

From: Janelle Bancroft <Janelle.Bancroft@epa.nsw.gov.au>
Sent: Thursday, 1 March 2018 11:33 AM
To: Rachael Jenner
Cc: Anthony Peters; Peter Lynch
Subject: RE: HPE CM: FW: CM - FW: EPA Referral - Section 96 (2) Amendment to DA 1996/29 (Eatons Quarry) to extend the operational life of the quarry for five additional years (to 31 January 2023) - Old Bagotville Road WARDELL

Hi Rachael

I have had a look through the s. 96(2) application and the EPA does not object to the proposed changes being an extension of 5 years on the life of the quarry with no increase in extraction volumes (annual or total).

Any concerns with basin management and operation that Peter has can be addressed through the POEO and licensing provisions.

Happy to discuss.

Janelle Bancroft

Senior Operations Officer – North Coast

North Branch, NSW Environment Protection Authority

02 6640 2513 0447 139 638

janelle.bancroft@epa.nsw.gov.au www.epa.nsw.gov.au [@EPA_NSW](https://twitter.com/EPA_NSW)

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Transport
Roads & Maritime
Services

File No: NTH10/00135/02
Your Ref: 1996/29.003

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

Attention: Anthony Peters

Dear Sir / Madam,

**Section 96 (2) Modification of Development Consent No. 1996/29.003 - Eaton's Quarry
Lot 3 DP 619233, Old Bagotville Road, Wardell**

I refer to your letter of 28 November 2017 requesting comment from Roads and Maritime Services in relation to the abovementioned development application.

Roles and Responsibilities

The key interests for Roads and Maritime are the safety and efficiency of the road network, traffic management, the integrity of infrastructure and the integration of land use and transport.

Ballina Shire Council is the roads authority for all public roads (other than freeways or Crown roads) in the local government area pursuant to Section 7 of the *Roads Act 1993* (Roads Act). Roads and Maritime is the roads authority for freeways and can exercise roads authority functions for classified roads in accordance with the Roads Act. Council is responsible for setting standards, determining priorities and carrying out works on Local and Regional roads however Roads and Maritime's concurrence is required prior to Council's approval of works on classified (Regional) roads under Section 138 of the *Roads Act 1993*.

In accordance with Clause 16 of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*, Roads and Maritime is given the opportunity to review and provide comment on the subject development application.

Roads and Maritime Response

Roads and Maritime has reviewed the referred information and provides the following comments to assist the Consent Authority in making a determination;

- It is understood that the proposed modification will extend the life of the quarry operation and associated transport impacts within the existing scope of the approved development.
- Council should be satisfied that existing and proposed traffic impacts of the quarry operation remain within the scope of those previously assessed. Council may wish to identify the maximum daily and peak hourly truck movements generated along the designated haulage route.
- Consideration should be given to any road infrastructure improvements required to address the extended period over which the approved quarry will operate.
- The subject site adjoins the Woolgoolga to Ballina Pacific Highway Upgrade Project and will have frontage to the future Pacific Highway alignment. No vehicular access will be permitted to the future Pacific Highway.

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- Council may wish to consider requiring the Quarry Operator to adopt a Driver a Code of Conduct for haulage operators, this could include, but not be limited to the following:
 - A map of the primary haulage routes highlighting critical locations.
 - Safety initiatives for haulage through residential areas, school zones and/or along school bus routes.
 - An induction process for vehicle operators & regular toolbox meetings.
 - A complaint resolution and disciplinary procedure.
 - A community consultation plan for peak haulage periods.

Upon determination of the application it would be appreciated if Council could forward a copy of the amended consent for our records. If you have any further enquiries regarding the above comments please contact Matt Adams, A/Manager Land Use Assessment on (02) 6640 1362 or via email at: development.northern@rms.nsw.gov.au

Yours faithfully

For Liz Smith
A/Network & Safety Manager, Northern Region
Date: 19 December 2017

Attachment 4

Legal Advice

Our reference
LC/MF/CORR4394-6767379-5

8 Chifley
8-12 Chifley Square, Sydney NSW 2000, Australia
GPO Box 9925, Sydney NSW 2001, Australia
Tel +61 2 9210 6500
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**CORRS
CHAMBERS
WESTGARTH**
lawyers

Sydney
Melbourne
Brisbane
Perth
Port Moresby

17 October 2017

By email:
terry.woods@quarrysolutions.com.au

Contact
Matt Floro (02) 9210 6256
Email: matthew.floro@corrs.com.au

Terry Woods
General Manager – Quarry Operations
Quarry Solutions Pty Ltd
24A Ozone Street
Chinderah NSW 2487

Partner
Louise Camenzuli

Dear Terry

**Quarry Solutions – Eatons Quarry
Advice regarding section 96(2) modification application –
extending the 20-year life of Eatons Quarry**

1 Your instructions

1.1 You have asked us to advise on whether a prospective section 96(2) modification application under the *Environmental Planning and Assessment Act 1979 (EPA Act)* that seeks to extend the 20-year life of the Eatons Quarry by up to five years (**Prospective Modification**) will result in "substantially the same development" as the originally approved development.

2 Answer

2.1 In our view, the Prospective Modification is for "substantially the same" development as that approved by development consent no. DA 1996/29 (**Development Consent**) for the reasons set out in this advice.

2.2 This letter outlines the relevant background to the Prospective Modification and details the reasons for this advice.

3 Background

3.1 We understand that the Development Consent was endorsed on 22 February 1996 for the Eatons Quarry, located on Old Bagotville Road, Wardell (Lot 3 in DP 619233).

3.2 On 23 August 1996, the Development Consent was modified to extend the date for the satisfaction of the deferred commencement conditions from six months to within 15 months of the date of the Development Consent.

3470-5219-7382v1

17 October 2017

Quarry Solutions Pty Ltd

Quarry Solutions – Eatons Quarry

**Advice regarding section 96(2) modification application –
extending the 20-year life of Eatons Quarry**



- 3.3 The Development Consent authorises the continued operation and expansion of an existing Extractive Industry (shale and chert) at a rate of 50,000 tonnes per annum for a total resource of 975,000 tonnes over 20 years.
- 3.4 We understand that operations under the Development Consent commenced in January 1998 and therefore the Development Consent expires in January 2018.
- 3.5 We are instructed that Quarry Solutions intends to seek an extension of the life of Eatons Quarry for a further five year period for the following reasons:
- (i) 477,102.7 tonnes of the approved 975,000 tonnes remain in situ;
 - (ii) there is an immediate urgent demand for the material for the purpose of the Pacific Highway Upgrade Project (**Project**); and
 - (iii) being adjacent to the Project, alignment haulage distance is reduced compared to alternative quarry sites, which is beneficial to the Project, the community and the environment.

4 Reasons for advice

- 4.1 In our view it is entirely reasonable for the Council to conclude that the Prospective Modification is for “substantially the same” development as the originally approved development as the development will not be radically transformed, and is essentially or materially the same.
- 4.2 We outline the relevant law below, and the application of the law to the Prospective Modification.
- Relevant law*
- 4.3 Section 96(2) of the EPA Act states, relevantly:
- “A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:*
- (a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and*
- ...” (Emphasis added.)*
- 4.4 The consent authority is required to engage in an assessment of the **substance and effect** of the proposed modifications and compare the modified proposal to the original approved development, even where the original development consent has already been modified.
- 4.5 The applicable legal principles governing the “substantially the same” test are well-settled, and were recently restated by Pepper J in *Agricultural Equity*

17 October 2017

Quarry Solutions Pty Ltd

Quarry Solutions – Eatons Quarry**Advice regarding section 96(2) modification application –
extending the 20-year life of Eatons Quarry**

Investments Pty Ltd v Westlime Pty Ltd (No 3) [2015] NSWLEC 75. Those principles have been summarised below.

Principle	Explanation
Applicant bears the onus	The applicant for the modification bears the onus of showing that the modified development is substantially the same as the original development (<i>Vacik Pty Ltd v Penrith City Council</i> [1992] NSWLEC 8).
Beneficial and facultative	The modification power in the EPA Act is beneficial and facultative. This means that it is to be interpreted in a way that is favourable to those who are to benefit from the provision. See <i>North Sydney Council v Michael Standley & Associates Pty Ltd</i> (1998) 43 NSWLR 468 at 440.
"Before and after" comparison of the development	The condition precedent to the exercise of the power to modify consents is directed to "the development", making the comparison between the development as modified and the development as originally consented to. See <i>Scrap Realty Pty Ltd v Botany Bay City Council</i> [2008] NSWLEC 333 at 16.
Essentially and / or materially the same	The term "substantially" means "essentially or materially having the same essence" (<i>Vacik</i> endorsed in <i>Michael Standley</i> at 440 and <i>Moto Projects (No 2) Pty Ltd v North Sydney Council</i> [1999] NSWLEC 280; (1999) 106 LGERA 298 at [30]).
Not a radical transformation	The term "modify" means "to alter without radical transformation" (<i>Sydney City Council v Ilenece Pty Ltd</i> [1984] 3 NSWLR 414 at 42, <i>Michael Standley</i> at 474, <i>Scrap Realty</i> at [13] and <i>Moto Projects</i> at [27]).
Both a qualitative and, quantitative analysis	The "before and after" comparison must not be undertaken in a vacuum - it involves an "appreciation, qualitative as well as quantitative , of the developments being compared in their proper context (including the circumstances in which the development consent was granted)": <i>Moto Projects v North Sydney Council</i> (1999) 106 LGERA 298 (emphasis added). A numeric or quantitative evaluation of the modification when compared to the original

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Advice regarding section 96(2) modification application –
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	consent absent any qualitative assessment will be "legally flawed" (<i>Moto Projects</i> at [52]).
Land use	The use of the land in both the original consent and the modified proposal will be relevant, but not determinative. <i>Vacik</i> .
Fact and degree	The formation of an opinion will involve questions of fact and degree (<i>Scrap Realty</i> at [19]).

Application of the relevant law to the Prospective Modification

- 4.6 In our view, the Prospective Modification will result in a development that is "substantially the same" as that approved by the Development Consent because:
- (i) the Prospective Modification does not amount to a "radical transformation" of the Development Consent as the only change sought is an extension of the life of Eatons Quarry;
 - (ii) the Prospective Modification is "essentially or materially" the same as the Development Consent. The fundamental character and quality of Eatons Quarry remains the same, including land use and form;
 - (iii) although it may be considered that the 20-year lifespan of Eatons Quarry is a "critical element" of the Development Consent, 477,102.7 tonnes of the approved 975,000 tonnes remain in situ and therefore the quarry has not reached the extractive potential envisaged in the Development Consent; and
 - (iv) in undertaking a "before and after comparison", the change proposed by the Prospective Modification does not render the development materially different to that which was approved by the Development Consent. The only change is quantitative – an extension of the life of the development.
- 4.7 For completeness, we note that extensions of time-limited consents have been previously determined to be "substantially the same" development in a number of cases, including: *Wang v City of Canterbury-Bankstown* [2017] NSWLEC 1120, *Sansone v Waverley Council* [2005] NSWLEC 450, *Dallow v Wagga Wagga City Council* [1997] NSWLEC 10.
- 4.8 Please let us know if you have any queries about any aspect of this advice.

Yours faithfully
Corrs Chambers Westgarth

Louise Camenzuli
 Partner

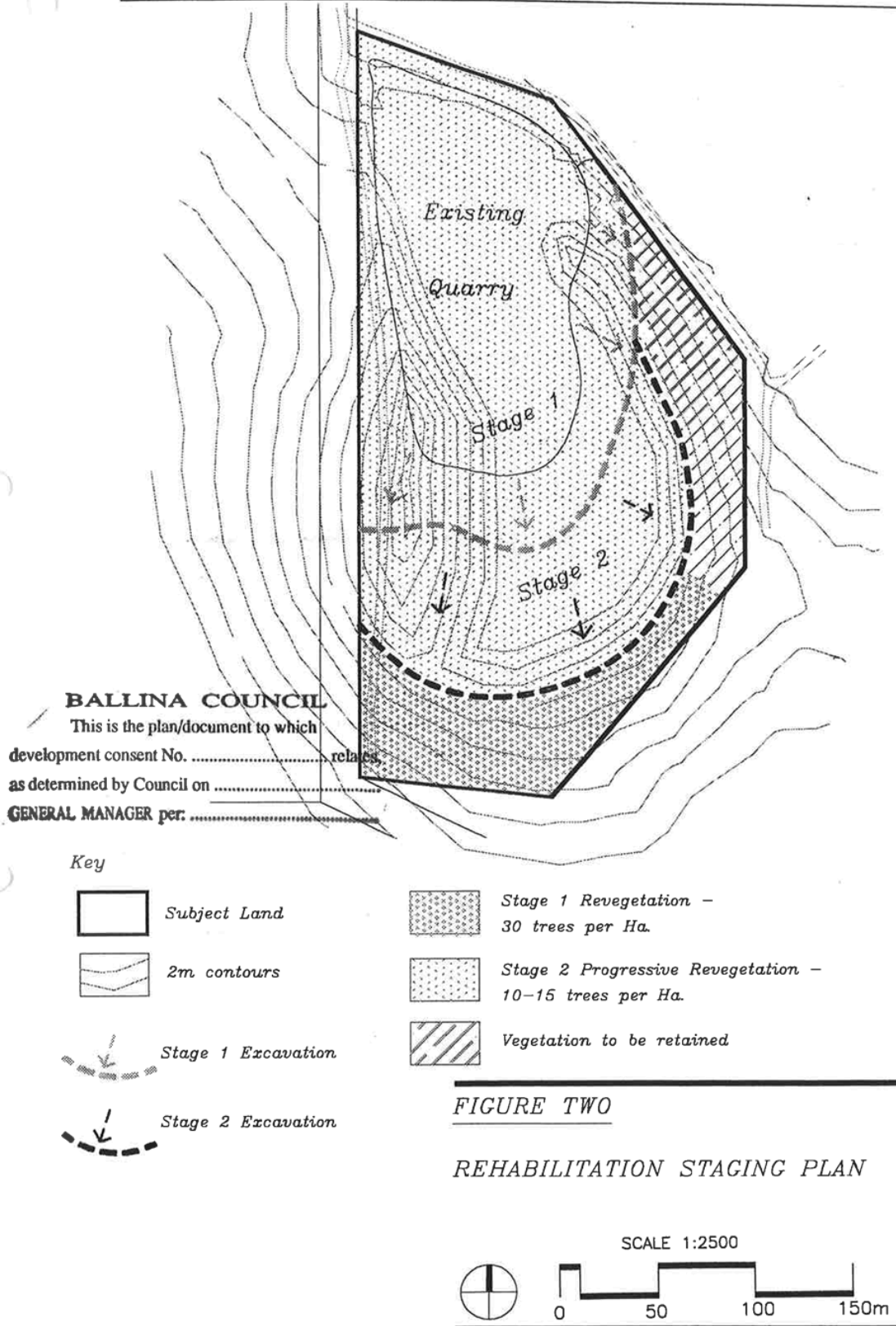


FIGURE TWO
REHABILITATION STAGING PLAN

Brian J. Mackney & Associates Pty Ltd Bangalow N.S.W. Ph(066)871289

Ballina Shire Council



MR P SNELLGROVE
ENQUIRIES REFER
DA-1996/29
IN REPLY PLEASE QUOTE

Cnr Cherry & Tamar Streets
P.O. BOX 450, BALLINA, N.S.W. 2478
DX 27789, BALLINA
TELEPHONE: (02) 6686 4444
FAX: (02) 6686 7035
EMAIL: council@balshire.org.au

22nd March, 1999

Brian J Mackney & Associates Pty Ltd
Coopers Shoot Road
BANGALOW 2479

Dear Sir,

**RE: PLAN OF MANAGEMENT – EXTRACTIVE INDUSTRY ON LOT 3 DP 619233
OLD BAGOTVILLE ROAD, BAGOTVILLE**

I refer to the subject development application and to your letter of 10 March, 1999, wherein you provided an amendment Plan of Management (POM) for the subject quarry.

The amended POM satisfies the requirements of the consent conditions of the subject application. Attached herewith is a stamped approved copy of the POM for your records.

Your client should be furnished with a copy of the POM and be advised that the undertakings and actions proposed in, and required by the POM are to be complied with at all times in the operation and development of the quarry.

Yours faithfully

A handwritten signature in black ink, appearing to be 'RA Willis'.

RA Willis
CHIEF TOWN PLANNER

PMS:bma

All communications should be addressed to the General Manager



Eatons Pit

Old Bagotville Road, Wardell



BALLINA SHIRE COUNCIL

This is the plan/document to which
development consent No: 1996/29 relates,
as determined by Council on 22 FEB 1996
GENERAL MANAGER per: [Signature]

Plan of Management

McGeary Bros

JANUARY 1998

Prepared by
Brian J. Mackney & Associates Pty. Ltd.
Coopers Shoot Road, Bangalow

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Brian J Mackney & Assoc., Pty Ltd, Bangalow Phone 02 6687 1289

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Brian J Mackney & Assoc., Pty Ltd, Bangalow Phone 02 6687 1289

1. INTRODUCTION

1.1. Preamble

This Plan of Management (POM) report has been prepared by Brian J. Mackney for the proposed development of a quarry on Lot 3 DP 619233, Parish of Broadwater, County of Rous.

The document supersedes the original POM submitted with a development application lodged with Ballina Shire Council on behalf of McGeary Bros Pty. Ltd. of Pacific Highway, Woodburn. It also reflects additional requirements of Council following review of the revised submission.

The original POM has been revised in response to Ballina Shire Council D.A. consent No. DA-1996/29, dated 22nd February 1996, for the development of a quarry on land at Old Bagotville Road, Wardell. The revised document sought to include, under one cover, the requirements of the D.A. consent and variations to the original application contained in the addendum dated 12th December 1995. The revision, dated March 1997, was submitted to Council in accordance with the consent conditions.

This document, dated January 1998, is a further revision of the earlier submission, and responds to issues raised by Council staff seeking further clarification of the Plan of Management.

The Development Application indicated that blasting may not be required until a later stage of the development. A full noise impact statement, including trial blasts, is to be carried out demonstrating compliance with EPA guidelines prior to any production blasting.

1.2. Land Ownership, Size and location

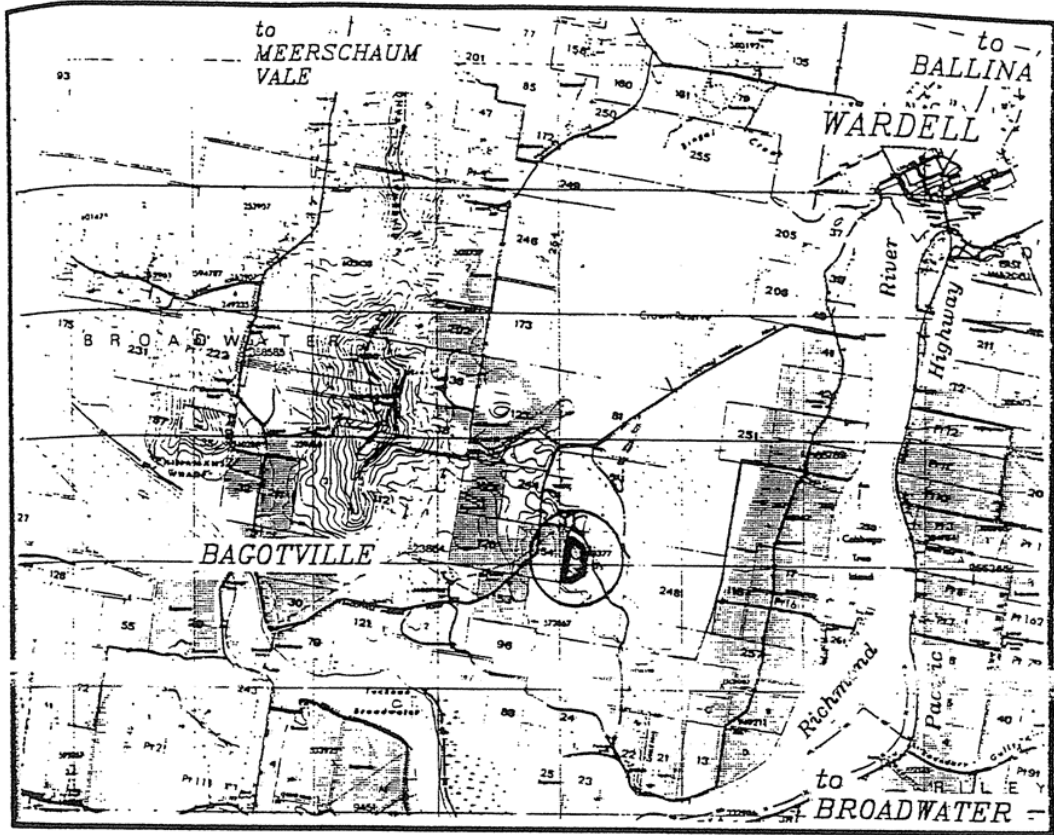
The existing quarry site is owned by W.O and J. McGeary.

It has an area of 5.858 ha and is located adjacent to an unnamed public road connecting to Bagotville Road approximately 4 km south-west of the township of Wardell.

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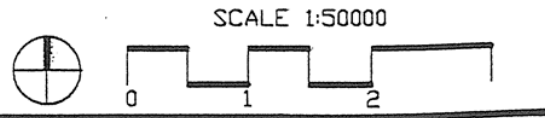
1.3. Objectives of the Proposal

- The objectives of the proposal to extend the existing quarry:
 - ◆ to provide adequate gravel resources within the North Coast of New South Wales to meet future demand for road construction materials at an acceptable quality and price;
 - ◆ to identify and protect known gravel deposits which are an accessible source of reliable quality road-base, sub-base and select fill material and maximise their potential for present and future use;
 - ◆ develop a plan of management for the continued development of this quarry in an environmentally satisfactory manner, taking into account the state of the existing quarry, the nature of the resource, the predicted demand for materials and the nature of the surrounding environment;
 - ◆ to provide measures that will protect and enhance local and regional flora and fauna ecosystems.
 - ◆ to implement measures which will protect and enhance surrounding landuses and the rural amenity of the area and the local and regional road and traffic environment; and
 - ◆ to establish monitoring and reporting requirements for the development.



Eaton's Quarry Site

Figure 1
Locality Site Map



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1.4. Associated Documents

The POM has been prepared with reference to a number of supporting documents which should be read in conjunction with it, including the following:

- ◆ The Statement of Environmental Effects, including a Flora and Fauna Assessment prepared by Brian J. Mackney & Associates to accompany the Development Application.
- ◆ Council's Development Consent No. DA-1996/29.
- ◆ Noise Impact Statement by H.K. Clarke & Associates Pty. Limited dated 17th May, 1995.
- ◆ Flora and Fauna Assessment by Brian J. Mackney & Associates, dated May 1995.
- ◆ Addendum the Flora & Fauna report Prepared by Semmac Environmental Pty Ltd.
- ◆ Letters of Response and pre-approval from various authorities including the following:
 - ❖ Department of Land and Water Conservation Dated 17th May 1997
 - ❖ Environmental Protection Authority dated 21st September 1995 & 2nd May 1997
 - ❖ National Parks and Wildlife Service dated 28th August 1995 & 18th January 1996
 - ❖ Roads and Traffic Authority dated 1st September 1995
 - ❖ Jali Local Aboriginal Land Council dated 18th August 1995

Refer to Appendix B.

2. DESCRIPTION OF THE DEVELOPMENT

2.1. Outline of Operations

The primary use of gravel from the quarry is for local road maintenance and construction. In the first instance, the quarrying operation will involve:

- Dozing and Excavating
- Crushing
- Screening
- Stockpiling
- Loading and
- Hauling

As the extraction progresses, subsequent stages of the quarry may require blasting, if the material becomes too hard for extraction by dozer or excavator. Prior to any production blasting being implemented on the site, a full Noise Impact Assessment, including trial blasts, shall be carried out to assess the overblast pressure and ground vibration at adjoining residences to ensure compliance with EPA guidelines and standards then current.

2.2. Hours of Operation

The hours of operation for the quarry will be as follows:

Table 1

PROPOSED HOURS OF OPERATION

Activity	Hours	Days
Quarrying	0700 hrs to 1700 hrs	Monday to Friday
	0800 to 1500 hrs	Saturday
Product trucking	0700 hrs to 1700 hrs	Monday to Friday
	0800 hrs to 1500 hrs	Saturday
Blasting (if required)	0900 hrs to 1500 hrs	Monday to Saturday

Note: No blasting shall be conducted until a full NIS demonstrates compliance with EPA Guidelines. Any blasting shall be carried out in accordance with an approved NIS and limited to the hours of 0900hrs to 1500hrs Monday to Saturday.

Brian J Mackney & Assoc., Pty Ltd, Bangalow Phone 02 6687 1289

2.3. Description of Material

The gravel resource is primarily chert, the geology of which has its origins in the Palaeozoic Neranleigh-Fernvale Group. This group consists of a series of thinly bedded shales, mudstones, siltstones and sandstones with occasional massive greywackes, volcanic tuffs, agglomerates, cherts and quartzites. These rocks have all undergone extensive deformation and exhibit a closely spaced jointing or cleavage pattern which, together with their weathering characteristics, make them particularly useful as road construction material.

2.4. Approved Annual Extraction Rate

The approved annual extraction rate for the pit is 50,000 tonnes per annum.

The current rate of extraction is 8,800 tonnes. This is expected to increase to a proposed maximum annual extraction rate of 50,000 tonnes.

Details of actual extraction rates are to be submitted to Council on a quarterly (3 monthly) basis. Prior formal development consent is to be obtained from Council for any proposed extraction in excess of this amount.

2.5. Extent of the Resource

Contours produced from site survey show a total of approximately 975,000 tonnes within the defined quarry resource, which equates to around 390,000 cubic metres in situ or 650,000 loose metres.

The quarry has a projected life of 20 years at the proposed maximum rate of extraction of 50,000 tonnes.

The development consent enables a total extraction of 975,000 tonnes or permits the quarrying on the site for not more than 20 years, whichever is achieved first. This approval is contingent upon satisfactory re-appraisal of the Plan of Management at the five year period.

The consent shall lapse in accordance with the above, at which time extraction shall cease in accordance with the Plan of Management and conditions of consent.

The existing landform is presently at a level of around 40m AHD. The final Landform will be approximately 12m AHD.

Brian J Mackney & Assoc., Pty Ltd, Bangalow Phone 02 6687 1289


3. PLAN OF MANAGEMENT

3.1. Outline

The plan of management aims to permit the efficient and viable operation of the quarry while, at the same time, ensuring protection of the environment and amenity of the site surrounds and satisfaction of the conditions of development consent. It includes consideration of the following:

- ⇒ an extraction plan
- ⇒ environment protection measures
 - habitat protection
 - measures for retention of topsoil
 - erosion and sediment control
 - stormwater management
 - water quality protection and monitoring
 - fuels and oils storage
 - waste disposal
 - site rehabilitation
- ⇒ measures for protection of the amenity of the area include
 - archeological and cultural protection
 - noise control
 - dust control
 - traffic management
 - visual protection
 - safety issues
- ⇒ approvals, licensing and monitoring requirements

BALLINA SHIRE COUNCIL

This is the plan/document to which
development consent No: 1996/29 relates,
as determined by Council on 22 FEB 1996
GENERAL MANAGER per: 

Brian J Mackney & Assoc., Pty Ltd, Bangalow Phone 02 6687 1289

The plan of management should be considered a dynamic tool for control and review of activities at the quarry from time to time. It should be reviewed and amended where necessary on a biannual basis to ensure that the quarrying operations continue to meet objectives in terms of viability and the quality of materials produced, and in terms of meeting environmental objectives of the development.

3.2. Extraction Plan

A two stage extraction plan has been developed for the quarry which incorporates proposals to limit the visual and noise impacts of the development and which retains and enhances, as far as practical, the existing habitat values of the site.

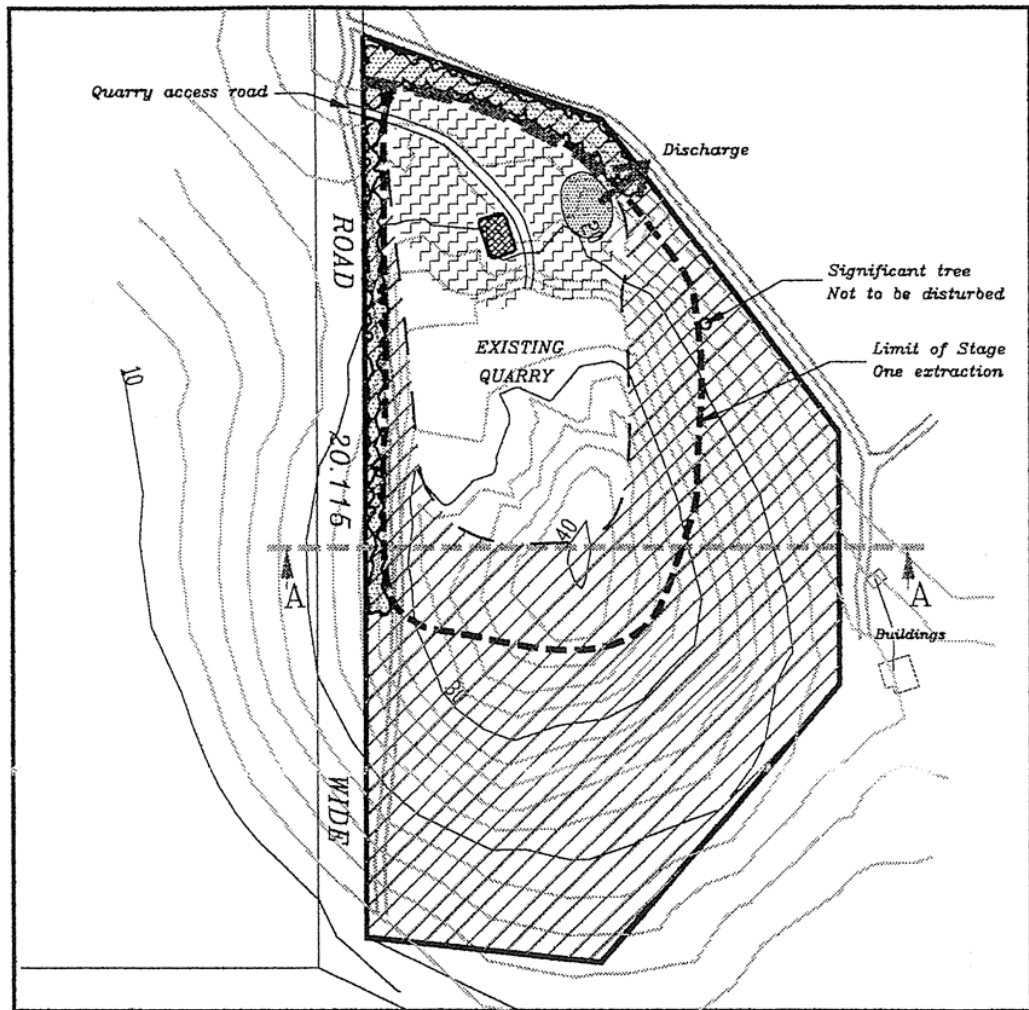
Figures 2(a) – 2 (c) show the development of the quarry from the existing to the final landform.


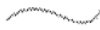








Figure 2(a) depicts the existing landform of the site and a cross section across the working floor of the quarry. It also indicates the area proposed to be extracted in stage one of the development.

Figure 2(b) depicts the proposed stage one of extraction, and indicates the area proposed to be extracted in stage two the final stage of the development.

Figure 2(c) depicts the final landform of the site by which time will have been rehabilitated to farmland, with habitat trees planted throughout.

Plan of Management - Eatons Pit - McGeary Bros 1998 9



- Key**
-  Subject Land
 -  2m Contour
 -  10m Contour
 -  Existing vegetation
 -  Rehabilitation area
 -  Vegetation buffer
 -  Stage One extraction
 -  Sediment/retention dam
 -  Cut-off drain
 -  Bunded fuel storage and machinery maintenance area

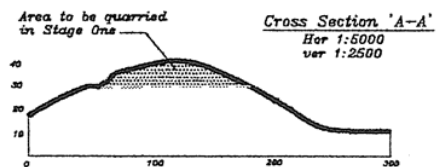
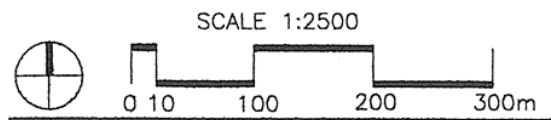
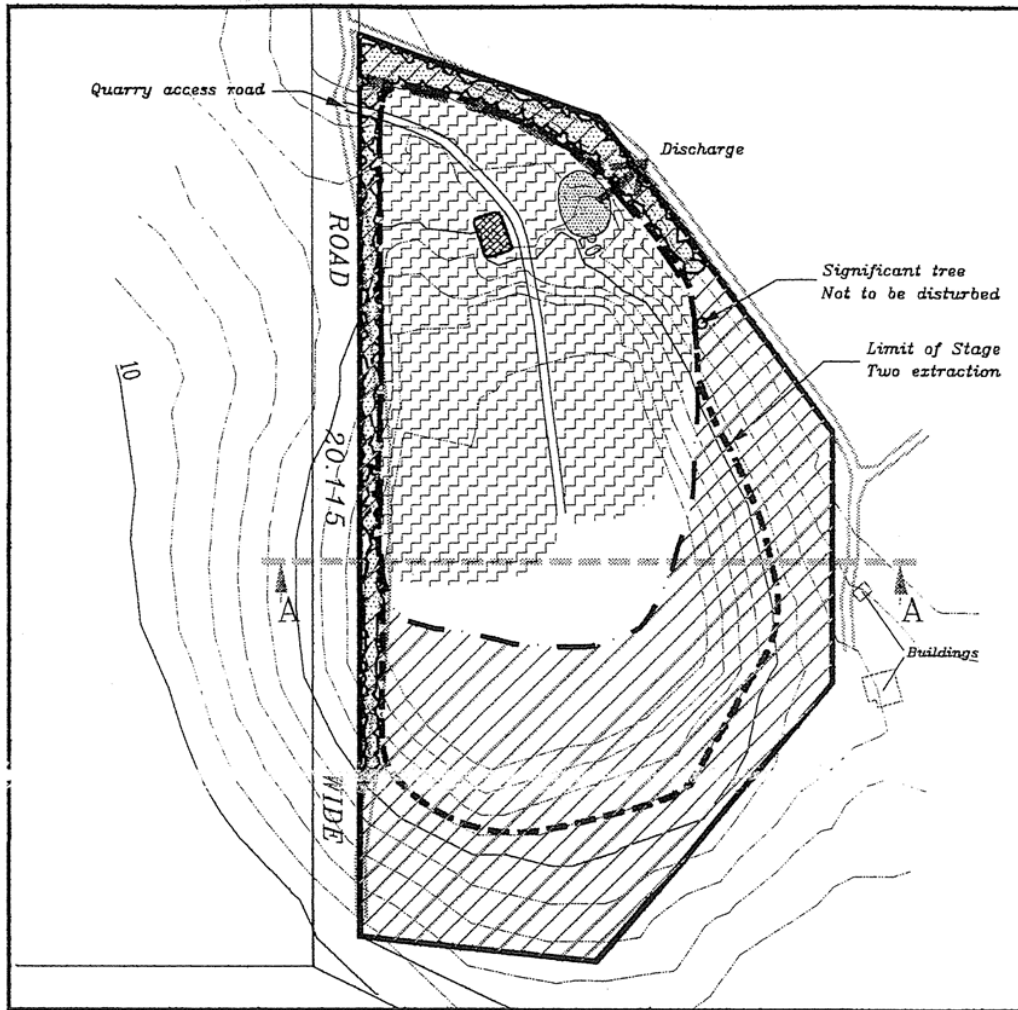


Figure 2(a)
Existing Landform



Plan of Management & Access Plan for Quarry DA 1996/29

Plan of Management - Eatons Pit - McGeary Bros 1998 10



- Key**
- Subject Land
 - 2m Contour
 - 10m Contour
 - Existing vegetation
 - Rehabilitation area
 - Vegetation buffer
 - Stage Two extraction
 - Sediment/retention dam
 - Cut-off drain
 - Bunded fuel storage and machinery maintenance area

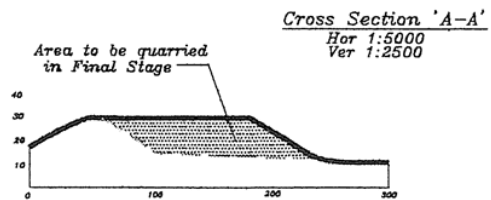
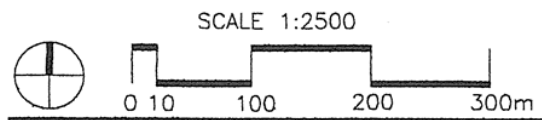
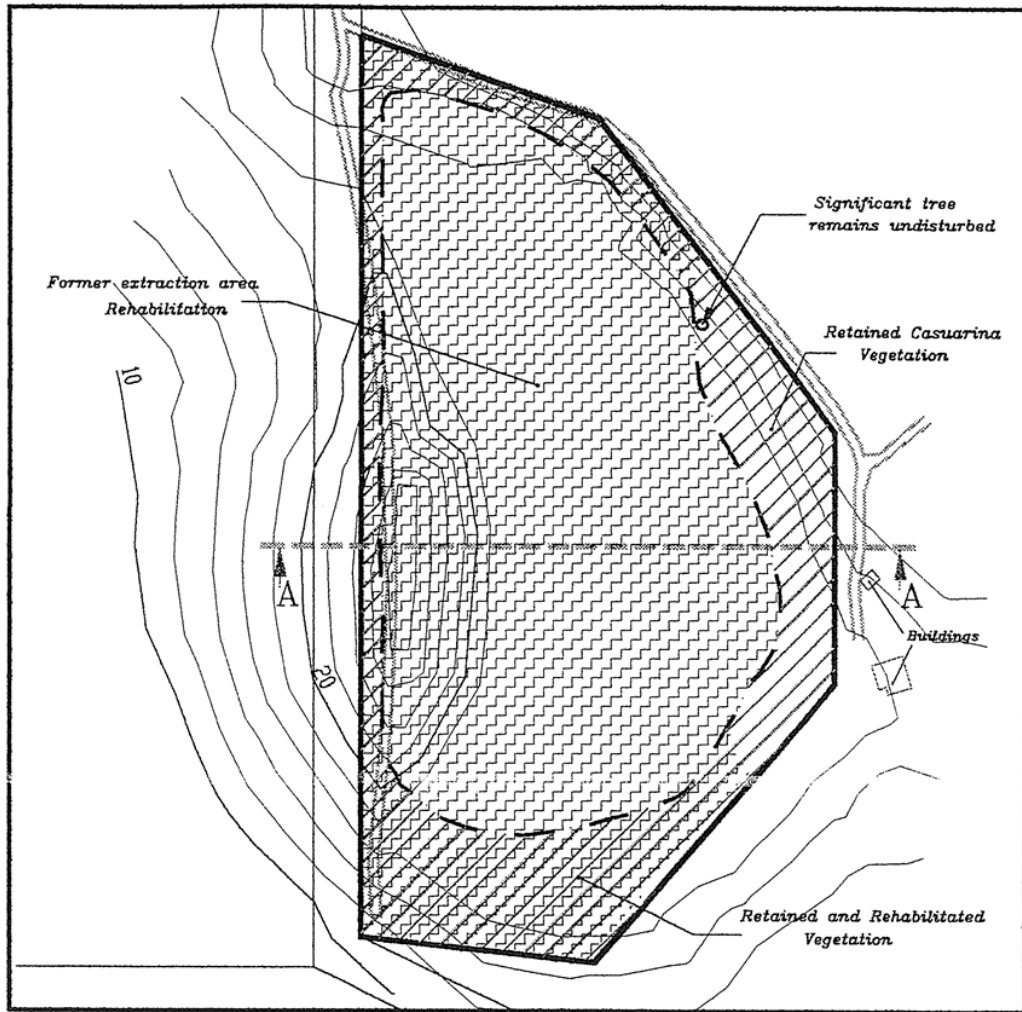


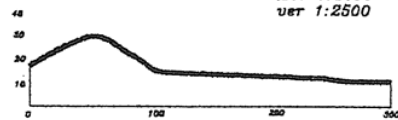
Figure 2(b)
 Proposed Extraction
 Stage One



Plan of Management - Eatons Pit - McGeary Bros 1998 11



Cross Section 'A-A'
 Hor 1:5000
 ver 1:2500








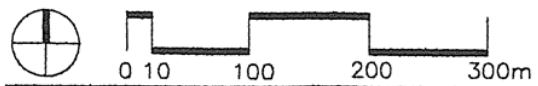
- Key**
-  Subject Land
 -  2m Contour
 -  10m Contour
 -  Retained vegetation
 -  Rehabilitation area

Figure 2(c)
 Final Landform
 Landscaping Plan

SCALE 1:2500



Brian J. Mackney & Assoc., Pty. Ltd., Phone 02 6687 1289

3.3. Environmental Protection Measures

3.3.1. Habitat Protection

The clearing of vegetation at the site shall be kept to a minimum, only exposing sufficient area as is required for immediate use.

The quarry area shall be limited to two (2) hectares at any one time to minimise sediment losses from the site and impacts on water quality. Site stripping shall be carried out progressively, only exposing that area required for immediate use.

Extraction will be arranged to allow retention, as far as possible, the stand of casuarinas along the eastern boundary of the site, to a width varying from thirty (30) to fifty (50) metres (i.e. up to the 18 m contour), to protect habitat currently being used by the Glossy Black Cockatoo. (refer to Figure 2c)

A further band of existing vegetation to the south of the site is also to be retained, and will be more densely planted with casuarinas, to compensate for casuarinas which will be lost over time as the extraction progresses southward.

Figure 2(a) depicts the existing quarry and surrounding site vegetation. Figure 2c) indicates the bands of vegetation to be retained to preserve the habitat value of the site. Note that the significant tree identified in the flora report shall not be disturbed by any quarry operation.

Site rehabilitation will provide for additional plantings to augment the habitat value of the site for both the cockatoo and the koala. Figures 2a) – 2c) show the progressive rehabilitation plan of the site including the bands of natural vegetation to be retained. Figure 2c) depicts the final landscaping plan of the site.

Progressive rehabilitation shall continue throughout the life of the quarry. Rehabilitation of quarried areas shall include the recontouring of the site to slopes equal to or less than the natural gradient of the local terrain, and typically not greater than 1 in 3; the placement and spreading of subsoil and topsoil over disturbed areas and its stabilisation by planting of suitable quick cover grasses; the planting of suitable koala food trees either taken from "on site" sources or selected from the list provided herewith; and the maintenance and monitoring of the rehabilitation works, including weed and fire control measures.

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3.3.2. Retention of Topsoil and Subsoil

Topsoil and subsoil management is critical to site rehabilitation.

There is limited topsoil remaining on the site. Most has been previously removed or stripped and pushed into stockpiles, along with overburden material, at the centre and towards the centre rear of the site. These stockpiles are now largely overgrown with regrowth vegetation. Future successful use of this material for site rehabilitation may require some soil modification techniques to be applied. Since there is only limited topsoil now available, advice should be sought from the Department of Land and Water Conservation to ascertain the most appropriate means of utilising the available material prior to its reuse.

Remaining topsoil on the site shall be carefully stripped and, where possible, used immediately for rehabilitation of disturbed areas of the site. Where possible, double stripping should be carried out, i.e. remove and separately place the top 50 mm of soil which contains the majority of seeds, etc.

When redistributed over recontoured areas, topsoil should not be placed alone on the top of bedrock, but should be provided with an underlay of subsoil, with reasonable properties for plant growth, to produce better results than a thin layer of topsoil alone.

If stockpiling of topsoil cannot be avoided, then the following shall be adopted;

- soil will not be stripped when wet so as to prevent compaction and loss of structure;
- topsoil will be reused as soon as possible;
- subsoil will be separately stripped, stored and redistributed from topsoil;
- stockpiles will be limited in size to low mounds no more than 1 - 2 m high;
- stockpiles will be located where they will not be disturbed by future quarrying.

Revegetation works on the slopes and benches should concentrate on stabilisation of loose soil material. Quick growing grass species such as rye grass, sorghum or millet should be sown wherever there is exposed soil.

Overburden shall also be stripped from the site for later use in site rehabilitation. If overburden material is insufficient for the covering of the final quarry landform, then the surface should be ripped to a depth of 0.5 metres and the surface treated with fertiliser and soil conditioner such as dolomite. Advice should also be sought from the Department of Land and Water Conservation as to the method to be utilised at the appropriate time.

All stockpiles shall be stabilised and revegetated by seeding or turfing within 14 days of completion of earthworks. Table 1 contains recommended grass species for planting of stockpiles.

Common Name	Sow rate
Millet	20 kg/ha
Subterranean Clover	8 kg/ha
White Clover	0.5 kg/ha
Rye Grass	20 kg/ha

TABLE 1 – RECOMMENDED GRASSES TO STABILISE SOIL STOCKPILES

3.3.3. *Stormwater Management and Sediment Control*

Effective erosion and sediment control measures are to be adopted to the satisfaction of Council's Engineer and the requirements of the Department of Land and Water Conservation (DLWC) - formally Soil Conservation Service - and the EPA.

Water pollution controls shall be maintained as part of the development to minimise the loss of particulate matter to downstream waterway systems. Runoff from the active quarry area, product stockpile areas and haulroads shall be collected and passed through a sediment trap retention system prior to discharge.

Rehabilitation and restoration of the site shall commence immediately in accordance with the approved plans and intent of this POM so as to reduce the area exposed to erosional forces at any one time. Stockpiled material for future on-site rehabilitation is to be stabilised by planting with a non-aggressive grass cover. All "non-active" areas of the quarry, throughout the life of the project, shall be temporarily grassed to minimise run-off.

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Waters discharged from the site shall not contain more than 50 milligrams per litre of non-filterable residues and shall maintain a pH in the range of 6.5 to 8.5.

Machinery maintenance/servicing area and the fuel/oil storage are to be bunded to prevent runoff from these areas entering waterways, eliminating the potential for downstream pollution by oils, fuel and grease. The location of this bunded area is indicated in Figures 2a) – 2b).

3.3.3.1. Retention Basin Design

Sediment dams shall be designed in accordance with Department of Land and Water Conservation guidelines and the Environment Protection Authority Draft Guidelines for Managing Urban Stormwater, Conservation Activities (1996).

In view of the isolated location of the quarry, and its intermittent operation, sediment control facilities should be designed and constructed to be, as far as possible self operating and fail safe, avoiding the need for management intervention.

Perimeter berms and cut-off drains shall be constructed around the working area of the quarry and internal haul roads. All run-off from disturbed areas shall be directed to detention basins and sediment traps. All 'non active' areas are to be temporarily grasses or rehabilitated to minimise run-off throughout the life of the project.

Cut off drains shall be provided to direct stormwater drainage from active quarry areas to the dam, as shown in Figures 2a) – 2 c). Additional cut-off drains shall be provided as necessary to ensure that all run-off is directed via the retention pond. Catch drains shall be designed and constructed to carry, as a minimum, the flow from a 24 hour 1 in 25 year storm, and shall typically be trapezoidal in cross section and of the following dimensions. Width 1,200mm (top) x width 600mm (base) x 150mm minimum (depth) with a minimum grade of 1 in 100 and maximum grade of 5 in 100. (Refer to Appendix C Figure 2) Batter slopes are to be a minimum of 1(V):2(H).

A single sediment/retention dam shall be constructed on the lower floor of the quarry as shown in Figures 2(a) – 2 (c). The dam shall have typical dimension of 26m x 27m and at full capacity will have a depth of 2.5m. This equates to an approximate volume of 1760m³. The dam thus constructed shall be capable of collecting and storing a 1 in 25 year 24 hour storm event with 10% reserve capacity for a maximum of two (2) hectares of exposed quarry working area, or catchment area discharging to the dam.

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The design and performance of the detention basins shall be monitored and reviewed at each successive change in bench height as part of a biannual review of the Plan of Management. (Refer to Appendix C – Figure 1 for design detail).

A low flow pipe shall be provided to allow slow discharge of treated waters from the dam. The discharge pipe shall be similar to DLWC design for similar structures, details of which are provided in Appendix C. Under these conditions, a period of approximately 13 hours is required to empty the dam.

When more intense or continuous rainfall is experienced at the site, provision shall be made for an emergency spillway to safely dispose of runoff water from the sediment pond. The spillway shall be designed in accordance with DLWC Guidelines (refer to Appendix C – Figure 1) discharging excess runoff from the pond into a stable grassed area within the site.

3.3.4. Fuel Storage

Diesel fuel, greases and oils may be stored on site in relatively small quantities (500-1000 litres) to service the day to day requirements of plant.

Fuels, greases and oils shall be stored on the quarry floor within a bunded compound to protect downstream waterways in the event of spillages or leakage. Storage tanks or drums shall be located on an impervious surface within a bunded area with a minimum gross capacity of the largest tank plus the aggregate volume displaced by all other tanks below the level of the crest, plus the volume displaced by any foundations. This band shall be capable of containing at least 110% of liquids stored within it. Figure 2a) – 2c) show the location of the bunded fuel storage area.

3.3.5. Waste Disposal

All refuse shall be removed from the site so as to enable the effective rehabilitation of the site. The land shall not to be used for the storing or disposal of wastes.

Minor machinery repairs and maintenance may be carried out on site occasionally. Any worn or broken parts shall be removed from the site immediately on replacement.

Empty fuel and oil drums shall not be stored on site, but shall be removed immediately on use.

3.3.6. Rehabilitation

The extraction plan shall limit disturbance to the landscape and surrounding environment and provide for retention and stockpiling of topsoil and for site rehabilitation. Topsoil will be reused in progressive rehabilitation of the site.

Revegetation of quarried areas shall focus on the establishment of suitable pasture grasses for cattle grazing and tree cover to provide preferred Koala food trees, future habitat for birds (particularly the Glossy Black Cockatoo) and microchiropteran bats and other arboreal and terrestrial mammals.

Areas where quarrying has been completed and which will be subject to no further disturbance shall be planted with a mix of the quick growing annual grasses and perennial grazing grasses such as Carpet grass, Paspalum, Setaria or Kikuyu.

To assist in habitat enhancement, a tree establishment program shall be initiated. Where possible, full advantage shall be taken of existing naturally occurring seedlings from the site. These seedlings have arisen from local seed stock and are more likely to survive in the local conditions, having already established. An initial planting density of 100 trees per hectare is recommended to ensure sufficient numbers of trees reach maturity. Existing regrowth should be maximised as part of future habitat for koalas and to enhance the buffer to the quarry. Where gaps exist in existing regrowth, tube stock plantings shall be undertaken.

All areas for planting should be cleared of weeds and competitive grasses. An area of 1 to 2 metres in diameter should be kept free of grass and weeds around each young tree.

Recommendations for revegetation are as follows:

- ◆ Identify and locate existing saplings to be retained;
- ◆ Add more tubestock where densities are not adequate;
- ◆ Mark each tubestock planting with a painted stake;
- ◆ Grass and weeds should be removed and the root systems pulled out around the existing saplings or where the tubestock is to be planted.
- ◆ Tubestock is to be planted in holes with a combination of mud and slow release fertiliser. Contact of the fertiliser with seedling roots should be avoided. Mulching can be achieved effectively by placing 10 sheets of newspaper, hay or straw around the base of the tubestock.

- ◆ Tubestock should be irrigated, or planted when soil is moist and prior to reliable rainfall. The optimum time of the year is January to May.
- ◆ Revegetated areas should be protected from grazing stock by their exclusion from the area.

The following plant species are recommended specifically for their habitat and foraging potential to native fauna. This particular list of species has been prepared to enhance habitat required by the Koala (*Phascolarctos cinereus*) and the Glossy Black Cockatoo (*Calyptorhynchus lathami*).

TABLE 2 - RECOMMENDED PLANT SPECIES FOR REVEGETATION

Scientific Name	Common Name	Mature Height of Trees	Planting density (%) and sow rate
<i>Casuarina glauca</i>	Casuarina	To 20m	40% of total trees replanted (10-30 trees per hectare)
<i>Eucalyptus tereticornis</i>	Forest Red Gum	To 50 m	40% of total trees replanted (15-20 trees per ha)
<i>Eucalyptus microcorys</i>	Tallowwood	To 40m	3% of total trees replanted (15-20 trees per ha)
<i>Eucalyptus grandis</i>	Flooded Gum	To 50m	3% of total trees replanted (15-20 trees per ha)
<i>Eucalyptus pilularis</i>	Blackbutt	To 70m	2% of total trees replanted (15-20 trees per ha)
<i>Corymbia intermedia</i>	Pink Bloodwood	To 30m	3% of total trees replanted (15-20 trees per ha)
<i>Lophostemon confertus</i>	Brushbox	30m+	3% of total trees replanted (15-20 trees per ha)
<i>Allocasuarina torulosa</i>	Forest Oak	Usually > 5 m tall	3% of total trees replanted (15-20 trees per ha)
<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark	10-15m	3% of total trees replanted (15-20 trees per ha) To be planted on low lying areas with poor drainage

Mature heights of trees taken from: Harden, G.J. (1990). The Flora of New South Wales. Vol. 1-4. New South Wales University Press, Sydney.

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3.4. Amenity Protection

The following measures are specifically designed to protect the amenity of the locality.

3.4.1. Archaeological and Cultural Protection

The quarry operator shall not knowingly destroy, deface or damage any aboriginal relic or other item of archaeological significance within the extraction area without prior written consent of the NPWS of NSW.

Although the probability of uncovering any items of archaeological significance at the site is low, due to its disturbed nature, contingency arrangements are to be implemented which provide that, in the event of any item of Aboriginal significance on-site such as stone artefacts, bone or other cultural materials being found, work adjacent to the material must stop and the Local Aboriginal Land Council and the district office of the National Parks and Wildlife Service shall be informed. Works shall not recommence until approval has been granted by both bodies pursuant to the provisions of the National Parks and Wildlife Act 1974.

3.4.2. Noise Control

The quarry shall be operated in accordance with the Noise Control Act 1975. Formal approval from the Environmental Protection Authority (EPA) shall be obtained, as appropriate and required by the Act.

Operation of the site shall be in accordance with recommendations included in the Noise Impact Statement (NIS) as well as the following requirements of the EPA:

- an earth berm shall be provided along the western side of the work area. Such shall have an RL 5 metres above the RL of the quarry floor;
- dozers, excavators and front end loaders shall be fitted with residential type mufflers and operated only with a full set of cover plates fitted.
- a barrier shall be constructed of 19mm marine ply of equivalent along the western side of the crushing plant. Such shall be located a maximum of 5 metres from and a minimum of 2 metres higher than the noise sources of the crushing and screening plant;

- the crushing and screening plant shall be located so that the worst noise direction is facing east.

Prior to any production blasting occurring, a full NIS including trial blasts shall be carried out to ensure blast design parameters meet EPA guidelines for overpressure and ground vibration.

Should blasting later occur, these activities shall be limited to between the hours of 9.00 a.m. and 3.00 a.m. Monday to Saturday and shall comply with the EPA guidelines for maximum overpressure of 115 (dB/Lin), and maximum vibration of 5 mm/sec. An enclosure shall be constructed around the mast of the drill, in accordance with the recommendations contained in the NIS.

3.4.3. *Dust Control*

The following measures will be implemented to limit impacts of airborne pollutants arising from quarrying operations in the movement and processing of materials, wind induced dust generation, vehicular movements, stockpiling, loading, transportation and from vehicle exhaust emissions:

- ⇒ exposed areas shall be limited to two (2) hectares at any one time.
- ⇒ Disturbed areas shall be seeded and revegetated as early as practicable after exposure.
- ⇒ Newly stripped topsoil shall be immediately watered using road water tanker or similar and seeded with suitable grass seed to establish rapid grass cover.
- ⇒ Crushing and screening shall be curtailed during periods of high wind at the site, but in any event should be fitted with sprays for dust suppression.
- ⇒ Stockpiled material should be placed in areas sheltered from prevailing winds by existing terrain or vegetation.
- ⇒ Access routes to and from the stockpiles and loading areas should be watered as the need arises.
- ⇒ Traffic speeds on site shall be restricted to a maximum of 20 kph.
- ⇒ All vehicles and plant associated with quarrying operations should be effectively maintained to ensure all exhausts comply with the requirements of the EPA for emission standards.

- ⇒ Exhausts on earthmoving equipment should be directed away from the ground so as to not disturb the surface unnecessarily.

3.4.4. Traffic Management

The surrounding local road network has recently been upgraded with contributions from the pit operator in accordance with conditions 3-7 of the development consent. The operator shall continue to make contributions to the maintenance of the local road network through road maintenance levies payable to Council in accordance with Condition 16 of the development consent and the recommendations of the RTA.

Hinged truck warning signs shall be maintained on Old Bagotville Road and displayed during operation of the quarry.

All loading and unloading of materials shall be undertaken wholly within the site.

3.4.5. Visual Enhancement and Protection Measures

The proposal recognises the need to minimise adverse impacts on the amenity of the surrounding landscape and incorporates measures which will mitigate these impacts.

Landscaping of the site shall be in accordance with the site rehabilitation plan which provides for extensive planting of koala and cockatoo food trees.

3.4.6. Protection of Crown Lands

It is an offence to dig, disturb or remove materials from Crown lands without the permission of the Department of Land and Water Conservation (formally CALM). To ensure no offence is carried out the applicant shall have the Crown road surveyed, marked and stabilised with vegetative batters of not less than 1(v):3(h) when and if the extractive activities occur in close proximity to the crown road.

3.4.7. Safety

Operations within the quarry will be required to meet the relevant provisions of the Occupational Health and Safety Act and the Mines Inspection Act. The appointed quarry manager will be responsible for the proper and safe operation of the quarry in accordance with Act.

4. APPROVALS, LICENSING AND MONITORING

4.1.1. Approvals and Licensing

The D.A. consent requires the following consents and/or approvals:

- No fixed building, plant or machinery shall be erected on the site without the prior consent of Council.
- Workers amenities shall be provided in accordance with the Mines Inspection Act, 1901. The location of the amenities shall be submitted to Council for approval prior to the commencement of work. Details of septic/sludge layout shall also be submitted, as appropriate, before such installation is commenced.
- A Pollution Control Approval shall be obtained, as appropriate, for the management of noise, water and air pollution in accordance with the Noise Control Act 1975, the Clean Waters Act 1970 and the Clean Air Act 1961.
- A Pollution Control License shall be obtained, as appropriate, prior to the discharge of any waters from the site, in accordance with the Clean Waters Act 1970.
- A Pollution Control license to be obtained from the EPA, as appropriate, prior to any on site crushing/screening.
- The quarry shall be operated in accordance with the Noise Control Act 1975 for which formal approval from the EPA shall be obtained.

Operations within the quarry shall meet the provisions of the Occupational Health and Safety Act and the Mines Inspection Act, 1970. The appointed quarry manager will be responsible for the proper and safe operation of the quarry in accordance with Act.

4.1.2. Monitoring

Monitoring of environmental quality criteria shall be undertaken in accordance with the approved Plan of Management. The performance of the quarry with respect to

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water quality maintenance, rehabilitation, air pollution control, traffic, noise and ground vibration, be regularly reviewed during the life of the quarry, and as a minimum, biannually. The purpose of the review should be threefold;

- to ensure the project continues to comply with project objectives;
- to ensure compliance with regulatory requirements;
- to provide an opportunity for input from the local community.

4.1.2.1. Noise Monitoring:

Noise emissions shall be reviewed and monitored on an ongoing basis to ensure compliance with EPA guidelines. Such monitoring shall include interviews with adjoining landowners to ascertain levels of disturbance resulting from any quarrying noise emissions. Where the result of these inquiries indicate a potential exceedance, actual emission levels at adjoining residences shall be measured and recorded to demonstrate compliance. In the event of exceedance, appropriate mitigation steps shall be taken.

All machinery and equipment to be used on site shall be routinely checked as having residential type mufflers and a full set of engine cover plates fitted.

Crushers and screens shall be checked for location and orientation to provide least potential impact on nearby residences.

Screens and protective bunds shall be maintained in place as required by the POM. Where practical, stockpiles shall be located between the noise source and adjoining houses to provide additional noise protection and attenuation.

No production blasting shall occur at the quarry until a thorough assessment has been made by a practicing noise consultant to confirm the suitability of design blast parameters.

4.1.2.2. Water Quality Monitoring

Water quality monitoring shall be conducted on an 'event basis' to ensure water discharge quality meets the performance requirements of the EPA and the Development Consent. Monitoring results shall be reported to Ballina Shire Council and the EPA annually and shall encompass the following parameters:

1. Daily recording of local rainfall, temperature and humidity conditions

2. Daily recording of discharges from the site, via the sediment retention pond parameters including emergency discharges and other use of stored water;
3. Two (2) – four (4) weekly recordings of the following sediment retention pond parameters;
 - non-filterable residues (NFR)
 - turbidity (NTU)
 - pH
 - dissolved oxygen (DO)
 - Conductivity
4. Three (3) monthly recording of total oil and grease (TOG)

Water quality monitoring shall include upstream, adjacent to the site and down stream monitoring. Waters discharged from sedimentation/detention ponds shall not contain more than 50 milligrams per litre of non-filterable residues and shall maintain a pH in the range 6.5 to 8.5.

The quarry operator shall ensure discharges from the site remain within allowable limits. In the event that discharges from the site exceed the maximum for pH or NFR's, the incident shall be reported to the EPA and appropriate treatment shall be immediately instigated to prevent further occurrence. Treatment shall be by the addition of lime or similar flocculate to encourage flocculation and sedimentation of colloidal particulate matter and the correction of pH to acceptable levels. Appropriate tests shall be conducted by laboratory "jar tests" at that time to determine necessary flocculate dosage rates. Permanent arrangements may then need to be instigated to provide continuous dosing to prevent repeated occurrence.

Where a discharge license is required under the Pollution Control Act, monitoring shall be carried out in accordance with EPA license requirements.

4.1.2.3. Sediment Control Facilities

Disturbed areas shall be routinely checked for compliance with requirements for stabilisation and revegetation, as prescribed by this management plan.

The quarry area is to be limited to two (2) hectares at any one time, and adequate sediment control facilities, sized in accordance with this POM shall be maintained in a working condition, free of excess sediment.

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Sedimentation ponds shall be routinely checked and desilted as required to ensure they retain at least ninety (90%) design capacity and performance.

Stockpiling of topsoil and subsoil shall be limited as far as possible. Where stockpiling is necessary, it is to be carried out correctly, with all stockpiles appropriately stabilised;

4.1.2.4. Air Quality Protection

Routine checks shall be made on the effectiveness of dust suppressant measures.

Continuous observations shall be made by the quarry operator whilst the quarry is active, for the need for watering of roads and working areas, crushers and screens. Observations shall also be made of wind conditions and directions and weather patterns.

Machinery shall be continuously monitored for its dust generating tendency. Vehicle speeds and operations within the quarry shall be limited to minimise dust generation.

4.1.2.5. Visual Amenity

Buffer zones surrounding the site shall be monitored to ensure they are maintained in a viable condition as required by this POM and the D.A. consent to provide effective visual buffers.

Landscaping in the form of surrounding buffer zones shall be monitored to ensure protection of existing buffers along the property boundaries and strong growth of newly planted trees.

4.1.2.6. Flora and fauna Protection

Habitat clearing shall be monitored to ensure it conforms with the intent of this POM. Similarly, habitat restoration and maintenance shall be carried out to safeguard and protect species as required by the development consent.

All tree plantings shall be checked on a 12 monthly basis (in Spring) in order that unhealthy or dead trees can be replaced. Newly rehabilitated areas should be watered to establish and maintain new plants especially during prolonged dry periods, particularly for tubestock.

Young trees should be kept free of grass, which may restrict their growth or subject them to a high fire risk. An on-going maintenance program shall be implemented to include the control and removal of invasive weeds from the rehabilitated areas,

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watering and fertilising to ensure the growth and development of the planted seedlings. Regular mulching of young planted seedlings will also assist in their maintenance and should be carried out, at least in their first year of growth.

Fertilisation should be provided where plants show signs of stress such as yellowing of leaves, wilting or lack of growth. Where necessary, advice should be sought from a suitably qualified and experienced horticulturist to assist in the maintenance of the young trees.

Where possible dead trees/stumps present on the site shall be retained to provide potential fauna habitat.

Cattle shall be excluded from all rehabilitated areas for a period of at least five years, or such longer period of time to ensure the proper rehabilitation of the site, particularly with regard to establishment of trees. If the site is to be used as a flood refuge for cattle, a stockproof fence will be erected to exclude cattle from areas of regrowth and enhancement.

The performance of site rehabilitation measures and establishment of koala habitat should be reviewed on a biannual basis throughout the life of the quarry. The review should examine and report on the following aspects of koala habitat management :

1. that the revegetated areas are fully planted within twelve months of the commencement of operations;
2. that buffer zones are maintained along all boundaries of the quarry as depicted in Figures 2a) & 2b);
3. that previously quarried areas are progressively rehabilitated, with soil redistributed and trees planted within two to three months of quarrying operations being completed in each sub-area;
4. that weeds and grasses are controlled so as to not inhibit growth of koala food trees and site rehabilitation;
5. that trees are planted at a density of 100 trees/ha and their positions marked with painted stakes. If cattle are likely to be on the site that the trees are protected with chicken wire cylinders or plastic "Grotubes", mulched and protected from stock;

6. that trees should be maintained in a healthy and viable state;
7. that no clearing of trees has been undertaken other than that prescribed in this report; and
8. that regular fire management and maintenance of the site should be carried out to limit fuel loads on the site.

4.1.2.7. Traffic Management

Haulage vehicles to and from the quarry shall be monitored to ensure compliance with the spirit of the POM and development consent conditions with respect to noise, dust and traffic safety. Drivers should be encouraged to adopt a good neighbour policy in their driving habits and general road courtesy to limit potential impacts on the amenity of the area.

Hinged truck warning signs shall be maintained in good condition on Old Bagotville Road and routinely checked as being displayed during operation of the quarry.

Council's consent advised that occupation of the land for the purposes authorised in the consent may not commence until all conditions of consent have been complied with or arrangements have been made which are otherwise satisfactory to Council.

The Development Application indicated that blasting may not be required until a later stage of the development, if at all. This Plan of Management proposes that no production blasting shall be carried out on site until appropriate monitoring has been conducted in full satisfaction of Council consent conditions and EPA guidelines. **N.B.**
A full NIS shall be carried out prior to any Blasting

Appendix A

Conditions of Consent

Ballina Shire Council



Cnr. Cherry & Tamar Streets
P.O. Box 450, BALLINA, N.S.W. 2478
DX 27789, BALLINA
TELEPHONE No. 86 4444 (STD 066)
FAX No. (066) 86 7035

ENQUIRIES REFER

IN REPLY PLEASE QUOTE
DA-1996/29

FORM 7

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979.

**NOTICE TO APPLICANT OF DETERMINATION OF A DEVELOPMENT
APPLICATION**

McGeary Bros. Pty Ltd
9640 Pacific Highway
WOODBURN 2472

being the applicant in respect of development application No. DA-1996/29 for the following use:

*The continued operation and expansion of an existing Extractive Industry -
extraction of shale and chert with extraction rates at 50,000 tonnes per annum
(total resource of 975,000 tonnes).*

Pursuant to Section 92 of the Act, notice is hereby given of the determination by Ballina Shire Council of the abovementioned development application relating to land described as Lot 3 DP 619233 Old Bagotville Road, Wardell.

The development application has been determined by granting of consent subject to the following conditions:

"DEFERRED COMMENCEMENT CONDITIONS"

PLAN OF MANAGEMENT

1. Further information shall be provided in the Plan Of Management which incorporates those requirements listed below, all relevant conditions of development consent and the Addendum dated November, 1995. The amended plan is to be submitted to Council for approval prior to the consent becoming effective. The Plan shall report on all operational parameters of the quarry, including, but not limited to, quarry development and monitoring thereof, progressive rehabilitation, control of pollutants and surface water. This plan shall detail the full 20 year life of the quarry with the total resource being measured 975,000 tonnes, however, the quarry plan and operation shall be reappraised by Council five (5) years after the consent has become effective, to ensure that there are no unforeseen environmental impacts or problems with the development.

REASON: Condition 1 is imposed to ensure the operation is undertaken in accordance with this consent.

Cont....



-
2. A Noise Impact Statement (NIS) shall be carried out to ensure noise levels from blasting do not exceed 43 dB [A] at the nearest residence, in accordance with the requirements of the Environment Protection Authority (EPA).

REASON: Condition 2 is imposed to minimise the potential impact to the environment through noise pollution.

ROAD REQUIREMENTS

3. The proponent shall reconstruct the Old Bagotville Road and Back Channel Road intersection to a Type A intersection with localised widenings for the passing of turning vehicles (refer to Austroads Part 5). The intersection work shall be completed to the satisfaction of Council's Engineer and shall include:

- widening of Back Channel Road pavement;
- lengthening of the stormwater culvert beneath Back Channel Road;
- regrading of intersection crossfalls to permit adequate drainage; and,
- bitumen sealing of the pavement.

4. The proponent shall bitumen seal the following lengths of Old Bagotville Road for the widths indicated.

- From Back Channel Road south for 500 metres (minimum seal width of 7.0 metres)
- metres length each side of Akins' property (ie 200 metre total length) located approximately 250 metres south of the quarry entrance. The seal width shall be the full width of the existing road formation.
- metre length each side of Clark's property (ie 200 metre total length) located approximately 850 metres south of the quarry entrance. The seal width shall be the full width of the existing road formation.
- Bitumen seal to the intersection of Old Bagotville Road and Bagotville Road extending northward 250 metres. The width of the seal shall be to the width of the existing formation.

The bitumen sealing works shall include pavement preparation works to the satisfaction of Council's Engineer.

5. The applicant shall install hinged truck warning signs on Old Bagotville Road to be displayed during operations of the quarry.
6. The access from the quarry on to Old Bagotville Road shall be reconstructed to a 'T' intersection at a ninety degree angle and located such that sight distances are maximised.

Cont...

REASONS: Conditions 3 to 6 are imposed for the following reasons;

- i) To ensure the development complies with Council's Section 94 Contributions Plan.
 - ii) To provide for an efficient and safe road environment.
7. Should the above requirements in conditions 1 to 6 not be completed to Council's satisfaction within 6 months from the date of this notification the development consent shall not become effective.

GENERAL CONDITIONS

8. Development of the site shall be undertaken generally in accordance with the Statement of Environmental Effects (SEE) prepared by Brian J Mackney and Associates dated May 1995 and lodged with the development application, including the Addendum dated November, 1995, subject to any modification specified by conditions hereinafter.
9. The sequence of operations in stage of the site development shall take place in accordance with the Plan of Management and Addendum dated November, 1995.

REASON: Conditions 8 and 9 are imposed to ensure the development is carried out in accordance with the terms and limitations of the development application and this consent.

10. Occupation or use of the premises for the purposes authorised by this consent shall not commence until all conditions of this consent have been complied with or arrangements have been made which are otherwise satisfactory to Council.

REASON: Condition 10 is imposed to ensure the development is undertaken in a proper and efficient manner.

11. The annual rate of extraction shall not exceed 50,000 tonnes. Details of the actual extraction rates are to be submitted to Council on a quarterly (3 monthly) basis. Prior formal development consent is to be obtained from Council for any proposed extraction in excess of this amount.
12. This consent enables a total extraction of 975,000 tonnes or permits quarrying on the site for not more than twenty (20) years, whichever is achieved first. This approval is contingent upon satisfactory re-appraisal of the Plan of Management at the five (5) year period.
13. This consent shall lapse in accordance with the above, at which time extraction shall cease and site restored in accordance with the detailed Plan of Management. Any extension during the final nine (9) months shall be for the purposes of facilitating site restoration.
14. General quarry operations are to be restricted to the hours 7.00am to 5.00pm Monday to Friday and 8.00am to 3.00pm Saturday.

Cont....

15. All loading and unloading of goods shall be undertaken wholly within the site.
16. As proposed by the applicant; a road maintenance levy of \$0.23/tonne hauled shall be paid quarterly to Council. The levy is to increase annually in accordance with the Consumer Price Index for Sydney, commencing January 1996 for the life of the extraction.

REASON: Conditions 14 to 16 are imposed to ensure that the local road network is maintained and that efficient and safe traffic environments are provided.

17. Operation of the site shall be in accordance with recommendations included in the Noise Impact Statement (NIS) of the Statement of Environmental Effects (SEE) as well as the following requirements of the Environment Protection Authority (EPA):
- an earth berm shall be provided along the western side of the work area. Such shall have an RL 5 metres above the RL of the quarry floor;
 - dozers and front end loaders shall be fitted with residential type mufflers and all equipment shall have a full set of engine cover plates,
 - a barrier shall be constructed of 19mm marine ply or equivalent along the western side of the crushing plant. Such shall be located a maximum of 5 metres from and a minimum of 2 metres higher than the noise sources of the crushing and screening plant,
 - the crushing and screening plant shall be located so that the worst noise direction is facing east.
18. Blasting operations shall be limited to Monday - Saturday 9am-3pm and shall comply with the Environment Protection Authority (EPA) guidelines these being a maximum overpressure of 115 (dB/Lin) and maximum vibration of 5 mm/sec.
19. The quarry shall be operated in accordance with the Noise Control Act 1975 for which formal approval from the Environment Protection Authority (EPA) shall be required.

REASON: Conditions 17 to 19 are imposed to protect the existing and likely future amenity of the locality.

20. No fixed building, plant or machinery shall be erected on the site without the prior consent of Council.

REASON: Condition 20 is imposed to ensure compliance with the Building Code of Australia.

21. Workers amenities shall be provided in accordance with the Mines Inspection Act, 1901. The location of the amenities area shall be submitted to Council for approval prior to the commencement of work. The applicant shall also furnish a septic/sullage layout before such installation is commenced.

REASON: Condition 21 is imposed to ensure compliance with the Mines Inspection Act 1901.

DUST EROSION AND SEDIMENT CONTROL

22. Effective erosion and sediment control measures are to be adopted to the satisfaction of Council's Engineer and to the requirements of the Soil Conservation Service (CALM) and the Environment Protection Authority (EPA). Details of such measures are to be provided in the Plan of Management.
23. Sedimentation dams shall be provided to a design in accordance with the Department of Housings' guidelines (1993) Soil and Water Management for Urban Development.
24. Rehabilitation and restoration of the site shall commence immediately in accordance with the approved plans and documentation and intent of the Plan of Management so as to reduce the area exposed to erosional forces at any one time.

REASON: Conditions 22 to 24 are imposed to ensure that risk to property from erosion is minimised.

25. Waters discharged from sedimentation/detention ponds or the like shall not contain more than 50 milligrams per litre of non-filterable residues and shall maintain a pH in the range 6.5 to 8.5. Any methods adopted to reach this standard shall be included in the Plan of Management.

REASON: Condition 25 is imposed to minimise the potential risk of water pollution from the development.

HERITAGE

26. Upon discovery of any aboriginal relics within the meaning of the National Parks and Wildlife Act, 1974 as amended, within the quarry, the operator shall immediately notify the National Parks and Wildlife Service and the Jali Local Aboriginal Land Council and shall cease operations within the vicinity thereof until such a time as the consent from the NP & WS is obtained for the destruction, removal or protection thereof and the quarry operator has complied with the directions of the Service in that respect.
27. The quarry operator shall not knowingly destroy, deface or damage any aboriginal relic or other item or archaeological significance within the extraction area without the prior written consent of the National Parks and Wildlife Service of New South Wales.

REASON: Conditions 26 and 27 are imposed to protect items of archaeological significance if discovered on the site.

ENVIRONMENT PROTECTION CONDITIONS

28. A landscaping plan is to be provided as part of the Plan of Management which shall make provision for the protection of areas to be preserved as identified in the Addendum dated November, 1995.

Cont....

REASON: Condition 28 is imposed to ensure the habitat of the Koala and Glossy Black Cockatoo is not adversely impacted upon.

29. Any fuel storage tanks are to be located on an impervious surface with a bunded area with a gross capacity of the largest tank plus the aggregate volume displaced by all other tanks below the level of the crest, plus the volume displaced by any foundations.
30. Pollution control licence has to be issued in from the EPA prior to water being discharged from the site in accordance with the Clean Waters Act 1970.
31. A Pollution Control Licence has to be issued from the EPA prior to a mobile crusher operating on site. This shall be in accordance with the Clean Air Act 1961.
32. All refuse shall be removed from the site so as to enable the effective rehabilitation of the site. The land is not to be used for the storing or disposal of waste.
33. Monitoring of environmental quality criteria shall be undertaken in accordance with the approved Plan of Management.

REASON: Conditions 29 to 33 are imposed to ensure the operation does not endanger the environment through pollution.

CROWN LAND REQUIREMENTS

34. It is an offence to dig, disturb or remove materials from Crown lands without the permission of CALM. To ensure no offence is carried out the applicant shall have the Crown road surveyed, marked and stabilised with vegetative batters of not less than 1(v):3(h) when and if the extractive activities occur in close proximity to the crown road.

The abovementioned conditions have been imposed for the following reasons:

1. to ensure compliance with the Ballina Local Environmental Plan 1987;
2. to ensure that the development is undertaken in accordance with the terms and limitations of the development application and of this consent;
3. to protect the existing and likely future amenity of the locality;
4. to maintain, as far as practicable, the public interest;
5. to ensure that the quarry is operated in an environmentally sensitive manner in accordance with the Plan of Management;
6. to ensure traffic efficiency and safety on the adjacent public road system.

Cont....

DA-1996/29 cont...

PAGE 7.

CONSENT NOTATION

The EPA requirement for a water quality monitoring program shall be addressed in the Plan of Management encompassing the following parameters:

- upstream, adjacent to the site and downstream monitoring,
- non-filterable residues, turbidity, conductivity, temperature, dissolved oxygen, pH at 2 to 4 week intervals and oil and grease at three monthly intervals,
- recording of daily weather conditions,
- reporting of monitoring results to Council and the EPA annually.

THIS CONSENT IS FOR THE USE OF THE PROPERTY ONLY AND IS NOT A BUILDING PERMIT WHICH MUST ALSO BE OBTAINED FROM COUNCIL'S HEALTH AND BUILDING DEPARTMENT BEFORE ANY STRUCTURAL WORK COMMENCES. THE BUILDING PERMIT WILL CONTAIN ADDITIONAL CONDITIONS.

Endorsement of the date of consent - 22nd February, 1996


GJ Faulks
GENERAL MANAGER
29.2.1996

(See notations on reverse hereof.)

Appendix B

Letters of Consultation

19-MAY-1997 16:31

BALLINA COUNCIL ENG DEPT

066 869514

P.03

MAJOR	GM	FINANCIAL	ADMN.
DA: 1996/29			
RECD 13 MAY 1997 97/2030			
TOWN PLAN	HEALTH BUILD	QUARRY COMB	FILE
X			
ACTION	ORIG	COPY	INFO REPLY



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

Your Ref: DA - 1996/29

Dear Sir,

Re : Environmental Management Plan - Eaton's Quarry

The Environmental Plan of Management for the subject quarry site has been reviewed and has been found to be generally satisfactory.

The only issue of concern is in relation to management of the retention basin, particular reference - second last paragraph on Page 14.

It is stated that during more intense or continuous rainfall, (over and above the design event) provision shall be made for pumping out of stored water and its spray irrigation over the site.

When rainfall intensity and/or duration exceeds the design capacity of the pond, it will be pointless spray irrigating water from the pond over the site, as the site will already have saturated soil conditions and therefore the water will immediately return to the detention pond.

It is recommended that an emergency spillway discharging into a stable grassed area to safely dispose of run-off water be provided to handle more intense and continuous rainfall. The advice of this Department should be sought on the design and construction of the retention pond and its emergency spillway.

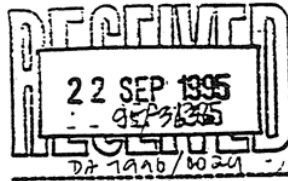
It is noted that reference is made to seeking input from this Department in relation to several items in the plan. The Department would be happy to provide input to ensure that there is minimal impact of the activity on local environmental values.

Should you require clarification of any matters raised above, please contact the undersigned.

Yours faithfully,

W. J. Garrard
Catchment Manager
Richmond

General Manager
Ballina Shire Council
PO BOX 450
BALLINA NSW 2478



Environment
Protection
Authority
New South Wales

NSW Government Offices
49 Victoria Street
PO Box 498
Grafton
N S W 2460

Telephone .066. 42 0535
Facsimile .066. 42 7743

Our Reference: GR1058 #493

Your Reference: DA-1996/29

Contact: Daniel Couriel

21 SEP 1995

Dear General Manager

**PROPOSED CONTINUATION OF AN EXISTING QUARRY -
EATON'S PIT QUARRY, LOT 3 DP 619233
OLD BAGOTVILLE ROAD, WARDELL**

I refer to your letter to the Environment Protection Authority (EPA) dated 3 August 1995, requesting comments on a Development Application (DA) and Statement of Environmental Effects (SEE) for the above proposal.

Based on our review of the SEE the following comments are offered for Council's consideration.

WATER

The SEE does not address the following matters regarding the management of wastewater and associated structures:

* Sedimentation dam specifications have not been adequately addressed in the SEE. The following details should be provided:

- (1) number of dam(s),
- (2) anticipated level of wastewater in dam(s) under various conditions,
- (3) time taken to empty dam(s), and
- (4) capacity (two figures provided in SEE: Section 5.3.1 states a figure of 200 cubic metres and Appendix F states 400 cubic metres).

- * The location of the sedimentation dam(s) and catch / diversion drains is not shown in the SEE.
- * We note from Section 5.3.1 of the SEE that dam(s) have been designed to cater for an active quarry area of 0.5 hectares. However, the Executive Summary of the SEE states that the actual extraction area used was 2 hectares in 1986 and 4 hectares in 1992. The EPA recommends that dams should be designed in accordance with the Department of Housing's guidelines (1993) *Soil and Water Management for Urban Development* to ensure that a direct discharge from the dams will only occur after significant storm events. Any less conservative design would require clear and detailed justification.
- * There is no provision for maintenance of catch / diversion drains or sedimentation dams.
- * The type of catch / diversion drains is not shown in the SEE.
- * Measures for de-silting dams to maintain design capacity have not been provided.
- * Measures for wastewater drainage after storm events (pumping out of dams 36 to 48 hours after storm events) have not been provided. The time taken to empty dams should also be provided.
- * The SEE does not address the reuse of water from the sedimentation dam. The EPA recommends that such water be used for irrigation and / or dust suppression.
- * If fuel is to be stored on-site it should be stored within a bunded area. The gross capacity of the bunded area should be at least the capacity of the largest tank plus the aggregate volume displaced by all other tanks below the level of the crest, plus the volume displaced by any foundations.
- * The SEE does not include a proposed water quality monitoring program for the operating quarry. The EPA recommends that a water quality monitoring program should be developed to include the following features:
 - * Upstream, adjacent to the site and downstream monitoring;
 - * Parameters to be monitored to include non-filtrable residue (NFR), turbidity (NTU), conductivity, temperature, dissolved oxygen, pH at 2 to 4 week intervals and oil and grease at three monthly intervals;
 - * Recording of weather conditions (temperature, rainfall, etc.) on the day of sampling;
 - * Reporting of monitoring results to Council and / or EPA annually.

- * Any discharges from the site should contain less than 50 mg/L of non-filtrable residue (NFR) and a pH in the range 6.5 to 8.5. Compliance with the NFR standard may require the use of a coagulant injection system.

REHABILITATION

The EPA supports the implementation of the rehabilitation program outlined in Appendix F (and Appendix D of Appendix B) and Sections 2.2.1, 2.2.2, 2.14 and 2.15 of the SEE. Restoration should be undertaken immediately after each area is extracted to reduce the potential for sediment loaded discharges from the site. We recommend that the rehabilitation program outlined in the SEE should be a condition of any development consent.

AIR

The EPA supports the implementation of all recommendations provided in Section 5.4 of the SEE.

NOISE

It is noted from Appendix C (Noise Impact Statement) of the SEE that predicted noise levels generated from the operation of machinery (crusher and screens, front end loader, excavator and bulldozer) at the quarry were above the EPA's maximum recommended level at the nearest residence.

Should Council approve the development the EPA supports the implementation of all recommendations made in the Noise Impact Statement (Appendix C) of the SEE, including the following:-

- * construction and maintenance of an earth berm along the western side of the working area (top of berm should have an RL which is 5 metres above the floor RL of the adjacent working area);
- * fitting the dozer and front end loader with residential type mufflers;
- * installation of a full set of engine cover plates on operating equipment;
- * construction of a barrier (19 mm marine ply or equivalent) to be maintained along the western side of the crushing and screening plant, located so that it is a maximum of 5 metres from, and a minimum of 2 metres higher than the noise sources of the crushing and screening plant; and
- * orientating the crushing and screening plant so that it's worst noise direction is facing east.

Verification of noise level predictions made in the Noise Impact Statement with site measurements should be a condition of any development consent. If the results of monitoring shows that EPA recommended noise levels are exceeded additional attenuation measures will need to be implemented.

The combined noise effect of "Eaton's Pit" and "Montis Pit" (located 400 metres north east of the subject pit) on residences has not been assessed in the SEE.

We note that future operations may involve blasting and that monitoring of trial blasts is proposed. We recommend that any blasting comply with EPA guidelines, as follows:

- * **overpressure:** max. 115 (dB/Lin)
- * **vibration:** max. 5 mm / sec
- * **operating hours:** Mon. to Sat., 9 am - 3 pm

The SEE did not provide an assessment of the noise impact of unladen vehicles (trucks) travelling on access roads and the impact on residents.

Other noise pollution aspects of the proposal appear adequate from the information provided in the SEE.

Please note that the Table in Section 5.2.1.2 of the SEE should read 38 dB(A) (The Measured Level) not 35 dB(A).

OTHER ASPECTS

~~The potential presence of any cattle tick dip sites or other contaminated sites was not assessed in the SEE.~~

The SEE does not assess the site for potential acid sulfate soils. We recommend that sampling and analysis of this material conform to the protocol described in the EPA Environmental Guidelines - *Assessing and Managing Acid Sulfate Soils Guidelines for Land Management in Coastal Areas*.

STATUTORY

As the area to be quarried is greater than 20 000 square metres the premises will be scheduled with respect to the Noise Control Act 1975 and a formal approval will be required from the EPA for implementation of the proposed noise control measures.

If a mobile crusher is to be used at the quarry the operator will require a licence from the EPA with respect to the Clean Air Act.

A Pollution Control Licence may be required if polluted wastewater is discharged from the site.

We hope our comments are useful. If you have any inquiries please contact Daniel Couriel on (066) 420 535.

Yours faithfully



DR IAN WOODWARD
 Regional Manager
 North Coast
 for Director-General

ACTION	CRIG.	COPY.	INFO.	REPLY
GENERAL MANAGER				
CHIEF ENGINEER				
CHIEF HEALTH SURVEYOR	/		/	
CHIEF TOWN PLANNER				
CHIEF FINANCE/ADMIN				
DEPUTY ENGINEER				
ADMIN OFFICER				
ACCOUNTS PAYABLE				
ACCOUNTS RECEIVABLE				
RATES DEPARTMENT				
HUMAN RESOURCES				
TOURIST OFFICE				
MAYOR				
COUNCIL MEETING		FILE		

473



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

MANOR	GM	FINAN ADMIN	ENG WORKS
DA: 1996/29			
REC'D		05 MAY 1997 97/488	
TOWN PLAN	PLANNING BUILT	COUNCIL COMM	FILE
X			
ACTION	ORIG	COPY	INFO REPLY

Environment
Protection
Authority
New South Wales

NSW Government Offices
49 Victoria Street
PO Box 498
Grafton
N S W 2460

402 500 - PH.NC

Telephone .066. 42 0535
Facsimile .066. 42 7743

Our Reference: GR1058

Your Reference: DA-1996/29

Contact: Ian Greenbank

2 MAY 1997

Attention: Mr RA Willis

Dear Mr Willis

ENVIRONMENTAL MANAGEMENT PLAN - EATON'S QUARRY - DEVELOPMENT APPLICATION NO.1996/29

Thank you for your letter of 11 April 1997 concerning the above Environmental Management Plan (EMP). In this regard we also refer to our letter of 21 September 1995.

Based on our review of the EMP the following comments are offered for Council's consideration.

1. *Stormwater Management and Sediment Control*

Generally the proposed works seem to be adequate to control erosion and entrain sediment in the retention basin. We note that the Department of Land and Water Conservation will be consulted about the matter.

2. *Fuel Storage*

We note that fuel, grease and oil will be stored within a bunded compound on the site. We suggest that any bund be impervious and capable of containing at least 110% of the liquids stored within it.

3. *Waste Disposal*

The waste disposal arrangements seem adequate for the site.

P.S. notes 5.6.97

(2)

4. *Noise Control*

We are pleased to note that all recommendations outlined in the Noise Impact Statement will be incorporated into the management of the site.

5. *Air Pollution*

The dust control options listed in the EMP should be adequate for the control of airborne dust.

6. *Water Quality Monitoring*

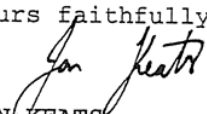
The event based water quality monitoring program seems adequate for the operation of the site.

7. *Statutory*

The proponent will need to make application to the EPA for Pollution Control Approval under the Noise Control Act 1975, the Clean Waters Act 1970 and the Clean Air Act 1961. A Pollution Control Licence will also be required if there is onsite crushing/screening of material.

We hope that this information is helpful. If you have any further inquiries please contact our Ian Greenbank at the Grafton office.

Yours faithfully

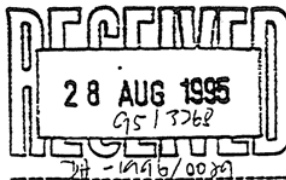

JON KEATS
Head Regional Operations Unit
North Coast
for Director-General

N:\IAN\BALLINA\EATON.LET



August 23 1995.

General Manager,
Ballina Council,
P.O. Box 450,
BALLINA. 2478.



NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE

Our reference: F/0070
Your reference: DA-1996/29

Dear Sir,

**APPLICATION FOR CONTINUATION OF EXTRACTIVE
INDUSTRY - LOT 3 DP 619233 OLD BAGOTVILLE ROAD,
WARDELL - EATON'S PIT**

Thankyou for the opportunity to review the above development application.

Under a written on site inspection/discussion with Council officers on 21.08.95,
the Service considers that the Statement of Environmental Effects (SEE) is
inadequate, in regard to the survey of existing flora, and assessment of Koala
habitat under State Environmental Planning Policy No. 44 (SEPP 44).

It is recommended that Council give consideration to the requirement that a
further survey of existing flora be undertaken and that Sections 7 and 8 of
SEPP 44 be addressed in light of the surveys findings.

Survey design and method should be described, as well as the location of
survey sites and transects, and should be carried out by a suitably qualified and
experienced person.

It is also recommended that a rehabilitation plan be prepared for the site,
including staging details, so that any habitat lost during quarry operations is
progressively replaced.

As the SEE indicates that no archaeological studies have been carried out
within the vicinity of the proposal area, the Service recommends that Council
give consideration to the requirement that an assessment of Aboriginal
significance of the proposal area be undertaken. The assessment should include
a search of the NPWS Site Register and consultation with the Local Aboriginal
Land Council. An archaeological survey should also be conducted if the
assessment shows that there are known sites or if the area is of significance to

Lismore District
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Alstonville 2477
Tel: (066) 28 1177
Fax: (066) 28 3937

Head Office
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Hurstville NSW
Australia
PO Box 1967
Hurstville 2220
Tel: (02) 585 6444
Fax: (02) 585 6555

p.5.

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local people. The assessment/survey should be carried out by suitably qualified and experienced persons.

Yours faithfully,



Colin Browne
for
DIRECTOR-GENERAL.

ACTION	CRIG.	COPY.	INFO. REPLY
GENERAL MANAGER			
CHIEF ENGINEER			
CHIEF HEALTH SURVEYOR			
CHIEF TOWN PLANNER	/		/
CHIEF FINANCE / ADMIN			
DEPUTY ENGINEER			
ADMIN OFFICER			
ACCOUNTS PAYABLE			
ACCOUNTS RECEIVABLE			
RATES DEPARTMENT			
HUMAN RESOURCES			
TOURIST OFFICE			
MAYOR			
COUNCIL MEETING		FILE	

480



NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE

January 18, 1996..

General Manager,
Ballina Council,
P.O. Box 450,
BALLINA. 2478.

PARCEL 14370

MAYOR	GM	FINAN ADMIN	ENG WORKS
REC'D 22 JAN 1996			
TOWN PLAN	HEALTH BULD	COUNCIL COMN	FILE
X			
ACCRN	DEG ✓	COPY	INFO REPLY ✓

96/178

Our reference: F/0070
Your reference: DA-1996/29

Dear Sir,

**APPLICATION FOR CONTINUATION OF EXTRACTIVE
INDUSTRY - LOT 3 DP 619233 OLD BAGOTVILLE ROAD,
WARDELL - EATON'S PIT**

Thankyou for the opportunity to review the addendum to the above development application.

The Service considers that the proposed development will not have a significant impact on the native flora and fauna of the proposal area, and immediate vicinity, provided the recommendations to ameliorate impacts, described in Section 10.5 of the addendum, are adopted.

Yours faithfully,

Colin Browne
for
DIRECTOR-GENERAL.

Lismore District
Suite 9
Colonial Arcade
75 Main Street
Alstonville
PO Box 91
Alstonville 2477
Tel: (066) 28 1177
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NSW

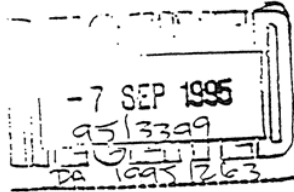
R.F.

Our reference: 23.95184 GS:JS
Mr Sciffer (066) 40 1344
Your reference:

Roads and
Authority
Grafton Zone



Better Roads. Safer Roads
Saving Lives.



C/Engineer

11 - SEP 1995

The General Manager
Ballina Shire Council
DX 27789
BALLINA NSW

31 Victoria Street
Grafton NSW 2460
Telephone (066) 40 1300
Facsimile (066) 40 1301
PO Box 576
Grafton NSW 2460
DX 7610

BALLINA SHIRE COUNCIL. REFERRALS TO REGIONAL ADVISORY COMMITTEE.

Dear Sir

You are advised that the Regional Advisory Committee met on 14 August 1995 at Tweed Shire Council Chambers to discuss the development applications listed below.

The committee would have no objection to the proposed developments if the following provisions are made for traffic and safety:-

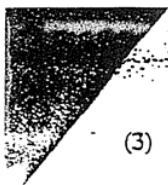
- (1) **BALLINA SHIRE COUNCIL. DA 95184. FOX'S QUARRY, STOKERS LANE, TEVEN.**
 - (i) A Type 'B' intersection be installed at Stokers Lane and Teven Road.
 - (ii) Install Hinged Truck Warning signs on Teven Road to be displayed during operation.
 - (iii) A contribution be made towards the realignment of the intersection on Teven Road at Maguires Creek Bridge.
 - (iv) A give way sign be installed on the single lane bridges near the North Teven Road intersection.
 - (v) A contribution be made towards the maintenance of the haulage routes.
- (2) **BALLINA SHIRE COUNCIL. DA 95227. SHALE AND CHERT GRAVEL QUARRY, OLD BAGOTVILLE ROAD, WARDELL.**
 - (i) A contribution be made towards the maintenance of the haulage routes.
 - (ii) Install Hinged Truck Warning signs on Old Bagotville Road to be displayed during operation.
 - (iii) Contribution to improvements to Cabbage Tree Island/Bagotville Road junction.
 - (iv) Access to be properly defined.

DA 1995/0263

1995/263

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For Information



(3) **BALLINA SHIRE COUNCIL. DA 95223. SHALE AND CHERT GRAVEL QUARRY, OLD BAGOTVILLE ROAD, WARDELL.**

- (i) A contribution be made towards the maintenance of the haulage routes.
- (ii) Install Hinged Truck Warning signs on Old Bagotville Road to be displayed during operation.
- (iii) Contribution to improvements to Cabbage Tree Island/Bagotville Road junction.
- (iv) Access to quarry requires upgrading and formalisation.

DA 1996/0032

(4) **BALLINA SHIRE COUNCIL. DA. SAND EXTRACTION INDUSTRY, SOUTH BALLINA BEACH ROAD, SOUTH BALLINA.**

- (i) A contribution be made towards the maintenance of the haulage routes.
- (ii) Install Hinged Truck Warning signs on South Ballina Beach Road to be displayed during operation.
- (iii) Contribution to roundabout at Burns Point Ferry Road and SH10 - Pacific Highway.
- (iv) Realign and upgrade the access with South Ballina Beach Road to Austroads standards.

DA 1996/0028

(5) **BALLINA SHIRE COUNCIL. DA 95126. HARD ROCK QUARRY, NORTH TEVEN ROAD, TEVEN.**

- (i) North Teven Road between the quarry and south of Emigrant Creek Bridge be upgraded to current standards to permit the safe passing of trucks.
- (ii) The site access be upgraded to a suitable standard to allow the safe manoeuvring of trucks and free flow of through vehicles.
- (iii) The intersection of North Teven Road and Tintenbar Road be upgraded to accommodate truck turning movements.
- (iv) All parking associated with the site be contained within the development or an improved parking area be developed adjacent to the site entrance.
- (v) Gravel spillages be cleaned up on North Teven Road especially around the site access where delineation of the roadway is lost due to gravel on the road.
- (vi) A contribution be made towards the maintenance of the haulage route.
- (vii) Signposting be upgraded on Emigrant Creek Bridge including the installation of a give way sign facing southbound traffic.
- (viii) Install Hinged Truck Warning signs to be displayed during operation.

DA 1996/0022

Yours faithfully

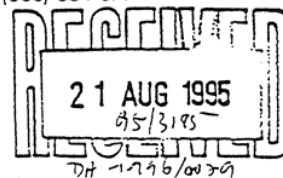
P J Collins
 P J Collins *per* W
 Zone Manager

JALI Local Aboriginal Land Council

Cabbage Tree Island
P.O. Box 24
WARDELL NSW 2477

Telephone (066) 834 413
Fax (066) 834 679

The General manager
Ballina Shire Council
PO Box 450
BALLINA NSW 2478



Attn: Town Planning Department.

Re: Development Application 1996/29.

Dear Sir,

As you will no doubt be aware, the Jali Local Aboriginal Land Council is currently in the hands of an Administrator, the role of whom is to carry out the functions of both the Land Council and its Executive Committee.

That being the case, and on instructions from the Administrator, I make the following submission of behalf of the members of the Jali Local Aboriginal Council with reference to Development Application 1996/29.

1. That the safety of the Aboriginal and non-Aboriginal residents of the area affected by both the mining (quarrying) operation and the transportation and haulage of the results of that mining activity be taken into account when examining the application.
2. That consideration be given to poor condition of the existing roads in the area and that consideration be given the imposition of a requirement to upgrade the bed and surface of the roads being used to haul the results of the mining operations to a standard sufficient to carry the frequency of the loaded vehicle weights specified in the application.
3. That, in light of the time-span covered by the application, consideration be given to future possible development in the area being mined and adjacent to the route to be followed by haulage vehicles.
4. That measures be considered which will minimise the amount of dust being generated by both the mining operation and the haulage vehicles.



5. That, while an inspection of the site by Jali's Site Liaison Officer, Mr Artie Ferguson, has not indicated the obvious presence of aboriginal artefacts, provision be made for the monitoring of the site by a nominated Sites Liaison Officer of the Jali Local Aboriginal Land Council due to the potential of the activity to unearth unknown Aboriginal relics or sites. And that provision be made for the temporary storage of material or artefacts should they be found.

6. That, notwithstanding the requests outlined above, conditions similar to those imposed on the same developer, with regard to DA 1995/259, be imposed on this development application.

Thank you for providing the members of the Jali Local Aboriginal Land Council with the opportunity to comment on this application.

Yours faithfully,

John H Barlow
 Assistant to the Administrator
 August 18th, 1995

ACTION	ORIG.	COPY.	INFO.	REPLY
GENERAL MANAGER				
CHIEF ENGINEER				
CHIEF HEALTH SURVEYOR				
CHIEF TOWN PLANNER		✓		✓
CHIEF FINANCE ADMIN				
DEPUTY ENGINEER				
ADJUTANT GENERAL				
ACCOUNTS PAYABLE				
ACCOUNTS RECEIVABLE				
DATA DEPARTMENT				
MANUAL RESOURCES				
TOURIST OFFICE				
MAYOR				
COUNCIL MEETING			FILE	

Appendix C

Stormwater Management Structures

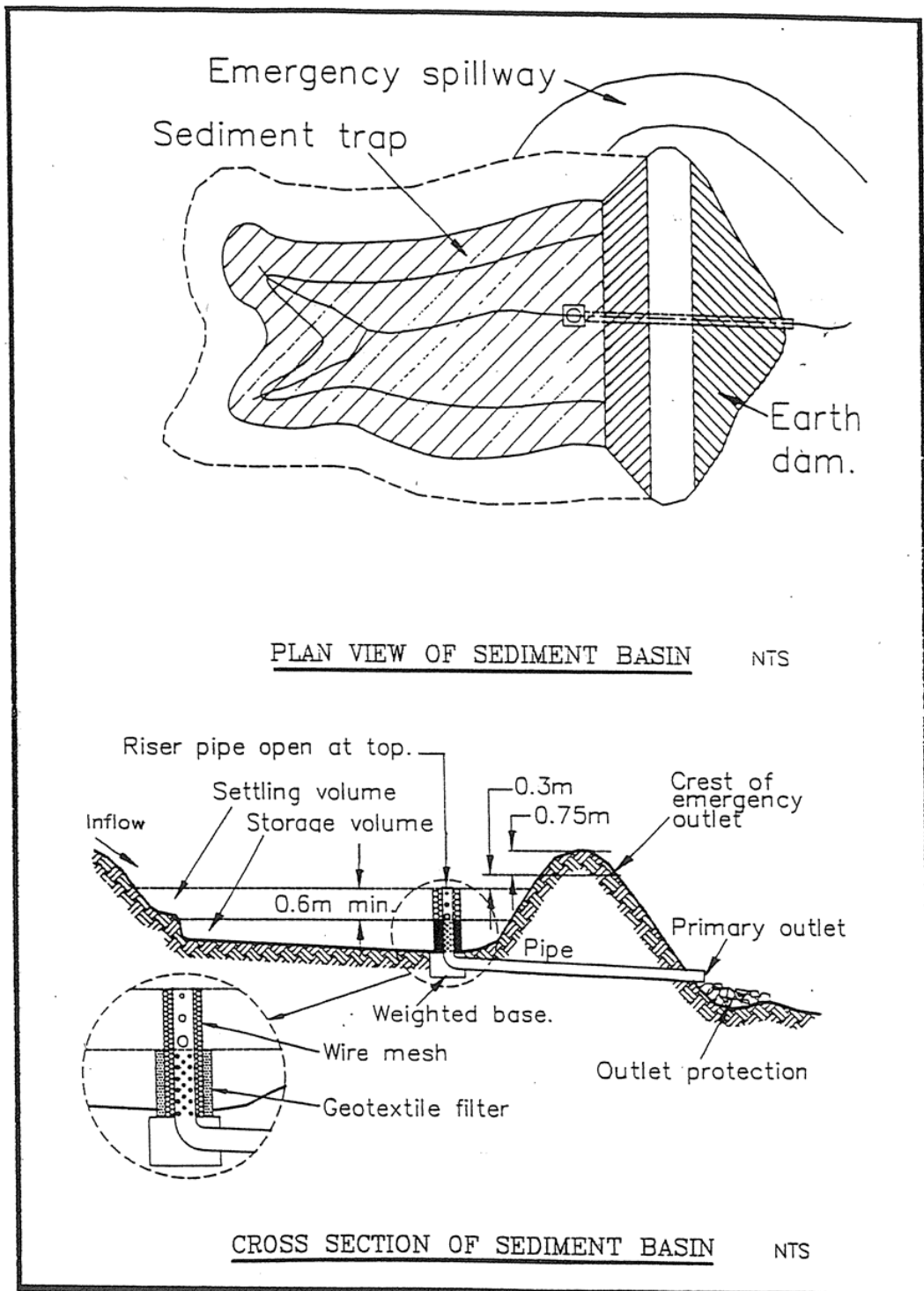


Figure 1
Sediment Retention System

Brian J. Mackney & Assoc., Pty. Ltd., Phone 02 6687 1289

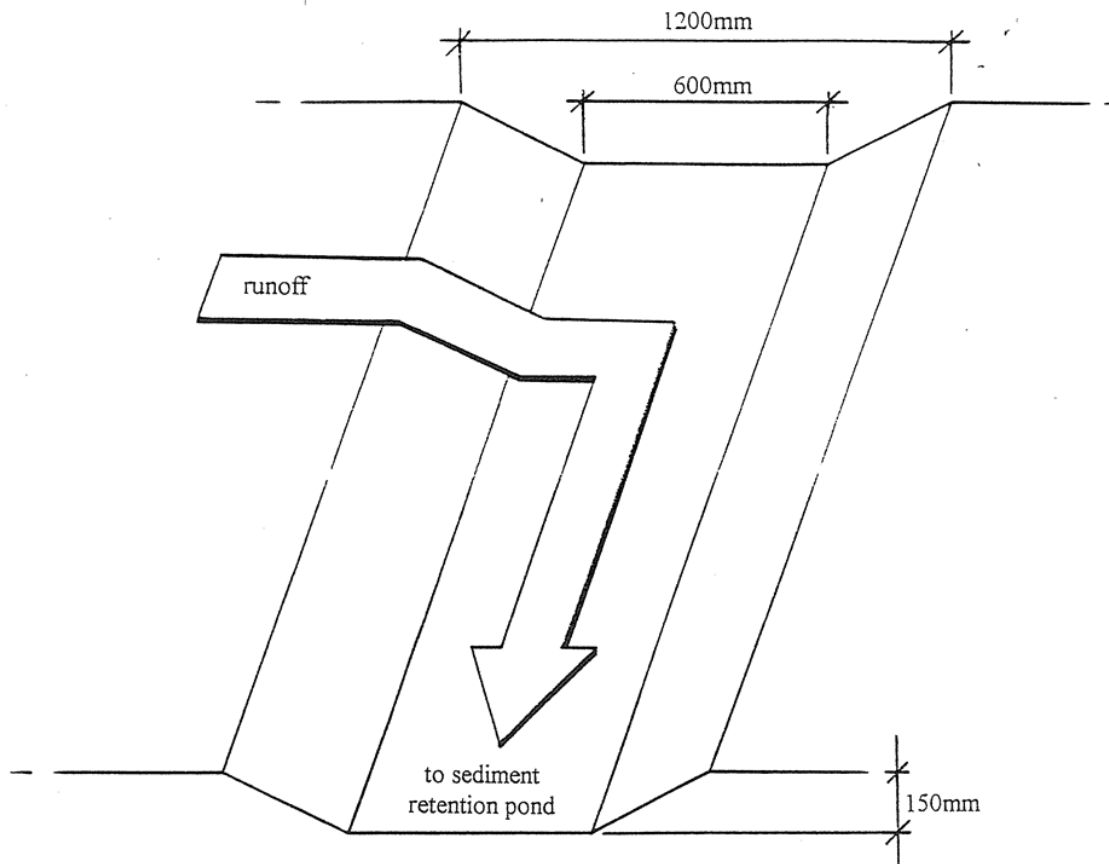


Figure 2
Catch Drain Dimensions
(24 hour 1 in 25 year event)

Brian J Mackney & Assoc., Pty., Ltd., Bangalow., Phone 02 6687 1289



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DA 1996/29 - Eaton's Chert Quarry - Old Bagotville Road - Aerial Photograph

ballina shire council
geographical information system

Projection: GDA94 / MGA zone 56
Date: 8/03/2018

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