

27th January 2021

For the attention:
Phillip Zappala
Senior Planner – Major Assessment
City Development Branch
Council of City of Gold Coast

Dear **Phillip Zappala**,

Objection submission COM/2019/81 - Dust submission re stockpiling is culpably incorrect and the linked health concerns

Please find below further information that I think should be considered re this development Application and its Environmental Submission and the dust limits it claims to meet.

Document references are based on 'MWA Environmental's 'Noise and Dust assessment document (Version 2) dated 15th October 2019, that was submitted as part of the development application (unless otherwise stated).

The Dust Submission is clearly and culpably wrong, in my opinion, making the submitted data worthless, potentially very dangerous and ultimately inadmissible.

There are a number of factors that lead me to this conclusion (as raised in my submission on 17th July 2020). However, I believe the woefully inadequate dust analysis re the stockpiling dust suppression requires further analysis.

The 'Wind Erosion' Particle Emission Estimation calculations (Attachment A1) are based, in my opinion, on incorrect modelled data.

For instance the 'Processing Plant and Stockpile area is claimed to be 30,000m² (Attachment A1). However, a cursory glance, using Google Earth shows the Processing and Plant and stockpile area is in the region of 136,874 m² (Attachment A2). Note there are stockpiles throughout the quarry area. This makes the data supplied to the modelling deficient as the actual area is 4.5 times larger than modelled. Even a very conservative estimate of the current stockpiling equates to at the very least 80,000 m² (Attachment A3).

Also, the modelled data is assuming the stockpiles to be 2.5 metre high (Attachment B1). However, a cursory glance will show the stockpiles are a lot larger than this (in the region of 10 to 12m high (See Attachment B2).

It is claimed in Section 4.1 of the Noise and Dust assessment that dust control is administered by *"Sprinklers to manage dust emissions from stockpiles during high wind speed conditions"* (reproduced

in Attachment B3). However, as can be clearly seen in these images (e.g. Attachment B2), NO such sprinkler system is in place.

The sprinklers are apparently just a fictitious invention to convince SARA referral, the Council Planners and Council decision makers that the required dust suppression measures are in place when clearly it is completely impractical given the widespread expanse of seemingly adhoc stockpiling throughout the quarry area and the extreme height and extent of these stockpiles. Not only would it be virtually impossible to install a sprinkler system of the type claimed. But, it also confirms the quarry is currently negligent, in my opinion, in having no such safety facilities currently in place.

Given the known inherent dangers with dust emission, this is a highly serious and dangerous breach in their operation that, judging by their claims it is in place when it is clearly not amounts to, I believe, culpable negligence.

When calculating the wind erosion it is imperative to include all the stockpiles that are throughout the quarry as they are completely unrestrained, have no visible means of damping down (as clearly visible in Attachment A2 and B2) and will thus be highly vulnerable to release of dust into the atmosphere during even mildly windy conditions.

To model these at only a fraction of the size that they are, and will be, is highly negligent in my opinion. As the highly dangerous dust emissions associated with this product and the relative closeness of sensitive receptors (homes) makes correct modelling of this data imperative as it is the health and safety of these residents who will be ultimately and chronically affected on a 24 hours a day, seven days a week basis.

Health concerns

Given the development application is clearly, and I believe, culpably underestimating the size and extent of the stockpiling and does not have an adequate sprinkler system as is claimed is required to maintain dust suppression over such an extensive area, it is important to understand the health concerns of residents in the area.

For instance, there has been a doctor's letter submitted, from a resident adjoining the quarry boundary to the south in Appollo Place clearly stating health concerns for their son due to the contaminated air in the vicinity (Attachment C1). Also, another former resident, same road (name withheld - but can be provided to Council planners on request), who said:

"I have a compromised air way due to having most of my sinuses removed. We moved to Apollo Place in May 2019. I was totally oblivious to silica dust etc. Everyday I would have this dry cough. More so then my partner, but both he and my Mother who lives with us, had it too. The amount of dust on our cars, windows etc alerted me to the air quality. Then when I learnt about silica and the quarry expanding, I knew we had to leave. Thankfully we were just renting, in saying that our real estate agent wouldn't accept the health concerns as a reason to break lease. So \$3k later all up, we left after living there a total of 16 months. We now live in Arundel as I wanted distance from that horrendous quarry. We have been here eight weeks cough gone. Nice to not have to constantly wipe over fly screens, clean car windows etc.

As for the wildlife the park in Apollo was amazing. Kangaroos, wallabies, kookaburras, bush turkeys....teaming with life. This situation is so sad. I changed who I voted for, I beg you all to think of your health if this thing goes through".

(reproduced in attachment C2).

Appollo Place is roughly 943 metres from the current extractive footprint (604 metres from the crushing, screening areas). This development application proposes moving the extractive footprint to within approximately 337 metres of these homes along with its associated stockpiles, blasting, etc. which is an astonishing 64% closer (Attachment C3).

How will this change the already dubious air quality in this location? It will without a doubt worsen the air quality the closer it gets. What will this do for the resident's health? How will the residents react?

I note over three hundred residents surrounding the quarry have submitted objections citing the dust is affecting their personal amenity, be it on medical grounds (asthma, breathing difficulties, etc.) and/or dust nuisance in and around the home. And, just under three hundred have cited health concerns of living within this area.

It is clear to see the personal amenity of hundreds of families is already being affected by the poor air quality in the local environment. Therefore, to reduce separation buffers, as proposed, would seem completely unthinkable as would the continuation of the quarry within a suburban environment after their proposed closure date of 15th February 2022. In fact, for hundreds of residents the continual emissions from the quarry until February 2022 is already abhorrent.

Conclusion

The submitted dust analysis is completely unacceptable as part of this development application, as yet again it is shown that the data it is modelled on is completely unrealistic and will therefore give highly misleading results that will show the dust, including respirable crystalline silica, levels far below what local residents will be chronically submitted too on a 24/7 basis.

The proposed even further reduced separation buffers (way, way below the 1000m as required in DES guidelines) to local residents means that the applicant should be even more careful to ensure the safety of the local residents and thus this dust assessment should be based on a worst case scenario. Therefore, to woefully underestimate the area used for stockpiling and to underestimate the height of the stockpiles drastically too. Combined with claimed sprinkler systems that clearly do not exist, and never appear to have existed, is I believe culpably negligent.

As a result of this development application hundreds of affected residents have come forward and made objections citing dust complaints. Yet here we have a quarry in the middle of suburbia who should be doing their utmost to protect the local residents around them and instead they are manipulating the results to attempt to convince the DES, the Council Planners and the Council decision makers that their dust assessment proves they are below the 'Maximum Acceptable Concentration' of dust limits. However, not only have they negligently in my opinion, falsified the results, they have also failed to consider the sensitive receptors (homes) that surround them yet they claim to be 'Good Neighbours' this would be laughable if the implications of falsifying the air quality results were not so serious.

In summary, not only is the submitted dust assessment completely inadequate, it is in my opinion, criminally negligent in ignoring important aspects that seek to ensure levels are below the 'Maximum Concentration permitted' without due regard to safety of either their workers and/or the local residents.

To permit this development application, at the clear detriment to local residents, with such an inadequate, incorrect, culpably misleading air quality submission within their DA, would in my opinion, be extremely, maybe criminally, negligent.

Thank you for considering my objection,

Kind regards

Tony Potter

* Disclaimer. Please note my findings are believed correct and are to the best of my ability. However, there may be errors and assumptions I have made that are incorrect. I do not believe this to be the case, but, realise with the vast amount of submitted data from the applicant, errors and assumptions on my part may occur. Hopefully this is not the case, but please accept my apologies if this is so. Thank you.

Attachment A1 - Wind erosion parameters

Noise and Dust.pdf

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WIND EROSION

Processing Plant and Stockpile Area:	30,000	m ²	MWA Estimate - Group to 3 Area Sources
Exposed Pit and Plant Areas:			
Existing Stage	246,600	m ²	MWA Digitised
Silt Content (s):	5	%	
Days of rainfall > 0.25mm (p):	126	days	Coomabah Water Treatment Plant 1998 - 2017
Percentage wind speed > 5.4m/s (f):	4.11	%	From CALMET
Mean wind speed m/s (U):	3.11	m/s	From 6am to 6pm (Affects stockpile area)
Material moisture content (M):	0.7	%	(mean from Table 13.2.4-1)

Attachment A2 - Existing Processing Plant and Stockpile area (136,874 m²)



Attachment A3 - Existing Stockpile area ultra conservative estimate (80,000 m²)

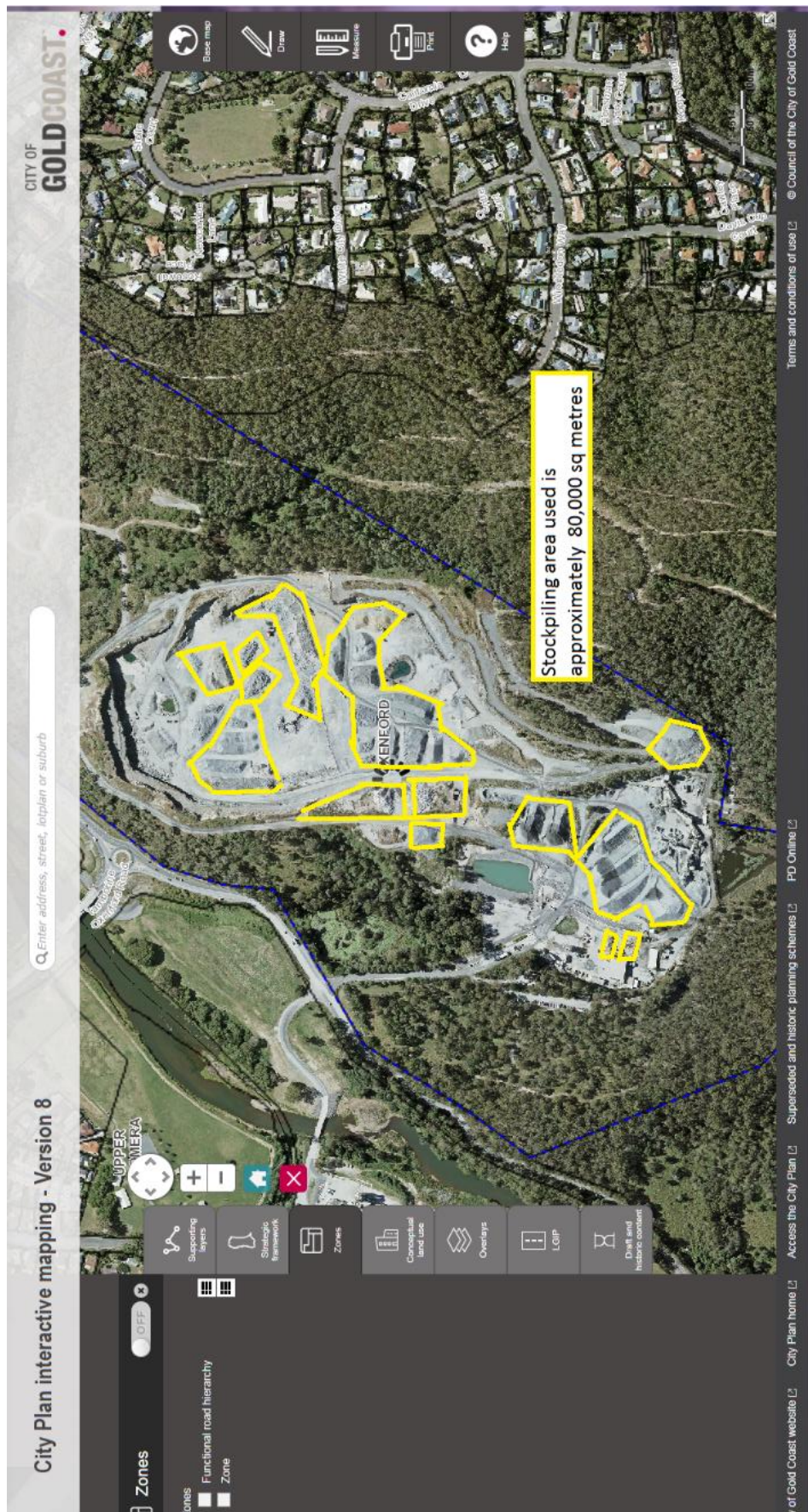


Table 6: Summary of Modelled Noise Sources

NOISE SOURCE	SOURCE REPRESENTATION	SOURCE HEIGHT (mAGL)	SOUND POWER LEVEL L _{Aeq} - (dB(A))
Main Processing Plant (combined SWL without noise control measures)	Numerous Point Sources	5	123
Access Road – 14 trips per hour from entry to stockpiles ²	Line Source	2.5	68/m (one-way)
Internal Haulage– 10 trips per hour from pit to plant ³	Line Source	2.5	80.4/m laden trip 74.7/m unladen trip
Loader at Stockpiles (x2)	Point Source	2.5	107
Excavator / Loader at Pit / Bench	Point Source	2.5	109
Rock Drill at Elevated Bench	Point Source	1.5	118
Concrete Plant onsite ⁴	Point Source	2.5	115
Concrete Trucks – indicative 10 loads per hour	Line Source	2.5	67/m (one-way)

Attachment B2 - The stockpiles are approximately 12 metres high

Using Google Earth it is possible to see all the mounds in the picture below were between 10 and 12 metres high (Significantly higher than the modelled 2.5 metres high as per attachment B1).



Attachment B3 - It is claimed that sprinklers are used to manage dust emissions from stockpiles

4.1 Noise & Dust Assessment – MWA Environmental

The Noise and Dust report addresses the potential impact of noise and dust emissions from the proposed quarrying activities on surrounding land uses with reference to the relevant regulatory noise limits and air quality objectives.

Nucrush propose to undertake appropriate actions to achieve minimal impacts.

The Noise and Dust report concludes that:

- The proposal will not change potential noise associated with haulage of material.
- With appropriate management measures and physical emission controls, compliance with noise criteria, noise limits and air quality objectives can continue to be achieved at surrounding sensitive land uses.
- Noise control measures include; acoustic treatment of primary crusher and screen to achieve a minimum 5dB(A) noise reduction and fitting mobile plants with broadband reversing alarms.
- Dust control measures include; watering of haul and access road, water sprays to fixed processing plant, rock drills for appropriate dust extraction and sprinklers to manage dust emission from stockpiles during high wind speed conditions.
- With appropriate dust management, as stipulated in Environmental Authority EPP0025613 Conditions B1 to B11, the proposed quarrying activities will comply with the relevant air quality objectives at all surrounding residences.



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Dr Joy Lim Dr George Mitov Dr Natasha Lingard
Dr Ilian Kamenoff Dr Matthew Stark Dr Stephanie Clapham

Medical Certificate

19/11/2019

THIS IS TO CERTIFY THAT

Mast [REDACTED] health has been deteriorating in the last few months /mostly due to upper respiratory tract infections/ as a result of inhaling contaminated air from nearby industrial activities.



Dr George Mitov
235507BY
MBBS, FRACGP

Attachment C2 - Appollo Place further health concerns

(from 'Residents Against the Oxenford Quarry Expansion' Facebook page)

**Residents Against the Oxenford Quarry Expansion** ...

We have just received a message from a former resident:

"I have to tell you guys since leaving Apollo Place the dry persistent cough both myself and my partner had is gone. I didn't feel good breathing in the dust so we moved away. 8 weeks later and we haven't got this cough anymore".

We are very pleased for our former neighbours and it doesn't surprise us in the least. However, this just reinforces what we have been telling the council and DES. And what they unbelievably refuse to accept 😞

Very sad and very scary for all residents and the wildlife. It's about time the authorities woke up to what Nucrush are putting us through on a 24/7 basis.

And don't forget this dust contains respirable crystalline silica and is highly likely (as per other quarries in the area) to contain asbestos too 😞





[Redacted]

I have a compromised air way due to having most of my sinuses removed.

We moved to Apollo Place in May 2019. I was totally oblivious to silica dust etc everyday I would have this dry cough. More so then my partner, but both he and my Mother who lives with us, had it too. The amount of dust on our cars, windows etc alerted me to the air quality. Then when I learnt about silica and the quarry expanding, I knew we had to leave. Thankfully we were just renting, in saying that our RE wouldn't accept the health concerns as a reason to break lease. So \$3k later all up, we left after living there a total of 16 months.

We now live in Arundel as I wanted distance from that horrendous quarry. We have been here eight weeks cough gone. Nice to not have to constantly wipe over fly screens, clean car windows etc.

As for the wildlife the park in Apollo was amazing. Kangaroos, wallabies, kookaburras, bush turkeys....teaming with life. This situation is so sad. I changed who I voted for, I beg you all to think of your health if this thing goes through. Good luck! 🙏🙏

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 **Author**
Residents Against the Oxenford Quarry Expansion
Thank you **[Redacted]** for sharing.

Attachment C3 - Appollo Place location with respect to quarry operations

