12th March 2021

For the attention:
Assessment Manager
Major Assessment
City Development Branch
Council of City of Gold Coast

Dear **Assessment Manager,**

Objection submission COM/2019/81 - Ecological Assessment errors

Please accept this objection as it highlights that the proposed Development Application's Ecological Assessment is seriously flawed.

Study Area

Firstly we have to ask why is study area (Attachment A1) encompassing Lots 906 (Open space, Quarantined land), Lot 7 and Lot 8 (Emerging community zone), Lot 901, Lot 905, Lot468 and Lot 464 (all zoned open space). When the development application only affects Lot 467 (as per the current 1992 approval)? (Lots shown in Attachment A2).

Lot 467 is 70.8 hectares, of which the proposed extractive footprint is stated as 54.93 hectares.

This was reduced from 64.7 hectares (as shown in Change application dated 18th February 2021, that removed Lot 906 from the proposed extractive footprint, reproduced in Attachment B1).

Which was originally reduced from the original proposed extractive footprint of 66.62 hectares (Attachment A3).

Since the original application, the extractive footprint has increasingly diminished, and now only covers Lot 467. Yet the ecological assessment covers a total of 151.4 hectares. The ecological Assessment appears to be based on the findings of a very large area approximately three times the size of the development application.

Therefore, the majority of the submitted Ecological Assessment(s) appears to be pure padding to hide the highly important detrimental ecological effects on the planned extractive footprint increasing from 23.77 ha (approx.) to a latest planned size of 54.93 ha (well over double the size of the current approval) which is proposed to engulf large areas of environmentally significant areas (biodiversity and priority species) and Koala habitat.

I believe the development application should only be concerned with the effect it is having on the ecological aspects of its application i.e. Lot 467. It would seem inappropriate to attempt to include some of the local area ignoring other aspects (to the North and East).

If it was really concerned with the whole area it would also include Lot 1 (241 Tamborine Oxenford Road) to the North abutting the extractive footprint, Lot 51(open space, including fishing lake and boating lake and public park) just over the road to the West within 100m. Likewise, Lot 61, public open space to the west within 40 metres of the quarry site. Similarly, Lot 3 (34 Maudsland Road)

opposite to the west also, which includes a public accessible wake park and children's aqua park. Also, Lot 908, Appollo Place that abuts the site to the South, which includes a children's public park in very close proximity. Yet this equally affected areas are not included in the ecological assessment.

As I said above, it would appear that the inclusion of an extra 100 hectares approximately is pure smoke and mirrors masking the real ecological effect of more than doubling the extractive footprint into valuable environmentally significant areas including biodiversity and priority species and highly vulnerable Koala habitat.

This application should only reflect the ecological effect that this development application will have. Therefore to include an additional area that is double the size of the Lot containing the current and proposed extractive footprint that includes multiple Lots with completely different zoning conditions would seem unnecessary and aimed to ensure the ecological effect of this development application is apparently mitigated by external unrelated aspects.

Claimed Current approval is incorrect

Firstly, it is important to establish the actual approved footprint as opposed to the development applications claimed approved footprint.

The claimed "Existing Approved Footprint" is 56.02 hectares (as shown in attachment A3). This, in my opinion, culpably includes an area of prohibited development referred to as: "Rural 'B' ".

For complete clarity, Figure 1.1 of the Ecological Assessment shows the claimed: "Existing Approved Footprint" reproduced in Attachment A4).

This prohibited development area is shown in the plan, "Plan C1495:00:13B" (Reproduced in Attachment A5). A close up of the Rural 'B' zone is shown in Attachment A6 and a further annotated one is shown for clarity in Attachment A7 (yellow outline).

It can clearly be seen in "Plan C1495:00:13B" that the Rural 'B' area is labelled as: "This portion of Extractive Zone to be Rezoned to Rural B"

Using the Gold Coast City Council Interactive Mapping tool we can establish the size of the Rural 'B' zone is approximately 16.6 hectares (Attachment A8).

Unfortunately, this highly relevant plan "Plan C1495:00:13B" was, in my opinion, culpably omitted from the development application.

The actual approved extractive footprint is approximately 23.77 hectares as shown in "Plan 362-010" or 'Third Schedule of the Rezoning agreement' (annotated version reproduced in Attachment A9). Unfortunately, this highly relevant plan was also, in my opinion, culpably removed from the submitted copy of the current approval by way of the Rezoning agreement submitted by the applicant as part of the development application. This highly important map was, I believe, replaced with an innocuous map, the 'Fourth schedule' of the Rezoning Agreement with its title culpably removed, in an apparent effort to hide the true extent of the current approval including the 'Buffer land' and 'Permanent tree and shrub screening' and 'Ancillary operations area.

Therefore, I firmly believe the current approval is approximately 23.77 hectares and not the claimed 56.02 hectares (or approximately two and a half times bigger than is actually approved). This is highly important as many of the contentious claims within the Ecological Assessment are based on this difference between applicants claimed current approval and the actual approval, as I see it.

Koala Habitat Assessment Tool

This area is recognised as 'Habitat critical to the Survival of Koala' under the EPBC Act referral guideline as it has scored five or above in the Koala Habitat Assessment Tool. In fact it has scored one less than the maximum at nine out of ten (Attachment C1). This area is therefore recognised as 'habitat critical to survival of Koala' under the EPBC referral guidelines.

It is also noted the Habitats within the study area are part of a contiguous landscape (> 500 ha) and also has high connectivity to the Nerang State Forest.

By including large areas of 'Environmental significance - priority species' in the extractive footprint (Attachment C2), as proposed, will decrease the koala habitat in the area and significantly decrease the connectivity to the Nerang State Forest.

This is contra to the Interim recovery in coastal areas objective which is to protect and conserve, connected areas of Koala Habitat, particularly large, connected areas that support koalas.

Fauna Species and Habitats (Section 3.2)

It is interesting to note in the Ecological Assessment under Fauna Species and habitats it lists the dam at the quarry entrance on the Maudsland Road and describes how it has value for foraging and breeding water birds (Attachment D1). However, it fails to mention Nucrush intends to engulf this valued water body as part of its extractive footprint. Thus, a valued water body is destroyed and ensuring the quarry and its inner workings are for all the members of the public to see from the Maudsland Road.

This is also contra to the City Plan Extractive Industry Development Code 9.3.8, Performance Outcome PO3: "Extractive Industry developments are screened or located in areas of least visual impact and minimise views of any significant infrastructure and visually obtrusive development from major roads and surrounding residential areas" (Attachment D2).

It is also noted the study area noted the presence of one hundred and fifty species, including eighteen mammals, one hundred and twelve birds, twelve reptiles, eight amphibians and fish (Table A5.1). However, the ecological assessment fails to state how this development will affect all these species.

Significant Ecological Features

The Significant Ecological Features map submitted, Figure 4.1 (reproduced in attachment E1 for ease of reference) shows the proposed extractive footprint will engulf large areas of koala habitat that are also within areas of Regional Ecosystem concern.

The DA submitted City Plan identifies large area of the proposed extractive footprint are areas of State Significant species and Koala habitat (Attachment E2).

The Fauna Survey (Section 2.2.2) also identified: many potential breeding places: "including a plot of all "Significant Habitat Trees" (i.e. large, hollow-bearing trees) and other noteable features (e.g. nests, burrows) within the proposed extraction footprint".

This is also areas of Remnant Vegetation, highlighted as Category B i.e. Endangered regional ecosystem (Attachment E3).

The proposed extractive footprint will have a significant impact on the ecological features in the vicinity.

Operational activities and the far reaching effects on the surrounding ecosystem

Section 5.1.2, Construction and operational activities highlights areas of concern (reproduced in Attachment F1). It highlight the impacts of on-going disturbance to surrounding habitats: "Noise, dust and vibration affect habitat adjacent to active areas due to ground disturbance, the operation and movement of machinery along haul roads, exposed stockpiles and blasting" and "Similarly, noise, including background noise, generated by human activities can potentially affect behaviour and persistence of species and communities by, for example, masking of alarm and mating calls, location and motion of resources, obstructions or potential harms; in short noise pollution affects the sending and reception of behavioural and social signals in faunal communities (e.g. see Brumm and Slabbekoom 2005)".

Also: "Fuel and chemical spills from storage areas and oils from heavy machinery can enter the environment, affecting habitats where the spill occurs, and potentially causing more widespread impact if contaminants reach waterways".

And: "The operation of the quarry also has the potential to disrupt natural ecological processes within the local area through:

- Limiting the natural movement and dispersal of ground-dwelling and flightless fauna (i.e. for breeding and foraging purposes), which are unable to traverse the quarried landscape;
- Altering the local surface water environment due to large-scale landform modification, and subsequent potential impacts on downstream terrestrial ecosystems, particularly wetlands and riparian vegetation, and other sensitive vegetation communities and dependant fauna. This includes alterations to base flows, as well as to the frequency and extent of flooding; and
- Creating long-term edge effects along the borders of the active area and adjacent habitat".

Clearly, the proposed extractive footprint will have a significant disruptive effect on the local ecosystem from both the destruction of the extractive footprint but also the effect it will have in the vicinity also. Not only will much of the environmentally significant areas (priority species and biodiversity) be consumed by the proposed extractive footprint but it will also have a very significant detrimental effect on the remaining areas in the vicinity.

The reduction to a mere 150 metre separation buffer between extractive footprint and residential homes will, for example: "potentially affect behaviour and persistence of species and communities by, for example, masking of alarm and mating calls, location and motion of resources, obstructions or potential harms; in short noise pollution affects the sending and reception of behavioural and social signals in faunal communities (e.g. see Brumm and Slabbekoom 2005)" (Attachment F1). This will clearly have a devastating effect in the north east corner and will be far from the positive impact this ecological assessment seeks to portray.

Impact Avoidance

Section 5.2.1 discusses Impact Avoidance (reproduced in Attachment G1).

Remnant vegetation and buffers

The Impact Avoidance section claims: "The most effective means of impact avoidance is through appropriate development footprint design. The existing approved extraction and operational footprint for the site extended to the northern and eastern boundary of Lot 467 on RP845775, which (once fully extracted) would have resulted in the removal of native vegetation and extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study Area. This in turn, would have created a barrier to the movement of native fauna seeking to traverse these habitats in a north-south or south-north direction, either blocking their passage entirely or forcing them into the adjacent residential area with an increased threat of vehicle strike and/or interaction with domestic pets and aggressive, urbanised native species".

This paragraph is so full of mistruths and misdirection's I really have trouble knowing where to start! However I will try. Firstly, as discussed earlier the north-east of the Study area is prohibited development (as shown in Attachment A7). Therefore, the claimed "removal of native vegetation" in this area is a complete misdirection; as is the inferred: "extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study Area" . And, there is NO "barrier to the movement of native fauna seeking to traverse these habitats in a north-south or south-north direction" . Thus, the scaremongering of "increased threat of vehicle strike and/or interaction with domestic pets and aggressive, urbanised native species" which obviously refers to the local wildlife but fails to say so is a complete mistruth also.

However, for residents of Emerson Way, whom the applicant sought to assure us their current approval permitted quarrying up to the edge of their properties i.e. "extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study Area", the current separation buffer is 480 metres approx. But, this development application proposes reducing this to 150 metres. Which makes a complete mockery of their statement seeking to claim they are protecting native vegetation in this north-east area. It is clear that this development application proposes to reduce this native vegetation in the north-east of the study area from a current 480 metre width to a mere 150 metre width in this area yet seeks to claim it is beneficial for native fauna and local wildlife. A preposterous claim.

The Impact Avoidance section of the Ecological assessment goes on to say: "Overall, this suggests the retention of the vegetated corridor under the currently proposed scenario will result in a better ecological outcome than the existing approved scenario". However, this is clearly incorrect as it fails to include the prohibited development area or Rural 'B' area therefore the reduction of the corridor from an existing 480 metres to 150 metres is not: "a better ecological outcome than the existing approved scenario".

The Impact Avoidance section of the Ecological assessment also goes on to say: "The proposed quarry extension will also result in the retention of 7ha of remnant vegetation in this north-eastern section of the site that would otherwise have been removed". I believe, this is a fraudulent misdirection. The prohibited development area or Rural 'B' area is approximately 16.6 hectares (Attachment A8). Thus this proposal instead of saving: "7ha of remnant vegetation in this north-eastern section". The current proposal in fact proposes the destruction of approximately 9.6 hectares of remnant vegetation instead.

This misdirection might explain the council's Director of Environment Planning and Economy, Alisha Swain's, comment about the revised changes: "we don't consider that a reduced footprint to protect

further ecological features of the site" that infers this is yet more protection to ecological features. Please note, I believe, this development application does not have any ecological benefit whatsoever, it is pushing the extractive footprint in every conceivable direction for as far as possible. There is no "retention of 7ha of remnant vegetation" (or any remnant vegetation for that matter) or "ecological benefits" from this development application. Please be clear on this.

Production Levels

The Impact Avoidance section (Attachment G1) then claims: "there will be no significant change in annual production levels. Resultantly there will be:

- No increase in traffic movements"

However, this is incorrect. The "No increase in traffic movements" is disproved in the Traffic Impact Assessment released just after public notification had finished (28th November 2019) which states in 'Section 6.0 Summary of Conclusions and Recommendations': "The Average annual production rates is approximately 600,000 tonnes per annum" and "Records indicate that the proposal generates in the order of 141 loaded truck movements per day, at an extraction rate of approximately 825,000 tonnes per year. This equates to 171 loaded trucks for an extraction rate of 1 million tonnes per year" (Attachment G2).

As can be clearly seen the average was 600,000 tonnes, recently it was 825,000 tonnes and the proposal is 1,000,000 tonnes Attachment G3). Cleary there is an increase in traffic movements.

Operating Hours

The Impact Avoidance section (Attachment G1) claims: "No change on hours of operation i.e. For extraction: 7am to 6pm on Mondays to Fridays, 8am - noon on Saturdays and Public Holidays. For batching plant: October to April Commence 4am cease 3pm, May to Sept Commence 5am cease 3pm"

However, an Extractive Industry Zone is only permitted to operate between the hours of 7am to 6pm Monday to Friday and 8am to noon on Saturday as per 'City Plan V6, Extractive Industry Code Table 9.3.8-1', Acceptable Outcome AO6, reproduced in Attachment G4. This is also confirmed in the current approval Section 16 of the Rezoning agreement (reproduced in Attachment G5). Therefore a high impact industrial operation such as concrete production facility (assuming it is permissible within an Extractive Industry Zone which is in itself highly doubtful, and discussed elsewhere) operating within this zone would be subjected to the zoning requirements of the Extractive Industry Zone it is located. There is no acceptable outcome other than this.

Impact Avoidance conclusion

Finally the Impact Avoidance section (Attachment G1) states: "Based on the above, there will be no ecological impacts expected as a result of artificial lighting noise or traffic, beyond that already occurring in association with the existing quarry operations". However, I believe this statement is also incorrect as it fails to allow for reduced buffers to, for instance, Emerson Way that will obviously increase noise levels at this location through the reduced separation buffer. Also, the ecological impact of increased traffic movements has not been discussed as the increase in traffic movements was denied within this ecological assessment.

The Impact Avoidance section of the Ecological assessment is, I believe, a fraudulent misrepresentation that cannot possibly be accepted by the Council as an acceptable part of their development application.

Areas proposed for rehabilitation

Section 5 (Reproduced in Attachment H1) seeks to assure the reader an additional 4.9 ha is to be rehabilitated as part of the proposed development by stating: "A Rehabilitation Management Plan has also been prepared for the proposed development, which outlines measures to rehabilitate approximately 4.9 ha of land within the balance of the site that is currently cleared or degraded as a result of past disturbances, as indicated on Figure 5.1" (Fig 5.1 reproduced in Attachment H2).

However, it should be noted these areas proposed to rehabilitate are made up of two areas identified as '1' in Figure 5.1 of 1.02 ha and area '2' of 3.87 ha (Attachment H2). Neither of these areas are part of the currently approved extractive footprint either being part of the buffer areas, ancillary operations area or within the prohibited development area of 40 metres from quarry boundary.

It is therefore inappropriate to attempt to suggest this is an additional benefit of the proposed development application. All these areas are required to be rehabilitated at the cessation of quarrying and the vast majority of this 4.9 ha is within 40 metres of the boundary and therefore is prohibited development areas.

Therefore, the claim: "resulting in a net increase in approximately 2.8 ha of remnant vegetation and associated habitat" is I believe completely unfounded in the scope of current approval vs proposed development as these areas I do not believe are part of the current approval.

General Ecological Values

The General Ecological values states: "The remnant vegetation within the Study Area holds valuable habitats for a range of fauna species including old, hollow bearing trees and other notable features that provide suitable refuge and breeding sites. The dominant vegetation also has a variety of flowering periods that provide a range of feeding resources across seasons, which would be utilised by resident fauna, as well as mobile and migratory species opportunistically. " (Attachment I1). How much of this core habitat that: "holds valuable habitats for a range of fauna species including old, hollow bearing trees and other notable features" is proposed to be destroyed by this development application?

The General Ecological values states: "The large, man-made dam at the site's entrance alongside Maudsland Road holds value for waterbirds in the local landscape and is utilised by several species for feeding and breeding" (Attachment I1). This is scheduled to be destroyed and become part of the extractive footprint. There is no alternative or mitigating measures listed. The large Dam is shown in Attachment I2.

The General Ecological values states: "The study area provides an island of core habitat for resident species within a rapidly urbanising landscape. It is likely to represent an important refuge for vagile species" (Attachment I1). How much of this core habitat is proposed to be destroyed by this development application?

Local Matters

The Local Matters section states: "The proposed removal of vegetation/habitat will occur on the edge of an existing quarry" (Attachment J1). It fails to say this will be a major increase in extractive footprint arera from approximately 23.77 ha to 54 ha (hardly the "proposed removal of vegetation/habitat will occur on the edge of an existing quarry").

The Local Matters section states: "The proposed removal will not result in the isolation of existing habitat" (Attachment J1). It fails to say the reduced separation buffer down to 150 metres will result in a virtual extinction of wildlife in this area and areas beyond this point due to pressures highlighted earlier.

The Local Matters section states incorrectly: "The proposed quarry extension avoids the removal of native vegetation and extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study area, which was intended as part of the existing approved footprint, and would have created a barrier to the movement of many native fauna seeking to traverse these habitats" (Attachment J1).

The Local Matters section states: "Given the context of the site within the local landscape, and the many years over which the vegetation removal will take place progressively, the maintenance of a sufficient, vegetated corridor and the proposed rehabilitation of currently cleared or degraded land within the Study area could achieve a net ecological benefit (compared to the existing approved footprint) if established/matured prior to the full impact being realised" (Attachment J1). Yet again this is basing its assumption on the Rural 'B', prohibited development area being part of the current approval which it is not. Therefore the claimed "net ecological benefit (compared to the existing approved footprint)" is I believe a fraudulent misdirection.

Assessment of Impacts

The Assessment of Impacts section (reproduced in Attachment K1) states incorrectly: "The existing approved footprint (once fully extracted) would have resulted in the removal of native vegetation and extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study area. This would have created a barrier to the movement of native fauna seeking to traverse these habitats, either blocking their passage entirely or forcing them into the adjacent residential area with an increase in threat. Conversely, the proposed extraction Area will maintain a vegetated corridor of at least 150 m width along the eastern edge of the Study area, thereby maintaining movement opportunities for all potentially occurring native fauna". As discussed above, this, I believe to be fraudulent misdirection claiming this proposal is beneficial to residents and the local environment and wildlife in the area when clearly it is not. The quarry never had approval for the "extraction of quarry materials up to the edge of the adjacent residential area towards the north-east". It would be absolutely inconceivable and the applicant insults our intelligence in suggesting we accept such a ridiculous notion. Fortunately the council of the day had the insight to include the prohibited development area, or Rural 'B' within the current approval.

The Assessment of Impacts goes on to insult our intelligence, once again, by stating: "currently proposed scenario will result in a better ecological outcome than the existing approved scenario". This is despite an extractive footprint more than doubling in size, engulfing large areas of priority significant areas of biodiversity and priority species and Koala habitat and for the next one hundred plus years (whereas the current approval expires on 15th February 2022). How can they possibly claim:

"currently proposed scenario will result in a better ecological outcome than the existing approved scenario"?

This Assessment of Impacts section appears to know no bounds.

State Matters

The State Matters section states: "The proposed rehabilitation of land within the balance of the site that is currently cleared or degraded as a result of past disturbances, which will result in a net increase in remnant vegetation and associated habitat" (Attachment L1). I believe this to be also fraudulent misdirection.

Environmental Authority EA0002207

The new environmental authority issued as part of the SARA referral for this development application incorrectly includes multiple Lots that are not affected by this development application.

As per the current approval this development application only affects 33 Maudsland Road, Oxenford, 4210 (or Lot 467 on RP845775).

Therefore, the inclusion of Lots 7 and 8 (Emerging Community), Lot 901, Lot 905, Lot 906, Lot 464 and Lot 468 (Open Space) as locations applicable for 'Environmentally relevant activity, ERA 16 - Extraction and Screening 2 : Extracting, other than by dredging' shows this Environmental Authority has been very ill-conceived (Attachment A2).

Similarly, the inclusion of Lots 7 and 8 (Emerging Community), Lot 901 and Lot 905(Open Space) as locations applicable for 'Environmentally relevant activity, ERA 16 - Extraction and Screening 3: Screening' again shows this Environmental Authority fails to address the requirements of the Nucrush quarry (Attachment A2).

This development application is only applicable to Lot 467 as should be this Environmental Authority and this Ecological Assessment also. To include Lots other than Lot 467 is incorrect use of the zoning requirements of these additional Lots (these being a mixture of Open Space and Emerging Community NOT Extractive Industry zone).

Conclusion

It can be seen from all the findings above that the submitted Ecological Assessment is simply not good enough for a Development Application that has such significant ecological effect on its local environment.

It would seem full of errors, fraudulent misdirection's and incorrect conclusions.

It fails the City Plan in a number of areas. Clearly this ecological assessment cannot be accepted in its current form.

Without an ecological assessment that actually assesses the ecological impacts correctly I do not see how this development application could possibly be accepted.

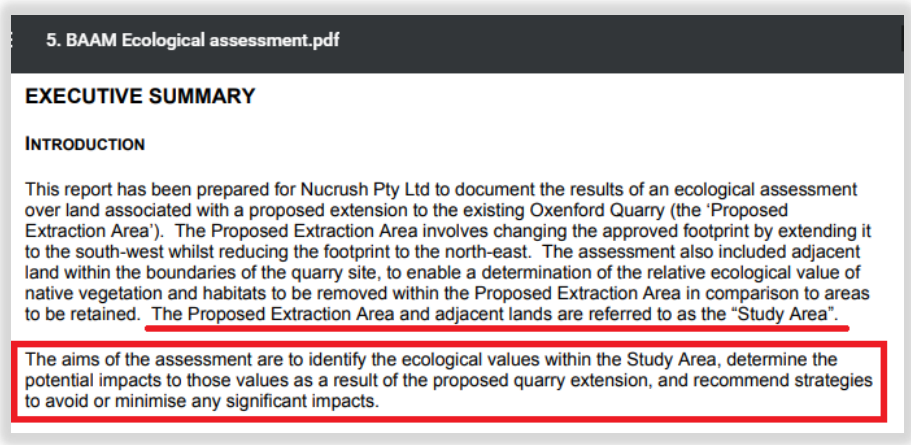
Thank you in anticipation,

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 amounted of submitted data from the applicant, errors and assumptions on my part may occur. Hopefully this is not the case, but please accept my apologises if this is so. Thank you.

Attachment A1 - Study Area



5. BAAM Ecological assessment.pdf

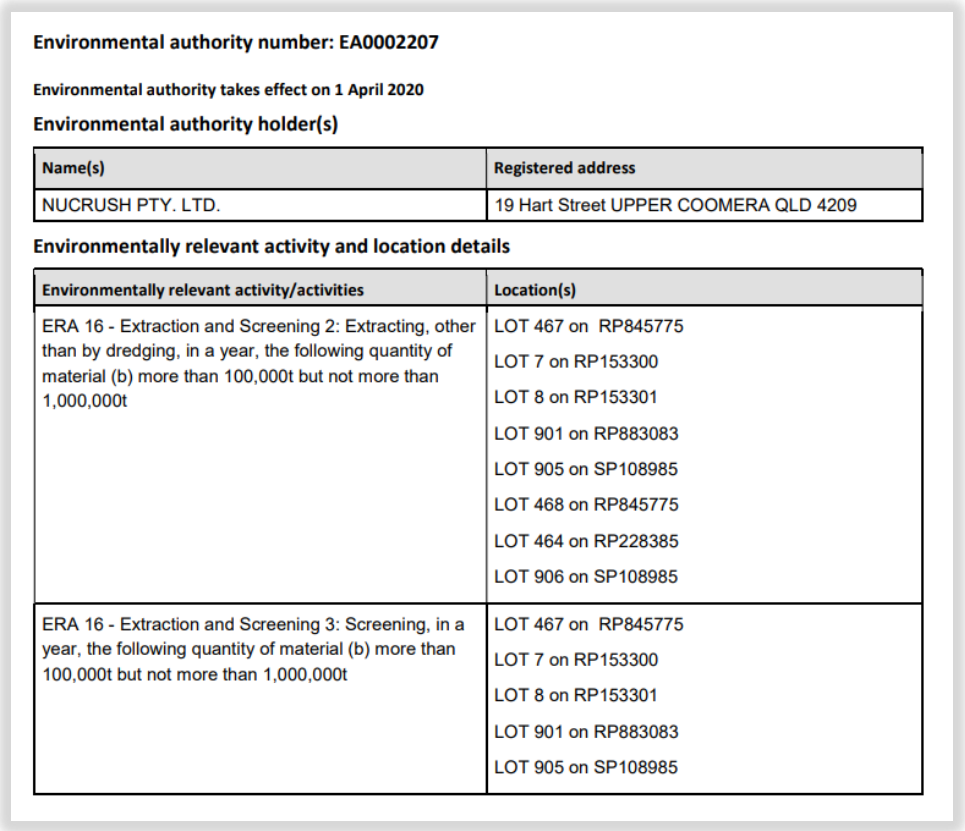
EXECUTIVE SUMMARY

INTRODUCTION

This report has been prepared for Nucrush Pty Ltd to document the results of an ecological assessment over land associated with a proposed extension to the existing Oxenford Quarry (the 'Proposed Extraction Area'). The Proposed Extraction Area involves changing the approved footprint by extending it to the south-west whilst reducing the footprint to the north-east. The assessment also included adjacent land within the boundaries of the quarry site, to enable a determination of the relative ecological value of native vegetation and habitats to be removed within the Proposed Extraction Area in comparison to areas to be retained. The Proposed Extraction Area and adjacent lands are referred to as the "Study Area".

The aims of the assessment are to identify the ecological values within the Study Area, determine the potential impacts to those values as a result of the proposed quarry extension, and recommend strategies to avoid or minimise any significant impacts.

Attachment A2 - Lots Included in development application



Environmental authority number: EA0002207

Environmental authority takes effect on 1 April 2020

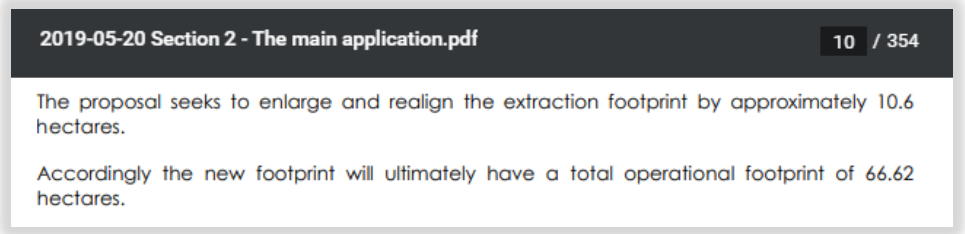
Environmental authority holder(s)

Name(s)	Registered address
NUCRUSH PTY. LTD.	19 Hart Street UPPER COOMERA QLD 4209

Environmentally relevant activity and location details

Environmentally relevant activity/activities	Location(s)
ERA 16 - Extraction and Screening 2: Extracting, other than by dredging, in a year, the following quantity of material (b) more than 100,000t but not more than 1,000,000t	LOT 467 on RP845775 LOT 7 on RP153300 LOT 8 on RP153301 LOT 901 on RP883083 LOT 905 on SP108985 LOT 468 on RP845775 LOT 464 on RP228385 LOT 906 on SP108985
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	LOT 467 on RP845775 LOT 7 on RP153300 LOT 8 on RP153301 LOT 901 on RP883083 LOT 905 on SP108985

Attachment A3 - Claimed Current approval is 56.02 hectares (66.62 - 10.6)



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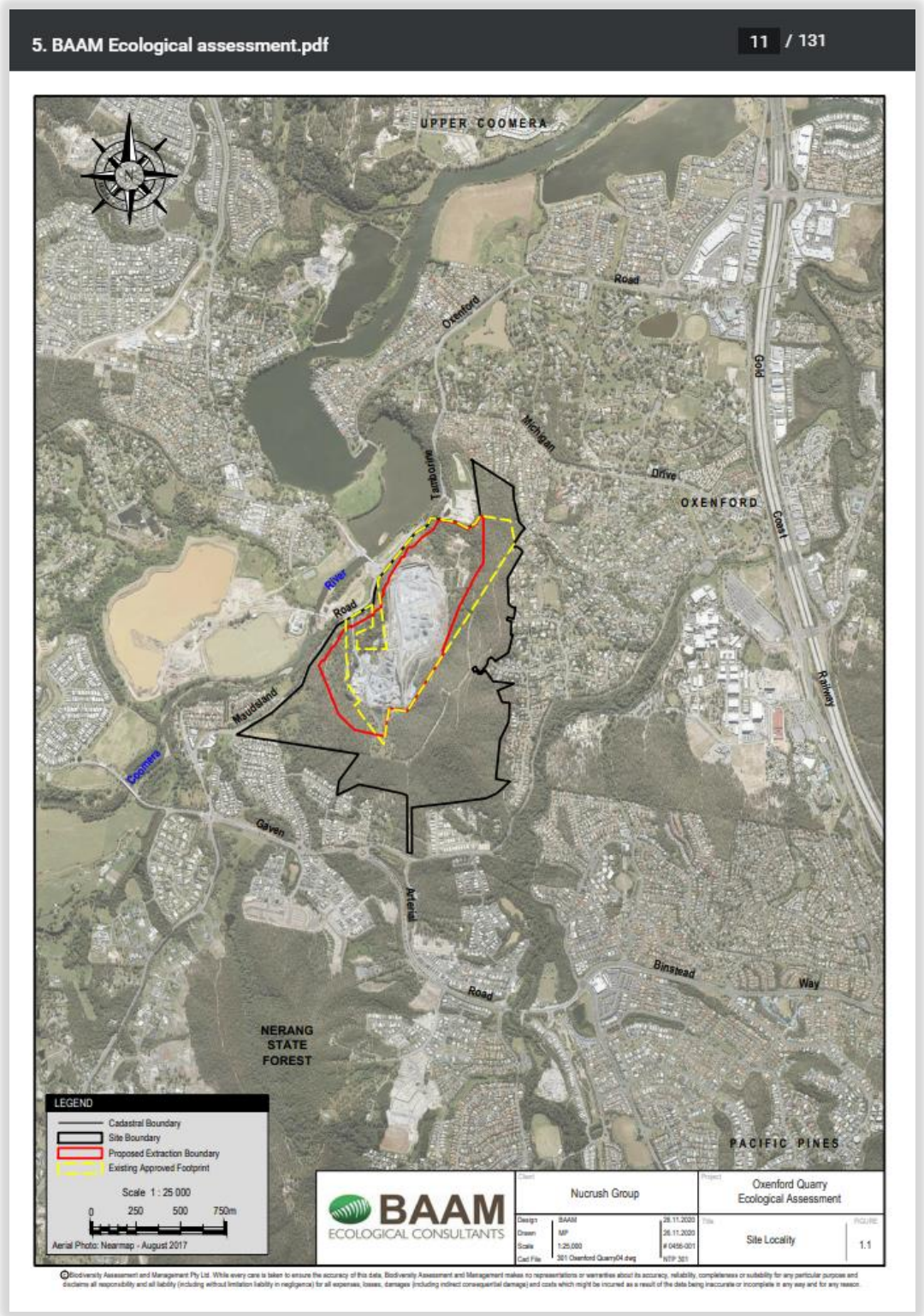
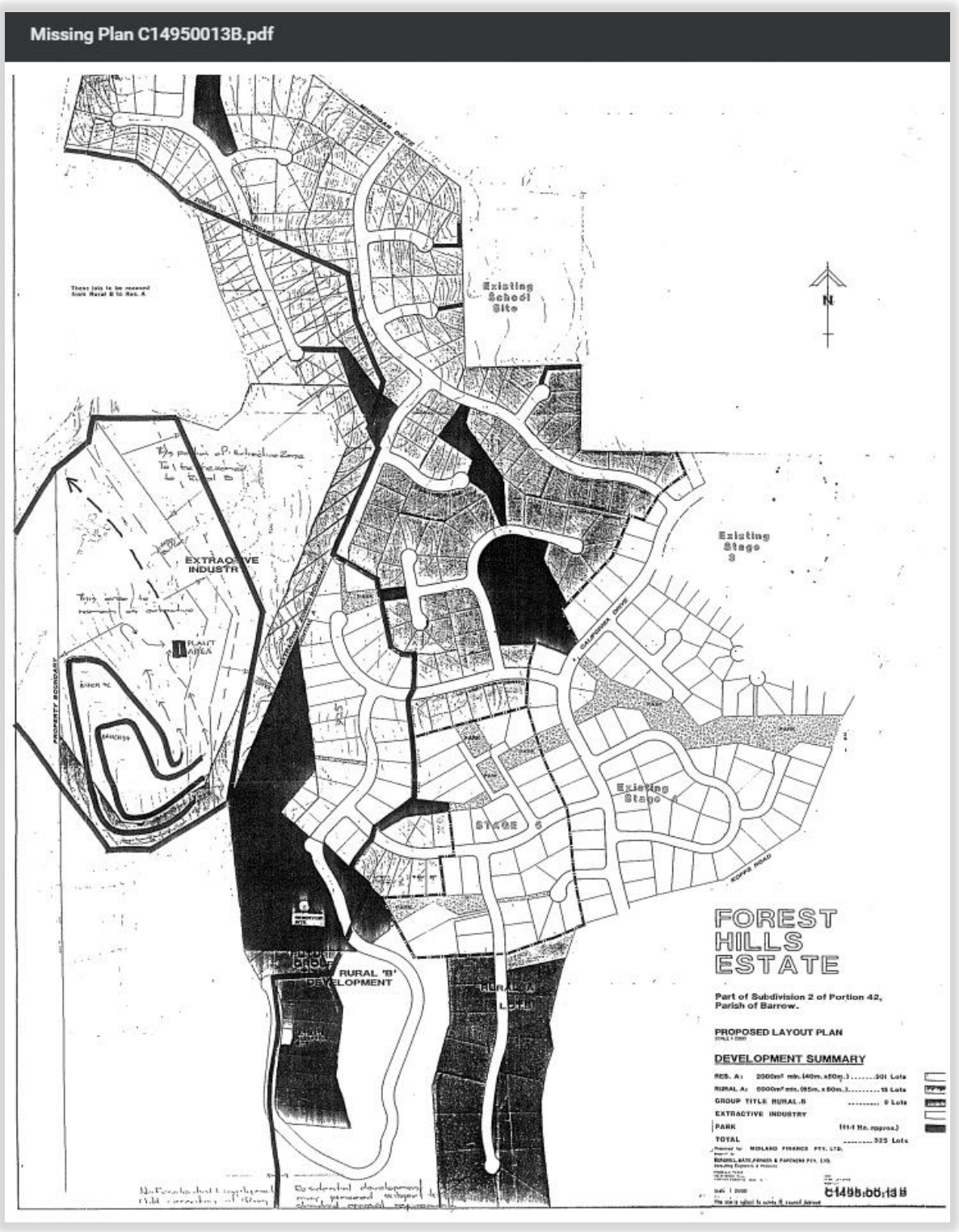
The proposal seeks to enlarge and realign the extraction footprint by approximately 10.6 hectares.

Accordingly the new footprint will ultimately have a total operational footprint of 66.62 hectares.

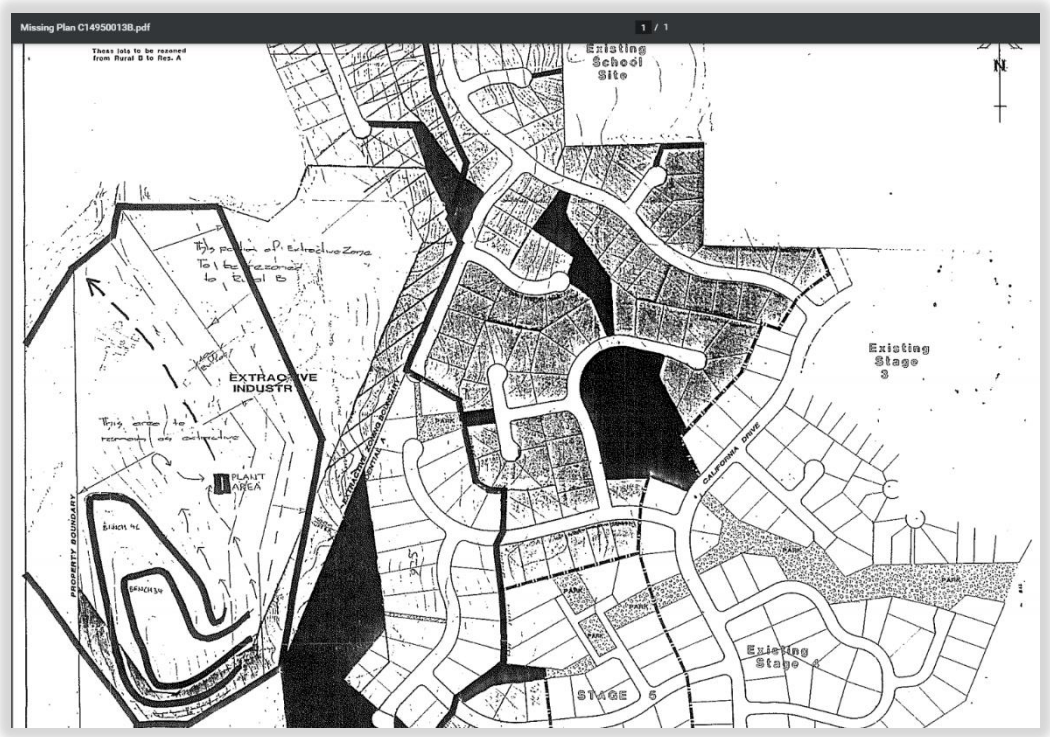
Attachment A4 - Figure 1.1



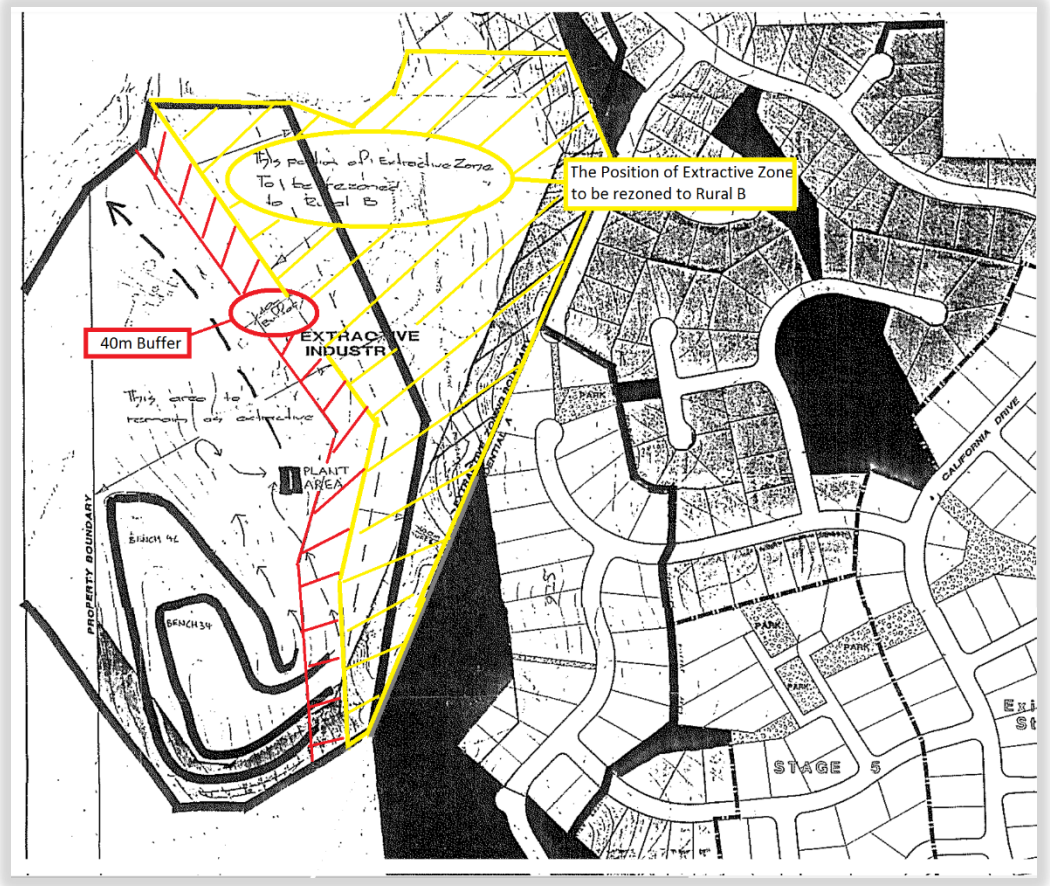
Attachment A5 - Plan C1495:00:13B



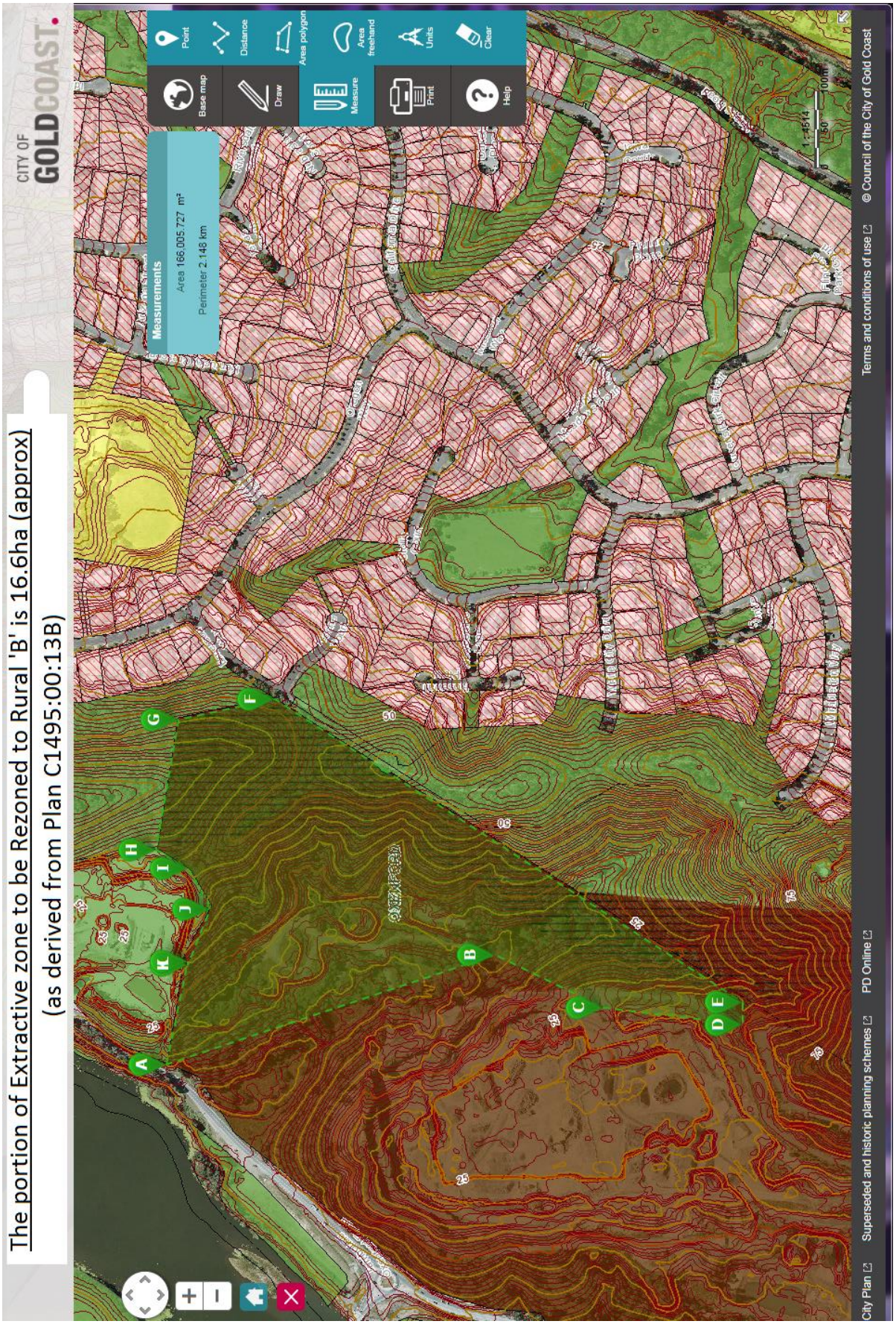
Attachment A6 - Plan C1495:00:13B (Showing close-up of Rural 'B' area)



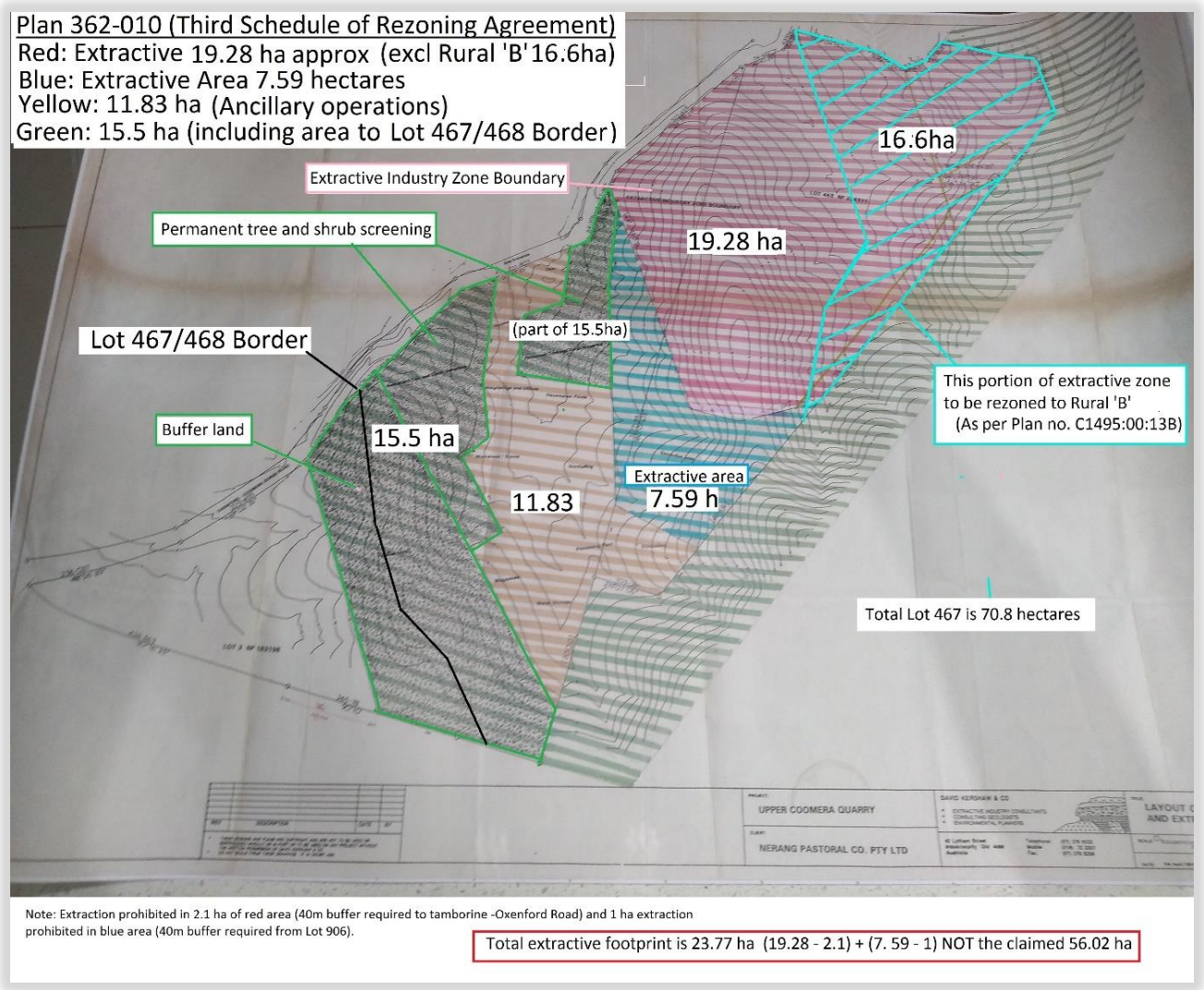
Attachment A7 - Plan C1495:00:13B (Showing annotated close-up of Rural 'B' area)



Attachment A8 - Area of the Rural 'B' zone as measured on the City Council Interactive Map



Attachment A9 - Plan 362-010 (Third Schedule of Rezoning Agreement)



Attachment B1 - New footprint as of Feb 2021 is reducing from 64.7 hectares to 54.93 hectares

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Level 1, 2247 Gold Coast Hwy, Nobby Beach QLD 4218
PO Box 206, Nobby Beach QLD 4218
(07) 5526 1500
admin@planitconsulting.com.au
www.planitconsulting.com.au

PLANIT CONSULTING

Our Reference: J5567
Your Reference: COM/2019/81

18 February 2021

Chief Executive Officer
City Development Branch
Gold Coast City Council
PO Box 5042
GOLD COAST MAIL CENTRE QLD 9729

Attention: Hoagy MOSCROP-ALLISON

Dear Hoagy,

CHANGE APPLICATION

COUNCIL REFERENCE: COM/2019/81

PROPERTY ADDRESS: 33 MAUDSLAND ROAD, 99 MAUDSLAND ROAD, LOT 905 WIMBLEDON WAY, LOT 906 WIMBLEDON WAY, 4 YALLAROI ROAD, 6 YALLAROI ROAD, 1 ROCHE COURT AND LOT 901 EMERSON WAY, OXENFORD QLD 4210

REAL PROPERTY DESCRIPTION: LOT 906 SP108985, BAL LOT 467 RP845775, PT1 LOT 467 RP845775, LOT 468 RP845775, LOT 7 RP153300, LOT 8 RP153301, LOT 901 RP883083, LOT 464 RP228385, LOT 905 SP108985

I advise in accordance with section 52 (1) of the Planning Act 2016 that Nucrush hereby notifies Council that it is changing the application. The change is in response to further advice provided by Council.

The change involves no longer proposing quarrying activity in Lot 906. Accordingly, the quarry footprint is reduced from 64.7 hectares to 54.93 hectares.

Attachment C1 - Koala Habitat Assessment - Table 4.1

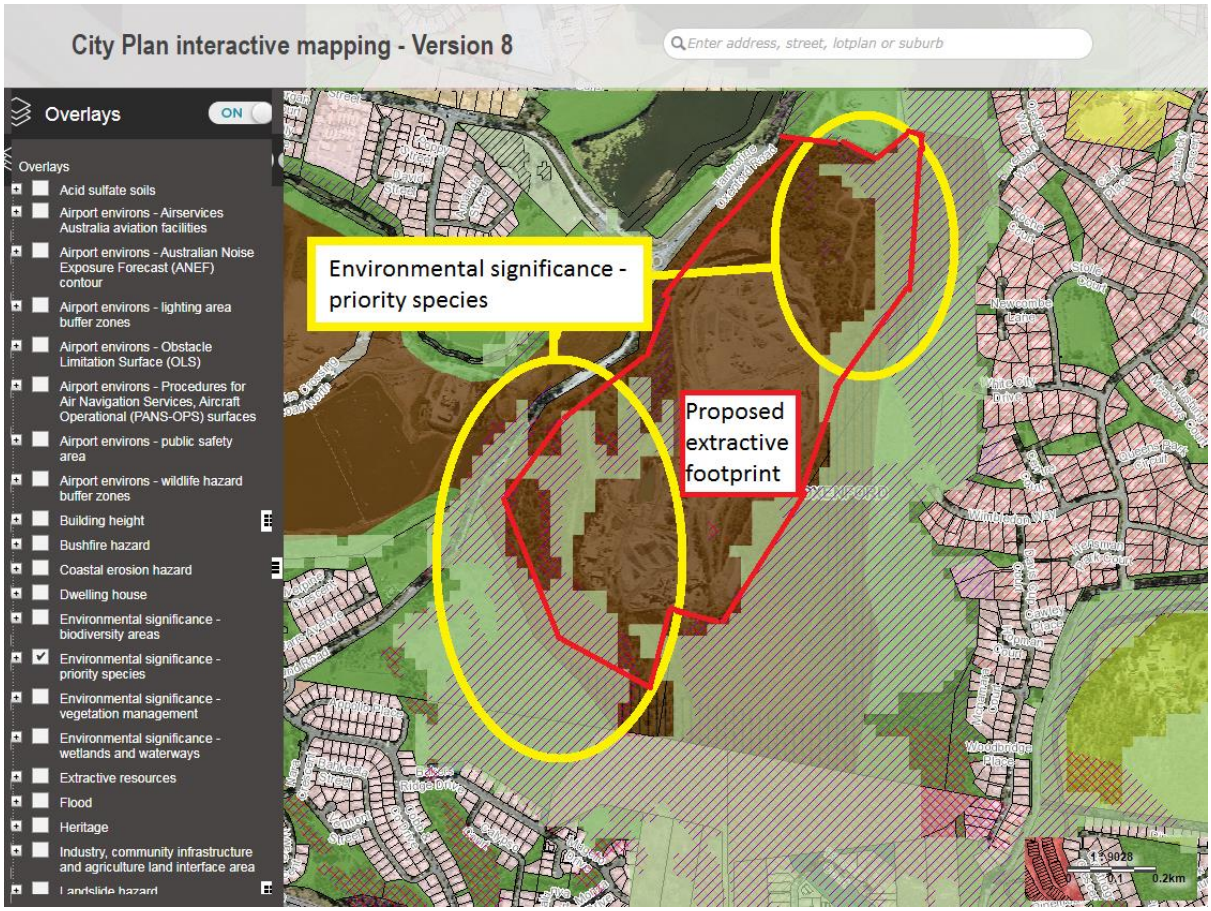
5. BAAM Ecological assessment.pdf

Table 4.1. Koala habitat assessment tool results summary.

Attribute	Score	Coastal area criteria	Score	Assessment details
Koala occurrence	+2 (high)	Evidence of one or more Koalas within the last 2 years	2	**Desktop:** The EPBC Act Protected Matters Search Tool report identified the Koala as 'species or species' habitat known to occur' in the area. Wildlife Online point buffer searches identify six Koala records since 1980 within a 2 km radius of the Study Area (**Appendix 1**). **On-ground:** Presence confirmed during recent field surveys.
	+1 (medium)	Evidence of one or more Koalas within 2 km of the edge of the impact area within the last 5 years		
	0 (low)	None of the above		
Vegetation composition	+2 (high)	Has forest or woodland with 2 or more known Koala food tree species, OR 1 food tree species that alone accounts for >50% of the vegetation in the relevant strata.	2	**Desktop:** The State government's vegetation mapping identifies the Study Area as holding remnant vegetation, including vegetation communities containing several known Koala food tree species. **On-ground:** Vegetation communities containing several known Koala food tree species were confirmed during recent field surveys.
	+1 (medium)	Has forest or woodland with only 1 species of known Koala food tree present.		
	0 (low)	None of the above		
Habitat connectivity	+2 (high)	Area is part of a contiguous landscape ≥ 500 ha.	2	Habitats on the Study Area are part of a contiguous landscape ≥500 ha.
	+1 (medium)	Area is part of a contiguous landscape < 500 ha but ≥300 ha.		
	0 (low)	None of the above		
Key existing threats	+2 (high)	Little or no evidence of Koala mortality from vehicle strike or dog attack at present in areas that score 1 or 2 for Koala occurrence	2	**Desktop:** Data relating to Koala threats for the Study Area was limited to Koala hospital data available from the Queensland Government for the period 1996 – 2017 (https://data.qld.gov.au/dataset/koala-hospital-data). This indicates mortality from road strike and other unnatural causes in close proximity to the Study Area is minimal.
	+1 (medium)	Evidence of infrequent or irregular Koala mortality from vehicle strike or dog attack at present in areas that score 1 or 2 for Koala occurrence		
	0 (low)	Evidence of frequent or regular Koala mortality from vehicle strike or dog attack in the Study Area at present		
Recovery value *	+2 (high)	Habitat is likely to be important for achieving the interim recovery objectives for the relevant context	1	There is uncertainty as to whether the habitat is important for achieving the interim recovery objectives, based on the Study Area being surrounded by key existing threats to Koala.
	+1 (medium)	Uncertainty exists as to whether the habitat is important for achieving the interim recovery objectives for the relevant context		
	0 (low)	Habitat is unlikely to be important for achieving the interim recovery objectives for the relevant context		
Total Score			**9**	As the total score is ≥5, Koala habitat within the Study Area is recognised as 'habitat critical to the survival of Koala' under the EPBC Act referral guidelines.

* Interim recovery objective in coastal areas is to protect and conserve large, connected areas of Koala habitat, particularly large, connected areas that support Koalas that are: genetically diverse/distinct; or free of disease or have a very low incidence of disease; or breeding (i.e. presence of back young or juveniles).

Attachment C2 - Environmental Significance - priority species



Attachment D1 - Dam on Maudsland Road

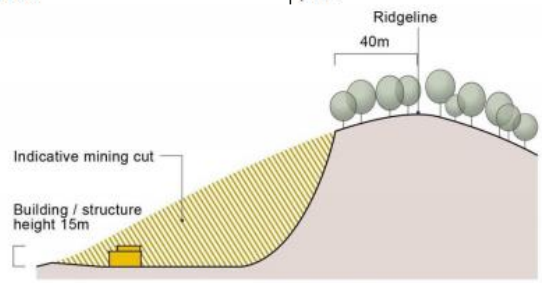
Due to the steepness of the topography there are no defined waterways that hold permanent water; rather, the drainage lines present are ephemeral and flow for short periods following rainfall events. Permanent water is present within the water storage areas associated with existing quarrying activities. The large dam at the quarry entrance from Maudsland Road (**Photo 2**) has value for foraging and breeding waterbirds, although fish trapping undertaken in this waterbody identified a high number of Mosquitofish *Gambusia holbrooki,* which would severely limit the presence of native fish other than eels.

Photo 2: The large dam adjoining Maudsland road has value for water birds.

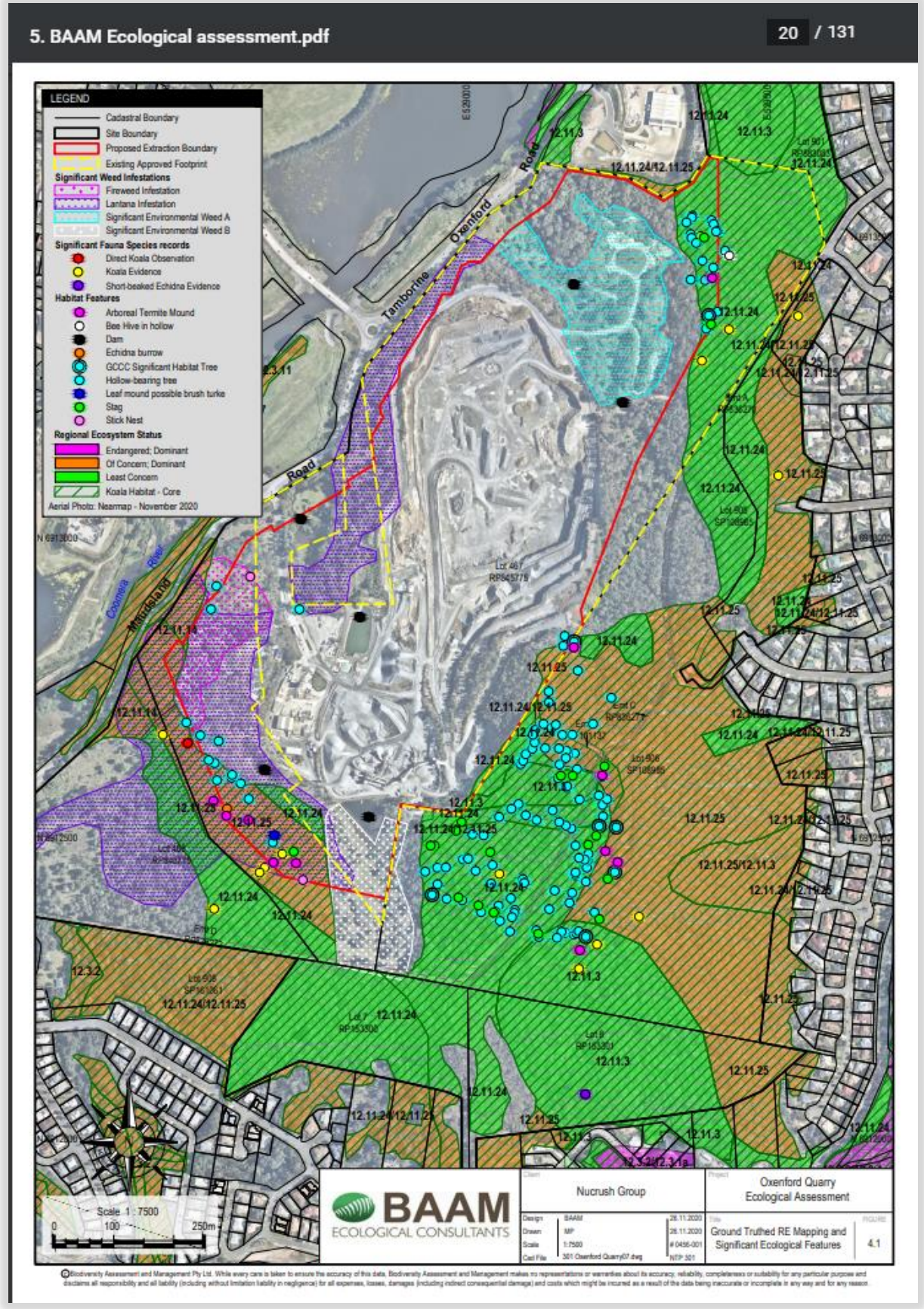
Attachment D2 - City Plan Part 9.3.8.3 Extractive Industry Code, Perfomance Outcome PO3 and PO4

9.3.8.3 Specific benchmarks for assessment

Table 9.3.8-1: Extractive industry development code – for assessable development

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets either the performance outcome or overall outcome
Visual amenity		
PO3 Extractive industry developments are screened or located in areas of least visual impact and minimise views of any significant infrastructure and visually obtrusive development from major roads and surrounding residential areas.	**AO3.1** Extraction or processing activities are not conducted within 40m of any boundary of the site.	**COMPLIES PER CURRENT ONSITE CONDITIONS**
	AO3.2 Views of significant infrastructure and visually obtrusive development including quarry floors, benches and faces, are screened from the road frontage, major road corridors and adjoining residential areas.	**COMPLIES PER CURRENT ONSITE CONDITIONS**
PO4 Development protects the visual character and amenity of the area by ensuring ridgelines are retained as a natural feature and buffer.	**AO4** Development is located at least 40m away from any ridgeline, as measured horizontally from the ridge peak.  **Figure 9.3.8-1** Illustration showing Extractive industry development is located at least 40m away from the top of the ridgeline, as measured horizontally from the ridge peak.	**COMPLIES**

Attachment E1 - Fauna Survey - Significant Ecological Feratures



Attachment E2 - City Plan - Local Significant Species and Koala Habitat

Attachment E3 - Regulated Vegetation Map - Category B

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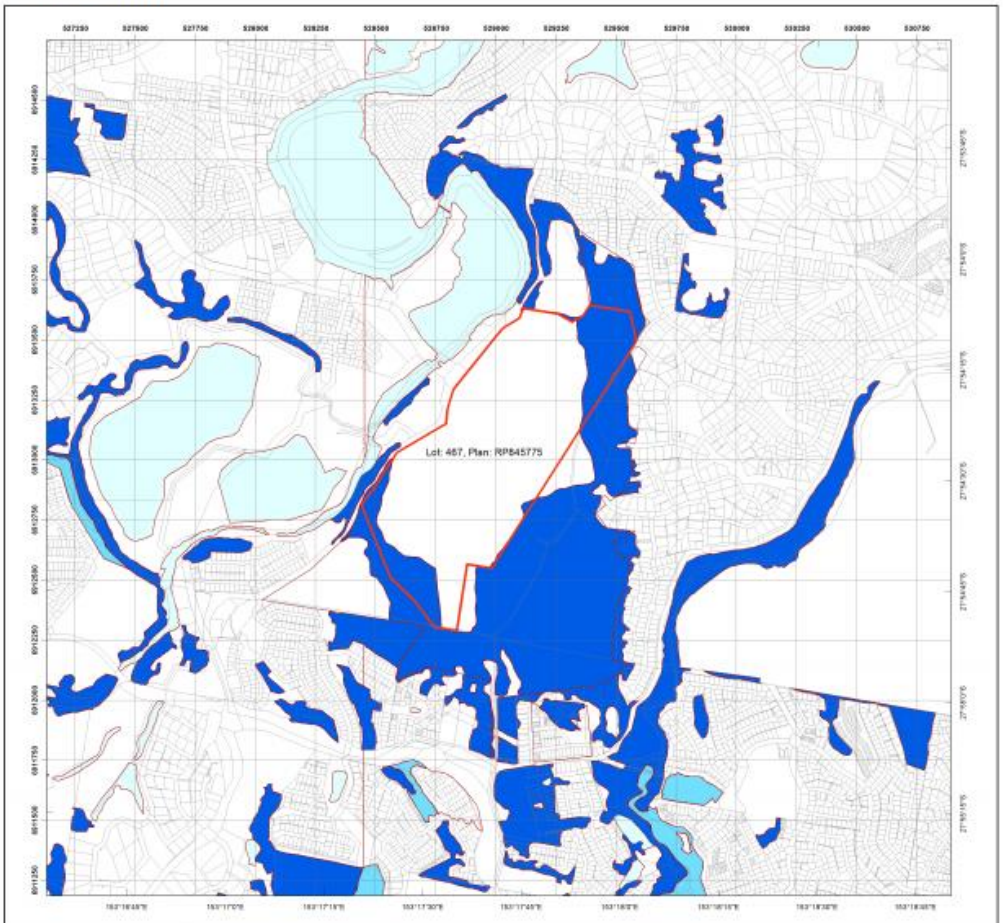
Lot: 467 Plan: RP845775

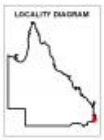


Regulated Vegetation Management Map

Legend

- Lot and Plan
- Category A area (Vegetation offsets/compliance notices/VDecs)
- Category B area (Remnant vegetation)
- Category C area (High-value regrowth vegetation)
- Category R area (Reef regrowth watercourse vegetation)
- Category X area (Exempt clearing work on Freehold, Indigenous and Leasehold land)
- Water
- Area not categorised
- Cadastral line
  Property boundaries shown are provided as a locational aid only

LOCALITY DIAGRAM



N

0 200 400 600 800 1,000 m

This product is projected into:
GDA 1994 MGA Zone 56

Disclaimer:
While every care is taken to ensure the accuracy of this product, the Department of Natural Resources, Mines and Energy makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason.

Additional information required for the assessment of vegetation values is provided in the accompanying "Vegetation Management Supporting map". For further information go to the web site: www.dnrme.qld.gov.au or contact the Department of Natural Resources, Mines and Energy.

Digital data for the regulated vegetation management map is available from the Queensland Spatial Portal at http://www.information.qld.gov.au/

This map is updated on a monthly basis to ensure new PMAVs are included as they are approved.

Queensland Government

Attachment F1 - Operational Activities

5. BAAM Ecological assessment.pdf

5.1.2 Construction and Operational Activities

In addition to vegetation removal and the associated secondary (or indirect) impacts, the construction and operation phases have the potential to result in on-going disturbance to surrounding habitats. Noise, dust and vibration affect habitat adjacent to active areas due to ground disturbance, the operation and movement of machinery along haul roads, exposed stockpiles and blasting.

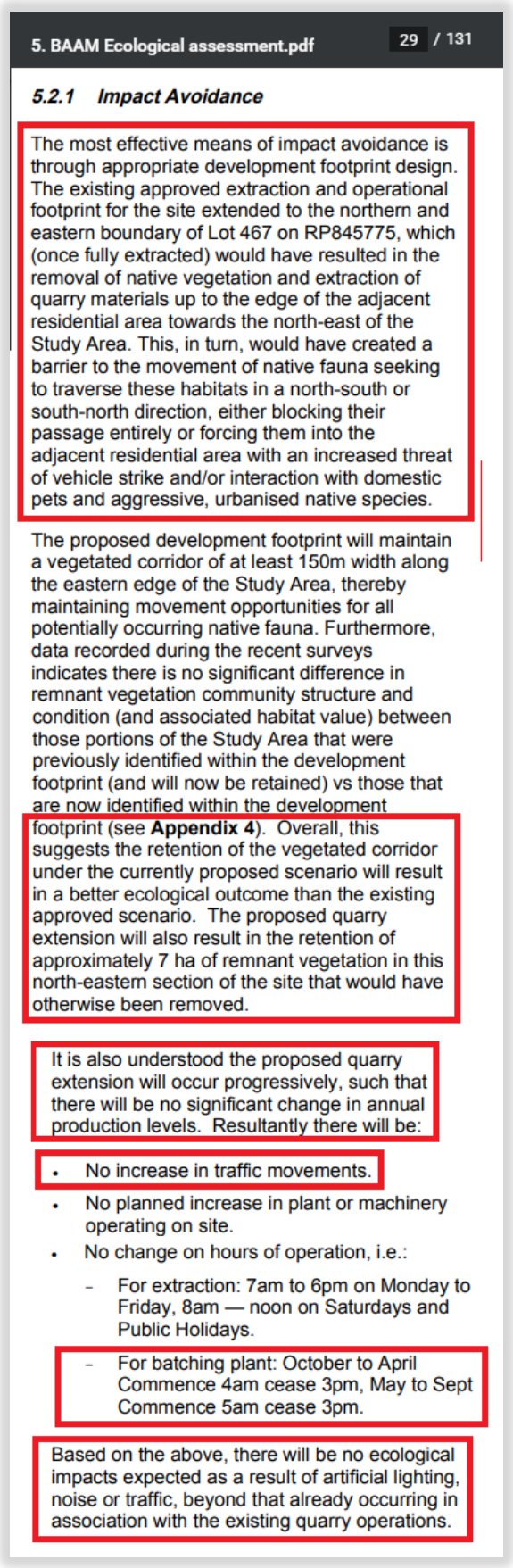
Similarly, noise, including background noise, generated by human activities can potentially affect behaviour and persistence of species and communities by, for example, masking of alarm and mating calls, location and motion of resources, obstructions or potential harms; in short, noise pollution affects the sending and reception of behavioural and social signals in faunal communities (e.g. see Brumm and Slabbekoorn 2005).

Fuel and chemical spills from storage areas and oils from heavy machinery can enter the environment, affecting habitats where the spill occurs, and potentially causing more widespread impact if contaminants reach waterways.

The operation of the quarry also has the potential to disrupt natural ecological processes within the local area through:

- limiting the natural movement and dispersal of ground-dwelling and flightless fauna (i.e. for breeding and foraging purposes), which are unable to traverse the quarried landscape;
- altering the local surface water environment due to large-scale landform modification, and subsequent potential impacts on downstream terrestrial ecosystems, particularly wetlands and riparian vegetation, and other sensitive vegetation communities and dependent fauna. This includes alterations to base flows, as well as to the frequency and extent of flooding; and
- creating long-term edge effects along the borders of the active area and adjacent habitat.

Attachment G1 - Impact Avoidance



5. BAAM Ecological assessment.pdf 29 / 131

5.2.1 *Impact Avoidance*

The most effective means of impact avoidance is through appropriate development footprint design. The existing approved extraction and operational footprint for the site extended to the northern and eastern boundary of Lot 467 on RP845775, which (once fully extracted) would have resulted in the removal of native vegetation and extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study Area. This, in turn, would have created a barrier to the movement of native fauna seeking to traverse these habitats in a north-south or south-north direction, either blocking their passage entirely or forcing them into the adjacent residential area with an increased threat of vehicle strike and/or interaction with domestic pets and aggressive, urbanised native species.

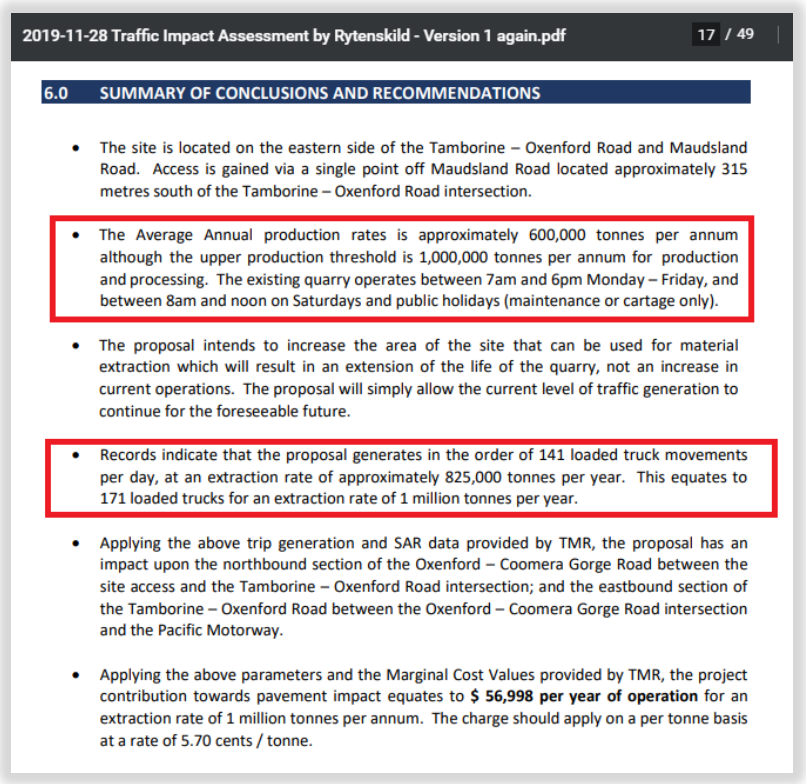
The proposed development footprint will maintain a vegetated corridor of at least 150m width along the eastern edge of the Study Area, thereby maintaining movement opportunities for all potentially occurring native fauna. Furthermore, data recorded during the recent surveys indicates there is no significant difference in remnant vegetation community structure and condition (and associated habitat value) between those portions of the Study Area that were previously identified within the development footprint (and will now be retained) vs those that are now identified within the development footprint (see **Appendix 4**). Overall, this suggests the retention of the vegetated corridor under the currently proposed scenario will result in a better ecological outcome than the existing approved scenario. The proposed quarry extension will also result in the retention of approximately 7 ha of remnant vegetation in this north-eastern section of the site that would have otherwise been removed.

It is also understood the proposed quarry extension will occur progressively, such that there will be no significant change in annual production levels. Resultantly there will be:

- No increase in traffic movements.
- No planned increase in plant or machinery operating on site.
- No change on hours of operation, i.e.:
  - For extraction: 7am to 6pm on Monday to Friday, 8am — noon on Saturdays and Public Holidays.
  - For batching plant: October to April Commence 4am cease 3pm, May to Sept Commence 5am cease 3pm.

Based on the above, there will be no ecological impacts expected as a result of artificial lighting, noise or traffic, beyond that already occurring in association with the existing quarry operations.

Attachment G2 - Traffic Impact Assessment (SCR Pavement Impact Assessment), dated 28th November 2019, Section 6.0 Summary of Conclusions and Recommendations

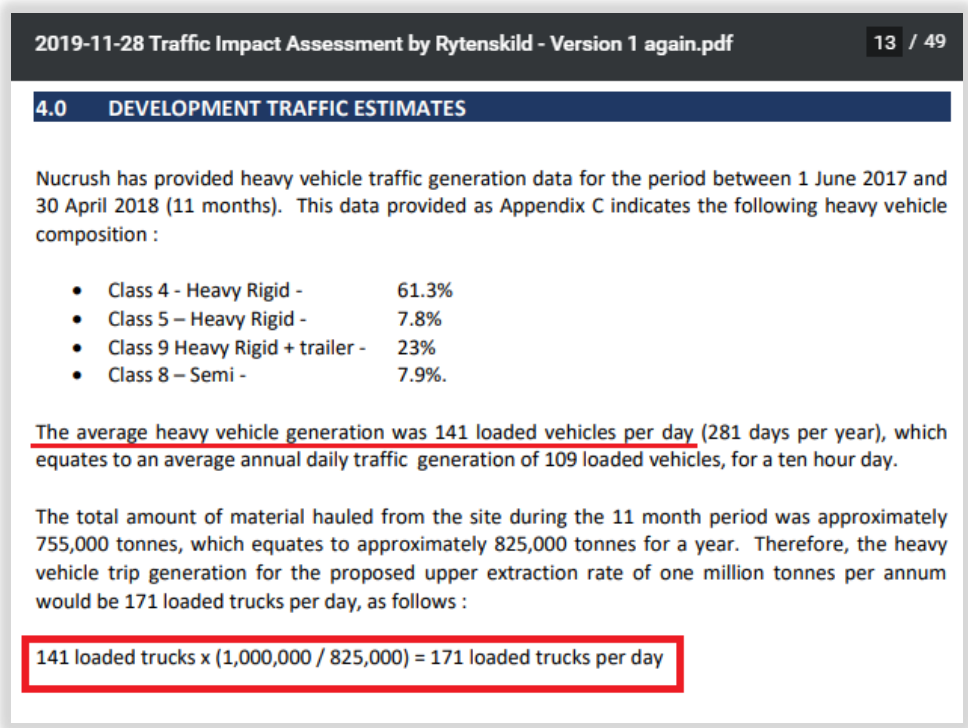


2019-11-28 Traffic Impact Assessment by Rytenskild - Version 1 again.pdf 17 / 49

6.0 SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

- The site is located on the eastern side of the Tamborine – Oxenford Road and Maudsland Road. Access is gained via a single point off Maudsland Road located approximately 315 metres south of the Tamborine – Oxenford Road intersection.
- The Average Annual production rates is approximately 600,000 tonnes per annum although the upper production threshold is 1,000,000 tonnes per annum for production and processing. The existing quarry operates between 7am and 6pm Monday – Friday, and between 8am and noon on Saturdays and public holidays (maintenance or cartage only).
- The proposal intends to increase the area of the site that can be used for material extraction which will result in an extension of the life of the quarry, not an increase in current operations. The proposal will simply allow the current level of traffic generation to continue for the foreseeable future.
- Records indicate that the proposal generates in the order of 141 loaded truck movements per day, at an extraction rate of approximately 825,000 tonnes per year. This equates to 171 loaded trucks for an extraction rate of 1 million tonnes per year.
- Applying the above trip generation and SAR data provided by TMR, the proposal has an impact upon the northbound section of the Oxenford – Coomera Gorge Road between the site access and the Tamborine – Oxenford Road intersection; and the eastbound section of the Tamborine – Oxenford Road between the Oxenford – Coomera Gorge Road intersection and the Pacific Motorway.
- Applying the above parameters and the Marginal Cost Values provided by TMR, the project contribution towards pavement impact equates to **$ 56,998 per year of operation** for an extraction rate of 1 million tonnes per annum. The charge should apply on a per tonne basis at a rate of 5.70 cents / tonne.

Attachment G3 - Traffic Impact Assessment (SCR Pavement Impact Assessment), dated 28th November 2019, Section 4.0 Development Traffic Estimates



2019-11-28 Traffic Impact Assessment by Rytenskild - Version 1 again.pdf 13 / 49

4.0 DEVELOPMENT TRAFFIC ESTIMATES

Nucrush has provided heavy vehicle traffic generation data for the period between 1 June 2017 and 30 April 2018 (11 months). This data provided as Appendix C indicates the following heavy vehicle composition :

- Class 4 - Heavy Rigid - 61.3%
- Class 5 – Heavy Rigid - 7.8%
- Class 9 Heavy Rigid + trailer - 23%
- Class 8 – Semi - 7.9%.

The average heavy vehicle generation was 141 loaded vehicles per day (281 days per year), which equates to an average annual daily traffic generation of 109 loaded vehicles, for a ten hour day.

The total amount of material hauled from the site during the 11 month period was approximately 755,000 tonnes, which equates to approximately 825,000 tonnes for a year. Therefore, the heavy vehicle trip generation for the proposed upper extraction rate of one million tonnes per annum would be 171 loaded trucks per day, as follows :

141 loaded trucks x (1,000,000 / 825,000) = 171 loaded trucks per day

Attachment G4 - Extractive Industry Code 9.3.8-1 - Operating Hours

City Plan

9.3.8 Extractive industry code

PART B - ASSESSABLE DEVELOPMENT BENCHMARKS

Table 9.3.8-1: Extractive industry development code – for assessable development

Performance outcomes	Acceptable outcomes
Hours of operation	
PO6 Activities undertaken on site are conducted within appropriate hours to minimise nuisance to adjoining and surrounding development.	AO6.1 Extracting, crushing and screening operations, loading of materials and maintenance occur only within the following hours: **Monday to Friday** 7.00am – 6.00pm **Saturday** 8.00am – 12 noon **Sunday and public holidays** nil AO6.2 Blasting and explosions are conducted between the hours of 9am and 5pm Monday to Friday excluding public holidays.

Attachment G5 - Current approval - Operating Hours

16. The permitted hours of operation for the proposed development are restricted to the following:-

16.1 the hours of operation are to be those provided for in the Town Planning Scheme;

16.2 in respect of blasting, 10.00 am to 3.00 pm Monday to Friday inclusive but so that blasting does not occur on more than two occasions in any one calendar week except in emergencies or for reasons associated with weather or safety and approved by the Shire Engineer;

16.3 in respect of the construction of site works including roads, buildings and structures prior to the commencement of extractive operations:-

16.3.1 7.00 am to 6.00 pm Monday to Friday; and

16.3.2 7.00 to 12.00 noon Saturday.

Attachment H1 - Rehabilitation Management Plan

5. BAAM Ecological assessment.pdf

A Rehabilitation Management Plan has also been prepared for the proposed development, which outlines measures to rehabilitate approximately 4.9 ha of land within the balance of the site that is currently cleared or degraded as a result of past disturbances, as indicated on **Figure 5.1**. This will involve the control/removal of weeds (particularly Lantana and exotic grasses) and planting (or natural regeneration) of native species representative of the pre-clearing vegetation community, resulting in a net increase in approximately 2.8 ha of remnant vegetation and associated habitat. The condition of existing remnant habitat to be retained adjacent to the south-western boundary of the proposed extraction area will also be improved through the removal of Lantana.

Attachment H2 - Areas proposed for rehabilitation

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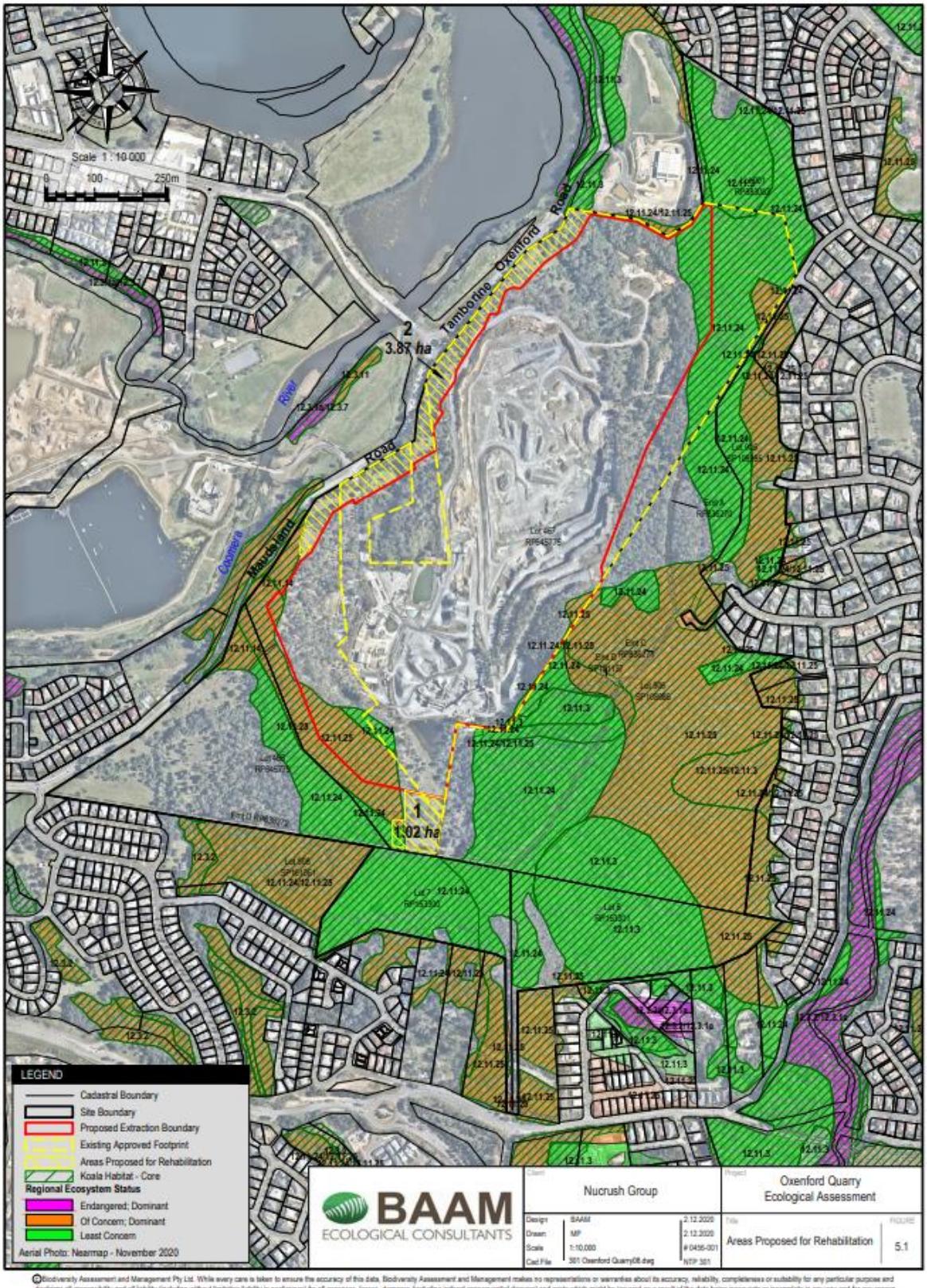


Attachment I1 - General Ecological Values

5. BAAM Ecological assessment.pdf 4

GENERAL ECOLOGICAL VALUES

The remnant vegetation within the Study Area holds valuable habitats for a range of fauna species, including old, hollow bearing trees and other notable features that provide suitable refuge and breeding sites. The dominant vegetation also has a variety of flowering periods that provide a range of feeding resources across seasons, which would be utilised by resident fauna, as well as mobile and migratory species opportunistically. The habitat values are lessened in the non-remnant areas primarily due to prior disturbances and increased weed presence.

Due to the steepness of the topography, there are no defined waterways that hold permanent water. The large, man-made dam at the site's entrance alongside Maudsland Road holds values for waterbirds in the local landscape and is utilised by several species for feeding and breeding.

Overall, the Study Area provides an island of core habitat for resident species within a rapidly urbanising landscape. It is likely to represent an important refuge for vagile species.

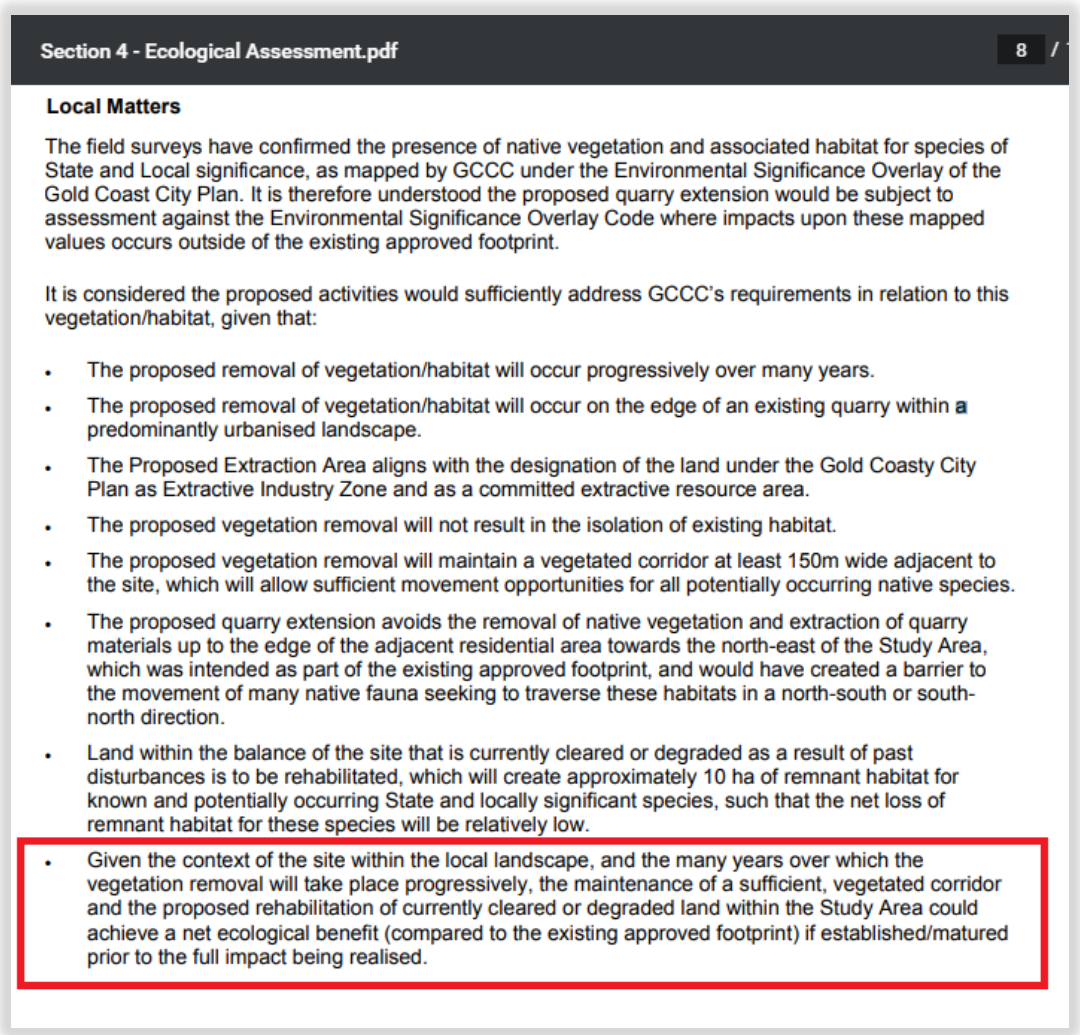
Attachment I2 - General Ecological Values

Section 4 - Ecological Assessment.pdf 18 / 134

Due to the steepness of the topography there are no defined waterways that hold permanent water; rather, the drainage lines present are ephemeral and flow for short periods following rainfall events. Permanent water is present within the water storage areas associated with existing quarrying activities. The large dam at the quarry entrance from Maudsland Road (**Photo 2**) has value for foraging and breeding waterbirds, although fish trapping undertaken in this waterbody identified a high number of Mosquitofish *Gambusia holbrooki*, which would severely limit the presence of native fish other than eels.

Photo 2: The large dam adjoining Maudsland road has value for water birds.

Attachment J1 - Local Matters



Section 4 - Ecological Assessment.pdf 8 /

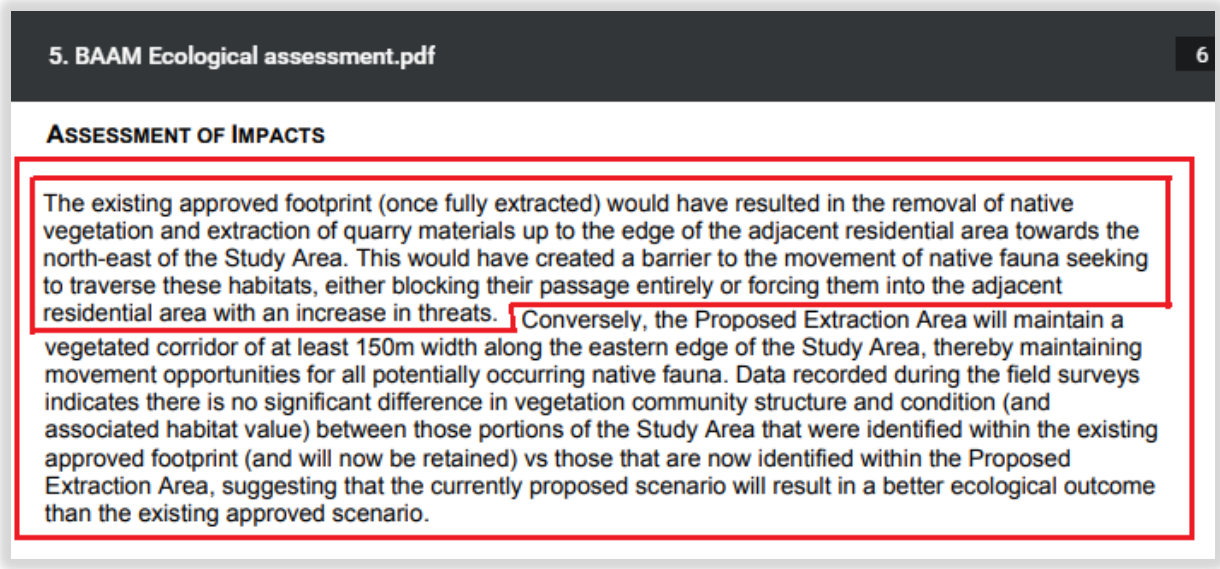
Local Matters

The field surveys have confirmed the presence of native vegetation and associated habitat for species of State and Local significance, as mapped by GCCC under the Environmental Significance Overlay of the Gold Coast City Plan. It is therefore understood the proposed quarry extension would be subject to assessment against the Environmental Significance Overlay Code where impacts upon these mapped values occurs outside of the existing approved footprint.

It is considered the proposed activities would sufficiently address GCCC's requirements in relation to this vegetation/habitat, given that:

- The proposed removal of vegetation/habitat will occur progressively over many years.
- The proposed removal of vegetation/habitat will occur on the edge of an existing quarry within a predominantly urbanised landscape.
- The Proposed Extraction Area aligns with the designation of the land under the Gold Coasty City Plan as Extractive Industry Zone and as a committed extractive resource area.
- The proposed vegetation removal will not result in the isolation of existing habitat.
- The proposed vegetation removal will maintain a vegetated corridor at least 150m wide adjacent to the site, which will allow sufficient movement opportunities for all potentially occurring native species.
- The proposed quarry extension avoids the removal of native vegetation and extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study Area, which was intended as part of the existing approved footprint, and would have created a barrier to the movement of many native fauna seeking to traverse these habitats in a north-south or south-north direction.
- Land within the balance of the site that is currently cleared or degraded as a result of past disturbances is to be rehabilitated, which will create approximately 10 ha of remnant habitat for known and potentially occurring State and locally significant species, such that the net loss of remnant habitat for these species will be relatively low.
- Given the context of the site within the local landscape, and the many years over which the vegetation removal will take place progressively, the maintenance of a sufficient, vegetated corridor and the proposed rehabilitation of currently cleared or degraded land within the Study Area could achieve a net ecological benefit (compared to the existing approved footprint) if established/matured prior to the full impact being realised.

Attachment K1 - Assessment of Impacts



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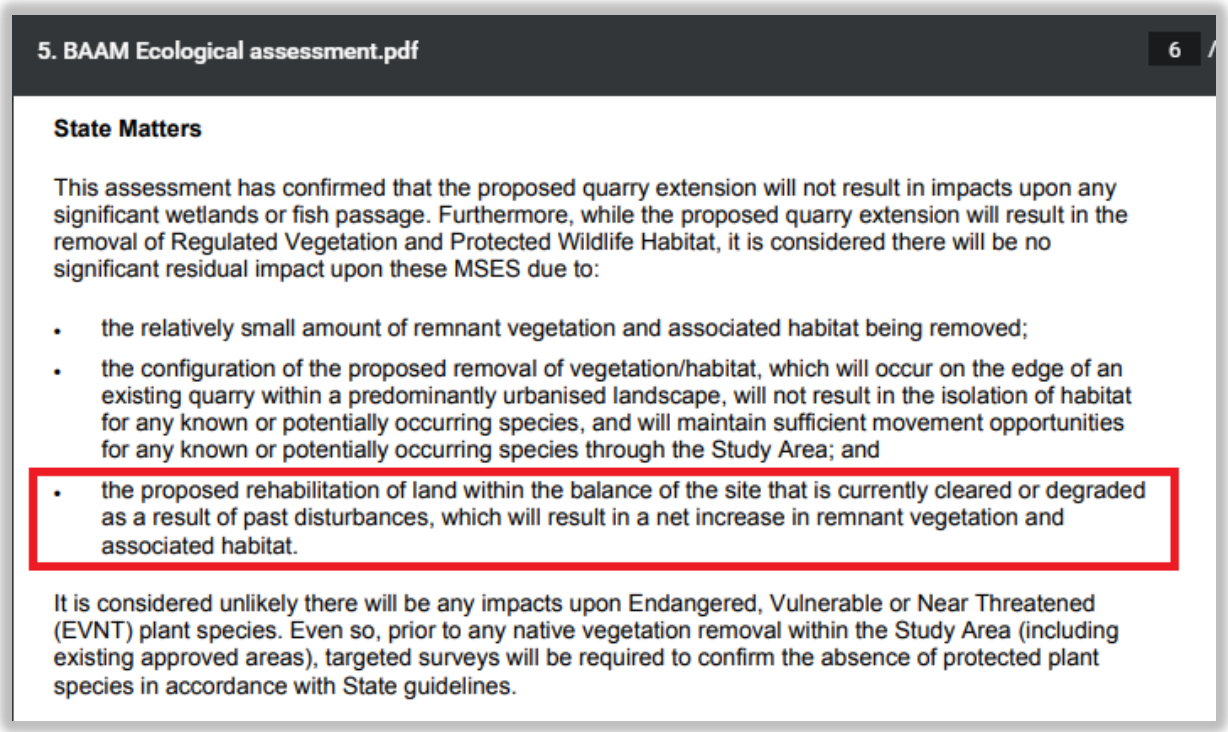
ASSESSMENT OF IMPACTS

The existing approved footprint (once fully extracted) would have resulted in the removal of native vegetation and extraction of quarry materials up to the edge of the adjacent residential area towards the north-east of the Study Area. This would have created a barrier to the movement of native fauna seeking to traverse these habitats, either blocking their passage entirely or forcing them into the adjacent residential area with an increase in threats. Conversely, the Proposed Extraction Area will maintain a vegetated corridor of at least 150m width along the eastern edge of the Study Area, thereby maintaining movement opportunities for all potentially occurring native fauna. Data recorded during the field surveys indicates there is no significant difference in vegetation community structure and condition (and associated habitat value) between those portions of the Study Area that were identified within the existing approved footprint (and will now be retained) vs those that are now identified within the Proposed Extraction Area, suggesting that the currently proposed scenario will result in a better ecological outcome than the existing approved scenario.

Attachment L1 - State Matters



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State Matters

This assessment has confirmed that the proposed quarry extension will not result in impacts upon any significant wetlands or fish passage. Furthermore, while the proposed quarry extension will result in the removal of Regulated Vegetation and Protected Wildlife Habitat, it is considered there will be no significant residual impact upon these MSES due to:

- the relatively small amount of remnant vegetation and associated habitat being removed;
- the configuration of the proposed removal of vegetation/habitat, which will occur on the edge of an existing quarry within a predominantly urbanised landscape, will not result in the isolation of habitat for any known or potentially occurring species, and will maintain sufficient movement opportunities for any known or potentially occurring species through the Study Area; and
- the proposed rehabilitation of land within the balance of the site that is currently cleared or degraded as a result of past disturbances, which will result in a net increase in remnant vegetation and associated habitat.

It is considered unlikely there will be any impacts upon Endangered, Vulnerable or Near Threatened (EVNT) plant species. Even so, prior to any native vegetation removal within the Study Area (including existing approved areas), targeted surveys will be required to confirm the absence of protected plant species in accordance with State guidelines.