and c) the results of the real time monitoring program and the actions taken to reduce potential impacts on sensitive place and commercial places from the authorised mining activities.

Agency interest: Water	
Condition number	Condition
C1	Contaminant release Contaminants must not be released directly or indirectly to any waters as a result of the authorised activities.

C2	The release of mine affected water to internal water management infrastructure that is installed and operated in accordance with a water management plan that complies with Condition C10 and Condition C11 is permitted.
C3	Receiving environment monitoring and contaminant trigger levels The quality of the receiving waters must be monitored at the locations specified in Table 1: Receiving Water Upstream Background Sites and Down Stream Monitoring Points for each quality characteristic and at the monitoring frequency stated in Table 2: Receiving Waters Contaminant Trigger Levels .

Table 1: Receiving Water Upstream Background Sites and Down Stream Monitoring Points

Monitoring Points	Receiving Waters Location Description	Easting (GDA94 – Zone 55)	Northing (GDA94 – Zone 55)
Upstream Background Monitoring Points			
Monitoring Point 1	IR 1	616,631	7,561,243
Downstream Monitoring Points			
Monitoring Point 2	IR 2	620,581	7,562,203

Note: The data from background monitoring points must not be used where they are affected by releases from other mines.

Table 2: Receiving Waters Contaminant Trigger Levels

Quality Characteristic	Trigger Level	Monitoring Frequency
pH	6.5 – 8.5	Commencement of release and thereafter weekly during the release
Electrical Conductivity ($\mu\text{S}/\text{cm}$)	1000	
Total Suspended Solids (mg/L)	1901 ^B	
Sulphate (SO_4^{2-}) (mg/L)*	47.2 ^B	

Notes:

A - Lower Isaac River Water Quality Objectives.

B – Average of 80 percentile Goonyella and Deverill gauges.

C4	If quality characteristics of the receiving water at the downstream Monitoring Point 2 (IR2 – Isaac River) exceed any of the trigger levels specified in Table 2: Receiving Waters Contaminant Trigger Levels during a release event the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and: a) where the downstream result is the same or a lower value than the upstream value for the quality characteristic then no action is to be taken; or b) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority in the next annual return, outlining: i. details of the investigations carried out; and ii. actions taken to prevent environmental harm. <i>Note: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with Condition C4 b) ii, no further reporting is required for subsequent trigger events for that quality characteristic.</i>
C5	If an exceedance in accordance with Condition C4(b) is identified, the holder of the authority must notify the administering authority via WaTERS within fourteen (14) days of receiving the result.
C6	Mine affected water is not authorised for release to waters directly, however 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 voids, dams or tanks, for the purpose of supplying water to, or transferred from, an adjoining mine. The volume, pH, and electrical conductivity of water transferred to an adjoining mine must be monitored and recorded.
C7	If the responsibility for mine affected water is given or transferred to another person in accordance with Conditions C6: a) the responsibility for the mine affected water must only be given or transferred in accordance with a written agreement (the third party agreement); and b) the third party agreement must include a commitment from the person utilising the mine affected water to use it in such a way as to prevent environmental harm or public health incidents and specifically make the persons aware of the General Environmental Duty (GED) under section 319 of the <i>Environmental Protection Act 1994</i>, environmental sustainability of the water disposal and protection of environmental values of waters; and c) the third party agreement must be signed by both parties to the agreement.
C8	Releases to waters must be undertaken so as not to cause erosion of the bed and banks of the receiving waters, or cause a material build-up of sediment in such waters.
C9	Activities within watercourses Destroying native vegetation, excavating, or placing fill in a watercourse, lake or spring necessary for and associated with activities must be undertaken in accordance with

	Department of Natural Resources, Mines and Energy Riverine Protection Permit Exemption Requirements (DNRME, 2018), or in accordance with an approved Permit.
C10	Water management plan A water management plan must be developed and implemented by a suitability qualified person.
C11	The water management plan required by Condition C10 must: a) provide for effective management of actual and potential environmental impacts resulting from water management associated with the activity carried out under this environmental authority; and b) be developed in accordance with the Departments most recent guideline '<i>Preparation of water management plans for mining activities</i>' and include: i. a study of the source of contaminants; ii. a water balance model for the site; iii. a water management system for the site; iv. measures to manage and prevent saline drainage; v. measures to manage and prevent acid rock drainage; vi. contingency procedures for emergencies; and vii. a program for monitoring and review of the effectiveness of the water management plan.
C12	Stormwater and water sediment controls An Erosion and Sediment Control Plan must be developed by a suitability qualified person and implemented for the authorised activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.
C13	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 C12 and b) water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with Condition C10 and Condition C11, for the purpose of ensuring water does not become mine affected water.
C14	Service, maintenance and storage areas The maintenance and cleaning of any vehicles, plant or equipment must not be carried out in areas from which contaminants can be released into any receiving waters.
C15	Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable to minimise the release of wastes, contaminants or materials to any stormwater drainage system or receiving waters.

Agency interest: Groundwater	
Condition Number	Condition
D1	Groundwater Mining activities must not adversely impact the groundwater receiving environment unless otherwise authorised under this environmental authority. The environmental authority holder must not release contaminants to groundwater.
D2	Groundwater must be monitored quarterly at all monitoring points specified in Table 3– Groundwater monitoring location and type .
D3	The environmental authority holder must notify the administering authority within twenty-four (24) hours via WaTERS of receiving any monitoring result that shows an exceedance of any limit for any quality characteristic at any bore specified in Table 4 – Groundwater quality limits. For Condition D3 an exceedance is when a limit for any quality characteristic specified in Table 4 – Groundwater quality limits is exceeded on any three (3) consecutive quarterly sampling occasions.
D4	Groundwater drawdown fluctuations of greater than that specified at any bore in Table 5 – Groundwater trigger threshold values , when measured against lowest standing water level data recorded prior to overburden removal, not resulting from the pumping of licensed bores, must be notified to the administering authority via WaTERS within twenty eight (28) days following detection of drawdown.
D5	Within fourteen (14) days of the notification given under Conditions D3 and D4, the environmental authority holder must commence an investigation to determine if the exceedance is a result of: a) the mining activities; b) seasonal / natural variation; c) neighbouring land use resulting in groundwater impacts; d) any other potential cause of exceedance.
D6	The investigation required by Condition D5 must be completed and submitted to the administering authority via WaTERS within three (3) months of notification under Condition D3 or D4 .
D7	If the investigation under Condition D5 determines that the exceedance was a result of the mining activities, in accordance with Condition D5(a) or a combination that includes Condition D5(a) then a further investigation must be undertaken by the environmental authority holder to establish whether environmental harm has occurred, and the extent thereof.
D8	Within one (1) month of the investigation under Condition D7, and if it is established that environmental harm has occurred, the environmental authority holder must have: a) implemented short-term measures to mitigate the potential for environmental harm;

	b) developed long-term mitigation measures to address any existing groundwater contamination; and c) if environmental harm has occurred as a result of groundwater drawdown exceedances, the environmental authority holder must: i. determine any actions required to reduce the potential for environmental harm; and ii. determine any mitigation measures required to limit the drawdown in the affected groundwater resource.
D9	Groundwater management and monitoring program A groundwater management and monitoring program for all stages of the authorised activities on site must be developed, certified and implemented by a suitability qualified person prior to commencement of the overburden removal, and: a) have all determinations of groundwater quality monitoring and groundwater biological monitoring be performed by a suitability qualified person; and b) be able to detect a change in groundwater quality values and levels due to activities that are part of the authorised activities.
D10	The groundwater management and monitoring program required by Condition D9 and the data collected must be reviewed by a suitability qualified person. The review must: a) include the assessment of groundwater levels and quality data; b) ensures all potential groundwater impacts due to mining are identified, monitored and mitigated; c) ensures groundwater monitoring and data analysis is undertaken to: d) detect any impacts to groundwater levels due to mining; e) detect any impacts to groundwater quality due to mining; f) determine compliance with Condition D1; g) determine trends in groundwater quality; h) provides an appropriate quality assurance and quality control program; i) documents groundwater management and monitoring methodologies undertaken for the duration of all mining activities and rehabilitation activities; and j) includes a review process to identify improvements to the program that includes addressing any comments provided by the administering authority.
D11	The Groundwater Management and Monitoring Program required by Condition D10 must be reviewed at least every two (2) years by a suitability qualified person to determine if it continues to meet the requirements stated in Condition D10.
D12	The following information must be recorded in relation to all groundwater water sampling: 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; and d) the results of all monitoring.

Table 3: Groundwater monitoring locations and type.

Monitoring Point	Aquifer Type	Location		Top of casing (mAHD)	Screening interval (mbgl)	Type
		Easting (GDA94 – Zone 55)	Northing (GDA94 – Zone 55)			
MBID01	Alluvium	620647	7562168	203.23	11 - 17	Quarterly Water quality and levels
MBID03	Alluvium	622012	7559510	201.95	14 - 20	Quarterly Water quality and levels
MBID04	Rangal Coal Measures - Leichhardt Coal Seam	622008	7559518	202.02	56 - 62	Quarterly Water quality and levels
MBID10	Rangal Coal Measures - Leichhardt Coal Seam	621864	7559831	201.80	37 - 43	Quarterly Water quality and levels
MBID11	Alluvium	621767	7560251	201.98	11 - 17	Quarterly Water quality and levels
MBID12	Alluvium	621652	7560451	202.46	13 - 16	Quarterly Water Quality and levels
MBID13	Rangal Coal Measures - Leichhardt Coal Seam	621987	7561376	204.22	42 - 48	Quarterly Water quality and levels
MBID15	Rangal Coal Measures - Leichhardt Coal Seam	622393	7559909	202.74	95 - 101	Quarterly Water quality and levels
MBID16	Alluvium	621731	7560790	202.73	18.7 – 24.7	Quarterly Water quality and levels
MBID17	Alluvium	619792	7562475	201.33	9 - 15	Quarterly Water quality and levels
MBID18	Rangal Coal Measures - Leichhardt Coal Seam	623332	7561700	222.17	54 - 66	Quarterly Water quality and levels

*RL must be measured to the nearest 5cm from the top of the bore casing.

Table 4: Groundwater Quality Limits

Location	Quality Characteristic	pH	Electrical Conductivity	Sulfate	Iron	Arsenic	Aluminium	Molybdenum	Selenium	*TRH C6-C9	*TRH C10-C36	Major ions
	Trigger level type	Range	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Interpretation Only
	Unit	pH units	(µS/cm)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(µg/L)	(µg/L)	N/A
MBID01		6.5 – 8.5 ^A	6,026 ^B	46 ^D	0.7 ^C	0.013 ^C	0.055 ^C	0.034 ^C	0.01 ^C	≤20	≤100	Bicarbonate, sodium, carbonate, calcium, chloride, potassium, magnesium.
MBID03			10,387 ^B	173 ^B	2.0 ^B							
MBID11			18,590 ^B	459 ^B	0.7 ^C							
MBID12			6,852 ^B	202.5 ^B	0.7 ^C							
MBID17			7,902 ^B	162 ^B	0.7 ^C							
MBID04			23,995 ^B	76 ^B	0.7 ^C							
MBID10			16,830 ^B	383 ^B	1.5 ^B							
MBID13			15,680 ^B	529 ^B	1.3 ^B							
MBID15			25,800 ^B	2.3 ^B	1.9 ^B							

Notes:

All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Limits for metal/metalloids apply if dissolved results exceed value.

* Total Recoverable Hydrocarbons (TRH)

A – Lower Isaac River Water Quality Objectives

B – Site specific 95%ile

C – Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018)

D – Other limit calculation

Table 5: Groundwater trigger threshold values.

Monitoring location	Trigger level threshold (m)
Isaac River Alluvium	
MBID01	2
MBID12	2
MBID16	3
Permian Coal Seam	
MBID10	5
MBID13	20
MBID15	5
MBID18	17

D14	Bore construction and maintenance and decommissioning The construction, maintenance and management of groundwater bores (including 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.
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Agency interest: Noise and Vibration	
Condition number	Condition
E1	Noise, vibration and airblast overpressure resulting from the authorised activities must not cause a nuisance, at any sensitive receptor or commercial place.
E2	Noise monitoring When requested by the administering authority, or as a result of a complaint, noise monitoring must be undertaken and the results thereof notified to the administering authority within fourteen (14) days following completion of the monitoring period. Noise from the authorised activities must not exceed the limits specified in Table 6: Noise limits at any sensitive receptor or commercial place.

E3	Monitoring required by Condition E2 must include: a) L_{Aeq} 10, adj, 15 mins; b) L_{A1}, adj, 15 mins; c) the level and frequency of occurrence of impulsive or tonal noise; d) atmospheric conditions including wind speed and direction; e) effects due to extraneous factors such as traffic noise; and f) location date and time of recording.
E4	If the monitoring indicates an exceedance of the relevant limits in Table 6: Noise limits , then the environmental authority holder must investigate whether the exceedance is due to the authorised activity. If the authorised activities are found to be the cause of the exceedance then the environmental authority holder must immediately implement noise abatement measures so that noise from the activity does not result in further environmental nuisance.
E5	If during monitoring as required by Condition E2 , there is an exceedance of the relevant limits listed in Table 6: Noise limits , the environmental authority holder must notify the administering authority within seven (7) days of the exceedance occurring. The notification must also include the actions taken in accordance with Condition E4 .

Table 6: Noise limits

Noise level dB(A)	Monday to Sunday (including public holidays)		
	7am - 6pm	6pm - 10pm	10pm - 7am
	Noise measured at a 'Sensitive Receptor'		
$L_{Aeq,adj,15min}$	B/g + 5	B/g + 5	B/g + 5
L_{A1} , adj, 15 mins	B/g + 10	B/g + 10	B/g + 10
	Noise measured at a 'Commercial place'		
$L_{Aeq,adj,15min}$	B/g + 10	B/g + 10	B/g + 5
L_{A1} , adj, 10 mins	B/g + 15	B/g + 15	B/g + 10

E6	The method of measurement and reporting of noise monitoring must comply with the current edition of the administering authority's <i>Noise Measurement Manual</i> .
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E7	Vibration nuisance When requested by the administering authority, or as a result of a complaint, vibration monitoring must be undertaken, and the results thereof notified to the administering authority within fourteen (14) days following completion of the monitoring period. Vibration from the authorised activities must not exceed the limits specified in Table 7: Vibration Limits, at any sensitive receptor or commercial place.
E8	Monitoring required by Condition E7 must include: a) peak particle velocity (mm/s); b) air blast overpressure level (dB linear peak); c) location of the blast/s within the activity area (including which bench level); d) atmospheric conditions including temperature, relative humidity and wind speed and direction; and e) location, date and time of recording.

Table 7: Vibration limits

Vibration Parameter	Vibration measured at a sensitive receptor or commercial place	
	Monday to Sunday 9am - 7pm	Other times and public holidays
Peak particle velocity (mm/s)	Maximum 5 mm/s for 9 out of 10 consecutive blasts	No blasting to occur
Peak particle velocity (mm/s)	10 mm/s maximum	No blasting to occur

E9	If the monitoring indicates an exceedance of the relevant limits in Table 7: Vibration Limits then the environmental authority holder must investigate whether the exceedance is due to the authorised activity. If the authorised activities are found to be the cause of the exceedance then the environmental authority holder must immediately implement abatement measures so that vibration from the activity does not result in further environmental nuisance.
E10	If during monitoring as required by Condition E7 , there is an exceedance of the relevant limits listed in Table 7: Vibration limits , the environmental authority holder must notify the administering authority within seven (7) days of the exceedance occurring. The notification must also include the actions taken in accordance with Condition E9 .
E11	Every explosive blast for the activity shall be designed by a competent person with the intention to achieve the criteria specified in Table 7: Vibration limits and Table 8: Airblast overpressure level .

E12	All relevant information pertaining to the design of every explosive blast for the activity in relation to the criteria specified in Table 7: Vibration limits and Table 8: Airblast overpressure level shall be kept in written and diagrammatic form.
E13	Airblast overpressure nuisance When requested by the administering authority, or as a result of a complaint, airblast overpressure monitoring must be undertaken and the results thereof notified to the administering authority within fourteen (14) days following completion of the monitoring period. The airblast overpressure level from blasting operations must not exceed the limits defined in Table 8: Airblast overpressure level at any sensitive receptor or commercial place.

Table 8: Airblast overpressure level

Parameter	Airblast overpressure measured at a sensitive receptor or commercial place	
	Monday to Sunday 9am - 7pm	Other times and public holidays
Air blast overpressure level (dB [Lin] Peak)	Maximum 115 dB for 9 out of 10 consecutive blasts	No blasting to occur
Air blast overpressure level (dB [Lin] Peak)	120 dB maximum	No blasting to occur

E14	Airblast overpressure monitoring required by Condition E13 must include the following descriptors, characteristics and conditions: a) location of the blast(s) within the activity area (including which bench level); b) atmospheric conditions including temperature, relative humidity and wind speed and direction; and c) location, date and time of recording.
E15	If the monitoring indicates an exceedance of the relevant limits in Table 8: Airblast overpressure level then the environmental authority holder must investigate whether the exceedance is due to the authorised activity. If the authorised activities are found to be the cause of the exceedance then the environmental authority holder must immediately implement airblast overpressure abatement measures so that vibration from the activity does not result in further environmental nuisance.
E16	If during monitoring as required by Condition E13 , there is an exceedance of the relevant limits listed in Table 8: Airblast overpressure level , the environmental authority holder must notify the administering authority within seven (7) days of the exceedance occurring. The notification must also include the actions taken in accordance with Condition E15 .
E17	The method of measurement and reporting of airblast overpressure levels must comply with the current edition of the administering authority's <i>Noise Measurement Manual</i> .

Agency interest: Waste	
Condition number	Condition
F1	Waste management Unless otherwise permitted by a condition 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.
F2	Storage and disposal of tyres Scrap tyres stored awaiting disposal or transport for take-back and recycling, or waste-to-energy options must be stored in stable stacks and at least ten (10) metres from any other scrap tyre storage area, or combustible or flammable material, including vegetation.
F3	Where no feasible recycling or waste-to-energy options are available, disposing of scrap tyres resulting from the authorised mining activities in spoil emplacements is acceptable, provided tyres are placed as deep in the spoil as possible but not directly on the pit floor. A record must be kept of the number and location for tyres disposed.
F4	Scrap tyres resulting from the authorised mining activities disposed within the operational land must not impede saturated aquifers or compromise the stability of the consolidated landform.
F5	Waste disposal Waste, other than any spoil, scrap types or overburden removed as part of the authorised activity or permitted by another condition of the environmental authority, must not be disposed of within any void created by this activity.

Agency interest: Land	
Condition number	Condition
G1	Preventing contaminant release to land Contaminants must not be released to land unless otherwise authorised by a condition of this environmental authority.
G2	Topsoil Topsoil must be strategically stripped ahead of mining in accordance with a topsoil management plan.
G3	A topsoil inventory which identifies the topsoil requirements for the authorised activities and availability of suitable topsoil on site must be maintained.

G4	Mine waste A Mining Waste Management Plan for overburden must be developed and implemented by an appropriately qualified person for every stage of the activities. The Mining Waste Management Plan must at a minimum include: a) risk based characterisation programs to ensure that all mining waste is progressively characterised during disposal for net acid producing potential, salinity and the following contaminants: pH, Electrical Conductivity (EC), Acid Neutralising Capacity (ANC), Net Acid Generation (NAG) (reporting NAG capacity and NAG pH after oxidation), Total Sulphur (S), Chromium Reducible Sulphur (Scr), Boron (B) Cadmium (Cd), Iron (Fe), Aluminium (Al), Copper (Cu), Magnesium (Mg), Manganese (Mn), Calcium (Ca), Sodium (Na), Zinc (Zn) and Sulphate (SO₄); b) individual parameters in a) above can be removed following sufficient mine waste characterisation to demonstrate that certain individual parameters are not present in sufficient quantities to warrant further characterisation; c) characterisation programs to ensure that the physical properties of the mining waste is progressively characterised during disposal; d) the availability or leachability of metals from the mining waste; e) quantification of PAF from mining waste present; f) review impacts of the PAF mining waste on the rehabilitation; g) management actions for mining waste that has been identified as having a high availability or leachability of metals; h) management actions for mining waste that has been defined as PAF; i) identification of environmental impacts and potential environmental impacts; j) control measures for routine operations to minimise likelihood of environmental harm; k) contingency plans and emergency procedures for non-routine situations; l) periodic review of environmental performance and continual improvement.
G5	Rehabilitation Conditions G6 to G13 do not apply if mining lease application (MLA) 700046, MLA 700047 and MLA 700048 overlying MDL 137 are granted within 5 years of the completion of extraction of coal from the bulk sample pit. NOTE: MLA 700046, MLA 700047 and MLA 700048 relate to the Isaac Downs Project which, if approved, will have requirements for rehabilitation over the area that is the subject of this environmental authority (MDL 137).
G6	The environmental authority holder of the environmental authority must commence the rehabilitation processes on all areas disturbed by activities, apart from those areas currently being utilised, as soon as practicable and at least within six months [of the 5 year timeframe in Condition G5].

	NOTE: Where practicable undertake progressive rehabilitation of disturbed areas.
G7	The environmental authority holder of the environmental authority must rehabilitate areas disturbed by activities to a stable landform similar to that of surrounding undisturbed areas and to a similar pre-activity land use. NOTE: When rehabilitating disturbed areas refer to the “Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland”, Part D, ‘Geo-technical Slope Stability’ 1995.
G8	The environmental authority holder must spread seeds or plant species that will promote vegetation of a similar species and density of cover to that of the surrounding undisturbed areas and to a similar pre-activity land use, or vegetation that is appropriate for providing erosion control and stabilisation of the disturbed areas. NOTE: • revegetate disturbed areas the following measures or similar measures can be used: - for areas which have become compacted during the project, break up the soil surface to a depth that is suitable for establishing vegetation; - spread stockpiled topsoil over disturbed areas to a depth that is suitable as a rooting medium for the revegetation process; and - provide suitable nutrient conditions for planting by using fertiliser if necessary; • vegetation used to provide erosion protection and stabilise disturbed areas in the short term should be comprised of sterile, short-lived species (e.g. a cover crop). However, the long term aim of revegetating any disturbed area is to establish a stable vegetation community that is similar to that of the surrounding undisturbed areas and with a similar pre-activity land use. • the environmental authority holder is not liable for rehabilitating disturbed areas that existed prior to the grant of the tenure unless those areas are disturbed during the term of the tenure.
G9	For any infrastructure to remain after all activities have ceased, the environmental authority holder must obtain the written agreement of the landowner stating they will take over responsibility for that infrastructure.
G10	The environmental authority holder must complete rehabilitation of disturbed areas to the satisfaction of the administering authority. NOTE: Condition G10 is a requirement of the <i>Environmental Protection Act 1994</i>. The environmental authority holder must submit a Final Rehabilitation Report (FRR) and a compliance statement prior to the cancellation or expiry of the mining tenement. The surrender of the environmental authority will not be granted until the administering authority has accepted the FRR and the compliance statement.
G11	Chemical Storage Chemicals and fuels stored, must be effectively contained and where relevant, meet Australian Standards, where such a standard is applicable.
G12	Contaminated Land

	The environmental authority holder must minimise the potential for contamination of land by hazardous contaminants.
G13	Vegetation management Cleared remnant vegetation from the site must be managed in accordance with the following hierarchy: a) recycle, e.g. mulching of vegetation and use in rehabilitation on the site; and b) other alternative management options implemented in a way that causes the least amount of environmental harm.
G14	Nature Conservation The environmental authority holder of the environmental authority must prevent the spread of Declared Plants.
G15	Groundwater Dependent Ecosystems No impacts to Groundwater dependent ecosystems above background seasonal fluctuations in riparian health are authorised.
G16	Prescribed Environmental Matters Significant residual impacts to prescribed environmental matters are not authorised under this environmental authority or the <i>Environmental Offsets Act 2014</i> .

Agency interest: Exploration	
Condition number	Condition
H1	Exploration Conditions H2 to H11 apply only to exploration activities carried out on MDL137.
H2	For exploration activities the environmental authority holder must comply with each of the standard environmental conditions contained in the Eligibility criteria and standard conditions for exploration and mineral development projects – Version 2, except Condition A2 and Condition A13, which are replaced by Conditions H4 to H11 in this environmental authority.
H3	If there is any inconsistency between a standard environmental condition and an additional condition in this environmental authority, the additional condition prevails to the extent of any inconsistency.
H4	Exploration within 500m of Category B Environmentally Sensitive Area This environmental authority authorises exploration activities within the 500m buffer zone of any Category B Environmentally Sensitive Area on MDL137. Exploration activities are not permitted within any Category B Environmentally Sensitive Area.

H5	Land Disturbance within 500m of Category B Environmentally Sensitive Area The operational area of drill sites must not exceed 1,200m ² .
H6	Drill holes are limited to no more than 200mm in diameter.
H7	The construction of sumps must not exceed 25m ² , with a maximum of three sumps per drill site.
H8	Topsoil stripping must be limited to the sump area.
H9	Exploration camps are not permitted to be established within the 500m buffer of any Category B Environmentally Sensitive Area.
H10	All new tracks are to be recorded with GPS co-ordinates and records kept of their location and made available to the administering authority on request.
H11	Exploration Reporting An annual exploration report must be prepared each year and submitted with the annual return. The report must include a map identifying all exploration activities undertaken to date. The map is to clearly distinguish between proposed, completed and rehabilitated exploration activities to demonstrate compliance with this environmental authority.

Agency interest: Regulated Structures	
Condition number	Condition
I1	The consequence category of any structure must be assessed by a suitably qualified and experienced person in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> or its successor 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 the nature of its stored contents.
I2	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.
I3	Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> or its successor.
I4	All regulated structures must be designed by, and constructed ² under the supervision of, a suitably qualified and experienced person in accordance with the requirements of the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> or its successor.

	NOTE: ¹ construction of a dam includes modification of an existing dam – refer to the definitions. ² certification of design and construction may be undertaken by different persons
I5	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 design, design plan, and the associated operating procedures has been certified by a suitably qualified and experienced person in compliance with the relevant condition of this authority.
I6	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 <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> or its successor, and must be recorded in the Register of Regulated Structures.
I7	Regulated Structures must: a) be designed and constructed in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of structures (ESR/2016/1933)</i> or its successor; 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 ii. wall failure due to erosion by floodwaters arising from any watercourse or drainage line.
I8	Certification by a 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.
I9	Notification of affected persons All affected persons must be provided with a copy of the emergency action plan in place for each regulated structure: a) prior to the operation of the new regulated structure; and b) if the emergency action plan is amended, within five (5) business days of it being amended.

I10	Operation of a regulated structure Operation of a regulated structure is prohibited unless the holder has submitted to the administering authority in respect of regulated structure, all of the following: i. one paper copy and one electronic copy of the design plan and certification of the design plan in accordance with Condition H5, and ii. a set of 'as constructed' drawings and specifications, and iii. certification of the '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 purposes of sharing the DSA volume across the system, a copy of the certified system design plan; v. the requirements of this authority relating to the construction of the regulated structure have been met; and vi. the holder has entered the details required under this authority, into a Register of Regulated Structures; and vii. there is a current operational plan for the regulated structures.
I11	Each regulated structure must be maintained and operated, for the duration of its operational life until decommissioned and rehabilitate, in a manner that is consistent with the current design plan and, if applicable, and the associated certified 'as constructed' drawings.
I12	Mandatory Reporting Level Conditions I13 to I16 inclusive only apply to Regulated Structures which have not been certified as a low consequence dam category for 'failure to contain – overtopping'.
I13	The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of that dam, it is clearly observable.
I14	The holder must, as soon as practical and within forty-eight (48) hours of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.
I15	The holder must immediately on becoming aware that the MRL has been reached, act to prevent occurrence of any unauthorised discharge from the regulated dam.
I16	The holder must record any changes to the MRL in the Register of Regulated Structures.
I17	Design Storage Allowance The holder must assess the performance of each regulated dam 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 each year.

I18	By 1 November of each year, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume), to meet the Design Storage Allowance (DSA) volume for the dam (or network of linked containment systems).
I19	The environmental authority holder must, as soon as practicable but within forty-eight (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.
I20	The environmental authority holder must, immediately on becoming aware that a 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, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment system.
I21	Annual Inspection Report Each regulated structure must be inspected each calendar year by a suitably qualified and experienced person.
I22	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 a recommendations section, with any recommended actions to ensure the integrity of the regulated structure or a positive statement that no recommendations are required.
I23	The suitably qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> or its successor.
I24	The environmental authority holder must within twenty (20) business days of receipt of the annual inspection report, provide the administering authority: a) the recommendations section of the inspection report; and b) if applicable, any actions being taken in response to those recommendation; and c) if, following receipt of the recommendations and (if applicable) action, the administering authority requests a full copy of the annual inspection report from the environmental authority holder, provide this to the administering authority within ten (10) business days of receipt of the request.
I25	Transfer Arrangements The environmental authority 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 environmental authority holder on transfer of this authority.
I26	Register of Regulated Structures

	A Register of Regulated Structures must be established and maintained by the environmental authority holder for each regulated structure.
I27	The environmental authority holder must provisionally enter the required information in the Register of Regulated Structures when a design plan for a regulated dam is submitted to the administering authority.
I28	The environmental authority holder must make a final entry of the required information in the Register of Regulated Structures once compliance with Condition I10 has been achieved.
I29	The holder must ensure that the information contained in the Register of Regulated Structures is current and complete on any given day.
I30	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.
I31	The environmental authority 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.

END OF CONDITIONS

Definitions

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.

acceptance criteria means the measures by which the actions implemented to rehabilitate the land are deemed to be complete. The acceptance criteria indicate the success of the rehabilitation outcome or remediation of areas which have been significantly been disturbed by the mining activities. Acceptance criteria may include information regarding:

- a) vegetation establishment, survival and succession;
- b) vegetation productivity, sustained growth and structure development;
- c) fauna colonisation and habitat development;
- d) ecosystem processes such as soil development and nutrient cycling, and the recolonisation of specific fauna groups such as collembola, mites and termites which are involved in these processes;
- e) microbiological studies including recolonisation by mycorrhizal fungi, microbial biomass and respiration;
- f) effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development;
- g) resilience of vegetation to disease, insect attack, drought and fire; and
- h) vegetation water use and effects on ground water levels and catchment yields.

acid rock drainage means any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture as a result of mining activity.

administering authority is the agency or department that administers the environmental authority provisions under the Environmental Protection Act 1994.

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).

ambient (or total) noise at a place, means the level of noise at the place from all sources (near and far), measured as the Leq for an appropriate time interval.

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.

ANZECC means the *Australian and New Zealand Guidelines for Fresh Marine Water Quality 2000*.

ANZG means the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2018*.

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.

assess or 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 at any time:

- a) exactly what has been assessed and the precise nature of that assessment;
- b) the relevant legislative, regulatory and technical criteria on which the assessment has been based;
- c) 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
- d) 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.

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.

certify or certification or certified or certifying means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by this

environmental 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 consequenceous 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, nematocide, 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.

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.

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 (ESR/2016/1933)*.

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.

contaminate means to render impure by contact or mixture.

contaminated means the substance has come into contact with a contaminant.

contaminant A contaminant can be –

- a) a gas, liquid or solid; or
- b) an odour; or

- c) an organism (whether alive or dead), including a virus; or
- d) energy, including noise, heat, radioactivity and electromagnetic radiation; or
- e) a combination of contaminants.

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 the documentation required to describe the physical dimensions of the dam, the materials and standards to be used for construction of the dam, and the criteria to be used for operating the dam. The documents must include design and investigation reports, specifications and certifications, together with the planned decommissioning and rehabilitation works and outcomes. A design plan may include 'as constructed' drawings.

design storage allowance or "**DSA**" means the minimum storage required in a dam at the first of November each year in order to meet the hydraulic performance requirements.

dwelling means any of the following structures or vehicles that is principally used as a residence –

- a) a house, unit, motel, nursing home or other building or part of a building; or
- b) a caravan, mobile home or other vehicle or structure on land; or
- c) a water craft in a marina.

document has the same meaning in the *Acts Interpretation Act 1954*.

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.

environmental harm has the meaning in section 14 of the *Environmental Protection Act 1994*.

environmental nuisance has the meaning in section 15 of the *Environmental Protection Act 1994*.

environmental offset has the meaning in section 7 of the *Environmental Offsets Act 2014*.

environmentally relevant activity means an environmentally relevant activity as defined under Section 18 of the *Environmental Protection Act 1994* and listed under Schedule 3 of the *Environmental Protection Regulation 2019*.

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

exploration activities means activities including but not limited to drilling, drill pads, sumps on drill pads, access tracks, seismic, small test pits.

floodwater means water overflowing, or that has overflowed, from waters, river, creek, stream, lake, pond, wetland or dam onto or over riparian land that is not submerged when the watercourse or lake flows between or is contained within its bed and banks.

GDA94 means the Geocentric Datum of Australia 1994.

general waste means waste other than regulated waste.

groundwater dependent ecosystem means ecosystems which require access to groundwater on a permanent or intermittent basis to meet all or some of their water requirements so as to maintain their communities of plants and animals, ecological processes and ecosystem services

groundwater receiving environment means any part of the regional groundwater, including any part of the alluvium aquifer, exclusive of groundwater contained within the residual voids.

hazardous contaminates or material means any substance, whether liquid, solid or gaseous, derived by or resulting from, the processing of minerals that may endanger health, or impair or destroy life.

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

infrastructure means water storage dams, levees, roads and tracks, buildings and other structures built for the purpose and duration of the mining activity.

L_{A 10, adj, 10 mins} means the A-weighted sound pressure level, (*adjusted for tonal character and impulsiveness of the sound*) exceeded for 10% of any 10-minute measurement period, using Fast response.

L_{A 1, adj, 10 mins} means the A-weighted sound pressure level, (*adjusted for tonal character and impulsiveness of the sound*) exceeded for 1% of any 10-minute measurement period, using Fast response

L_{A, max adj, T} means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

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

land suitability as defined in the *DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland*.

land use term to describe the selected post mining use of the land, which is planned to occur after the cessation of mining operations.

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 (ESR/2016/1933)*.

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 (ESR/2016/1933)* published by the administering authority.

manual means the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)* published by the administering authority.

mine affected water (MAW) means the following types of 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. 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 both.

mineral means a substance which normally occurs naturally as part of the earth's crust or is dissolved or suspended in water within or upon the earth's crust and includes a substance which may be extracted from such a substance, and includes—

- a) clay if mined for use for its ceramic properties, kaolin and bentonite;
- b) foundry sand;
- c) hydrocarbons and other substances or matter occurring in association with shale or coal and necessarily mined, extracted, produced or released by or in connection with mining for shale or coal or for the purpose of enhancing the safety of current or future mining operations for coal or the extraction or production of mineral oil there from;
- d) limestone if mined for use for its chemical properties;
- e) marble;
- f) mineral oil or gas extracted or produced from shale or coal by in situ processes;
- g) peat;

- h) salt including brine;
- i) shale from which mineral oil may be extracted or produced;
- j) silica, including silica sand, if mined for use for its chemical properties;
- k) rock mined in block or slab form for building or monumental purposes;
- l) But does not include—
- m) living matter;
- n) petroleum within the meaning of the Petroleum Act 1923;
- o) soil, sand, gravel or rock (other than rock mined in block or slab form for building or monumental purposes) to be used or to be supplied for use as such, whether intact or in broken form;
- p) water.

Mining activities:

- a) Means the activities:
 - 1. authorised as per the definition in section 110 of the Environmental Protection Act 1994; and
 - 2. all environmentally relevant activities authorised under this environmental authority.
- b) to avoid doubt, includes care and maintenance and rehabilitation.

modification or modifying (see definition of 'construction')

operational land means the land associated with the project for which this environmental authority has been issued.

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.

Overburden means rock or soil, other than the topsoil (e.g. top 1m of soil) overlying the coal deposit.

peak particle velocity (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 (mms^{-1}). \

Prescribed Environmental Matters has the meaning in section 10 of the *Environmental Offsets Act 2014*, limited to the matters of State environmental significant listed in schedule 2 of the Environmental Offsets Regulation 2014.

progressive rehabilitation means rehabilitation (defined below) undertaken progressively or a staged approach to rehabilitation as mining operations are ongoing.

receiving environment means all groundwater, surface water, land, and sediments that are not disturbed areas authorised by this environmental authority.

receiving waters means all groundwater and surface water that are not disturbed areas authorised by this environmental authority.

Register of Regulated Structures includes:

- a) Date of entry in the register;
- b) Name of the structure, its purpose and intended/actual contents;
- c) The consequence category of the structure as assessed using the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)*;
- 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 GDA94) 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 (ESR/2016/1933)* 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 the process of reshaping and revegetating land to restore it to a stable landform and in accordance with the acceptance criteria set out in this environmental authority and, where relevant, includes remediation of contaminated land.

residual void means an open pit resulting from the removal of ore and/or waste rock which will remain following the cessation of all mining activities and completion of rehabilitation processes.

Seasonal Variation means groundwater level fluctuation that is a direct result of seasonal conditions. For example, above average rainfall over an extended period, resulting in aquifer recharge and subsequent rises in groundwater levels. Conversely, below average rainfall periods may result in groundwater level decline due to the lack of recharge over this period. Seasonal variation is most readily observed in shallow unconfined aquifers where a direct connection to surface waters exists, however variations in water levels due to seasonal conditions can occur in other aquifer types where hydraulic linkages to surface waters and other aquifers are more complex.

saline drainage means the movement of waters, contaminated with salt(s), as a result of the mining activity.

self-sustaining means an area of land which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.

significant disturbance – includes land

- a) if it is contaminated land; or
- b) it has been disturbed and human intervention is needed to rehabilitate it
 - i. to a state required under the relevant environmental authority; or
 - ii. if the environmental authority does not require the land to be rehabilitated to a particular state, to a state immediately before its disturbance.

Some examples of disturbed land include:

- areas where soil has been compacted, removed, covered, exposed or stockpiled;
- areas where vegetation has been removed or destroyed to an extent where the land has been made susceptible to erosion; (vegetation & topsoil)
- areas where land use suitability or capability has been diminished;
- areas within a watercourse, waterway, wetland or lake where mining activities occur;
- areas submerged by tailings or consequenceous contaminant storage and dam walls in all cases;
- areas under temporary infrastructure. Temporary infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after mining activities have ceased; or
- areas where land has been contaminated and a suitability statement has not been issued.

significant residual impacts has the meaning in section 8 *Environmental Offsets Act 2014*.

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

stable means geotechnical stability of the rehabilitated landform where instability related to the excessive settlement and subsidence caused by consolidation / settlement of the wastes deposited, and sliding / slumping instability has ceased.

stormwater means all surface water runoff from rainfall.

structure means dam or levee.

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.*

void means any man-made, open excavation in the ground.

waste as defined in section 13 of the *Environmental Protection Act 1994*.

water means –

- a) water in waters or spring;
- b) underground water;
- c) overland flow water; or
- d) water that has been collected in a dam.

watercourse has the meaning in Schedule 4 of the *Environmental Protection Act 1994* and means

- 1. 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.
- 2. Watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.

water quality means the chemical, physical and biological condition of water.

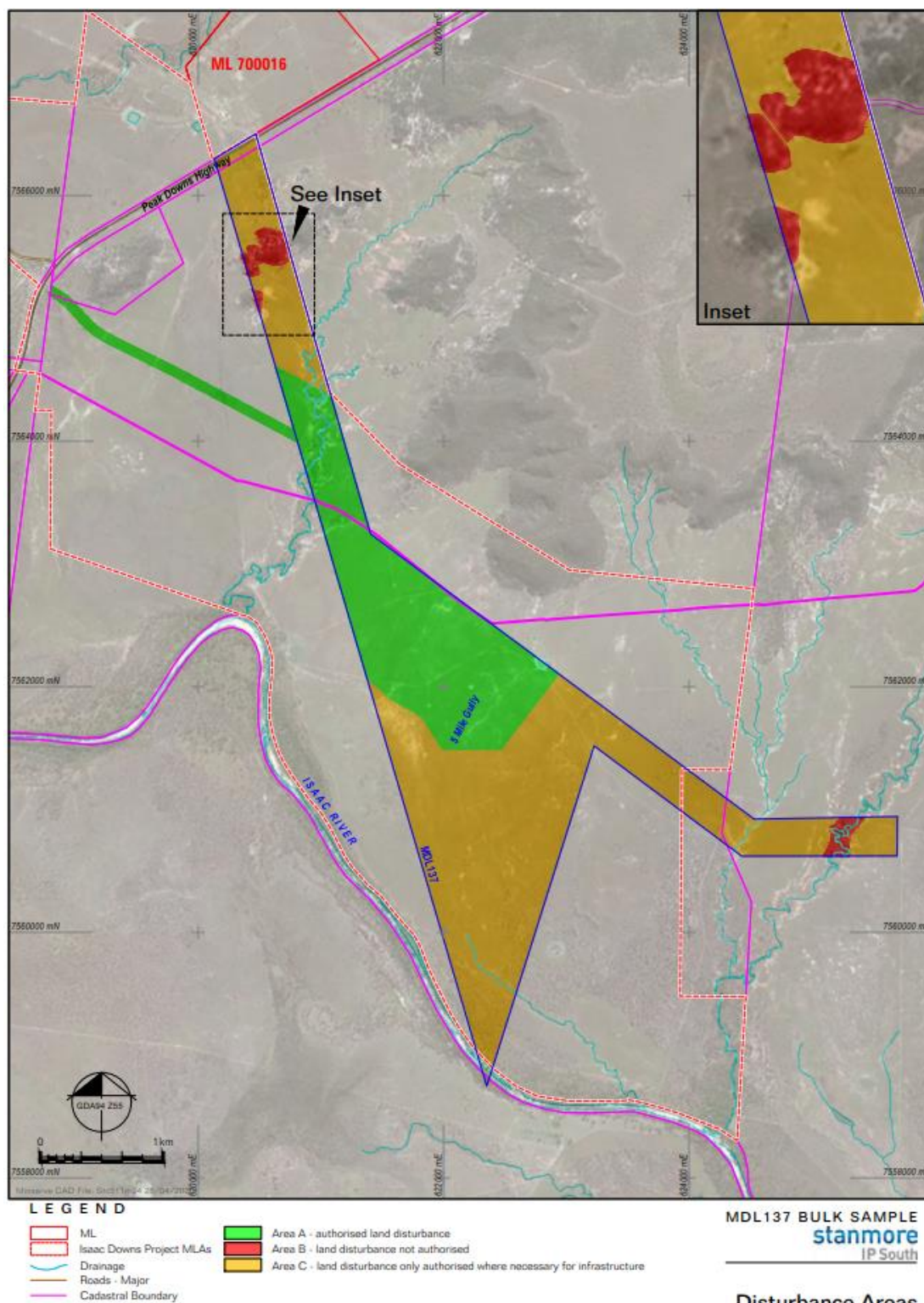
waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, and groundwater and any part thereof.

µS/cm means microsiemens per centimetre.

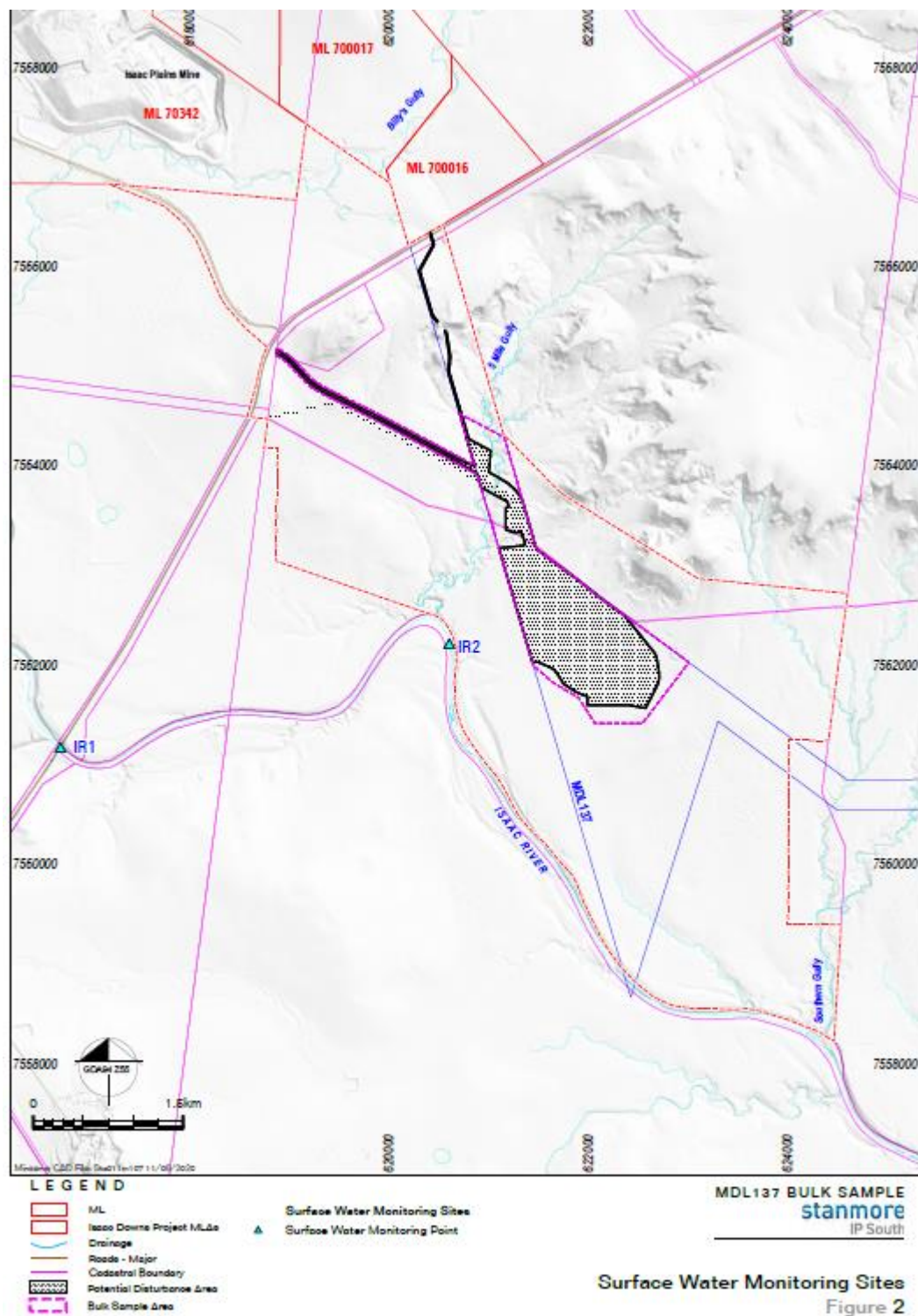
END OF DEFINITIONS

Appendix 1

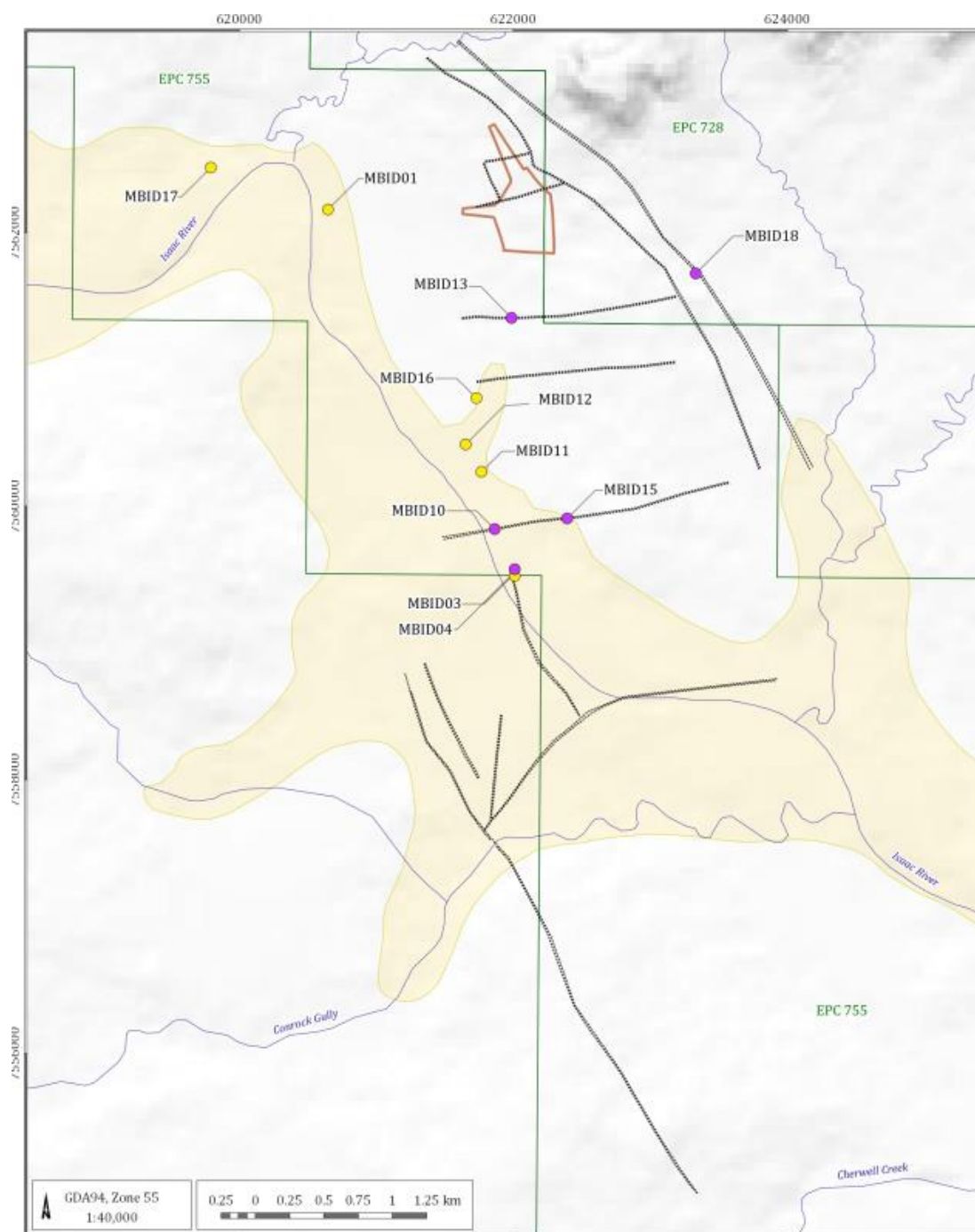
Figure 1: Authorised activities – MDL 137



Appendix 2 – Surface Water Monitoring Points



Appendix 3 – Groundwater Monitoring Points.



LEGEND

- Drainage
- Fault
- ▭ Bulk sample pit footprint
- ▭ Tenement boundary
- ▭ Alluvium

Groundwater monitoring bores

- Alluvium
- Permian Coal Measures
- MBID10 : BoreID

Isaac Downs Bulk Sample Pit GW assessment (G18030)

Isaac Downs bulk sample monitoring bore network

Figure 3

DATE
13/08/2020

FIGURE No.

Appendix 3: Rehabilitation Success Criteria

Mine Domain	Rehabilitation Feature Name	Goal	Objectives	Indicators	Completion Criteria
1	Backfilled pit area: Overburden that has been used to backfill the bulk sample pit area to an approximately natural surface.	Long-term safety	Structurally safe with no hazardous materials. Safety hazards in rehabilitation are similar to surrounding unmined landscapes	Hazard assessment by a suitably qualified and experienced person	Certification by a suitability qualified person, that the land is safe for a grazing final land use.
				Exposure to, and availability of heavy metals and other toxic materials	Evidence, which has been certified by a suitability qualified person, which confirms the absence of potential for acid mine drainage or other key contaminants from the rehabilitated landform.
					Evidence, which has been certified by a suitability qualified person that any residual soil contamination has been removed, neutralized or isolated.
				Surface water quality	Evidence, which has been certified by a suitability qualified person, that surface water monitoring demonstrates the quality of water in the receiving environment meets the receiving environment water quality objectives in Table 2: Receiving Waters Contaminant Trigger Levels .
				Groundwater quality	Evidence which has been certified by a suitability qualified person, that groundwater monitoring demonstrates that the groundwater quality complies with Table 4: Groundwater Quality Limits .

Mine Domain	Rehabilitation Feature Name	Goal	Objectives	Indicators	Completion Criteria
		Stable landform	Landforms are both geotechnically and erosionally stable	Slope of gradient	Evidence, which has been certified by an appropriately qualified person, that: - All slopes are $\leq 15\%$ (8.5°); - All rehabilitated areas are both geo-technically and erosionally stable for the intended final grazing land use.
				Vegetation type and cover.	Evidence, which has been certified by a suitability qualified person, that the vegetation type and density of species in rehabilitated areas are suited to the soil composition, slope, aspect, climate and grazing land use. Evidence, which has been certified by a suitability qualified person, that the variety of vegetation species and their density in rehabilitated areas is comparable to reference sites.
				Groundcover cover.	Evidence which has been certified by a suitability qualified person that: - foliage and ground cover is comparable to reference sites; - minimum of 70% ground cover is present (or 50% if rocks, logs or other features of cover are present); and - no bare surfaces $>20 \text{ m}^2$ in any area or $>10 \text{ m}$ in length down any slope $\geq 3^\circ$.

Mine Domain	Rehabilitation Feature Name	Goal	Objectives	Indicators	Completion Criteria
		Sustainable land use	Rehabilitation is suitable for sustainable cattle grazing	Land suitability assessment by a suitability qualified person.	Evidence, which has been certified by a suitability qualified person, that rehabilitated areas meet the following percentage breakdown of the land suitability classification for cattle grazing as defined by the <i>Guideline for Agricultural Land Evaluation in Queensland (State Department of Queensland 2015)</i> , or any subsequent version, and will continue to sustain these suitability classifications for the foreseeable future: Class 3 on areas of overburden dumps with slopes less than 8.5°.
				Grazing function.	The areas have demonstrated an ability to recover from significant disturbance (e.g. slashing, grazing, fire) by re-establishing target covers.
				Stock access to water.	Certification by a suitability qualified person that all water sources in the rehabilitated areas provide water suitable for stock and have an EC $\leq 7800\mu\text{S}/\text{cm}$.
				Topsoil and subsoil support the proposed vegetation and land use.	Evidence, which has been certified by a suitability qualified person, that soil properties (e.g. pH, salinity, nutrient content, sodium content) and soil characteristics (e.g. surface roughness, infiltration capacity) support the grazing land use.

Mine Domain	Rehabilitation Feature Name	Goal	Objectives	Indicators	Completion Criteria
				Self-sustaining grazing vegetation.	Evidence which has been certified by a suitability qualified person, that species in rehabilitated areas show evidence of flowering, viable seed setting, germination and emergence, and will continue to do so for the foreseeable future.
				Presence, density and composition of key plant species.	Evidence, which has been certified by a suitability qualified person, that the vegetation in rehabilitated areas includes the presence of species suitable and complimentary to the grazing land use, and are at a density and composition comparable to reference sites.
				Sustained control of declared weed under local or State legislation (weeds).	Evidence, which has been certified by a suitability qualified person, that abundance of declared weeds are no greater than reference sites and are adequately controlled on the site.
				Sustained control of pest animals.	Evidence which has been certified by a suitability qualified person, that pest animals are adequately controlled on the site.

Retained Infrastructure

Domain	Rehabilitation Feature Name	Goal	Objectives	Indicators	Completion Criteria
2	Bulk sample infrastructure - Roads - ROM coal pad - Sediment dams - Pit water dam - Office and workshops - Laydowns and car park - Exploration holes	Long-term safety	Rehabilitation of exploration drill holes and groundwater monitoring bores.	All exploration drill holes have been rehabilitated.	Certification of the following by a suitability qualified person: - All exploration disturbance rehabilitated in accordance with Eligibility criteria and standard conditions for exploration and mineral development projects – Version 2. - All aquifers have been isolated where exploration drill holes have intersected more than one water bearing strata, in accordance with the 'Minimum Construction Requirements for Water Bores in Australia' (Australian Government, February 2012) or latest edition.
			Site is safe for humans and animals.	Appropriate decommissioning of infrastructure.	A risk assessment is to be undertaken by a suitability qualified person to ensure the site is safe and all infrastructure has been decommissioned appropriately and in accordance with the conditions of the environmental authority and any applicable Australian Standard or guideline. Roads, dams or other infrastructure agreed with the landholder, may be left in place to support the grazing land use.
				Remediate contaminated land.	Evidence, which has been certified by a suitability qualified person that any residual soil contamination has been removed, neutralized or isolated.
				Safety assessment of landform stability (geotechnical issues).	Certification by a suitability qualified person, that the land is safe for the grazing land use.
				Surface water quality	Evidence, which has been certified by a suitability qualified person, that surface water monitoring demonstrates the quality of

Domain	Rehabilitation Feature Name	Goal	Objectives	Indicators	Completion Criteria
					water in the receiving environment meets the receiving environment water quality objectives in Table 2: Receiving Waters Contaminant Trigger Levels .
				Groundwater quality.	Evidence which has been certified by a suitability qualified person, that groundwater monitoring demonstrates that the groundwater quality complies with Table 4: Groundwater Quality Limits .
		Stable landform	Landholder accepts the condition of infrastructure, including its structural integrity.	Legally binding agreement.	Executed by each party.
				Landholder formally accepts infrastructure for his/her ongoing beneficial use.	Executed by each party.

END OF ENVIRONMENTAL AUTHORITY