

Redlynch Quarry FAQs

1. Does Boral own Redlynch Quarry?

The Redlynch Quarry commenced formal operation in the 1980s, and under a lease arrangement with the landowner, Boral has operated the quarry since May 1990.

2. What types of approvals have been secured to operate Redlynch Quarry?



In May 1990, Mulgrave Shire Council granted a town planning consent to use Lots 8 & 9 on RP749301 for the purpose of an extractive industry, subject to conditions (**the 1990 approval**). The 1990 approval has been amended on three separate occasions and the most current Decision Notice is dated 18 November 2020.

All work currently being conducted at the quarry form part of the original 1990 consent. Subsequent interactions with Council have been to ensure that the work being conducted meets current standards.

On 30 June 2015, Cairns Regional Council granted an Operational Works (vegetation clearing) approval, subject to conditions. A new Development Application will be required in the future to update the Operational Works (vegetation clearing).

Under the *Environmental Protection Act 1994*, on 18 December 2017, the Department issued an Environmental Authority for the following Environmentally Relevant Activities:

Prescribed ERA, ERA 16 - Extraction and Screening (2):

Extracting, other than by dredging, in a year, the following quantity of material, (b) more than 100,000tbut not more than 1,000,000t

Prescribed ERA, ERA 16 - Extraction and Screening (3):

Screening, in a year, the following quantity of material, (b) more than 100,000t but not more than 1,000,000t



All approvals have conditions that Boral is obligated to meet at all times. The key matters that have been conditioned include:

Local Government Land use approval		State Government			
		Environmental licencing		Cultural Heritage	
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In relation to Cultural Heritage, in 2014 / 2015, Boral entered into three Cultural Heritage Agreements (CHAs) in order to address Aboriginal cultural heritage at the Redlynch Quarry in accordance with the Aboriginal Cultural Heritage Act 2003 (ACHA). The CHAs were entered into with three Aboriginal parties, the Yirrganydji, Gimuy and Djabugay Peoples. Under these CHAs, inspections and clearances of much of the project area were secured in 2014.

On 12 October 2016, a claim by the Cairns Regional Claim Group for native title over an area encompassing the Redlynch Quarry was accepted for registration. The effect of this registration is that the Yirrganydji, the Gimuy and the Djabugay are no longer considered to be relevant Aboriginal parties for the project area and Boral are required to enter into a new CHA with the Cairns Regional Claim Group.

In accordance with the Cultural Heritage Duty of Care Guidelines (the Guidelines) gazetted under the ACHA, Boral have obtained a priority site clearance from the Cairns Regional Claim Group representatives for the clearing within the top three benches.

3. What does the operational continuation of the Redlynch Quarry involve?

In accordance with our current planning and environmental approvals, Boral will progressively work the main ridgeline from the top of the hill in a downward direction ("top down" extraction program) where new quarry benches will start at the top of the hill and then progressively worked down to the current pit level to minimise the noise and visual impact on the surrounding community.

The haulage route has been re-established and the next phase of works involves vegetation clearing to open up the first three benches, to allow for extraction to commence in accordance with current conditions (Figure 1 below).

All activities at the Redlynch Quarry are conducted in accordance with current planning and environmental approvals and in line with our operating licence. Everything we do is strictly monitored by the regulator to ensure compliance.





Figure 1: Location and extent of the proposed disturbance area involved in opening up the first three (3) benches in accordance with current planning approvals



4. What vegetation clearing is currently occurring at Redlynch Quarry?

In accordance with conditions of the Operational Works (vegetation clearing) approval, on 7 April 2022, Council received a Notice of Intent to Clear Vegetation at Redlynch Qarry to clear vegetation within the area where the first three benches occur. Following compliance approval from Cairns Regional Council, vegetation clearing commenced on 11 April 2022. In accordance with conditions of approval, a qualified spotter catcher will be on site prior to commencing clearing. Should any animals be found, the qualified spotter catcher will relocate them to the nearest suitable habitat on or off site. These works will allow for Boral to continue its approved operations and will be undertaken having regard to the visual amenity impacts on the surrounding local community.

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5. Ground movements, water management and boulders on site

Boral has undertaken the clearing and extraction ensuring that no risk to downstream properties occur. Clearing and extraction is being undertaken progressively to ensure that all water from disturbed areas of site report back to the quarry pit. Erosion and sediment controls are in place to prevent sediment and water from leaving the clearing footprint. This includes sequencing of clearing, blasting and extraction, to ensure water flows towards the quarry pit.

Boral operates under a site-specific stormwater management plan which provides guidance on control measures that are to be in place to minimise any adverse impacts to surrounding waters including increased flows. To provide a summary, all activities proposed to be undertaken by Boral have been and are designed in a manner that prevents runoff from entering surrounding water ways. All surface water runoff from disturbed areas of site is directed back into the quarry pit that has significant capacity and as such only runoff from natural drainage features continues to flow through waterways. Water that is captured within the quarry pit is then reused for processing and dust suppression around site.

Boral has also had an assessment completed by third partner geoscientists and geotechnical professionals. A summary of the findings are below:

- 1. The boulders would be unlikely to move from their present position without either human interference or erosion of soil from around the boulders (the latter unlikely).
- 2. As the boulders are typically elongate in shape, it is considered that a boulder would be unlikely to roll unless it fell with its long axis across the slope. As the long axis of all the boulders leans downslope this is considered unlikely.
- 3. The build up of kinetic energy in the initial 10m of travel distance prior to reaching the 40° break in slope is low. Hence. Considering the angular shape of the boulders, it is likely that a boulder would stop prior to reaching the 40° break in slope (downhill).
- 4. A sensitivity analysis undertaken using the "Rockfall" computer program concluded that, for appropriate friction angles, a boulder would stop well upslope of the subject houses.
- 5. In an attempt to quantify the risk to persons or property using an event tree approach, the total event probability for property damage and loss of life was assessed to be very low.

Based on the risk above the following controls have been added to our standard operating procedures:

- 1. Regular inspections are undertaken of the boulders for evidence of erosion or recent movement of the boulders.
- 2. Vibration monitors are placed at the base of boulders during every blast.
- 3. Boulders are surveyed by a third party following every blast. Any movement of boulders is recorded and reviewed by third party geotechnical engineer.

6. Dust management

The site operates a 35,000-litre water tank which travels around the entire site twice an hour while the quarry is operational. Boral operates three dust monitors with results of the monitoring shared at our community liaison group meetings.

Dust Management at Boral

The safety of our people – our employees and contractors – is always our number one priority and part of our Zero Harm safety goal.

Our Dust Management Framework

We take very seriously our commitments and responsibilities to manage dust across all of our sites.

We strive to lead the way through a comprehensive dust management framework informed by our ongoing work with specialists and regulators to help ensure we are using modern management practices and dust

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control technologies to keep our people safe and healthy while at work. This includes occupational hygiene monitoring and personal health surveillance.

Like many in our industry and related industries, monitoring of respirable dust (RD) and respirable crystalline silica (RCS) is an established practice in place for many years.

At Boral, we undertake static dust monitoring, personal exposure monitoring as well as regular environmental (boundary) monitoring at relevant sites.

Static dust monitoring and personal exposure monitoring helps us to better understand where potential risks to our people exist and if additional measures are required. Health surveillance includes respiratory function tests and chest x-rays by a specialist radiologist accredited in occupational lung health. Under current regulations, health surveillance must be conducted at least every five years.

We continue to monitor and review our dust management approach and will work collaboratively with regulators and government to make sure our controls meet and, where possible, exceed required standards to safeguard the health and safety of our people.

7. How does Boral engage with the community and our neighbours?

Redlynch Quarry was approved by Mulgrave Shire Council in May 1990. The amendments to this approval did not require public notification.

To facilitate open and transparent communication with our immediate neighbours and Council representatives, Boral have established the Redlynch Quarry Liaison Group. This Quarry Liaison Group meeting was established in 2008, and regular meetings are held at The Northern Outlook at Redlynch. Minutes can be found on our website: boral.com.au/redlynch

This proactive engagement ensures that Boral can minimise any impacts on their neighbours, and in many cases, work with them to arrive on solutions.

To communicate to the broader community, in the past, we have sent out newsletters via mail box drop, but as part of our sustainability objectives, we have now switched to a more environmentally friendly way of communicating and refer everyone to visit our web site instead.

8. How long are Boral intending to operate the Redlynch Quarry?

Currently, in accordance with our current planning approvals, Boral can lawfully operate up to 2036. However, based on our current assumptions around operational capacity of the plant, projected market demand, and extraction limits, we estimate that the life of the quarry could exceed this timeframe. In the event that this occurs, Boral will need to seek additional approvals from Cairns Regional Council.

Boral will be continually reviewing the quarry's status and updates are given via our Quarry Liaison Group and subsequent minutes that can be accessed on the website.

9. When will Boral blast? Will we be notified?

The quarry conducts scheduled blasts, depending on demand, but generally once or twice a month. We have a blast register where neighbours to the quarry can add their name and contact details to be notified the day prior. To be included on the register please contact us via community@boral.com.au

Regarding blasting procedures and vibration, we monitor ground vibrations for every blast at different parts of our quarry site to ensure we don't exceed our limit of 10mm/s.

What is Blasting?

There are a number of ways to extract 'hard' rock, but the most common and effective method is 'controlled blasting'. As blasting is very precise practice, each blast is designed and carried out by an independent third-party blast expert. A blast design is generated and is a carefully planned operation that involves drilling into the rock in a specified pattern, then placing a very precise amount of explosive in the holes. The explosives are

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then detonated in a precise sequence, designed to maximise the efficiency of rock breakage while minimising noise, vibration and dust. One of the advantages of blasting is that it reduces the need to operate large heavy equipment to extract the rock, in turn reducing noise and greenhouse gas emissions. Depending on how close you live to a quarry, you may notice some vibration or noise associated with blasting, however all blasts as mentioned are precisely designed to prevent and minimise impacts to surrounding neighbours.

What safeguards are in place during blasting?

Strict national safety regulations apply to protect neighbouring homes, buildings and public places from the potential effects of blasting. Blasting operations must adhere to prescribed limits stipulated by the relevant regulatory authority that are well below the vibration levels which could cause structural or cosmetic damage. Blasts are monitored at different locations with sensitive ground and air vibration equipment to ensure they remain within regulations.

What else should I know about blasting?

Apart from vibration, the energy used in blasting to move and break rocks may also result in some noise and dust. The further you are away from the quarry, the less you will notice these effects. A quarry's strict operating conditions requires that every action be taken to reduce these effects.

10. Will the operational continuation of the Redlynch Quarry generate more traffic on the roads?

In accordance with our current approvals, the quarry's operating hours are from 7am to 6pm, five days a week (Monday to Friday) and 7am to 12noon on Saturdays. No operations on Sundays or Public Holidays.

Redlynch Quarry provides raw materials for regional development and infrastructure projects within the Cairns region. In accordance with our current approvals, Boral must limit truck numbers using Redlynch Intake Road to 26 loaded trips per hour.

Boral also has developed and operates under a Road Transport Code of Conduct that will apply to all extractive road transport vehicles. The Code has been designed to maximise safety in all aspects of road haulage and to minimise the impact of Boral's trucks on other road users and the community.

If you observe unacceptable truck driver behaviour, we ask that you please contact the quarry on 4039 1206 immediately or at your earliest convenience. The earlier Boral is aware of the issue, the quicker we can respond and follow up. The information we require include date, time, and registration. Any other information such as colour of the truck, truck and dog, or any other description will assist in the investigation.

Please note: Redlynch Intake Road is a public road and is free to be accessed by all trucks, not restricted to trucks visiting the quarry.

11. How do I contact Boral if I have any queries?

Community enquiries should be directed to BORAL via community@boral.com.au

Boral has a complaint management system that ensures matters are addressed quickly and responsibly, following up on all community inquiries and concerns; we have a good and respectful relationship with our neighbours and the community.

Any information can be sought via the quarry web site and our feedback line.

boral.com.au/redlynch