

Permit

Environmental Protection Act 1994

Environmental authority EPPR00516513

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

Environmental authority number: EPPR00516513

Environmental authority takes effect on 1 March 2022.

The anniversary date of this environmental authority is 31 May each year.

Environmental authority holder(s)

Name(s)	Registered address
HOLCIM (AUSTRALIA) PTY LTD	Level 7 799 Pacific Highway CHATSWOOD NSW 2067

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
ERA 16 - Extraction and Screening - 2(c) - Extracting, other than by dredging, in a year, the following quantity of material - more than 1,000,000t	611/FTY1877
ERA 16 - Extraction and Screening - 3(c) - Screening, in a year, the following quantity of material - more than 1,000,000t	611/FTY1877
ERA 33 - Crushing, milling, grinding or screening - Crushing, grinding, milling or screening more than 5000t of material in a year	1/AP23631
ERA 54 - Mechanical waste reprocessing - 1 - Operating a facility for receiving and mechanically reprocessing, in a year, more than 5,000t of inert, non-putrescible waste or green waste only	1/AP23631
ERA 16 - Extraction and Screening - 2(b) - Extracting, other than by dredging, in a year, the following quantity of material - more than 100,000t but not more than 1,000,000t	249/FTY1673

Environmentally relevant activity/activities	Location(s)
ERA 16 - Extraction and Screening - 3(b) - Screening, in a year, the following quantity of material - more than 100,000t but not more than 1,000,000t	249/FTY1673
ERA 16 - Extraction and Screening - 3(b) - Screening, in a year, the following quantity of material - more than 100,000t but not more than 1,000,000t	3/SP193049
ERA 16 - Extraction and Screening - 2(b) - Extracting, other than by dredging, in a year, the following quantity of material - more than 100,000t but not more than 1,000,000t	3/SP193049
ERA 16 - Extraction and Screening - 3(b) - Screening, in a year, the following quantity of material - more than 100,000t but not more than 1,000,000t	4/SP193049
ERA 16 - Extraction and Screening - 2(b) - Extracting, other than by dredging, in a year, the following quantity of material - more than 100,000t but not more than 1,000,000t	4/SP193049

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:

- 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.

The anniversary day of this environmental authority is the same day each year as the original take effect date unless you apply to change the anniversary day. The payment of the annual fee will be due each year on this day. An annual return will be due each year on 01 April.

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



Signature

1 March 2022

Date

Clancy Mackaway
Department of Environment and Science
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
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Privacy statement

Pursuant to section 540 of the EP Act, the Department is required to maintain a register of certain documents and information authorised under the EP Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the EP Act. There is no general discretion allowing the Department to withhold documents or information required to be kept on the public register. For more information on the Department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

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 <https://www.rshq.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. If you are unsure that you have the most current version of the environmental authority relating to this site please visit <https://apps.des.qld.gov.au/env-authorities/> to access all environmental authorities currently approved.

Conditions of environmental authority

Part 1- Conditions relevant to all activities and locations

Agency interest: General	
Condition number	Condition
G1	All reasonable and practicable measures must be taken to minimise the likelihood of environmental harm being caused.
G2	Any breach of a condition of this environmental authority, must be reported to the administering authority as soon as practicable, or at most, within 24 hours of you becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions undertaken.
G3	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.
G4	All information and records that are required by the conditions of this environmental authority must be kept for a minimum of five (5) years. Environmental monitoring results must be kept until surrender of this environmental authority. All information and records required by the conditions of this environmental authority must be provided to the administering authority upon request.
G5	An appropriately qualified person(s) must monitor, record and interpret all parameters that are required to be monitored by this environmental authority and in the manner specified by this environmental authority.
G6	All analyses required under this environmental authority must be carried out by a laboratory that has NATA certification, or an equivalent certification, for such analyses. The only exception to this condition is for <i>in situ</i> monitoring of pH and turbidity.
G7	When required by the administering authority, monitoring must be undertaken in the manner prescribed by the administering authority, to investigate a complaint of environmental nuisance arising from the activity. The monitoring results must be provided to the administering authority upon request.
G8	The activity must be undertaken in accordance with written procedures that: 1. identify potential risks to the environment from the activity during routine operations, closure and an emergency; 2. establish and maintain control measures that minimise the potential for environmental harm; 3. ensure plant, equipment and measures are maintained in a proper and effective condition; 4. ensure plant, equipment and measures are operated in a proper and effective manner; 5. ensure that staff are trained and aware of their obligations under the <i>Environmental Protection Act 1994</i>; and 6. ensure that reviews of environmental performance are undertaken at least annually.

Agency interest: Air	
Condition number	Condition
A1	Odours or airborne contaminants which are noxious or offensive or otherwise unreasonably disruptive to public amenity or safety must not cause nuisance to any nuisance sensitive place or commercial place.
Agency interest: Water	
Condition number	Condition
WT1	Other than as permitted within this environmental authority, contaminants must not be released from any site to any waters or the bed and banks of any waters.
WT2	Monitoring of contaminant releases to waters must be undertaken in accordance with Schedule 2.
WT3	The release to waters in accordance with Schedule 2 must not: 1. have any other properties at a concentration that is capable of causing environmental harm. 2. produce any slick or other visible evidence of oil or grease, nor contain visible floating oil, grease, scum, litter or other visually objectionable matter.
WT4	The stormwater runoff from disturbed areas, generated by (up to and including) a 24 hour storm event with an average recurrence interval of 1 in 5 years must be retained on site or managed to remove contaminants before release.
Agency interest: Land	
Condition number	Condition
L1	Land that has been disturbed for activities conducted under this environmental authority must be rehabilitated in a manner such that: 1. suitable native species of vegetation for the location are established and sustained for earthen surfaces; 2. potential for erosion is minimised; 3. the quality of water, including seepage, released from the site does not cause environmental harm; 4. potential for environmental nuisance caused by dust is minimised; 5. the water quality of any residual water body does not have potential to cause environmental harm; and 6. the final landform is stable and protects public safety.

L2	Rehabilitation of disturbed areas required under condition L1, must take place progressively as works are staged and new areas of extraction are commenced.
Agency interest: Waste	
Condition number	Condition
WS1	All waste generated in carrying out the activity must be reused, recycled or removed to a facility that can lawfully accept the waste.

Part 2 – Site specific conditions for Bli Bli Quarry (excluding the Eastern Development Area)

Environmentally Relevant Activities	Location
ERA 16-2(b) extracting, other than by dredging, in a year 100,000t to 1,000,000t of material ERA 16-3(b) screening, in a year, 100,000 to 1,000,000t of material	Bli Bli Quarry Cooney Road, BLI BLI Part of Lot 4 Plan SP193049 (previously Lot 1 Plan RP152210), and Lot 249 Plan FTY1673

In addition to the conditions specified in Part 1, the environmentally relevant activities conducted at the location as described above must be conducted in accordance with the following site specific conditions.

Agency interest: Water	
Condition number	Condition
BBWT1	The only contaminants to be released to surface waters are settled treated stormwater runoff waters in accordance with <i>Schedule 2, Table 5—Surface water release limits — Bli Bli, including Eastern Development Area</i> and the associated monitoring requirements.
Agency interest: Noise	
Condition number	Condition
BBN1	Except as otherwise provided by the conditions of this environmental authority the environmentally relevant activities must be carried out by such practicable means necessary to prevent or minimise the emission or likelihood of emission of noise.
BBN2	The emission of noise from the licensed premises must not result in levels greater than those specified in <i>Schedule 2, Table 1 - Noise limits for Bli Bli and Sunrock</i> .
BBN3	The value of background noise level to be used in conjunction with the noise limits in <i>Schedule 2, Table 1 - Noise limits for Bli Bli and Sunrock</i> is to be obtained from <i>Schedule 2, Table 2 — Background noise limits for Bli Bli and Sunrock</i> using the following methodology. i. If the measured background noise level is above the upper limit of the appropriate range, the upper limit of the appropriate range must be used. ii. If the measured background noise level is below the lower limit of the appropriate range, the lower limit of the appropriate range must be used. iii. If the measured background noise level is within the appropriate range, then the measured value must be used.
BBN4	Air-blast over-pressure levels generated by blasting operations shall be such that the level generated by at least 90% of all blasts is 115 dB (peak linear) or less and the level generated by all blasts is 120 dB (peak linear) or less when measured on the curtilage of the most affected noise sensitive premises using instrumentation having a lower-limiting frequency of 2 Hertz or less.
BBN5	Ground vibration levels generated by blasting operations shall be such that the level generated by at least 90% of all blasts is 5mm/s peak particle velocity or less and the level generated by all blasts is 10mm/s peak particle velocity or less when measured at any point on the most affected noise sensitive premises at least the longest dimension of the foundations of a building or structure away from such building or structure.

BBN6	The results of measurements made for determining compliance with conditions BBN4 and BBN5 shall be submitted with the annual return for the licence. Each 12 month reporting period shall be the period for assessing compliance with conditions BBN4 and BBN5.
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Part 3 – Site specific conditions for the Eastern Development Area at Bli Bli Quarry

Environmentally Relevant Activities	Location
ERA 16-2(b) extracting, other than by dredging, in a year 100,000t to 1,000,000t of material	Bli Bli Quarry Cooney Road, BLI BLI - Eastern Development Area (EDA) Lot 4 Plan SP193049, Lot 3 Plan SP193049 and Lot 249 Plan FTY1673

In addition to the conditions specified in Part 1, the environmentally relevant activities conducted at the location as described above must be conducted in accordance with the following site specific conditions.

Agency interest: General	
Condition number	Condition
EDAG1	Extraction must only occur within the 'Approved Extract Limit' in Schedule 1 - Bli Bli Quarry Eastern Development Proposed Final Design.
EDAG2	Prior to the commencement of the activity, a financial assurance must be provided to the administering authority in accordance with the <i>Environmental Protection Act 1994</i> .
EDAG3	The financial assurance for condition EDAG2 must cover the maximum total cost for rehabilitation of significantly disturbed areas for a nominated period (stage), which may vary due to progressive rehabilitation.
EDAG4	If the financial assurance is provided in stages in accordance with condition EDAG3, the works associated with a stage must not commence until the financial assurance has been provided for that stage.
Agency interest: Water	
Condition number	Condition
EDAWT1	The only contaminants to be released to surface waters are settled treated stormwater runoff waters in accordance with <i>Schedule 2, Table 5— Surface water release limits — Bli Bli, including Eastern Development Area</i> and the associated monitoring requirements.

Agency interest: Noise	
Condition number	Condition
EDAN1	Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place.
EDAN2	Quarrying including drilling, movement of extracted material and overburden, construction and all other quarrying activities, is to be limited to the hours of 6.00 am to 6.00 pm Monday to Saturday. None of these activities are to occur on Sundays and Public Holidays unless otherwise approved in writing by the administering authority.
EDAN3	All noise from activities must not exceed <i>the</i> levels specified in <i>Schedule 2, Table 3 - Noise limits for Bli Bli Eastern Development Area</i> at any nuisance sensitive place or commercial place.
EDAN4	When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within 14 days to the administering authority. Monitoring must include: (a) airblast overpressure (dB (Lin) Peak), where relevant; (b) LA 10, adj, 10 mins; (c) LA 1, adj, 10 mins; (d) the level and frequency of occurrence of impulsive or tonal noise; (e) atmospheric conditions including wind speed and direction; (f) effects due to extraneous factors such as traffic noise; (g) location, date and time of recording; (h) details of measurement instrumentation and measurement procedure; and (i) an analysis of monitoring data must be provided in the context of defined limits as stated in <i>Schedule 2, Table 3 - Noise limits for Bli Bli Eastern Development Area</i> of this approval.
EDAN5	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's Noise Measurement Manual.
EDAN6	In the event the noise monitoring, as required in condition EDAN4, identifies that the noise nuisance is affecting nuisance sensitive place/s, the holder of this approval must implement noise attenuation measures to meet the requirements of this environmental authority.
EDAN7	The holder of this approval must implement a noise management plan. The plan must address at least, but not be limited to, the following matters: (a) identification of component noise sources and activities at the place(s) which impact on nuisance sensitive places; (b) the measured and / or predicted level of these noise sources and activities at nuisance sensitive places; (c) the control or abatement measures that can be undertaken to reduce identified intrusive noise sources; (d) the level of noise at nuisance sensitive places that would be achieved from implementing these measures;

	(e) the handling of future noise complaints; (f) community liaison and consultation; and (g) training of staff in noise management practices.
EDAN8	Vibration emitted from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place.
EDAN9	Blasting must not be carried out other than during the times specified in <i>Schedule 2, Table 3 - Noise limits for Bli Bli Eastern Development Area</i> and <i>Schedule 2, Table 4 - Vibration limits at a vibration sensitive place for Bli Bli Eastern Development Area</i> .
EDAN10	All blasting must be carried out in a proper manner by a competent person in accordance with best practice environmental management to minimise the likelihood of adverse effects being caused by the impacts of blasting.
EDAN11	Vibration emitted from activities must not exceed the levels specified in <i>Schedule 2, Table 4 - Vibration limits at a vibration sensitive place for Bli Bli Eastern Development Area</i> .
EDAN12	Every explosive blast for the activity shall be designed by a competent person to achieve the criteria specified in <i>Schedule 2, Table 4 - Vibration limits at a vibration sensitive place for Bli Bli Eastern Development Area</i> .
EDAN13	When requested by the administering authority, vibration monitoring and recording must be undertaken to investigate any complaint of vibration nuisance, and the results notified within 14 days to the administering authority. Monitoring must include: (a) peak particle velocity (mm/s); (b) location of the blast/s within the site (including which bench level); (c) atmospheric conditions including temperature, relative humidity and wind speed and direction; (d) the level and frequency of occurrence of impulsive or tonal noise; (e) atmospheric conditions including wind speed and direction; (f) effects due to extraneous factors; (g) location, date and time of recording; and (h) an interpretation of the monitoring data in context with the defined limits as stated in Schedule 2.
EDAN14	All relevant information pertaining to the design of every explosive blast for the activity in relation to the criteria specified in <i>Schedule 2, Table 4 - Vibration limits at a vibration sensitive place for Bli Bli Eastern Development Area</i> (for example charge weight and pattern), shall be kept in written and diagrammatic form.
EDAN15	The measurement and reporting of noise levels, airblast overpressure and vibration levels must be undertaken by an independent person or body possessing both the qualifications and the experience appropriate to perform the required measurements and reporting.

Agency interest: Land	
Condition number	Condition
EDAL1	A qualified fauna spotter / catcher holding a valid Rehabilitation Permit from the Queensland Parks and Wildlife Service is required to inspect any tree immediately prior to it being felled for the presence of vertebrate fauna. The fauna spotter catcher is to be present at all times whilst native vegetation is being removed to collect, remove and rehabilitate any native animals that are displaced or injured as a consequence of vegetation clearing activities. NOTE. This condition does not include the collection and translocation of koalas. In relation to the management of koalas during clearing refer to legislative requirements set out under the <i>Nature Conservation (Koala) Conservation Plan 2006</i>.
EDAL2	Areas disturbed by the activity must be rehabilitated to a stable landform as shown in Schedule 1 - Bli Bli Quarry Eastern Development Area Rehabilitation Plan.
EDAL3	The top layer and sub layers of the soil profile must be removed, stockpiled separately, maintained and retained for the purposes of rehabilitation of disturbed areas.
EDAL4	Rehabilitation of disturbed areas must: (a) achieve a self-sustaining native ecosystem with a species composition and distribution similar to the pre-extraction species composition and distribution as detailed in the Bli Bli Quarry Rehabilitation and Landscape Plan, prepared by Groundwork Plus, dated 24 April 2020, Reference number 985_610_003, Issue 0.c; and (b) achieve a landform suitable to support the native ecosystem that is stable and non-polluting.
EDAL5	Complete an investigation into rehabilitation of disturbed areas proposing acceptance criteria for the outcomes in condition EDAL4. This report must be prepared at least six (6) months prior to the completion of stage 5 and submitted to the administering authority for review.
EDAL6	The holder of this environmental authority must implement a Pest Management Plan for managing potential invasive pest species that could impact native flora and fauna species listed under the <i>Nature Conservation Act 1992</i> that are known to occur within the lands of, and surrounding, the Bli Bli Quarry.
EDAL7	A suitably qualified and independent person shall be engaged to undertake six monthly monitoring and evaluation of the pest control programs at the site.
EDAL8	Dust and particulate matter resulting from the ERA must not cause the following levels to be exceeded when measured at any nuisance sensitive place: (a) dust deposition of 120 milligrams per square meter per day, when monitored in accordance with Australian Standard AS 3580.10.1 of 2003 (or more recent editions); OR (b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) suspended in the atmosphere of 150 micrograms per cubic meter over a 24 hour averaging time, at a nuisance sensitive or commercial place downwind of the site, when monitored in accordance with: - Australian Standard AS 3580.9.6 of 2003 (or more recent editions) 'Ambient Air — Particulate matter — Determination of suspended particulate PM10 high-volume sampler with size-selective inlet-gravimetric method'; or - Any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.

Part 4 – Site specific conditions for Sunrock Quarry

Environmentally Relevant Activities	Location
ERA 16-2(c) extracting, other than by dredging, in a year, more than 1,000,000t of material ERA 16-3(c) screening, in a year, more than to 1,000,000t of material	Sunrock Quarry Nursery Road, BEERBURRUM Lot 611 Plan FTY1877
ERA 33 crushing, grinding, milling or screening more than 5,000t of material in a year ERA 54-(1) operating a facility for receiving and mechanically reprocessing, in a year, more than 5,000t of inert, non-putrescible waste or green waste only	Sunrock Quarry Nursery Road, BEERBURRUM Lot 1 Plan AP23631

In addition to the conditions specified in Part 1, the environmentally relevant activities conducted at the location as described above must be conducted in accordance with the following site specific conditions.

Agency interest: General	
Condition number	Condition
SRG1	Activities under this environmental authority must be conducted in accordance with the following limitations: a) The activity must only receive the following waste or materials for processing under environmentally relevant activities (ERA) 33 and 54: i. Concrete; and ii. Recycled aggregate products; and iii. Bricks. b) The quantity of material received for processing under ERA 33 and 54 must not exceed 100,000 tonnes per annum. c) ERA 33 and ERA 54 must only be conducted within the operational area of Schedule 1 – ERA 33 and ERA 54 Operational Area
SRG2	All reasonable and practicable measures must be taken to ensure that recycled aggregates are segregated from other waste material.
Agency interest: Water	
Condition number	Condition
SRWT1	The only contaminants to be released to surface waters are settled treated stormwater runoff waters in accordance with <i>Schedule 2, Table 6 —Surface water release limits — Sunrock</i> and the associated monitoring requirements.
SRWT2	Settled stormwater may be removed from the site and used for agricultural purposes, with written consent of any third party involved.

SRWT3	The only contaminants to be removed from the site for agricultural uses via a third party user must be in accordance with <i>Schedule 2, Table 7 – Water Supply to Third Party Release Limits – Sunrock</i> and the associated monitoring requirements.
SRWT4	The supply of settled stormwater to a third party user in accordance with condition SRWT2 must not have any other properties at a concentration that is capable of causing environmental harm.
Agency interest: Noise	
Condition number	Condition
SRN1	Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place.
SRN2	All noise from activities must not exceed the levels specified in <i>Schedule 2, Table 1 - Noise limits for Bli Bli and Sunrock</i> at any nuisance sensitive place or commercial place.
SRN3	The value of background noise level to be used in conjunction with the noise limits in <i>Schedule 2, Table 1 - Noise limits for Bli Bli and Sunrock</i> is to be obtained from <i>Schedule 2, Table 2 — Background noise limits for Bli Bli and Sunrock</i> using the following methodology: 1. If the measured background noise level is above the upper limit of the appropriate range, the upper limit of the appropriate range must be used. 2. If the measured background noise level is below the lower limit of the appropriate range, the lower limit of the appropriate range must be used. 3. If the measured background noise level is within the appropriate range, then the measured value must be used.
SRN4	The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's Noise Measurement Manual.
SRN5	Air blast over-pressure levels generated by blasting operations shall be such that the level generated by at least 90% of all blasts is 115dB (peak linear) or less and the level generated by all blasts is 120 dB (peak linear) or less when measured on the cartilage of the most affected noise sensitive premises using instrumentation having a lower-limiting frequency of 2 Hertz or less.
SRN6	Ground vibration levels generated by blasting operations shall be such that the level generated by at least 90% of all blasts is 5mm/s peak particle velocity or less and the level generated by all blasts is 10mm/s peak particle velocity or less when measured at any point on the most affected noise sensitive premises at least the longest dimension of the foundations of a building or structure away from such building or structure.
SRN7	The results of measurements made for determining compliance with condition SRN5 and SRN6 shall be submitted with the annual return for the licence. Each 12 month reporting period shall be the period for assessing compliance with conditions SRN5 and SRN6.
SRN8	Vibration emitted from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place.
SRN9	When requested by the administering authority, vibration monitoring and recording must be undertaken to investigate any complaint of vibration nuisance, and the results notified within 14 days to the administering authority. Monitoring must include: a) peak particle velocity (mm/s);

	b) location of the blast/s within the site (including which bench level); c) atmospheric conditions including temperature, relative humidity and wind speed and direction; d) the level and frequency of occurrence of impulsive or tonal noise; e) atmospheric conditions including wind speed and direction; f) effects due to extraneous factors; and g) location, date and time of recording.
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Definitions

Key terms and/or phrases in this environmental authority 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.

Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.

Administering authority means the Department of Environment and Science or its successor.

Aggregates means a granular material, including gravels, used in construction and for other engineered purposes. To avoid doubt, clays and soils are not considered to be aggregates.

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

Approved place(s) means the place(s) authorised under this environmental authority for the carrying out of the specified environmentally relevant activities.

Background noise level means either:

- $L_{A90, T}$ being the A-weighted sound pressure level exceeded for 90 percent of the time period not less than 15 minutes, using Fast response; or
- $L_{A90, T}$ being the arithmetic average of the minimum readings measured in the absence of the noise under investigation during a representative time period of not less than 15 minutes, using Fast response.

Blasting is the use of explosives to fracture:

- rock, coal and other minerals for later recovery; or
- structural components or other items to facilitate removal from a site or for reuse.

Contaminant means anything mentioned in (a) to (e) below, released (whether by act or omission) into the environment:

- 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.

Commercial place means a place used as an office or for business or commercial purposes.

Competent person means a person or persons who has professional qualifications, training, skills or experience relevant to the nominated subject matter.

Hardened concrete means a building or construction material made from a mixture of aggregate, sand, cement, and water.

$L_{Amax, adj, T}$ means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over a time period of not less than 15 minutes, using Fast response.

$L_{A10, adj, 10 mins}$ 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.

Measures has the broadest interpretation and includes plant, equipment, physical objects, bunding, containment systems, monitoring, procedures, actions, directions and competency.

NATA means National Association of Testing Authorities.

Noxious means harmful or injurious to health or physical well being.

NTU means nephelometric turbidity units

Nuisance sensitive place means the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area.

Offensive means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

Other waste material means non-aggregate materials, including but not limited to, other wastes and recyclable materials, plastic, metal, plaster, rubber, wood, cloth, carpet, insulation materials and/or regulated waste.

Railway ballast means free draining coarse aggregate of high strength used as support for railway tracks.

Recycled aggregates means waste bricks, pavers, ceramics, railway ballast, hardened concrete, and recovered pavement material.

Release of a contaminant into the environment means to:

- deposit, discharge, emit or disturb the contaminant;
- cause or allow the contaminant to be deposited, discharged, emitted or disturbed;
- fail to prevent the contaminant from being deposited, discharged emitted or disturbed;
- allow the contaminant to escape; or
- fail to prevent the contaminant from escaping.

Recovered pavement material means removed, surplus and/or unused pavement materials, including road base and sub-base materials, containing asphalt, sprayed seals, granular material, stabilised materials (including those stabilised with cementitious binders and bitumen) and/or aggregates.

Vibration is the oscillating or periodic motion of a particle, group of particles, or solid object about its equilibrium position.

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

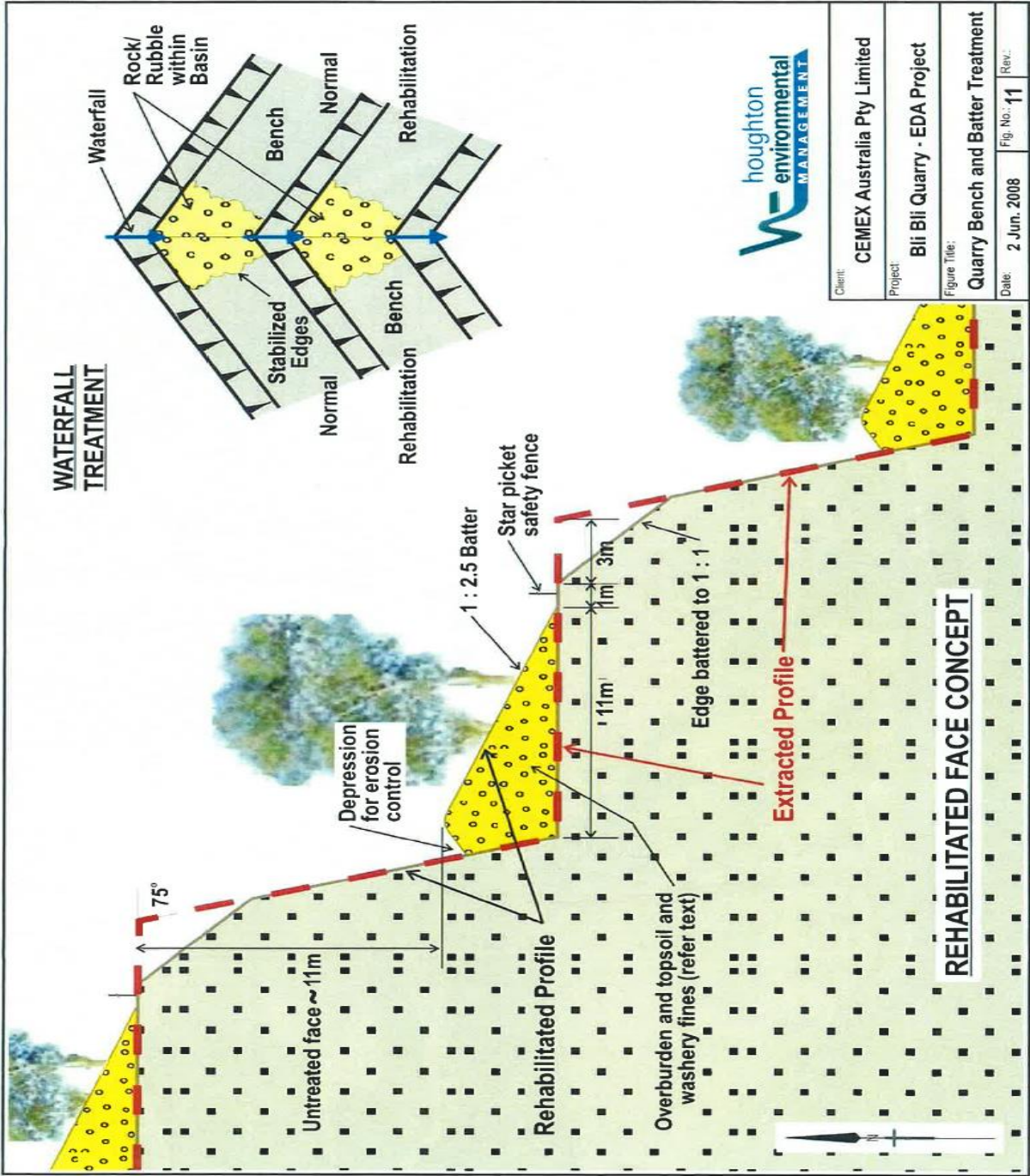
You means the holder of the environmental authority.

24 hour storm event with an average recurrence interval of 1 in 5 years means the maximum rainfall depth from a 24 hour duration precipitation event with an average recurrence interval of once in 5 years. *For example, an Intensity-Frequency-Duration table for a 24 hour duration event with an average recurrence interval of 1 in 5 years, identifies a rainfall intensity of 7.09mm/hour. The rainfall depth for this event is therefore 24 hour x 7.09mm/hour = 170.16mm.*

Schedule 1 - Bli Bli Quarry Eastern Development Proposed Final Design



Schedule 1 - Bli Bli Quarry Eastern Development Area Rehabilitation Plan



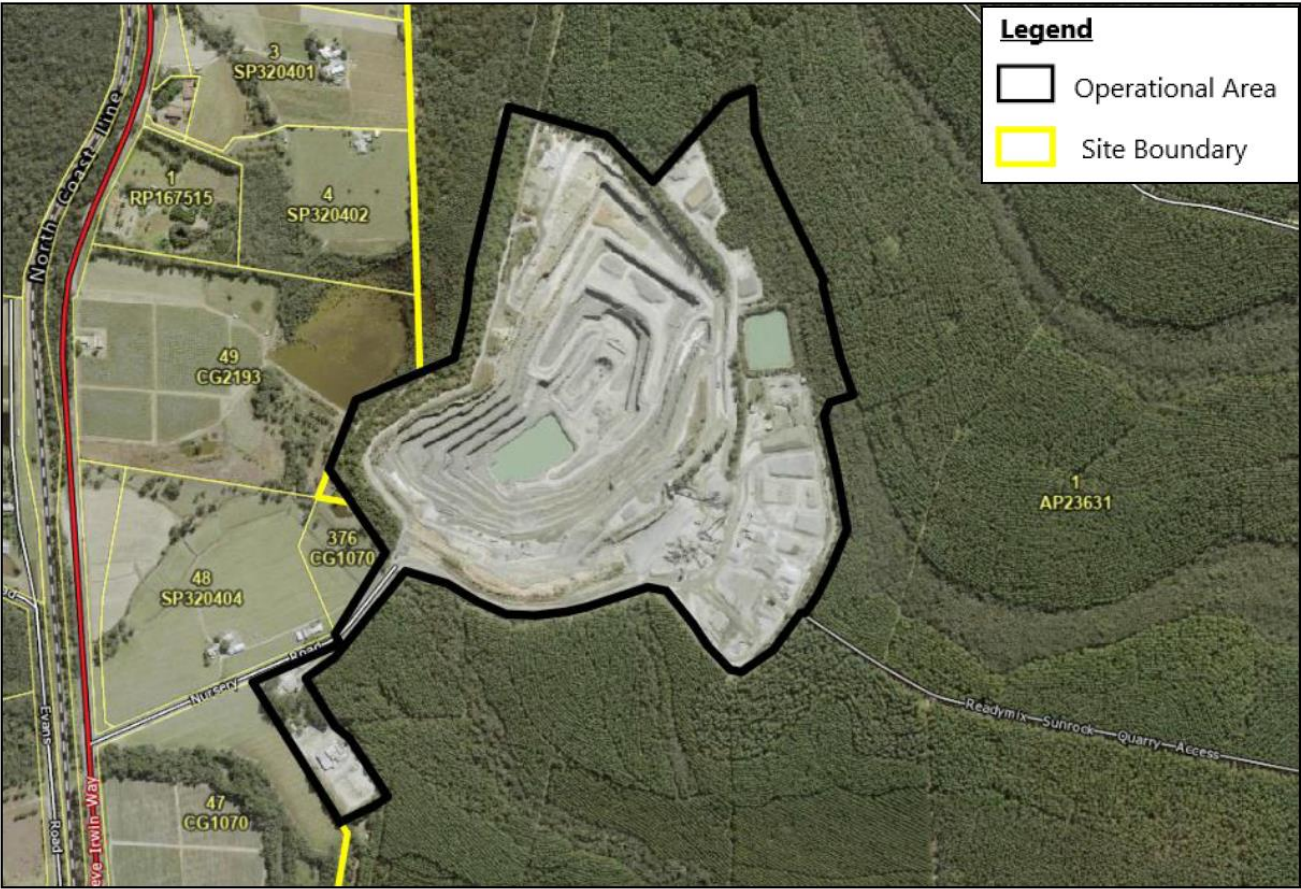
Schedule 1 - Bli Bli Quarry Release and Monitoring Point



Schedule 1 - Sunrock Quarry Water Monitoring Location Plan



Schedule 1 – ERA 33 and ERA 54 Operational Area



Schedule 2 - Monitoring and release limits

Table 1 — Noise limits for Bli Bli and Sunrock

Noise Limits On Affected Premises $L_{Amax\ adj, T}$ dB (A)		
Period	Residential premises	Non-residential premises
Monday to Friday 7 am – 6 pm Saturday 7am – 12 noon	$L_{Abg, T} + 5$	$L_{Abg, T} + 10$
Monday to Saturday 6 am – 7 am Monday to Friday 6 pm – 10 pm Saturday 12 noon – 6 pm	$L_{Abg, T} + 5$	$L_{Abg, T} + 10$
All other times and public holidays	$L_{Abg, T}$	$L_{Abg, T} + 5$

Table 2 — Background noise limits for Bli Bli and Sunrock

Time Period	Range of Background Noise Levels dB(A)
Monday to Friday 7 am – 6 pm Saturday 7 am – 12 noon	40 - 50
Monday to Saturday 6 pm – 7 am Monday to Friday 6 pm – 10 pm Saturday 12 noon – 6 pm	35 - 45
All other times and public holidays	30 - 40

Table 3 - Noise limits for Bli Bli Eastern Development Area

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
L _{A10} , adj, 10 mins	Bkg + 5	Bkg + 5	Bkg + 0	Bkg + 5	Bkg + 5	Bkg + 0
L _{A1} , adj 10 mins	Bkg + 10	Bkg + 10	Bkg + 5	Bkg + 10	Bkg + 10	Bkg + 5
	Noise measured at a 'Commercial place'					
	L _{A10} , adj, 10 mins	Bkg + 10	Bkg + 10	Bkg + 5	Bkg + 10	Bkg + 10
	L _{A1} , adj, 10 mins	Bkg + 15	Bkg + 15	Bkg + 10	Bkg + 15	Bkg + 10

Table 4 - Vibration limits at a vibration sensitive place for Bli Bli Eastern Development Area

	Monday to Friday 6am - 6pm	Sundays and public holidays
Noise-sensitive place	Airblast overpressure must not be more than 115dB (linear) peak for nine out of any 10 consecutive blasts initiated, regardless of the interval between blasts; and The airblast overpressure must not exceed 120dB (linear) peak for any blast. The ground-borne vibration must not exceed a peak particle velocity of 5mm per second for nine out of any 10 consecutive blasts initiated, regardless of the interval between blasts; and The ground-borne vibration must not exceed a peak particle velocity of 10mm per second for any blast.	No blasting to occur
Commercial place	Maximum level of 125dB (linear) for occupied non-sensitive sites. 120dB linear peak for 95% of blasts with a maximum of 125dB linear.	No blasting to occur

Note: The method of measurement and reporting of noise levels must comply with the latest edition of the administering authority's Noise and Vibration Measurement Manuals.

Table 5 - Surface water release limits - Bli Bli, including Eastern Development Area

Quality characteristic (units)	Limit	Limit Type	Minimum Monitoring Frequency	Monitoring Point
Turbidity	50 NTU	Maximum	Prior to discharge and daily during discharge	BBD6
pH	6.0 to 8.5	Range	Prior to discharge and daily during discharge	BBD6

Associated monitoring requirements

1. Release points must be in accordance with Schedule 1 - Bli Bli Release & Monitoring Point.
2. Monitoring must be in accordance with the methods prescribed in the current edition of the administering authority's *Water Quality Sampling Manual*.
3. Samples must be taken using representative samples.
4. All determinations must employ analytical practical quantification limits sufficiently low enough to enable comparisons to be made against water quality objectives/limits relevant to the particular water quality characteristic.
5. Monitoring must be undertaken during a release as per the frequency stated.
6. All monitoring devices must be correctly calibrated and maintained.

Table 6 - Surface water release limits – Sunrock

Quality characteristic (units)	Limit	Limit Type	Minimum Monitoring Frequency	Monitoring Point
Turbidity	50 NTU	Maximum	Prior to discharge and daily during discharge	W1 ¹ , W3 ¹ , W6, W7
pH	6.0 to 8.5	Range	Prior to discharge and daily during discharge	W1 ¹ , W3 ¹ , W6, W7
Ammonia as N (NO ₃) Nitrate as N (NO ₃) Dissolved Al, Cu and Zn	N/A	N/A	Quarterly	W1, W3, W6, W7

¹ Monitoring is required at point of discharge, being either W1 or W3.

Associated monitoring requirements

1. Release points must be in accordance with Schedule 1 - Sunrock Quarry Water Monitoring Location Plan.
2. Monitoring must be in accordance with the methods prescribed in the current edition of the administering authority's *Water Quality Sampling Manual*.
3. Samples must be taken using representative samples.
4. All determinations must employ analytical practical quantification limits sufficiently low enough to enable comparisons to be made against water quality objectives/limits relevant to the particular water quality characteristic.
5. Monitoring must be undertaken during a release as per the frequency stated.
6. All monitoring devices must be correctly calibrated and maintained.

Table 7 – Water Supply to Third Party Release Limits – Sunrock

Quality characteristic (units)	Limit	Limit Type	Minimum Monitoring Frequency	Monitoring Location
Turbidity	50 NTU	Maximum	Prior to supplying to third party	Quarry Pit
pH	6.0 to 8.5	Range	Prior to supplying to third party	Quarry Pit

Associated monitoring requirements

1. Monitoring must be in accordance with the methods prescribed in the current edition of the administering authority's *Water Quality Sampling Manual*.
2. Samples must be taken using representative samples.
3. Monitoring must be undertaken during a release as per the frequency stated.
4. All monitoring devices must be correctly calibrated and maintained.

END OF ENVIRONMENTAL AUTHORITY