Permit

Environmental Protection Act 1994

Environmental authority EPVL00520113

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

Environmental authority number: EPVL00520113

Environmental authority takes effect on 4 December 2023.

Environmental authority holder(s)

Name(s)	Registered address
FURA GEMS AUSTRALIA HOLDING PTY LTD	2 Hicks Street Emerald, QLD, 4720, Australia

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Resource Activity, Non-Scheduled, Mining Activity, Mining Lease - ML	ML70447
Resource Activity, Non-Scheduled, Mining Activity, Mining Lease - ML	ML400012
Resource Activity, Non-Scheduled, Mining Activity, Exploration permit Mineral – EPM	EPM25973

Additional information for applicants

Environmentally relevant activities

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

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

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

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:

Queensland Government

- 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

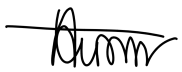
b) if the authority states a day or an event for it to take effect – on the stated day or when the stated event happens; or

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 *Planning Act 2016* 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.

	4 December 2023
Signature	Date

Ayla Turner
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
Mineral Business Centre
PO Box 7230, Cairns QLD 4870
Phone: 4222 5519
Email: EScairns@des.qld.au

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)

Other permits required

This permit only provides an approval under the *Environmental Protection Act 1994*. In order to lawfully operate you may also require permits / approvals from your local government authority, other business units within the department and other State Government agencies prior to commencing any activity at the site. For example, this may include permits / approvals with your local Council (for planning approval), the Department of Transport and Main Roads (to access State controlled roads), the Department of Resources (to clear vegetation), and the Department of Agriculture and Fisheries (to clear marine plants or to obtain a quarry material allocation).

Obligations under the *Mining and Quarrying Safety and Health Act 1999*

If you are operating a quarry, other than a sand and gravel quarry where there is no crushing capability, you will be required to comply with the *Mining and Quarrying Safety and Health Act 1999*. For more information on your obligations under this legislation contact Mine Safety and Health at www.resources.qld.gov.au, or phone 13 QGOV (13 74 68) or your local Mines Inspectorate Office.

Development Approval

This permit is not a development approval under the *Planning Act 2016*. The conditions of this environmental authority are separate, and in addition to, any conditions that may be on the development approval. If a copy of this environmental authority is attached to a development approval, it is for information only, and may not be current. Please contact the Department of Environment and Science to ensure that you have the most current version of the environmental authority relating to this site.

Legislative Requirements and Conditions of Environmental Authority
The environmentally relevant activity(ies) conducted at the location as described above must be conducted in accordance with relevant standard conditions for:

Exploration Permit Mineral Activities

Standard conditions are contained within the attached document(s) entitled:

- Eligibility Criteria and Standard Conditions for Exploration and Mineral Development Projects

Mining Lease Activities

Standard conditions are contained within the attached document(s) entitled:

- Eligibility Criteria and Standard Conditions for Mining Lease Activities

The conditions of approval for the Mining Lease Activities include the following variations and additional condition/s of approval. The Standard Condition/s within the "*Eligibility Criteria and Standard Conditions for Mining Lease Activities*" the variation and additional conditions of approval must be complied with.

Variations to the Standard Conditions contained within the "*Eligibility Criteria and Standard Conditions for Mining Lease Activities*" are outlined in the table below.

Standard Condition	Variation Conditions
A1	A5
A13	D6 – D16
B6	C2

Additional Conditions *to the Standard Conditions contained within the "Eligibility Criteria and Standard Conditions for Mining Lease Activities" are outlined in the table below.*

Standard Condition	Variation Conditions
A5 – A6	B3 – B5
A7	D2 – D4
B1 – B2	D19 – D23
B3 – B4	D25
B7	B7 – B13
B13 – B22	D27 - 32

Words and phrases used throughout this environmental authority are defined in the Definitions section of this authority. Where a definition for a term used in this environmental authority is sought and the term is not defined within this environmental authority, the definitions in the Code of Environmental Compliance for Mining Lease Activities and the definitions in the Environmental Protection Act 1994, its regulations and policies must be used.

Conditions of environmental authority

Schedule A: General	
Condition Number	**Condition**
A1	Exploration activities undertaken in accordance with this environmental authority on EPM25973 must comply with the '*Eligibility Criteria and Standard Conditions for Exploration and Mineral Development Projects*'. Only exploration activities are authorised on EPM25973.
A2	Exploration and Mining activities undertaken in accordance with this environmental authority on ML70447 and ML400012 must comply with the *"Eligibility Criteria and Standard Conditions for Mining Lease Activities"* except where a variation to a standard condition or additional condition is identified in this environmental authority. Mining activities are only authorised to occur on ML70447.
A3	If there is any inconsistency between a standard environmental condition contained in the *Eligibility Criteria and Standard Conditions for Mining Lease Activities* and an additional condition in this environmental authority, the additional condition prevails to the extent of any inconsistency.
A4	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.
A5	The conditions of this environmental authority are in force until a surrender of the authority is accepted pursuant to the *Environmental Protection Act 1994*.
A6	The holder of this environmental authority must: a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority; b) maintain such measures, plant and equipment in a proper and efficient condition; c) operate such measures, plant and equipment in a proper and efficient manner; and d) ensure all instruments and devices used for the measurement and monitoring of any parameter under any conditions of this environmental authority are properly calibrated.
A7	Contaminants must not be released to the receiving environment unless they are in accordance with the contaminant limits
A8	All reasonable actions are to be taken to minimise environmental harm, or potential environmental harm, resulting from any emergency, incident or circumstance not in accordance with the conditions of this environmental authority.
A9	**Estimated Rehabilitation Cost ERC** The environmental authority holder must not carry out, or allow the carrying out of a resource activity under this environmental authority unless: a) An ERC decision is in effect for the resource activity being carried out; b) The environmental authority holder has paid a contribution to the scheme fund or given a surety for the environmental authority holder under the *Mineral and Energy (Financial Provisioning) Act 2018*; and

	c) The environmental authority holder has complied with the requirements under the *Mineral and Energy (Financial Provisioning) Act 2018* for paying a contribution to the scheme fund, or giving a surety for the environmental authority, as required from time to time.
A10	**Notification of emergencies, incidents, and exceptions** The environmental authority holder must notify the administering authority and the landholder by written notification as soon as practicable and within 24 hours after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance, with the conditions of this environmental authority.
A11	The notification in Condition **A10** must include, but not be limited to, the following: a) the environmental authority number and name of the holder; b) the name and telephone number of the designated contact person; c) the location (using GPS coordinates) of the emergency or incident; d) the date and time of the emergency or incident; e) the time the holder of the environmental authority became aware of the emergency or incident; f) where known: i) the estimated quantity and type of substances involved in the emergency or incident; ii) the actual or potential cause of the emergency or incident; iii) a description of the nature and effects of the emergency or incident including environmental risks, and any risks to public health or livestock; g) any sampling conducted or proposed, relevant to the emergency or incident; h) immediate actions taken to prevent or mitigate any further environmental harm caused by the emergency or incident; and i) what notification of stakeholders who may be affected by the emergency or incident has occurred or is being undertaken.
A12	As soon as practicable, but not more than **6 weeks** following the initial notification in Condition **A10**, environmental monitoring must be performed and written advice of the results of any such monitoring performed, must be provided to the administering authority.
A13	**Complaints** All complaints received must be recorded and include: a) investigations undertaken; b) conclusions formed; and c) actions taken. This information must be made available to the administering authority on request.
A14	The holder of this environmental authority must for all complaints received, record the following details: a) name, address and contact number of the complainant (if not available record – not identified); b) time and date of complaint; c) investigations undertaken; d) conclusions formed;

	e) actions taken to resolve complaint; f) any abatement measures implemented; and g) person responsible for resolving the complaint. This information must be provided to the administering authority on request.
A15	When requested by the administering authority, the environmental authority holder must undertake the relevant specified monitoring within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint of environmental harm.
A16	The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures implemented must be provided to the administering authority within **14 days** of completion of the investigation.
A17	**Community** The environmental authority holder must establish, promote and maintain easily accessible lines of communication between residents, stakeholders and landowners reasonably expected to be affected by the activities to ensure that social and cultural heritage impacts are identified and managed. This must include but not be limited to the following: a) regular meetings with all relevant stakeholders at intervals of not less than 6 months; and a) the establishment of a consultative committee with representation for all relevant stakeholders that meets at regular intervals as determined by the committee.
A18	**Tenure** The environmental authority does not take effect until the grant of the tenure to the environmental authority holder, or until each environmental authority holder has become a holder, under the *Mineral Resources Act 1989*, of each of relevant mining tenements.

Schedule B: Water	
Condition Number	**Condition**
B1	**Contaminant Release** Mine affected water must not be released to waters. ***Note:*** *It is an offence under the Environmental Protection Act 1994 to unlawfully deposit a prescribed water contaminant (i) in waters or (ii) at another place, and in a way, so that the contaminant could reasonably be expected to wash, blow, fall or otherwise move into waters.*
B2	**Stormwater and Sediment Controls** The environmental authority holder must comply with each of the 'Erosion and Sediment Control' Standard Environmental Conditions contained in the *Eligibility Criteria and Standard Conditions for Mining Lease Activities,* and additional conditions **B3 – B5*.***
B3	An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of storm water.
B4	Surface runoff must be managed where necessary to minimise sedimentation and erosion.

B5	All sediment control barriers installed must be made of non-organic material to prevent the spread of weeds.
B6	**Dams** The environmental authority holder must comply with each of the 'Dams' Standard Environmental Conditions contained in the *Eligibility Criteria and Standard Conditions for Mining Lease Activities,* and additional conditions **B7-B13.**
B7	New dams must not be constructed within 1 kilometre of any Category B Environmentally Sensitive Area. **Note**: Dams are not considered 'new' if identified in Table 2: Areas of historic disturbance authorised for mining activities to occur on, and Figure 3: Areas of historic disturbance identified on Mining Lease 70447.
B8	The environmental authority holder must ensure that each dam is designed, constructed, operated, and maintained in accordance with the certification of a suitably qualified and experienced person and is fit for the purpose for which it is intended.
B9	The consequence category of each dam must be assessed by a suitably qualified and experienced person at least once per year, based on documented evidence sufficient to define or confirm the current nature and extent of environmental consequences for potential failure of that dam. Consequence category is to be determined in accordance with the '*Manual for assessing consequence categories and hydraulic performance of structures'*, as amended from time to time.
B10	The condition of dams must be monitored for early signs of loss of structural or hydraulic integrity, based on the advice of a suitably qualified and experienced person. The methods of monitoring and frequency of monitoring shall be as assessed by that suitably qualified and experienced person, based on the hazard category and particular circumstances of each dam.
B11	In the event of early signs of loss of structural or hydraulic integrity, the holder of this environmental authority must immediately take action to prevent or minimise any actual or potential environmental harm, and report in writing any findings and actions taken, to the administering authority within **28 days** of detection.
B12	The holder of this environmental authority must not abandon any dam and must decommission each dam such that environmental harm is prevented.
B13	As a minimum, decommissioning must be conducted such that each dam: a) is a stable landform, that no longer contains flowable substances, or b) is approved or authorised under relevant legislation for a beneficial use, and b) complies with the rehabilitation requirements of this environmental authority.
B14	**Flood Protection Levy** Design requirements for the levee and adjacent mining excavation include: a) the crest level of the levee crest shall be 1.5m above the 2010-11 flood event height for the adjacent watercourses; and b) setbacks from the watercourses and mining excavation slopes adjacent to the levee must be designed such that the levee will remain stable in operation with a factor of safety of 1.5 or above based on a certification by a suitably qualified and experienced person.
B15	The flood protection levee authorised under this environmental authority must be constructed and maintained such that: a) it does not result in increased erosion of the bank or bed of Policemen Creek; b) it does not significantly impact upon riparian or existing remnant vegetation; c) it does not significantly impact upon the Category B Environmentally Sensitive Area (Figure 1);

	d) it does not create increased flood levels upstream during operation (afflux) such that damage is caused to the property of others that would not otherwise be caused; and e) the levee itself will not erode, to the extent that the erosion may jeopardise the integrity of the levee, during any flood events up to the level of the 2010-2011 flood event.
B16	The consequence category of each levee must be assessed by a suitably qualified and experienced person at least once per year, based on documented evidence sufficient to define or confirm the current nature and extent of environmental consequences for potential failure of that dam. Consequence category is to be determined in accordance with the 'Manual for assessing consequence categories and hydraulic performance of structures', as amended from time to time.
B17	The condition of constructed levees including the surface area between the non-creek side of the toe of the levee and the end wall crest of the open-cut mining pit should be monitored for surface cracks and must at a minimum be inspected and assessed by a suitably qualified and experienced person at least once per year between the months of May and October inclusive (i.e. during the 'dry' season and before the onset of the 'wet' season), and at any time if alarming, unusual or otherwise unsatisfactory conditions are observed.
B18	**Regulated Structures** The holder of this environmental authority is not authorised to construct any regulated structures.
B19	**Groundwater** The holder of this environmental authority must develop and submit to the administering authority before commencing any mining activities, a scientifically based groundwater monitoring program ('GWMP') capable of detecting changes to the levels and quality of the groundwater from the point known as "Kubota Bore".
B20	The GWMP must include provision for the environmental authority holder to: a) accurately monitor the groundwater quarterly and report the results thereof to the administering authority, or otherwise on the request of the administering authority; b) maintain records of the testing and monitoring carried out on the groundwater; c) produce to the administering authority on request, such records and data relied on to verify the groundwater monitoring results reported by the environmental authority holder; d) notify the administering authority and the landholder within 24 hours of any significant changes detected to the groundwater levels or quality; and e) comply with the water sampling method set out in the current edition of the administering authority's *Water Quality Sampling Manual*.
B21	The environmental authority holder must provide to the landholder a copy of any GWMP, and if so requested by the landholder, a copy of the quarterly monitoring results.
B22	Any proposed change to the GWMP must first be given to the landholder.

Schedule C: Waste	
Condition Number	**Condition**
C1	***Waste Management*** The environmental authority holder must comply with each of the 'Waste Management' Standard Environmental conditions contained in the Eligibility Criteria and Standard Conditions for Mining Lease Activities, except condition **B6**, which is replaced by Condition **C2** of this environmental authority.
C2	All waste must be removed and disposed of offsite.

Schedule D: Land	
Condition Number	**Condition**
D1	**Topsoil and Overburden Management** The environmental authority holder must comply with each of the 'Topsoil and Overburden Management' Standard Environmental Conditions contained in the *'Eligibility Criteria and Standard Conditions for Mining Lease Activities',* and additional Conditions **D3** to **D4**.
D2	Topsoil stockpiles must not exceed 4 metres in height.
D3	Overburden stockpiles must not exceed 4 meters in height
D4	The spillage of any topsoil or overburden must be controlled in a manner that prevents environmental harm.
D5	**Nature Conservation** The environmental authority holder must comply with each of the 'Nature Conservation' Standard Environmental Conditions contained in the *Eligibility Criteria and Standard Conditions for Mining Lease Activities* except Condition 13, which is replaced by Conditions D6 to D14 of this environmental authority.
D6	The environmental authority holder must not undertake mining activities within any Category A, Category B or Category C Environmentally Sensitive Area (Figures 1 and 2).
D7	The environmental authority holder must not undertake any mining activities within 2 kilometres of any Category A Environmentally Sensitive Area.
D8	The environmental authority holder must not have more than 9.75 hectares of disturbance caused by mining activities, at any one
D9	Habitat trees must not be impacted by the mining activities.
D10	Trees or shrubs with nests of birds of prey (raptors) whether active or not, and visibly active non-raptor bird nests must not be impacted from the mining activities

D11	No clearing of mature trees is authorised except with approval of the administering authority.
D12	Debris from clearing or felling of trees must not accumulate within two metres of any retained tree.
D13	Burning of vegetation is not permitted.
D14	Mining activities are permitted in areas of historic disturbance.
D15	**Roads and Tracks** The environmental authority holder must comply with each of the 'Roads and Tracks' Standard Environmental Conditions contained in the *Eligibility Criteria and Standard Conditions for Mining Lease Activities,* and additional Conditions **D16** to **D19.**
D16	Existing access and fence line tracks must be used where possible
D17	Any new tracks are to be constructed by linking naturally cleared or disturbed areas and must be less than 5 metres in width.
D18	Track construction involving blade clearing of established ground cover vegetation is to be minimised.
D19	Tracks should not be used when soil is saturated and prone to displacement or erosion by vehicle movement.
D20	**Campsites** The environmental authority holder must comply with each of the 'Campsites' Standard Environmental Conditions contained in the *Eligibility Criteria and Standard Conditions for Mining Lease Activities*, and additional Condition **D21.**
D21	Campsites must not be established within 1 kilometre of any Category B Environmentally Sensitive Area.
D22	**Rehabilitation** The environmental authority holder must comply with each of the 'Rehabilitation' Standard Environmental Conditions contained in the *Eligibility Criteria and Standard Conditions for Mining Lease Activities*, and additional Conditions **D23** to **D29**.
D23	The proposed mining activities must reduce historic disturbance to below 10 hectares within **9 months** from the commencement of mining in accordance with the version of this environmental authority dated 20 October 2020.
D24	Rehabilitation of areas disturbed by mining activities within 1 kilometre of any Category B Environmentally Sensitive Area must be completed as soon as practicable, but no longer than **3 months** after completion of the disturbance activities.
D25	The environmental authority holder must revegetate disturbed areas within 1 kilometre of any Category B Environmentally Sensitive Area with native plant species endemic to the area and buffel grass that will promote the same vegetation type and density of cover to that of the surrounding undisturbed areas both in and within 1 kilometre of any Category B Environmentally Sensitive Area.
D26	All land subject to mining activities must be rehabilitated to a non-polluting, safe, stable and self-sustaining landform and in accordance with Table 3: Rehabilitation schedule.

D27	An annual report must be prepared each year and submitted with each annual return. The report must: a) include details of the mining activities undertaken and details of progressive rehabilitation works completed; and b) demonstrate compliance with rehabilitation requirements of the environmental authority.
D28	The following areas must be securely fenced by the environmental authority holder: a) all active mining areas, including mining pits, tailings dams and machinery areas; b) all areas undergoing rehabilitation; and c) all bunded areas while those areas are in the process of being vegetated, up and until the time that those areas are capable of supporting grazing.
D29	The following areas must not be fenced, and the landowner must have free access to manage the balance lands and to graze cattle in the following areas, at all times: a) all areas not the subject of active mining; and b) all bunded areas that have been vegetated and are capable of supporting grazing.

Definitions

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

"**active birds nests**" means birds are nesting or there are eggs in the nest or hollow.

"**administering authority**" means the Department of Environment and Heritage Protection or its successor.

"**authority**" means environmental authority (mining lease) under the Environmental Protection Act 1994.

"**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.

"**bund**" see "levee".

"**certification**" means assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by the Manual 'Structures which are dams or levees constructed as part of environmentally relevant activities' including design plans, as constructed drawings and specification, construction and operation or an annual report regarding regulated structures undertaken in accordance with the Board Professional Engineers of Queensland Policy Certification by RPEQ's.

'**consequence category'** means a category, either low, significant or high, into which a dam or levee 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 regulated structure includes building a new dam or levee and modifying or lifting an existing dam or levee, but does not include investigations and testing necessary for purposes 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.

"**cover material**" means any soil or rock suitable as a germination medium or landform armouring.

"**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. A "dam" does not mean

a) a fabricated or manufactured tank or container, designed and constructed to an Australian Standard that deals with strength and structural integrity of that tank or container
a) an otherwise dry mining pit/sump used for the storage of water.

"**density of cover**" - In reference to trees and/or shrubs, it means the number of trees or shrubs in a specified area (e.g. 50 trees per square kilometre). With reference to understorey plant species (e.g. grasses and forbs), it means the percentage of surface area covered by a particular species.

"**design plan**" is the documentation required to describe the physical dimensions of the regulated structure, the

materials and standards to be used for construction of the regulated structure, and the criteria to be used for operating the regulated structure. The documents must include all investigation and design reports, plans and specifications sufficient to hand to a contractor for construction, and planned decommissioning and rehabilitation outcomes; so as to address all hazard scenarios that would be identified by a properly conducted hazard assessment for the structure. Documentation must be such that a 'suitable qualified and experience person' could conduct an independent review without seeking further information from the designer.

"**disturbed**" means any area that has had its natural state altered by the action or interference of carrying out an activity associated with the mining project. This does not include the bund walls that are fully established with vegetative matter and capable of supporting grazing activities.

"**dyke**" see "levee".

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

"**environmental authority holder**" means the holder of this environmental authority.

"**environmentally relevant activity**" means an environmentally relevant activity as defined under Section 18 of the *Environmental Protection Act 1994* and listed under Schedule 2 of the *Environmental Protection Regulation 2008*.

“exploration activities” are mining activities permitted under an environmental authority, that allows the holder to:

a) determine the existence, quality and quantity of minerals;
b) evaluate the potential for development of the mineral resource;
c) mining and engineering feasibility studies
d) other activities approved by the Minster.

"***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.

"**habitat trees**" means those that contain a hollow of 10cm in diameter or bigger and are 2m or more in height.

"**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).

"**hazardous waste**" means a substance, whether liquid, solid or gaseous that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause environmental harm.

"**historic disturbance**" means disturbance created on Mining Lease (ML) 70004, ML70005, ML70006 and ML70029.

"**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.

"**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.

"**levee**", "**dyke**" or "**bund**" means a long embankment that is designed only to provide for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of water or flowable substances at any other times.

"**mature trees**" means a tree that is 70% or greater of the predominant canopy height.

“mine affected water”

a) means the following types of water:
    i) pit water, tailings dam water, processing plant water;
    ii) water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2019 if it had not formed part of the mining activity;
    iii) rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to mage runoff containing sediment only, provided that this water has not been mixed with pit water, tailing dam water, processing plant water or workshop water;
    iv) groundwater which has been I contact with any areas disturbed by mining activities which have not yet been rehabilitated;
    v) groundwater from the mines 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 been partially 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 have been capped and are monitoring data demonstrating hazardous material adequately contained with the site;
        b) evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff, or
    iii) both.

"**native vegetation**" - Vegetation that occurs naturally in a certain area.

"**non-raptor**" means any bird apart from birds of prey.

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

"**raptors**" means a bird of prey. Families of birds classed as raptors include eagles, hawks, falcons and owls.

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

"**regulated structure**" means any dam or levee in the significant or high hazard category as assessed using the ‘Manual for assessing consequences categories and hydraulic performance of structures’.

"**regulated waste**" means non-domestic waste mentioned in schedule 7 of the Environmental Protection Regulation 2008 (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.

"**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.

“**rehabilitated**” means graded, ripped, and seeded.

"**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.

"**storm water**" means all surface water runoff from rainfall.

"**suitably qualified and experienced person**" in relation to dams means a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, or at the relevant time holds a 'deemed registration' within the meaning of the *Mutual Recognition (Queensland) Act 1992*; and 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;
b) a total of five years of demonstrated expertise in the geomechanics of dams with particular emphasis on stability, geology and geochemistry; and
c) a total of five years of demonstrated expertise in three of the following categories:
    i) investigation and design of dams;
    ii) construction, operation and maintenance of dams;
    iii) hydrology with particular reference to flooding, estimation of extreme storms, water management or meteorology;
    iv) hydraulics with particular reference to sediment transport and deposition, erosion control, beach processes;
    v) hydrogeology with particular reference to seepage, groundwater;
    vi) solute transport processes and monitoring thereof; and
    vii) dam safety.

"**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.

"**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.

END OF DEFINITIONS

Appendices

Table 1: Areas of historic disturbance authorised for mining to occur on

Parcel Identification (Figure 3)	Disturbance Feature	Point ID	Easting [1]	Northing [1]
A [1]	Overburden and topsoil	1	582890	7406751
		2	582872	7406742
		3	582867	7406761
		4	582866	7406779
		5	582875	7406782
		6	582890	7406751
A [2]	Open Cut; Trench; Overburden; and Topsoil.	1	582705	7407299
		2	582760	7407207
		3	582812	7407119
		4	582898	7406960
		5	582916	7406921
		6	582921	7406904
		7	582925	7406921
		8	582941	7406891
		9	582951	7406900
		10	582958	7406917
		11	582969	7406926
		12	582997	7406925
		13	583012	7406919
		14	583033	7406894
		15	583055	7406872
		16	583067	7406855
		17	583069	7406836
		18	583065	7406818
		19	583051	7406804

		20	583119	7406741
		21	583143	7406726
		22	583155	7406751
		23	583172	7406755
		24	583194	7406755
		25	583220	7406737
		26	583242	7406719
		27	583253	7406699
		28	583260	7406675
		29	583288	7406643
		30	583294	7406625
		31	583287	7406604
		32	583283	7406583
		33	583299	7406569
		34	583311	7406555
		35	583316	7406548
		36	583269	7406504
		37	583240	7406476
		38	583215	7406454
		39	583198	7406442
		40	583196	7406441
		41	583189	7406442
		42	583150	7406446
		43	583117	7406470
		44	583074	7406503
		45	583075	7406513
		46	583069	7406524
		47	583069	7406541
		48	583074	7406572
		49	583062	7406566
		50	583038	7406542
		51	583054	7406516

		52	583032	7406525
		53	583011	7406559
		54	583013	7406566
		55	583028	7406566
		56	583055	7406578
		57	583064	7406586
		58	583081	7406604
		59	583096	7406621
		60	583118	7406622
		61	583131	7406617
		62	583152	7406605
		63	583172	7406604
		64	583196	7406612
		65	583221	7406612
		66	583233	7406615
		67	583231	7406635
		68	583206	7406655
		69	583137	7406708
		70	583113	7406726
		71	583031	7406803
		72	582972	7406842
		73	582966	7406839
		74	582960	7406842
		75	582907	7406855
		76	582892	7406847
		77	582886	7406815
		78	582880	7406806
		79	582870	7406795
		80	582863	7406791
		81	582846	7406807
		82	582828	7406803
		83	582809	7406792

		84	582798	7406793
		85	582788	7406797
		86	582775	7406822
		87	582762	7406860
		88	582763	7406871
		89	582776	7406871
		90	582779	7406883
		91	582771	7406885
		92	582754	7406894
		93	582742	7406925
		94	582786	7406964
		95	582790	7406988
		96	582787	7406999
		97	582785	7407005
		98	582782	7407013
		99	582770	7407060
		100	582753	7407118
		101	582750	7407126
		102	582744	7407146
		103	582719	7407217
		104	582705	7407257
		105	582695	7407292
		106	582649	7407395
		107	582705	7407299
		108	582786	7407069
		109	582801	7407022
		110	582818	7407022
		111	582830	7407021
		112	582832	7406999
		113	582833	7406994
		114	582834	7406983
		115	582853	7406955

		116	582872	7406941
		117	582882	7406940
		118	582887	7406940
		119	582876	7406964
		120	582863	7406990
		121	582860	7406996
		122	582843	7407029
		123	582802	7407109
		124	582769	7407173
		125	582766	7407180
		126	582745	7407220
		127	582727	7407246
		128	582748	7407176
		129	582757	7407151
		130	582760	7407143
		131	582786	7407069
		132	582705	7407299
A [3]	Overburden and Topsoil	1	582848	7407457
		2	582834	7407449
		3	582805	7407455
		4	582805	7407461
		5	582811	7407467
		6	582825	7407467
		7	582833	7407458
		8	582848	7407457
A [4]	Overburden; and Topsoil.	1	582599	7407502
		2	582608	7407491
		3	582630	7407464
		4	582647	7407426
		5	582667	7407422
		6	582752	7407431
		7	582753	7407420

		8	582696	7407414
		9	582695	7407380
		10	582700	7407357
		11	582711	7407335
		12	582745	7407257
		13	582772	7407208
		14	582712	7407310
		15	582648	7407412
		16	582648	7407398
		17	582588	7407495
		18	582585	7407492
		19	582549	7407457
		20	582480	7407406
		21	582415	7407355
		22	582402	7407345
		23	582398	7407342
		24	582395	7407340
		25	582375	7407315
		26	582363	7407302
		27	582332	7407277
		28	582246	7407191
		29	582129	7407085
		30	582110	7407087
		31	582071	7407092
		32	581950	7407107
		33	581833	7407122
		34	581825	7407132
		35	581810	7407165
		36	581856	7407183
		37	581871	7407172
		38	581907	7407160
		39	581943	7407137

		40	582003	7407137
		41	582044	7407133
		42	582086	7407117
		43	582130	7407130
		44	582294	7407300
		45	582269	7407301
		46	582201	7407307
		47	582098	7407319
		48	582080	7407322
		49	582039	7407330
		50	582009	7407335
		51	582004	7407336
		52	581997	7407337
		53	581995	7407334
		54	582002	7407332
		55	582005	7407310
		56	582005	7407299
		57	581989	7407290
		58	581950	7407285
		59	581939	7407279
		60	581922	7407280
		61	581885	7407281
		62	581869	7407280
		63	581852	7407278
		64	581822	7407291
		65	581820	7407344
		66	581827	7407361
		67	581821	7407381
		68	581842	7407374
		69	581842	7407374
		70	581875	7407366
		71	581886	7407362

		72	581897	7407356
		73	581901	7407356
		74	581905	7407359
		75	581888	7407368
		76	581888	7407368
		77	581887	7407368
		78	581887	7407381
		79	581872	7407388
		80	581860	7407391
		81	581862	7407411
		82	581868	7407413
		83	581892	7407410
		84	581903	7407409
		85	581911	7407413
		86	581922	7407409
		87	581940	7407407
		88	581956	7407403
		89	581965	7407402
		90	581970	7407395
		91	581968	7407378
		92	581968	7407365
		93	581967	7407364
		94	582030	7407361
		95	582081	7407358
		96	582126	7407354
		97	582162	7407350
		98	582277	7407331
		99	582326	7407331
		100	582339	7407340
		101	582351	7407346
		102	582381	7407369
		103	582420	7407398

		104	582533	7407488
		105	582571	7407519
		106	582607	7407549
		107	582637	7407582
		108	582639	7407584
		109	582645	7407590
		110	582651	7407595
		111	582669	7407607
		112	582679	7407611
		113	582656	7407591
		114	582649	7407565
		115	582634	7407539
		116	582609	7407526
		117	582599	7407502
A[s]	Overburden and Topsoil.	1	582783	7407647
		2	582891	7407633
		3	582910	7407624
		4	582938	7407622
		5	582970	7407619
		6	582984	7407621
		7	583016	7407616
		8	583014	7407601
		9	583007	7407593
		10	583009	7407604
		11	582983	7407608
		12	582972	7407612
		13	582883	7407621
		14	582868	7407624
		15	582852	7407626
		16	582831	7407627
		17	582786	7407635
		18	582776	7407635

		19	582753	7407633
		20	582753	7407634
		21	582759	7407638
		22	582759	7407640
		23	582759	7407645
		24	582759	7407646
		25	582783	7407647

Table 2: Areas of historic disturbance authorised for mining to occur on

Parcel Identification (Figure 3)	Disturbance Feature	Polygon Point	Easting [1]	Northing [2]
B[1]	Overburden Dump	1	583334	7406462
		2	583309	7406451
		3	583281	7406452
		4	583262	7406440
		5	583241	7406438
		6	583213	7406436
		7	583196	7406441
		8	583198	7406442
		9	583215	7406454
		10	583240	7406476
		11	583269	7406504
		12	583316	7406548
		13	583327	7406531
		14	583350	7406510
		15	583354	7406504
		16	583353	7406483
		17	583334	7406462
B[2]	Bund Construction	1	583075	7406513
		2	583074	7406503
		3	583062	7406512
		4	583054	7406516

		5	583038	7406542
		6	583062	7406566
		7	583074	7406572
		8	583069	7406541
		9	583069	7406524
		10	583075	7406513
B [3]	Overburden Dump	1	582809	7406792
		2	582805	7406790
		3	582798	7406793
		4	582809	7406792
B [4]	Overburden Dump	1	582922	7406790
		2	582897	7406755
		3	582890	7406751
		4	582875	7406782
		5	582866	7406779
		6	582865	7406788
		7	582863	7406791
		8	582870	7406795
		9	582880	7406806
		10	582886	7406815
		11	582892	7406847
		12	582907	7406855
		13	582960	7406842
		14	582966	7406839
		15	582952	7406831
		16	582944	7406822
		17	582923	7406814
		18	582922	7406790
B [5]	Haul Road	1	582925	7406921
		2	582921	7406904
		3	582916	7406921
		4	582898	7406960

		5	582812	7407119
		6	582760	7407207
		7	582705	7407299
		8	582649	7407395
		9	582649	7407396
		10	582648	7407398
		11	582648	7407412
		12	582712	7407310
		13	582772	7407208
		14	582773	7407206
		15	582777	7407199
		16	582789	7407176
		17	582856	7407049
		18	582886	7406993
		19	582889	7406987
		20	582904	7406960
		21	582925	7406921
B [6]	Ramp constructed from topsoil and overburden. Plant Site. Coarse Rejects Area. Tailings Dam. Process Water Dam. Topsoil. Workshop.	1	583002	7407587
		2	582999	7407559
		3	582939	7407557
		4	582901	7407567
		5	582886	7407560
		6	582882	7407554
		7	582887	7407553
		8	582914	7407545
		9	582922	7407534
		10	582922	7407507
		11	582920	7407491
		12	582913	7407478
		13	582895	7407475
		14	582882	7407479
		15	582878	7407481

		16	582881	7407514
		17	582879	7407517
		18	582875	7407517
		19	582876	7407512
		20	582873	7407477
		21	582852	7407459
		22	582879	7407517
		23	582875	7407517
		24	582876	7407512
		25	582873	7407477
		26	582852	7407459
		27	582848	7407457
		28	582833	7407458
		29	582825	7407467
		30	582811	7407467
		31	582805	7407461
		32	582805	7407455
		33	582748	7407466
		34	582751	7407448
		35	582752	7407431
		36	582667	7407422
		37	582647	7407426
		38	582630	7407464
		39	582608	7407491
		40	582599	7407502
		41	582609	7407526
		42	582634	7407539
		43	582649	7407565
		44	582656	7407591
		45	582679	7407611
		46	582698	7407617
		47	582729	7407620

		48	582759	7407621
		49	582759	7407623
		50	582753	7407627
		51	582753	7407633
		52	582776	7407635
		53	582786	7407635
		54	582831	7407627
		55	582852	7407626
		56	582868	7407624
		57	582883	7407621
		58	582972	7407612
		59	582983	7407608
		60	583009	7407604
		61	583007	7407593
		62	583002	7407587

Table 3: Rehabilitation Schedule

	Disturbance Areas				
	Areas within one (1) kilometre of any Category B Environmentally Sensitive Area	***Infrastructure and camp(s)***	***Road(s) and track(s)***	***General excavations***	***Riparian areas & drainage lines***
Tenure ID	ML70447	ML70447	ML70447	ML70447	ML70447
Post mine land use	Native vegetation	Light intensity grazing	Light intensity grazing	Light intensity grazing	Native habitat & riparian vegetation
Post mine land description	Flat revegetated land	Flat revegetated land	Flat revegetated land	Flat revegetated land	Drainage line, low lying & riparian areas
Post mine land capability classification	VI	VI	VI	VI	N/A
Projective cover range (%)	30-50 Weediness is no greater than 5%	30-50 Weediness is no greater than 5%	30-50 Weediness is no	30-50 Weediness is no	30-50 Weediness is no

	higher than adjacent background landholders groundcover[1]	higher than adjacent background landholders groundcover[1]	greater than 5% higher than adjacent background landholders groundcover[1]	greater than 5% higher than adjacent background landholders groundcover[1]	greater than 5% higher than adjacent background landholders groundcover[1]
Species mix	Appropriate native vegetation and Buffel grass	Buffel and other pasture mixtures	Buffel and other pasture mixtures	Buffel and other pasture mixtures	Native vegetation and Buffel grass

Note [1]. Weediness includes weeds that are declared plants as defined under the *Land Protection (Pest and Stock Route Management) Act 2002*.
Note: The holder of this environmental authority is required to comply with all obligations under the *Land Protection (Pest and Stock Route Management) Act 2002* or subsequent legislation.

Figures:

Figure 1: Environmentally Sensitive Areas on ML400012

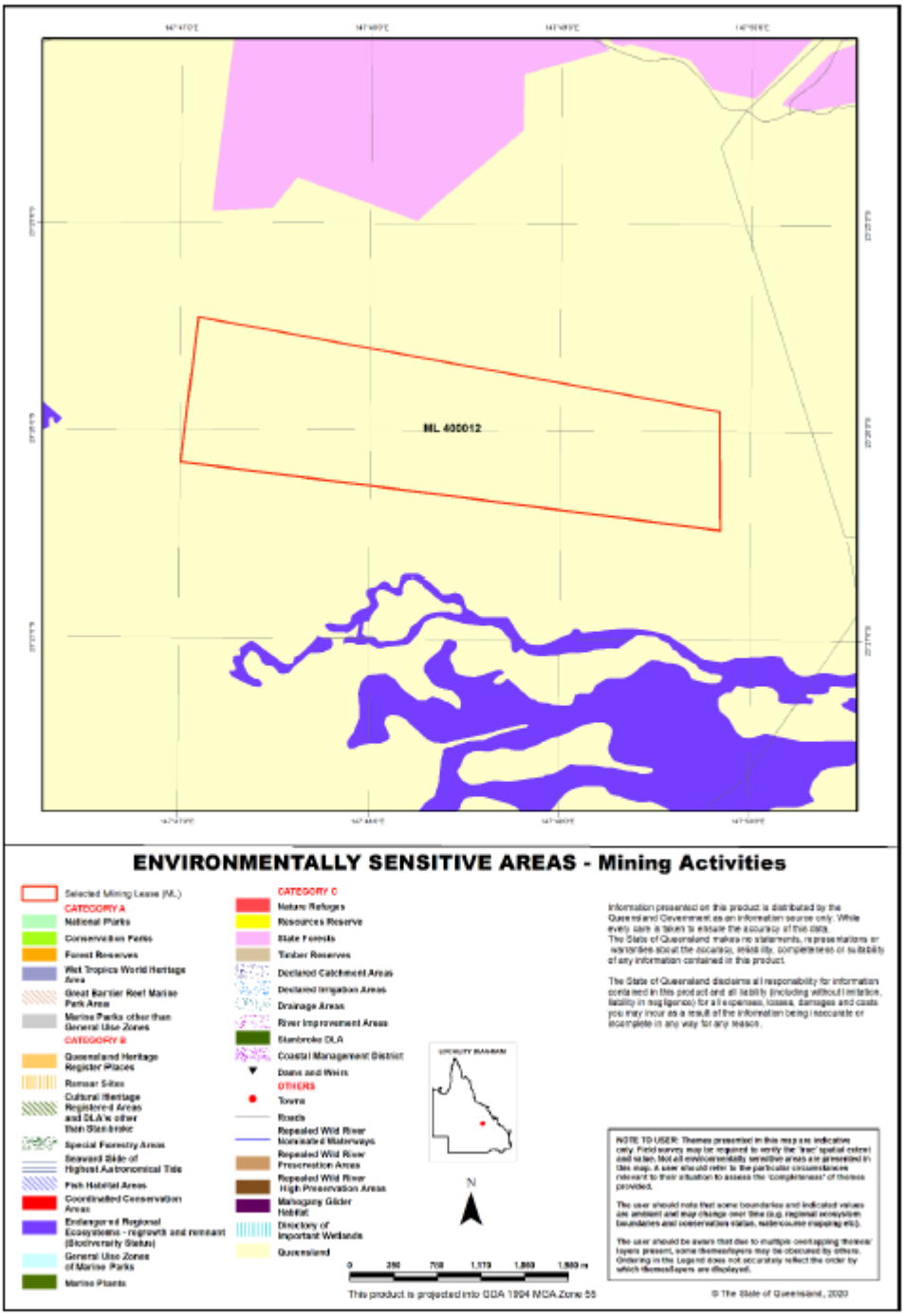


Figure 2: Environmentally Sensitive Areas on ML70447

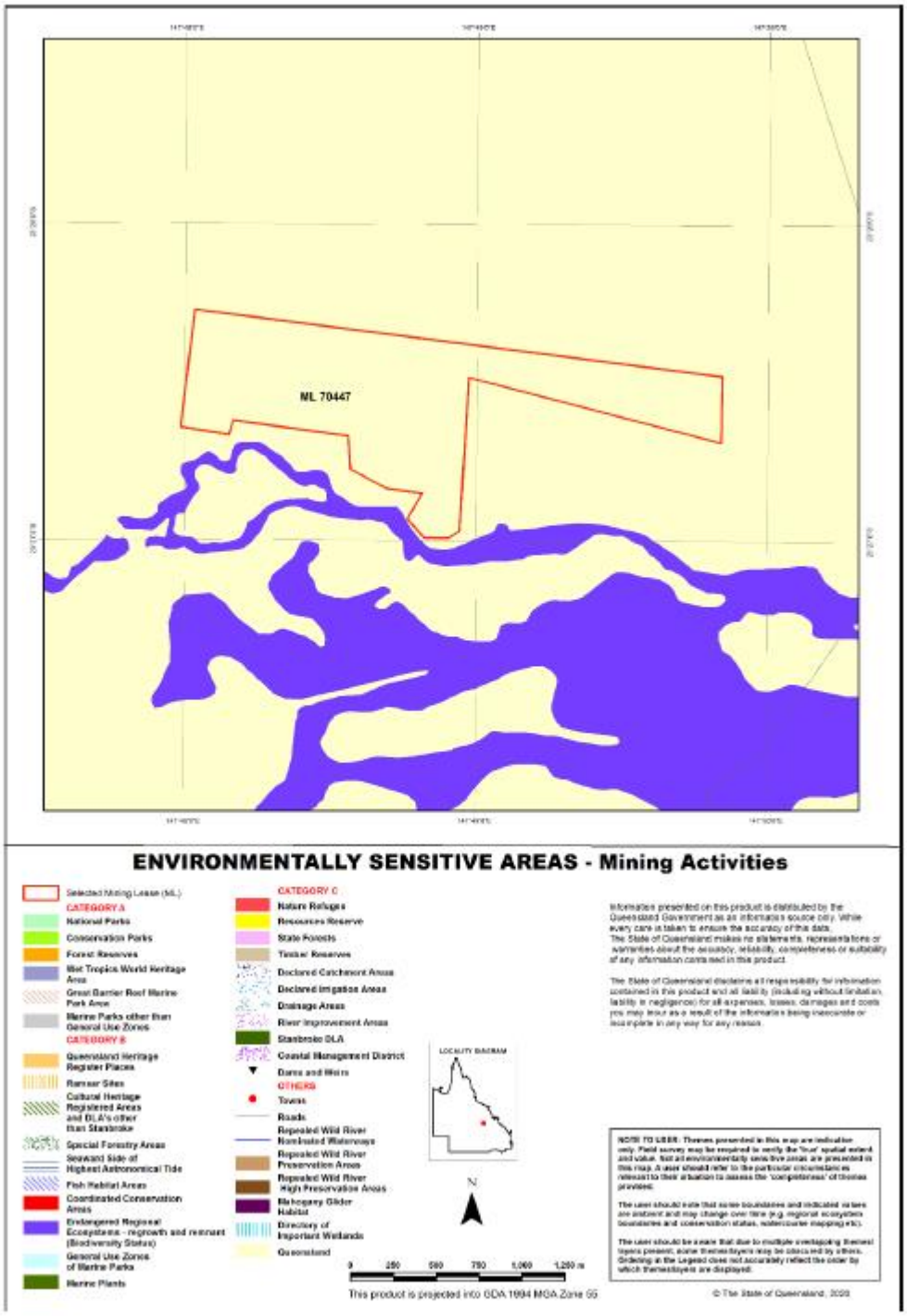


Figure 3: 1 Kilometre zone adjacent to Category B Environmentally Sensitive Area

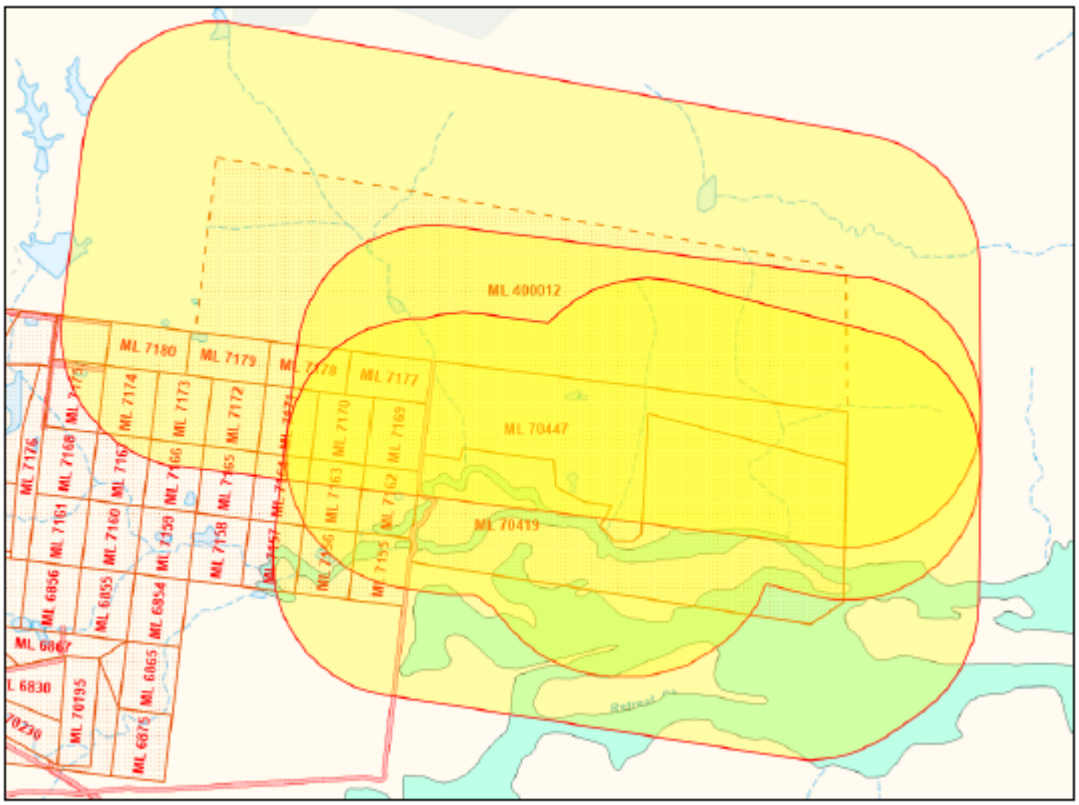


Figure 4: Areas of Historic Disturbance identified on Mining Lease ML70447

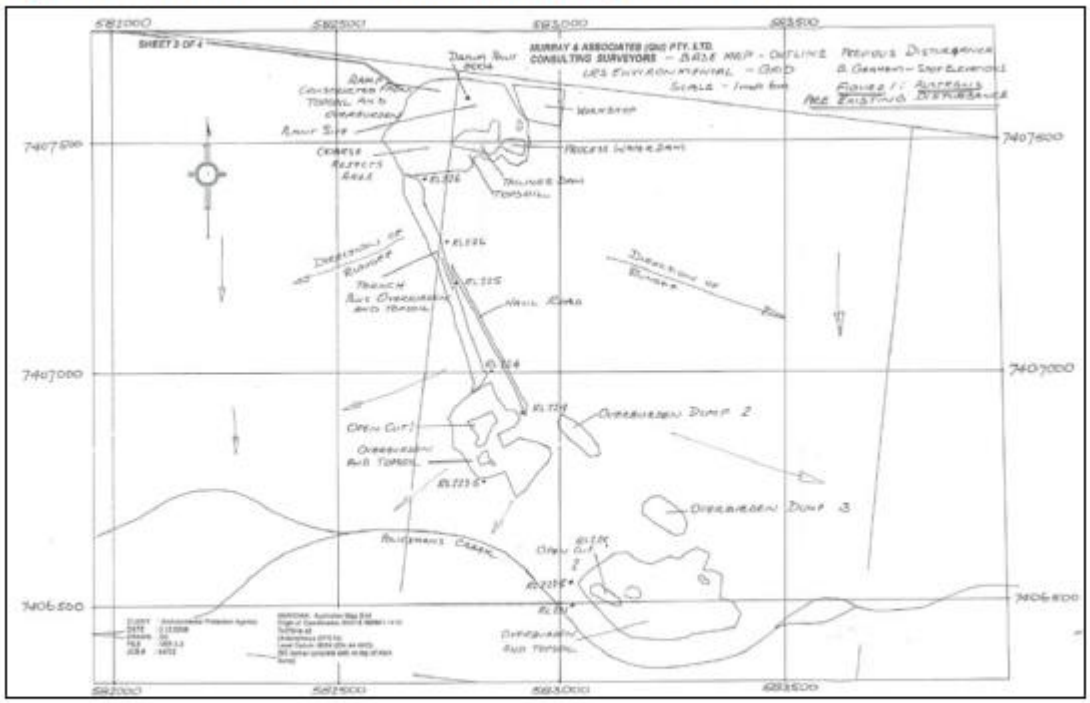
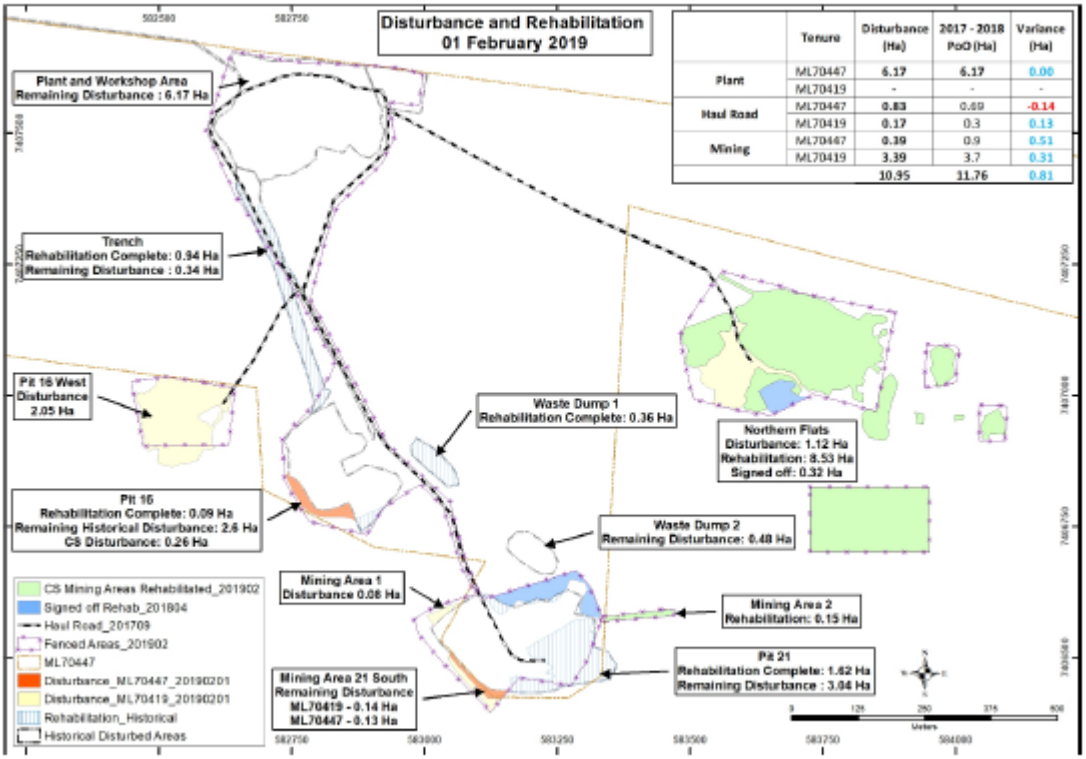


Figure 5: Areas of Historic Disturbance to be rehabilitated by the holder of the environmental authority



END OF ENVIRONMENTAL AUTHORITY