Permit

Environmental Protection Act 1994

Environmental Authority

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

Environmental authority number: EPML00657613

Environmental authority takes effect on 24 July 2026.

The anniversary date of this environmental authority is 7 November.

Environmental authority holder(s)

Name(s)	Registered address
Cement Australia (Exploration) Pty Ltd	Cement Australia 40 McDougall Street Milton QLD 4064

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
Schedule 3 21: A mining activity that is an ineligible ERA, other than a mining activity mentioned in items 9 to 20	ML3664

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).

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Contaminated land

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

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

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

Take effect

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

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

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

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

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

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

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

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

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

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

	24 July 2026
Signature	Date

Sara Staunton

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

Enquiries:

Minerals Business Centre
PO Box 7230, Cairns QLD 4870
Phone: (07) 4222 5352
Email: ESCairns@detsi.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

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

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

Other permits required

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

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

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

Obligations under the *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, visit Resources Safety and Health Queensland's website at www.rshq.qld.gov.au, or call 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 EA are separate, and in addition to, any conditions that may be on the development approval. If a copy of this EA is attached to a development approval, it is for information only and may not be current. Please contact the Department of the Environment, Tourism, Science and Innovation to ensure that you have the most current version of the EA relating to this site.

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

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

Conditions of environmental authority

Schedule A –General

A1 **Maintenance of measures, plant and equipment**
The environmental authority holder must ensure:
(a) that all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority are installed; and
(b) that such measures, plant and equipment are maintained in a proper condition; and
(c) that such measures, plant and equipment are operated in a proper manner.

A2 **Monitoring and records**
Record, compile and keep for a minimum of five years all monitoring results required by this environmental authority and make available for inspection all or any of these records upon request by the administering authority.

A3 Where monitoring is a requirement of this environmental authority, ensure that a competent person(s) conducts all monitoring.

A4 Where a condition of this environmental authority requires compliance with a standard published externally to this environmental authority and the standard is amended or changed subsequent to the issues of this environmental authority the holder this environmental authority must:
(a) comply with the amended or changed standard within 2 years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation; and
(b) until compliance with the amended or changed standard is achieved, continue to remain in compliance with the standard that was current immediately prior to the relevant amendment or change.

A5 **Storage and handling of flammable and combustible liquids**
Spillage of all flammable and combustible liquids must be contained within an onsite containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with AS:1940 - *Storage and Handling of Flammable and Combustible Liquids* or any subsequent updated version.

A6 **Notification of emergencies, incidents and exceptions**
As soon as practicable 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, the administering authority must be notified of the release by telephone, facsimile or email.

A7 The notification of emergencies or incidents as required by condition A8 must include but not be limited to the following:
(a) the holder of the environmental authority;
(b) the location of the emergency or incident;
(c) the number of the environmental authority;
(d) the name and telephone number of the designated contact person;
(e) the time of the release;
(f) the time the holder of the environmental authority became aware of the release;
(g) the suspected cause of the release;
(h) the environmental harm caused, threatened, or suspected to be caused by the release; and
(i) actions taken to prevent any further release and mitigate any environmental harm caused by the release.

A8 Not more than fourteen days following the initial notification of an emergency or incident, written advice must be provided of the information supplied in accordance with condition A6 in relation to:

(a) proposed actions to prevent a recurrence of the emergency or incident; and

(b) outcomes of actions taken at the time to prevent or minimise environmental harm.

A9 As soon as practicable, but not more than six weeks following the conduct of any environmental monitoring performed in relation to the 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, written advice must be provided of the results of any such monitoring performed to the administering authority.

A10 **Definitions**

Words and phrases used throughout this environmental authority are defined in Schedule H - Definitions. 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 *Environmental Protection Act 1994,* its Regulations and Environmental Protection Policies must be used.

END OF CONDITIONS FOR SCHEDULE A

OFFICIAL

Schedule B – Air

Dust nuisance

B1 Subject to Conditions B2 and B3 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, dust and particulate 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 14 days to the administering authority following completion of monitoring.

B3 If the environmental authority holder can provide evidence through monitoring that the following limits are not being exceeded then the holder is not in breach of Condition BI:

(a) dust deposition of 120 milligrams per square metre per day, averaged over one month, when monitored in accordance with AS 3580.10.1:, *Methods for sampling and analysis of ambient air - Determination of particulate matter - Deposited Matter - Gravimetric method of 1991*(or more recent editions); and

(b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (pm) (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 operational land, when monitored in accordance with:

(i) particulate matter - Determination of suspended particulate PM10 high-volume sampler with size-selective inlet - Gravimetric method, when monitored in accordance with AS 3580.9.6:, *Methods for sampling and analysis of ambient air - Determination of suspended particulate matter - PM (sub) 10 high volume sampler with size selective inlet - Gravimetric method of 1990* (or more recent editions); or

(ii) any alternative method of sampling PM10, which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.

B4 If monitoring indicates exceedance of the relevant limits in Condition B3, then the environmental authority holder must:

a) address the complaint including the use of appropriate dispute resolution if required; or

b) immediately implement dust abatement measures so that emissions of dust from the activity do not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

C1 Contaminant release

Contaminants that will, or have the potential to cause environmental harm must not be released directly or indirectly to any waters except as permitted under the conditions of this environmental authority.

C2 Water general

All determinations of water quality must be:

(a) performed by a person or body possessing appropriate experience and qualifications to perform the required measurements;

(b) made in accordance with methods prescribed in the latest edition of the administering authority's *Monitoring and Sampling Manual*;

(c) carried out on representative samples; and

(d) laboratory testing must be undertaken using a laboratory accredited (e.g. NATA) for the method of analysis being used.

Note: *The Monitoring and Sampling Manual must be followed and where it is not followed because of exceptional circumstances this should be explained and reported with the results.*

C3 The release of contaminants directly or indirectly to waters:

(a) must not produce any visible discolouration of receiving waters; and

(b) must not produce any slick or other visible or odorous evidence of oil, grease or petrochemicals nor contain visible floating oil, grease, scum, litter or other objectionable matter.

C4 Stormwater and water sediment controls

An erosion and sediment control plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater. The erosion and sediment control plan must be developed and implemented by **31 May 2013**.

C5 The maintenance and cleaning of any vehicles, plant or equipment must not be carried out in areas from which contaminants can be released into any receiving waters.

C6 Any spillage of wastes, contaminants or other materials must be cleaned up as quickly as practicable to minimise the release of wastes, contaminants or materials to any stormwater drainage system or receiving waters.

C7 Groundwater

Develop and implement a groundwater monitoring and management program by **31 May 2013**. The program must:

(a) be able to detect a significant change to groundwater quality values due to activities that are part of this mining project;

(b) include measures to minimise the impact of the mining activities on groundwater resources;

(c) include contingency procedures for emergencies; and

(d) include a program for monitoring and review of the effectiveness of the groundwater monitoring and management program.

C8 When requested by the administering authority, report the results and analysis of groundwater monitoring.

C9 **Groundwater monitoring**

Groundwater affected by the mining activities must be monitored at the locations, frequencies and for the parameters defined in Table 1 Groundwater monitoring locations, frequency and parameters.

Table 1 – Groundwater monitoring locations and frequency

Monitoring Point	Location	Monitoring Frequency	Water Quality Indicator
Bores 1 – 4	To be identified in the current Plan of Operations	Quarterly	pH, EC (in situ)
Bores 1 – 4		Quarterly until 31 May 2013, six monthly thereafter	Na, Ca, Mg, K, HCO_3, CO_3, Cl, SO_4

C10 In the event that groundwater fluctuations in excess of two metres per year beyond predictable seasonal fluctuations are detected at the groundwater monitoring locations, an investigation must be undertaken within 14 days of detection to determine if the fluctuations are a result of:

(a) mining activities;

(b) pumping from licensed bores; or

(c) seasonal variation.

If the results of the investigation identify that the groundwater fluctuations are a result of mining activities, the holder of the environmental authority must notify the administering authority and provide a copy of a report detailing the findings and outcomes of the investigations within 7 days of receiving the result.

C11 **Groundwater monitoring and management**

The groundwater monitoring and management program, including all data must be reviewed on an annual basis by an appropriately qualified and experienced person. The review must include:

(a) the assessment of groundwater levels and quality data, and the suitability of the monitoring network;

(b) assess the program against the requirements under C7;

(c) include recommended actions to ensure actual and potential environmental impacts are effectively identified and managed for the coming year; and

(d) identify any amendments to the groundwater monitoring and management program following the review.

C12 The assessment under condition C11 must be submitted to the administering authority within 28 days of receiving the report, with a written response to the assessment report and recommended actions, detailing the actions taken or to be taken by the environmental authority holder to ensure compliance with this environmental authority and minimise impacts on groundwater resources by the mining activity.

C13 The following information must be recorded in relation to all groundwater water sampling:

(a) the date on which the sample was taken;

(b) the time at which the sample was taken;

(c) the monitoring point at which the sample was taken; and

(d) the results of all monitoring.

C14 Risk management

Develop, maintain and implement a risk management system for the selection of groundwater monitoring sites which conforms to the Risk Management (AS/NZS ISO 31000:2009) or most recent version.

C15 The holder of this environmental authority must not implement a risk management system that contravenes or prevents the implementation of any condition of this approval.

C16 The risk management system must be reviewed annually and made available to the administering authority upon request.

Note: *Implementation of a risk management system is not a defence against a breach of any other condition of this environmental authority*

END OF CONDITIONS FOR SCHEDULE C

Schedule D – Noise

D1 Noise nuisance

Subject to conditions D2 and D3 noise from the mining activity must not cause an environmental nuisance, at any sensitive or commercial place.

D2 When requested by the administering authority, noise 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 14 days to the administering authority following completion of monitoring.

D3 If the environmental authority holder can provide evidence through monitoring that the limits defined in Table 2, are not being exceeded then the holder is not in breach of condition D1. Monitoring must include:

(a) LA, max adj, T;

(b) relevant background sound level;

(c) the level and frequency of occurrence of impulsive or tonal noise;

(d) atmospheric conditions including wind speed and direction; and

(e) location, date and time of recording.

D4 If monitoring indicates exceedance of the limits in Table 2, then the environmental authority 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.

D5 The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's *Noise Measurement Manual*.

Table 2 - Noise limits

Noise level dB(A)	Monday to Sunday (including public holidays)		
	7am - 6pm	6pm - 10pm	10pm - 7am
	Noise measured at a 'sensitive or commercial place'		
$L_{A10, adj, 10 mins}$	Background + 5	Background + 5	Background + 3
$L_{A1, adj, 10 mins}$	Background + 10	Background + 10	Background + 5

Note: *Where "Background" means background sound pressure level measured in accordance with the latest edition of the administering authority's Noise Measurement Manual. Table 2 does not purport to set operating hours for the mining activities.*

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

E1 All regulated waste removed from the site must be removed by a person who holds a current approval to transport such waste under the provisions of the *Environmental Protection Act 1994*.

E2 Regulated waste must only be removed to a facility licensed under the Environmental Protection Act 1994 to receive such waste.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

F1 Disturbance

In carrying out the mining activity the holder of this Environmental Authority must comply with Table 6.

Table 6 - Authorised disturbance

Details	Disturbance type	
	Residual voids	**ROM area**
Projective surface area (ha)*	110	100.9
Tenure ID	ML 3664	ML 3664

F2 Preventing contaminant release to land

Contaminants must not be released to land in manner which constitutes nuisance, material or serious environmental harm.

F3 Fire Prevention

All reasonable and practicable fire prevention measures must be implemented.

F4 Topsoil

Topsoil must be strategically stripped ahead of mining in accordance with a topsoil management plan.

F5 A topsoil inventory which identifies the topsoil requirements for the Iveragh Sand Extraction Operations and availability of suitable topsoil on site must be detailed in the Plan of Operations.

F6 Cleared vegetation from the site must be managed in accordance with the following hierarchy:

(a) reuse, e.g. use of logs and tree stumps as shelter for fauna in rehabilitated areas;

(b) recycle, e.g. mulching of vegetation and use in rehabilitation on the site; and

(c) other alternative management options implemented in a way that causes the least amount of environmental harm.

F7 A weed management plan must be developed and implemented by 31 May 2013. The weed management plan must describe how the weeds are to be managed in accordance with the *Land Protection (Pest and Stock Route Management) Act 2002* and/or local government requirements for weeds not declared under state legislation.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

G1 Complaint response

All complaints received must be recorded including details of complainant, reasons for the complaint, investigations undertaken, conclusions formed and actions taken. This information must be made available for inspection by the administering authority on request.

END OF CONDITIONS FOR SCHEDULE G

Schedule H - Definitions

Words and phrases used throughout this licence are defined below except where identified in the *Environmental Protection Act 1994* (*EP Act 1994*) 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*.

"20th percentile flow" means the 20th percentile of all daily flow measurements (or estimations) of daily flow over a 10 year period for a particular site. The 20th percentile calculation should only include days where flow has been measured (or estimated), i.e. not dry weather days.

"accepted engineering standards" in relation to dams, means those standards of design, construction, operation and maintenance that are broadly accepted within the profession of engineering as being good practice for the purpose and application being considered. In the case of dams, the most relevant documents would be publications of the Australian National Committee on Large Dams (ANCOLD), guidelines published by Queensland government departments, and relevant Australian and New Zealand Standards.

"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

h) vegetation water use and effects on ground water levels and catchment yields.

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

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

"AEP" means the Annual Exceedance Probability, which is the probability that at least one event in excess of a particular magnitude will occur in any given year.

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

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

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

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

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

"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

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

"associated works" in relation to a dam, means:

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

b) any land used for those operations.

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

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

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

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

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

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

"biosolids" means the treated and stabilised solids from sewage.

"blasting" means the use of explosive materials to fracture:

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

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

"bunded" means within bunding consistent with Australian Standard 1940.

"certification" 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
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).
b) A dangerous good under the dangerous goods code.
c) A lead hazardous substance within the meaning of the *Work Health and Safety Regulation 2011.*
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.
e) any substance used as, or intended for use as:
    i. a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product.
    ii. a surface active agent, including, for example, soap or related detergent
    iii. a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide
    iv. a fertiliser for agricultural, horticultural or garden use
f) a substance used for, or intended for use for:
    i. mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater
    ii. manufacture of plastic or synthetic rubber.

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

"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
b) an odour
c) an organism (whether alive or dead), including a virus
d) energy, including noise, heat, radioactivity and electromagnetic radiation
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.

"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 is designed to contain, divert or control flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works. However; a dam does not mean a fabricated or manufactured tank or container designed to a recognised standard, nor does a dam mean a land-based structure where that structure is designed to an Australian Standard. In case there is any doubt, a levee (dyke or bund) is a dam, but (for example) a bund designed for spill containment to AS1940 is not a dam.

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

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

"development approval" means a development approval under the *Sustainable Planning Act 2009* in relation to a matter that involves an environmentally relevant activity under the *Environmental Protection Act 1994*.

"disturbed" means any area that has had its natural state altered by the action or interference of carrying out an activity associated with the exploration project.

"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 homer or other building or part of a building

b) a caravan, mobile home or other vehicle or structure on land

c) a water craft in a marina.

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

"end of pipe" means the location at which water is released to waters or land.

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

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

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

"ERE" means an endangered regional ecosystem identified in the database maintained by the department called 'Regional Ecosystem Description Database' containing regional ecosystem numbers and descriptions.

"financial assurance" means a security required under the *Environmental Protection Act 1994* by the administering authority to cover the cost of rehabilitation or remediation of disturbed land or to secure compliance with the environmental authority.

"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.

"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.

"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 *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams.*

"hydraulic performance" means the capacity of a regulated dam to contain or safely pass flowable substances based on a probability (AEP) of performance failure specified for the relevant hazard category in the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams.*

"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.

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

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

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

"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 capability" as defined in the *Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland (DME 1995)*.

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

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

"landfill" means land used as a waste disposal site for lawfully putting solid waste on the land.

"levee" means a dam, dyke or bund 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 unplanned releases from other works of infrastructure, during the progress of those stormwater or flood flows or those unplanned releases; and does not store any significant volume of water or flowable substances at any other times.

"mandatory reporting level" or **"MRL"** means a warning and reporting level determined in accordance with the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams.*

"mature trees" means any tree relevant to the tenure that is classified as a *commercial sized tree* by the *Code of Practice for Native Forest Timber Production 2002*

"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 there from

d) limestone if mined for use for its chemical properties

e) marble

f) mineral oil or gas extracted or produced from shale or coal by in situ processes g) peat

h) salt including brine

i) shale from which mineral oil may be extracted or produced

j) silica, including silica sand, if mined for use for its chemical properties

k) rock mined in block or slab form for building or monumental purposes.

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.

"mine water" means process water and contaminated stormwater.

"natural flow" means the flow of water through waters caused by nature.

"nature" includes:

a) ecosystems and their constituent parts

b) all natural and physical resources

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.

"operational plan" means a document that amongst other things sets out procedures and criteria to be used for operating a dam during a particular time period. The operational plan as defined herein may form part of a plan of operations or plan otherwise required in legislation.

"palletised" means stored on a movable platform on which batteries are placed for storage or transportation.

"peak particle velocity (ppv)" means a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mms^{-1}).

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

"protected area" means:

a) a protected area under the *Nature Conservation Act 1992*

b) a marine park under the *Marine Parks Act 2004*

c) a World Heritage Area.

"process water" means water used or produced during the mineral development activities.

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

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

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

"recycled water" means appropriately treated effluent and urban stormwater suitable for further use.

"reference site" (or analogue site) may reflect the original location, adjacent area or another area where rehabilitation success has been completed for a similar biodiversity. Details of the reference site may be as photographs, computer generated images and vegetation models etc.

"regulated dam" means any dam in the significant or high hazard category as assessed using the *Manual for Assessing Hazard Categories and Hydraulic Performance of Dams.*

"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

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.

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

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

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

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

"sensitive place" means:

a) a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises
b) a motel, hotel or hostel
c) an educational institution
d) a medical centre or hospital
e) a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area
f) a public park or gardens.

"sewage" means the used water of person's to be treated at a sewage treatment plant.

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

"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 one who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the *Professional Engineers Act 2002*, 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
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

"trackable waste" means a waste or combination of waste stated in Schedule 1 of the *Environmental Protection (Waste Management) Regulation 2000.*

"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 management hierarchy" has the meaning given by the *Environmental Protection (Waste Management) Regulation 2000*.

"waste management principles" has the meaning given by the *Environmental Protection (Waste Management) Regulation 2000*.

"water" means:

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

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

"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
   ii. in an artificial channel that has changed the course of the river, creek or stream
b) lake, lagoon, pond, swamp, wetland, dam
c) unconfined surface water
d) storm water channel, storm water drain, roadside gutter

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 f) groundwater
g) non-tidal or tidal waters (including the sea)
h) any part-thereof.

"µg/L" means micrograms per litre.

"µS/cm^{-1}" means microsiemens per centimetre.

END OF ENVIRONMENTAL AUTHORITY