



Our Reference: EF13/10070 DOC17/420588 -01
Contact: Peter Lynch (02) 6640 2502
Date: 1 September 2017

The General Manager
Ballina Shire Council
PO Box 450
Ballina NSW 2478

Attn: Kristy Bell

Dear Ms Bell,

Boral Asphalt Plant - Noise Impact Assessment and Bitumen Odour Management Plan.

I refer to Ballina Shire Council's letter of 10 August 2017 concerning Boral Asphalt Plant, 540 Gap Road, Alstonville. The letter seeks further the details regarding calls to *Environment Line* concerning the Boral Asphalt Plant. The letter also reiterated Council's previous request for the NSW Environment Protection Authority (EPA) to undertake independent monitoring of odour and noise emissions from the abovementioned premise.

In relation to the request for the details of the calls to *Environment Line*, please find attached to this letter the details of the calls to *Environment Line* concerning Bitupave - Boral Asphalt from January - June 2017.

In relation to the request for the EPA to undertake independent monitoring of odour and noise emissions, I refer Council to the EPA's letter of 5 September 2016 (attached) which advised: *the development of monitoring program is a key component of a BOMP and so will necessarily be carried out on behalf of the company as part of the development of the BOMP. The EPA does not normally carry out sampling and analysis of emissions as requested by Council.*

PO Box 498, Grafton NSW 2460
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If you have any questions regarding the above, please contact Peter Lynch on (02) 6640 2502.

Yours sincerely



GRAEME BUDD
Head, Environmental Management Unit – North Coast
Environment Protection Authority

Cc: Johnson, Rod - Rod.Johnson@boral.com.au

Details of the calls Environment Line concerning Bitupave Boral Asphalt Jan - June 2017

Incident Date/Time	Call Taken	Call Type	Boral Asphalt-Bitupave Alstonville Jan-June 2017 reports	Incident Location
24/05/2017 11:59:00 PM	24/05/2017 04:59:00 PM	300 NOISE/VIBRATION - 304 NON-LICENSED (EPA ARA) - Noise/vibration	Caller affected by night time noise from the Boral plant, machinery rumbling "Like a spaceship landing" - the noise is hard to describe. The caller notes that at this time of year the prevailing wind is generally from the direction of the plant. The caller typically stays up till around midnight, and the noise was present throughout the evening and as they were getting to sleep. Ongoing issue - the caller would appreciate quiet enjoyment of their home during the evening.	Boral/Bitupave, 498 Gap Road (de-listed premises)
15/05/2017 12:00:00 AM	23/05/2017 01:23:00 PM	300 NOISE/VIBRATION - 304 NON-LICENSED (EPA ARA) - Noise/vibration	The caller has been impacted by night-time noise from the asphalt plant, particularly on the evening of the 15th May up until about midnight when the caller finally got to sleep despite the noise. The noise comprised machinery noise, such as clunking and rumbling. On Wednesday the 17th the noise was also present until at least around midnight, but to a slightly lesser degree compared to the 15th May.	Boral/ Bitupave, 498 Gap Road (de-listed premises) Alstonville, noise impact to resident of Trinidad Court
15/05/2017 12:00:00 AM	18/05/2017 03:27:00 PM	300 NOISE/VIBRATION - 303 INDUSTRIAL - Odour Noise/vibration	Complaint of noise coming from Bitupave (old license #959), Gap Road Alstonville. The site is permitted to operate all night for 60 days a year but caller felt that noise levels were well over 5dba above background levels. Noise was a problem Monday 15th and Wednesday 17th May. Noise seemed to be louder before midnight. The noise was very intrusive. The caller noticed an odour last night for the first time.	Bitupave (old license #959), Gap Road Alstonville
17/05/2017 08:45:00 PM	18/05/2017 01:36:00 PM	200 AIR ODOURS - 203 INDUSTRIAL - Odour	Caller affected by strong bitumen odour from about 8:45pm last night, compelling the caller to close up the house. The caller also noted that the plant was audible as working when the caller was outdoors - this is unusual, they can't usually hear it. There was little wind at the time.	Boral/ Bitupave, 498 Gap Road (de-listed premises), odour impact to resident of Whipps Avenue Alstonville
17/05/2017 09:30:00 PM	18/05/2017 07:13:00 AM	200 AIR ODOURS - 203 INDUSTRIAL	After hours call Ref 144617 : Strong odour coming from Boral Asphalt Plant. Ongoing issues. Noticed last night 17/5/17 at 21:30. Strong fresh asphalt smell.	Odour from Bitupave/ Boral Asphalt, Gap Road, Alstonville - EPL 959
17/05/2017 07:00:00 PM	18/05/2017 09:33:00 AM	300 NOISE/VIBRATION - 303 INDUSTRIAL - Odour Noise/vibration	Bitupave, Gap Road, Alstonville - EPL 959 Odour and noise affected caller at home last night at 41 Whipps Ave. Unpleasant petrochemical odour like oil or grease. Noticed between 7-10pm then caller went to bed. The odour was very strong even though he had sinus problems. Also noticeably loud noise, general plant operating noise. Odour strength = 5/6. Wind: light breeze, east or nor-east.	Bitupave, Gap Road, Alstonville - EPL 959. Odour and noise affected caller at home last night at 41 Whipps Ave.
16/01/2017 10:00:00 AM	16/01/2017 12:56:00 PM	200 AIR ODOURS - 203 INDUSTRIAL	Very strong tar/bitumen odours from Boral Asphalt, Gap Rd, Alstonville. The odour was noticed today 16/1/17 from 10am and it is still present and its 13:00. Caller said the odour usually lasts for hours and it is very hot day today and rated the strength as 5 very strong. Caller cannot open the doors or windows nor can caller go outside to enjoy the gardening. Caller has been living at her property for 6 years and said its always been an issue. Please contact caller.	Very strong tar/bitumen odours from Boral Asphalt, Gap Rd, Alstonville.



Our Reference: DOC16/444884
Contact: Peter Lynch (02) 6640 2502
Date: 5 September 2016

The General Manager
Ballina Shire Council
PO Box 450
Ballina NSW 2478

Attn: Ms Kerri Watts

Dear Ms Watts,

Potential Health Impacts of Emissions - Boral Asphalt Plant, 540 Gap Road, Alstonville

I refer to Ballina Shire Council's letter of 10 August 2016 concerning potential health impacts of Emissions from Boral Asphalt Plant, 540 Gap Road, Alstonville.

Historical Background Odour Management

In 2014 Boral Asphalt Plant implemented an Air Quality Management Plan (AQMP) and Bitupave installed activated carbon filtration systems on the bitumen kettles and the bitumen holding tanks. The EPA notes that there have been verified odour complaints from the existing premises associated with asphalt handling and production since these works were completed.

Development of a Bitumen Odour Management Plan (BOMP)

The EPA notes that the section 96 (2) application to modify consent 1995/127 for Bitupave Ltd (Boral Property Group) was approved on 10 August 2016. Although not considered a part of the modification application, Boral has provided advice to Council that a Bitumen Odour Management Plan (BOMP) will be prepared in accordance with previous EPA advice as set out below:

Boral Asphalt Plant must prepare and implement a BOMP that includes, but is not limited to the following:

1. *The implementation of best environmental practice to ensure odours are reduced to the maximum extent achievable for all odour generating activities on site;*
2. *Development of a routine odour survey/monitoring program and reactive management strategy, including meteorological monitoring and the implementation of appropriate triggers to further develop the reactive management strategy for odour mitigation; and*
3. *Details of all proposed odour control measures including:*
 - o *Timeframe for implementation of all identified odour controls;*
 - o *Key performance indicator(s) for odour controls;*
 - o *Responsibilities for demonstrating and reporting achievement of key performance indicator(s); and*
 - o *Record keeping and complaints response register.*

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Sampling and analysis of Emissions from the *Boral Asphalt Plant*

Development of an effective BOMP, should be informed by a knowledge of the emissions discharged from the premises gathered via:

1. Sampling and Analysis

The Approved Methods for the Sampling and Analysis of Air Pollutants (January 2007) lists the statutory methods that are to be used to sample and analyse air pollutant emissions from stationary sources. A copy can be obtained from <http://www.epa.nsw.gov.au/resources/legislation/07001amsaap.pdf>

2. Modelling and Assessment

The Approved Methods for the Modelling and Assessment of Air Pollutants (August 2005) lists the statutory methods that are to be used to model and assess emissions of air pollutants from stationary sources in NSW. A copy of the Guideline can be obtained from <http://www.epa.nsw.gov.au/resources/air/ammodelling05361.pdf>

An Air Quality Impact Assessment will assist the understanding of the discharge of emissions from the site and the potential impact of any emissions discharged from the site. The BOMP would then use the information obtained through sampling and analysis as well as modelling and assessment to provide an appropriate management framework.

In the letter of 10 August 2016 Ballina Shire Council requested that the EPA conduct sampling and analysis of emissions from the *Boral Asphalt Plant*. As advised in the EPA's letter of 6 July 2016 the development of monitoring program is a key component of a BOMP and so will necessarily be carried out on behalf of the company as part of the development of the BOMP. The EPA does not normally carry out sampling and analysis of emissions as requested by Council.

The EPA is prepared to provide further details regarding the development of the proposed BOMP for the site but does not have a role in the approval of such documents.

If you have any questions regarding the above, please contact Peter Lynch on (02) 6640 2502.

Yours sincerely



GRAEME BUDD
Head, Environmental Management Unit – North Coast
Environment Protection Authority

Cc: 'Jeffery, Nathan' Nathan.Jeffery@boral.com.au

Cc: Johnson, Rod Rod.Johnson@boral.com.au

11.4 **Tuckombil and Stokers Quarry - Quarry Expansion Plans**

11.4 **Tuckombil and Stokers Quarry - Quarry Expansion Plans**

Delivery Program Operations Support

Objective To provide Council with information to determine if further funds and planning works are to be committed to progress the Quarry Expansion/Development Plans.

Background

Council considered a report in July 2013 regarding the strategic options for the Tuckombil and Stokers Quarry. It was considered timely to plan for the future potential for quarrying on these sites, as they were reaching their final stages of extraction, as permitted under their development consents.

Based on a strategic options study provided by a specialist firm of quarrying consultants, Council endorsed the recommendation to continue the extraction from both sites.

A budget allocation of \$300,000 was authorised for the preparation of a Quarry Development Plan for both sites, the preparation of environmental assessments required for continuing extraction and the submission of the necessary applications for any relevant planning and regulatory approvals.

Quarry Development Plans have been prepared for both Tuckombil and Stokers Quarry. These were prepared by a quarrying specialist who undertook field investigations, drilling and resource estimates to present plans for the future expansion of these sites.

The development proposal for both sites has been issued to the Secretary of the Department of Planning and Environment to request the Environmental Assessment Requirements (SEARs). The SEARs prescribes the specialist assessments to be included in the Environmental impact Statement (EIS) accompanying the development application.

Due to the time that has elapsed since Council's decision, the potential public interest and new information at hand, Council resolved at the July 2016 meeting to receive a further report assessing the benefits and risks associated with commencing the preparation of the next stage of the planning approval documentation for the extension of the development consent.

This report discusses the details of the development, the valuation of the asset as well as other key issues for consideration. This will allow for an informed decision to be made on the future operation of the quarries.

Key Issues

- Financial analysis on progressing with the expansion of the two quarries
- Social and community impact if the quarries were to be expanded and continue operation

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

Information

Proposed Development - Tuckombil Quarry

The proposed development for Tuckombil Quarry would occupy approximately 50% (18.6 hectares) of the land area on Lot 2 and Lot 4 DP1130300, as shown by the pink / purple boundary in the following development plan.



Figure 1: Proposed Tuckombil Quarry Development Plan (pink / purple line)

The expansion has been designed for extraction to progress from the existing quarry pit, towards the northeast.

This would impede on the northern sports field and a small section of the Council nursery, however it would not impact on the southern hockey / cricket field or the croquet field.

The elimination of one of the sports fields may be considered acceptable in light of the capacity at the new Wollongbar Sports Field, which is currently being constructed, however further consultation is required in this regard. There is also an option to reconstruct that field on the Council nursery site.

The development has been designed on a five stage approach. Refer to attachments one and two for detailed staging plans.

Stage 1 focuses on gaining access to quality materials and making way for the economic viability of the quarry operations. This stage is to create two new benches and an access ramp from the northeast to the pit area. The potential pit reserve is 654,000t of which 65% is fill / highly weathered material. This volume of fill material makes it difficult to access higher quality material without having a use or market for this fill material. It is estimated that there is sufficient market in this area that requires engineering fill material. This includes the RMS highway upgrades, Council projects, as well as several low lying upcoming residential developments.

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

Stage 2 is an extension to the above, where the two new benches will be extracted towards the extraction limit in the east. This will require negotiations with the nearest resident neighbor to the east of the existing pit due to their proximity to the extraction boundary (<250m). The pit reserve is estimated at 661,000t of which 21% is fill or HW material.

Stage 3 requires the closure of one of the hockey fields to the north, with expansion of the pit southwards. The extended new pit area will be extracted down to the final pit floor. The expected pit reserve is 1.6Mt of which 42% is highly weathered material.

Stage 4 progressively advances the benches towards the property boundary line. The potential pit reserve is 3.22Mt.

Stage 5 is independent of all other stages and is dependent on the future Boral lease conditions / decommissioning / relocation of the Asphalt plant. There is approximately 765,000 tonnes located under their currently leased area.

Proposed Development - Stokers Quarry

The proposed development for Stokers Quarry would occupy approximately 31% (6.33 hectares) of the land area on Lot 10 DP712025 and Lot 12 DP814359.

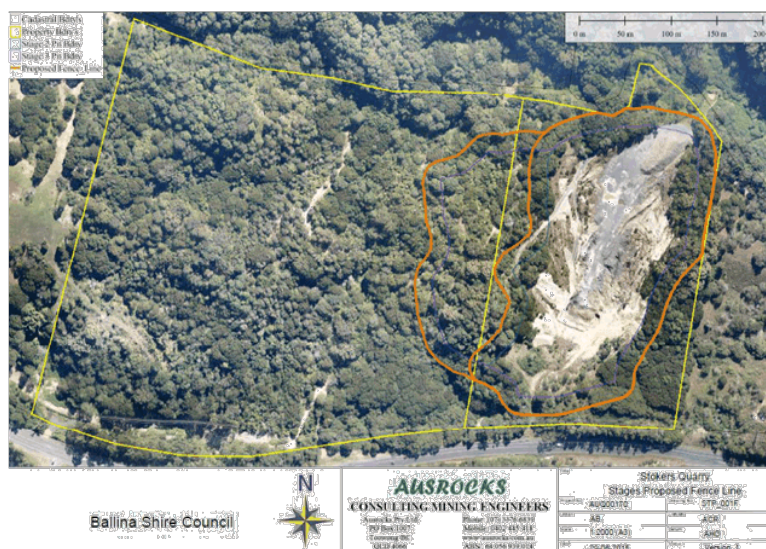


Figure 2: Proposed Stokers Quarry Development Plan (purple)

The initial stages of the development would be to re-establish the quarry pit benches to ensure stability and safety.

Currently the western bench has been poorly designed, as it is a single bench with an excavated batter angle.

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

Rectification of this requires excavation to re-align the top bench by blasting and reducing the bench height, and establish a bench floor.

The program has been designed for expansion to progress from the existing quarry pit, towards the west / northwest. This would require vegetation removal and formal notification to the Dirty Wheels Club who lease an area adjacent to the proposed area for mountain bike activities.

The pit is designed in three stages, see attached the pit design. Stage 1 and 2 focuses on the safety issues and economic viability of the operation while Stage 3 identifies further high quality rock located under a large volume of fill / highly weathered materials. This will require large projects that need engineering fill materials.

It is estimated that there is sufficient market in this area that requires engineering fill material. This includes the RMS highway upgrades, Council projects, as well as several low lying upcoming residential developments.

Stage 3 extraction is largely dependent on the market for engineering fill materials such as a large Council project that requires an extensive quantity of fill materials. It would not be economical to proceed with this stage if there is no market for the fill material.

Proposed Extraction Method and Rehabilitation

The extraction methods should continue in a similar fashion to the previous extraction methods, using drilling and blasting methods with top to bottom extraction. This would be carried out by approved contractors with qualified personnel.

Fragmented rock is then transported to the processing area where it passes through mobile crushing and screening plant to produce various materials. Depending on the product, the material may need to be crushed or screened multiple times to achieve the desired specification. Once the material is processed, it is stockpiled and then loaded into road trucks for transport to the relevant customers.

Rehabilitation of the Tuckombil and Stokers Quarry are to occur at the end of their operation life. The quarry faces will be rehabilitated by placing 1m overburden and up to 100mm of top soil on the terminal bench, with a combination of natural regeneration and supplementary planting of native vegetation.

The processing and stockpiling areas are generally flatter and contain compacted roads and laydown areas. These areas will be contoured to suit the final rehabilitation profile (with appropriate drainage) and compacted areas will be deep ripped followed by topsoil placement.

There is the option to reclaim the Tuckombil Quarry pit to a residential development area by using the excess fill materials from the site (and/or fill material from Stokers Quarry).

Impact on Alstonville Urban Expansion

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

Council resolved, 28 April 2016, to prepare place-based strategic plans for Alstonville and Wollongbar. Initial community consultation relating to the preparation of the Alstonville Strategic Plan was undertaken in June 2016.

The draft Planning and Environmental Study for Alstonville is currently being prepared, following this the Strategic Plan for Alstonville will be prepared. Once the Strategic Plan is adopted by the Council, it will provide the basis for planning decision making over a 20 year period.

During the recent engagement the Alstonville community, frequently raised questions related to the future of the Tuckombil Quarry and quarry impacts. The quarry has been considered in that context when preparing the draft Planning and Environmental Study.

In terms of the potential future residential expansion of Alstonville, in respect to the provision of additional conventional residential lots, one area that could warrant consideration is located within the buffer area to the quarry. This buffer area has been indicated by the red outline on the diagram below.

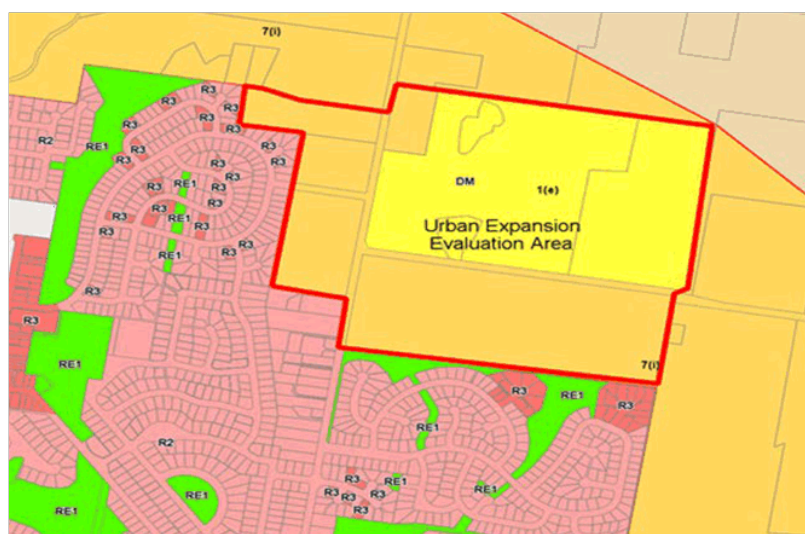


Figure 3: Potential Alstonville Urban Expansion Evaluation Area (red outline)

The residential expansion is based on the topography of the land, its connectivity with existing residential areas, proximity to the sewage treatment plant and availability of services, and the general lack of other significant environmental constraints such as those related to landslip and vegetation (although the land is identified as State significant farmland).

Current buffer distances between the quarry and residential areas are below the 1,000 metres identified as a preferred buffer distance in Council's current DCP for a quarry in which blasting occurs.

This distance is based on advice contained within the *NSW Department of Primary Industries Publication Living and Working in Rural Areas (2007)*.

It has been calculated that the nearest residential properties to the quarry property boundary are located approximately 200 metres to the west and 300

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

metres to the south. The distance from the active quarry face (north-eastern face) to the closest residential property increases to approximately 630 to 650 metres.

Located within these buffer distances, are approximately 37 hectares of privately owned land which could be investigated for future urban use, subject to the quarry buffer distances and the addressing of other site attributes and general community support for this option.

This land has the potential to provide an additional 550 dwellings based on the preferred 15 dwellings per hectare for residential areas nominated in the Council's 2012 Ballina Growth Management Strategy.

If the expansion of the quarries were to occur, depending on the market demand and production rate limits, the Tuckombil quarry could remain operational for an additional 50 years. If this is the case, and assuming that current buffer distances were to be maintained, this would effectively rule out an expansion of the Alstonville township into these areas for this approximate time period.

Asset Value

Investigative work at Tuckombil Quarry indicates a total resource volume of up to 17.3 million tonnes (Mt) is available on the site, with 11Mt of this being quality (slightly weathered – fresh basalt) rock.

The proposed expansion at Stokers Quarry has an estimated resource of 4 Mt, with 1 Mt of this being quality rock.

In both cases, the rock has been assessed for suitability for use as pavement materials, concrete aggregates, rip-rap and armour rock. Rocks that are considered not suitable for any of the above end uses could be considered for use as select fill.

A current valuation was calculated on the two assets which considered the land value and the resource value (under the current consent and pending a future approval).

Item	Tuckombil Quarry	Stokers Quarry
Land Value (unimproved)	\$1,405,000	\$755,000
Resource Value (current DA)	\$990,000	\$380,000
Resource Value (proposed DA)	\$1,670,000	\$980,000
Total	\$4,065,000	\$2,115,000

A copy of that valuation report is included as the third attachment to this report (separate attachment).

Net Present Value

A financial analysis for both sites was undertaken on the proposed development plans. The net present value (NPV) and a sensitivity analysis for two scenarios were investigated.

This was performed over a 10 year life with a discount rate of 14%. The discount rate accounts for the risks of the project, details of which are identified later in this report.

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

Scenario 1 – Continuing the operation of both the Tuckombil and Stokers Quarries in accordance with the development plans. The quarries would be operating as a joint operation, as the material at Stokers Quarry complements the material at Tuckombil Quarry, allowing for the creation of various road bases to RMS specifications.

Following sensitivity analysis, the NPV range is between \$1.3M and \$5.6M, with the base case being \$2.89M. The highest NPV is based on production at a maximum rate under the current development consent (100,000t/a for Tuckombil, 36,000t/a for Stokers).

With a new development application being submitted, these production rates can be increased further to assist with bulk removal of fill material.

Scenario 2 – Continuing the operation of Tuckombil Quarry and closing Stokers Quarry. Stokers Quarry would be put into care and maintenance for progressive rehabilitation, or alternatively, the site can be sold.

Following a sensitivity analysis, the NPV range is between \$1.5M and \$3.21M, with the base case being \$2.32M. The highest NPV is based on production at a maximum rate under the current development consent for Tuckombil Quarry (100,000t/a for Tuckombil). The production rate can be increased in the submission of a new development application to assist with the bulk removal of fill material.

This analysis does not consider the financial and other benefits that could be gained from new planning consents to increase overall extraction rates.

Benefits

The quarry expansion project has a number of benefits it can provide to Council and the Local Government Area.

- The quarries would be able to supply a local product to local projects / customers. The materials from the quarries would be crushed on site and sold locally. This supply being available in the area would benefit local projects and building programs; this is due to transport costs comprising a significant proportion of the delivered material.
- Employment opportunities would be created with the area once the quarries are operational. This could be between 2 and 8 positions (depending on production rates), with additional personnel being contracted for specific consulting tasks / specialised work.
- The quarries provide a revenue return to Council to be used for community services.

Costs

Council wrote to the Secretary, New South Wales Department of Planning and Environment (DPE). The Environmental Assessment Requirements (SEARs) for Tuckombil and Stokers Quarries EISs were requested under designated development.

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Council received the SEARs, which outlines significant requirements for assessment; including specialised studies for both sites and also greater environmental assessment details to be included in the EIS. This includes, but is not limited to:

- Traffic and transport
- Water management
- Flora and Fauna
- Noise, vibration and blasting
- Air quality
- Archaeology
- Quarry closure and rehabilitation.

Indicative costings for the preparation of an EIS for each site is in the order of \$130,000 (ex-GST) for each quarry.

Risks

Potential risks associated with this expansion of the quarries:

- Removal of the large volume of fill material to be removed from both sites in order to access the quality rock. It is believed that there is sufficient market in this area that requires engineering fill material. This includes the RMS highway upgrades, Council projects, as well as several low lying upcoming residential developments.

It is unlikely that other quarries in the area could supply the volumes of fill material that Tuckombil or Stokers could, especially when set at a competitive due to reduced haulage distances.

Increasing the production rates, would assist with the bulk sale of fill material to customers.

- Unsuccessful negotiations with the nearest residents neighboring the Tuckombil Quarry. They are located to the east of the existing pit, and are within 250m of the proposed extraction boundary (<250m).
- Community dissatisfaction with the quarries operating within their local area – concerns may be delivered in the form of traffic movements, blasting activities, dust control. All of these operational aspects would be considered and investigated through the development application. Appropriate controls would be put in place to manage these during operations.
- Community dissatisfaction from the closure of one of the sports field resulting in sporting events being held at the new Wollongbar Sports Fields.
- Difficulties in blasting at Stokers Quarry. Due to the proximity (<250m) of the site to the Bruxner Highway, blasting will not be permitted without closing the Highway.

Sustainability Considerations

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

- **Environment**

The quarry is operated in accordance with regulatory environmental controls including development consent (with conditions) and a license.

- **Social**

It is important that discussions regarding the future of the quarry have regard to the social impacts on nearby properties that may result from the quarry operations.

- **Economic**

The quarry is important for economic development. Quarry product is required for a range of purposes and sufficient supply is essential for property and infrastructure development. Efficient access to this raw material assists to ensure the costs of development are reasonable for the community. There are limited alternate sites that have the potential to provide this resource in the future.

Legal / Resource / Financial Implications

Council has an internal cash reserve for the quarries which holds accumulated cash surpluses for the operations of the quarries, less transfers from the reserve for quarry related activities, along with dividends paid back to the General Fund.

The reserve balance at the end of this financial year is forecast to be \$793,600. One of the aims of the Quarry Reserve is to ensure funds are available to rehabilitate both quarry sites at the end of their operational life.

If both quarries were to be closed at the end of their current development consent, this balance would be short of being sufficient for the rehabilitation of each site, with Stokers Quarry costing approximately \$250,000 and Tuckombil Quarry costing up to \$700,000.

As the quarries are currently not being actively operated at the moment, this reserve is not expected to increase. This is also a concern as Council's Long Term Financial Plan (LTFP) includes Quarry Reserve dividends to the General Fund of \$200,000 per annum for 2016/17 to 2021/22, \$115,000 in 2022/23 and \$50,000 thereafter.

Council has traditionally sourced a \$50,000 dividend from the Quarry Reserve each year and this was increased by \$150,000 to \$200,000 in recent years as Council was able to source low interest loans from the State Government for road reconstruction works. The repayments for those loans are being financed from this reserve until 2021/22.

With the future of the operation and expansion of the quarries uncertain, particularly with the termination of the lease by Lismore City Council, Council needs to ensure that the quarry reserve balance remains at a reasonable level, especially if remediation of the sites is required.

This being the case it is recommended that Council remove this future dividend from the LTFP, for 2017/18 onwards, until there is more certainty over the future of the quarries.

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The removal of the \$200,000 dividend has a direct negative impact on Council's recurrent funding sources, and to match this reduction it is also recommended that Council's forward funding for road reconstruction works be decreased by the same amount.

The quarry dividend has been primarily financing loan repayments relating to road reconstruction works and it is reasonable to reduce the road reconstruction budget to match the loss of this revenue source.

Council will still have an opportunity to review its overall funding for road reconstruction when undertaking our budget deliberations for 2017/18 onwards in early 2017, however for current financial planning purposes it is important that we be realistic about the quarry reserve dividend and adjust our LTFP accordingly.

From a financial perspective it is also important to recognise the total potential value of the quarry resource to the community. The original Quarry Evaluation and Strategic Options Report, undertaken by Groundwork Plus Pty. Ltd, in April 2013, included the following comment:

Supporting the highest and best use land use argument is that in regard to the value of the material remaining in the pit, based on the on the current royalty rate of \$4.03 tonne an insitu value in excess of eight million dollars is derived. If an additional two benches of material can be defined below the Stage 3 pit floor, and the approval for extraction over the Hockey fields can be secured, then the value increases significantly to around 60 million dollars over the life of the project based on the royalty return. If this development proposal is accepted then the quarry could continue for another 70 years based on the current extraction rates which would outlive several future generations of planning schemes. Accordingly it is difficult to predict over such a long time frame what the most suitable option in seventy years may be for post extraction land use, however what is certain is that the best post extraction land form in 2013 will probably not be the same as in 2083 (page nine)

A copy of that report is included as a separate attachment to this report.

The reference to \$60m does highlight the potential value of this resource to the community.

Consultation

Consultation on available options to Council has been discussed in length with the qualified consultant who prepared the Quarry Development Plans. They specialise in quarry operations and provided advice to Council and Councillors via a workshop when discussing short term quarry operations.

No community consultation has been undertaken specific to this question. If the Council proceeded to development assessment, statutory consultation requirements would apply.

Options

1. Do not proceed with additional works to expand the quarries.

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At Tuckombil Quarry, this would entail the completion of the remaining quarrying operations under the current Development Consent. At Stokers Quarry, complete Stage 1 rectification works to improve the safety of the site are required. These works come at a cost of approximately \$250,000.

2. Proceed with Scenario 1 - Expand both Tuckombil and Stokers Quarries.

Commence the preparation of the Tuckombil and Stokers Quarry EIS for submitting a development application for the proposed quarry development plans. The preparation of both of the EISs comes at a cost of approximately \$260,000. Stokers Quarry stage 1 rectification works would still be required to improve the safety and operation of the site. These works come at a cost of approximately \$250,000.

The 2016/17 operating budget for the quarries already has an allocation of \$140,000 for quarry expansion related works. To proceed with the EISs will require an additional \$120,000 transfer from the Quarry Reserve. Also another \$250,000 from the reserve would be required for the rehabilitation of Stokers Quarry.

This will leave the reserve balance at \$423,600 as at 30 June 2017.

As per the earlier information in this report, urban expansion in Alstonville, if that is supported, would not occur while the Tuckombil Quarry is still operational.

3. Proceed with Scenario 2 - Expand Tuckombil Quarry only and place Stokers Quarry under care and maintenance.

Commence the preparation of the Tuckombil Quarry EIS for submitting a development application for the proposed quarry development plan. The preparation of the EIS comes at a cost of approximately \$130,000. The \$250,000 rehabilitation of Stokers Quarry is still needed.

With \$140,000 in the budget this would require another \$240,000 transfer from the Quarry Reserve leaving a reserve balance of \$553,600 as at 30 June 2017.

The urban expansion issue discussed in option two is also relevant to this option.

4. Defer a decision until the Alstonville Strategic Plan is implemented

The advantage of this option is Council will be further informed in respect of the importance, support and timing for the option to expand Alstonville.

The disadvantage of this option is a delayed decision creates uncertainty and potentially increases the costs to prepare the development application, if that is supported later. Also, in terms of the efficient operation of the quarry under existing consent conditions, it is helpful from a financial and operating perspective to understand the future intent for the site.

This is a difficult issue with a number of competing interests.

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

It is likely residents living adjacent to the quarries will express concerns against the proposal and the relocation of some sporting activities to Wollongbar may not be supported.

However, Council also needs to be mindful the quarries represent a valuable community asset, which provides a source of revenue to support Council's services.

The quarry also assists to create a competitive market for quarry products and this is helpful to Council and those who invest in infrastructure assets within Ballina Shire.

Preparing a development application enables the preparation of scientific and other technical studies to examine all of the issues under a complete and structured methodology, and this information is then independently assessed, inclusive of community feedback. The disadvantage is significant financial resources are required.

Having regard to the value of the community asset, and the capacity of appropriate conditions to mitigate reasonable impacts if an approval is warranted, the recommendation to this report is to continue to prepare the development applications as, on balance, this process ensures all the benefits and issues are thoroughly examined.

If the Council supports this recommendation, it is further recommended that a community engagement plan be prepared to enable those members of the community interested in this proposal to be engaged with Council, as the process to prepare the applications proceeds.

If the Council does not support the recommendation, a suggested resolution would be;

That Council take no further action in regards to preparing a development application for the expansion of Tuckombil and Stokers Quarries, and further, Council continue to operate the quarries until the existing consents are exhausted and required rehabilitation implemented.

A resolution to defer a decision on this matter would be;

That Council take no further action in regards to preparing a development application for the expansion of Tuckombil and Stokers Quarries until the Alstonville Strategic Plan is completed and this report regarding the future options for the quarries be updated and resubmitted at that time.

Another option could be to defer a decision on this report until a Councillor briefing is held to further canvass all the issues raised in this report. With five newly elected Councillors, a briefing would help to provide an expanded context in respect to the operation of the quarries.

RECOMMENDATIONS

1. That Council authorises the General Manager to continue to prepare the required Environmental Impact Statement and other planning approval documentation for the proposed expansion of Tuckombil and Stokers

11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans

Quarries.

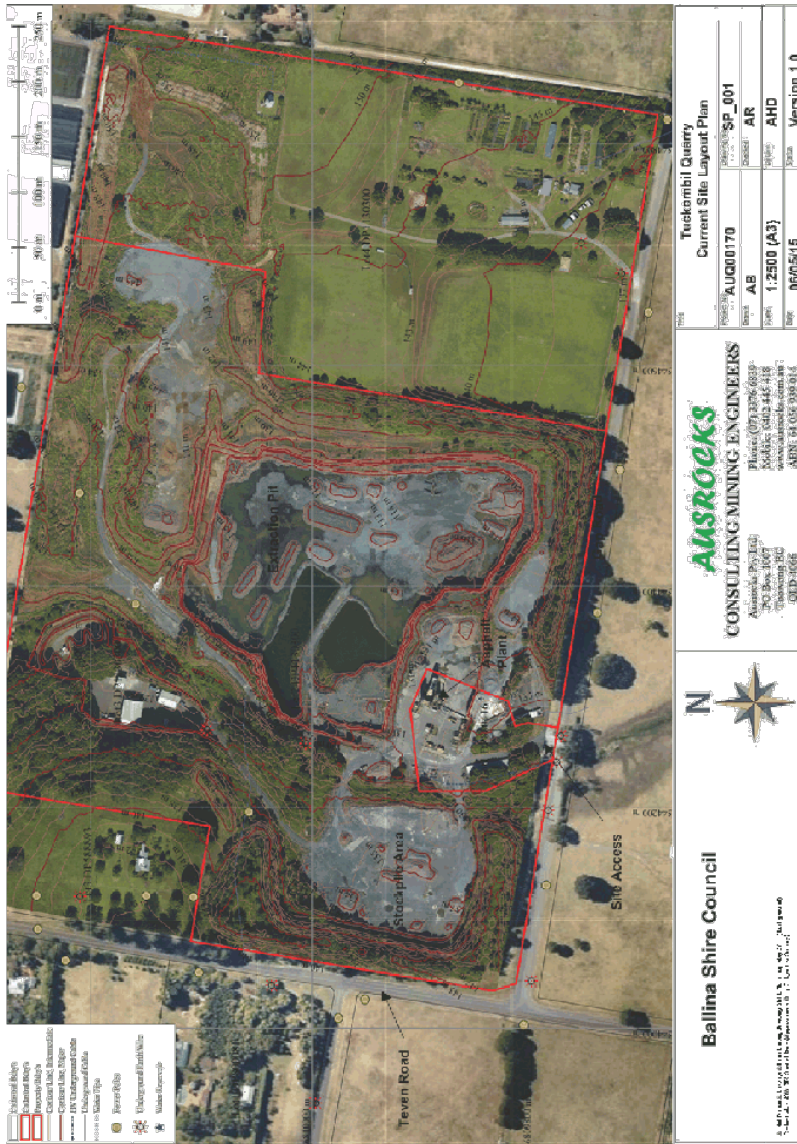
2. That in respect of point one above, a community engagement strategy be developed and implemented for the purposes of proactive community consultation during the preparation of the planning application documentation.
3. That Council increase the existing quarry expansion budget from \$140,000 to \$260,000 to finance the estimated cost of the Environmental Impact Statements, with the additional \$120,000 funded from the Quarry Reserve.
4. That Council approve a budget of \$250,000 for the Stokers Quarry Stage One rectification works, with that expenditure funded from the Quarry Reserve.
5. That Council adjust the Long Term Financial Plan for 2017/18 onwards to remove the forecast Quarry Dividend due to the current uncertainty over the operation and future of the Council owned quarries. This reduction in funding is to be offset by a matching reduction in the road reconstruction program.

Attachment(s)

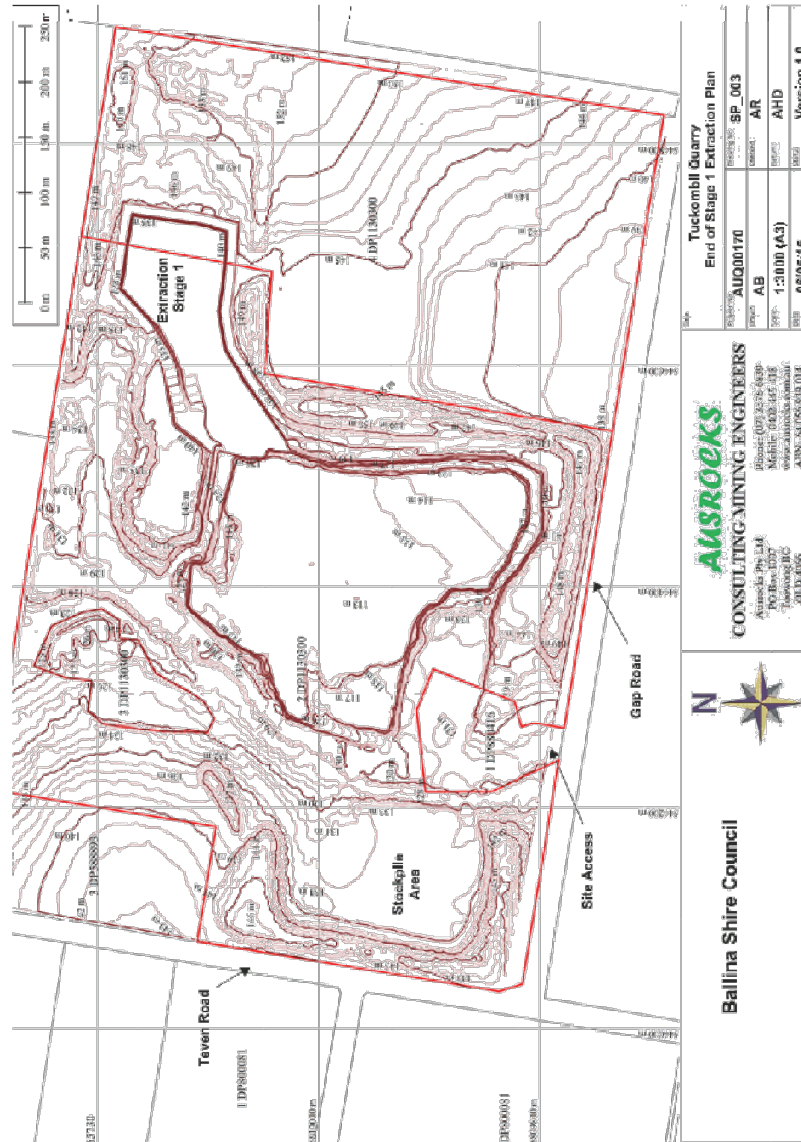
1. Proposed Development Plan - Tuckombil Quarry
2. Proposed Development Plan - Stokers Quarry
3. Valuation Report - Tuckombil and Stokers Quarry (Under separate cover)
4. Tuckombil and Stokers Quarry Evaluation And Strategic Options Report-Groundwork Plus April 2013 (Under separate cover)

13.2 Notice of Motion - Boral Asphalt Plant and Tuckombil Quarry.DOC

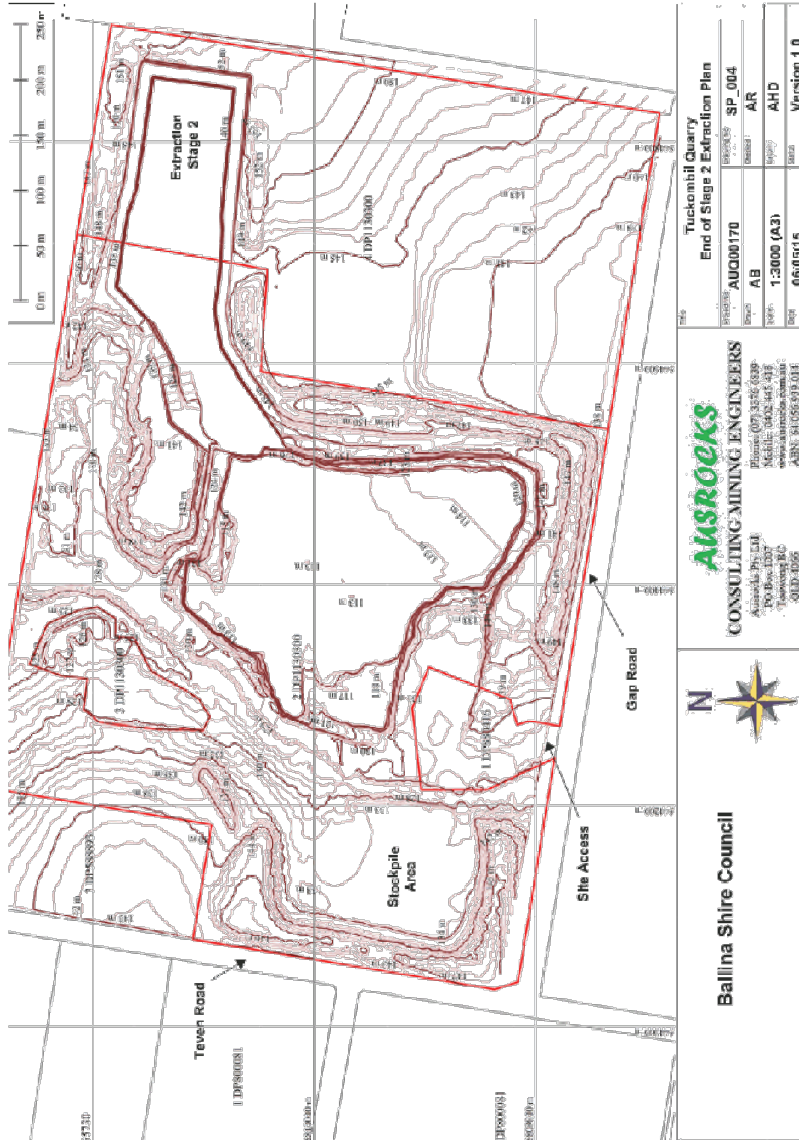
11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans.DOC



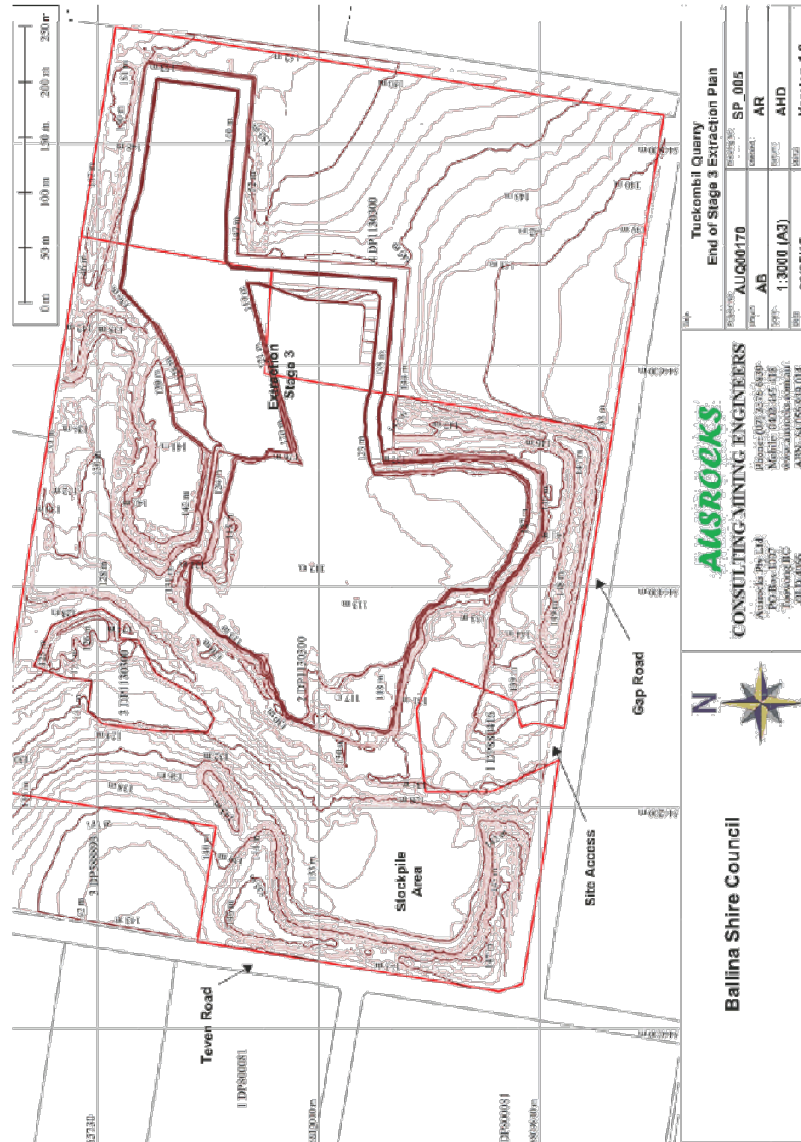
11.4 **Tuckombil and Stokers Quarry - Quarry Expansion Plans.DOC**



11.4 Tuckombil and Stokers Quarry - Quarry Expansion Plans.DOC

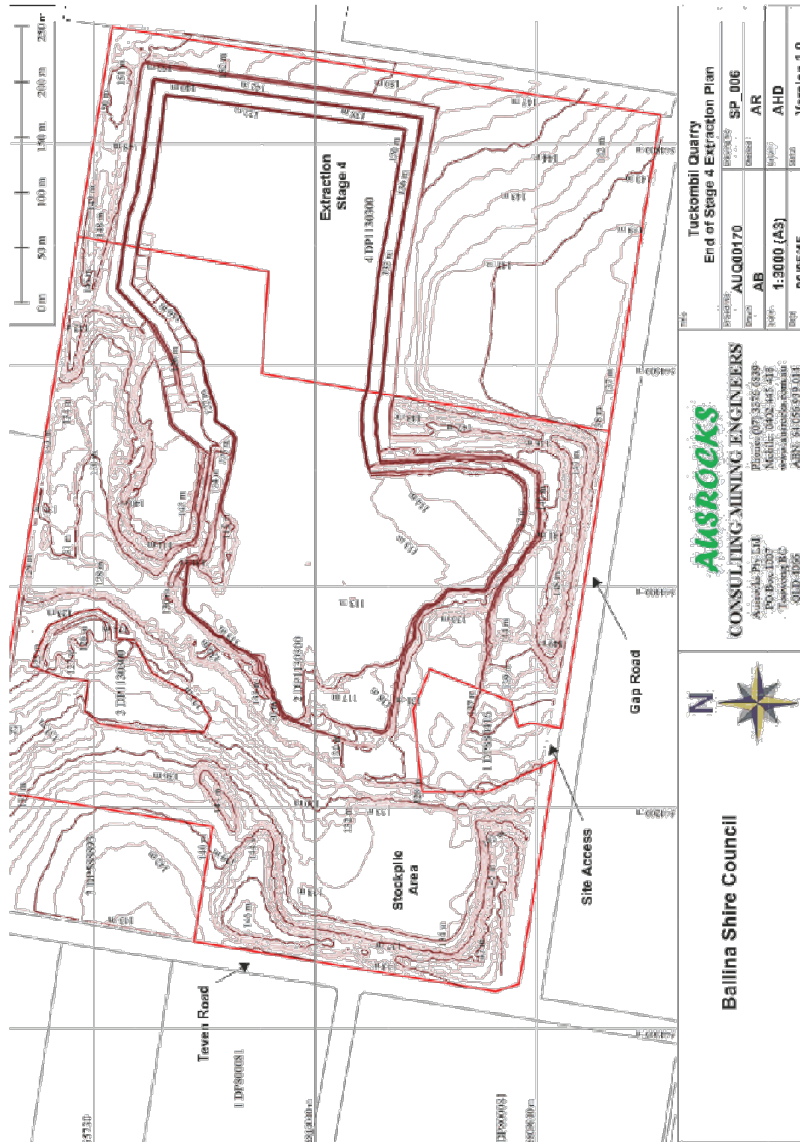


11.4 **Tuckombil and Stokers Quarry - Quarry Expansion Plans.DOC**

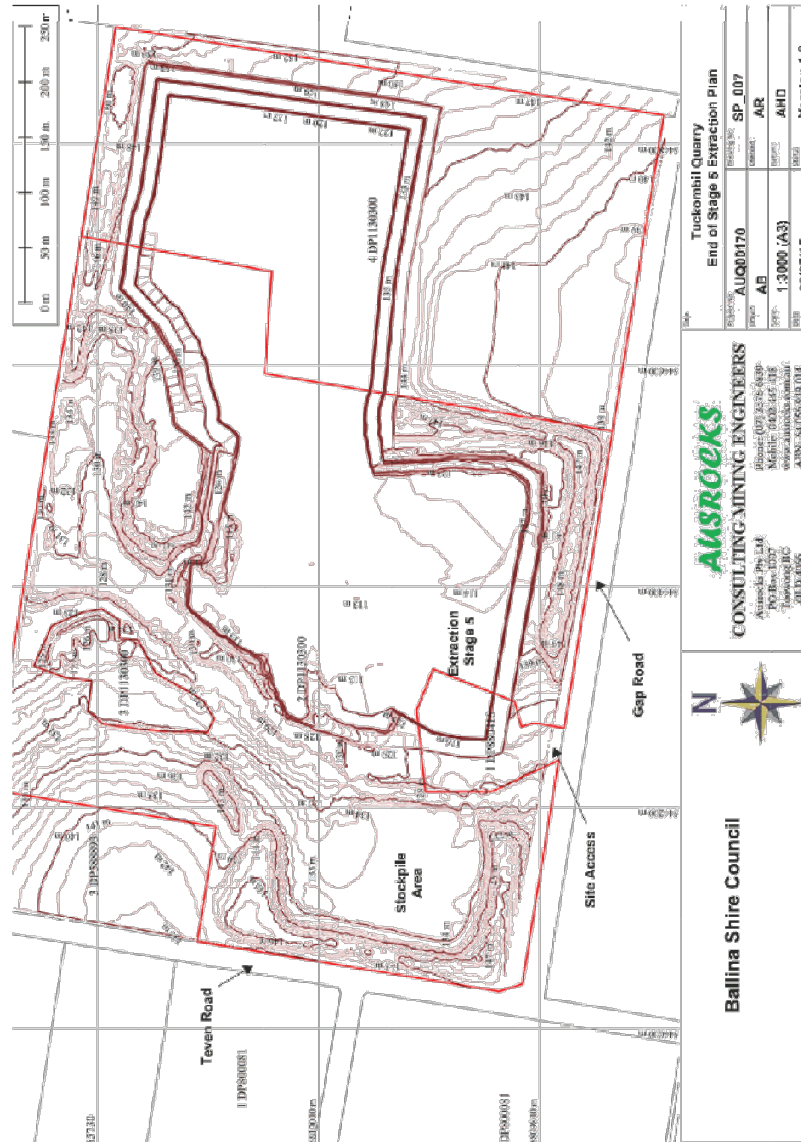


<p>AUSROCKS CONSULTING-MINING ENGINEERS AUSROCKS Pty Ltd PO Box 1007 Turrumbidgee NSW QLD 4405 Phone: 02 3525 4400 Mobile: 0408 447 018 www.ausrocks.com.au AHS: 24-056393.018</p>		<p>Tuckombil Quarry End of Stage 3 Extraction Plan</p>	
		<p>Project: AU/Q00170</p>	<p>Revision: SP_005</p>
<p>Drawn: AB</p>	<p>Checked: AR</p>	<p>Scale: 1:3000 (A3)</p>	<p>Date: AHD</p>
<p>Date: 06/05/15</p>	<p>By: BHD</p>	<p>Version: 1.0</p>	

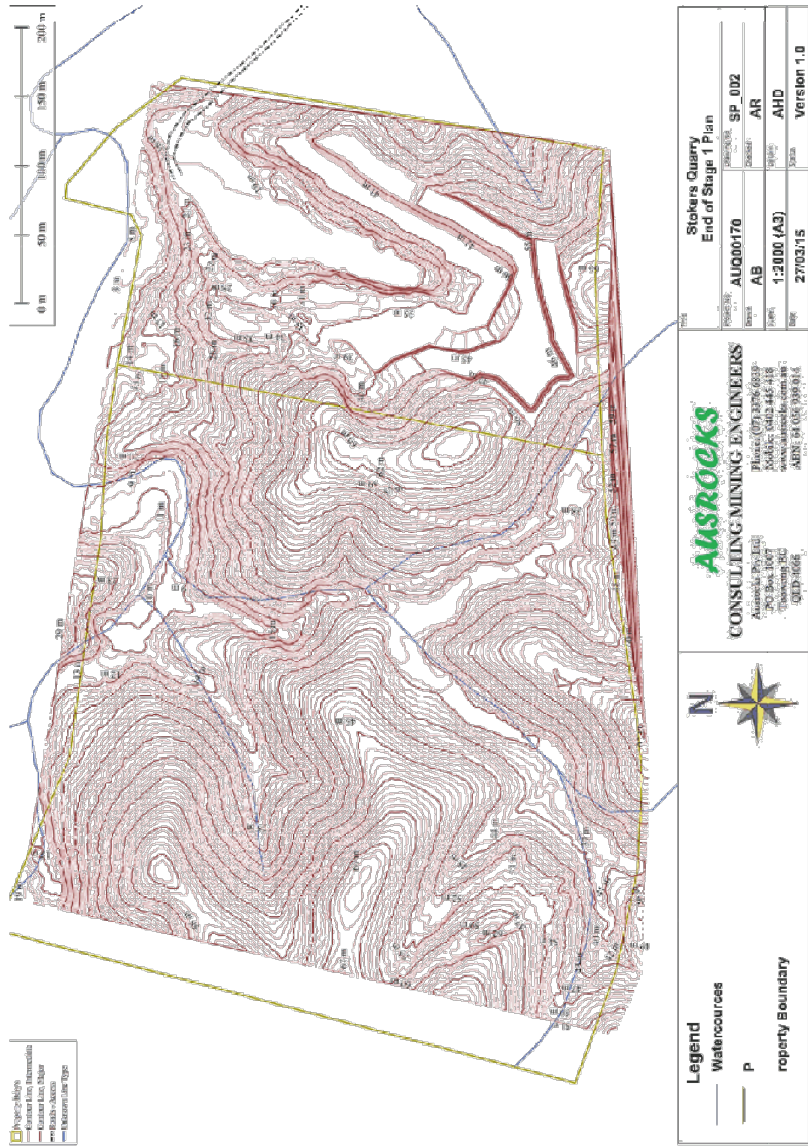
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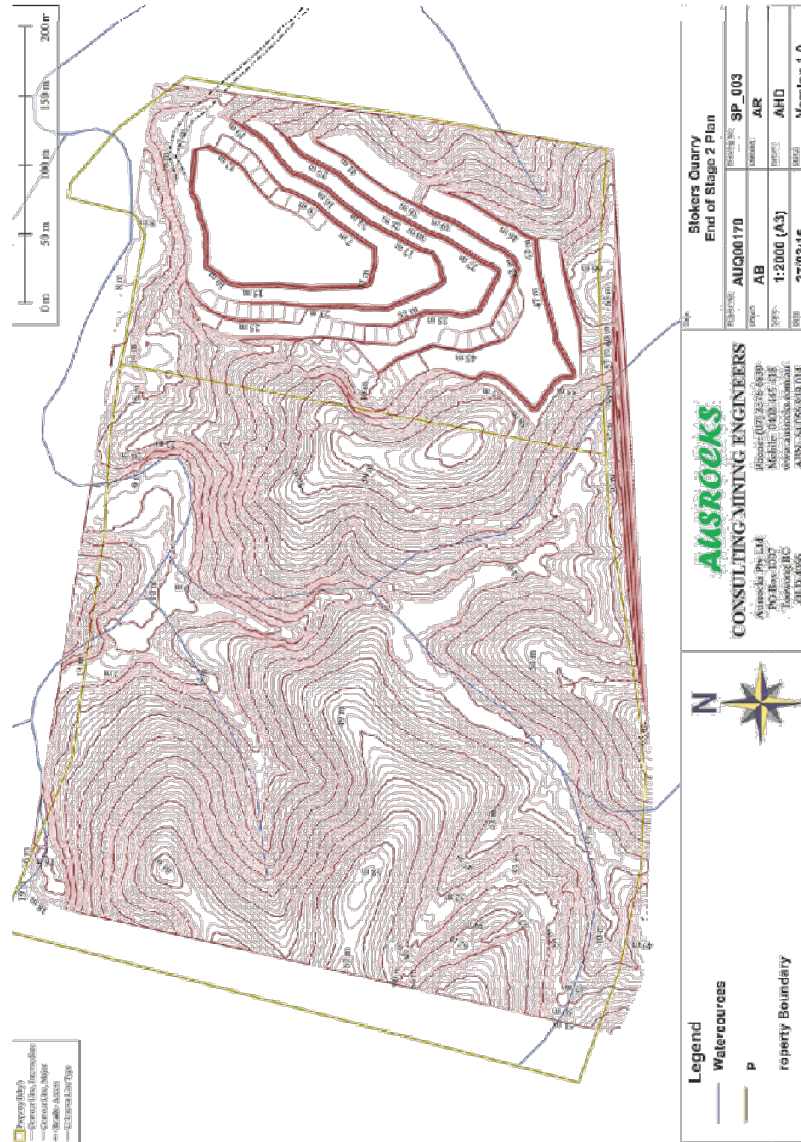
11.4 **Tuckombil and Stokers Quarry - Quarry Expansion Plans.DOC**



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