

Minutes

6 December 2021

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|---------------------------|---|--------------------|---|
| Project name | Karuah East Quarry - Community Consultative Committee | From | Michael Ulph |
| Subject | Meeting Minutes – December | Tel | 0458 049 847 |
| Date / Time | 6 December 2021 / 3:36 pm | Project no. | 2218437 |
| Attendees | Michael Ulph (Chairperson), Goetz Schraer (Community Representative), Michael Todd (Karuah East Quarry Pty Ltd), Joel Fleming (Karuah East Quarry Pty Ltd), Mat Radnidge (ADW Johnson), Tessa Hestelow (Community Representative), Bob Trotter (Community Representative), Uwe Seil (Community Representative), Dean Coles (Port Stephens Shellfish Program), Janine Reid (North Arm Cove Residents Assoc) | Apologies | Wade Cameron (Community Representative) |
| Others not present | Mathew Bell – Midcoast Council Shai Richardson – Karuah LALC | | |
| Objective | Record discussion and actions from this meeting. | | |

| Agenda Item | Notes |
|--|--|
| Welcome | <ul style="list-style-type: none"> – Michael Ulph paid respect to the traditional Aboriginal custodians of the Karuah region, and Elders past, present and future. – Attendees were invited to introduce themselves due to there being a few new faces. – This meeting to include an “induction” for the several new attendees. |
| Declaration of Pecuniary Interests | <ul style="list-style-type: none"> – Michael Ulph confirmed that KEQ Pty Ltd is paying GHD (his employer) a fee for Michael to act as the independent chairperson for the CCC. – Mat Radnidge confirmed that KEQ Pty Ltd is paying ADW Johnson (his employer) a fee for Mat to be a member of the CCC. – Michael Todd and Joel Fleming are employees of Hunter Quarries / Karuah East Quarry Pty Ltd. |
| Acceptance of Previous Minutes | <ul style="list-style-type: none"> • Draft CCC Meeting Minutes dated June 9th 2021. <p>Moved: Goetz Schraer</p> <p>Seconded: Mat Radnidge</p> |
| Business Arising from Previous Minutes | <p>Tony Ebben's resignation at the last meeting brought about the appointment of several new CCC members.</p> <p>Joel is consulting with Tessa re location of dust monitoring equipment – ongoing.</p> <p>Michael to check with Mat Bell re suitable meeting times for him – Mondays and Tuesdays OK.</p> |

| Agenda Item | Notes |
|--|---|
| | <p>Michael to send copies of guidelines to members. Done, with new members receiving the guidelines from DPIE by email.</p> <p>Note: Bob did not receive his (by mail). Joel to provide.</p> <p>Held over from the March meeting:</p> <p>Joel to advise when the new website was up and running. – All systems go.</p> <p>Mat to advise when Mod 9 was lodged. This occurred.</p> <p>Mat to advise when Mod 10 was lodged. Non yet lodged.</p> <p>Reviewed CCC guidelines. Done.</p> <p>This meeting to be set up. Done.</p> |
| Correspondence | <p>Emails with DoPI to confirm new members</p> <p>Emails to members to check on availabilities for upcoming meetings.</p> <p>Emails to arrange attendances today.</p> |
| Introduction to the project for new CCC members. | <p>Mat: KEQ approved June 2014 by NSW IPC as Part 3A. Transitioned since to State Significant Development.</p> <p>Quarry operational since late 2017. Consent allows operation until 31 Dec 2034.</p> <p>Approval allows for extraction, processing and transport of up to 1.5 million tonnes per annum of andesite material from a total resource of approx. 29 million tonnes.</p> <p>Andesite is used in road base, erosion protection works, landscaping, construction aggregates, concrete batching, etc.</p> <p>Approval includes road, infrastructure, stockpiling areas etc.</p> <p>Total disturbance area of just over 33 hectares.</p> <p>Biodiversity offsetting area of almost 140 hectares.</p> <p>Conditions manage noise, blasting, air quality, soil and water management, transport, biodiversity management, heritage and emergency responses.</p> <p>Blue Rock Close was constructed to provide access to the quarry.</p> <p>KEQ has approx. 44 staff, with some located in Thornton.</p> <p>Michael Todd provided a general overview of rock extraction: Vegetation and topsoil removal, to drilling blasting, excavating, crushing with dust and sound suppression, screening for sorting into different sizes via the 'spider'. Export from site using truck & dogs, a weighbridge to ensure trucks are not overweight.</p> <p>Rock comes from spider to loading / export area via rigid trucks belonging to KEQ. Occasionally truck and dogs from elsewhere will be loaded directly.</p> <p>Mat described Mod 1 (pink area in map over). Approved 2018. Mod 2 (orange shape) allowed wider access to improve vehicle safety by segregating light and heavy vehicles.</p> <p>Mods 3-7 were withdrawn due to a change in legislation</p> <p>Mod 8 modified operational noise criteria in line with latest noise policy and the noise attenuation in the sheds.</p> |

| Agenda Item | Notes |
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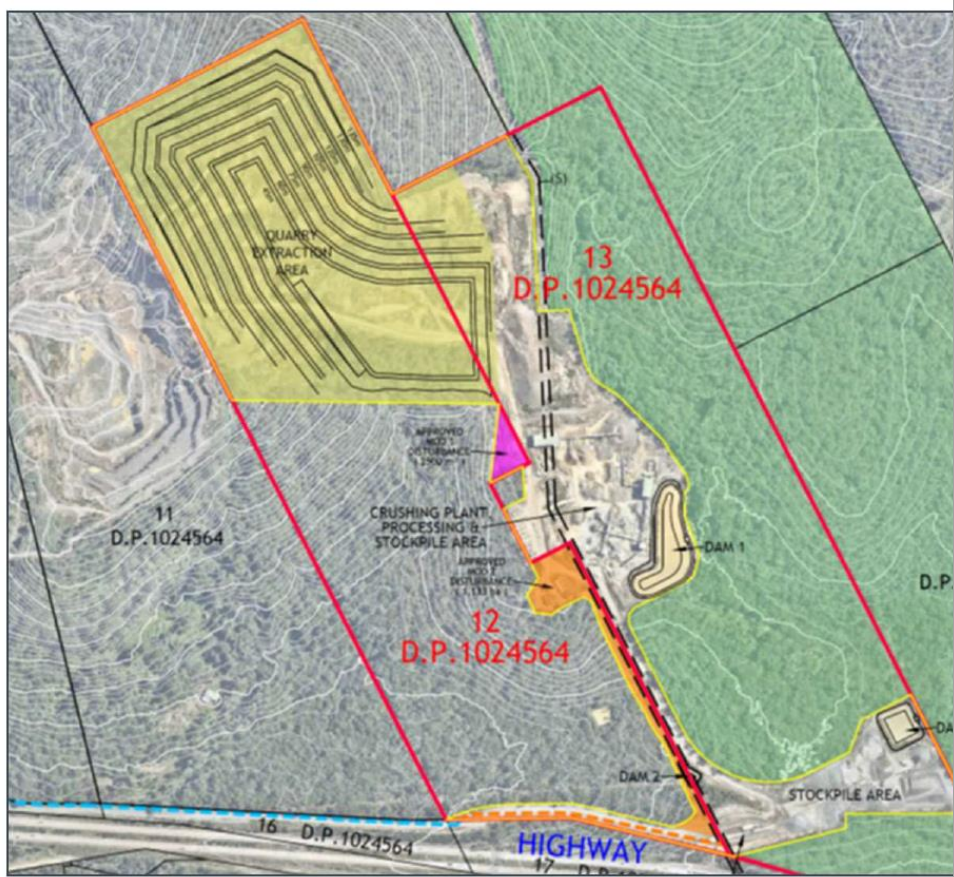


Figure 2: KEQ MOD1 and MOD2 areas

Plan shows quarry pit – Yellow. Crushing and stockpile areas, dams.

Joel and Mat described the various approvals, licences and management plans in place.

Joel described the compliance monitoring for the project, including annual reporting:

- Air quality
- Surface water
- Noise/acoustic
- Blast (Joel also played a recent video of a recent blast)
- Production

| | |
|------------------|---|
| General Business | <ul style="list-style-type: none"> • Joel outlined recent results of noise, blast and dust monitoring. Non-compliance issues with an air quality sample jar shattering at the lab prior to analysis, and with the high-volume air sampling equipment failing due to wet weather in March. • Joel detailed the discharge of water including some uncontrolled discharges during storms in March. • Between January and June 2021 there was one noise complaint in May 2021 that was investigated, with no activity at KEQ that could be the source of that noise. • Joel and Mat described the current status of Mod 9 – approved on 2nd December 0221. |
|------------------|---|

| Agenda Item | Notes |
|-------------|-------|
|-------------|-------|

- Loading & dispatch activity 5am to 9pm, but 5am to 10pm on up to 50 calendar days per year, and 6am to 6pm on Saturdays. No loading & dispatch on Sundays or Public Holidays
 - Quarrying operations 7am to 9pm Monday to Friday, but 7am to 10pm on up to 50 calendar days per year, also 7am to 6pm Saturdays. No quarrying operations on Sundays or Public Holidays.
 - No change to annual extraction rates, quarrying/ processing methods, blasting, drilling or vehicle frequency.
- New mitigation measures:
- No splitting or hammering of large rock after 6pm.
 - Loading of large rock during extended hours via grabs rather than the bucket
 - Training staff to ensure trucks are loaded from as low as possible
 - Monitoring to be done at different times to reflect MOD 9 hours
- Joel and Mat described the proposed MOD 10
 - Expected to be lodged 1st quarter 2022
 - For an increase in the disturbance area for an additional stockpiling area, an admin building and heavy vehicle parking for quarry vehicles
 - Will require specialist assessments prior to lodgement
 - Offset areas/impacted areas will need to be adjusted / replaced
 - Will allow improved surface water management

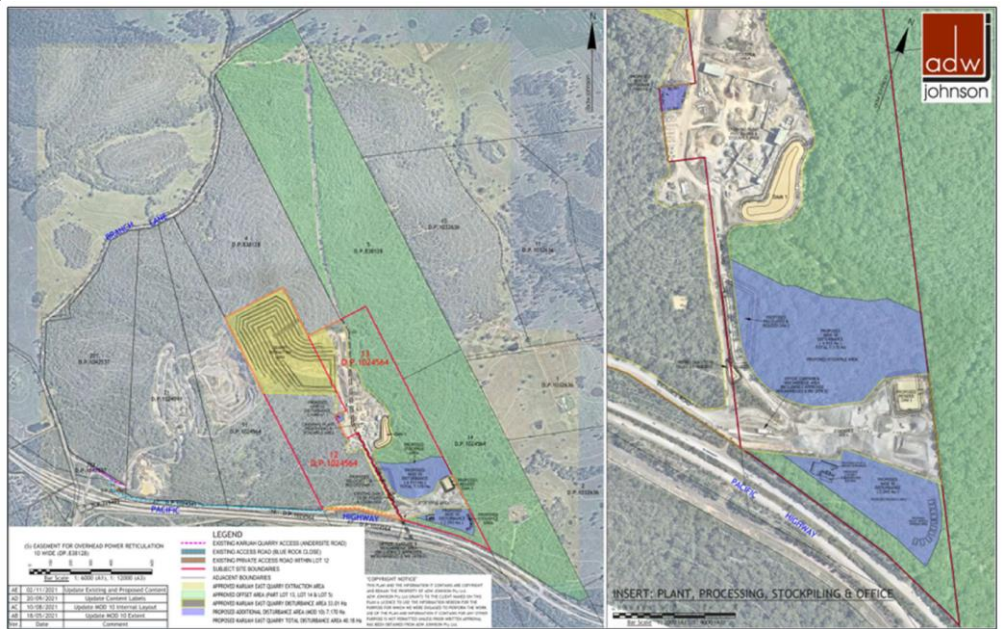


Figure 16: KEQ Proposed Modification 10 Plan [DRAFT]

- Goetz asked if there was any plan for 'bracket creep' – i.e. another MOD asking for further extended hours. Mat & Joel said there were no plans, and also any MODs would be assessed and considered by the Department as legislated.
- Discussion of proposed Karuah South Quarry by Wedgerock Pty Ltd – no relationship with Hunter Quarries Pty Ltd. Lodgement expected around end March 2022.

| Agenda Item | Notes |
|---|---|
| | <ul style="list-style-type: none"> • Projects <ul style="list-style-type: none"> ○ Dam 1 dam wall remediation and new spillway installation ○ Haul road from primary crusher to top of extraction area being made wider for safer passage ○ Top of extraction area is being established to allow extraction from northern most benches • Joel asked if there were any questions in relation to KEQ or the Karuah Quarry. • Michael Todd dispelled rumours about sale of KEQ. It is not for sale. • Michael asked for any other questions from CCC members or community members via the CCC members. |
| Next CCC meeting and site inspection to be scheduled. | <p>Next meeting scheduled for: March 14th 2022</p> <ul style="list-style-type: none"> • 3pm – Site Inspection (meet at Karuah East Quarry Office, Blue Rock Close, Karuah); and • 4pm – CCC Meeting at Karuah RSL Club. <p>Michael Ulph to issue calendar invites to CCC members.</p> |
| Meeting close | The meeting was closed at 5.15pm |

**Karuah East Quarry
Community Consultative Committee
December 2021**

Project Overview

- Project Summary
- Environmental Monitoring & Performance
- Project Modifications
- Karuah Community
- General Business



Project Summary

- Approved by the NSW Independent Planning Commission on 17 June 2014.
 - Operational since late 2017.
 - Quarrying operation is permitted on site until 31st December 2034.
 - The extraction, processing and transport of up to 1.5 million tonnes of andesite material per year from a total resource of approximately 29 million tonnes.
 - Establishment of quarry plant, infrastructure, roads and stockpile areas.
 - Total permitted disturbance area of 33.01ha.
 - Establishment of a biodiversity offset area on land adjacent to the quarry (Approx. 138ha).
 - Conditions apply to manage potential impacts associated with quarry operation including:
 - Noise & Blasting
 - Air Quality
 - Soil and Water
 - Transport
 - Biodiversity
 - Heritage
 - Emergency Response
 - Construction of Blue Rock Close.
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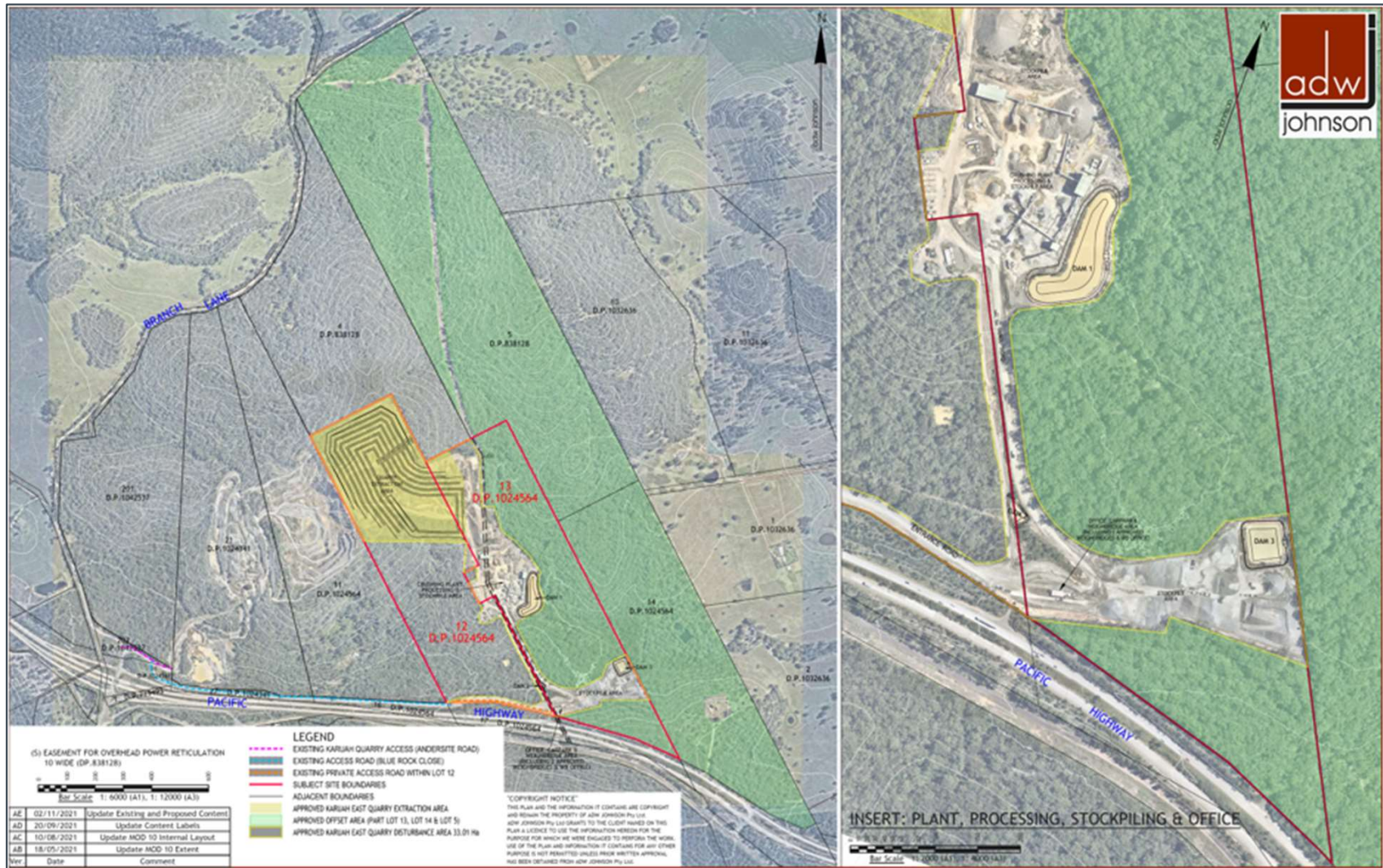


Figure 1: Karuah East Quarry Site

Project Overview

- **MOD 1 (approved 27th April 2018)** – Nominal expansion to the quarry footprint area by 2,500m² to allow for improved vehicle maneuvering and operational safety in the proximity of the crushing plant and quarry infrastructure (refer pink on below figure).
- **MOD 2 (approved 19 December 2018)** – 1.133ha increase to the site disturbance area to allow for improved surface water management and improved operational safety (refer orange in below figure).
- **MODs 3-7** – Withdrawn.

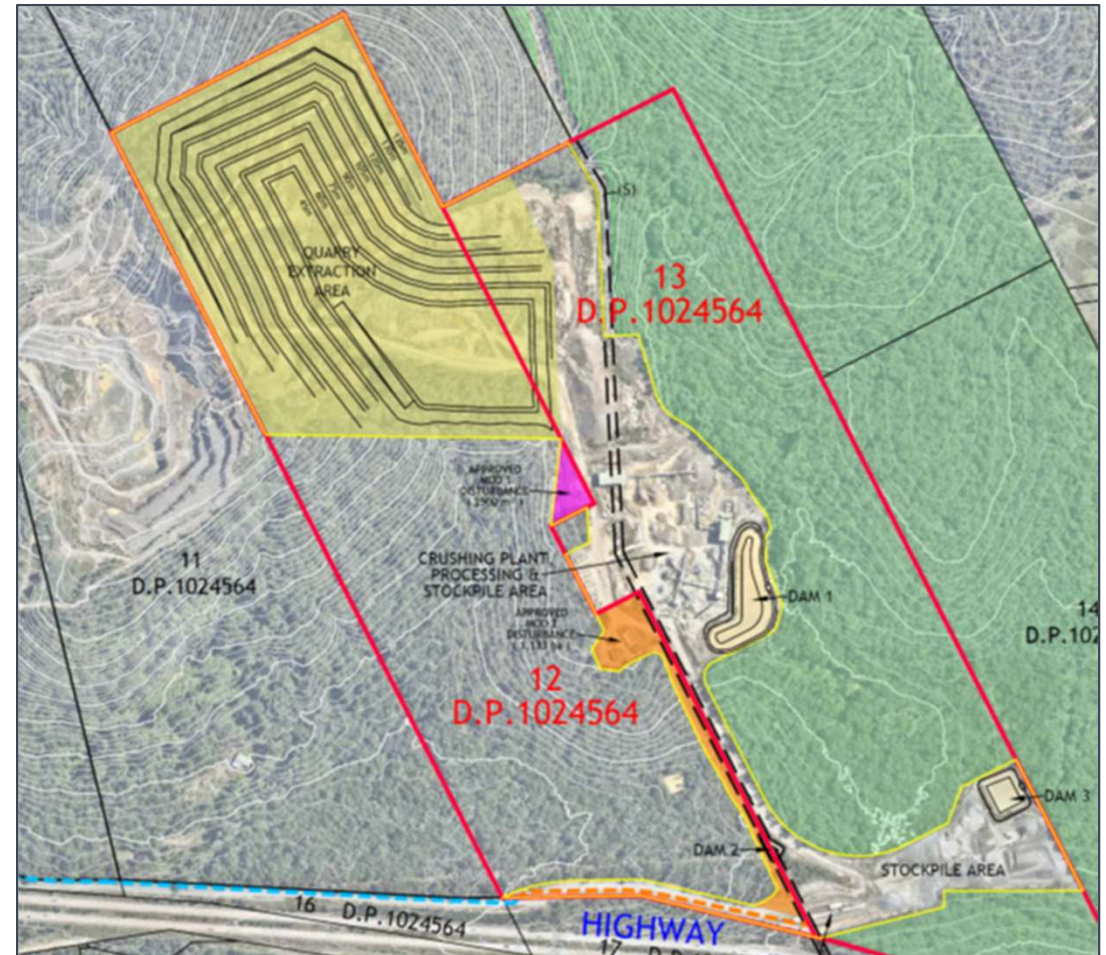


Figure 2: KEQ MOD1 and MOD2 areas

Project Overview

- **MOD 8 (Approved 22nd December 2020)** – Modified operational noise criteria in line with latest noise policy (*NSW Noise Policy for Industry 2017*) and formalised industry best practice noise mitigation measures installed at the quarry.



Figure 3: KEQ Primary Jaw Crusher Enclosure



Figure 4: KEQ Secondary (Cone) Crusher Enclosure

Summary of Approvals/Licenses in Place

- Project Approval – MP09_0175 (State Significant Development Consent)
 - Issued by the NSW Minister for Planning and Public Spaces.
- Environmental Protection and Biodiversity Conservation Act (EPBC Approval) 2014/7282
 - Issued by the Federal Government Department of Agriculture, Water and Environment
- Environment Protection Licence 20611
 - Issued by NSW Environment Protection Authority

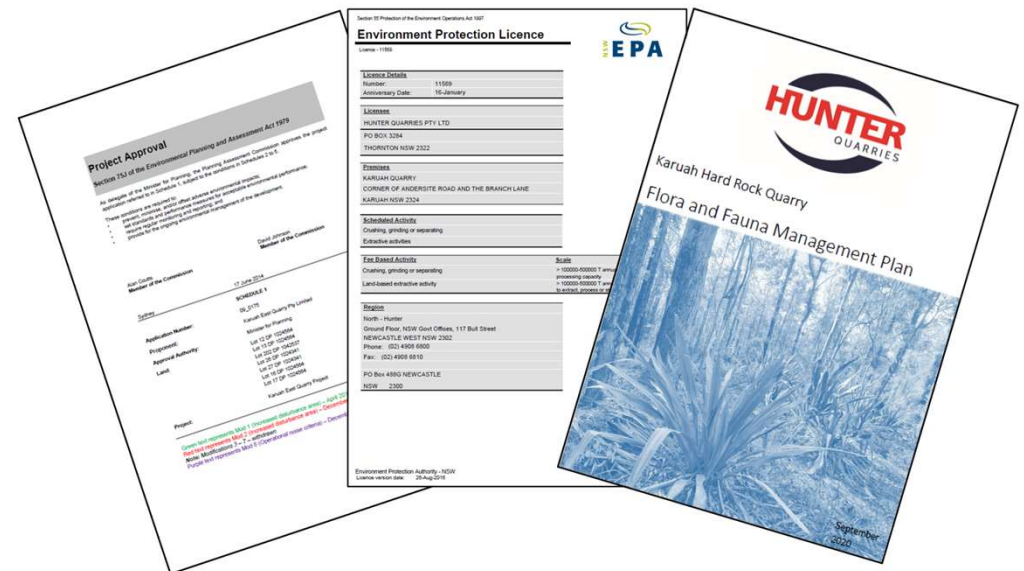
Summary of Management Plans in Place

- Biodiversity Offset Area
 - Tetratheca Juncea Translocation
 - Noise Management
 - Blasting
 - Air Quality and Greenhouse Gas
 - Water
 - Traffic
 - Heritage
 - Landscape and Rehabilitation
 - Environmental Management Strategy
-

Compliance Monitoring

In line with the Principal Approvals and approved management plans, KEQ undertake compliance monitoring and tracking, these parameters include:

- Air quality
- Surface water
- Noise/acoustic
- Blast
- Production



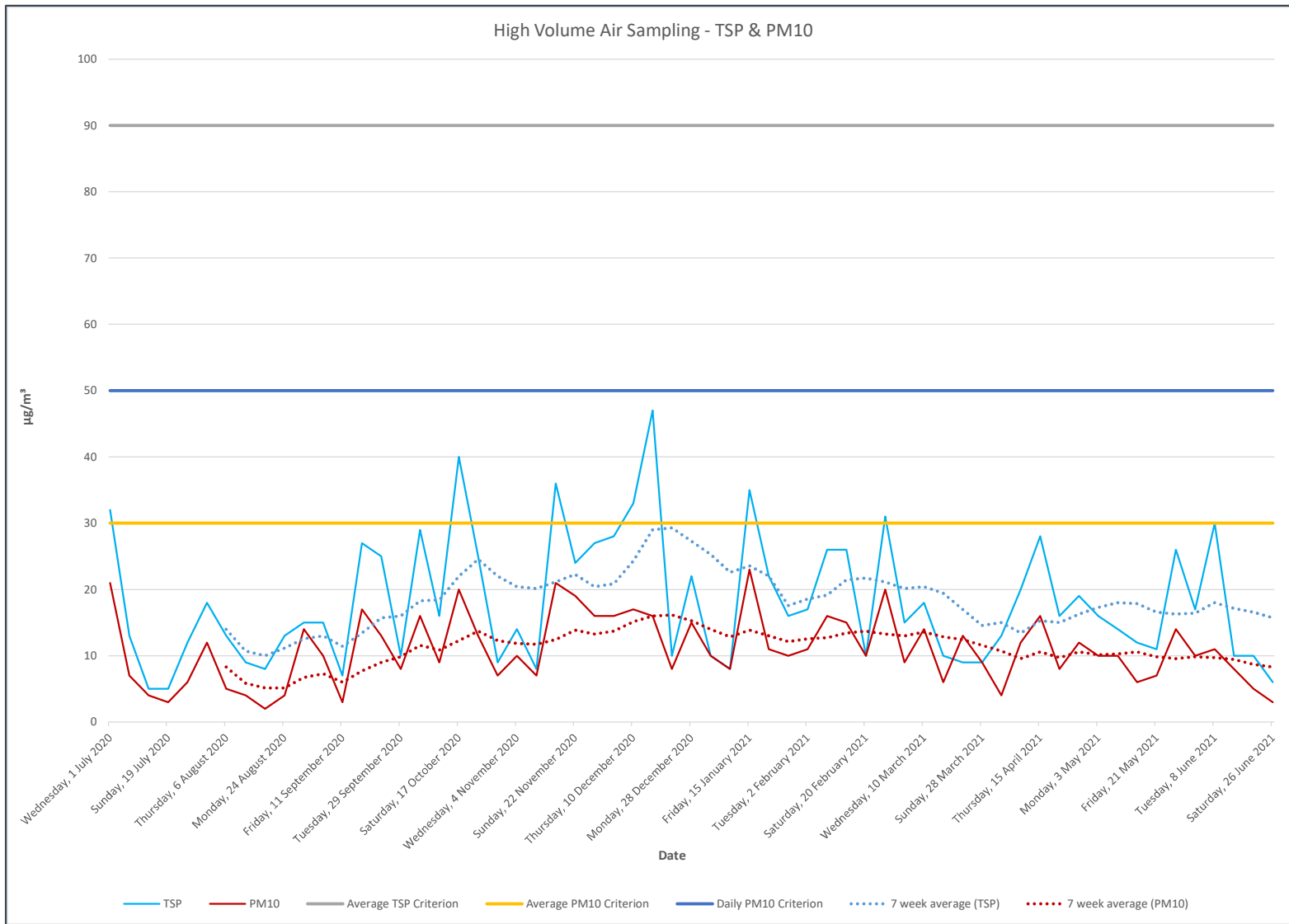


Figure 5: Air quality monitoring - HVAS

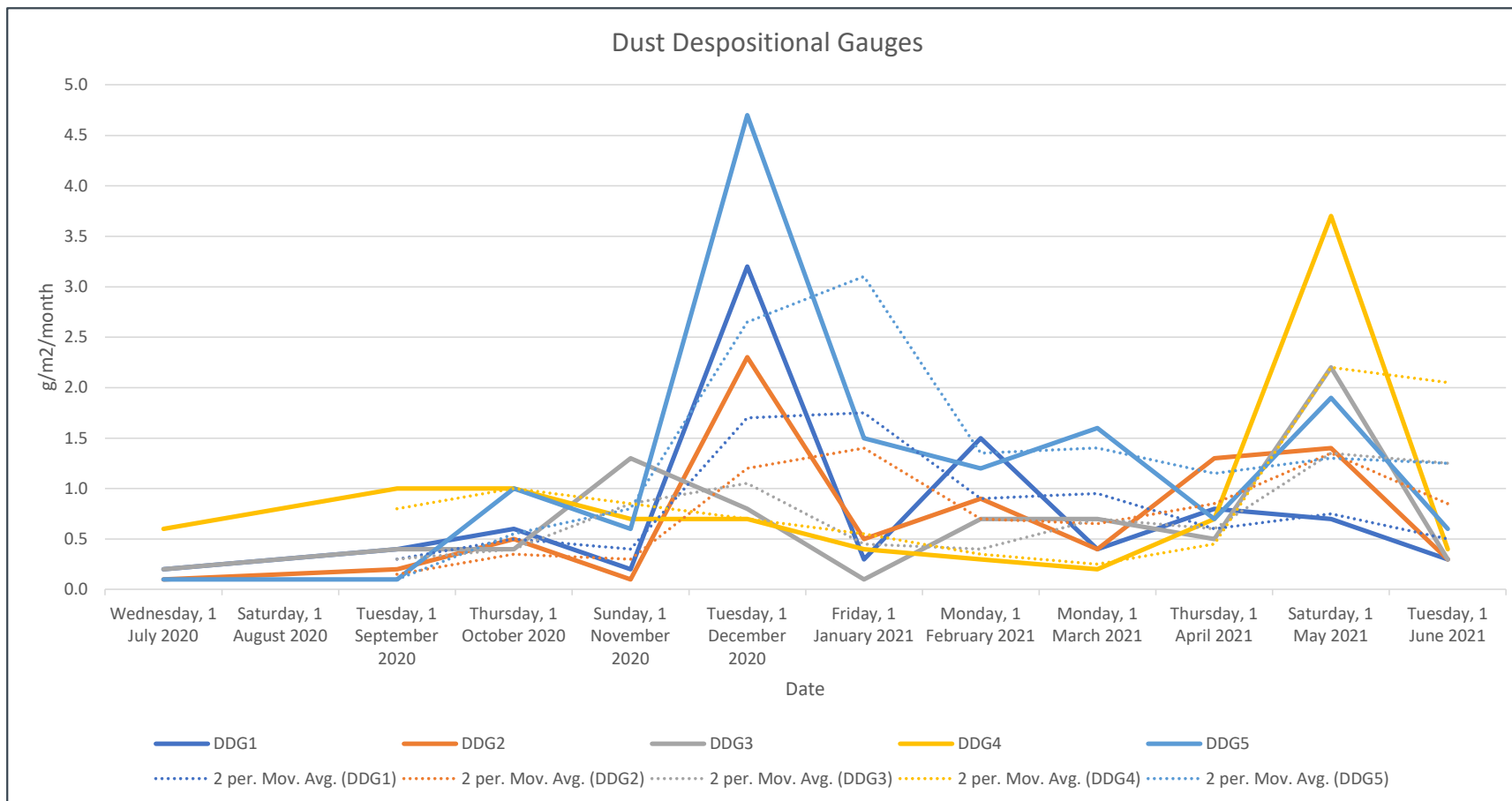


Figure 6: Air quality monitoring - DDG

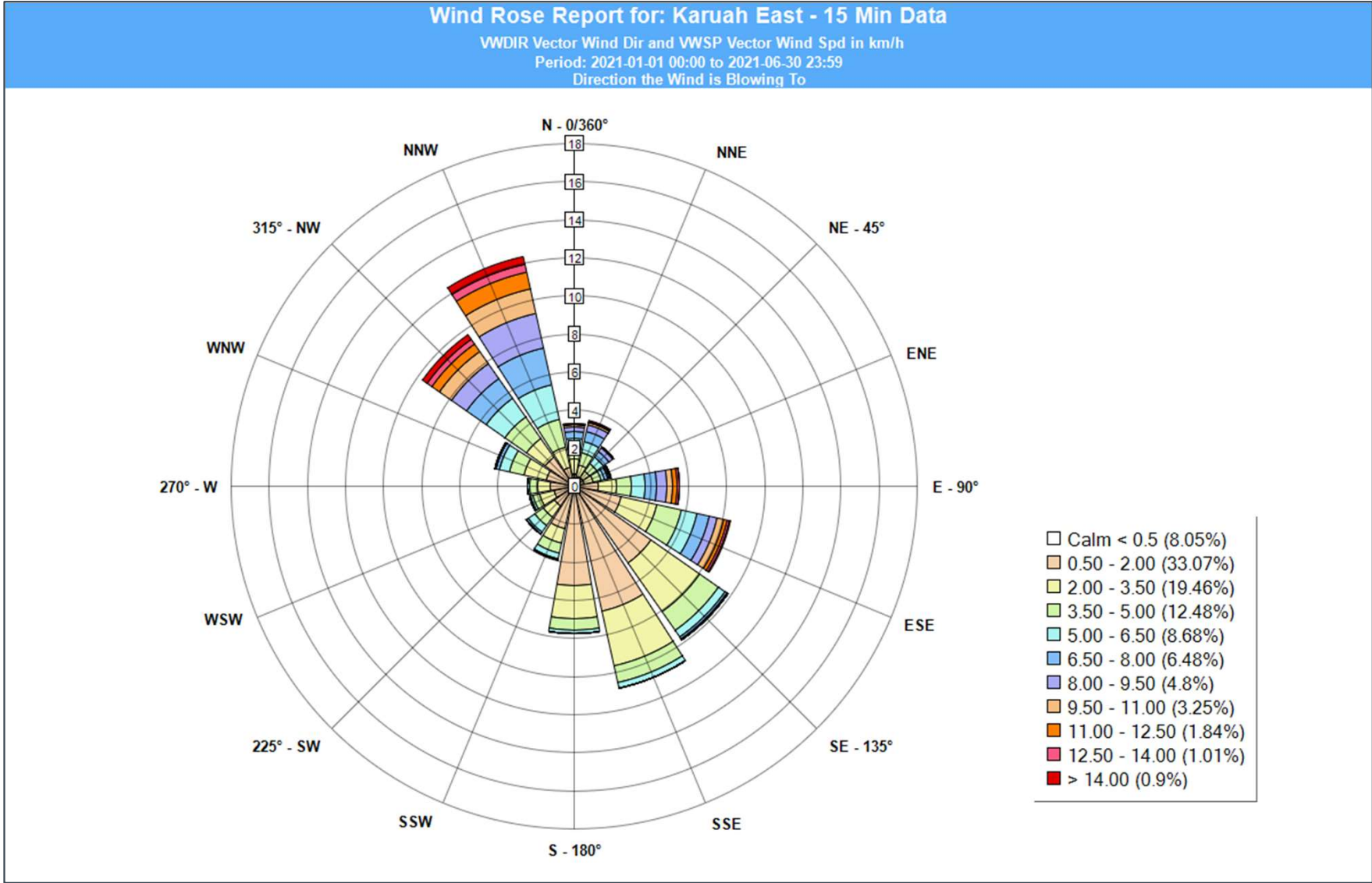


Figure 7: KEQ Meteorological Station – Wind Rose



Figure 8: KEQ Air Quality Monitoring Equipment

Dam 1 (Licensed Discharge Point 1)

Dam 1 is the primary water storage for KEQ and provides water for operational purposes; such as dust suppression. The designed capacity is 12ML.

There was a total of **18** days of discharge, this included:

- 12 days of controlled discharge;
- 6 days of uncontrolled discharge; and
- 6 non-conforming samples which were all exceedances of TSS (40mg/L).

Dam 1 discharges into the Bulga Creek catchment.

| | pH | EC | Turbidity | TSS | Oil and Grease |
|--------------------|-----|-----|-----------|------|----------------|
| No. Samples | 18 | 18 | 18 | 16 | 0 |
| Min | 6.7 | 120 | 2 | 4 | NV |
| Mean | 6.9 | 539 | 417 | 285 | NV |
| Max | 7.2 | 752 | 1630 | 1260 | NV |



Figure 9: Dam 1 7:25am 27 October 2021

Dam 2 (Licensed Discharge Point 2)

The designed capacity of Dam 2 is 0.5 ML.

There was a total of **14** days of discharge, this included:

- 8 days of controlled discharge;
- 6 days of uncontrolled discharge; and
- 6 non-conforming samples which were all exceedances of TSS (40mg/L).

Dam 2 discharges into the Yalimba Creek catchment.

| | pH | EC | Turbidity | TSS | Oil and Grease |
|--------------------|-----|------|-----------|-----|----------------|
| No. Samples | 14 | 14 | 14 | 14 | 0 |
| Min | 6.6 | 87 | 18 | 11 | NV |
| Mean | 7 | 734 | 260 | 162 | NV |
| Max | 7.3 | 3830 | 935 | 636 | NV |



Figure 10: Dam 2 7:50am 2 September 2021

Dam 3 (Licensed Discharge Point 3)

The designed capacity of Dam 3 is 2 ML.

There was a total of **11** days of discharge, this included:

- 5 days of controlled discharge;
- 6 days of uncontrolled discharge; and
- 6 non-conforming samples which were all exceedances of TSS (40mg/L).

Dam 3 discharges into the Bulga Creek catchment.

| | pH | EC | Turbidity | TSS | Oil and Grease |
|--------------------|-----|-----|-----------|-----|----------------|
| No. Samples | 11 | 11 | 11 | 11 | 0 |
| Min | 7 | 118 | 45 | 10 | NV |
| Mean | 7.4 | 347 | 364 | 201 | NV |
| Max | 7.9 | 571 | 915 | 592 | NV |



Figure 11: Dam 3 8:46am 3 August 2021

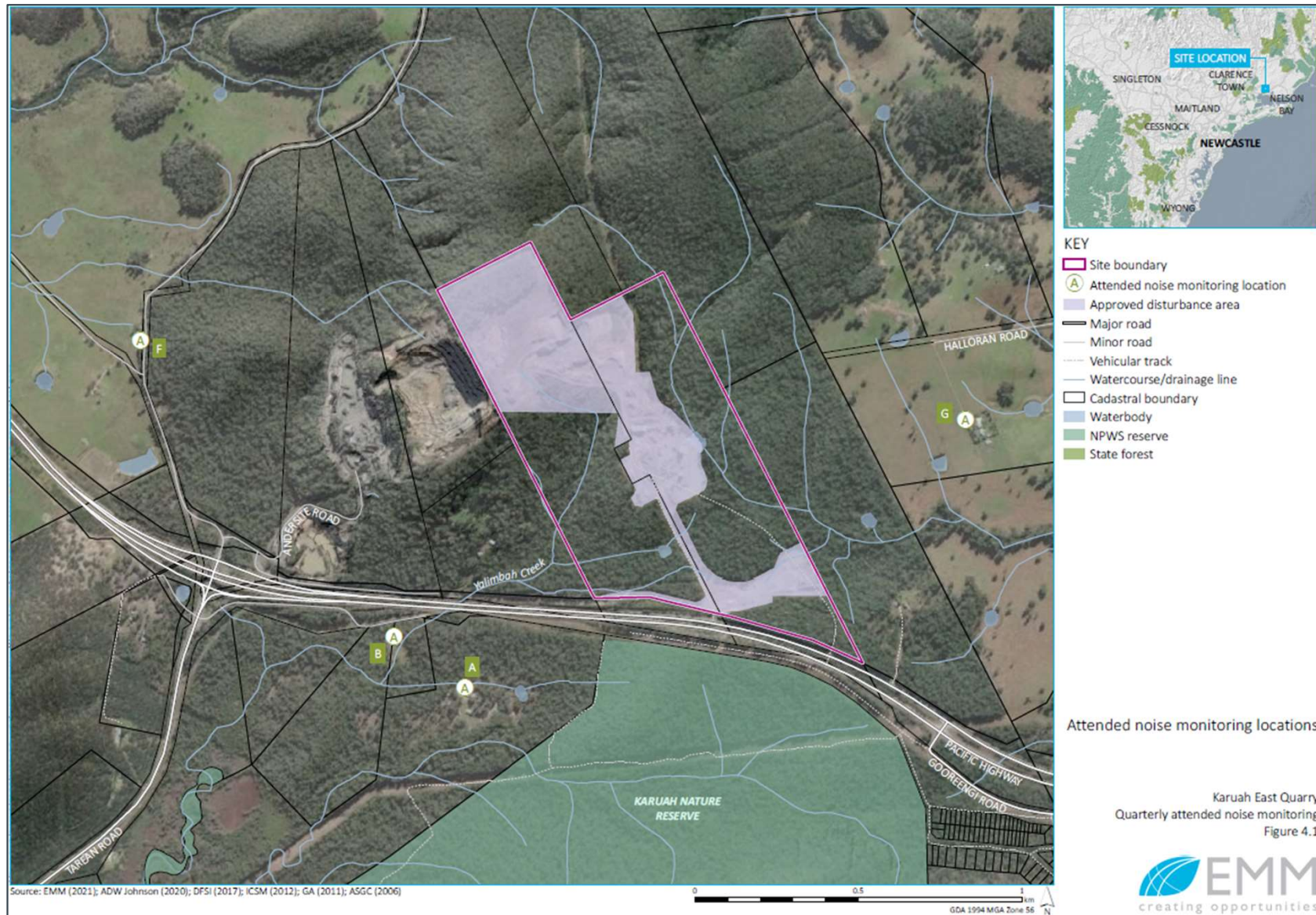


Figure 12: KEQ Attended Noise Monitoring Locations (EMM Consulting, 2021)

| LOCATION | DATE START TIME WEATHER | L_{AMAX} | L_{A1} | L_{A10} | L_{A90} | L_{AEQ} | DESCRIPTION OF NOISE AND TYPICAL MAXIMUM NOISE LEVELS (DBA) |
|-----------------|--|-------------------------|-----------------------|------------------------|------------------------|------------------------|---|
| A | 23/02/2021 10:23 am Calm | 85 | 60 | 57 | 52 | 55 | Birds 50 - 55 Pacific Highway 55 Karuah East Quarry Inaudible |
| B | 23/02/2021 10:53 am Calm | 86 | 71 | 67 | 59 | 64 | Pacific Highway 60 - 65 Karuah East Quarry Inaudible |
| F | 23/02/2021 11:28 am Calm | 88 | 53 | 57 | 53 | 56 | Birds and Insects 40 Local Traffic 65 Pacific Highway 55 Karuah East Quarry Inaudible |
| G | 23/02/2021 12:07 pm Calm | 75 | 57 | 56 | 50 | 54 | Birds and Insects 40 - 55 Pacific Highway 50 Karuah East Quarry Inaudible |

Figure 13: Extract from KEQ Noise Monitoring Report – February 2021 (Thearle Acoustics)

| LOCATION | DATE START TIME WEATHER | L _{AMAX} | L _{A1} | L _{A10} | L _{A90} | L _{AEQ} | DESCRIPTION OF NOISE AND TYPICAL MAXIMUM NOISE LEVELS (DBA) |
|----------|---------------------------------------|-------------------|-----------------|------------------|------------------|------------------|---|
| A | 06/05/2021 14:00 pm Wind 20 kph | 85 | 60 | 59 | 56 | 58 | Wind Noise 50 – 60 Motorbike 50 – 55 Pacific Highway 45 - 55 Karuah East Quarry Inaudible |
| B | 06/05/2021 15:05 pm Wind 20 kph | 87 | 71 | 67 | 60 | 64 | Pacific Highway 55 - 65 Birds 40 – 45 Karuah East Quarry Inaudible |
| F | 06/05/2021 13:20 pm Wind 20 kph | 85 | 59 | 57 | 54 | 56 | Wind Noise 50 – 55 Insects 40 - 45 Karuah East Quarry Inaudible |
| G | 06/05/2021 09:50 am Wind 20 kph | 68 | 49 | 47 | 46 | 47 | Wind Noise 40 – 45 Insects 40 - 45 Birds 35 - 40 Karuah East Quarry Inaudible |

Figure 14: Extract from KEQ Noise Monitoring Report – April 2021 (Thearle Acoustics)

Blast Monitoring

- During this reporting period, there have been 12 blasts undertaken.
- Monitoring is undertaken to measure compliance with the Principal Approvals criteria for airblast overpressure and ground vibration.
- Monitoring is conducted at the closest receptor to the blast.
- All blasts were compliant with the criteria.

Production and Sales

- During this reporting period, there was approximately:
 - 379,827 tonnes of material processed
 - 358,470 tonnes of material sold.
 - 12,825 truck movements from site
-



Figure 15: Post blast photo

Complaints Register

There was one complaint received during this reporting period.

| Date | Environmental Factor | Comments |
|---------------|----------------------|---|
| January 2021 | - | Nil complaints received |
| February 2021 | - | Nil complaints received |
| March 2021 | - | Nil complaints received |
| April 2021 | - | Nil complaints received |
| May 2021 | Noise | <p>A complaint was received on the 18th of May alleging that unacceptable noise levels were heard at a location east of KEQ. An investigation was undertaken as soon as the complaint was received and did not find any activity at KEQ to be the source.</p> <p>Major road works were being undertaken at a nearby location on the Pacific Highway; this may have been a source of noise.</p> |
| June 2021 | - | Nil complaints received |

Table 1: Complaints register January 2021 – June 2021

Non-Compliance

| Date | EPL Condition | Condition Summary | Comment |
|-----------------------------------|------------------|--|---|
| 18/03/2021 - 23/03/2021 | L2.1 | Concentration of a pollutant discharged must not exceed the limits specified in this licence – TSS exceedance from Dam 1, 2 and 3. | As a result of a statistically wet year on a regional scale, soil saturation levels were high. On two occasions, during extreme rainfall, all three of the KEQ dams reached storage capacity and uncontrolled discharge occurred. |
| 3/06/2021 - 5/07/2021 | M2.1; M2.2; M3.1 | Air quality monitoring requirements – DDG5 shattered. | Sample jar shattered at the laboratory prior to analysis. |
| 22/03/2021; 28/03/2021; 3/04/2021 | M2.1; M2.2; M3.1 | Air quality monitoring requirements – HVAS (TSP) equipment failure. | HVAS equipment failure due to extreme wet weather. |

Table 2: Non-compliance January 2021 – June 2021

MOD 9 – Extended Hours of Operation

Approved by NSW DPIE on 2nd December 2021.

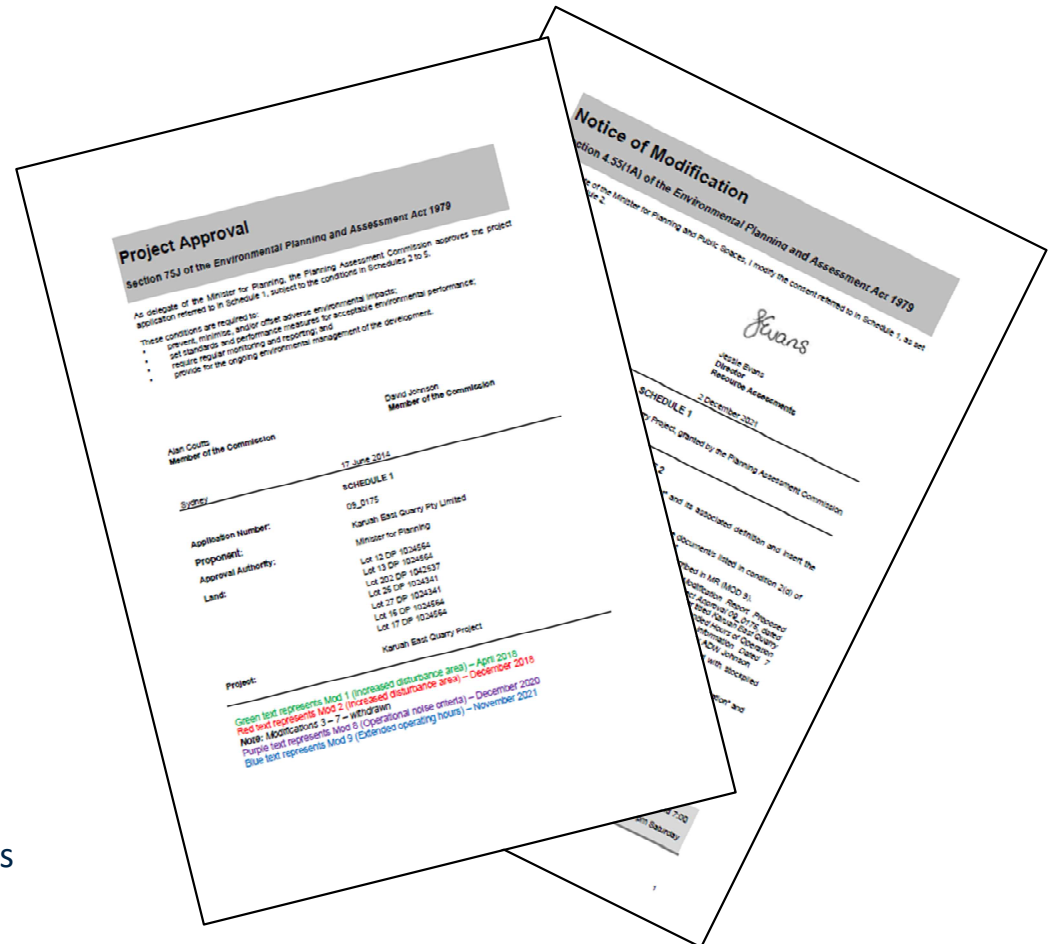
Approved hours of operation:

- **Loading & Dispatch Activity**
 - 5.00am to 9.00pm (Mon – Fri)
 - 5.00am to 10.00pm (Mon – Fri on 50 calendar days per year)
 - 6.00am to 6.00pm (Saturday)
- No product loading & dispatch on Sundays or Public Holidays
- **Quarrying Operations**
 - 7.00am to 9.00pm (Mon – Fri)
 - 7.00am to 10.00pm (Mon – Fri on 50 calendar days per year)
 - 7.00am to 6.00pm (Sat)
- No quarrying operations on Sundays or Public Holidays

Previous Hours of Operation:

- 7.00am – 6.00pm (Mon – Fri)
- 7.00am – 1.00pm (Sat)
- No operations Sundays or Public Holidays

No change to annual extraction rates, quarrying/processing methods or vehicle frequency



MOD 9 – Mitigation Measures

- ‘Capped’ the number of times that operations will extend to 10.00pm (Mon – Fri) to 50 calendar days per year.
 - No splitting or hammering of large rock is to occur after 6.00pm.
 - Large Rock is Class 1 (700mm – 1200mm) and Class 2 (400mm – 700mm).
 - Loading of large rock during the extended hours will occur via ‘grabs’ using the hydraulic excavator grab attachment rather than the bucket attachment.
 - Training of staff to ensure trucks are loaded from as low a height as possible.
 - ‘Blanket’ approach not adopted – it is only loading and dispatch operating prior to 7.00am.
 - The above is in addition to the substantial measures already installed including:
 - Enclosure of the primary and secondary crushers;
 - Use of acoustically treated generator sets;
 - Dump hopper included into the primary jaw crusher enclosure;
 - Installation of windrows along internal quarry haul roads;
 - KEQ loaders and excavators were tested and found to be examples of best available in terms of noise emissions; and
 - Operator training.
-



Figure 16: Excavator loading Class 2 into dumpy

MOD 9 – Why is MOD 9 needed?

- Flexibility to respond to market demand.
 - Previous 7.00am commencement created an inefficient time lag to supply product to market (building sites typically operate from 7.00am).
 - Previous 6.00pm finish did not allow adequate flexibility to supply product to projects that extend into the evening and night time.
 - Previous 1.00pm finish (Sat) did not allow adequate flexibility to supply product to projects under construction on Saturday.
 - Commensurate with extended loading and dispatch times, adequate stockpiled material needs to be available for dispatch.
 - Commercially competitive with other quarry operations in the region.
 - MOD 9 will allow KEQPL to maintain a constant supply of product to its customers.
-

Proposed MOD 10 – Increase Disturbance Area

- Application has not been lodged with NSW DPIE (anticipated 1st quarter 2022).
- Approximately 7.1ha of additional disturbance area.
- Primary purpose is to establish additional stockpile area.
- Logically positioned next to existing stockpile areas.
- Will facilitate improved water management infrastructure.
- Will include area for an administration building and heavy vehicle parking.
- No change in annual extraction rates, quarrying/processing methods or vehicle frequency.
- **Specialist assessments:**
 - Flora and fauna
 - Surface water
 - Groundwater
 - Aboriginal Heritage
 - Noise
 - Air Quality
 - Visual
 - Soil, Land Resource and Rehabilitation

Why is MOD 10 needed?

- KEQ has an evolving client base that includes TfNSW, Councils and Port of Newcastle.
 - Tenders for these agencies typically require 4,000t stockpiles that have been QA tested.
 - KEQ stock 15 x different products.
 - There is insufficient space.
-

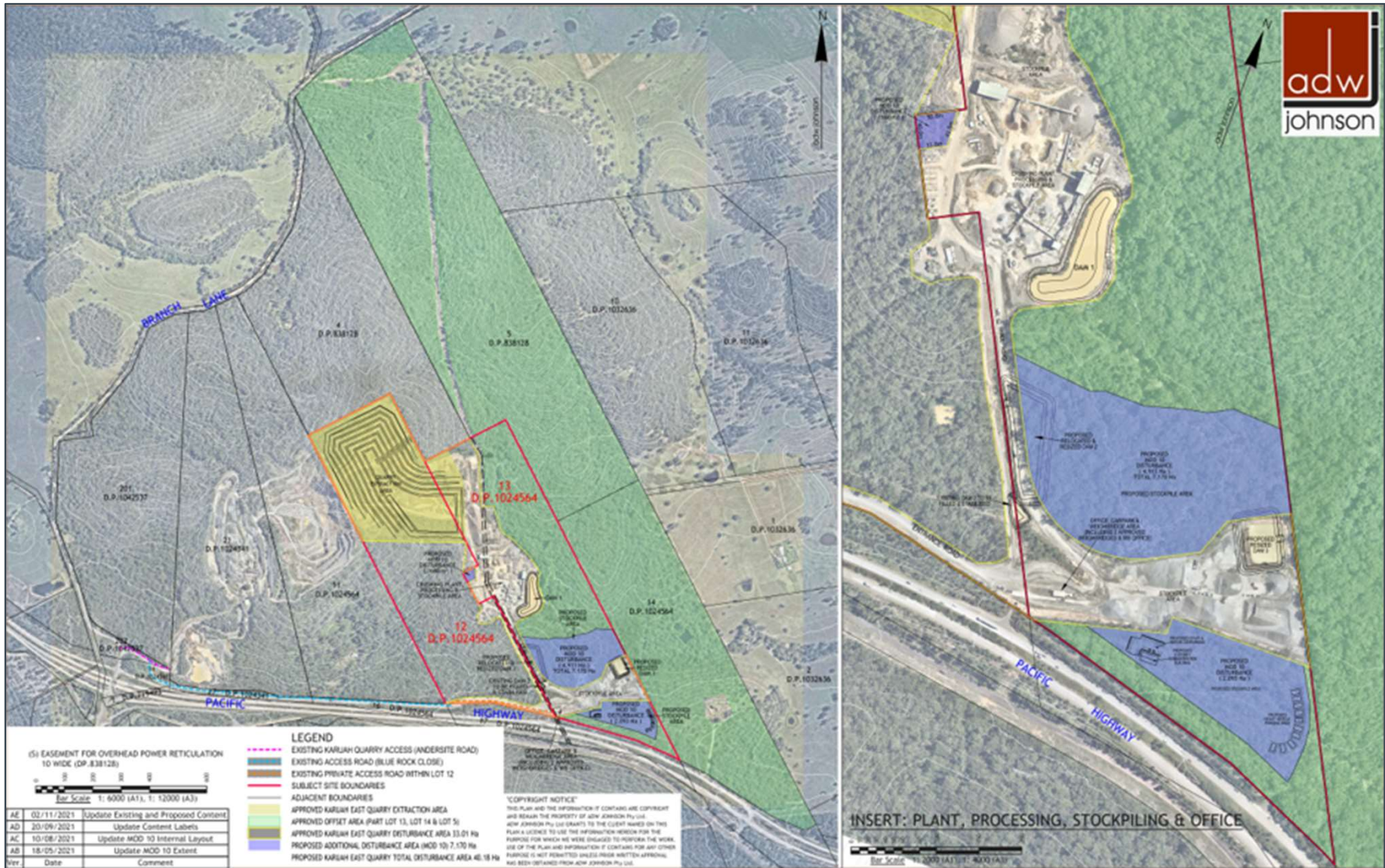


Figure 16: KEQ Proposed Modification 10 Plan [DRAFT]

Relationship with Nearby Quarry Operations

Hunter Quarries Pty Ltd – Karuah Quarry:

- Located on adjoining land to the west (Lot 11 DP 1024564 and Lot 21 DP 1024341).
- Operated by Hunter Quarries Pty Ltd (an affiliated company with KEQ).
- Hunter Quarries do not own part of the land (Lot 11) – operation is subject to a License Agreement with landowner.
- This is an independent operation subject to its own Development Consent.

Wedgerock Pty Ltd – Proposed Karuah South Quarry:

- Located south of Karuah Quarry on Lot 11.
 - Application is under assessment by the NSW DPIE (SSD - 8795).
 - Being undertaken by the owner of Lot 11.
 - Not affiliated with Karuah Quarry or Karuah East Quarry.
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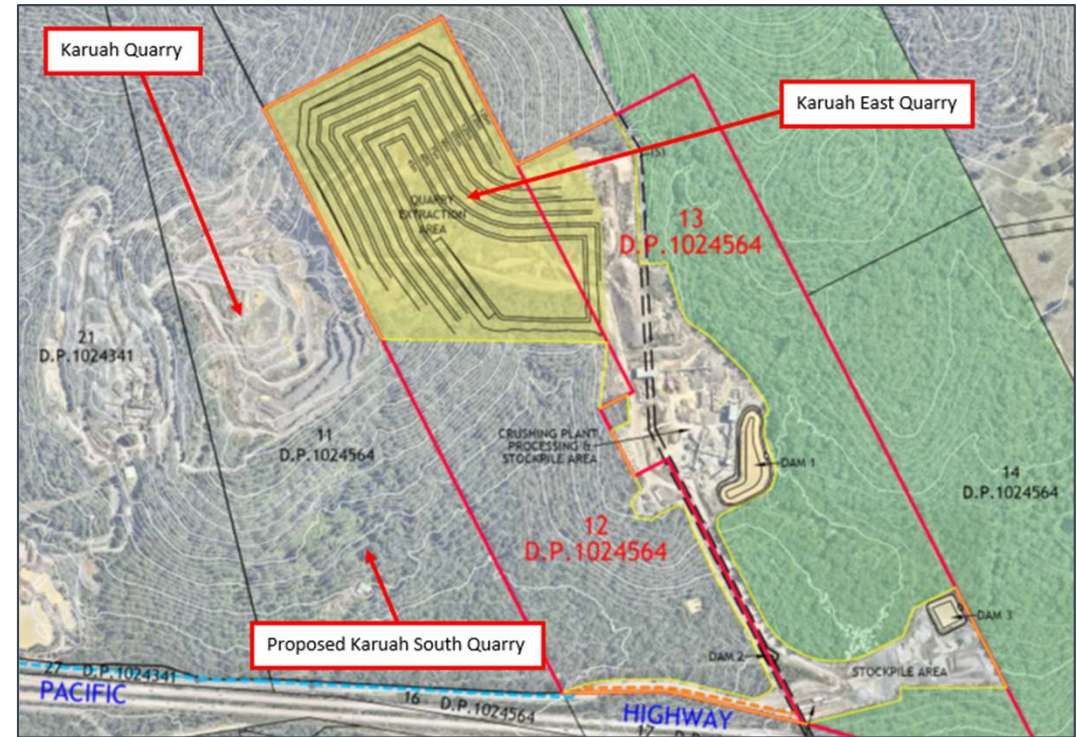


Figure 17: KEQ Primary Jaw Crusher Enclosure

General Business

Projects:

- Dam 1 dam wall remediation and new spillway installation.
- Haul road from the primary crusher to the top of the extraction area is increasing in width to provide safer passage.
- The top of the extraction area is being established, with the desire to begin extracting from the northern most benches.

Questions:



Figure 18: Dam wall remediation project



Figure 19: Haul road Primary to extraction