

Permit

Environmental Protection Act 1994

Environmental authority EA0002723

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

Permit number: EA0002723

Environmental authority takes effect on the day ML1824 is transferred.

The anniversary date of this environmental authority is the **08 February**. An annual return and the payment of the annual fee will be due each year on this day.

Environmental authority holder(s)

Name	Registered address
GREAT NORTHERN MINING PTY LTD	Lot 33 Pilot Farm Road EMERALD QLD 4720

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Schedule 3 20: Clay pit mining, dimension stone mining or mining gemstones (including the material from which gemstones are extracted) (c) more than 1,000,000t in a year	ML1824

Additional information for applicants

Environmentally relevant activities

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

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority 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 if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

Alison Sinclair
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Date Issued: 11 February 2021

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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

Schedule A - General	
Condition number	Condition
A1	Prevent and/or minimise likelihood of environmental harm In carrying out the environmentally relevant activities authorised under this environmental authority, the 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, must be carried out in a proper manner in accordance with the conditions of this authority.
A2	Maintenance of measures, plant and equipment The holder 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.
A3	Monitoring and 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 until the surrender of this environmental authority.
A4	Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conducts all monitoring.
A5	Notification of emergencies, incidents and exceptions All reasonable actions must be taken to minimise environmental harm, or potential environmental harm, resulting from any emergency, incident, or circumstances not in accordance with the conditions of this environmental authority.
A6	The holder of this environmental authority must notify the administering authority by written notification 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.
A7	Not more than ten (10) business days following the initial notification of an emergency, incident or information about circumstances which result or may result in environmental harm under condition A7, written advice must be provided to the administering authority in relation to:

	(a) proposed actions to prevent a recurrence of the emergency or incident; (b) the outcomes of actions taken at the time to prevent or minimise environmental harm; and (c) proposed actions to respond to the information about circumstances which result or may result in environmental harm.
A8	Contaminants must not be released to the receiving environment unless in accordance with this environmental authority.
A9	This environmental authority does not authorise environmental harm unless a condition contained within the authority explicitly authorises that harm. Where there is no condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Schedule B - Air	
Condition number	Condition
B1	Dust nuisance The release of dust or particulate matter or both resulting from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.
B2	When requested by the administering authority or as a result of a complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer), dust and particulate monitoring must be undertaken, and the results thereof notified to the administering authority within fourteen (14) days following completion of monitoring. Monitoring must be carried out at a place(s) relevant to the potentially affected sensitive or commercial place. Dust and particulate matter must not exceed the following levels when measured at any sensitive or commercial place: (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with the most recent version of <i>Australian Standard AS 3580.10.1</i>; and (b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM₁₀) suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time, at a sensitive or commercial place downwind of the site, when monitored in accordance with either: i. the most recent version of <i>Australian Standard AS 3580.9.6 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. any alternative method of monitoring PM₁₀ which may be permitted by the <i>Air Quality Sampling Manual</i> as published from time to time by the administering authority.
B3	If monitoring indicates exceedance of the relevant limits in condition B2 , then the holder must:

	(a) address the complaint including the use of appropriate dispute resolution if required; and (b) immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.
B4	Odour nuisance The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause an environmental nuisance at any sensitive or commercial place.
B5	When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.
B6	If administering authority determines the odour released to constitute an environmental nuisance, then the environmental authority holder must: (a) address the complaint including the use of appropriate dispute resolution if required; and (b) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.

Schedule C - Water	
Condition number	Condition
C1	Authorised Releases Process water and stormwater contaminated by mining activities must not be released to surface waters (receiving waters) or drainage lines.
C2	Notification of unauthorised discharge The holder must notify the administering authority via the Pollution Hotline within twenty-four (24) hours after any discharge in breach of condition C1 has commenced.
C3	Water Sediment Controls All reasonable and practicable erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the movement of sediment, including: (a) all clean waters, from undisturbed areas, kept separate from worked waters from disturbed areas; and (b) sediment must be excavated from sediment dams as required to maintain design capacity.
C4	Protective embankments, bunding and drainage diversions must be constructed around all open pits in the vicinity of Policeman and Retreat creeks to ensure that water does not pick up sediment from any un-rehabilitated mine workings.

Schedule D – Noise and Vibration	
Condition number	Condition
D1	Noise nuisance Noise from mining activities must not cause an environmental nuisance at any sensitive place or commercial place.
D2	All noise from mining activities must not exceed the levels specified in Table D1: Noise limits at any sensitive place or commercial place.

Table D1: Noise limits

Noise level dB(A)	Monday to Sunday (including public holidays)		
	7am - 6pm	6pm - 10pm	10pm - 7am
	Noise measured at a 'Sensitive Receptor'		
LA10, adj, 10 mins	B/g + 5	B/g + 5	B/g + 3
LA1, adj, 10 mins	B/g + 10	B/g + 10	B/g + 8
	Noise measured at a 'Commercial place'		
LA10, adj, 10 mins	B/g + 10	B/g + 10	B/g + 5
LA1, adj, 10 mins	B/g + 15	B/g + 15	B/g + 10

D3	Noise monitoring When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within fourteen (14) days to the administering authority. Monitoring must include: (a) LA 10, adj, 10 mins (b) LA 1, adj, 10 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.
D4	Noise is not considered to be a nuisance under condition D1 if monitoring shows that noise does not exceed the levels specified in Table D1: Noise limits .
D5	When requested by the administering authority, vibration monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive or commercial place, and the results must be notified within fourteen (14) days to the administering authority following completion of monitoring.
D6	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> .

D7	If any noise monitoring indicates exceedance of the limits in Table D1: Noise Limits, then the holder must: (a) address the complaint including the use of appropriate dispute resolution if required; and (b) immediately implement noise abatement measures so that emissions of noise from the activity do not result in further environmental nuisance.
D8	Vibration nuisance Vibration from the mining activities must not cause an environmental nuisance at any sensitive place or commercial place.

Schedule E - Waste	
Condition number	Condition
E1	Storage of tyres 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 10m from any other scrap tyre storage area, or combustible or flammable material, including vegetation.
E2	All reasonable and practicable fire prevention measures must be implemented, including removal of grass and other materials within a ten (10) metre radius of the scrap tyre storage area.
E3	Waste Management Waste must not be burned or allowed to be burned on the licensed site unless by approval of the administering authority.
E4	The holder must not dispose of any waste on the locations subject to this environmental authority.
E5	The holder must not directly or indirectly release waste from the project area to any watercourse, waterway, groundwater, wetland, or lake.

E6	Records must be kept for five (5) years, and must include the following information: (a) date of pickup of waste; (b) description of waste; (c) cross reference to relevant waste transport documentation; (d) quantity of waste; (e) origin of the waste; (f) destination of the waste; and (g) intended fate of the waste, for example, type of waste treatment, reprocessing or disposal. NOTE: Records of documents maintained in compliance with a waste tracking system established under the <i>Environmental Protection Act 1994</i> or any other law for regulated waste will be deemed to satisfy this condition.
E7	Records of trade and regulated wastes or material leaving the operational land for recycling or disposal, including the final destination and method of treatment, must be in accordance with the <i>Environmental Protection Regulation 2019</i> .
E8	All regulated waste received at and removed from the operational land must be transported by a person who holds a current authority to transport such waste under the provisions of the <i>Environmental Protection Act 1994</i> .
E9	Except as otherwise provided by the conditions of this authority, all waste removed from the operational land must be taken to a facility that is lawfully allowed to accept such waste under the provisions of the <i>Environmental Protection Act 1994</i> .

Schedule F - Land and Rehabilitation	
Condition number	Condition
F1	The holder is not authorised to carry out mining activities within Prescribed Environmental Matters (PEM) or within twenty (20) metres of any Category B Regulated Vegetation and Essential Habitat.
F2	The holder is authorised to carry out disturbance from mining activities in accordance with Table F1: Authorised disturbance limits (not rehabilitated) and Table F2: Authorised stock water storage locations (consented to by Landowner) .

Table F1: Authorised disturbance limits (not rehabilitated)

Activity	Number	Maximum footprint of disturbance permitted
Infrastructure and Camps		Main Dam Hardstand – 1.5ha Roads and tracks – 0.3ha
Mining Gemstones (Excavations/Voids, Topsoil Dumps and Spoil Dumps)		28.1ha
Stock water Storage	10	
Tailings Ponds		15.6ha
Landholder access		Workshop – 1ha Roads and tracks – 6.5ha

Table F2: Authorised stock water storage locations (consented to by Landowner)

Storage Location ID	Location (Eastings, Northings)
1 – Pointsetta	580662, 7407960
2 – Nardoo	581513, 7406789
3 – Pig	580938, 7406341
4 – Eastern Creek	580108, 7406500
5 – Old Laneway	578728, 7405866
6 – Laneway West	577576, 7405514
7 – Retreat	576673, 7404746
8	TBA TBA
9	TBA TBA
10	TBA TBA

F3	Prior to the construction of any additional stock water storage, the holder must provide coordinates to the administering authority for inclusion in Table F2: Authorised stock water storage locations (consented to by Landowner) .
F4	Preventing contaminant release to land Contaminants must not be released to land in manner which constitutes nuisance, material or serious environmental harm.

F5	Topsoil The holder must develop and implement a topsoil management plan.
F6	The topsoil management plan required by condition F5 must include but is not limited to: (a) the current topsoil inventory; (b) methods to ensure that topsoil is removed and stockpiled prior to carrying out mining activities; (c) strategies to prevent or minimise the mixing of topsoil and overburden stockpiles; (d) strategies for the replacement of topsoil on rehabilitated areas as soon as practicable; and (e) how erosion of topsoil and overburden stockpiles will be prevented or minimised.
F7	Retention of water storages in the post-mining landform The holder is authorised to retain the water storages nominated in Table F2: Authorised stock water storage locations (consented to by Landowner) for the purposes of providing stock water points.
F8	Rehabilitation landform criteria All land subject to mining activities must be rehabilitated to a non-polluting, safe, stable and self-sustaining landform and in accordance with Table F3: Final land use and completion criteria .

Table F3: Final land use and completion criteria

Domain	Final Land Use	Post mining Land Description	Slope
Spoil Dumps	Light intensity grazing	Cover: 30 - 50% Weeds: <5% or <background landowners groundcover Species Mix: Buffel and other pasture mixtures	<15%
Tailings Ponds			
Dams			
Roads and Tracks			
Excavations/Voids			
Top soil Dumps			<5%
Infrastructure/Camps			
Roads and Tracks preapproved to remain as Landholder Access (see Table F1)	Landholder Access	For roads to be considered fit for purpose they must: (a) provide access to compound and cattle yards; (b) be 6 metres wide; (c) have a formed crown with table drains each side; (d) the formed crown may be gravelled; and (e) drainage lines may be built up with gravel using poly pipe as culverts. For tracks to be considered fit for purpose they must: (a) be 2 metres wide; (b) have disturbance limited to 2-wheel tracks; and must not– (c) be gravelled; (d) have culverts; or (e) have visible signs of erosion in wheel tracks.	
Stock water Storage preapproved to remain (see Table F1 and Table F2)	Stock water storage	For stock water storage to be considered fit for purpose they must: (a) demonstrate water retention; (b) be stable at water entry points; (c) have water quality suitable for stock water drinking; and (d) be safe for stock to enter when levels are greater than 30%. <i>Example to demonstrate paragraph (a), (b) and (d)–</i> with a time series of photographs	

F9	Progressive rehabilitation must commence when areas become available.
F10	Rehabilitation Monitoring Program The Rehabilitation Monitoring Program must be developed and implemented by a person possessing appropriate qualifications and experience in the field of rehabilitation management, nominated by the holder.
F11	Once rehabilitation has commenced, the holder must conduct a Rehabilitation Monitoring Program on a yearly basis, which must include: (a) sufficient spatial and temporal replication to enable statistically valid conclusions as established under the rehabilitation program; (b) how rehabilitation objectives will be and are being achieved; and (c) verification of rehabilitation success.
F12	Nature Conservation The holder must prevent the spread of weeds by ensuring that all vehicles and machinery are adequately cleaned before removing the vehicles and machinery from the operational land.
F13	Storage and handling of flammable and combustible liquids All flammable and combustible liquids must be contained within an on-site containment system and controlled in a manner that prevents environmental harm and maintained in accordance with the current version of <i>AS 1940 – Storage and Handling of Flammable and Combustible Liquids</i> .
F14	Spillage of all flammable and combustible liquids must be controlled in a manner that prevents environmental harm.
F15	Progressive Rehabilitation Certification of progressive rehabilitation was granted on 16 November 2015 (total area 51.5ha) and on 3 November 2020 (total area 21.75ha) in the areas specified in Appendix A: Areas of certified progressive rehabilitation within mining leases of Great Northern Mine .

Schedule H - Community	
Condition number	Condition
H1	Complaint response All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.
H2	The holder must record the following details for all complaints received and provide this information to the administering authority on request: (a) time, date, name and contact details of the complainant; (b) reasons for the complaint; (c) conclusions formed; and (d) any actions taken.

Definitions

Words and phrases used throughout this licence are defined below except where identified in the EP Act or subordinate legislation. Where a word or term is not defined, the ordinary English meaning applies, and regard should be given to the Macquarie Dictionary.

“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.

“administering authority” means the Department of Environment and Resource Management or its successor.

“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.

“assessed” or “assess” by a suitably qualified and experienced person in relation to a hazard 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.

“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.

“Category B Regulated Vegetation” means an area shown on the regulated vegetation management map as a category B area that:

- (a) contains remnant vegetation; or
- (b) the chief executive decides to show on the regulated vegetation management map as a category B area.

“certification” or “certified” by a suitably qualified and experienced person in relation to a design plan or an annual report regarding dams, 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 is being certified and the precise nature of that certification.
- (b) the relevant legislative, regulatory and technical criteria on which the certification has been based;
- (c) the relevant data and facts on which the certification 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 certification has been based using the relevant data and facts, and the relevant criteria.

“chemical” means –

- (a) an agricultural chemical product or veterinary chemical product within the meaning of the Agricultural and Veterinary Chemicals Code Act 1994 (Commonwealth); or
- (b) a dangerous good under the dangerous goods code; or
- (c) a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997; or
- (d) a drug or poison in the Standard for the Uniform Scheduling of Drugs and Poisons prepared by the Australian Health Ministers’ Advisory Council and published by the Commonwealth; or
- (e) any substance used as, or intended for use as –
 - i) a pesticide, insecticide, fungicide, herbicide, rodenticide, 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 –
- (g) mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or
- (h) 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.

“competent person” means a person with the demonstrated skill and knowledge required to carry out the task to a standard necessary for the reliance upon collected data or protection of the environment.

“construction” includes building a new dam and modifying or lifting an existing dam.

“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.

“control measure” means any action or activity that can be used to prevent or eliminate a hazard or reduce it to an acceptable level.

“dam” means a land-based structure or a void that is designed to contain, divert or control flowable substances - including any substances that are thereby contained, diverted or controlled by that land-based structure or void; but does not mean a fabricated or manufactured tank or container designed to a recognised standard. In case there is any doubt, a levee dyke or bund is a dam.

“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.

"domestic waste" means waste, other than domestic clean-up waste, green waste, recyclable waste, interceptor waste or waste discharged to a sewer, produced as a result of the ordinary use or occupation of domestic premises.

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

- (a) a house, unit, motel, nursing homes 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.

"effluent" treated waste water discharged from sewage treatment plants.

"environmental authority" means an environmental authority under Chapter 5 of the *Environmental Protection Act 1994*.

"environmental nuisance" means an unreasonable interference or likely interference with an environmental value caused by:

- (a) aerosols, fumes, light, noise, odour, particles or smoke; or
- (b) an unhealthy, offensive or unsightly condition because of contamination; or
- (c) another way prescribed by regulation.

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

"ERC decision" means a decision made by the administering authority under section 300 of the *Environmental Protection Act 1994* about the estimated rehabilitation cost for a resource activity.

"ERC period" for the estimated rehabilitation cost for a resource activity means:

- (a) if a progressive rehabilitation closure plan (PRCP) schedule applies for the activity, the period of between 1 and 5 years stated in the application for an ERC decision under section 298(2)(b); or
- (b) if a plan of operations applies for the activities, the plan period for the plan of operations; or
- (c) otherwise, the total period during which the resource activity is likely to be carried out under the environmental authority for the activity.

“Estimated rehabilitation cost (ERC)” for a resource activity, see section 300(2) of the *Environmental Protection Act 1994*.

“Essential Habitat” for protected wildlife, is a category A area, category B area or category C area shown on the regulated vegetation management map:

- (a) that has at least 3 essential habitat factors for the protected wildlife that must include any essential habitat factors that are stated as mandatory for the protected wildlife in the essential habitat database; or
- (b) in which the protected wildlife, at any stage of its life cycle, is located.

“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.

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

“foreseeable future” is the period used for assessing the total probability of an event occurring. Permanent structures and ecological sustainability should be expected to still exist at the end of a 150 year foreseeable future with an acceptable probability of failure before that time.

“general waste” means waste other than regulated waste.

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

“hazard 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 Site Water Management Technical Guideline for Environmental Management of Exploration and Mining in Queensland (DME 1995).

“holder” means:

- (a) The holder of an approval of a transitional environmental program is:
 - i) the person or public authority that submitted the draft transitional environmental program to the administering authority for approval; or
 - ii) if the transitional environmental program relates to an environmental authority—the holder of the environmental authority.

- (b) The holder of an environmental authority for a prescribed ERA is:
 - i) the person who made an application for the authority; or
 - ii) if a transfer application for the authority has been approved under chapter 5, part 9—the person to whom the transferred environmental authority has been issued.
- (c) The holder of an environmental authority or PRC plan for a resource activity is the holder of the relevant tenure.
- (d) The holder of a resource tenure is the holder of the tenure under resource legislation.
- (e) However, if a resource tenure for which a holder has an environmental authority or PRCP schedule ends, the person who was the holder of the tenure under resource legislation immediately before it ended continues to be the holder of the environmental authority or PRCP schedule.
- (f) The holder of a temporary emissions licence is the holder of the environmental authority to which the temporary emissions licence relates.
- (g) However, if a holder of an environmental authority under paragraph 1 or 2 dies, that person's personal representative becomes the holder.

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

“LA 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.

“LA 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

“LA, 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.

“lake” includes –

- (a) lagoon, swamp or other natural collection of water, whether permanent or intermittent; and
- (b) the bed and banks and any other element confining or containing the water.

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

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

“mg/L” means milligrams per litre.

“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 therefrom;
- (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;

But does not include—

- (l) living matter;
- (m) petroleum within the meaning of the *Petroleum Act 1923*;
- (n) 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;
- (o) water.

“mining activity/ies” means:

- (a) an activity that is an authorised activity for a mining tenement under the *Mineral Resources Act 1989*; or
- (b) another activity that is authorised under an approval under the *Mineral Resources Act 1989* that grants rights over land.

“nature” includes:

- (a) ecosystems and their constituent parts; and
- (b) all natural and physical resources; and

(c) natural dynamic processes.

“noxious” means harmful or injurious to health or physical well-being.

“offensive” means causing reasonable offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive, other than trivial harm.

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

“pollution hotline” means the 24/7 Pollution Hotline - 1300 130 372 (Option 2), which is open for reporting incidents 24 hours a day, 7 days a week.

“prescribed environmental matters” means any of the following matters prescribed under a regulation to be a prescribed environmental matter:

- (a) a matter of national environmental significance;
- (b) a matter of State environmental significance;
- (c) a matter of local environmental significance.

“protected area” means:

- (a) a protected area under the Nature Conservation Act 1992; or
- (b) a marine park under the Marine Parks Act 1992; or
- (c) a World Heritage Area.

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

“process water” means water used or produced during the mining activities.

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

- (a) a watercourse;
- (b) groundwater;
- (c) land; and
- (d) sediments.

“regulated vegetation management map” as defined by section 20A of the *Vegetation Management Act 1999*.

“regulated waste” means non-domestic waste mentioned in schedule 7 of the *Environmental Protection Regulation 1998* (whether or not it has been treated or immobilised), and includes –

- (a) for an element – any chemical compound containing the element; and
- (b) anything that has contained the waste.

“rehabilitated” means graded, ripped and seeded.

“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.

“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.

“sensitive place” means:

- (a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- (b) a motel, hotel or hostel; or
- (c) an educational institution; or
- (d) a medical centre or hospital; or
- (e) a protected area under the Nature Conservation Act 1992, the Marine Parks Act 1992 or a World Heritage Area; or
- (f) a public park or gardens.

“stable” in relation to land, means land form dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (trafficability), erosion resistance and geochemical stability with respect to seepage, leachate and related contaminant generation.

“stormwater” means all surface water runoff from rainfall.

“suitably qualified and experienced person” in relation to dams means one who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the Professional Engineers Act 1988, OR registered as a National Professional Engineer (NPER) with the Institution of Engineers Australia, OR holds equivalent

professional qualifications to the satisfaction of the administering authority for the Act; AND the administering authority for the Act is satisfied that person has knowledge, suitable experience and demonstrated expertise in relevant fields, as set out below:

- (a) knowledge of engineering principles related to the structures, geomechanics, hydrology, hydraulics, chemistry and environmental impact of dams; and
- (b) a total of five years of suitable experience and demonstrated expertise in at least four of the following categories, with the 'geomechanics of dams' category being compulsory:
 - i) geomechanics of dams with particular emphasis on stability, geology and geochemistry.
 - ii) investigation, design or construction of dams.
 - iii) operation and maintenance of dams.
 - iv) hydrology with particular reference to flooding, estimation of extreme storms, water management or meteorology.
 - v) hydraulics with particular reference to sediment transport and deposition, erosion control, beach processes.
 - vi) hydrogeology with particular reference to seepage, groundwater.
 - vii) solute transport processes and monitoring thereof.
 - viii) dam safety.

"trivial harm" means environmental harm which is not material or serious environmental harm and will not cause actual or potential loss or damage to property of an amount of, or amounts totalling more than \$5,000.

"tolerable limits" means a range of parameters regarded as being sufficient to meet the objective of protecting relevant environmental values. For example, a range of settlement for a tailings capping, rather than a single value, could still meet the objective of draining the cap quickly, preventing pondage and limiting infiltration and percolation.

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

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

"waste water" means used water from the activity, process water or contaminated storm water.

"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.

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

“waters” includes –

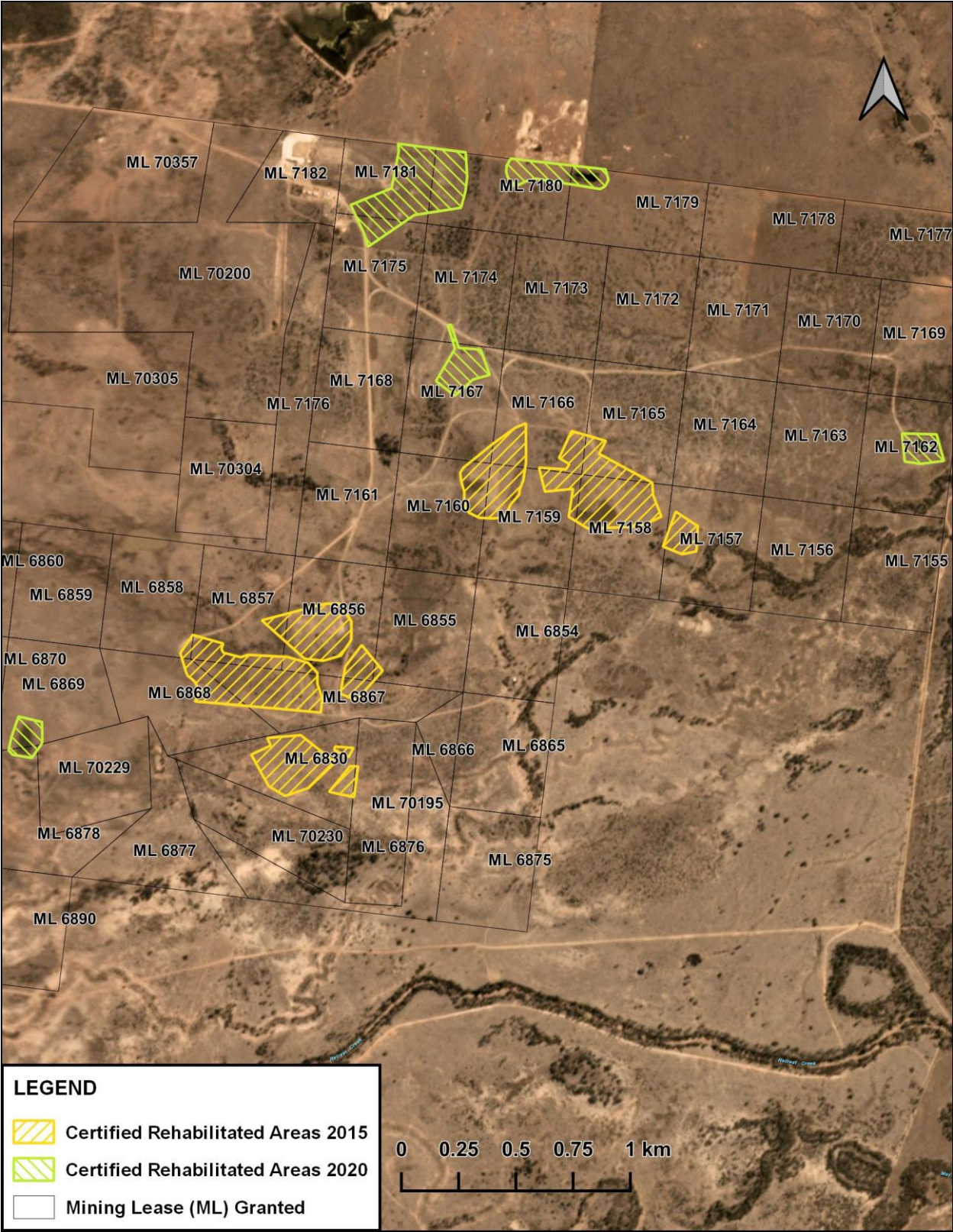
- (a) river, creek, stream in which water flows permanently or intermittently either:
 - i) in a natural channel, whether artificially improved or not; or
 - ii) in an artificial channel that has changed the course of the river, creek or stream; or
- (b) lake, lagoon, pond, swamp, wetland, dam; or
- (c) unconfined surface water; or
- (d) storm water channel, storm water drain, roadside gutter; or
- (e) bed and banks and any other element of a river, creek, stream, lake, lagoon, pond, swamp, wetland, storm water channel, storm water drain, roadside gutter or dam confining or containing water; or
- (f) groundwater; or
- (g) non-tidal or tidal waters (including the sea); or
- (h) any part thereof.

“weeds” means plants that are prohibited or restricted matter under the *Biosecurity Act 2014*. *Cenchrus ciliaris* (buffel grass) is not considered to be a weed.

“worked (waters)” means the following types of water:

- (a) pit water, tailings dam water, processing plant water;
- (b) rainfall runoff that has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated:
 - i) 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; and
 - ii) provided this water has not mixed with pit water, tailings pond water processing plant water or workshop water;
- (c) groundwater that has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;
- (d) groundwater from mine dewatering activities; and
- (e) a mix of worked water that falls under (a) to (d) of this definition and any other water.

Appendix A: Areas of certified progressive rehabilitation within mining leases of Great Northern Mine



END OF ENVIRONMENTAL AUTHORITY