



DETAILED ASSESSMENT REPORT

APPLICATION FOR DEVELOPMENT APPROVAL

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APPLICATION DETAILS	
Applicant:	Barro Group Pty Ltd
Proposal:	Development Permit for Material Change of Use of Premises for: <ul style="list-style-type: none"> • Extractive Industry; and • Environmentally Relevant Activities: <ul style="list-style-type: none"> - ERA16(2): extracting more than 1,000,000 tonnes per year; & - ERA16(3): screening more than 1,000,000 tonnes per year; and • Caretaker's Accommodation.
Properly Made Date:	5 December 2016
Information Request Date:	22 December 2016
Info Response Received Date:	27 June 2017
Decision Due Date:	20 August 2018
Number of Submissions:	182 properly made & 7 not properly made
PROPERTY DETAILS	
Division:	1
Property Address:	Lot 589 Beerburum-Woodford Rd BEERBURRUM QLD
RP Description:	Part of Lot 589 FTY 1876
Land Area:	Entire Lot 589 – 2,851 Ha Quarry area (approx) – 23 Ha
Existing Use of Land:	A small borrow pit (approx. 0.8Ha) exists where the proposed extractive industry is proposed. The balance of the land (outside the allocated lease area) is State Forestry.
STATUTORY DETAILS	
Planning Scheme:	Sunshine Coast Planning Scheme (15 August 2016)
SEQRP Designation:	Regional Landscape and Rural Production Area
Strategic Framework Land Use Category	Rural Enterprise and Landscape Area
Local Plan Area:	Nil
Zone:	Rural
Assessment Type:	Impact

PROPOSAL:

The application seeks approval for a Material Change of Use for the following over part of State Forestry Lot 589 on FTY 1876, located at Beerburrum-Woodford Road, Beerburrum:

- Extractive Industry; and
- Environmentally Relevant Activities, comprising:
 - the start of a new ERA16(2): extracting more than 1,000,000 tonnes per year; &
 - the start of a new ERA16(3): screening more than 1,000,000 tonnes per year; and
- On site Caretaker's Accommodation.

The area subject to the proposed Extractive Industry (quarry) is located within a much greater parcel (Lot 589), being some 2,851 hectares in total area, and is State Forest land (leased to HQ Plantations). The area proposed to be quarried (herein referred to as the subject site/land) is approximately 23.38 hectares in area and is located in close proximity to the southern-most boundary of the Shire. It has been used historically as a gravel resource (borrow pit) for the upgrade of State Forestry tracks. However, the pit has not been active for a number of years. Nonetheless, the application is a material change in the intensity and scale of the site and therefore, the application has been assessed as a new extractive industry with an entirely different range of potential impacts to the previous borrow pit. The subject site is identified as a State Key Resource Area and the proponent had won the tender for a sales permit (lease) from the State Government to extract the resource as proposed by this application. The proposed haul route is located entirely along constructed roads, except for a small portion of about 400m between the proposed quarry pit and Beerburrum-Woodford Road. This section is proposed by the applicant to be graded but not sealed. No other roads are proposed to be upgraded by the applicant as part of the development proposal.

The proposed Extractive Industry is intended to extract the hard rock resource available at the site, which would predominately be used for road base, sub-grade, sealing and concrete aggregates. The proposed extraction is generally intended to occur over 3 stages. The proposal would initially involve the establishment of associated facilities (crushing/screening plant) in the north-western corner of the proposed extraction area, along with the extraction occurring at the western portion of the site. The proposed extractive industry would also include the following supporting site infrastructure and ancillary buildings:

- Site office and staff amenity facilities;
- Site access road;
- Weighbridge;
- Staff car park area;
- Storage shed/workshop and fuel storage;
- Processing/product stockpiling area;
- Water storage dams; and
- Caretaker's accommodation.

Caretaker's Accommodation is sought for security purposes and is proposed to be located in the north-eastern extent of the proposed extraction area. It would be a 2 bedroom, single storey structure approximately 36m² in area. On-site effluent disposal would be required for the caretakers accommodation and the amenities buildings.

General on-site operations would typically include:

- Clearing of vegetation and stripping of topsoil and overburden material via mechanical means (i.e. bulldozer or excavator);
- Stockpiling topsoil and overburden for later use as either; saleable general fill, incorporation into onsite rehabilitation works where required, or use in construction of stormwater controls (e.g. perimeter banks, bunds);
- Drilling and blasting the exposed underlying rock from the developed quarry benches to reduce the material into a manageable size for relocation of the materials to the quarry pit or bench below, ready for transfer to the processing area;

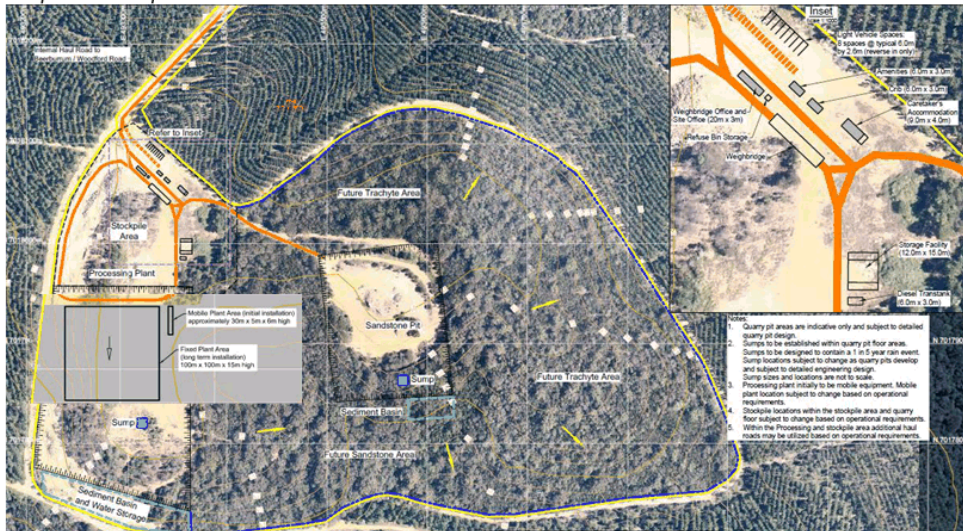
- Transferring raw material from the quarry face or pit floor to the crushing and screening plant / stockpile area using off-road haul truck(s) loaded by an excavator or front-end loader;
- Crushing and screening the raw material using mobile or fixed crushing and screening plant;
- Stockpiling the final products using a front-end loader and/or off-road haul truck before the material is sold and loaded into road trucks for transportation off-site for use; and
- Rehabilitating disturbed areas progressively once the terminal quarry benches have been established.

Mobile plant (crushing/screening) equipment is proposed to be used for the early stages. It would be about 30m long, 45m wide and 6m high and located just south of the proposed stockpile area. In the longer term, the applicant is anticipating the establishment of more permanent, 'fixed' plant on the site, which is proposed to occupy an area of 100m x 100m and approximately 15m high.

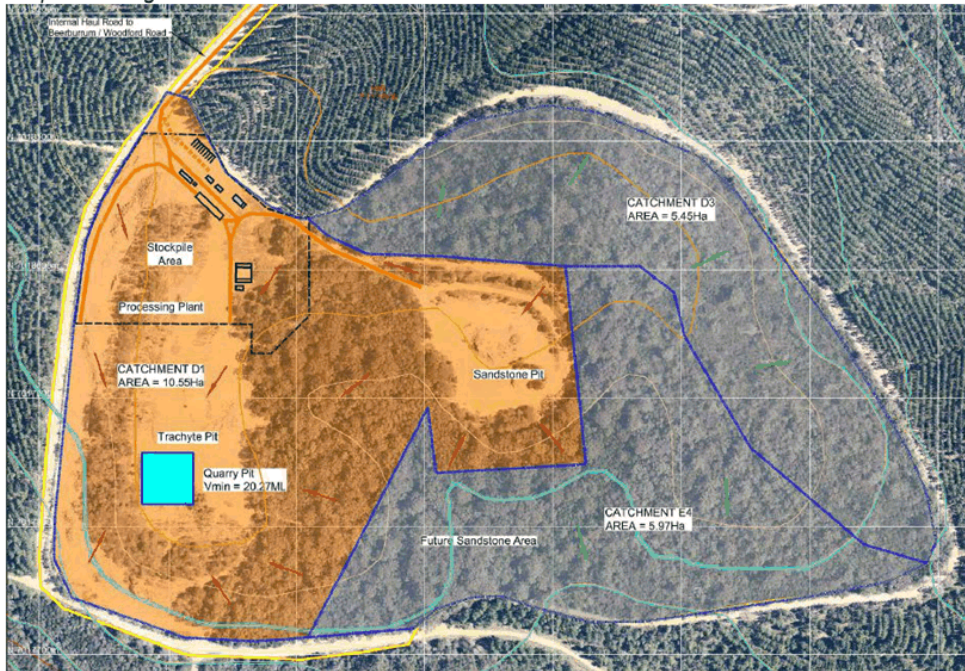
Depth of Resource and Staging

The final landform would represent a series of terminal quarry benches (at least four), approximately 12 metres in width and 15 metres in height. Hence, the ultimate depth of cut is anticipated to be approximately 60m, although the applicant's preliminary investigations suggest that the resource may go deeper. Based on the images below, it is expected that extraction will generally commence at the western, cleared portion of the site and travel in an easterly direction.

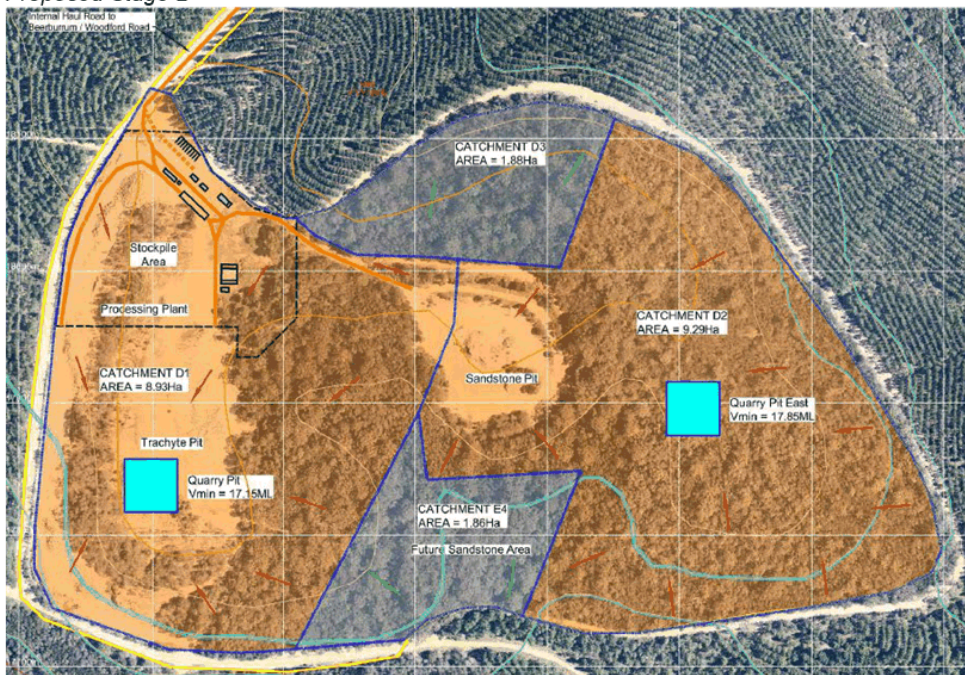
Proposed site plan



Proposed Stage 1



Proposed Stage 2



Final stage



Hours of operation

The quarry is proposed to operate between the hours of 6am to 6pm Monday to Friday and 7am to 1pm Saturdays. No operations are proposed to be carried out on Sundays or public holidays. This accords with the requirements of the *Extractive industry code of the Sunshine Coast Planning scheme 2014*.

Employees/staff

It is proposed that a permanent full time workforce comprising 10 persons would be on site at peak production. In addition, contractors may also be used for a range of services including drilling and blasting, haulage, plant and equipment maintenance, land management and rehabilitation. The proposed operation is estimated to employ approximately five (5) on-site employees per shift

Production output

The applicant has attained a 20 year lease from the State Government to quarry the subject site. It is proposed that production for the quarry would commence at approximately 75,000 tonnes in its first year of operation, increasing over the subsequent ten (10) years with peaks of up to 750,000 tonnes. The applicant states that certain projects may create substantial demand for product which could necessitate an increase in output of potentially above one (1) million tonnes per annum. The applicant proposes there to be no restriction on annual output production.

Rehabilitation

The extraction of material is proposed to be carried out in a sequential manner to promote progressive rehabilitation where practicable. As the quarry benches reach their final form, they would be shaped, stabilised and, where necessary, supplementary planting substrates used over selected rock faces to assist in retaining soils and precipitation. It is proposed that the topsoil removed from the site in the early stages would be stored for future rehabilitation purposes.

It is understood that the long term use of the site and surrounding land is intended to remain part of the forestry operations. The end use of the site would need to be determined by the State at the termination of the lease period.

Blasting

Blasting would typically occur on an 'as needs' basis and will be dependent upon the market demand and production requirements for the site. The applicant states that blasting is only envisaged to occur approximately 3 times a month, but more frequently in the early set-up stages and that it would only occur between 9am to 5pm, Monday to Friday. Explosives would not be stored on-site, but would be transported onto the site for immediate use by a blasting contractor, as required.

Haulage

Haulage access to and from the proposed quarry would be via the existing forestry track from the subject site, Council's road network and state controlled network to the Steve Irwin Way and Bruce Highway.

Product type

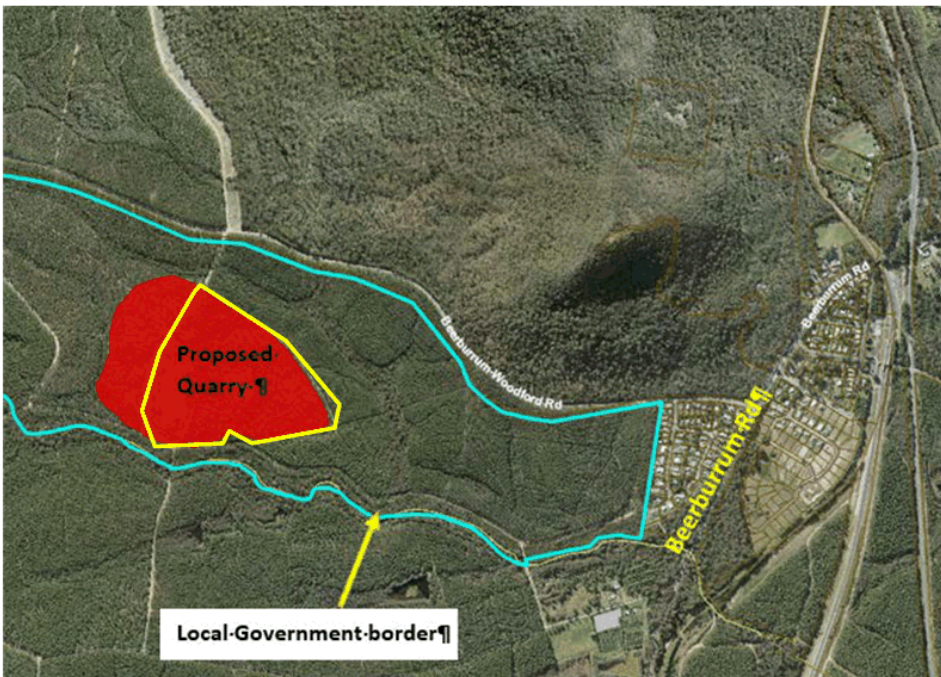
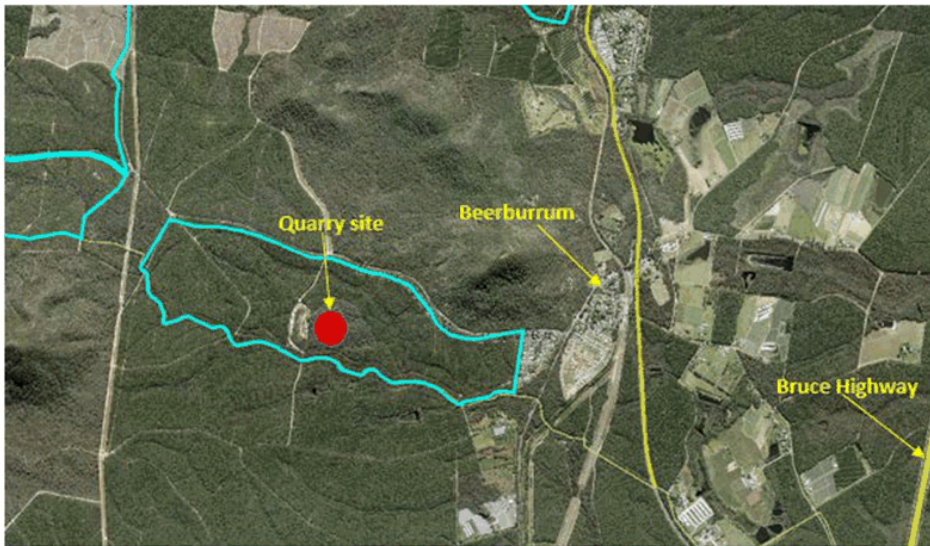
Trachyte and sandstone are the resources expected to be extracted from the site. The applicant states that the type of material identified as being available on the site for extraction include road base, sub-grade, sealing aggregates and concrete aggregates, as well as for the production of manufactured sand. The overburden has been identified for use as general fill, where not stored for future rehabilitations purposes.

SITE DETAILS:

Site Description

<i>Site & Locality Description</i>	
Road Frontage	The site does not have direct access to a gazetted road. It would gain access to Beerburum-Woodford Road via an internal forestry track (approx. 400m in length).
Existing Significant Vegetation	Significant stands of vegetation, as discussed later in this report.
Topography:	Relatively flat throughout. Some embankments/benching exists on the site as a result of previous quarrying activities.
Surrounding Land Uses:	The site is surrounded by pine plantation. The nearest residential dwelling is located approx. 1.2m to the south east.

The subject site is located within the Beerburum West State Forest about 2.7 km west of the Beerburum township and 2 km west of Beerburum Road. It is identified by the State Government as Key Resource Area (KRA) 147 and is located in close proximity to the southern-most boundary of the Sunshine Coast Local Government Area. The area proposed to be quarried is approximately 23.38 hectares in area and is sited within a much greater parcel (Lot 589), being some 2,851 hectares in area, most of which is leased to HQ Plantations for forestry purposes. The specific site area proposed to be quarried is excluded from the HQ Planation's lease area.



Background / Site History

There is no known formal development history over the subject land. According to historical information and aerial photography, the site appears to have been actively quarried (in some form) as far back as 1972. Subsequent aerial photography appears to indicate that parts of the site has been the subject of some form of excavation. Further, the Department of Agriculture and Fisheries has advised Council officers that the site has been used as a resource for approximately the *last 40 years and that quarry material from this pit has previously been used*

for the construction of most of the road network in Beerburrum West State Forest and to a lesser extent Beerburrum East. It generally operated continuously up until late 2014, including some blasting for hard rock production (circa 2008) whereby, some 10,000 tonnes was removed by HQ Plantations. The Department of Agriculture and Fisheries put the resource up for tender in 2014 to assist with meeting demand for extractive material in a high growth area.

The applicant also advises that the State Government issued an approval for extraction and screening operations over the site in 2010. There is no records of any Council approval being issued at that time. Given the previous operations over the site were undertaken specifically for State Government purposes (and not general commercial purposes), it is likely that such operations occurred as exempt development, exercised by the State Government. However, the scale and intensity of quarrying activities is proposed to substantially increase and are to be undertaken by a commercial operator (in the open market) if the subject application were to be approved. Hence, the proposed development now results in a material change in the intensity and scale of the site and therefore, the application has been considered and assessed as a new extractive industry.

Key Resource Areas and their allocation

KRAs are a planning tool used by the State Government to identify and protect significant resources from encroachment of incompatible development (ie. a protection role). They are not intended to override the development assessment process and all potential impacts associated with proposed extraction within the KRA must be able to be appropriately mitigated or minimised. In particular, the *State Planning Policy 2017* states:

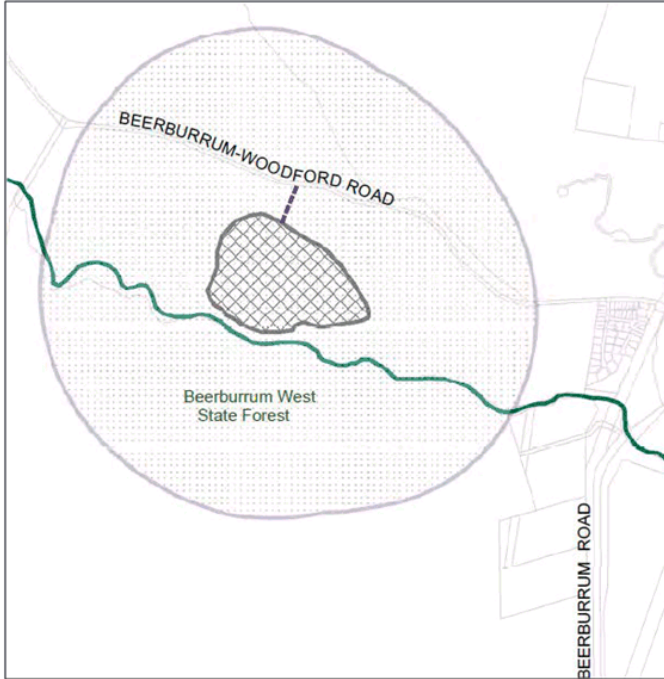
'Identification of a key resource area does not in any way authorise the extraction of the resource or provide a right to establish or operate an extractive industry. Identification of a key resource area rather indicates the importance of protecting the deposit for the future. Local government assesses development applications for extractive industries in accordance with its planning scheme.

KRAs are identified and gazetted after consideration of a number of factors generally relating to geology, separation from sensitive receptors and accessibility to transport corridors, rather than by current demand for a resource at a particular location.

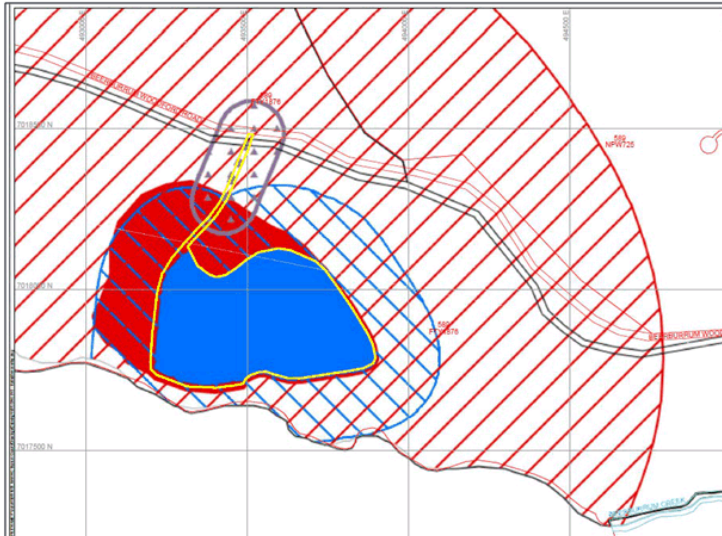
Background to the allocation of KRA 147

Key Resource Area 147 was first recognised as being of State significance and accordingly identified as a KRA with the commencement of the first, single State Planning Policy (SPP) in December 2013. The consultation process for new KRAs was undertaken in association with the broader public consultation undertaken for the draft single SPP document. The *Department of Natural Resources, Mines and Energy* have advised Council officers that the advertising occurred in a regional newspaper and advice was given to each affected local government. Because the new single SPP consultation/release occurred in April to June 2013, the (State) KRA was not identified in the original draft of the *Sunshine Coast Planning Scheme*, which was publically notified earlier (October 2012). Although, the site was identified a Local Resource Area (LRA) at the time of notification of the draft Planning Scheme.

Extract of KRA47



Extract from Extractive Resources Overlay (Sunshine Coast Planning Scheme 2014)



Surrounding land uses

For the reasons described above, the site was not identified in any way under the former *Caloundra City Plan 2004* as an extractive resource. It is noted that the residential properties approximately 1.2km the east of the site were included in the Township Residential Precinct of the former *Caloundra City Plan 2004*. An earlier approval to rezone this land from 'Rural' to

'Residential A' was issued in 1992 with lots and dwellings established soon thereafter. Hence, this residential land established well prior to the site's recognition as a KRA or LRA.

ASSESSMENT:

Framework for Assessment

Instruments for Statutory Assessment

- State Planning Policy
- the South East Queensland Regional Plan
- State Planning Regulatory Provisions
- the Planning Scheme for the local government area

Of these, the planning instruments relevant to this application are discussed in the sections that follow.

Statutory Instruments – State and Other

Environmentally Relevant Activities

The development application includes a component seeking approval for Environmentally Relevant Activities (ERAs), being ERA 16(2)(b) and 16(3) Extracting and Screening activities - more than 1 million tonnes/year.

Assessment of the environmental performance of the proposed development, triggered by the two Environmentally Relevant Activities, is the responsibility of the State Government. The State Government has provided conditions under an Environmental Authority, dated 5 April 2018, relating to the Environmentally Relevant Activities, and the *Department of Environment and Heritage Protection* has been nominated for the administration and enforcement of those conditions. The conditions imposed under the Environmental Authority regulate operational matters such as air and water quality, noise and blasting. It also requires that rehabilitation of disturbed land occurs as new extraction areas are commenced. The conditions of this Environmental Authority will become effective and regulate the development if Council issue a Material Change of Use approval for the proposed land use under its Planning Scheme.

State Planning Policy

Version 3 of the State Planning Policy (April 2016) was in effect at the time of lodgement of the subject development application. The State Planning Policy contained a state interest in relation to mining and extractive resources. It identified the *supply of extractive resources such as sand, clay, gravel and soil is essential to the health of the construction industry and the delivery of infrastructure*. It further identifies that planning schemes are to appropriately integrate the state interest by identifying the State designated Key Resource Areas (KRAs). The *Sunshine Coast Planning Scheme (15 August 2016)* has incorporated KRAs throughout the Local Government Area and Version 3 of the State Planning Policy had been deemed by the Minister for State Development, Infrastructure, Local Government and Planning as being appropriately reflected in Council's Planning Scheme.

A new version of the State Planning Policy (July 2017) came into effect since that time, but before the decision stage of the subject application commenced, which was the 23 April 2018. The *Sustainable Planning Act 2009* provides that weight may be given to a later planning instrument where it came into effect before the decision stage of the application started. Therefore, appropriate weight (or consideration) can be given to the new SPP in the assessment of the application. The SPP (July 2017) has not been integrated into the current planning scheme. However, its content is largely unchanged from the previous version and still contains an emphasis on protecting designated Key Resource Areas.

South East Queensland Regional Plan 2009-2031

At the time the application was lodged, the previous *South East Queensland Regional Plan 2009-2031* was in force, within which the subject site was included in the Regional Landscape and Rural Production Area. The Regional Landscape and Rural Production Area identifies land with *regional landscape, rural production or other non-urban values* and seeks to protect such land from *inappropriate development*. While the SEQRP anticipates extractive resources occurring within the Regional Landscape and Rural Production Area, the State Planning Policy is the vehicle for identification and delivery and of these resources (via Key Resource Areas).

The South East Queensland Regional Plan 2009-2031 seeks to protect the environmental and natural values of land contained in the Regional Landscape and Rural Production Area and ensures that *activities such as agricultural production, access to natural resources, water storage, tourism, outdoor recreation and nature conservation can continue*. An identified Key Resource Area is considered a natural resource. The proposed development is therefore consistent with the regional land use intent, regional policies and desired regional outcomes for the Regional Landscape and Rural Production Area, although noting that potential impacts associated with resource extraction and production are still required to be assessed against other instruments, including the Planning Scheme.

Statutory Instruments – Planning Scheme

The applicable planning scheme for the application is *Sunshine Coast Planning Scheme (15 August 2016)*. The following sections relate to the provisions of the Planning Scheme.

Zoning and Level of assessment/ consistency

The subject site is located in the Rural Zone. Extractive Industries are identified as impact assessable in the rural zone, and are identified as a 'consistent use' where identified as a Key Resource Area.

Strategic Framework

The Strategic Framework considers the following matters (or Themes):

- Settlement Pattern
- Economic Development
- Transport
- Infrastructure and Services
- Natural Environment
- Community Identity, Character and Social Inclusion
- Natural Resources
- Natural Hazards

The application has been assessed against each of the matters above and found to generally satisfy these Themes. The Framework identifies at settlement pattern based on *protecting and enhancing the natural environment and undeveloped rural and coastal landscapes that create large, uninterrupted and diverse areas of open space which weave throughout the region and define the boundaries of urban and rural residential areas*. It also seeks to protect and manage the region's natural resources so that they remain available for exploitation, but also recognises that some resources may not be suitable for exploitation due to environmental or scenic impacts. The Framework seeks to achieve minimisation of environmental and amenity impacts where avoidance is not practicable. In this case, there are competing interests between exploiting the extractive resource and protecting the habitat value of the site. This is explored further throughout this report.

Planning Scheme Codes

The following codes are applicable to this application:

- *Biodiversity, waterways and wetlands overlay*
- *Bushfire hazard overlay*
- *Extractive resources overlay*
- *Height of buildings and structures overlay*
- *Regional infrastructure overlay*
- *Scenic amenity overlay*
- *Rural zone code*
- *Extractive industry code*
- *Landscape code*
- *Nuisance code*
- *Safety and security code*
- *Stormwater management code*
- *Transport and parking code*
- *Waste management code*
- *Works, services and infrastructure code*

The key matters relating to the proposal are discussed below. The application has been found to comply with (or can be conditioned to comply with) all the above codes with the exception of the *Biodiversity, waterways and wetlands overlay code*. Despite this non-compliance, sufficient grounds can be found to approve the development.

Vegetation and Biodiversity

The site has been identified as containing significant biodiversity and native vegetation values at both State and local level. The area of mapped vegetation proposed to be cleared is approximately 16 hectares in total. The images below describe the vegetation protection over the site from a (state) policy perspective (ie. MSES - Matters of State Environmental Significance):

'Endangered' Regional Ecosystem & Essential Habitat/Wildlife Habitat (MSES) – State level



MSES - Wildlife habitat**MSES- Essential habitat**

The State Government (via both, the concurrence agency response and the Environmental Authority) has assessed and approved the development application and imposed conditions within its jurisdictional responsibilities relating to environmental performance and state-mapped vegetation.

The *Sunshine Coast Planning Scheme 2014* reflects the SPP's identification of the site as a Key Resource in its Extractive Resources Overlay. At the same time, it also maps the site as a *Native Vegetation Area* in the Biodiversity, Waterways and Wetlands Overlay, with the southern portion also identified as a *Riparian Protection Area* (as per the image below). The Overlay seeks to *maintain and protect Ecologically Important Areas through the retention of native vegetation to the greatest extent practicable, with retained vegetation acting to preserve fauna movement linkages across the locale*. The Strategic Framework (Natural Environment) of the *Sunshine Coast Planning Scheme 2014* maps the site as a 'Connecting Habitat Area', which are generally smaller areas of fragmented and isolated remnant vegetation that do not qualify as 'core habitat'.

Native Vegetation and Riparian Protection Area (SCPS2014)



In terms of Policy intent relating to the environmental qualities of the site, there is an apparent tension between the Policy objectives in that the identified native vegetation cannot be protected at the same time as extracting quarry rock directly beneath it within an identified resource area. This conflict needs to be resolved by assessment and a balancing of competing interests. Firstly, the status and quality of the site's vegetation needed to be ascertained (ground-truthed) to confirm whether it matched the protection status afforded to it by the Policy documents.

A field survey undertaken by the applicant's Ecologist confirmed the presence of Regulated Vegetation and associated Essential Habitat within the site. However, it also found that the site *is almost completely surrounded by pine plantation which offers reduced habitat value to native fauna and may restrict the movement of some local fauna species to and from surrounding riparian habitats present to the north and south of the site*. No evidence of any rare or threatened species on the site were found and it was noted that the site provides limited habitat value to fauna generally.

Council's Ecologist also assessed the site and advised that the vegetation on the site contains considerable environmental qualities sufficient for it to be considered an *ecologically important area* as defined in the Planning Scheme, but also recognised that the site was physically separated from other connecting habitat by the surrounding pine plantation. Council's Ecologist recommended that a large portion of the existing vegetation on the eastern side of the site be retained in order to achieve the outcomes of the *Biodiversity, waterways and wetlands overlay code*.

Regulatory documents

Both the *State Planning Policy 2017 (SPP2017)* and Council's Planning Scheme are relevant regulatory documents that apply to the development. It is clear that both of these instruments each contain a tension with regard to the competing objectives of 'Mining and extractive resources' (KRA) and 'Biodiversity/habitat protection'. At a State Policy level, the site is identified as containing Matters of State Environmental Significance (MSES) comprising, *Essential Habitat, wildlife habitat*, as well as *Endangered Regional Ecosystem*. However, the site is also identified as a *Key Resource Area*. While the *Sunshine Coast Planning Scheme 2014* identifies the site as a *Native Vegetation Area* and also a *Local Resource Area*.

Assessment of the site has found that the site contains environmental value, which, if not otherwise identified as a KRA, would most likely warrant its retention. This results in the above mentioned conflict about the preferred intent of the land (ie. protect the vegetation or exploit the hard rock resource). In order to assist in resolving this conflict, assessing officers sought legal advice as to which to afford the greater weight in the context of the proposed development. The advice stated that for the purposes of the state planning instruments, no one state interest prevails over the other. Although, the SPP2017 does relevantly provide that development is located in areas that avoid adverse impacts to 'matters of state and local environmental

significance', or, where such adverse impacts cannot be reasonably avoided, they are to be minimised. As far as the proposed development is concerned, the entirety of the existing vegetation on the site is proposed to be removed. In this way, the development neither 'avoids' nor 'minimises' the potential impact. However, the legal advice also indicated that where sufficient community need is demonstrated, an alternative, balanced approach to the issue should be considered. Further to this, legal commentary provided by the applicant suggests that lesser weight should be afforded to the vegetation qualities of the site because the site is within an area reserved for 'forestry' purposes under the *Forestry Act*.

It is noted that the State Government has assessed the proposed vegetation loss in their role as 'concurrence agency' and have issued an approval subject to (among other requirements) an offset of the 'endangered' regional ecosystem present on the site *to counterbalance the significant residual impacts on the matter of state environmental significance* (being 30.3 hectares in total). Despite the State Government giving this approval, local government is still required to assess the proposal against its Planning Scheme. The site's vegetation is afforded a similar weight in the Planning Scheme as the State policy documents (ie. being an *ecologically important area*).

It has been established that the site's vegetation would typically warrant protection. However, the allocation of the KRA to the same area compromises this position. Having regard to higher order provisions of the *Sunshine Coast Planning Scheme 2014*, the Strategic Plan provides some guidance on how to resolve this conflict. Specifically, it states that ecologically important areas should not be disturbed or diminished by development *except where*:-

- (i) *on the balance of social, economic and environmental considerations, it is demonstrated that the development is in the interests of the community; and*
- (ii) *any adverse impacts incurred are compensated by the provision of a biodiversity offset that results in a net gain and enhancement to the overall habitat values of the Sunshine Coast."*

Having assessed and balances the competing interests and policy objectives, officers consider that in this instance there is sufficient demand for hard rock resources within the growing region such that it outweighs the policy objective to protect and retain the native vegetation on the site. Considerations of demand or need for the resource is explored further below under 'Need'. By also having regard to the legal advice obtained, need for the resource is considered, in this case, to be sufficient to give preferential consideration to extracting the resource on the site, due to the following:

- the identified resource is locationally specific and not readily available elsewhere;
- the vegetation could be offset to compensate for the loss of the ecologically important area; and
- the development is identified as a 'consistent use' in the Planning Scheme due to its designation as a KRA.

The concept of offsetting the lost vegetation is critical to this determination. In this regard, it is noted that the State Government has already conditioned that 30.3 hectares of vegetation be offset, which is greater than the proposed quarry area. However, in accordance with the State offset policy, the offsetting could occur anywhere within the State and therefore, not necessarily in the Sunshine Coast region. This is a concern for assessing officers because it is preferable that the vegetation be replaced within the Sunshine Coast. Under the *Queensland Environmental Offsets Policy*, a local government cannot impose an offset for a matter that is the same as a *Matter of State Environmental Significance*. However, the applicant has proposed to enter into an Infrastructure Agreement with Council to stipulate that, as a minimum, offsetting is to occur within the Sunshine Coast LGA to an amount that at least replaces the proposed clearing area with new planted offset vegetation elsewhere within the Sunshine Coast. Council is also able to impose conditions in relation to the actual clearing activity and as such, conditions are recommended to ensure that all vegetation clearing occurs under the supervision of a qualified fauna spotter and that the perimeter of the (working) site is fenced to prohibit any encroachment during works. These measures were also proposed by the applicant.

Koala habitat

The site is not formally recognised as koala habitat under the State Planning Regulatory provisions (SPRP). However, the *Sunshine Coast Planning Scheme 2014* contains provisions relating to protection of koala habitat. The Ecological Assessment provided by the applicant states that *the site does not represent core habitat for Koala* and that no Koalas or evidence of Koala presence (scats, scratches) was found within the study area. The submitted Ecological Assessment found that the site provides limited habitat value to fauna generally and that the proposed development would not compromise or reduce koala habitat.

Bushfire mitigation

A Bushfire Management Plan has been provided by the applicant. The applicant states that there would be sufficient water supply available on the site for fire-fighting purposes (including the use of the water stored on the site). In particular, while sediment basins are being established, the site would have a dedicated water truck with a minimum capacity of 10,000 litres that can be kept full between dust suppression tasks. The applicant states that external water sources are unlikely to be needed once the sediment basins are established. In the event that the onsite water sources are insufficient to meet firefighting needs, non-potable water can be purchased. With the inclusion of the recommended bushfire management conditions, the proposal is able to satisfy the *Bushfire Hazard Overlay Code*.

Extractive resources overlay code

The primary purpose of the *Extractive resources overlay code* of the Planning Scheme is to protect extractive resource areas and transport routes, and minimise the potential for land use conflicts between extractive industry operations and other activities. Hence, provided the proposed quarry operates within the identified Resource/Processing Area (ie. the solid red area in the image below), then the code is met. The (State) lease area able to be quarried is well within the mapped Resource/Processing Area and therefore, the proposed operation would not encroach into the identified Separation Area. The proposal complies with the Code.

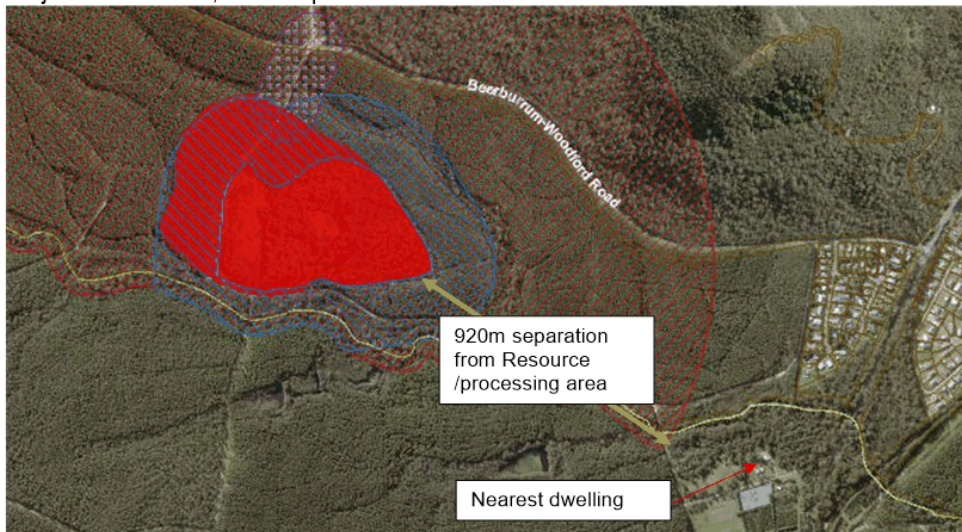
Extractive Industry (Use) Code

Performance outcome PO5 of the Code states that an *... extractive industry is located on a site which has sufficient area to provide for adequate setback of operations from road frontages, site boundaries, surrounding residential uses and other sensitive receptors, such that the extractive industry achieves an acceptable standard of visual amenity and control of noise, light, dust and vibration impacts.*

Acceptable Outcome AO5.1 of the Code states that hard rock extraction and processing should not occur within 1.0 km from any residential premises as a 'deemed to comply' solution for meeting Performance outcome PO5 of the Code. As the image below shows, the resource Separation Area is approximately 920m from the mapped Resource/Processing Area. However the nearest residential premises is located a further 270m from the edge of the mapped Separation Area. Hence, the nearest dwelling (at 508 Eaton Road, Elimbah) is approximately 1.2km from the proposed quarry (Resource/Processing Area). The proposal is therefore considered to meet the Acceptable Outcome of the Code. Even if one were to consider the north-western boundary of 508 Eaton Road (rather than the actual dwelling), it would be some 920m from the Resource/Processing Area. It is considered that this still satisfies the associated Performance outcome of the Code as it provides adequate separation from sensitive receptors, *such that the extractive industry achieves an acceptable standard of visual amenity and control of noise, light, dust and vibration impacts.*

It must be noted that potential environmental impacts such as noise, dust and vibration are the assessment responsibility of the State Government through their concurrence agency

assessment and Environmental Authority. In this case that State has approved the development subject to conditions, and this provides further reinforcement that PO5 is able to be achieved.



Height of buildings and structures

Due to the size of some of the machinery anticipated to be on site, the work shed and screening machinery is proposed to be taller than 8.5m in height stipulated in the *Height of buildings and structures overlay*. However, the proposal satisfies Performance outcome PO1 of the Code in that it exempts a structure for an extractive industry or rural industry in the Rural zone from needing to comply with the nominated height.

Visual Impacts and Amenity

The site is located about 400 metres into the pine plantation off Beerburum-Woodford Road and the proposed operation would therefore be generally screened at ground level in all directions by the surrounding pine plantation and the existing remnant vegetation corridors along the drainage lines. Moreover, proposed extraction would be via the 'receding rim' method, whereby the extraction progresses in a top-down approach to maintain local high ground between the operation and surrounding areas. Accordingly, any visual impact from the proposed quarry pit is likely to be most obvious from elevated positions, the nearest being Mt Beerburum, which has a viewing platform at its top.

HQ Plantations advised that the pine plantation surrounding the quarry site is likely to be harvested somewhere around 2025/2026 and then subsequently replanted. Given the progression of quarrying on the site is proposed to occur from west to east, existing vegetation will likely remain on the eastern part of the site when the pine trees are harvested, thereby retaining a visual screen to areas generally to the east. Once extraction of the eastern part of the quarry occurs, it is anticipated the replanted pine forest would then likely have reached a suitable height to again provide some visual relief. In addition to this, the native vegetation within the drainage lines surrounding the quarry pit will likely assist in screening the operation. Nonetheless, given the degree of uncertainty surrounding the dates of harvesting which is outside the control of both Council and the applicant, to ensure adequate visual screening is achieved a condition is recommended to require a 10m buffer of vegetation within the site to serve as an additional precautionary visual buffer should the pine forest ultimately be unable to provide suitable screening.

The final landform would represent a series of quarry benches, approximately 12 metres in width and 15 metres in height, which would need to be rehabilitated as they become terminal. Typically rehabilitation can range from simply carrying out stability works, provision of topsoil and grass seeding, or to the planting of vegetation on the respective benches. Nonetheless, conditions of the State Government's Environmental Authority, in addition to recommended rehabilitation conditions in this report, will ensure rehabilitation to terminal benches occurs throughout the life of the operation.

The site and surrounds are identified in the Strategic Framework as *Regional Inter-urban break* and as a *High value scenic area* on Map SFM6 (refer extract below).



Theme 6 - (3.8.1 - Element 1) states: *...Regional and sub-regional inter-urban breaks are not reduced, fragmented or otherwise adversely impacted by urban or rural residential development. A relevant key concept of the Theme is for the protection of prominent landscape features so that they remain intact and undiminished with high levels of scenic and cultural significance and that the individual character and diversity of rural settings and communities is also recognised and respected.*

The proposed quarry is not considered typical urban development. Likewise it is not considered a prominent landscape feature. Nonetheless, like all towns, Beerburrrum has an *individual character of urban and rural residential areas*. Even though the quarry pit would not likely be visible due to the surrounding pine forest and riparian vegetation along the drainage lines, the operations resulting from it may create a different perceived character and identity in the town. While the perceived identity and character of the area may change (to some degree), this alone is not sufficient to result in failure of the application when balancing the other considerations discussed in this report.

Visual amenity impacts are not likely to be great with respect to the general locale. As far as amenity is concerned, it is likely to be the change in traffic (volumes and type) that would most affect a person's perception of the proposed use. Amenity had been described in recent court judgement as *'the standards of comfort and enjoyment which are to be expected by ordinary people'*. The perceived amenity will likely change as a result of the operation of the proposed use (particularly in times of higher production output). However, the recommended conditions, such as restricting the number of haulage vehicles using the roads and requirements for additional screen plantings along public roads would assist in reducing the amenity impact to the locale. Traffic and amenity impacts are discussed later in this report.

Blasting

The applicant states that blasting is proposed to occur on an 'as needs' basis and would be dependent upon demand and production requirements for the site. The applicant suggests that blasting is only envisaged to occur a few times a month but more frequently in the early set-up stages and that it would only occur between 9am to 5pm, Monday to Friday. Explosives would not be stored on-site, but would be transported onto the site for immediate use by a blasting contractor, as required. Blasting activities are regulated by the *Department of Environment and*

Heritage Protection via Environmental Authority (BRID0013) and have been conditioned to only occur between 9am to 5pm, Monday to Friday. It also includes conditions that regulate overpressure, noise and vibration, as well as requirements for monitoring. No additional conditions pertaining to blasting activities are recommended to be included as part of Council's assessment as this is a jurisdictional matter for the State and its enforcement.

Noise & Air Quality

The applicant states that the potential for dust impacts from the operation is expected to be minimal given the considerable distance to the residential dwellings towards the east, the surrounding pine plantation forest and the existing remnant vegetation corridors along the drainage features separating the proposed operation from these dwellings. The applicant also states that the method of extraction proposed (being 'receding rim') will maintain topographic buffers between the noise generating activities and surrounding areas (ie. the upper benches created during excavation will act as acoustic shielding to external receivers). Nonetheless, the applicant proposes the following measures to mitigate noise leaving the site:

- Regular maintenance of plant, vehicles and equipment;
- Avoiding unnecessary revving of engines;
- Shutting down equipment when not in use;
- Ensuring that any extraneous noises are rectified;
- Maintaining haul roads and hardstand surfaces in good condition; and
- Avoiding the use of compression braking on product delivery in residential areas.

In relation to minimising dust emissions, the applicant proposes mitigation measures such as wetting down working areas/internal haul roads, and limiting activities where weather conditions are unfavourable to dust suppression, as well as covering loads when leaving the site.

It is important to note that dust and noise emissions are regulated by the State Government through their Environmental Authority. Conditions are included in the Environmental Authority (BRID0013) that seek to regulate dust/particulate and noise emissions. It also requires that the operator undertakes noise monitoring while the site is operating. As these requirements are under the control of the State Government, it is not recommended that any further controls be imposed by Council as this would create unnecessary overlapping enforcement obligations. However, these controls effectively only relate to the quarry site itself. There is no control or conditions imposed by the State Government to regulate dust control while transporting material on public roads. It is considered prudent that laden vehicles leaving the site have their load fully covered prior to leaving. A condition is recommended to achieve this.

Hydrology / water Quality

Council's Engineer assessed the stormwater aspects and advises that the site is situated at a local high point, and thus does not receive much (if any) runoff from external properties. The site is also not flood prone. Any area of the site that does receive external runoff must adequately divert and discharge that runoff separately past the site works, such that the runoff does not mix with on-site runoff. Council's Engineer has recommended a condition be included that ensures that stormwater is lawfully discharged. The State Government's Environmental Authority includes specific conditions of approval related to site stormwater as water quality falls under the assessment jurisdiction of the State. Council's engineer is of the view that the State's conditions for water quality are achievable in this case.

Aboriginal cultural heritage

In July 2016, the applicant engaged Archaeo, Cultural Heritage Services to undertake a Cultural Heritage Assessment in association with the local Aboriginal representatives. The Report states that Archaeo met on site with a representative of the Kabi Kabi People. The Report recommends that the operator develop a procedure to deal with incidental finds and that where

any materials of cultural heritage significance is located, that all activities should cease and the Kabi Kabi People notified as soon as possible thereafter.

Despite this, it is important to note that under the *Aboriginal Cultural Heritage Act*, consideration of cultural heritage matters is a separate process to the development assessment process under the *Sustainable Planning Act*. It is the responsibility of the applicant/developer to ensure they meet their obligations under the *Aboriginal Cultural Heritage Act 2003*. Therefore, while it is recommended that the operator be conditioned to follow the recommendations of the Cultural Heritage Assessment in this instance, it is their obligations under the *Aboriginal Cultural Heritage Act 2003* that the applicant must follow.

Haulage / traffic amenity Impacts

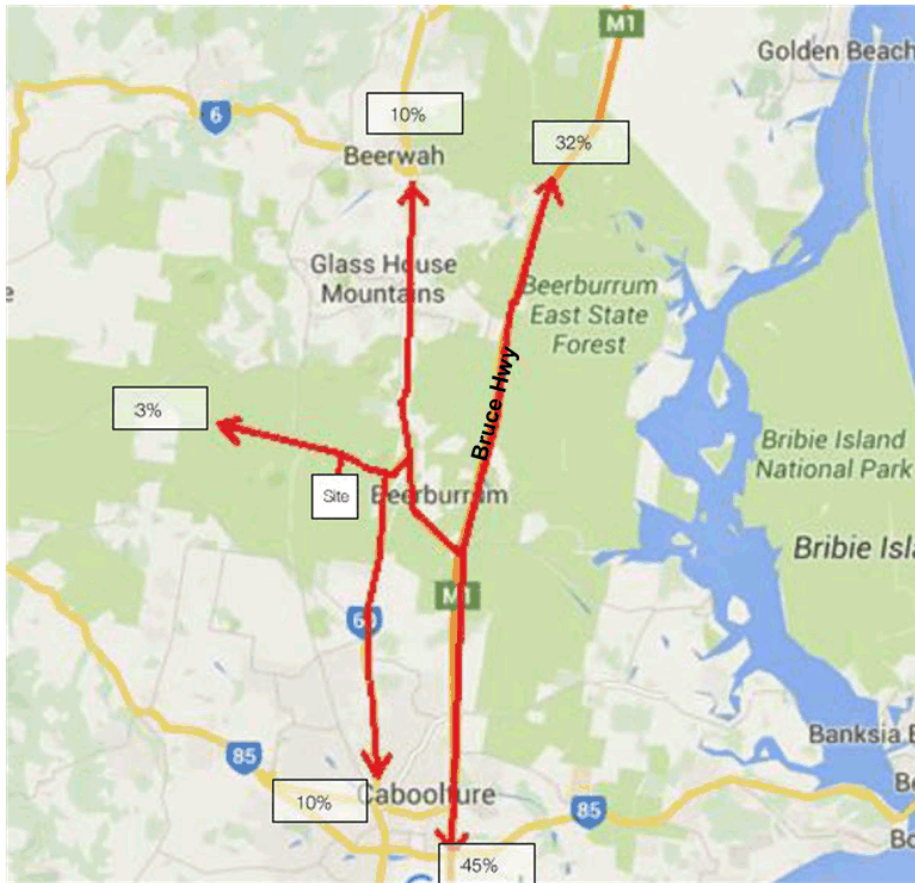
Haulage route

Typically KRAs have a nominated haulage route identified as part of the KRA within the State Planning Policy. However in this case, because the site has immediate access to a higher order road (Beerburrum-Woodford Road), the nominated haulage route only extends from the quarry pit to this road. Hence, the State Planning Policy has not identified a preferred haulage route (along the public road network) for the identified resource. The applicant proposes to use Beerburrum Road for the most part as it provides the most direct route to the major transport corridors of Steve Irwin Way and the Bruce Highway. Officers from the Department of Transport and Main Roads (DTMR) have advised that Beerburrum Road is an approved B-double route, so it is considered suitable to carry the heavy vehicle traffic proposed/anticipated. DTMR has assessment jurisdiction over Beerburrum Road because it is a State controlled road. In their concurrence role, DTMR have approved the use of the proposed haul route. It is noted however, that the DTMR only assesses impacts upon safety and efficiency of the corridors. Accordingly, DTMR have provided conditions requiring some upgrades to the Beerburrum-Woodford Road / Beerburrum Road intersection, via provision of a right hand turn lane for southbound traffic turning west into Beerburrum-Woodford Road. No other improvement works have been specifically conditioned by DTMR.

As above, the State Government in its assessment jurisdiction does not generally take into account amenity impacts along their road corridors resulting from development, but rather, only safety and efficiency matters. Council officers raised concern with the proposed haulage route as it traverses past residential areas and a school. In this regard, both the applicant and Officers undertook separate investigations into whether there was any opportunity to provide an alternate haulage route that avoided these sensitive areas. Both investigations revealed that there are very few alternate route options available and that none are physically or feasibly able to be achieved (ie. other routes are either not possible to construct to the necessary standard, add excessively to travel distances or otherwise would impact on the same or a greater number of sensitive uses). As such, the proposed haul route is determined to be the only feasible option in this case. Nonetheless, it is recognised that appropriate consideration needs to be given to protecting the amenity of the surrounding area, such as by limiting the amount of heavy traffic using the roads and by requiring safety and amenity improvements along the haul route and the covering of loads. This is discussed further below.

Proposed Traffic distribution

The proposed distribution of haulage trucks to and from the site is represented by the image below. It shows that 55% of extracted material is expected to be sent south into Moreton Bay Shire and the remaining 45% north into the Sunshine Coast. In terms of traffic amenity impacts, this means that 97% of truck trips will traverse past the residential houses located adjacent Beerburrum-Woodford Road and that around 79% of those trips would then traverse through the township on their way to the Steve Irwin Way.



Rate of production and traffic impacts

Haulage is proposed via either truck, truck and dog, or semi-trailer (including b-double) configurations, but it is anticipated that it would occur predominantly via truck and dog combination. The traffic report submitted by the applicant models the average truck load as 31.6 tonnes. The applicant states that the annual rate of extraction is expected to fluctuate throughout the life of the quarry, which is generally a result of external forces, such as regional development, major infrastructure projects and the building and construction industry more generally. Hence, the applicant purports that the imposition of a set limit to the annual extraction volumes is not practical or feasible, as operational flexibility is required to enable supply to project based activities and to respond to market demand.

The impacts of production /extraction is intrinsically linked to heavy traffic generation and it is the haul truck traffic that will likely create the most notable off site amenity impact in this case. The quarry is proposed to operate between the hours of 6am and 6pm Monday to Friday and from 7am to 1pm on Saturdays. The applicant has applied for Environmentally Relevant Activities of greater than 1 million tonnes per annum (hereafter referred to as 'mtpa').

Based on an output of 1mtpa, the resultant average haul trips generated would be as follows:

- Beerburrum–Woodford Road (at site entrance): 230 trucks per day (115 each way);
- Beerburrum Road (north of Beerburrum–Woodford Road): 200 trucks per day (100 each way);
- Beerburrum Road (south of Beerburrum–Woodford Road): 23 trucks per day (11.5 each way).

This means that up to 223 quarry trucks would travel past the residences on Beerburrum–Woodford Road per day, with 200 of these then travelling past the school and township. This equates to approximately 19 additional trips per hour generated by the proposed use compared to existing traffic. However, this volume is not expected to occur until the proposed output of 1mtpa is reached (which, if approved, may be at least another 10 years), with the first year of operation anticipated to extract 75,000 tonnes generating less than 2 truck trips per hour. This is in addition to the existing 176 trucks that currently travel this route per day (including logging trucks). It should be noted that these estimates are averages only. The volume of material hauled and subsequent truck movements may be more or less on any given day depending on demand and operational considerations.

The traffic assessment provided by the applicant concludes that the heavy vehicle traffic generated by the quarry would result in an increase in the volume of heavy vehicle traffic currently using that route of between 11% and 16%. However, this varies depending on the output. In the early years it will be considerably lower at around 4%, whereas it would be expected to be much higher in 20 years (although it is important to note that general background traffic would have also increased by that time). Nonetheless, the increase in heavy vehicle generation is likely to be noticeable once production outputs increase.

Haulage impacts upon amenity

The applicant is seeking to have an unlimited production output which could be greater than 1mtpa. The two nearest operating hard rock quarries, Hanson and Holcim (Sunroc), have maximum output limitations of 650,000tpa and 700,000tpa respectively (as imposed by Council development approvals). The Holcim (Sunroc) quarry is proximate to the Steve Irwin Way and does not involve heavy vehicles traversing past residential areas / townships. It is noted that the haulage trucks from the Hanson (Glasshouse) Quarry (on Old Gympie Road) traverse through the township of Glasshouse.

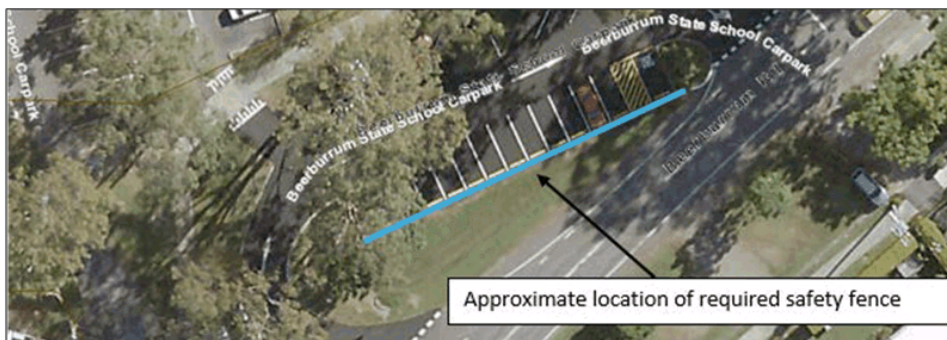
Given the above considerations and the fact that the proposed Beerburrum quarry haulage trucks would traverse the township and the school, it is considered that permitting a constant/perpetual extraction output of 1mtpa would create a noticeable change in the volume of heavy truck movements in the area and would therefore, likely create amenity impacts upon the town. Hence, it is recommended that a production limit of 700,000 tonnes per annum be applied to the development (which is consistent with the current maximum limit applied to Sunroc). To reduce the potential impact further, it is recommended that a weekly limit or cap be applied to the number of haulage vehicles using the haulage route to coincide with the above output limit. Conditions are included in the recommendation accordingly. In terms of enforcing this requirement, a further condition is also recommended that the operator keeps a log of trucks leaving and entering the site for this purpose.

A further consideration is the impact upon school children given the Primary School is located on the main haulage route. This is also one of the main concerns of the objectors to the proposal. To address this issue, the applicant proposes that a 'Code of Conduct' would be instituted that requires truck driver's adherence. In particular, it proposes the following measures to be enforced by the quarry site manager:

- Driving in a safe and professional manner;
- Vehicles to be maintained in good working order;
- Drivers to minimise noise;
- Drivers must adhere to speed limits;

- Accidents /incidents to be reported ASAP;
- Number plates to be visible at all times;
- Drivers to comply with the 40km/h limit during identified school peak times; and
- Drivers to take care passing stationary school buses.

However, these measures are already either legal or good driving behaviours and do not sufficiently address the concerns raised. Hence, further measures or controls are necessary to address the concerns around safety at the school road crossing. It is noted that stopping sight distances for heavy vehicles at the school crossing in front of the Beerburum State School surpass the minimum requirements. It is recommended that the developer install a barrier (fence) between existing school parking (drop off) area and Beerburum Road. The car parking in question is located close to the road (in the road reserve). Refer image below. It is noted that there are 'no standing' signs situated along stretch of Beerburum Road.



To further address concerns around haulage truck safety around the school, it has been recommended by Council's Transport Policy Branch that in order to further improve safety and reduce risk that the development be required to install a set of pedestrian traffic signals at the existing school crossing, in addition to pedestrian traffic signals near the intersection of Beerburum Road and Beerburum-Woodford Road. The installation of traffic signals at the school crossing is considered a superior option in lieu of completely restricting haulage during peak school drop off/pick up periods (ie. 9am and 3pm). Conditions have been recommended accordingly.

Beerburum-Woodford Road

Beerburum Road is a State controlled road and DTMR have jurisdiction over the safety and efficiency matters pertaining to their network. However, being a local (Council) road, Beerburum-Woodford Road and its intersection at the proposed quarry entrance, has been considered by Council's Traffic Engineer during assessment of the proposed development. Council's Traffic Engineer has advised as follows:

The applicant has identified that available sight distance at the existing site access driveway from Woodford Beerburum Road, in particular to the east, is less than the desirable minimum for a 100km/h speed limit. The applicant has suggested extending the 60km/h speed limit at the eastern end of Woodford-Beerburum Road (by relocating the speed limit sign 1.5km to the west) to improve the situation. However, increasing the length of a lower speed limit for such an extended distance is inconsistent with speed zoning requirements and is likely to be poorly observed by motorists. Moreover, the process of changing speed limits is not simple and reviews are required to be prepared in accordance with established guidelines and referred by the local authority to the speed management committee (a process that could still be undertaken by Council at any time in future should the need arise). In this case, the most appropriate method of improving safety at the driveway access intersection would be to increase available sight distance, which can be achieved by

removing some trees and undertaking minor earthworks on the southern side of Woodford Beerburrum Road.

Conditions are recommended to require an increase in the sealed width of Beerburrum Woodford Road in narrow parts between the site and Beerburrum Road, as well as intersection widening at the site access point and at the Beerburrum Road intersection. It is also recommended that a pedestrian refuge island be installed at the Beerburrum Road intersection to improve the safety and convenience for pedestrians crossing Beerburrum-Woodford Road between existing pathways at this location.

Road Maintenance

The Department of Transport and Main Roads will receive monetary contribution (being 5c per tonne) for road maintenance purposes of their road network. The applicant's Traffic Report proposes a road maintenance contribution of 1c per tonne to be provided to Council (for Beerburrum-Woodford Road). It is noted that it is not lawful under the *Sustainable Planning Act 2009* for a local government to impose a condition requiring payment of monetary contribution for the maintenance of haulage roads, despite some older approvals requiring such under older legislation. The State is able to impose haulage contributions under the Transport Infrastructure Act. However, the legislation does not prohibit a local government from requiring road upgrades. Council's Traffic Engineer recommends conditions requiring upgrades to Beerburrum-Woodford Road (ie. carriageway widening and intersection works as described above). Such works would be required to occur prior to the quarry commencing operation.

Consideration of Need

The site is identified as a Key Resource Area (KRA) under the State Planning Policy and, also as a Local Resource Area by the Planning Scheme. Hence, the subject land's potential to provide a hard rock resource is identified by these legislative documents. The purpose of these measures is to protect the identified resource from encroachment by 'incompatible' uses that could otherwise jeopardise its unfettered extraction. Approval to extract the resource is dependent on the assessment of whether any site constraints and external impacts can be eliminated or adequately mitigated.

In terms of the Planning Scheme, Theme 7 of the Strategic Framework seeks to preserve the ongoing supply of non-renewable natural resources from local sources and recognises the contribution natural resources make to the regional economy through the *supply of base materials for construction and infrastructure*. Although, it also acknowledges that *those natural resources which are not suitable to be exploited due to the potential for significant adverse amenity or environmental impacts on existing or proposed communities remain undeveloped*.

Given the subject land has been identified as suitable hard rock resource (by both the State Planning Policy and the Planning Scheme), its extraction would satisfy Theme 7 of the Strategic Framework by providing a local source of material that would also contribute to the regional economy by supplying material for the construction industry. Nonetheless, a market need for the resource should be demonstrated to ensure it is necessarily required to service its catchment area.

Need assessment for quarries typically considers the demand for the product and compares it with the supply within a defined radius/catchment area to understand whether or not a market is being well serviced. Other factors, however, need to be taken into account, including:

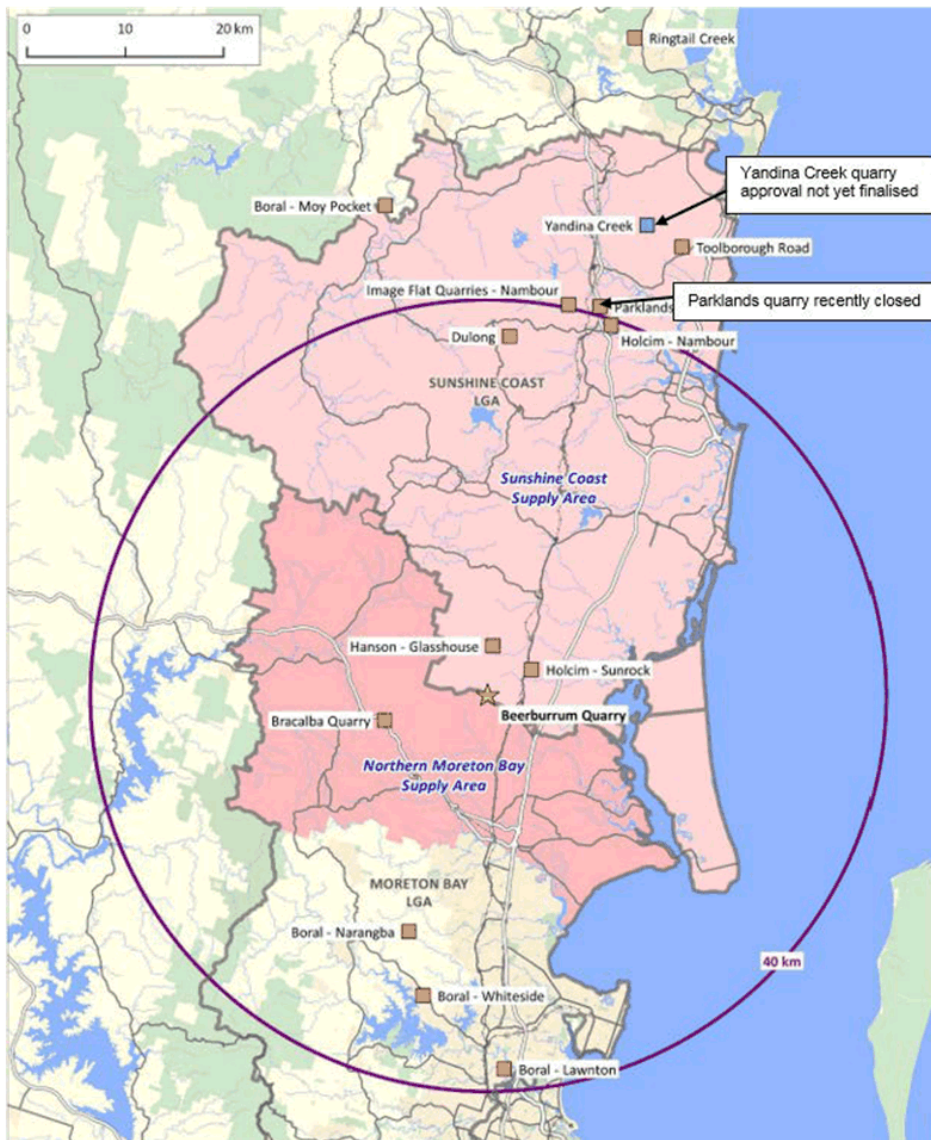
- Accessibility to major freeways and highways;
- Vertical integration (ie. manufacture concrete or asphalt on site as well as quarry) of companies and the direct supply of quarrying materials;
- Improvement in transport, reducing the cost of transport for low value goods;
- Competition within relevant markets.

The applicant provided an Economic Need Assessment. The Assessment considered existing hard rock quarries operating within a specified catchment area. The main findings are explored below. Officers subsequently sought a peer review of the submitted assessment.

Other hard rock KRA's within and around the shire

The Sunshine Coast LGA contains nine (9) rock quarry KRAs, of which five (5) are currently under operation, two are undeveloped (Yandina Creek and the subject Beerburrrum KRA) and two (2) are now closed (Toolborough Road (Boral) and Parklands (Suncoast Holdings)). Boral's Moy Pocket quarry, although located in the Gympie Regional Council LGA, is considered to be a Sunshine Coast resource as it lies on the border of the two LGAs, and a large portion of its product is sold within the Sunshine Coast.

Due to the subject site's location on the southern border of the shire, its identified trade area of the proposed quarry extends well into the adjacent Moreton Bay shire. Three (3) hard rock quarry KRAs are located in the Moreton Bay LGA and all are currently in production. These are Bracalba (BCC), Whiteside (comprising two quarries – Holcim and Boral) and Narangba (Boral). The image below generally depicts the location of these quarries along with the proposed trade area for the proposed quarry (purple circle).



The applicant proposes that about 45% of the extracted material from the proposed quarry would be distributed north to serve central and northern part of the Sunshine Coast, while 55% would be distributed south to serve the Moreton Bay LGA.

Projected Supply and Demand

The applicant’s need assessment estimated that the hard rock demand in the defined Sunshine Coast and northern Moreton Bay supply area was 2.9mtpa in 2016. In terms of supply/production, it is estimated that the 2016 output of the Sunshine Coast and northern part of the Moreton Bay LGA areas is at around 3mtpa. This includes around 1.3mtpa from Moy Pocket (Boral) in the Gympie LGA as well as, small amounts from Bracalba (around 75,000 tonnes per annum) operated by the BCC. Thus, almost half of the current supply was coming from sources external to the Sunshine Coast LGA. Nonetheless, it appears that quarry production was generally meeting demand on the Sunshine Coast in 2016.

However, it is estimated by the applicant that at least a further 1mtpa will be required (being a total of approximately 4mtpa) to meet demand in 2026. Existing quarries within the Sunshine Coast LGA are currently producing about 1.6mtpa. Hence, additional resources will continue to be required, either via the expansion of existing quarries and/or from sources external to the Sunshine Coast LGA (such as Moy Pocket and Bracalba quarries). The applicant's assessment estimates that by 2026, demand will exceed all currently utilised resources, even with supply from external sources.

In terms of unexploited resources within the Sunshine Coast LGA, there are three main sites, being Holcim - Bli Bli, Yandina Creek and Sunrock (near Beerburum). The Holcim - Bli Bli quarry (Cooney Road) was only producing around 200,000 tonnes per annum as at 2016, but has approval to expand to 690,000 tonnes per annum, which could extend for some 40 years. However, the identified expansion area is constrained (by vegetation and topography) and it appears that the extent of works required is delaying Holcim from expanding production outputs.

Yandina Creek (KRA54) is another identified hard rock resource which, while approved, is still the subject to final approval by the Planning and Environment Court. The quarry is intended to be the replacement for the recently closed Parklands quarry. The proposal was for the extraction of up to 500,000 tonnes of hard rock per annum. Protracted negotiations have delayed final approval of the quarry and significant upgrade works are likely to be required to the haulage route before this quarry can commence operations. Hence, it is currently not known when this quarry will commence operation.

The Sunrock quarry is located at Beerburum, east of the Steve Irwin Way. It is located on State land and currently produces some 700,000 tonnes per annum, but has a current approval to expand production up to 1.1mtpa (along with some upgrade works), which has not yet been acted upon.

As it currently stands, none of the above three quarries are able to (immediately) expand to enable further material to be provided, without the need for substantial upgrade works. Further to this, it is important to note that the background data (production figures) used in the applicant's need assessment is already more than 2 years old. At the time of preparing their need report in late 2017, the applicant argued that the *Burrum Key Resource Area is needed in the short term to assist in replacing the hard rock production of quarries recently closed (ie. Toolborough Road and Parklands), and in the longer term to support the strong population and economic growth in the Sunshine Coast region.* It also suggests that the two nearest hard rock quarries to the subject site, being Glasshouse (KRA48) and Sunrock (KRA51) (both located less than 10km from the subject site and currently producing some 500,000tpa and 700,000tpa respectively), collectively with Moy Pocket, will not be able to meet upcoming demand for hard rock resources within the Sunshine Coast market. This is despite the existence of the 'southern quarries' (Bracalba, Narangba and Whiteside). Less than 5% of the 1.5mtpa of material extracted from Bracalba is sold into the Sunshine Coast LGA and the Narangba and two Whiteside quarries are located too distant from the Sunshine Coast and *would have very little overlap with the proposed Beerburum quarry market.*

The peer review undertaken by Council's engaged economic expert also concluded that the 2016 data suggests a moderate demand or need for additional resources to serve the catchment area. However, that demand will increase over the coming years, especially where spikes in demand are driven by major projects, notably, Caloundra South (Aura), Palmview (Harmony) and the Maroochydore CBD, as well as the longer term projects such as the future Beerwah East area, Bruce Highway upgrades, and the Beerburum to Nambour rail duplication. These major projects are driven by population increase. In this regard, the applicant asserts that the Sunshine Coast LGA population is projected to increase to almost 0.5 million by 2041, which is an increase of around 191,000 people.

More recently, information received from local quarry operators and other information sources (local and state government) indicates there to be an immediate shortfall in the supply of quarry material in the Sunshine Coast LGA. In particular, it was advised that Hanson's, Glasshouse quarry was importing material from other quarries in the latter part of 2018 as demand had exceeded their 'approved' extraction limit for that calendar year. It is also understood that the other major local quarries are operating at their maximum allowable extraction limits. This (empirical) information suggests that demand may have increased since 2016. It appears that this need is currently placing significant demand upon the sourcing material from outside the shire.

Regionally vs locally supplied product

It is important to consider the effect that transport costs play in the delivered price of hard rock. The applicant states that transporting materials for longer distances implies higher prices, affecting construction material costs and in turn, the various construction industries. It is suggested that transport costs can range from 15% up to 65% of the total cost (depending on quality/value of the material being transported). In particular, it is noted that the proposed quarry is located proximate to major transport routes.

Sufficient grounds and policy conflicts

This report has discussed how the site's identification as both an environmentally important area (endangered vegetation) and a KRA presents a tension between the relevant policy objectives. That is, clearing the site's protected vegetation to utilise the identified extractive resource, neither 'avoids' nor 'minimises' the potential environmental impact. However, an alternative, balanced approach can be considered where in the interests of the community. In this case, Council's Ecologist agreed that, given the importance of exploiting identified extractive resources, the vegetation clearing proposed could be considered acceptable provided the vegetation offset (as required by the State) is provided within the Sunshine Coast LGA. The Strategic Framework states that the conflict can be overcome where offsetting *results in a net gain and enhancement to the overall habitat values of the Sunshine Coast.*

Judge Jones in the 2016/17 appeal between Boral and Gold Coast Council stated that *a readily available source of hard rock is a vital component of Queensland's building and infrastructure development.....and accordingly, there is a need to ensure such resources are identified, protected and exploited when appropriate. It is a characteristic of extractive industry that it can be practically located only where suitable deposits (which can be worked in an economically viable way) are to be found, it is in the community's interests that such deposits be availed of wherever possible.*

To the contrary, it also emphasizes that [just because] *a valuable state resource exists, however, does not mean that it must necessarily be exploited at this particular point in time. The benefit of exploitation at this time has to be balanced against other state interests.* In this case, it is considered that there is sufficient need for the resource to warrant its exploitation. Regardless, the site is recognised as a significant state resource to be protected and exploited.

In terms of the development being in the interests of the community, it is relevant to observe Judge Robertson's comments in *Parklands Blue Metal Pty Ltd v Sunshine Coast Council*, where he contends that *the question of whether a need is shown to exist is to be decided from the perspective of the community and not that of an appellant, or even objectors. A community consists of more than just particular members of it. ...Need does not connote a pressing urgency but relates to the wellbeing of the community. A use would be needed if it would, on balance improve the services and facilities available in a locality.*

In weighing up the competing interests in this case, it is considered that it would be in the interests of the greater community that the resource be exploited notwithstanding the loss of the site's vegetation.

External peer reviews

Officers engaged external consultants in the fields of Planning and Environmental Law, Planning and Traffic Engineering to undertake an assessment of the proposal. Their assessment and advice has assisted in formulating the recommendation of this report.

CONSULTATION:

IDAS Referral Agencies

The application was referred to the following IDAS referral agencies:

Concurrence

Department of Infrastructure, Local Government and Planning (SARA)

The department is a concurrence agency due to the following referral triggers:

- Environmentally Relevant Activities;
- State controlled road; and
- Development impacting on State transport infrastructure.

The department responded by letter dated 3 July 2018 providing conditions for the proposed development which include:

- payment of a monetary contribution per tonne of material hauled;
- upgrade works to the Beerburrum-Woodford Road / Beerburrum Road intersection to allow storage space for a b-double; and
- that the applicant enter into an agreement with the State to provide and environmental offset to counterbalance the significant residual impacts on the matter of state environmental significance being approximately 30.3 hectares of essential habitat'.

Third Party

As the site is proximate to the southern local government border, advice was sought from Moreton Bay Regional Council (MBRC). MBRC responded as follows:

The proposed quarry is located approximately 1.2km or more from the nearest Dwelling House in the Moreton Bay region, to the south-east of the site. There are four existing rural properties in this area containing Dwelling Houses. Should the Sunshine Coast Council approve the application, we request that the development be appropriately conditioned to ensure the residential amenity of Moreton Bay residents living in this area is protected and maintained.

A number of amenity considerations have been discussed through this report. The conditions provided in the Environmental Authority (ie. noise, air quality, blasting limitations, etc), as well as those recommended by this report, will assist in protecting the amenity of those residents.

Other Referrals

The application was forwarded to the following internal Council specialists and their assessment forms part of this report:

- Development Engineer, Engineering and Environment Assessment Branch
- Environment and Landscape Officer, Engineering and Environment Assessment
- Ecology Specialist, Engineering and Environment Assessment
- Urban Designer, Planning Assessment

- Traffic Engineering, Engineering and Environment Assessment
- Plumbing Specialist, Building and Plumbing Services
- Strategic Planning
- Quarry services
- Legal services

Councillors have been briefed throughout the application.

Public Notification

The application was publicly notified for the minimum 15 business days (from 5 July 2017 to 28 July 2017) in accordance with the requirements of the *Sustainable Planning Act 2009*. 182 properly made submissions and 7 not properly made submissions were received at the time the application was formally notified. Of the 189 total submissions received, 101 were against the proposal, 85 were in support and 3 were neutral. Approximately 86 of the 'against' submissions were from residents within the Beerburrum area.

It is noted that an additional 73 submissions were received in early November 2017 (3 months after the formal period ended). All of the 73 submissions were against the proposal and are proforma in nature. Three (3) of these were from Beerburrum addresses with the remainder scattered north and south of Beerburrum.

The following table provides a summary and assessment of the issues raised by submitters.

<i>Issues</i>	<i>Comments</i>
Haulage truck impacts to community and school	<p>The haulage route has been assessed by both DTMR and Council engineers and the road system is appropriate to allow safe haulage subject to conditioned upgrade improvements. The recommended conditions of this report aim to increase safety around the haulage trucks (ie. driver's code of conduct as well as a safety fence and pedestrian traffic lights near the school).</p> <p>There could be up to one truck passing through the town every 4 minutes. Noting this is only an average based on an extraction rate of 700,000tpa. However, this is not likely to be sustained for an extended periods due to the nature of the market and demand for quarry product.</p> <p>Truck stopping distances has been considered by both the applicant, the external Traffic Engineering consultant and Council's Traffic Engineer. The assessment took account of the different speed environments of the haulage route and found that there is sufficient visibility for trucks to adequately stop when required.</p>
Haulage truck noise	Conditions are recommend in this report to limit the hours of use and number of haulage trips to assist in reducing amenity impacts to residents resulting from truck noise.
Traffic congestion concerns (especially where delays occur on the Bruce Hwy)	Both Beerburrum Road and the Steve Irwin Way are under the control of DTMR. Queuing delays at this intersection is matter for the Department to consider. DTMR has assessed the proposal and approved the proposed haulage route.
Impact to road pavement	Given that the amount of heavy vehicle traffic on the proposed haul route will increase considerably due to the

<i>Issues</i>	<i>Comments</i>
	use, it is considered appropriate that the operator ensure the road is upgraded to a suitable condition to ensure it is safe for all users. Council only has jurisdiction over Beerburrum-Woodford Road. A condition has been recommended that this road be upgraded prior to the use commencing. The remainder of the haul route is under the control of DTMR.
Bridge on Beerburrum Road is substandard (too narrow)	This particular query was directed to DTMR whom control both the road and the railway. DTMR confirmed that the bridge is physically and structurally sufficient for the additional traffic envisaged.
Alternate haul route preferred	It is acknowledged that the haulage through the township is of concern to submitters. Investigations into any possible alternate haulage route has been thoroughly undertaken and no feasible solution was found. It is not feasible to construct a bridge crossing over the rail line, nor likely permitted by DTMR as it would compromise future rail line upgrades.
Dust, noise, vibration (blasting) impacts	The <i>Department of Environment and Heritage Protection</i> controls these matters via their Environmental Authority conditions. There are no dwellings located within 1km of the quarry pit.
Economic benefits to the region	It is likely that the use will bring economic benefits to the Sunshine Coast region, in particular the construction industry.
Site is suitably located away from residents	The quarry pit itself is well separated from residential uses. Despite this, there may still be some amenity impact from haulage.
Visual impact when pine trees harvested	It is acknowledged that the future harvesting of the surrounding pine plantation may cause the quarry to be partially visible to the immediate area in the period between harvest and its regrowth. It is recommended that a vegetation buffer be retained to assist in screening the development where the surrounding pine forest is ineffective in providing the necessary screening.
Already sufficient quarries in the area (lack of need)	Officers have determined that there is sufficient need for additional hard rock resources to service the current and future market.
Heritage listed national park	The national park is north of the site. The development will have no direct impact upon the National Park.
Application incorrectly advertised	Under the Planning legislation, it is the responsibility of the applicant to undertake notification in accordance with the legislative requirements. The applicant had declared that they had undertaken notification in accordance with the legislation.
Community was unaware of the existence of the KRA	KRAs are identified and nominated by the <i>Department of Natural Resources, Mines and Energy</i> and subsequently reflected in the State Planning Policy. The Department advised that the State Planning Policy was publically advertised in April to June of 2013 (by making a gazette notice and advertising in a State or regional newspaper in accordance with the requirements of <i>Sustainable Planning Act 2009</i>). It is noted that the Planning Scheme was advertised prior to this (October 2012).

<i>Issues</i>	<i>Comments</i>
Cultural heritage concerns	A Cultural Heritage Assessment was undertaken by the applicant which included consultation with the Kabi Kabi. Recommendations were included in the assessment to deal with cultural heritage matters on the site.
6 day per week operation is unreasonable. Tourists visit on weekends	Saturday morning operation is proposed until 1pm. Removing this Saturday operation may increase the amount of trucks during the weekdays. Overall, it is considered that Saturday morning operation should not create significant impacts for tourists.
Impact to property values	Under planning law, impact to property values is not a matter that can be considered as part of the assessment of development applications.

CONCLUSION:

The proposed development generally complies with the requirements of the planning scheme and does not raise any significant issues that cannot be addressed by reasonable and relevant conditions. The application is therefore recommended for approval.