Objection submission COM/2019/81 - Depth of Quarry Comparison

Please find below further information that I think should be considered re this development Application where I believe the inordinate depth of the proposed quarry should be considered amongst its peers.

Summary of Gold Coast Quarries

There appears to be eleven quarries within the Gold Coast Region (Attachment A). These are summarised as follows:

KRA 67 (four quarries)

KRA 66 Nerang

KRA 69 Stapylton North

KRA 69 Stapylton South

KRA62 Blue Rock

KRA 65 Jacobs Well

KRA 68 Oxenford

KRA 70 West Burleigh

KRA65 Jacobs Well (A, B, C, D and E) are sand quarries and KRA 70 West Burleigh is closing due to exhaustion of supplies.

Therefore, I will compare the depths of the remaining hard rock Gold Coast quarries:

Quarry Depths

KRA 69 Stapylton North (Attachment B1) has a depth of 'RL 5m'

KRA 69 Stapylton South (Attachment B2) has a depth of 'RL -6m'

KRA 67 Northern Darlington Range North (Attachment C1) has a depth of 'RL 50m'

KRA 67 Northern Darlington Range Central (Attachment C1) has a depth of 'RL 43m'

KRA 67 Northern Darlington Range West (Attachment C2) has a depth of 'RL 140m'

KRA 67 Northern Darlington Range South (Attachment C3) has a depth of 'RL 66m'

KRA 62 Blue Rock (Attachment D) has a depth of 'RL 161m'

KRA 66 Nerang (Attachment E) has a depth of 'RL 35m'

KRA 68 Oxenford (Attachment F) has a current depth of 'RL 5m'
(But a proposed depth of 'RL -125m')

Summary

From the Hard Rock quarries within the Gold Coast it can easily be established that the current depth is between RL 161m' (KRA 62, Blue Rock) and 'RL -6m' (KRA 69,Stapylton South)

It is also interesting to note of these the only quarry with a depth below RL 0m (AHD) i.e. below River Level appears full of water (See Attachment B2). I believe this is significant and underlies the problems beset with quarrying in a subterranean manner.

Given the typical depths of Rock quarries within the Gold Coast, as shown above, I am at odds to accept that quarrying to a proposed depth of RL -125 metres below the adjacent Coomera River and in the middle of a suburban area can be in any way acceptable.

Going below the water table to such great depths will have an as yet unknown effect on the ecosystem surrounding the quarry for an estimated radius of effect of up to 1.4km (their development application figures).

This means for a potential 6 .1 square kms all around the quarry the water table will be potentially leaching into the quarry continuously 24hrs a day 7 days a week.

This could have disastrous consequences for the Coomera River and businesses depending on it (Water Park, Aqua Park, water suppliers). It will have as yet unknown consequences on the eco system within the Coomera River and the eco systems surrounding the quarry. It will also effects any natural springs, rivers and tributaries in as yet unknown ways all around the quarry and the Coomera River.

In my opinion this would not be a good idea anywhere on the Gold Coast let alone next to one of our major rivers and in the middle of a residential and suburban environment.

Has the impacts of these proposed actions been really considered?

Residential suburban Environment

Whilst not strictly on the subject of the depth. I believe it is pertinent to observe the submitted maps of the surroundings for each of the quarries. It can clearly be clearly be seen in a cursory examination of all the other quarries (Attachments B1 through to E). That all the quarries are, in general, relatively free from urban encroachment. However, when you compare this to the Oxenford Quarry (Attachment F) there is a considerable difference. Oxenford quarry has urban encroachment in every conceivable direction and all well within the 1000m separation area required for a blasting quarry of this nature.

Clearly expansion on the scale requested should not be an option in the environment that it is now located.

Conclusion

The planned subterranean depth of RL -125m of the Oxenford quarry is a game changer here on the Gold Coast. No other quarry has attempted to go so deep.

The unknown effects on our eco system for the surrounding 6km² could be disastrous. It is so close to the Coomera River and the Tamborine Mountain. And encompasses so many homes and businesses. The 1.4km potential effect radius is shown in Attachment G. However, it should be remembered this is only shown from the epicentre of the quarry. It should be 1.4km from the edge of the quarry so this radius should be significantly bigger with more potential risk to the area than shown.

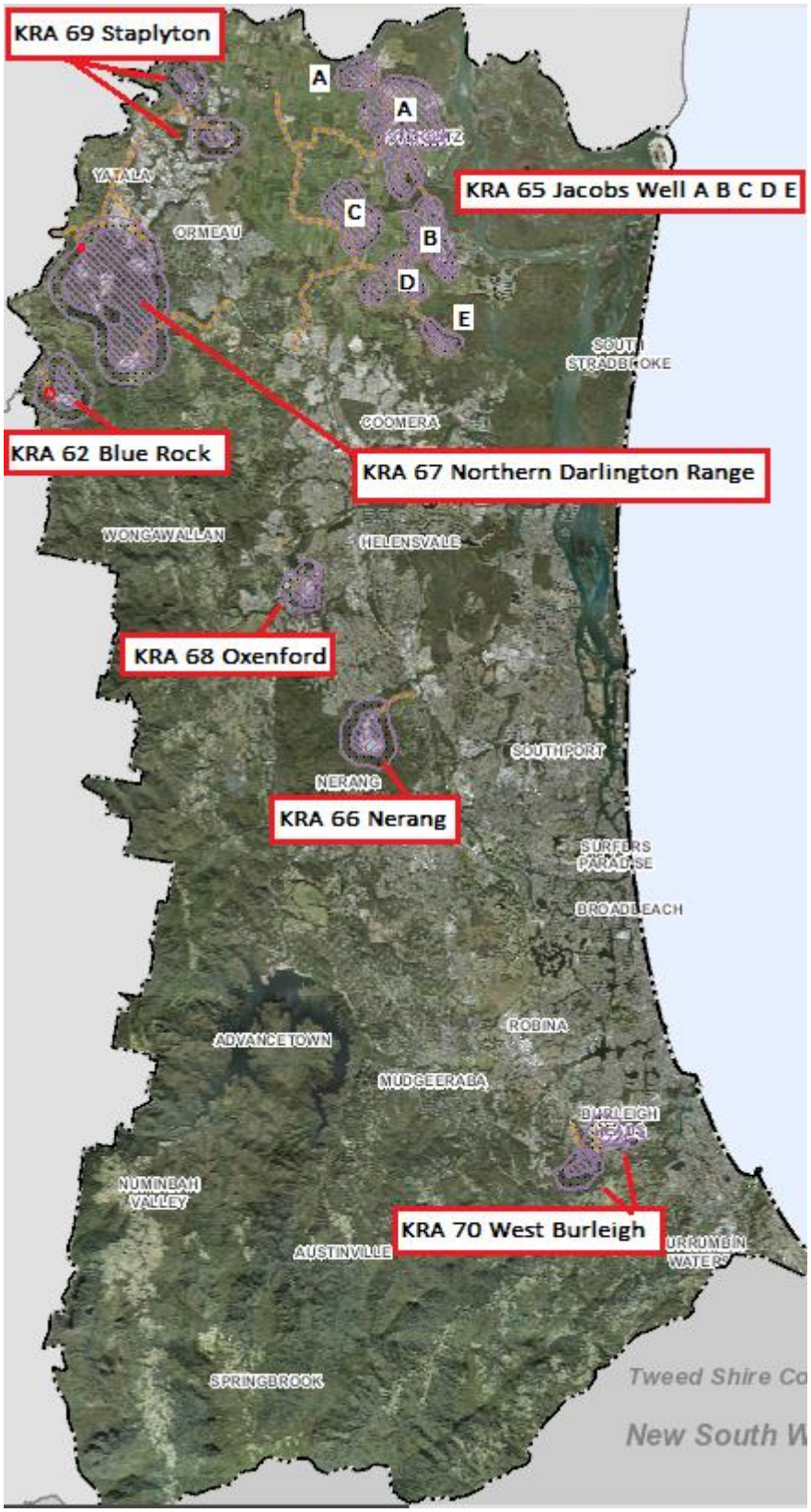
How will this affect the aquifers? How will this effect they finally balanced eco system in and around the Coomera River? How will this effect ALL the residents and businesses around our area?

It really seems too great a risk to take, with too many independent stakeholders potentially adversely affected.

With the economic need for this quarry not proven I feel it is unreasonable to jeopardise our environment unnecessarily and could, I believe, prove highly negligent in the longer term.

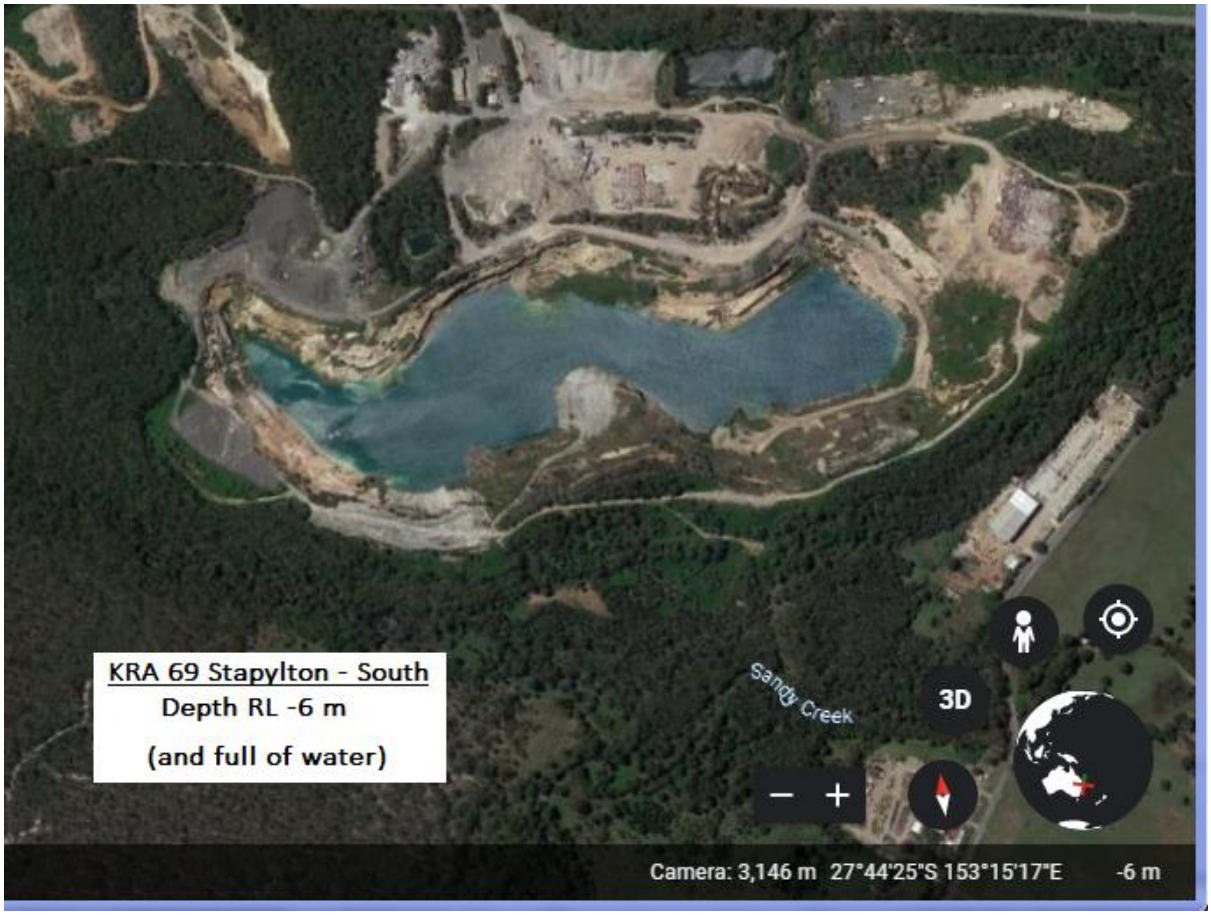
Thank you for considering my objection

Attachment A - Gold Coast Quarries

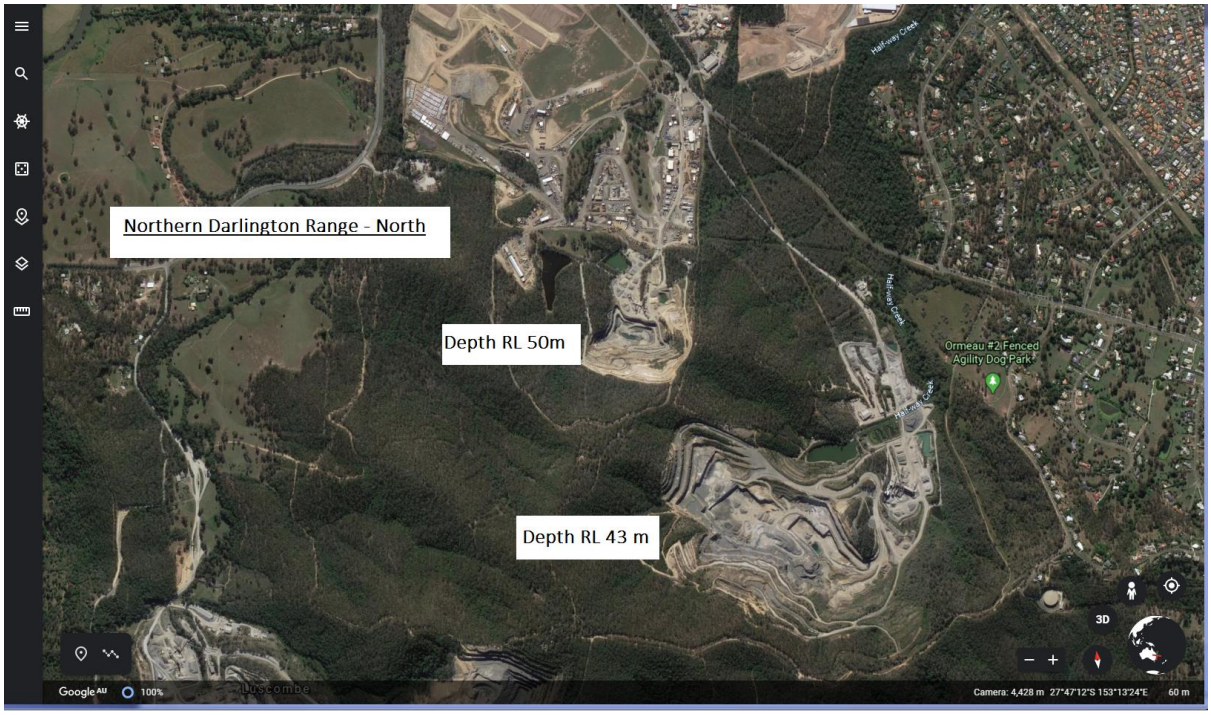


Attachment B1 - KRA69 - Stapylton - North

Attachment B2 - KRA69 - Stapylton - South



Attachment C1 - KRA67 - Northern Darlington Range (North and Central)



Attachment C2 - KRA67 - Northern Darlington Range (West)

Attachment C3 - KRA67 - Northern Darlington Range (South)

Attachment D - KRA62 - Blue Rock

Attachment E - KRA66 - Nerang

Attachment F - KRA68 - Oxenford

Attachment G - 1.4Km Radius (6km²) of potential underground effect at Nucrush Oxenford