

DEVELOPMENT ASSESSMENT REPORT
DEVELOPMENT APPLICATION 0328/16DA
EXTRACTIVE INDUSTRY (QUARRY EXTENSION)
LOT 550, DP1181369, 3367 SOLITARY ISLANDS WAY & Lot 76, DP752820, DIRTY CREEK

PURPOSE:

This report provides an assessment of Development Application 0328/16DA for Extractive Industry (Quarry Extension).

Approval of the application subject to conditions is recommended.

This report includes the following appended documents:

- Appendix A - Plans
- Appendix B - Section 4.15 Evaluation Report
- Appendix C - Schedule of Recommended Conditions

THE PROPOSAL:

The proposed development is an extractive industry with an extraction rate of 490 000 tonnes per annum. The development constitutes designated development pursuant to Clause 4(1) of the Environmental Planning and Assessment Regulation 2000.

Access for the development is from Solitary Islands Way (what is now Solitary Islands Way was the Pacific Highway when the application was lodged). The access road crosses a north eastern corner of the adjoining land to the east (Lot 76, DP 752820) which is land owned by the Crown. The Crown has provided owner's consent to lodgment of this application.

It is proposed to win and remove a total of 2 200 000 tonnes of material from the site. The material will be obtained by increasing the depth of the floor (where past quarry operations have occurred) and by some lateral expansion. The increases in depth for the quarry will result in excavations of approximately 60 metres in depth to a finished level of RL7. Expansion across vertical faces of the site will result in the finished quarry pit area being a total of 4.8 hectares in area.

The proposed operational area of the quarry is 8.5 hectares. This includes the active quarry areas (where material is being obtained from) and the area required for the storing, stockpiling and processing of the extractive materials. All associated plant, equipment, access roads and parking will be contained to this area.

The site has been used for quarry operations in the past. There is no record of any development consent for a quarry on the site amongst the records of Coffs Harbour City Council. Notwithstanding, Council holds records from the former Ulmarra Shire Council (now Clarence Valley Council) of a development application for a concrete block manufacturing plant on the site (DA 91/46). Evidence of past quarry operations was provided with that application.

It was accepted with that application that quarry operations could occur and continue on the site, in accordance with the existing use provisions of the Environmental Planning and Assessment Act for an extraction rate of 17000 m³ per year. This acknowledgement was formally recorded in the minutes of the Ordinary Meeting of the Ulmarra Shire Council held on Wednesday 20 November 1991. At that meeting DA 91/46 for the concrete block manufacturing plant on the site was determined.

Material will mostly be obtained by blasting then removal of the spoil by dozer and/or excavator. The EIS states that the frequency for blasting will depend on the need for material at the time, but that 'blasting is anticipated to occur at a rate of one blast each 4-6 weeks period'. A normal blast is described as generating approximately 40 000 tonnes of material.

The material obtained will be processed by on-site crushers and screens. There will be some storing of material on site before it is loaded into vehicles for transport from the site.

The EIS and other documentation provided with the application express an intention to bring waste concrete to the site and process this with the plant and equipment used for extracted material. This activity is not accepted as consistent with the proposed development as an extractive industry nor ancillary to an extractive industry. This matter is addressed further in the Issues section of this report.

Given the amount of material proposed to be removed from the site (total of 2 200 000 tonnes) and the proposed maximum extraction rate (490 000 tonnes per annum) the quarry could be exhausted in under five years. The EIS estimates a project life of between five and 25 years. For public interest reasons it is considered appropriate to limit the time period during which the development may operate to a maximum of 20 years (from the date of commencement).

The proposed hours of operation are 7:00 am to 6:00 pm for Monday to Friday and 8:00 am to 1:00 pm on Saturday. No quarry operations are proposed on Sundays or public holidays.

The majority of material will leave the site loaded in a trucks with a dog trailer. This vehicle combination has a carrying capacity of approximately 30 tonnes.

Figures provided in the EIS and traffic assessment documentation describe a peak extraction rate of 9000 tonnes of material per day. With each truck and dog combination (carrying approximately 30 tonnes) this will generate a total of 300 loaded trucks leaving the site per day. To achieve the total proposed annual extraction rate of 490 000 tonnes will necessitate significantly fewer daily loaded truck movements. For an estimated 220 operational days per year this will generate an average of approximately 75 loaded truck movements per day.

It is proposed to install a weighbridge within the internal haul route of the quarry floor.

Plans of the proposed development are provided at Appendix A.

THE SITE:

The development site when the application was lodged was Lot 24, DP 705683, 4003 Pacific Highway, Dirty Creek. Part of this site has since been acquired for the Pacific Highway. The description of the development site is now Lot 550, DP 1181369, 3367 Solitary Islands Way, Dirty Creek.

The development also involves the adjoining land to the east (Lot 76, DP 752820). This is land owned by the Crown. Access to Lot 550, DP 1181369 will be obtained over part of this land.

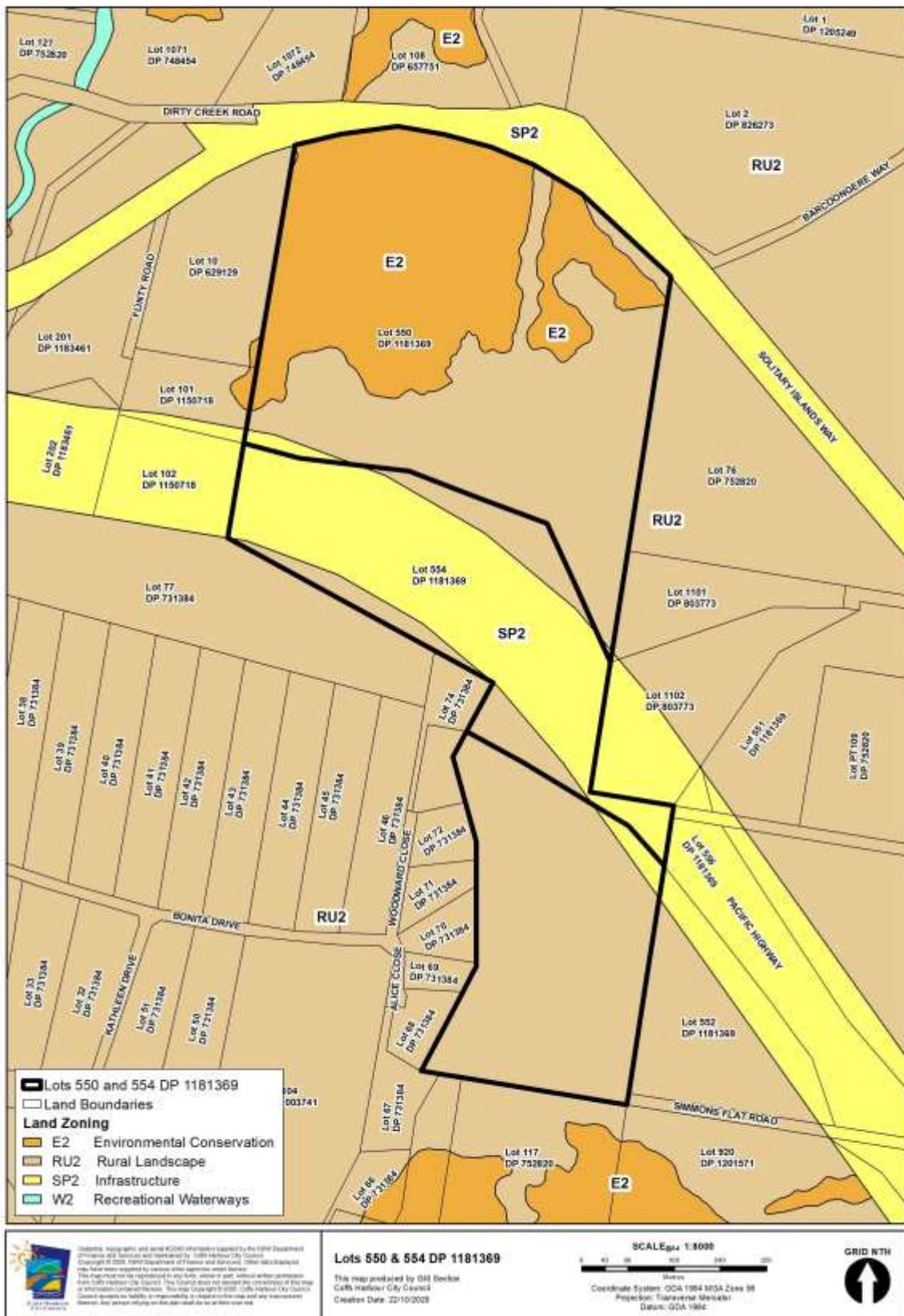
The site is located approximately 40 kilometres north of the Coffs Harbour City Centre and approximately six kilometres north of Corindi Beach. The site is irregular in shape and is (since partial acquisition for the Pacific Highway) a divided lot as the Pacific Highway divides the site into north and south portion. The extractive industry will be located on the northern portion. In addition to the Pacific Highway the site shares a boundary with 19 other properties. The total area of Lot 550 (both north and south portions) is 57.36 hectares. The north portion is 40.21 hectares. There is significant slope to the site with fall to the north over the northern portion. The site is mostly vegetated with past quarry operations over parts of the site that are not vegetated.

The majority of the site is zoned RU2 Rural Landscape and E2 Environmental Conservation under Coffs Harbour Local Environmental Plan 2013 with a very small portion of the site being zoned SP2 Infrastructure. An aerial photograph and zoning map of the site is provided on the following pages.

**LOT 550, DP 1181369, 3367 SOLITARY ISLANDS WAY, DIRTY CREEK
AERIAL PHOTOGRAPH**



**LOT 550, DP 1181369, 3367 SOLITARY ISLANDS WAY, DIRTY CREEK
COFFS HARBOUR LOCAL ENVIRONMENTAL PLAN 2013 ZONING**



CONSULTATION:

Statutory Advertising and Notification

The application was advertised and notified in accordance with the statutory requirements for designated development.

A total of three submissions were received during the public exhibition period. Two of these submissions were from the same person. A summary of the issues raised is outlined below:

- Blasting will result in impacts to the health and wellbeing of adjoining residents,
- The quarrying activities will result in dust impacts to adjoining residents,
- The development will impact on wildlife,
- The development will negatively affect property values.

State Government Referrals

The application was referred to the following State Government departments for their General Terms of Approval:

- Natural Resources Access Regulator – Controlled Activities Approval
- Environmental Protection Authority – Environmental Protection Licence

Their General Terms of Approval have been incorporated into the recommended conditions of consent at Appendix C.

The application was also referred to Transport for NSW for review and comment under the provisions of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. Their advice has been incorporated into the evaluation process.

Council Departments

Council internal departments have provided comment on the development proposal and their recommended actions/conditions have been incorporated into the evaluation process. No comments were provided that prevent approval of the application.

The application was referred to the following sections of Council:

- Development Assessment (Development Engineering)
- Regulatory Enforcement (Health)
- Local Planning (Biodiversity)
- Financial Planning (Developer Contributions)

STATUTORY MATTERS:

The following environmental planning instruments are relevant to assessment of this application:

- State Environmental Planning Policy No 55 - Remediation of Land
- State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007
- State Environmental Planning Policy (Infrastructure) 2007
- State Environmental Planning Policy (Rural Lands) 2008

- State Environmental Planning Policy (State & Regional Development) 2011
- Coffs Harbour Local Environmental Plan 2013.

Coffs Harbour Development Control Plan 2015 is also relevant to the assessment of this application.

Clause 20 State Environmental Planning Policy (State and Regional Development) 2011 declares the development specified in Schedule 7 to be regionally significant development.

Schedule 7 (7)(a) includes extractive industries, which meet the requirements for designated development under clause 19 of Schedule 3 to the Environmental Planning and Assessment Regulation 2000.

Given that the proposed development is an extractive industry identified as 'designated development' by the Environmental Planning and Assessment Regulation 2000, the proposed development is regionally significant development.

Section 4.5 of the Environmental Planning and Assessment Act 1979 specifies that the regional planning panel for the area in which the development is to be carried out, being the Northern Regional Planning Panel, is the consent authority in the case of development of a kind that is declared regionally significant development.

Section 4.15 of the Environmental Planning & Assessment Act 1979 (NSW) specifies the matters which a consent authority must consider when determining a development application. The consideration of matters is limited in so far as they must be of relevance to the particular application being examined. A Section 4.15 Evaluation Report is provided as Appendix B to this report.

ISSUES:

Traffic:

The application was accompanied by traffic assessment documentation. These documents describe expected traffic movements (both within the site and on adjoining public roads) and analyse the expected impacts on the existing road network. Both Transport for NSW and Council have considered the traffic impacts and traffic safety issues for the development. The main issue of concern for the development is the operation and function of the intersection of the development with Solitary Islands Way.

This required detailed consideration of the following aspects:

- Safe intersection sight distances,
- The direction/type of truck movements, the frequency of truck movements and times for truck movements,
- Need for an acceleration lane for left turning, northbound trucks,
- Appropriate intersection treatment.

While there are matters in dispute with respect to some assessment issues, it is considered that the proposed development will be acceptable subject to a number of recommended conditions. Conditions that are appropriate and recommended relate to:

- Construction of the quarry/Solitary Islands Way intersection to an appropriate standard (including construction of an acceleration lane for exiting, left-turn trucks).
- Restrictions on the direction that loaded trucks take when exiting the site and the route that loaded trucks follow within the public road network - Quarry trucks should

only turn left at Solitary Islands Way and then travel north along Solitary Islands Way to the Pacific Highway by the shortest possible route.

Given the intersection sight distances (and other inadequacies) at the quarry/Solitary Islands Way intersection, the development would not be acceptable without these intersection upgrade works and without these loaded truck movement restrictions.

There are further recommended conditions relating to:

- Installation of traffic warning and regulation signs,
- Limits on the number of daily truck movements,
- Restriction on truck movements to outside of school bus hours.

The development is considered unlikely to result in unacceptable traffic impact subject to the development being carried out in accordance with the recommended conditions.

This matter is addressed further in the following parts of Appendix B - Section 4.15 Evaluation Report:

- the likely impacts of that development, including environmental impacts, on both the natural and built environments, and social and economic impacts in the locality,
- any environmental planning instrument - State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 - 16 Transport
- any environmental planning instrument State Environmental Planning Policy (Infrastructure) 2007 - 101 Development with frontage to classified road:

Noise, Vibration, Blasting and Dust:

The original EIS documentation included an assessment of potential noise impacts. A further noise impact assessment was provided to address changes to noise conditions resulting from relocation of the Pacific Highway. The Pacific Highway was located where Solitary Islands Way is currently. The Pacific Highway is now located to the west of the proposed quarry operational area. This resulted in changes to background noise and reduced traffic volumes along Solitary Islands Way.

Noise from quarry operations will be produced from blasting, quarry material crushers and screens, earth moving machinery (including excavators, loaders and dozers) and truck movements.

The assessments have considered sensitive noise receivers and examined potential noise impacts against accepted noise emission standards. The reports conclude that both operational noise and road traffic noise are likely to be below accepted standards and that vibration impacts are expected to be negligible at the nearest sensitive receiver.

A number of recommended conditions are proposed to address potential impacts from noise and vibration. These include conditions that specify:

- maximum extraction rates,
- limits on truck numbers,
- noise limits for the development,
- hours of operation for quarry operations,
- require plant and equipment to be maintained in a state of sound mechanical repair, operated in a proper and efficient manner and located as close as possible to the quarry face.

The development is considered unlikely to result in any unacceptable noise and vibration impacts with imposition of these conditions.

The NSW Environment and Protection Authority have considered the development under the Integrated Development provision of the Environmental Planning and Assessment Act and provided general terms of approval and conditions. A number of these relate to blasting.

These include conditions that;

- require preparation and implementation of a blasting management protocol,
- stipulate limits for airblast overpressure,
- stipulate limits for ground vibration,
- limit the days and times that blasting may occur,
- limit the frequency for blasting.

Blasting operations associated with the development are considered unlikely to result in any unacceptable impacts with implementation of appropriate controls and measures as required by these recommended conditions.

The EIS outlines a number of mitigation measures which are proposed to address potential dust impact. The measures proposed are typical of those implemented in quarry operations. Given the circumstances for this quarry operation, including the fact that residences are some distance from operating quarry and processing areas, and the fact that the site is largely surrounded by vegetation, these typical measures are considered appropriate. Dust impacts resulting from quarry operations can be appropriately managed and mitigated with ongoing management. The recommended conditions of consent address potential dust impacts. The development is considered unlikely to result in unacceptable dust impacts with implementation of appropriate dust mitigation measures.

This matter is addressed further in the following part of Appendix B - Section 4.15 Evaluation Report:

- the likely impacts of that development, including environmental impacts, on both the natural and built environments, and social and economic impacts in the locality,

Natural Environment Impacts:

The quarry operations are proposed over parts of the site that are zones E2 Environmental Conservation and in areas that include existing vegetation. In addition, construction of an acceleration lane (within and adjoining the Solitary Islands Way road reserve) will require vegetation removal.

Documentation that assessed the impact of quarry operations was provided with the application. An assessment of the impact associated with construction of the acceleration lane has not been provided. This assessment was undertaken by Council.

On balance, it is considered that there is unlikely to be a significant effect on threatened species, populations or ecological communities, or their habitats. It is also considered that the development is unlikely to result in unacceptable impacts on the natural environment. A number of condition of consent are recommended to further mitigate impact.

This matter is addressed further in the following parts of Appendix B - Section 4.15 Evaluation Report:

- the likely impacts of that development, including environmental impacts, on both the natural and built environments, and social and economic impacts in the locality,

Monitoring, Reporting and Recording:

Given the scale of this development and potential for unacceptable impacts to occur with an unmonitored and unregulated development, measures to monitor, report and record on the operation (and its compliance with conditions of consent) are appropriate. The recommended conditions include requirements for:

- an annual report which describes operations that have occurred and details compliance or non-compliance with conditions of consent,
- records to be kept on the amount of material leaving the site and the type and number of loaded vehicles leaving.

These conditions are recommended to ensure that the operation occurs in accordance with any development consent.

Waste Material Proposed to be Brought to the Site

The EIS and other documentation provided with the application express an intention to bring waste concrete to the site and process this with the plant and equipment used for extracted material. This activity is not accepted as consistent with the proposed development as an extractive industry (which predominantly involves the 'winning or removal of extractive materials') nor ancillary to an extractive industry.

Waste concrete satisfies the definition of waste under the Protection of the Environment Operations Act. There are a number of matters that require detailed consideration and assessment with an activity of this nature involving waste.

This would include matters such as what happens with elements of the waste concrete that cannot be processed or reused, what happens with material that cannot be processed and how any material (that is proposed to be brought to the site) is determined as appropriate for the site (before its transport to the site). Other matters include the traffic generation associated with transporting the material to the site and possible removal of material from the site that cannot be processed. Other potential issues include how the waste material is managed on the site.

None of these elements have been adequately described, quantified or qualified and subsequently have not been assessed. Nor was this an element of development that was proposed in the original request for 'Director Generals Requirements' prior to preparation of the EIS. The development application is not for a waste management facility.

A recommended condition of consent states that the consent 'does not approve the processing of any material that is not obtained from the development site'.

Unauthorised Structures and Waste:

The site contains some buildings, structures and other waste over different parts of the site. This includes what appears to be disused industrial parts, tanks, machinery, drums, metal scrap and general rubbish. All buildings and structures (that do not have formal approval) and the waste, should be removed from the site and either recycled or disposed of at a licenced landfill. A recommended condition stipulates that this must occur.

Barrier Fencing to Adjoining Crown Reserve:

From aerial photography and detail provided with the application, quarry operations would appear to have extended into the adjoining crown reserve to the east (Lot 76, DP 752820). While this is clearly an existing situation, the potential hazard associated with this situation will be exacerbated with the proposed development given the extent of excavations proposed near this property boundary. A recommended condition of consent requires construction of barrier fencing, to prevent pedestrian access to the quarry operational area. Given the existing circumstances, the fencing will have to be located within the adjoining crown reserve (Lot 76, DP 752820). As this is works within another property this will require both the agreement and approval of the crown as the land owner. This aspect is also provided for in the recommended condition.

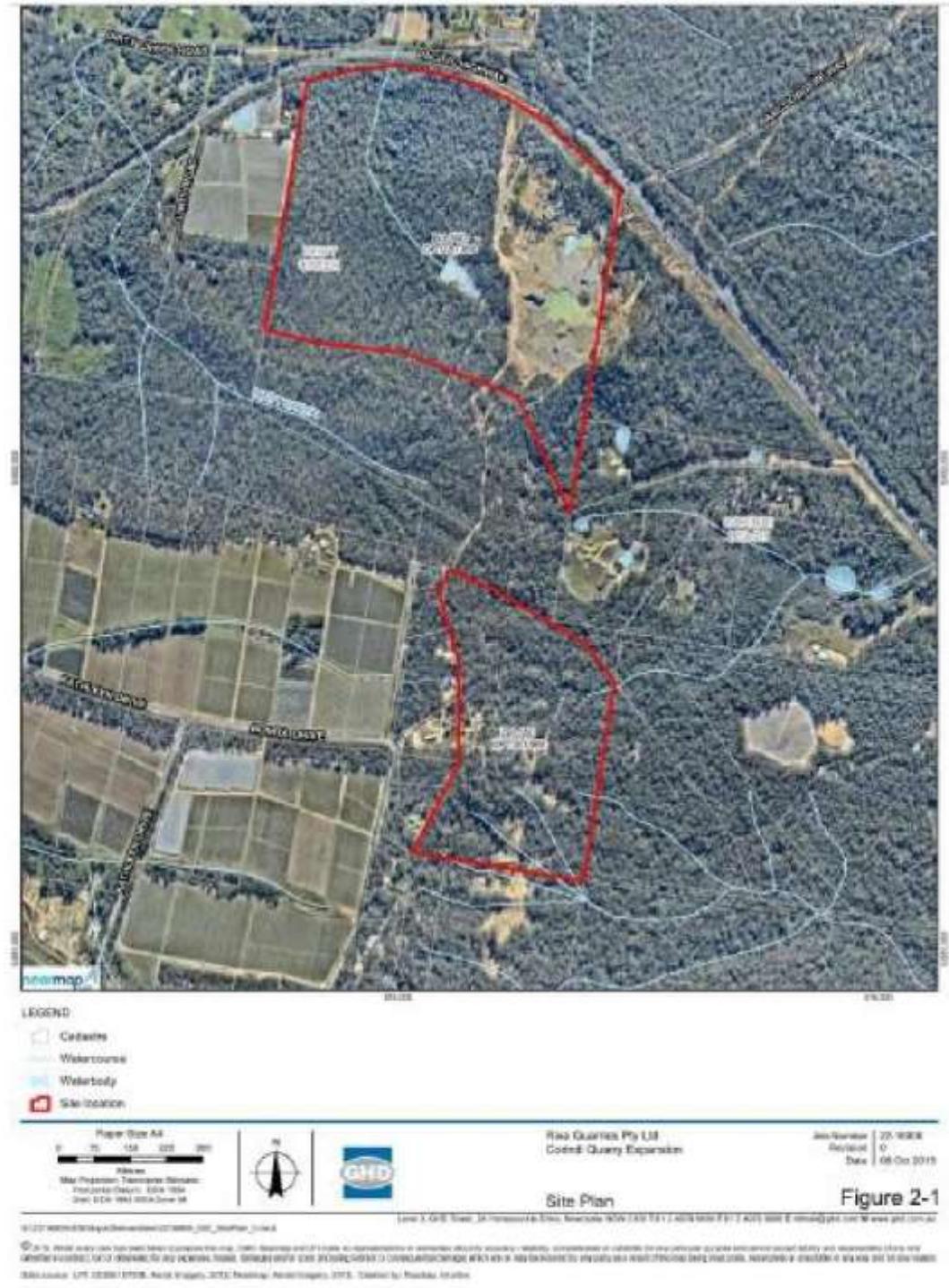
SUMMARY:

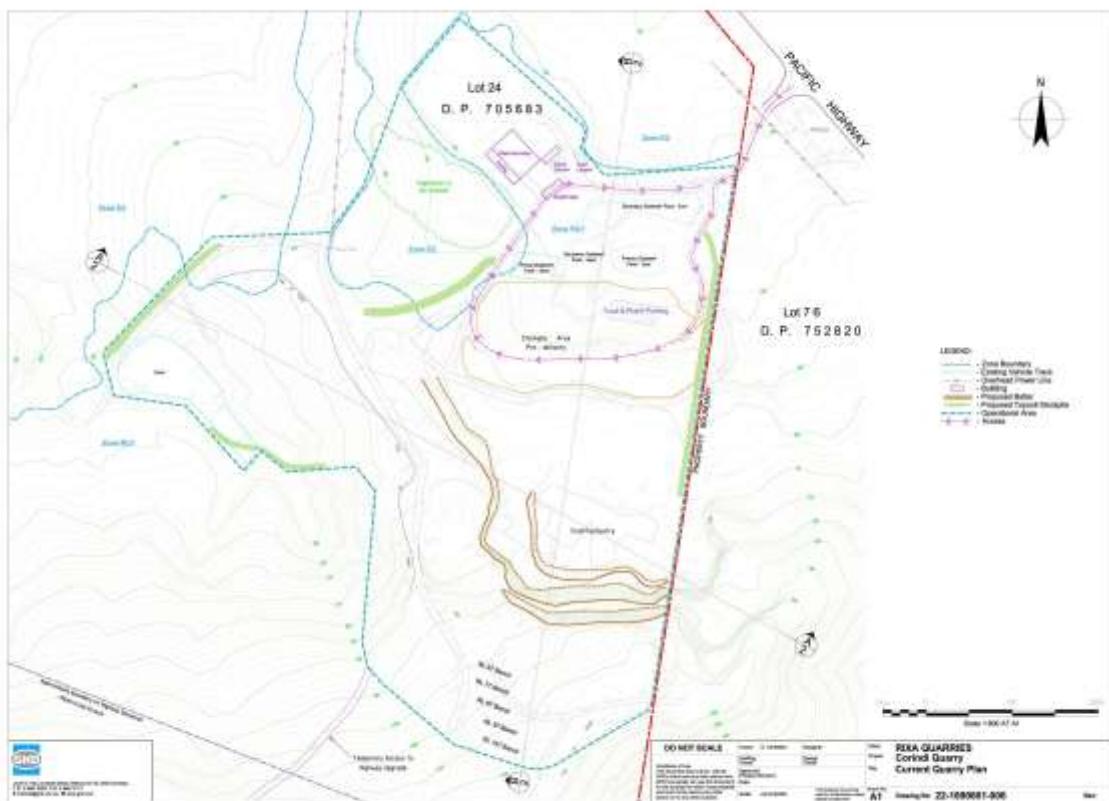
The proposed extractive industry is a substantial development with the potential to result in social and environmental impacts. A significant amount of documentation and assessment has been prepared, provided and undertaken. On balance, and in conclusion for this development application evaluation, it is considered unlikely that the development will result in unacceptable social and environmental impacts. It is recommended that the development application be approved subject to the recommended conditions of consent.

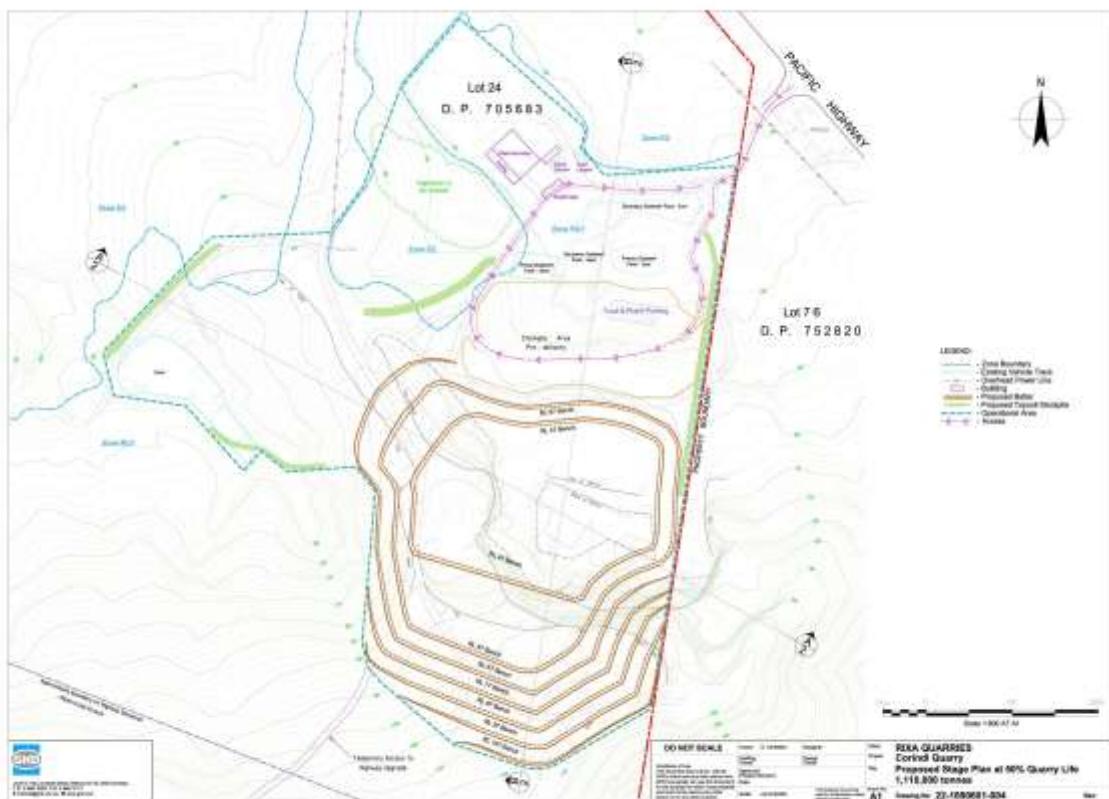
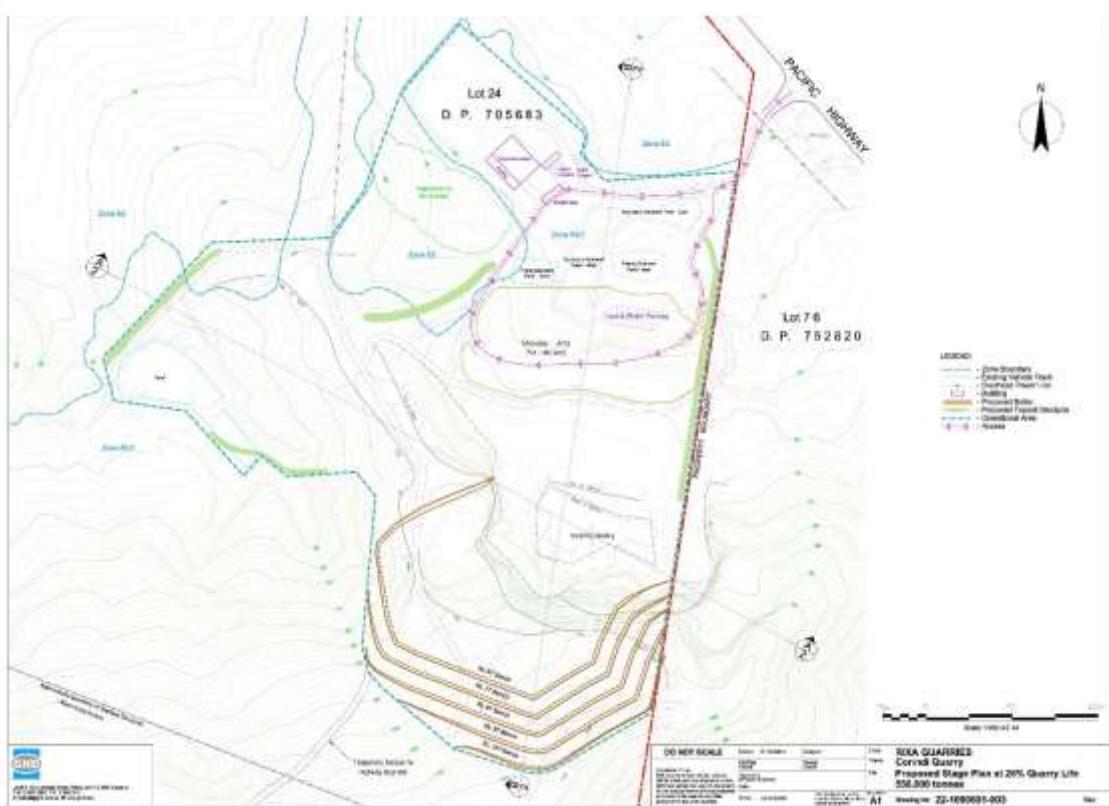
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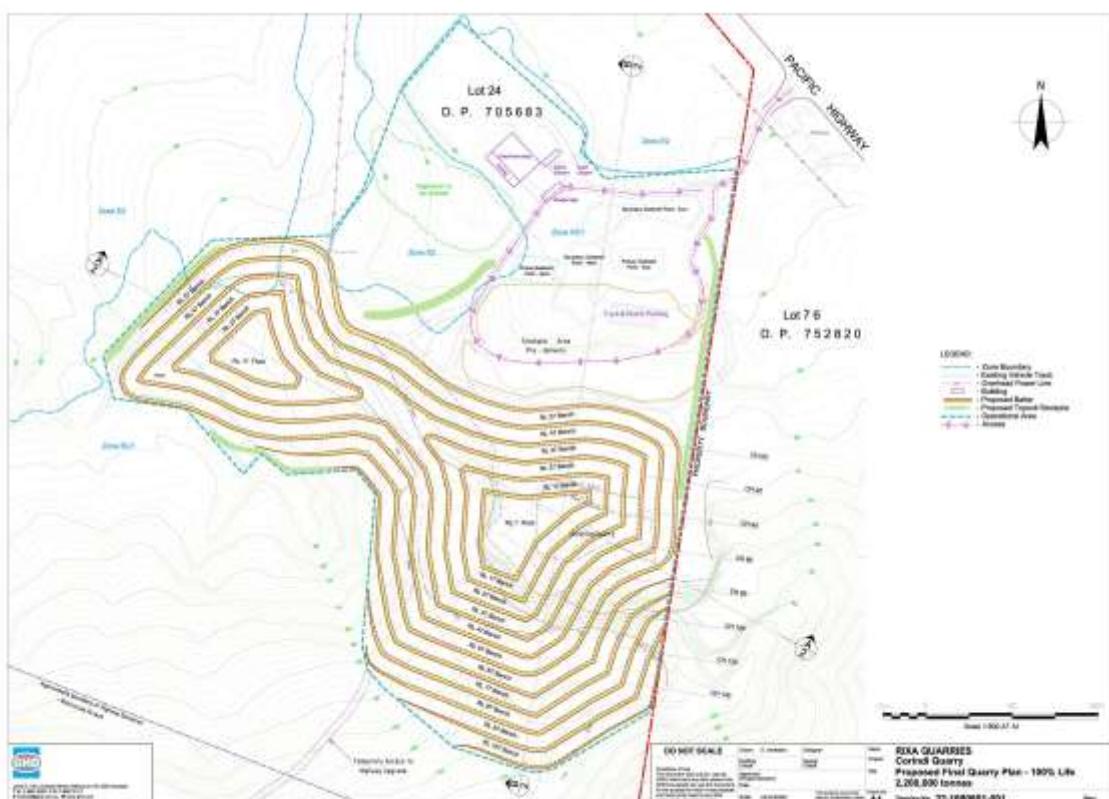
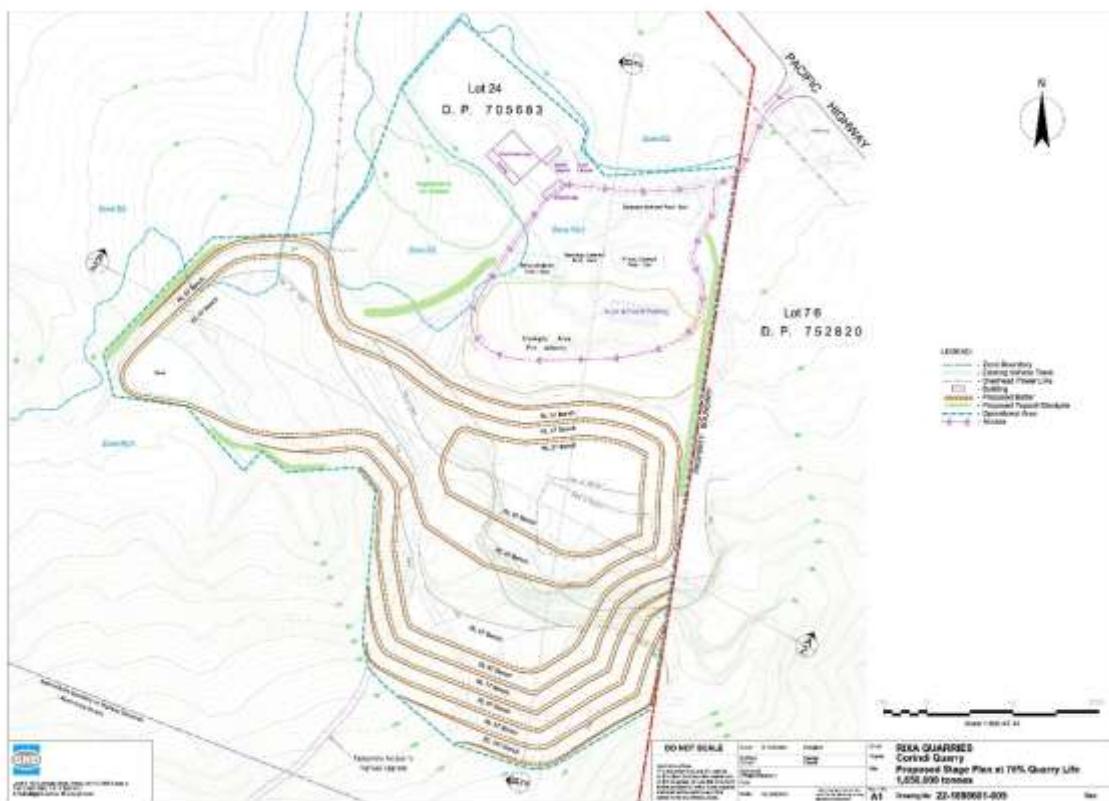
- 1. Approve Development Application 0328/16DA for Extractive Industry (Quarry Extension), subject to conditions provided in Appendix C - Schedule of Recommended Conditions,**
- 2. Advise persons who made a submission on Development Application 0328/16DA the outcome of the determination.**

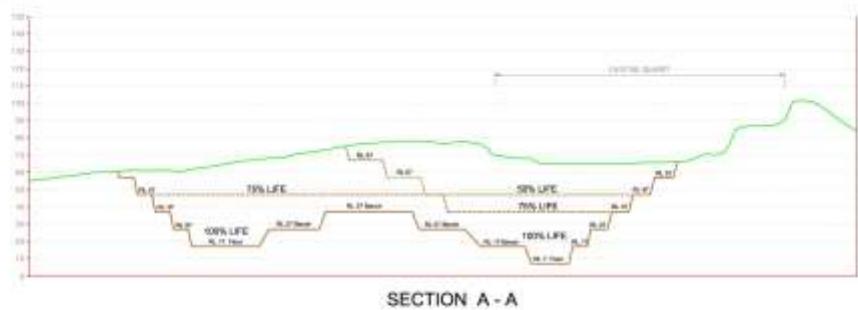
APPENDIX A - PLANS











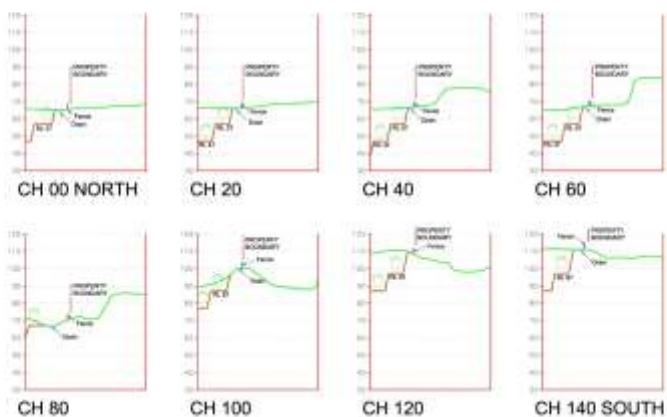
SECTION A-A



SECTION B-B

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REDA QUARRIES
Cerinci Beach Quarry
Proposed Quarry Plan - Cross Sections



2000-01-02

APPENDIX B - SECTION 4.15 EVALUATION REPORT

(a) the provisions of,

(i) any environmental planning instrument, and

- ***State Environmental Planning Policy No 55 - Remediation of Land***

This state policy applies to the whole state and stipulates that the consent authority must not consent to the carrying out of any development unless it has considered whether the land is contaminated. If the land is contaminated, the consent authority must be satisfied that the land is suitable in its contaminated state or will be remediated, so that is suitable, before the land is used for that purpose.

The subject land is not identified by Council's records as potentially contaminated and there is no further evidence available to Council that would suggest that the site has been previously used for a purpose that may have contaminated the land.

The development is consistent with the state policy.

- ***State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007***

This state policy applies to the whole state and stipulates that certain matters must be considered before determining an application for an extractive industry.

Part 2 Permissible development:

7(3)(a)Development permissible with consent – Extractive industry

This provision specifies that extractive industry is permissible with consent on land on which development for the purposes of agriculture or industry may be carried out (with or without development consent).

The land is zoned RU2 Rural Landscape and E2 Environmental Conservation under Coffs Harbour Local Environmental Plan 2013.

The proposed development is largely located within those parts of the land zoned RU2, with a smaller part of the development extending into the E2 zoned land.

'Extensive agriculture' and 'Intensive plant agriculture' within the definition of 'Agriculture'. Both are permitted without consent in the RU2 zone. 'Extensive agriculture' is permitted without consent in the E2 zone.

The proposed extractive industry is permissible on the subject land pursuant to this provision.

Part 3 Development applications—matters for consideration:

12 Compatibility of proposed mine, petroleum production or extractive industry with other land uses:

This provision requires, before determining an application for the purposes of an extractive industry, the consent authority to consider:

- the existing uses and approved uses of land in the vicinity of the development, and whether or not the development is likely to have a significant impact on the uses;
- any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses;
- the respective public benefits of the development and the land uses referred to in paragraph; and
- any measures proposed by the applicant to avoid or minimise any incompatibility.

The development site is located within a rural zone and is surrounded by Solitary Islands Way to the north and east, the Pacific Highway to the south, rural residences and agricultural activities to the south and agricultural activities to the west and south-west. Further south and west is state forest.

Surrounding land uses are located some distance from proposed quarrying activities and generally at higher elevations to the quarry. The proposed quarry operations are considered unlikely to result in any incompatibility issues with agriculture. Potential amenity impacts associated with noise and dust production from quarry operations have potential to impacts on rural living. On balance, the development is not expected to result in significant impacts to the existing land uses in the vicinity of the development site. The development is not considered to be contrary to the public interest, noting the nature of the surrounding land uses.

The development satisfies the requirements of the Clause.

14 Natural resource management and environmental management:

This provision requires, before determining an application for the purposes of an extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner.

It is considered that the development has been designed and sited in a manner that is environmentally responsible and that avoids unacceptable impacts on water resources and biodiversity. Recommended conditions of consent further ensure that the development potential impacts are minimised and managed. The development is not expected to result in unacceptable greenhouse gas emissions.

The development satisfies the requirements of the Clause.

15 Resource recovery:

This provision requires, before determining an application for the purposes of an extractive industry, the consent authority to consider the efficiency or otherwise of the development in terms of resource recovery. The consent authority must consider whether or not the consent should be issued subject

to conditions aimed at optimising the efficiency of resource recovery and the reuse or recycling of material.

The submitted application outlines how it is proposed to recover quarrying materials to maximise efficiency. It is considered that no specific conditions are required to address this matter.

The development satisfies the requirements of the Clause.

16 Transport:

This provision requires, before determining an application for the purposes of an extractive industry that involves the transport of materials, the consent authority to consider whether or not the consent should be issued subject to conditions that:

- (a) require that some or all of the transport of materials in connection with the development is not to be by public road,
- (b) limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools,
- (c) require the preparation and implementation, in relation to the development, of a code of conduct relating to the transport of materials on public roads.

Where the development involves the transport of materials on a public road, the consent authority must also forward a copy of the application to the roads authority.

The application was accompanied by a traffic study, which was forwarded to Transport for NSW under the provisions of this clause. The study describes the expected traffic movements both within the site and on adjoining public roads. The study also describes the expected impacts of traffic movements on the existing public road network. Both Transport for NSW and Council have considered the traffic impacts and traffic safety issues for the development. The main issue of concern for the development is the operation and function of the intersection of the development with Solitary Islands Way.

Given the location of the site and the surrounding road network there is little opportunity for transport of materials (in connection with the development) not to be by public road. It is possible, however, to limit the public roads that quarry trucks will use to those which are most appropriate for heavy vehicles and away from residential areas or near to schools. A recommended condition of consent stipulates the route that all trucks leaving the quarry must take.

Another recommended condition of consent requires the preparation and implementation of a code of conduct for the transport of material on the public road.

On balance the proposed development is considered acceptable with respect to transport subject to imposition of a number of recommended conditions of consent.

17 Rehabilitation:

This provision requires that before determining an application for the purposes of an extractive industry the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring the rehabilitation of land that will be affected by the development.

Recommended conditions of consent require that rehabilitation of the site be undertaken at appropriate stages throughout the life of the quarry and upon completion of quarry operations.

- ***State Environmental Planning Policy (Rural Lands) 2008,***

This policy requires that the consent authority consider whether the proposed development will have an adverse impact on State Significant Agricultural Land. The development site is not State Significant Agricultural Land. There are no further matters to consider under this state policy.

- ***State Environmental Planning Policy (State & Regional Development) 2011***

This state policy applies to the whole state. Clause 20 of the Policy declares the development specified in Schedule 7 to be regionally significant development.

Schedule 7 (7)(a) includes extractive industries, which meet the requirements for designated development under clause 19 of Schedule 3 to the Environmental Planning and Assessment Regulation 2000.

Given that the proposed development is an extractive industry identified as 'designated development' by the Environmental Planning and Assessment Regulation 2000, the proposed development is regionally significant development.

- ***State Environmental Planning Policy (Infrastructure) 2007***

This state policy applies to the whole of the state.

101 Development with frontage to classified road:

Clause 101 of the Policy specifies that the consent authority must not grant consent to development on land that has a frontage to a classified road unless it is satisfied that:

- (a) where practicable and safe, vehicular access to the land is provided by a road other than the classified road, and
- (b) the safety, efficiency and ongoing operation of the classified road will not be adversely affected by the development as a result of—
 - i. the design of the vehicular access to the land, or
 - ii. the emission of smoke or dust from the development, or
 - iii. the nature, volume or frequency of vehicles using the classified road to gain access to the land, and
- (c) the development is of a type that is not sensitive to traffic noise or vehicle emissions, or is appropriately located and designed, or includes measures, to ameliorate potential traffic noise or vehicle emissions within the site of the development arising from the adjacent classified road.

The Pacific Highway is a classified road and the development site has frontage to the Pacific Highway. Vehicular access for the development is not from the Pacific Highway but from Solitary Islands Way which is not a classified road.

The application was referred to Transport for NSW as required by Clause 16 of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. The responses that have been received have provided a number of considerations for Council. No concerns regarding the safety, efficiency and ongoing operation of the Pacific Highway as a classified road have been provided in any of the response that have been raised.

Council has considered all of the matters that have been raised. Potential traffic impacts of the development are considered unlikely subject to imposition of a number of recommended conditions of consent.

The development is not of a type that is sensitive to traffic noise or vehicle emissions.

- **Coffs Harbour Local Environmental Plan 2013**

2.2 Zoning of land to which Plan applies

Zoning of land for the purposes of this environmental planning instrument is stipulated on the Land Zoning Map. Under the Land Zoning Map, the land is zoned RU2 Rural Landscape and E2 Environmental Conservation.

The proposed development is located in those parts of the site zoned RU2 Rural Landscape and E2 Environmental Conservation.

2.3 Zone objectives and Land Use Table

This provision provides the Land Use Table of Local Environmental Plan 2013, which specifies for each zone:

- (a) the objectives for development, and
- (b) development that may be carried out without development consent, and,
- (c) development that may be carried out only with development consent, and,
- (d) development that is prohibited.

'Extractive industry' is permitted with consent in the RU2 Rural Landscape zone, but is prohibited in the E2 Environmental Conservation zone. Those parts of the proposed development located within E2 Environmental Conservation are permissible pursuant to State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007, as outlined above.

This provision also provides that the consent authority must have regard to the objectives for development in a zone when determining a development application in respect of land within the zone.

The objectives of the Zone RU2 Rural Landscape are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To maintain the rural landscape character of the land.

- To provide for a range of compatible land uses, including extensive agriculture.
- To minimise the fragmentation and alienation of resource lands.

The development is consistent with the RU2 Rural Landscape objectives.

The objectives of Zone E2 Environmental Conservation are:

- To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values.
- To prevent development that could destroy, damage or otherwise have an adverse effect on those values.

A significant proportion of the site is zoned E2 Environmental Conservation. The part of the development that encroaches in to the E2 zoned area is a small component of the development. These parts of the site are somewhat degraded. While there will be impact to these parts of the site, there is opportunity to enhance the environmental attributes of the remaining parts of the site zoned E2. This has been proposed by the application and is reinforced by conditions of development consent. The development is considered appropriate for approval having regard to these objectives.

7.2 Earthworks

This provision specifies a number of matters that must be considered for development proposals that involve earthworks including the following:

- (a) the likely disruption of, or any detrimental effect on, drainage patterns and soil stability in the locality of the development,
- (b) the effect of the development on the likely future use or redevelopment of the land,
- (c) the quality of the fill or the soil to be excavated, or both,
- (d) the effect of the development on the existing and likely amenity of adjoining properties,
- (e) the source of any fill material and the destination of any excavated material,
- (f) the likelihood of disturbing relics,
- (g) the proximity to, and potential for adverse impacts on, any waterway, drinking water catchment or environmentally sensitive area,
- (h) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

With imposition of conditions the development is considered satisfactory having regard to the matters of this provision.

7.4 Terrestrial biodiversity

This provision applies to land identified as “Biodiversity” on the Terrestrial Biodiversity Map. The site contains land identified as “Biodiversity” on the Terrestrial Biodiversity Map so this provision must be considered.

Before determining a development application for development on land to which this clause applies, the consent authority must consider:

- (a) whether the development is likely to have:

- (i) any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and
- (ii) any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and
- (iii) any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and
- (iv) any adverse impact on the habitat elements providing connectivity on the land, and

(b) any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

The consent authority must also be satisfied that:

- (a) the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or
- (b) if that impact cannot be reasonably avoided by adopting feasible alternatives—the development is designed, sited and will be managed to minimise that impact, or
- (c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

The part of the development that encroaches into areas identified as “Biodiversity” on the Terrestrial Biodiversity Map is a small component of the development. These parts of the site are somewhat degraded. While there will be impact to these parts of the site, there is opportunity to enhance the environmental attributes of the remaining “Biodiversity” parts of the site. This has been proposed by the application and is reinforced by conditions of development consent. The development is considered appropriate with regard to all the considerations of this provision.

7.11 Essential Services

Clause 7.11 specifies that consent cannot be granted unless the consent authority is satisfied that the development can be serviced by essential services such as water, sewer, electricity, stormwater drainage and suitable vehicle access.

All of these services are currently available or can be provided. Recommended conditions of consent are proposed to ensure that essential services that are not currently available will be provided on the development site. These include provision for water supply and onsite waste water treatment.

The development satisfies the requirements of the Clause.

7.13 Central business district

This provision stipulates that development consent must not be granted to development on any land unless the consent authority has considered whether the development maintains the primacy of the CBD as the principal business, office and retail hub of the Coffs Harbour City.

It is considered that the development does not compromise the primacy of the CBD as the principal business, office and retail hub of the city centre. The development is not expected to conflict with the hierarchy of the commercial centre. The development satisfies the requirements of this provision.

(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and

There are no draft environmental planning instruments that are applicable to the development or the subject land.

(iii) any development control plan, and

- *Coffs Harbour Development Control Plan 2015*

Part B Public Consultation

B1 - Public Consultation

This control stipulates the public consultation requirements for applications.

The proposed development has been advertised and notified in accordance with the requirements of this component on two separate occasions. Three submissions were received.

Part E Environmental Controls

E1 Biodiversity

The development satisfies the requirements of the Plan.

Part F General Development Controls

F1 Parking and Access:

This part of the DCP specifies requirements in relation to car parking, access and maneuvering.

The development satisfies the requirements of the Plan.

(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and

There are no planning agreements of relevance.

(iv) the regulations (to the extent that may prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates,

The Regulations do not prescribe any matters relevant to the proposed development.

(b) the likely impacts of that development, including environmental impacts, on both the natural and built environments, and social and economic impacts in the locality,

Impacts on the natural environment - whether there is likely to be a significant effect on threatened species, populations or ecological communities, or their habitats:

The quarry operations are proposed over parts of the site that are zones E2 Environmental Conservation and in areas that include existing vegetation. In addition, construction of an

acceleration lane (within and adjoining the Solitary Islands Way road reserve) will require vegetation removal.

The EIS provided with the application included an assessment of likely impacts on the natural environment. This included an assessment of matters under Section 5A of the Environmental Planning and Assessment Act (current at the time of lodgement). The assessment considered a number of specific mammals, birds, frogs, reptiles, endangered species, threatened species and flora that is an endangered ecological community. On consideration of all of the factors that must be taken into account, the assessment concluded that there is unlikely to be a significant effect on threatened species, populations or ecological communities, or their habitats.

In addition to the environmental assessment documentation provided originally with the EIS, Council requested further information to address additional species including the Yellow-Bellied Glider, Square-Fruited Ironbark and Stephen's Banded Snake. This additional assessment was provided and also concluded that there is unlikely to be a significant effect on threatened species, populations or ecological communities, or their habitats.

Council has also requested (on more than one occasion) a design for an acceleration lane and environmental assessment documentation that assesses the associated environmental impacts. This has not been provided; further traffic assessment documentation has focussed on 'safe intersection sight distances', rather than acceptance that an acceleration lane is required. Both Council and Transport for NSW are of the view that an acceleration lane is required.

In the absence of an environmental assessment of the impacts associated with the acceleration lane, this has been undertaken by Council. The vegetation required to be removed for the acceleration land has suffered past disturbance from works to Solitary Islands Way and from an adjoining electricity easement. It also appears that the vegetation was largely cleared in 2007 and has regenerated since this time.

Given the documentation provided, and Council's assessment of the acceleration lane impacts it is considered unlikely that the development will result in unacceptable impacts on the natural environment. A number of recommended condition of consent are recommended to further mitigate impact. These conditions impose a requirement to develop and implement:

- An Environmental Management Plan,
- A Vegetation Management Plan,
- A Quarry Closure and Rehabilitation Plan

These conditions will ensure that:

- all quarry activities are restricted to the approved quarry operations area of the site,
- vegetation management and compensatory planting works are carried out,
- that rehabilitation of the site is carried out on completion of quarry stages and on cessation of quarry operations.

Further recommended conditions of consent require, implementation of pre-clearing procedures and, the registered proprietor of the land to enter into positive covenants with Council to maintain vegetation management and compensatory planting works.

With imposition of the recommended conditions of consent the development is considered unlikely to result in any unacceptable impacts on the natural environment.

Social Impacts

Noise and Vibration

The original EIS documentation included an assessment of potential noise impacts. A further noise impact assessment was provided to address changes to noise conditions resulting from relocation of the Pacific Highway. The Pacific Highway was located where Solitary Islands Way is currently. The Pacific Highway is now located to the west of the proposed quarry operational area. This resulted in changes to background noise and reduced traffic volumes along Solitary Islands Way.

Noise from quarry operations will be produced from blasting, quarry material crushers, earth moving machinery (including excavators, loaders and dozers) and truck movements.

The assessments have considered sensitive noise receivers and examined potential noise impacts against accepted noise emission standards. The reports conclude that both operational noise and road traffic noise are likely to be below accepted standards and that vibration impacts are expected to be negligible at the nearest sensitive receiver.

Recommended conditions of consent specify noise limits for the development and hours of operation. The development is considered unlikely to result in any unacceptable noise and vibration impacts with imposition of these conditions.

Blasting

The NSW Environment and Protection Authority have considered the development under the Integrated Development provision of the Environmental Planning and Assessment Act and provided general terms of approval. These include a number of recommended conditions of consent. A number of these relate to blasting.

These include conditions that;

- require preparation and implementation of a blasting management protocol,
- stipulate limits for airblast overpressure,
- stipulate limits for ground vibration,
- limit the days and times that blasting may occur,
- limit the frequency for blasting.

Blasting operations associated with the development are considered unlikely to result in any unacceptable impacts with implementation of appropriate controls and measures as required by these conditions.

Dust

The EIS outlines a number of mitigation measures which are proposed to address potential dust impact. The measures proposed are typical of those implemented in quarry operations. Given the circumstances for this quarry operation, including the fact that residences are some distance from operating quarry and processing areas and the fact that the site is largely surrounded by vegetation, these typical measures are considered appropriate. Dust impacts resulting from quarry operations can be appropriately managed and mitigated with ongoing management. The recommended conditions of consent address potential dust impacts. The development is considered unlikely to result in unacceptable dust impacts with implementation of appropriate dust mitigation measures.

Truck Movements

The proposed maximum annual extraction rate for this quarry is 490 000 tonnes. The traffic assessment documentation provided with this application has provided estimated truck movement numbers required to achieve this annual extraction rate.

This documentation provides that the majority of quarry material will leave the site in fixed body trucks with a dog trailer. The carrying capacity of each truck and dog combination is estimated at approximately 30 tonnes per load. With an assumed 220 operational days for the quarry this equates to an average of 75 loaded truck movements per day. If these movements are evenly distributed over a ten hour working day, this equates to 15 loaded truck movements per hour.

The traffic assessment documentation has also provided 'worst case' loaded truck movements of 300 loaded truck movements per day (for the purpose of intersection capacity and analysis). The analysis has concluded that the existing road network can cater for this additional traffic demand.

To ensure that the number of loaded traffic movements does not unacceptably impact the surrounding road network it is appropriate that the maximum number of loaded trucks that can leave the quarry is limited to 300 per day. This is a recommended condition of consent.

When truck movements are considered in light of potential amenity impacts it is relevant to note that the annual average for loaded truck movements is likely to be 75 loaded trucks per day (assuming the majority of quarry material leaves the site in a truck and dog 30 tonne capacity combination). While the recommended condition of consent will allow truck movements of up to 300 loaded truck movements per day this means that the maximum annual extraction rate (of 490 000 tonnes per annum) will be achieved in a much shorter time period. In this scenario truck movements per day much less than 75 loaded trucks per day are likely. On balance this is considered an appropriate outcome for the amenity of the surrounding area.

Traffic Impacts:

Both Transport for NSW and Council have considered the traffic impacts and traffic safety issues for the development. Transport for NSW have considered the application in light of Clause 16 of State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007. A traffic impact assessment was included with the development application documentation.

The main issue of concern for the development is the operation and function of the intersection of the development with Solitary Islands Way. This required detailed consideration of the following aspects:

- Safe Intersection Sight Distances,
- The direction/type of truck movements, the frequency of truck movements and times for truck movements,
- Need for an acceleration lane for left turning, northbound trucks,
- Appropriate intersection treatment.

While there are matters in dispute with respect to a number of these assessment issues, it is considered that the proposed development will be acceptable subject to a number of conditions. Conditions that are appropriate and recommended relate to:

- Construction of the quarry/Solitary Islands Way intersection to an appropriate standard (including construction of an acceleration lane for exiting, left-turn trucks).
- Restrictions on truck movements that can occur at the quarry/Solitary Islands Way intersection and the route that quarry trucks must take in the road network. Quarry trucks should only turn left at Solitary Islands Way and then travel north along Solitary Islands Way to the Pacific Highway by the shortest possible route.

Given the intersection sight distances (and other inadequacies) at the quarry/Solitary Islands Way intersection, the development would not be acceptable without these intersection upgrade works and without these truck movement restrictions.

There are further recommended conditions relating to:

- Installation of traffic warning and regulation signs
- Limits on the number of daily truck movements
- Restriction on truck movements to outside of school bus hours

The proposed development is considered acceptable with imposition of these conditions.

Economic Impacts

The location of proposed quarry operations is some distance from adjoining and nearby properties. The main area for quarrying activities is also surrounded by vegetation. It is considered unlikely, that the development will result in any unacceptable amenity impacts, and, that the area of quarry operations will be visible from any surrounding or nearby residences. Both of these are matters that might be regarded as adversely affecting property values. The proposed development is, given these matters, considered unlikely to result in any unacceptable economic impacts.

(c) the suitability of the site for the development,

There are aspects of the development site that necessitate detailed consideration of particular matters, which are discussed in detail above in the various sections of this report.

On balance, the site is considered suitable for the proposed development.

(d) any submissions made in accordance with this Act or the regulations,

In accordance with the provisions of Councils Development Control Plan 2015, the application was publicly advertised and notified to adjoining landowners on two separate occasions.

A total of three submissions were received during the public exhibition period. Two of these submissions were from the same person. A summary of the issues raised and how the objections are addressed is outlined below:

- Blasting will results in impacts to the health and wellbeing of adjoining residents.
- The quarrying activities will result in dust impacts to adjoining residents.
- The development will impact on wildlife.
- The development will negatively affect property values.

Comments:

The following comments are provided in response to the matters raised above:

The NSW Environment and Protection Authority have considered the development under the Integrated Development provision of the Environmental Planning and Assessment Act and provided general terms of approval. These include a number of recommended conditions of consent. A number of these relate to blasting.

These include conditions that;

- require preparation and implementation of a blasting management protocol,
- stipulate limits for airblast overpressure
- stipulate limits for ground vibration
- limit the days and times that blasting may occur
- limit the frequency for blasting

Dust impacts resulting from quarry operations can be appropriately managed and mitigated with ongoing management. Recommended conditions of development consent address potential dust impacts. The development is considered unlikely to result in unacceptable dust impacts with implementation of appropriate dust mitigation measures.

The impacts of the development on the natural environment have been assessed. This includes an assessment of possible impacts on native fauna. On balance the development is considered unlikely to result in any unacceptable natural environment impacts. A number of recommended conditions will address potential impacts. The proposed development is considered acceptable with imposition of these conditions.

The location of proposed quarry operations is some distance from adjoining and nearby properties. The main area for quarrying activities is also surrounded by vegetation. It is considered unlikely that the proposed development will result in any unacceptable amenity impacts. It is considered unlikely that the area of quarry operations will be visible from any surrounding or nearby residences. The proposed development is, given these matters, considered unlikely to negatively impact on property values.

(e) the public interest:

Given the amount of material proposed to be removed from the site (total of 2 200 000 tonnes) and the proposed maximum extraction rate (490 000 tonnes per annum) the quarry could be exhausted in under five years. The EIS estimates a project life of between five and 25 years. For public interest reasons it is considered appropriate to limit the time period during which the development may operate to a maximum of 20 years (from the date of commencement). With imposition of a condition of consent to achieve this outcome the proposed development does not present any issues that are contrary to the public interest.

APPENDIX C - SCHEDULE OF RECOMMENDED CONDITIONS

ADMINISTRATIVE CONDITIONS

Approved Development:

1. This development consent approves an extractive industry which will win and remove extractive materials from the development site and includes the storing, stockpiling and processing of the extractive materials that have been obtained by washing, crushing, sawing and separating. This consent does not approve the processing of any material that is not obtained from the development site. The total amount of material that may be obtained from the site is 2 200 000 tonnes. The maximum rate at which material can be obtained, processed and transported from the site is 490 000 tonnes per annum.

Duration of Quarry Operations:

2. The maximum time period during which the extractive industry may operate is 20 years from the date of commencement. Quarry operations must cease upon expiry of 20 years from the date of commencement or upon completion of quarry operations (by the total amount of material that may be obtained from the site of 2 200 000 tonnes being reached), whichever is the sooner.

This condition does not affect or alter any obligations to undertake quarry closure and rehabilitation works which must commence immediately upon expiry of the maximum time period of quarry operations or upon completion of quarry operations, whichever is the sooner.

Prescribed Conditions:

3. The proponent shall comply with the prescribed conditions of development approval under Clauses 97A, 98, 98A - E of Environmental Planning and Assessment Regulation 2000 as are of relevance to this development.

Development is to be in accordance with approved plans:

4. The development is to be implemented in accordance with the plans set out in the following table except where modified by any conditions of this consent.

Plan	Drawing No.	Prepared by	Dated
Site Plan		GHD	8 OCT 2015
Proposed Quarry Plan	22-1690601-001	GHD	-
Current Quarry Plan	22-1690601-006	GHD	-
Proposed Stage Plan at 25% Quarry Life – 550,000 tonnes	22-1690601-003	GHD	-
Proposed Stage Plan at 50% Quarry Life - 1,110,000 tonnes	22-1690601-004	GHD	-
Proposed Stage Plan at 75% Quarry Life - 1,650,000 tonnes	22-1690601-005	GHD	-
Proposed Final Quarry Plan - 100% Life - 2,200,000 tonnes	22-1690601-001	GHD	-
Proposed Quarry Plan - Cross Sections	22-1690601-002	GHD	-

Plan	Drawing No.	Prepared by	Dated
Proposed Quarry Plan - Boundary Sections	22-1690601-007	GHD	-

In the event of any inconsistency between conditions of this development consent and the plans referred to above, the conditions of this development consent prevail.

The approved plans and supporting documents endorsed with the Council stamp and authorised signature must be kept on site at all times while work is being undertaken.

Development in Accordance with Documents:

5. The development shall be undertaken in accordance with the following documents:
 - (1) Environmental Impact Statement (and appendices), prepared by GHD and dated October 2015
 - (2) Addendum to ecological assessment, prepared by GHD and dated 3 June 2015;
 - (3) Addendum to ecological assessment (Assessment of Significance), prepared by GHD and dated
 - (4) Groundwater Assessment, prepared by GHD and dated September 2019
 - (5) Noise and Vibration Impact Assessment, prepared by GHD and dated September 2019
 - (6) Traffic Impact Assessment, prepared by GHD and dated September 2019

Inconsistency between Documents:

6. In the event of any inconsistency between:
 - (1) The conditions of this approval and the drawings/documents referred to in conditions 3 and 4, the conditions of this approval prevail; and
 - (2) Any drawing/document listed in conditions 3 and 4 and any other drawing/document listed in conditions 3 and 4, the most recent document shall prevail to the extent of inconsistency.

Civil Works Construction Certificate:

7. No civil works are to commence on site or in the Solitary Islands Road reserve until a civil works construction certificate has been issued for the work and council has been notified that a principal certifier has been appointed.

PRIOR TO COMMENCEMENT OF QUARRY OPERATIONS

Commencement of this Consent:

8. Quarry operations must not commence under this consent until the following has been provided to Council:
 - (1) Written certification from a suitably qualified person demonstrating that all consent conditions required to be satisfied prior to commencement of quarry operations have been so satisfied,
 - (2) Council is notified in writing of the proposed commencement date of operations under this consent.

Council will confirm the date of commencement of the consent upon review of the documentation required by this condition.

Responsible Contact Person:

9. The name and contact details for a person with the responsibility and authority to respond to Council, authorised government departments and/or members of the public with respect to management of quarry operations, compliance with this consent and any complaints, must be provided to Council, prior to commencement of quarry operations.

The name and contact details of the person must be provided on a sign that identifies the site, the sites use and the quarry operator, at the entrance to the site and any website that represents the quarry operation.

This person must be available for contact during quarry operations.

The person and contact details must be current for the entire duration of quarry operations and the sign and website must be updated with any changes for the person or contact details.

Environmental Management Plan:

10. An environmental management plan must be submitted to Council and approved prior to commencement of quarry operations.

The environmental management plan must identify areas of land that are to be retained as outlined in the environmental impact statement. Construction impacts must be restricted to the development site and must not encroach into areas of retained native vegetation and habitat. All materials stockpiles, vehicle parking, machinery storage and other temporary facilities must be located within development area. The environmental management plan must identify all measures proposed in section 6 of the environmental impact statement to mitigate and manage impacts on biodiversity, including performance measures for each commitment.

Vegetation Management Plan:

11. A detailed vegetation management plan for the offset area shown in Figure 6-14 of the Environmental Impact Statement, prepared in accordance with Council's 'Guideline for Preparing Vegetation Management Plans' in Appendix 2 of the Coffs Harbour Development Control Plan, must be submitted Council and approved prior to commencement of quarry operations. The vegetation management plan must be prepared by persons with professional qualifications and/or knowledge and experience in bush regeneration/stream rehabilitation practices and who is eligible for membership to the Australian Association of Bush Regenerators.

Driver Code of Conduct:

12. A driver code of conduct must be developed, submitted to Council and approved, prior to commencement of quarry operations. The code of conduct must include, but not necessarily be limited to, the following:
 - (1) driver behaviour,
 - (2) compliance with road rules and safety,
 - (3) minimising noise and dust emission,
 - (4) ensuring all loads are covered before leaving the quarry site,
 - (5) a map and details of the approved route for all loaded trucks highlighting critical locations.

Quarry Closure and Rehabilitation Plan:

13. A comprehensive quarry closure and rehabilitation plan must be submitted to Council and approved prior to commencement of quarry operations. The plan must specifically address the following matters:
 - (1) A detailed methodology as to how the land will be rehabilitated,
 - (2) Provide details and justification for the proposed final landform (including cross sections as to the final levels),
 - (3) Provide details and justification for potential future uses,
 - (4) Outline measures that will be undertaken to ensure sufficient financial resources are available to implement all proposed rehabilitation,
 - (5) Preservation of downstream water quality at levels that are acceptable for users downstream of the site,
 - (6) The need or otherwise to undertake site contamination testing and subsequent validation reporting.

Blasting Management Protocol:

14. A blasting management protocol for all proposed blasting must be submitted to Council and approved prior to commencement of quarry operations. The blasting management protocol must be prepared by a suitably qualified person in accordance with the 'Environmental Impact Statement Proposed Expansion of Existing Hard Rock Quarry at Lot 550 DP 1181369, Pacific Highway, Dirty Creek' prepared by GHD and dated 13 October 2015 and the 'Quarry Noise and Vibration Assessment' prepared by GHD December 2019.

Plant and Equipment - Details and Certification:

15. Details of all plant and equipment that will be used in conjunction with quarry operations must be provided to Council. The details provided must include the model, type and operating capacity of the plant and equipment. Certification that the plant and equipment is in a state of sound mechanical repair and is located as close as possible to the quarry face, must be provided from an appropriately qualified person. All documentation required by this condition must be provided to Council, prior to commencement of quarry operations.

Vegetation Management - Positive Covenant Title

16. The registered proprietor of the land must enter into positive covenants with Council to maintain the works as effected on the offset area as shown in Figure 6-14 of the Environmental Impact Statement in accordance with the Vegetation Management Plan as it affects that lot, prior to commencement of quarry operations. The positive covenants shall be in, or to the effect of covenants approved by Council from time to time and be created pursuant to Section 88E of the Conveyancing Act 1919, generally in accordance with the attached draft covenant "A".

Traffic Safety Works:

17. The following works must be completed prior to commencement of quarry operations:
 - (1) Installation of hinged 'truck entering' warning signs on Solitary Islands Way either side of the quarry entry point;
 - (2) Installation of a 80km/hour repeater sign on the southern approach on Solitary Island Way;
 - (3) Upgrading of the intersection of the quarry site and Solitary Islands Way (through Lot 76 DP 752820) to a BAL intersection including an acceleration lane for trucks exiting the site to the north in accordance with Austroads – Guide to Road Design – Part 4A;
 - (4) Road pavement construction of the first 30 metres of the access road from Solitary Islands Way. The plans for the access road must provide for two-way access for all quarry vehicle types.

Plans and specifications are to be submitted to Council and approved prior to issue of Civil Works Certificate. Plan submissions are to be accompanied by payment of prescribed fee.

Council attendance at any required inspections will be charged in accordance with the adopted 'Fees & Charges' current at the time of the inspections. Payment is required prior to any inspections.

Plans and specifications submitted later than six (6) months from the date of development consent shall comply with Council's current specifications at a date six (6) months prior to submission.

All work is to be at the developer's cost.

Letter of Completion for Civil Works:

18. A letter of completion for the civil works completed must be obtained from the relevant civil works principal certifying authority prior to commencement of quarry operations. The letter of completion must state that all civil works have been completed and conditions relating to the civil works have been satisfied.

Identification of Quarry Operational Area:

19. The 'operational area' boundary as identified on the approved plans of GHD must be clearly marked out on-site, with durable pegs or other markers prior to commencement of quarry operations. The identification marks must remain in place for the life of the quarry. All operators must be made aware of the boundary markers and the limits of the quarry operational area.

Wash Down, Fuel and Chemical Storage Areas:

20. Bunding must be provided for wash down, fuel and chemical storage areas prior to commencement of quarry operations. The bunding must be constructed to comply with the requirements of Australian Standard AS 1940B1993: The Storage and Handling of Flammable and Combustible Liquids, Australian Standard AS 4452B1997: The Storage and Handling of Toxic Substances and the Dangerous Goods Act 1975.

Installation of Weighbridge:

21. The weighbridge must be installed and operational prior to commencement of quarry operations, to ensure that the weight of material in all loaded vehicles can be recorded upon commencement.

Installation of System to Record Vehicle Types and Numbers:

22. Details of a system to record the type and number of loaded vehicles leaving the site must be provided to Council and approved. The system may include an automated traffic counter/classifier device but full details of the system must be provided.

The approved system must be installed and operational prior to commencement of quarry operations, to ensure that the type and number of all loaded vehicles can be recorded upon commencement.

Unauthorised Structures and Waste:

23. All buildings and structures (that do not have formal approval) and waste, as described in the letter of GHD dated 29 April 2016 must be removed from the site and either recycled or disposed of at a licenced landfill, prior to commencement of quarry operations.

Barrier Fencing to Adjoining Crown Reserve:

24. Barrier fencing, to prevent pedestrian access to the quarry operational area, must be constructed within the adjoining crown reserve (Lot 76, DP 752820) to the western quarry face and along the western boundary of the quarry operational area. The fencing must be provided, prior to commencement of quarry operations, unless written correspondence from the Crown has been provided stating that the fencing is not required and a copy of the correspondence has been provided to council. All approvals from the Crown that are necessary to undertake this work must be obtained prior to any work commencing.

PRIOR TO COMMENCEMENT OF CIVIL WORKS

Site Notice – Civil Works:

25. Prior to commencement of works a site notice must be prominently displayed at the boundaries of the site for the purposes of informing the public of the development details including but not limited to:

- (1) Details of the Principal Contractor and Principal Certifier for all stages of the development;
- (2) The approved hours of work;
- (3) The name of the site/project manager, the responsible managing company (if any), its address and 24 hour contact phone number for any inquiries, including construction noise complaints are to be displayed on the site notice; and
- (4) To state that unauthorised entry to the site is not permitted.

Erosion and Sediment Control – Civil Works

26. Prior to commencement of civil works on the site or in the road reserve, erosion and sedimentation control measures must be installed and operational, including the provision of a 'shake down' area, where required to the satisfaction of the Principal Certifying Authority.

DURING CONSTRUCTION OF CIVIL WORKS

Approved Plans to be On-Site – Civil Works:

27. A copy of the approved and certified plans, specifications and documents incorporating the conditions of approval and certification shall be kept on the site at all times and shall be readily available for perusal by any officer of Council or the Principal Certifier.

Erosion and Sediment Control – Civil Works:

28. Where excavation works or removal of vegetation is to take place on the site, control measures in accordance with the document Managing Urban Stormwater - Soils & Construction Volume 1 (2004) by Landcom are to be undertaken at each appropriate construction stage to prevent erosion of soil.

Dust Control Measures – Civil Works:

29. Adequate measures must be taken to prevent dust from affecting the amenity of the neighbourhood during construction. In particular, the following measures must be adopted:
 - (1) All materials shall be stored or stockpiled at the best locations;
 - (2) The surface should be dampened slightly to prevent dust from becoming airborne but should not be wet to the extent that runoff occurs;
 - (3) All vehicles carrying spoil or rubble to or from the site shall at all times be covered to prevent the escape of dust or other materials;
 - (4) Cleaning of footpaths and roadways shall be carried out regularly; and
 - (5) Rumble grids being installed at access points to the site.

Waste and Contamination – Civil Works:

30. The exportation of waste (including fill or soil) from the site must be in accordance with the provisions of the Protection of the Environment Operations Act 1997 and the Office of Environment and Heritage 'Waste Classification Guidelines'.

Any new information that comes to light during civil works which has the potential to alter previous conclusions about site contamination must be immediately notified to the Council and the Principal Certifier.

Soil and Water Management – Civil Works

31. Soil and water control measures in accordance with the document Managing Urban Stormwater – Soils & Construction Volume 2E – Mines and Quarries (2008) by Department of Environment and Climate Change are to be undertaken at all times on the site.

OPERATIONAL MATTERS

Monitoring and Reporting:

32. Within one month of each 12 months operation of the quarry, an annual report of quarry operations must be completed and a copy of the report provided to Council. The report must provide a description of the quarry operations that were undertaken during the 12 month period. The report must detail compliance or non-compliance with all conditions of this consent.

Copy of Notice of Determination, Approved Plans and Documents on Site:

33. A copy of the notice of determination, approved plans and all documents referred to in the determination must be kept on the site at all times while the quarry is operating and must be made available to Council or an authorised government department upon request.

Record of Vehicles and Material Leaving the Site:

34. The amount of material leaving the site and the type and number of loaded vehicles leaving the site must be recorded. The amount of material leaving the site must be recorded by the weighbridge. The type and number of loaded vehicles leaving the site must be recorded via an automated traffic counter/classifier or other system approved by Council. These records are to be provided with the annual report. Both the weighbridge and the approved counter/classifier system must be maintained to operate accurately at all times during quarry operations.

Operation of Plant and Equipment:

35. All plant and equipment used in conjunction with quarry operations must be:

- (1) Maintained in a state of sound mechanical repair,
- (2) Operated in a proper and efficient manner,
- (3) Located as close as possible to the quarry face.

If the plant and equipment is replaced or is changed at any time to a type, model or operating capacity, that is different to the details previously provided, then updated details of the plant and machinery must be provided.

Dust Control Measures:

36. Activities occurring at the premises must be carried out in a manner that will minimise the emission of wind blow or traffic generated dust from the premises at all times and include, but not be limited to, the following measures:

- (1) all materials must be stored or stockpiled in an appropriate location that will not adversely affect adjoining properties;
- (2) the surface of working areas must be dampened slightly to prevent dust from becoming airborne, but should not be wet to the extent that runoff occurs; and
- (3) all vehicles carrying loads to or from the site must, at all times, be covered to prevent the escape of dust or other materials.

Pre Clearing Procedures:

37. Prior to commencement of tree removal for any component of quarry operations, a search for the presence of fauna is to be conducted in the area before commencement of operations each day by a suitably qualified and experienced Ecologist.

Presence includes both physical presence within the proposed tree removal area and occurrence of fresh scat materials.

- (1) All hollows must be searched and all checks shall be carried out a minimum distance of 50m from the tree clearing area,
- (2) Koala faecal pellets (scats) check is required within a three metre radius of the base of all Koala Feed Trees,
- (3) If a threatened arboreal species is located, the tree must be identified (flagged with tape). No further action shall occur until the animal has moved on of its own accord. If after two nights the animal has not moved the NSW Biodiversity and Conservation Division should be contacted for further advice,
- (4) Physical removal of the animal is not an option and must not be attempted,
- (5) All injured animals must be reported to WIRES immediately. To secure wildlife which may be accidentally injured during clearing process, a blanket, heavy duty gloves and a large bin is required on-site (bin lid must have holes for air passage),

Note: For Koalas such search should include both lower branches and upper canopy in all listed koala food species (Tallowwood, Swamp Mahogany, Broad-leaved Paperbark, Flooded Gum, Blackbutt, Forest Red Gum, Small-fruited Grey Gum, Forest Oak).

Cultural Heritage:

38. In the event that any quarry operations disturb Aboriginal Cultural materials, works at or adjacent to the material must stop immediately. Temporary fencing must be erected around the area and the material must be identified by an independent and appropriately qualified archaeological consultant. Heritage NSW and the Aboriginal Stakeholder groups must be informed. These groups are to advise on the most appropriate course of action to follow. Works must not resume at the location without the prior written consent of Heritage NSW and the Aboriginal Stakeholder groups.

Road Maintenance Contribution:

39. A contribution under Section 7.11 of the Environmental Planning and Assessment Act 1979, in accordance with the Coffs Harbour Mines and Extractive Industries Developer Contributions Plan 2016, for the movement of trucks associated with the development on Council roads (for 2.5 km) must be paid to Coffs Harbour City Council. In respect of the contribution, the following provisions shall apply:

- (1) The contribution will commence at the rate of \$0.098 per tonne per km (for 2.5 km) of all material transported from the site,
- (2) The contribution will be indexed and adjusted in accordance with the Coffs Harbour Mines and Extractive Industries Developer Contributions Plan 2016,
- (3) On each anniversary of the commencement of quarry operations, the quarry operator must provide to Council certified returns or records showing the true quantities of material transported from the site during the immediately preceding year. The Council will then, as soon as it can conveniently do so, issue an account to the applicant or its consenting assignee, who will pay the Council within fourteen days of the date thereof.

Environmental Management Plan - Implementation:

40. All measures of the approved environmental management plan must be implemented at all times during operation of the quarry.

Vegetation Management Plan - Implementation

41. The approved vegetation management plan must be implemented at all times during operation of the quarry. All vegetation management works must be completed at the times and stages provided for in the approved vegetation management plan. Certification of completed vegetation management plan works must be provided within 30 days of completion of the works.

Blasting Management Protocol - Implementation:

42. All blasting activities on the site must be undertaken in accordance with the approved Blasting Management Protocol.

Driver Code of Conduct – Implementation:

43. The approved driver code of conduct must be implemented at all times during operation of the quarry.

Maximum Extraction Rate:

44. The maximum rate at which material can be obtained, processed and transported from the site is 490 000 tonnes per annum. This maximum rate must be observed at all times during quarry operations.

Hours of Operation:

45. All activity on the site must only occur within the hours of;

- 7:00 am to 6:00 pm - Monday to Friday
- 8:00 am to 1:00 pm - Saturday

No activity, is to occur outside of these hours or on Sundays or public holidays. All haul truck movements must also only occur within these hours.

Maximum Number of Loaded Trucks:

46. The number of loaded trucks leaving the quarry must not exceed 300 on any weekday and 150 on any Saturday. No loaded trucks are to leave the quarry on any Saturday afternoon, Sunday or public holiday.

Truck Route:

47. All material transported to the site and removed from the site by truck must be transported north via Solitary Islands Way to the Pacific Highway.

Pollution Control:

48. The operations must adhere to the requirements of Section 120 of the Protection of the Environment Operations Act 1997 at all times, unless expressly provided for by the conditions of any EPA license for a scheduled premises.

Operation of Haul Trucks:

49. No haul trucks are to travel 15 minutes either side of when school buses are using Solitary Island Way.

Noise Attenuation:

50. Noise attenuation methods specified in the 'Quarry Noise and Vibration Impact Assessment December 2019 (ID6805854)' prepared by GHD must be implemented in the development.

Noise Emission:

51. Noise emanating from the premises must at all times be in accordance with the provisions of the Protection of the Environment (Operations) Act 1997.

Speed Limit:

52. All vehicles driving within the site and along the internal haul route to Solitary Islands Way must observe a speed limit of 40km/hour.

UPON COMPLETION OF QUARRY OPERATIONS

Quarry Closure and Rehabilitation Plan - Implementation

53. The approved Quarry Closure and Rehabilitation Plan must be implemented in full immediately upon expiry of the maximum time period of quarry operations or upon completion of quarry operations (by the total amount of material that may be obtained from the site of 2 200 000 tonnes being reached), whichever is the sooner.

All rehabilitation works must be completed within one year of completion of quarry operations or expiry of the duration of the consent.

Note:

- (a) The maximum time period for quarry operations is limited to 20 years from the date of commencement (Condition 2).
- (b) The total amount of material that may be obtained from the site is 2 200 000 tonnes (Condition 1)

GENERAL TERMS OF APPROVAL

Natural Resources Access Regulator:

Design of works and structures

54. Before commencing any proposed controlled activity on waterfront land, an application must be submitted to Natural Resources Access Regulator, and obtained, for a controlled activity approval under the Water Management Act 2000.

Plans, standards and guidelines

55. This General Terms of Approval (GTA) only applies to the proposed controlled activity described in the plans and associated documents found in Schedule 1, relating to Development Application 0328.16 provided by Council to Natural Resources Access Regulator.

Any amendments or modifications to the proposed controlled activity may render the GTA invalid. If the proposed controlled activity is amended or modified, Natural Resources Access Regulator, Wollongong Office, must be notified in writing to determine if any variations to the GTA will be required.

56. The application for a controlled activity approval must include the following plan(s):
 - Watercourse realignment design in accordance with NRAR guidelines for Instream Works.The plan(s) must be prepared in accordance with Natural Resources Access Regulators guidelines located on the website <https://www.industry.nsw.gov.au/water/licensing-trade/approvals/controlled-activities>.
57. All documents submitted to Natural Resources Access Regulator as part of an application for a controlled activity approval must be prepared by a suitably qualified person.
58. The application for a controlled activity approval must include the following document(s):
 - Site plan showing the clear demarcation of waterfront land.
 - Design details and plans for all works/activities proposed on waterfront land.
 - Construction Management Plan including erosion and sediment control measures, a schedule & sequence of works and site rehabilitation.

Environmental Protection Authority:

Administrative Conditions:

Information supplied to the EPA

59. Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:
 - the development application No. 0328/16DA submitted to Coffs Harbour City Council on 21 October 2015;
 - the environmental impact statement Proposed Expansion of Existing Hard Rock Quarry at Lot 550 DP 1181369, Pacific Highway, Dirty Creek dated October 2015 relating to the development; and,
 - all additional documents supplied to the EPA in relation to the development, including the letter titled 'DA 0328/16 Expansion of Corindi Quarry - Response to agencies' (GHD 19 December 2019) and the report titled 'Rixa Quarries Pty Ltd Corindi Quarry Noise and Vibration Assessment' (GHD December 2019).

Fit and Proper Person

60. The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in 5.83 of that Act.

Discharges to Air and Water and Applications to Land:

Location of monitoring/discharge points and areas

61. The following utilisation areas referred to in the table below are identified in the EPA's general terms of approval or a licence under the Protection of the Environment Operations Act 1997, for the purposes of the monitoring and/or setting of limits for any application of solids or liquids to the utilisation area.

62. The following points referred to in the table are identified in the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification No.	Type of Monitoring Point	Type of Discharge Point	Location Description
Monitoring/Discharge Point 1	Water	Water	Overflow point from Sediment Pond No 1
Monitoring/Discharge Point 2	Water	Water	Overflow point from Sediment Pond No 5

Limit conditions:

Pollution of waters

63. Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

Concentration limits

64. For each monitoring/discharge point or utilisation area specified in the table/s below, the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentrations limits specified for that pollutant in the table.

65. Where a pH quality limit is specified in the Table, the specified percentage of samples must be within the specified ranges.

66. To avoid any doubt, this condition does not authorise the discharge or emission of any other pollutants.

67. Water and/or Land Concentration Limits:

Points 1 and 2

Pollutant	Units of measure	100% concentration limit
Total Suspended Solids	mg/L	50
pH	pH units	6.5-8.5
Oil and Grease	Visible	Nil

68. The concentration limits in the above table do not apply to any discharge from the Sediment Pond No 1 (at Point 1) or the Sediment Pond No 5 (at Point 2) solely arising from rainfall measured at the premises exceeding 74.9mm in total falling Over any consecutive five day period.

69. If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must develop a statistical correlation which identifies the relationship between NTU and TSS for water quality in the sediment basin/s in order to determine the NTU equivalent of 50 mg/L TSS prior to its use.

70. If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must provide the EPA with a copy of the statistical correlation assessment methodology and results before using NTU in place of TSS.

71. If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must develop and implement a method to enable the ongoing verification of the relationship between NTU and TSS.

72. If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must provide the EPA with any amendments the applicant makes to the statistical correlation as a result of the ongoing verification required by Condition 71 before using the revised statistical correlation.

Noise limits

73. Noise generated at the premises must not exceed the noise limits at the times and locations in the table below.

Location	Noise Limits in dB(A)	
	Day	L _{Aeq} (15 minute)
4028 Pacific Highway, Dirty Creek (Lot 108, DP 657751)		44
4 Dirty Creek Road, Dirty Creek (Lot 1072, DP 748454)		44
1 Flinty Road, Dirty Creek (Lot 10, DP 629129)		44
27 Flinty Road, Dirty Creek (Lot 101, DP 1150718)		44
17 Bonita Drive, Dirty Creek (Lot 44, DP 731384)		44
Woodward Close, Dirty Creek (Lot 71, DP 731384)		44
17 Hawthorn Close, Corindi Beach (Lot 551, DP 1181369)		44
7 Dirty Creek Road, Dirty Creek (Lot 201, DP 1183461)		44
12 Dirty Creek Road, Dirty Creek (Lot 1071, DP 748454)		44

74. For the purposes of the condition above:

Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.

75. Noise-enhancing meteorological conditions

a) The noise limits set out in Condition 73 apply under the following meteorological conditions:

Assessment Period	Meteorological Conditions
Day	Stability Categories A, B, C, D and E with wind speeds up to and including 3m/s at 10m above ground level.

b) For those meteorological conditions not referred to in Condition 74(a), the noise limits that apply are the noise limits in Condition 72 plus 5dB.

76. For the purposes of Condition 75:

a) The meteorological conditions are to be determined from meteorological data obtained from the meteorological weather station identified as Bureau of Meteorology AWS at Grafton

b) Stability category shall be determined using the following method from Fact Sheet 0 of the Noise Policy for Industry (NSW EPA, 2017):

- Pasquill-Gifford stability classification scheme (section 01.3.1).

77. To assess compliance:

a) with the LAeq(15 minutes) noise limits in condition 73 and 75, the noise measurement equipment must be located:

- approximately on the property boundary, where any residence is situated 30 metres or less from the property boundary closest to premises; or where applicable,
- in an area within 30 metres of a residence façade, but not closer than 3 metres where any residence on the property is situated more than 30 metres from the property boundary closest to the premises; or where applicable, .
- in an area within 50 metres of the boundary of a National Park or Nature Reserve
- at any other location identified in condition 73.

b) with the LAeq(15 minutes) noise limits in condition 73 and 76, the noise measurement equipment must be located:

- at the reasonably most affected point at a location where there is no residence at the location; or,
- at the reasonably most affected point within an area at a location prescribed by condition 74(a).

78. A non-compliance of conditions 73 and 75 may still occur where noise generated from the premises is measured in excess of the noise limit at a point other than the reasonably most affected point at the locations referred to in condition 77 (a) or 77(b).

NOTE to conditions 73 and 78: The reasonably most affected point is a point at a location or within an area at a location experiencing or expected to experience the highest sound pressure level from the premises.

79. For the purpose of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the Noise Policy for Industry (NSW EPA, 2017) may be applied, if appropriate, to the noise measurements by the noise monitoring equipment.
80. Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements.

Blasting:

Airblast Overpressure

81. The Overpressure level 81 from blasting operations on the premises must not:
 - Exceed 115dB (Lin Peak) for more than 5% of the total number of blasts over a period of 12 months; and
 - Exceed 120dB (Lin Peak) at any time,

The airblast overpressure values stated above apply when the measurements are performed with equipment having a lower cut-off frequency of 2Hz or less. If the instrumentation has a higher cut off frequency then a correction of 5dB should be applied to the measured value. Equipment with a lower cut-off frequency exceeding 10Hz should not be used for the purpose of measuring airblast overpressure.

82. All sensitive receivers are to be given at least 24 hours notice when blasting is to be undertaken.

Ground vibration (ppv)

83. Ground vibration peak particle velocity from the blasting operations at the premises must not:
 - Exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and
 - Exceed 10mm/s at any time, when measured at any point within 1 metre of any affected residential boundary or other noise sensitive location such as a school or hospital.

Time of blasting

84. Blasting operations on the premises may only take place between 09:00 to 15:00 Monday to Friday inclusive.
85. The hours of operation for blasting operations specified in this condition may be varied if the EPA, having regard to the effect that the proposed variation would have on the amenity of the residents in the locality, gives written consent to the variation.

Frequency of blasting

86. Blasting at the premises is limited to 1 blast each day on which blasting is permitted.

Hours of Operation

87. Activities covered by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, must only be carried out between the hours of 7:00 am and 6:00 pm Monday to Friday, and 8:00 am and 1:00 pm Saturday, and at no time on Sundays and Public Holidays.

- 88. This condition does not apply to the delivery of material outside the hours of operation permitted. If that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification is provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.
- 89. Heavy vehicles (including excavators, dozers, haul trucks, front end loader, water carts, and the like) and machinery (including crushing plant, screening plant, water pump, cyclone, generator, pumps and the like) cannot be started, maintained, arrive, or leave, the site or operated outside of operating hours as detailed in L8.1 and at no time on Sundays and Public Holidays.
- 90. The hours of operation specified in Condition 87 may be varied with written consent if the EPA is satisfied that the amenity of the residents in the locality will not be adversely affected.

Operating conditions:

Dust

- 91. Activities occurring at the premises must be carried out in a manner that will minimise emissions of wind blown or traffic generated dust from the premises.
- 92. Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

Processes and management

- 93. Sediment basins shall be treated, if required, to reduce the Total Suspended Solids level to the concentration limit of 50 mg/L provided by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, before being released to the environment. Treatment can be with gypsum or any other material that has been approved by the EPA.
- 94. The applicant must maximise the diversion of run-on waters from lands upslope and around the site whilst land disturbance activities are being undertaken.
- 95. The applicant must maximise the diversion of stormwater runoff containing suspended solids to sediment basins installed on the premises.
- 96. Where sediment basins are necessary, all sediment basins and associated drainage must be installed and commissioned prior to the commencement of any clearing or grubbing works within the catchment area of the sediment basin that may cause sediment to leave the site.
- 97. The applicant must ensure the design storage capacity of the sediment basins installed on the premises is reinstated within 5 days of the cessation of a rainfall event that causes runoff to occur on or from the premises.
- 98. The applicant must ensure that sampling point(s) for water discharged from the sediment basin(s) are provided and maintained in an appropriate condition to permit:
 - a) the clear identification of each sediment basin and discharge point;
 - b) the collection of representative samples of the water discharged from the sediment basin(s); and
 - c) access to sampling point(s) at all times by an authorised officer of the EPA.
- 99. The applicant must endeavour to maximise the reuse of captured stormwater on the premises.

100. Each sedimentation basin must have a marker (the "sediment basin marker") that identifies the upper level of the sediment storage zone.
101. Whenever the level of liquid and other material in any sedimentation basin exceeds the level indicated by the sedimentation basin marker, the licensee must take all practical measures as soon as possible to reduce the level of liquid and other material in the sedimentation basin.
102. The sediment basins must meet the design and operational standards of Managing Urban Stormwater Soils and Construction: Volume 1 and Volume 2 E. Mines and quarries. This document requires that at a minimum 90 percentile five-day rainfall event be used to determine basin sizing for quarries.
103. All liquid chemicals, fuels and oils must be stored in tanks or containers inside suitable bund(s). Bund(s) are to be designed, constructed and maintained in accordance with AS1940-2004 Storage and Handling of Flammable and Combustible Liquids.

Noise:

Blast management protocol

104. Prior to the EPA issuing a licence for the proposal a Blasting Vibration Management Protocol must be prepared in relation to the development and implemented. The protocol must include, but need not be limited to, the following matters:
 - compliance standards;
 - a complaints handling protocol;
 - mitigation measures;
 - remedial action;
 - monitoring methods and program;
 - monitoring program for flyrock distribution;
 - measures to protect underground utilities (e.g.: rising mains, subsurface telecommunication and electric cables) and livestock nearby;
 - notification of procedures for neighbours prior to detonation of each blast;
 - measures to ensure no damage by flyrock to people, property, livestock and powerlines;

Monitoring and recording conditions:

Monitoring records

105. The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions 104 and 106.
106. All records required to be kept by the licence must be:
 - in a legible form, or in a form that can readily be reduced to a legible form;
 - kept for at least 4 years after the monitoring or event to which they relate took place; and
 - produced in a legible form to any authorised officer of the EPA who asks to see them.

107. The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

Requirement to monitor concentration of pollutants discharged

108. For each monitoring discharge point or utilisation area specified below (by a point number), the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Discharge Points 1 and 2

Pollutant	Units of measure	Frequency
Total Suspended Solids	mg/L	Special Frequency 1
pH	pH units	Special Frequency 1
Oil and grease	Visual	Special Frequency 1

Special Frequency 1 means sampling any discharge, whether controlled or otherwise, which has not occurred from rainfall exceeding 74.9 mm or any consecutive five-day period.

Testing methods - concentration limits

109. Monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area required by condition 108 must be done in accordance with:

- the Approved Methods Publication; or
- if there is no methodology required by the Approved Methods Publication or by the general terms of approval or in the licence under the Protection of the Environment Operations Act 1997 in relation to the development or the relevant load calculation protocol, a method approved by the EPA in writing before any tests are conducted, unless otherwise expressly provided in the licence.

Environmental monitoring

110. The applicant is required to install and maintain a rainfall depth measuring device at the premises.

111. Rainfall at the premises must be measured and recorded in millimetres per 24 hour period, at the same time each day.

Note: The rainfall monitoring data collected in compliance with Condition 111 can be used to determine compliance with Condition 108.

Blast Monitoring

112. For the purpose of blast monitoring the ground vibration peak particle velocity and the air-blast overpressure must be measured at the nearest sensitive receiver for each blast.

Note: The location or point of impact can be different for each development. Measurements should be taken within the grounds of 'noise sensitive sites' (e.g. residences, hospitals, schools etc.). Measurement locations can be:

- At the residential boundary; or
- 30 metres from residences in rural situations where the boundary is more than 30 metres from residences.
- Airblast overpressure levels should not be measured within 3.5 metres of any building.

Ground vibration levels should not be measured with the longest dimension of the foundations of a building or structure away from such a building or structure.

113. Attended noise monitoring must be undertaken in accordance with Condition 77 and must:

- a) occur quarterly in a reporting period;
- b) occur during each day, evening and night period as defined in the Noise Policy for Industry for a minimum of:
 - 1.5 hours during the day;
 - 30 minutes during the evening; and
 - 1 hour during the night.
- c) occur for three consecutive operating days.

Reporting conditions

114. The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

Noise Monitoring Report

115. A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

- a) an assessment of compliance with noise limits presented in Condition 73 and 75; and
- b) an outline of any management or mitigation actions taken within the monitoring period to address any exceedances of the limits contained in Condition 73 and 75.

Special Conditions:

Provision of quarterly records

116. The licensee must submit to the EPA the total quantity, in tonnes, of material hauled from the premises on a quarterly basis within 14 days of the end of each quarter being reported upon. Records verifying the quarterly quantities must be included with each submission. The quarterly reporting requirement commencing from the issue date of the EPA licence issued for this proposal.

Dust monitoring

117. Should the EPA or applicant receive complaints about dust emissions from the premises, the EPA may require the applicant to review the dust controls and or engage a suitably qualified and experienced air quality practitioner to conduct dust monitoring to assess compliance with the assessment criteria prescribed within the EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (NSW EPA, August 2005). All dust emission complaints received by the applicant must be reported to the EPA immediately.

Environmental management plan

118. Prior to commencement of operations at the premises, the applicant must prepare and implement an Environmental Management Plan (EMP). The EMP must be in accordance with Chapter 7 of the Environmental Impact Statement Proposed Expansion of Existing Hard Rock Quarry at Lot 550 DP 1181369, Pacific Highway, Dirty Creek prepared by GHD and dated October 2015.

Waste

119. If an Environment Protection Licence (EPL) is issued, prior to any waste being allowed to be imported to the site then following information will be required to be submitted to, and approved in writing by, the EPA:

- How compliance will be achieved with the relevant resource recovery orders/resource recovery exemptions (e.g. recovered aggregate) for both incoming and outgoing products;
- Interim management procedures for lawful disposal locations identified for contaminated waste (e.g. waste contaminated with asbestos);
- Quality control processes in place to ensure the waste products being received at the premises do not contain any hazardous or special wastes (e.g. asbestos, acid sulfate soils etc.). This can be achieved by development of management practices in line with the Waste Classification Guidelines);
- How and where the waste material is intended to be stored. This will need to include appropriately designed storage locations and mitigation measures for stormwater, leachate, dust, odour and prevention of ground and surface water contamination; and,
- How incoming wastes will be processed (e.g. crushing, screening or sorting) and what air, noise and water quality impacts will this cause and how will these impacts be managed.

Development and implementation of Soil and Water Management Plan (SWMP)

120. Prior to extractive activities taking place on the premises the licensee must engage a qualified consultant to develop a Soil and Water Management Plan (SWMP). The SWMP must be submitted to, and approved by, the EPA prior to extractive activities taking place. The SWMP must be prepared in accordance with Managing Urban Stormwater Soils and Construction, Volume 1 and Volume 2E. Mines and Quarries. The SWMP must:

- Detail and clearly prioritise the stormwater management measures that will be implemented to control and prevent sediment-laden stormwater from leaving the site untreated;
- Provide the size and location of sediment basins/ponds for each of the quarries sub catchments. The design and operation of basins/ponds must meet a minimum standard of 90 percentile five-day rainfall event;
- provide the precise location of each discharge point (geographical co-ordinates);
- Detail the erosion and sediment control measures to minimise disturbance of land, minimising water flow through the site and filtering, trapping and detaining sediment;
- describe measures for maintaining and monitoring all erosion and sediment controls, including de-silting of basins/ponds.

If sediment basins are proposed to be used as water storage for re-use purposes on-site (e.g. for dust suppression and/or process water) a water balance must be conducted to ensure that the design volume of the basin/pond required for stormwater capture and treatment is not compromised by water storage required for re-use purposes. Such dual purpose basins/ponds need to be accurately designed and managed to accommodate both stormwater management and water re-use objectives.

Blasting Management Protocol

121. Prior to extractive activities taking place on the premises the licensee must engage a qualified consultant to develop a Blasting Management Protocol. The protocol must include, but need not be limited to, the following matters:

- compliance standards;
- a complaints handling protocol;
- mitigation measures;
- remedial action;
- monitoring methods and program;
- monitoring program for fly rock distribution and suppression measures;
- measures to protect underground utilities (e.g. rising mains, subsurface telecommunication and electric cables) and livestock nearby;
- notification procedures for neighbours prior to detonation of each blast;
- measures to ensure no damage by fly rock to people, property, livestock and powerlines.

Operating conditions:

Activities must be carried out in a competent manner

122. Licensed activities must be carried out in a competent manner.

This includes:

- a. the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b. the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

Maintenance of plant and equipment

123. All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

Recording of pollution complaints

124. The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

The record must include details of the following:

- the date and time of the complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;

- the nature of the complaint;
- the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the licensee, the reasons why no action was taken.

The record of a complaint must be kept for at least 4 years after the complaint was made. The record must be produced to any authorised officer of the EPA who asks to see them.

Telephone complaints line

125. The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

This condition does not apply until 3 months after the issue of the EPA licence for the proposal.

Annual Return documents

126. What documents must an Annual Return contain?

The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

- a) Statement of Compliance; and
- b) Monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

127. An Annual Return must be prepared in respect of each reporting, except as provided below

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period. Where this licence is transferred from the licensee to a new licensee,

- a) the transferring licensee must prepare an annual return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose. Where this licence is surrendered by the licensee or released by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or

- b) in relation to the revocation of the licence - the date from which notice regarding the licence operates.

Deadline for Annual Return

128. The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load cannot be calculated

129. (Licences with assessable pollutants)

Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date.

The notification must specify:

- a) the assessable pollutants for which the actual load could not be calculated; and
- b) the relevant circumstances that were beyond the control of the licensee.

Licensee must retain copy of Annual Return

130. The licensee must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

131. Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a) the licence holder; or
- b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

A person who has been given written approval to certify a Statement of Compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review this licence.

Notification of environmental harm

132. Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act

Notifications must be made by telephoning the EPA's Pollution Line Service on 131 555.

The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Written report

133. Where an authorised officer of the EPA suspects on reasonable grounds that:

- a. where this licence applies to premises, an event has occurred at the premises: or
- b. where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event

The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

The request may require a report which includes any or all of the following information:

- a. the cause, time and duration of the event;
- b. the type, volume and concentration of every pollutant discharged as a result of the event;
- c. the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; and
- d. the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e. action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f. details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event;
- g. any other relevant matters.

The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

Copy of licence kept at the premises or on the vehicle or mobile plant

134. A copy of this licence must be kept at the premises or on the vehicle or mobile plant to which the licence applies.

The licence must be produced to any authorised officer of the EPA who asks to see it.

The licence must be available for inspection by any employee or agent of the licensee working at the premises or operating the vehicle or mobile plant.

ADVISORY NOTES

Water Management Act 2000 – Aquifer Interference Approval:

135. Where quarrying activities intercept the watertable an Aquifer Interference Approval will need to be obtained under Section 91 of the Water Management Act 2000.