

Application SSD-59254474 Seaham Quarry Expansion.

This is a submission on behalf of VOWW, a not-for-profit community organisation representing the West Ward of PS LGA.

We wish to submit our request for **refusal of approval** of this project based on the following objections.

Location.

- a) As can be seen from the below diagram provided by the applicant in their scoping report, the current site is in close proximity to the proposed Stone Ridge and Eagleton Quarries. It would share a common boundary with the Eagleton Site (red arrow) and a point of close proximity at the north with the Stone Ridge site (blue arrow). This would in our opinion constitute a “Mega Quarry”.
- b) The current site is also in the proximity of the proposed Monarch’s Rise subdivision which is currently being assessed by PSC and the Kings Hill subdivision (Green Arrow), should it gain approval to proceed, and would no doubt contribute to noise, light and dust pollution to be experienced by residents of these housing proposals.



- c) The scoping report states:

“There are several privately owned residences within 1 km from the Project area. Seaham township is approximately 6 km to the north-west, Brandy Hill is approximately 7.5 km to the west and Raymond Terrace is approximately 9 km to the south-west”.

These residences in particular, as well as the village of Seaham and rural residential area of Brandy Hill would no doubt be affected by an increased level of haulage

traffic for the 'local' deliveries as proposed, as it combines with the quarry haulage trucks from Brandy Hill Quarry.

Every quarry is different but the impact on society and local residents are the same. It is noted from the above document that there are approximately thirty four residential properties surrounding, and in the vicinity of the proposed quarries.

The residents of the township of Seaham are now effected by the blasting noise from the quarry and there is a visual corridor from the higher parts of Seaham to the existing site. With expansion there will be an increase in the amount of dust, noise pollution from blasting and impacts on the visual amenity.

It is our opinion that the proposed expansion would have a negative effect on the life style and wellbeing of communities in the vicinity of the proposed expansion.

Impact of Native Flora and Fauna.

- a) The letter from Australian Government Department of Climate Change, Energy, the Environment and Water Reference 2023/09575 clearly states:

*"Based on the information available in the referral, the **proposed action is likely to have a significant impact on the following matters of national environmental significance, including but not limited to:***

- *Koala (Phascolarctos cinereus) (combined populations of Queensland, New South Wales and the Australian Capital Territory) – Endangered*

The proposed action will directly remove 26.5 hectares (ha) of native vegetation that is known Koala habitat.

- *Grey-headed Flying-fox (Pteropus poliocephalus) – Vulnerable*

The proposed action will directly clear 26.5 ha of native vegetation that is known to provide high quality foraging habitat for this species.

In addition, the proposed action may significantly impact on other listed threatened species including but not limited to the following:

- *Regent Honeyeater (Anthochaera phrygia) - Critically Endangered*
- *Swift Parrot (Lathamus discolor) – Critically Endangered*
- *Spotted-tail Quoll (south-eastern mainland population) (Dasyurus maculatus maculatus) – Endangered*
- *South-eastern Glossy Black Cockatoo (Calyptorhynchus lathami lathami) - Vulnerable*

*Please note that **this may not be a complete list** as additional impacts may be identified during preparation of the environmental impact statement. In this regard, the department considers it the responsibility of the proponent to undertake an analysis of the significance of the relevant impacts and ensure that all protected matters that are likely to be significantly impacted are assessed for the Commonwealth Minister's consideration."*

- b) The applicant's own Environmental Impact Statement E221021 RPO on page 118 states that:

Connectivity of different areas of habitat

The subject land is located directly adjacent to the existing Seaham Quarry operation, which is located on the western edge of native forest. Land to the west of Boral's landholding is cleared grazing land. The subject land has high vegetation connectivity with adjoining lands to the north, south and east, and forms part of a large expanse of remnant forest vegetation extending from north of Raymond Terrace to Wallaroo State Forest and Wallaroo National Park. This corridor provides good north-south connectivity.

Italia Road and Hunter Water's Balickera Canal result in some disconnect of habitat between the vegetation on the subject land and the Wallaroo State Forest and Wallaroo National Park to the north. The Pacific Highway is a major barrier to habitat connectivity in an east-west direction and would limit fauna movement from west of the highway to larger expanses of vegetation associated with the Grahamstown Dam and Medowie State Conservation Area.

- c) The applicants own Environmental Impact Statement E221021 RPO on page 120 states that:

Arboreal mammals

The targeted surveys confirmed the presence of the following candidate arboreal mammal species within the subject land:

- Squirrel Glider (*Petaurus norfolcensis*)*
- Brush-tailed Phascogale (*Phascogale tapoatafa*)*
- Koala (*Phascolarctos cinereus*).*

From the above it may be seen that the proposed expansion would have a serious effect if not totally destroying "vegetation connectivity" between Raymond Terrace and the Wallaroo State Forest and National Park. This must be seen as a vital "wildlife corridor", the removal of which would, in spite of any remedial action, cause native species, in particular Koalas, to access more inhabited areas with the high risk of injury or death by domestic pets and road traffic.

- d) Table 2.1 on Page 14 of the applicants EIS lists effected vegetation as:

“Vegetation within the proposed disturbance footprint comprises two plant community types (PCTs) including:

– PCT 1590 Spotted Gum - Broad-leaved Mahogany - Red Ironbark shrubby open forest

– PCT 1584 White Mahogany - Spotted Gum - Grey Myrtle semi-mesic shrubby open forest of the central and lower Hunter Valley.

The vegetation is associated with habitat for threatened species including the Brush-tailed Phascogale, Koala, Squirrel Glider, Southern Myotis, South-eastern Glossy Black-Cockatoo, and Powerful Owl.”

It is in our opinion, in the light of the above, that the proposed expansion would pose an unacceptable risk to our dwindling native animal (in particular Koala) population.

Road Traffic.

The applicants Traffic Impact Assessment (Appendix L of the EIS) provides the following estimated traffic movements and distribution:

3.2.7 Traffic generation

The expected peak daily, average daily and peak hour vehicle movements associated with the Project is presented in Table 3.2.

Table 3.2 Hourly and daily traffic movements

Vehicle type	Peak daily movements		Average daily movements		Peak hour traffic generation			
	Inbound	Outbound	Inbound	Outbound	Inbound (AM)	Outbound (AM)	Inbound (PM)	Outbound (PM)
Heavy	325	325	224	224	48	48	39	39
Light	49	49	35	35	22	4	9	22
Total	374	374	259	259	70	52	48	61

The estimated forecast future daily traffic volumes for the future quarry operations are:

- for heavy vehicles, there will be a maximum of 325 trucks visiting the Quarry on a peak production day and 224 trucks visiting the quarry on an average production day
- for light vehicles, there will be a maximum of 49 workforce and site visitor vehicles visiting the quarry on a peak production day and 35 workforce or site visitor vehicles on an average production day.

Since the proposal is for an approximate sixty six percent increase in annual production from 1,200,000 tonnes to 2,000,000, there will be a corresponding increase in the number and/or size of truck movements.

a) This will have safety consequences at the intersection of Italia Road and the Pacific Highway irrespective of the upgrade proposed.

- Danger to north bound vehicles from increased numbers of slow moving laden heavy vehicles turning left onto the highway from Italia Road.
- Danger to north bound vehicles from increased numbers of slowing northbound heavy vehicles tuning left into Italia Road from the highway.
- Danger to north bound vehicles from increased numbers of crossing southbound heavy vehicles tuning right into Italia Road from the highway.
- Although prohibited, there is a chance that a number of southbound heavy vehicles may choose to turn right from Italia Road crossing the north bound lanes to proceed south on the highway.

It is noted that a proposal has been submitted by a consortium of local quarry operators to upgrade the Italia Road/Pacific Highway intersection for heavy trucks heading north and returning from the south. This indicates quite clearly that cumulative effect of multiple quarries on the same road system and intersection is a concern to local road users as well as the general public using the Pacific Highway.

There has been no mention of the other dangers facing road users who interact with quarry haulage trucks. One of these is the inevitable gravel and small rocks that escape from trucks as they bump over imperfections in the road or even when they make a turn as they enter Italia Road or the Pacific Highway. Evidence of this can be seen at the exit of the Brandy Hill quarry and along Brandy Hill Drive as well as at the Tarean Road intersection where trucks enter from the Karuah quarries. These particles cause windscreen damage as they are flicked up with successive car movements. This will be equally evident along Italia Road where the surface is uneven and potholed.

Boral as well as Hanson, Brandy Hill, have policies whereby drivers must shake or broom off overflow loading but the evidence is on the road. It doesn't always work, and it depends on the thoroughness applied.

b) There will be a consequential increase in truck movements heading along Italia Road and, East Seaham Road.

- These roads are basically rural roads aligned and constructed for light traffic and the presence of large industrial vehicles on them can cause a hazard to drivers of light vehicles.
- The structure of these roads does not tolerate regular passage of heavy loads and the occurrence of pot holes and damage to the shoulders will increase. This will increase the number hazards to other road users and the risk of damage to light vehicles. It will also place an extra burden of the resources of local councils.

c) There will be an increased risk to residents entering and leaving their properties by car due to the increase in heavy truck movements even though the proponent

will only be using Italia Rd for local deliveries. It must be noted that Italia Rd and East Seaham Rd are narrow and winding with poor shoulders and numerous driveways which are often obscured by trees.

- d) There will be an increased risk to wildlife from additional truck movements, whether trucks are moving left or right out of the quarry entrance, particularly at the ends of the movement window at dawn and dusk. This is when wildlife is most mobile.

It is in our opinion, in the light of the above, that the proposed expansion would pose an unacceptable increase in heavy vehicle traffic with its associated risks on local roads and at the junction of Italia Road and the Pacific Highway.

Although only trucks serving 'local deliveries' (that is within 15km of the quarry) will be permitted to use East Seaham road, additional truck movements will have a cumulative effect with existing Hanson Truck movements.

Hours of Operation.

Revised hours of operation are detailed in section 3.4.13 of the EIS as below.

3.4.13 Hours of operation

The Quarry is currently approved to operate from 6 am to 10 pm Monday to Friday, and 6 am to 5 pm on Saturdays. These operation hours cover all quarry activities such as quarry overburden removal/emplacement, drilling, loading and dispatch, transport, rehabilitation activities, and maintenance. Blasting is currently approved to occur between 9 am and 5 pm Monday to Friday.

The proposed Project hours of operation are detailed in Table 3.2. The hours of operation will remain largely consistent with the current operations with the exception of loading and hauling, fixed processing, use of pug mills and stockpiling, which are proposed to extend to 12 pm on weekdays. No change to blasting times is proposed.

Table 3.2 **Hours of operation**

Activity	Monday – Friday	Saturday	Sunday and Public Holidays
Extraction (drilling, dozer, etc.)	6 am to 10 pm	6 am to 5 pm	
Land clearing and blast hole drilling	7 am to 6 pm	7 am to 5 pm	
Blasting	9 am to 5 pm	No work	
Loading and hauling	6 am to 12 pm	6 am to 5 pm	
Fixed processing (crushing and screening)	6 am to 12 pm	6 am to 5 pm	No work
Additional mobile crushing and screening campaigns	7 am to 6 pm	7 am to 5pm	
Pug mill (if different to processing above)	5 am to 12 pm	5 am to 5pm	
Stockpiling	6 am to 12 pm	6 am to 5 pm	
Sales	6 am to 10 pm	6 am to 5 pm	
Maintenance	24 hours, 7 days per week		

The above report states that “the hours of operation will remain largely consistent with the current operations”. The nearby residents might feel quite differently with the noise that will be generated until midnight.

It is noted that there is a current precedent for quarry operations set by the IPC for the quarry at Brandy Hill being namely 6am until 6pm for haulage.

The IPC in their document “Brandy Hill Quarry Expansion Project SSD 5899 - Statement of Reasons for Decision” states:

127. As discussed at paragraph 76, in order to reduce the potential impact of road noise during the night and in the early morning, the Commission has imposed the conditions recommended by the Department that restrict truck movements during the night. Additionally, the Commission finds that it is appropriate to further restrict trucks from entering the site prior to 6.00am and that the Applicant be required to implement management measures to prevent trucks travelling on the haulage route before this time.
75. The Commission further notes the Department's assessment that the Applicant could achieve its annual production rate of 1.5Mtpa while being limited to day-time operations. Furthermore, the proposed condition (A12(iv)) permits additional truck movements between 6.00pm and 10.00pm on up to 20 evenings per year to provide some flexibility to supply night road construction projects. However, the Commission does not accept the Applicant's need for early morning haulage (before 6.00am) for timely delivery to the construction market is justified when balanced against the potential impact on residential amenity resulting from truck movements before 6.00am.
76. The Commission considers that 24-hour operation is not appropriate in this instance but notes that there are other options open to the Applicant to address the need for early morning deliveries. The Commission also notes the Department's AR indicates that extraction and processing hours for other quarries in NSW are generally limited to day-time hours.
77. In light of the above, the Commission agrees that the Department's conditions which restrict night time truck movements are reasonable but finds that it is appropriate to further restrict trucks from entering the site prior to 6.00am and that the Applicant be required to implement management measures to prevent trucks travelling on the haulage routes before this time. The relevant condition is amended accordingly.

The proposed hours for Extraction, Loading/Hauling, Fixed Processing, Pug Mill and Stockpiling for the proposed Seaham quarry expansion are well outside this range.

It is unbelievable that any company generating excessive noise would consider working until midnight in amongst a rural community with rural night-time ambience.

Noise Levels.

The applicants Noise and Vibration Impact Assessment (Appendix E of the EIS) provides the following estimated noise levels at adjoining properties. An extract is shown below with levels that exceed the Project Noise Trigger Levels are circled in red. Stage 1 is the existing operation and Stage 5 the proposed.

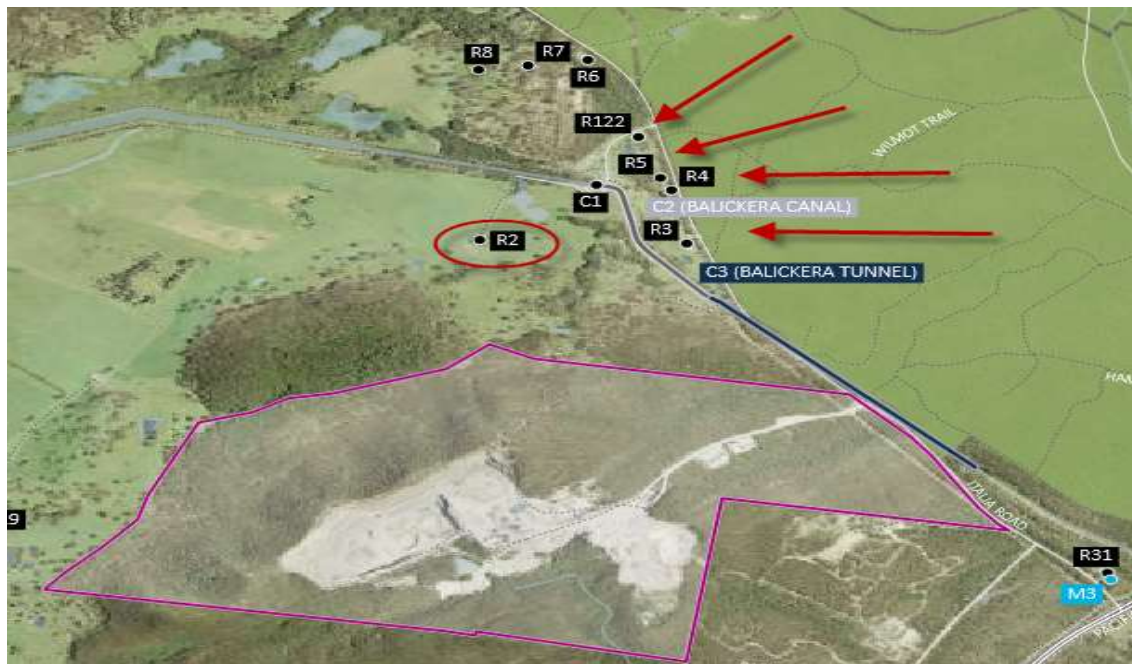
Table 6.1 Operational noise $L_{Aeq,15\text{minute}}$ predictions, dB ¹

Location	Stage 1			Stage 5		
	Day (Standard)	Evening (Standard)	Night (Enhancing)	Day (Standard)	Evening (Standard)	Night (Enhancing)
R2	33	30	31	37	31	32
R3	37	37	39	42	38	39
R4	36	35	37	40	37	38
R5	35	35	36	40	37	37
R6	32	31	33	35	33	33
R122	35	34	35	37	35	36

Notes: 1. Bold results indicate predicted exceedance of PNTL. PNTL are not intended to be applied directly as regulatory limits, especially for existing industrial operations.

Operational noise levels from the Project are predicted to comply with PNTL at all assessment locations except four locations (R3, R4, R5, and R122). Recommended operational noise controls to address these exceedances are provided in Section 7. Assessment of residual noise impact against the VLAMP is provided in Section 8.

The four affected properties are shown on the below map on Page 10 of the document.



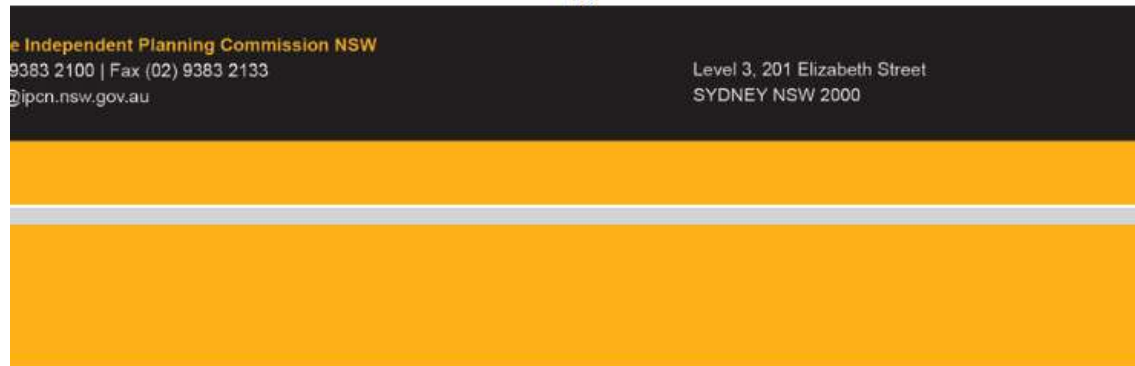
Site R2 is the heritage listed Balickera House.

It is noted that the proposal will, increase unacceptable noise levels during the day and evening, not only at three properties but for many residences in the surrounding area.

The IPC in their document “Brandy Hill Quarry Expansion Project SSD 5899 - Statement of Reasons for Decision” states:

87. In relation to operational noise, the Department’s AR concludes:

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“On this basis, operational noise generated during this hour would be similar to existing noise generated by the quarry, and the Department considers it reasonable to allow quarrying operations to continue to commence at 6:00 am, so long as the recommended noise limits are achieved.

The Department does not consider processing activities should commence any earlier than 6:00 am and has recommended that the most stringent noise levels under the INP apply between 5:00 am and 6:00 am to allow for product loading and dispatch activities only.”

It is also noted that in the limiting of hours of haulage to effectively daylight hours by the IPC on the Hanson Brandy Hill Quarry operation there has been a significant reduction in ‘road kill’ numbers on Brandy Hill Drive.

Air Quality and Pollution.

The applicants Air Quality Impact Assessment (Appendix F of the EIS) provides the following findings on estimated pollution levels at adjoining properties. The Conclusion on page 61 states.

“The results of the modelling show that the predicted concentrations and deposition rates for incremental particulate matter (TSP, PM10, PM2.5 and dust deposition) and NO2 are below the applicable impact assessment criteria at all assessment locations.

Cumulative impacts were assessed by combining the adopted background concentrations with the predicted incremental concentrations from the Project and proposed neighbouring

quarries. Cumulative results indicated that air pollution concentrations associated with emissions from the Project and proposed neighbouring quarries would be in compliance with the NSW EPA impact assessment criteria at all surrounding assessment locations for all pollutants and averaging periods, with the exception of a single exceedance day of 24-hour average PM10 at the recreational property, Hunter Valley Paintball.

It is noted that this assessment location is positioned immediately south of the proposed Eagleton quarry haul route. Further, this exceedance above the criterion ($51.9 \mu\text{g}/\text{m}^3$) coincides with an elevated background concentration of $45.2 \mu\text{g}/\text{m}^3$, contributing 87% of the cumulative concentration. Considering the Hunter Valley Paintball is open intermittently between the hours 8:00 am and 3:00 pm, subject to demand, this single additional exceedance is not considered to be significant."

Water for nearby residences is facilitated by roof collection of rainwater into tanks. Therefore, has the air pollution/air quality with regard to particulate accumulation onto roof run-off been adequately considered? Would this also impact livestock with possible pollution of cattle troughs?

Potential harm to the local community.

There is real potential for **HARM** to the residents of those numerous properties and their occupants as a result of the proposed expanded quarry.

The proposed extension of the quarry seeks to utilise mining and processing practises of decades past gone.

It is important to understand the geology of the area. The resource being mined is "Acid Lava and Crystal Tuff" overlaid by the Seaham Glacial beds and underlain by the Mt Johnson formation comprising volcanic and sandstone. (Newcastle 1:250,000 Geological Map.)

The most abundant minerals on earth are silicates, which all have the same basic building block: one silicon atom (Si) surrounded by four oxygen (O₂) atoms forming a tightly bound triangular pillar. (*The Geology of Australia 3rd Ed. Henderson & Johnson*)

- Silcrete is the mineral that is influential with cemented bonding.
- Ferricrete, also called laterite, is characterised by its hard red brown iron rich cemented crust, or very hard pale grey or white rock, cemented by Silcrete.

We understand that an important characteristic of the resource to be excavated is the "Ignimbrite" material. This is fine-grained rock consisting mainly of welded shards of feldspar and quartz.

The presence of "Ignimbrite" (a generic term) makes the resource valuable because of its hardness, and in the Hunter region of NSW, Ignimbrite serves as an excellent aggregate or blue metal for road surfacing and construction. Hence the mining process values the presence of the Ignimbrite.

Most ignimbrites are silicic, with generally over 65% SiO₂.

For decades the hazard to human health of silicates was unknown, with many industrial workers being harmed by its presence, and industrial exposure.

We now know that exposure to Silica presents a potentially serious health issue, and as such no worker, nor persons of communities should be exposed.

The proposed continued operation of the quarry must have the necessary infrastructure and operating systems in place to protect all who enter the site and all adjoining residential and business properties from harmful exposure to this dust, and the subsequent health issues that may result as a consequence of such exposure.

Every mining, processing, screening, product stockpiling and loading has the potential to generate dust, unless the processes are designed and operated not to.

To this end, the operator of this quarry, in executing his duty of care, must make all necessary changes to eliminate this serious health potential, and to protect all its surrounding neighbours by way of information and actively striving to create a safe environment.

Today's best-practice standards to prevent harm include:

- Noise suppression on all internal combustion power units,
- Soft loading techniques, that mitigates against dust generation,
- Dust suppression on all load points and haulage roads,
- Fully enclosed process infrastructure, with appropriate dust and noise suppression for each and every step of the process, inclusive of ROM dumping, sizing, transferring, stockpiling and product load out.
- And just as importantly, operating hours that eliminates evening and night-time noise, to eliminate night-time sleep disturbance.

The quarry has some thirty surrounding properties, and Boral has a duty of care to ensure that the occupiers of these properties are not left in **Harm's Way**.

Heritage Impact.

The applicant's Statement of Heritage Impact Assessment (Appendix K of the EIS) on page 9 lists four heritage items in the vicinity of the quarry.

Table 2.1 **Listed heritage items in the vicinity of the Project area**

Item	Address	Register	Item ID	Distance from potential impacts (approximate)
Balickera House	303 Italia Road, Balickera, NSW 2324	Port Stephens LEP	I3	Under 1 km north
<i>"Balickera Pumping Station"</i>	Balickera NSW 2324	Hunter Water s170	-	Under 1 km north
<i>Balickera Canal and Tunnel</i>	Balickera NSW 2324	Hunter Water s170	-	Under 1 km north
<i>"Eskdale House"</i>	792 Seaham Road, Seaham NSW 2324	Port Stephens LEP	I84	House is located 5.5 km south-west, small portion of the curtilage falls in the buffer

- Balickera House was built by convict labour in circa 1830.
- The Balickera Pumping Station, Canal and Tunnel were constructed in the 1950's and 60's and are a part of the Hunter Water Scheme.
- Eskdale House is recorded in the Port Stephens LEP as a Heritage Item.

Page 22 of the applicant's statement of Heritage Impact Assessment (Appendix K of the EIS) states:

ii **Vibration**

Potential impacts to the three heritage items that could arise from blasting associated with the Project have been assessed in the noise and vibration assessment for the Project (EMM Consulting 2023a). The assessment determined that the vibration could be maintained below the relevant thresholds for built heritage items (Balickera House) and infrastructure (Balickera 1 Pump Station and the Balickera Canal and Tunnels). Therefore, no indirect vibration impacts are identified that would impact the heritage significance of the items.

We therefore note that there is potential for damage to Balickera House by blasting from the proposed extension. Since Balickera House is a two hundred year old part of our local heritage any damage would be totally unacceptable.

Conclusions.

- The land use around the quarry is evolving and the creation of new quarries and the expansion of old may no longer be in the best interests of the community at large.
- Until the Department of Planning has a strategic planning policy for quarries in this area, we believe that there should be no expansion of this quarry or creation of new ones.
- There are issues of cumulative and combined effects of haulage traffic, noise and dust.
- Loss of ambience and character of the area which is predominately rural.
- Failure to recognise the possible changes to the residential landscape.
- Failure to adequately recognise the impact on the environment. There is a risk that the continual quarrying operations of this, and potentially other quarries, will cause the collapse of our ecosystem.

Chris Winnett.

Secretary VOWW.