

0 146.5  
meters



LEGEND

Subject Property

Cadastral



LOCALITY PLAN

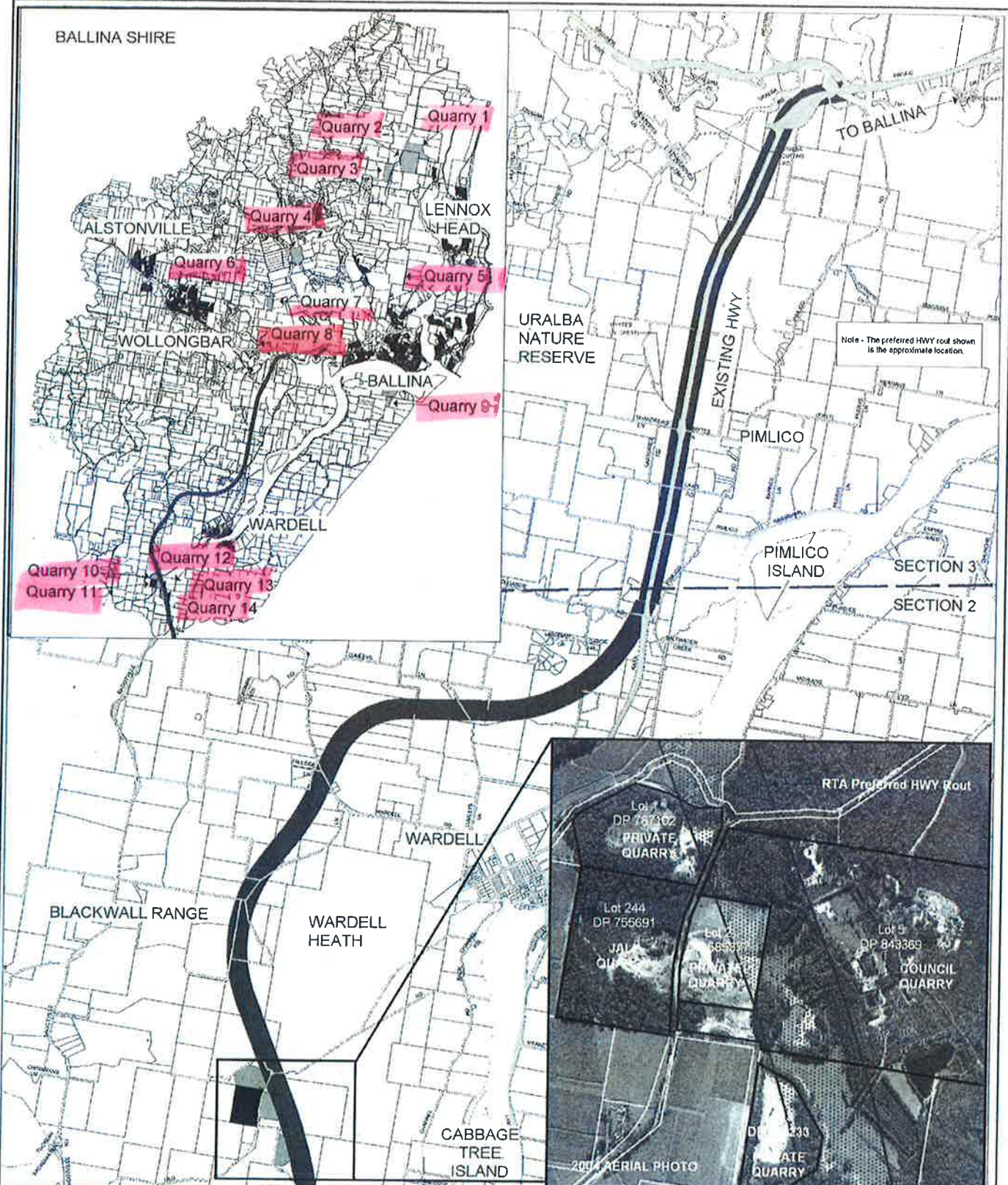
DA 2014/615 – Hard Rock Quarry, Bagotville



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27/07/2015

# BALLINA SHIRE



## Quarries - Description

- |   |   |
|---|---|
| Quarry 1 - DA 1995/280, Sand, CSR Readymix      | Quarry 10 - DA 1996/20, Shale and Chert, McGeary Bros |
| Quarry 2 - DA 1995/256, Sand, CSR Readymix      | Quarry 11 - Coarse Gravel, Jai Aboriginal             |
| Quarry 3 - DA 2001/326, Sand, Not operational   | Quarry 12 - DA 1995/89, Shale, Sand and Soil, BSC     |
| Quarry 4 - DA 1995/292, Hard Rock, Boral        | Quarry 13 - DA 1999/537, Shale, Gibson Brothers       |
| Quarry 5 - DA 1996/215, Sand, BSC               | Quarry 14 - DA 1996/29, Shale and Chert, McGeary Bros |
| Quarry 6 - DA 1995/276, Hard Rock, BSC          |   |
| Quarry 7 - DA 1995/263, Hard Rock, CRS Readymix |   |
| Quarry 8 - DA 1995/274, Coarse Gravel, BSC      |   |
| Quarry 9 - DA 1996/28, Sand, McGeary Bros       |   |

GOAT ISLAND

0 1 2  
kilometres  
(Approx Scale)

## Legend

- Council Owned Quarries
- Private Owned Quarries
- Jai Aboriginal Owned Quarries
- RTA Preferred HWY Route

## WOODBURN TO BALLINA RTA PREFERRED ROUTE and QUARRIES OF BALLINA SHIRE

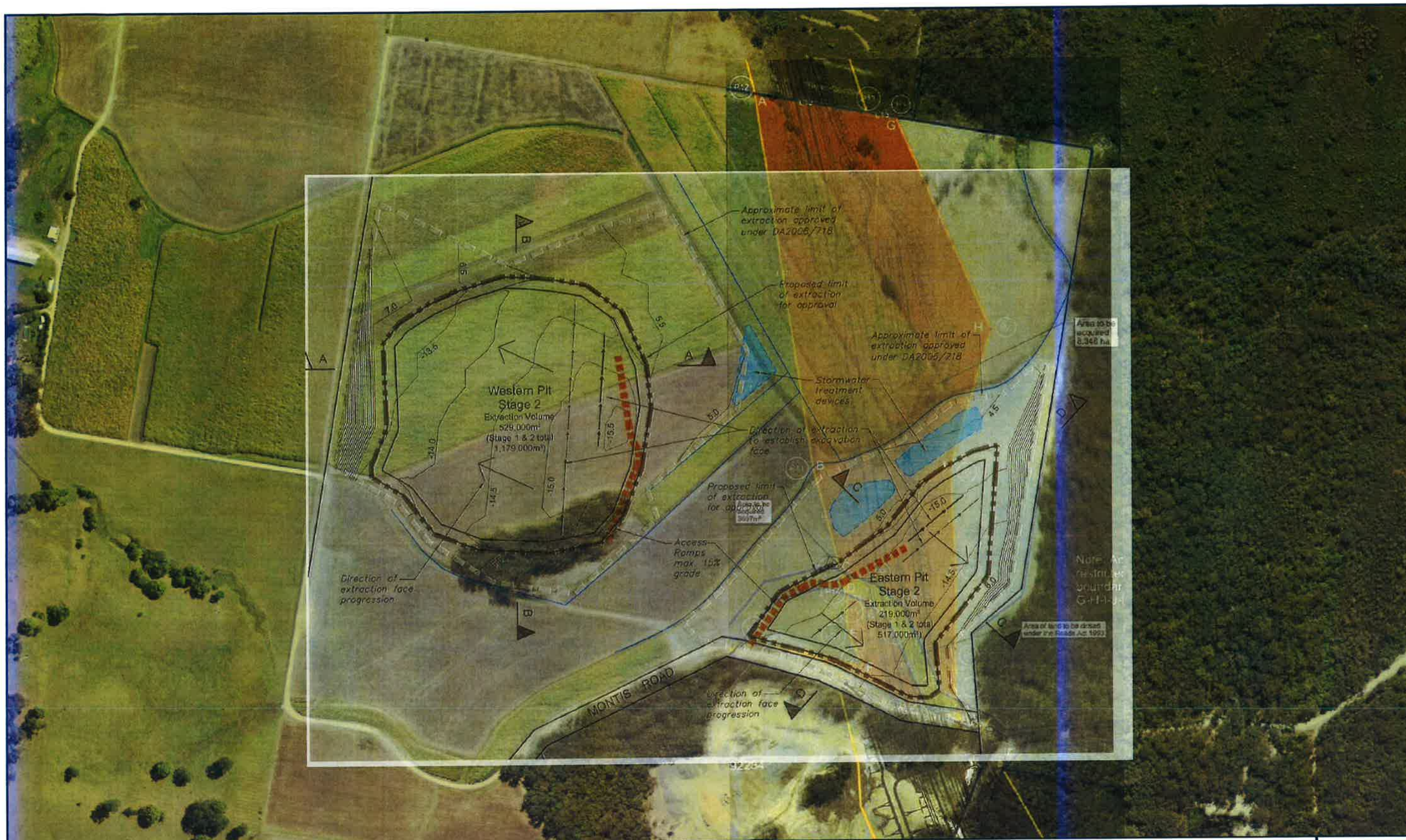


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14/12/2005







## DA 2014/615 and Pacific Highway Acquisition Plan Lots 2 and 3 DP 1192234, Montis Road Bagotville



**ballina**  
shire council

### DISCLAIMER

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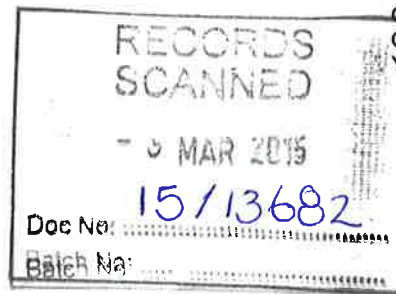




**Department of  
Primary Industries**  
Office of Water

Contact: Vanessa Sultmann  
Phone: 02 6676 7382  
Fax: 02 6676 7388  
Email: [vanessa.sultmann@dpi.nsw.gov.au](mailto:vanessa.sultmann@dpi.nsw.gov.au)  
Our ref: 30 ERM2014/1186  
Our file: 9058964  
Your ref: DA2014/615

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



**Attention: Anthony Peters**

26 February 2015

Dear Sir/Madam

**Re: Integrated Development Referral – General Terms of Approval**  
**Dev Ref: DA2014/615**  
**Description of proposed activity: Extractive Industry - Quarry Expansion**  
**Site location: Old Baggotville Road, Baggotville**

I refer to your letter regarding an integrated Development Application (DA) proposed for the subject property. Attached, please find the Office of Water's General Terms of Approval (GTA) for works requiring a controlled activity approval under the *Water Management Act 2000* (WM Act), as detailed in the subject DA.

Please note Council's statutory obligations under section 91A (3) of the *Environmental Planning and Assessment Act 1979* (EPA Act) which requires a consent, granted by a consent authority, to be consistent with the general terms of any approval proposed to be granted by the approval body.

If the proposed development is approved by Council, the Office of Water requests that these GTA be included (in their entirety) in Council's development consent. Please also note the following:

- The Office of Water should be notified if any plans or documents are amended and these amendments significantly change the proposed development or result in additional works on waterfront land (which includes (i) the bed of any river together with any land within 40 metres inland of the highest bank of the river, or (ii) the bed of any lake, together with any land within 40 metres of the shore of the lake, or (iii) the bed of any estuary, together with any land within 40 metres inland of the mean high water mark of the estuary).
- Once notified, the Office of Water will ascertain if the amended plans require review or variation/s to the GTA. This requirement applies even if the proposed works are part of Council's proposed consent conditions and do not appear in the original documentation.
- The Office of Water should be notified if Council receives an application to modify the development consent and the modifications change any activities on waterfront land.
- The Office of Water requests notification of any legal challenge to the consent.

As the controlled activity to be carried out on waterfront land cannot commence before the applicant applies for and obtains a controlled activity approval, the Office of Water recommends the following condition be included in the development consent:

"The Construction Certificate will not be issued over any part of the site requiring a controlled activity approval until a copy of the approval has been provided to Council".

**The attached GTA are not the controlled activity approval.** The applicant must apply (to the Office of Water) for a controlled activity approval **after consent** has been issued by Council **and before the commencement of any work or activity on waterfront land**.

Finalisation of a controlled activity approval can take up to eight (8) weeks from the date the Office of Water receives all documentation (to its satisfaction). Applicants must complete and submit (to the undersigned) an application form for a controlled activity approval together with any required plans, documents, the appropriate fee and security deposit or bank guarantee (if required by the Office or Water) and proof of Council's development consent.

Application forms for the controlled activity approval are available from the undersigned or from the Office of Water's website:

[www.water.nsw.gov.au](http://www.water.nsw.gov.au) [Water licensing](#) > [Approvals](#) > Controlled activities

Attached, please also find the Office of Water's General Terms of Approval (GTA) for works requiring a licence under the *Water Act 1912* (W Act), as detailed in the subject DA.

As interception of groundwater should not commence before the applicant applies for and obtains a licence, the Office of Water recommends the following condition be included in the development consent:

"The Construction Certificate will not be issued over any part of the site requiring a licence until a copy of the licence has been provided to Council".

**The attached GTA are not the licence.** The applicant must apply (to the Office of Water) for a licence **after consent** has been issued by Council **and before** the commencement of any work or activity that interferes with groundwater.

Finalisation of a licence can take up to eight (8) weeks from the date the Office of Water receives all documentation (to its satisfaction). Applicants must complete and submit (to the undersigned) an application form for a licence together with any required plans, documents, the appropriate fee and security deposit or bank guarantee (if required by the Office or Water) and proof of Council's development consent.

Application forms for the licence are available from the undersigned or from the Office of Water's website:

[www.water.nsw.gov.au](http://www.water.nsw.gov.au)

The Office of Water requests that Council provide a copy of this letter to the applicant.

The Office of Water also requests that Council provides the Office of Water with a copy of the determination for this development application as required under section 91A (6) of the EPA Act.

Yours Sincerely



Brett McCulloch  
A/Senior Water Regulation Officer  
Office of Water - Water Regulation, North & North Coast

# General Terms of Approval

for work requiring a controlled activity approval  
under s91 of the Water Management Act 2000

**Our Reference:** 30 ERM2014/1186 **File No:** 9058964  
**Site Address:** Old Baggotville Road, Baggotville  
**DA Number:** DA2014/615  
**LGA:** Ballina Shire Council

Number	Condition
<b>Plans, standards and guidelines</b>	
1	These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to DA2014/615 and provided by Council.  Any amendments or modifications to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified the NSW Office of Water must be notified to determine if any variations to these GTA will be required.
2	Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from the NSW Office of Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the river identified.
3	The consent holder must prepare or commission the preparation of: (i) Vegetation Management Plan (ii) Works Schedule (iii) Soil and Water Management Plan
4	All plans must be prepared by a suitably qualified person and submitted to the NSW Office of Water for approval prior to any controlled activity commencing. The plans must be prepared in accordance with the NSW Office of Water's guidelines located at <a href="http://www.water.nsw.gov.au/Water-Licensing/Approvals/default.aspx">www.water.nsw.gov.au/Water-Licensing/Approvals/default.aspx</a> (i) Vegetation Management Plans (ii) Riparian Corridors (iii) Outlet structures
5	The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to the NSW Office of Water.
<b>Rehabilitation and maintenance</b>	
6	The consent holder must carry out a maintenance period of two (2) years after practical completion of all controlled activities, rehabilitation and vegetation management in accordance with a plan approved by the NSW Office of Water.
7	The consent holder must reinstate waterfront land affected by the carrying out of any controlled activity in accordance with a plan or design approved by the NSW Office of Water.
<b>Reporting requirements</b>	
8	The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the NSW Office of Water as

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170912

**Our Reference:** 30 ERM2014/1186  
**Site Address:** Old Baggotville Road, Baggotville  
**DA Number:** DA2014/615  
**LGA:** Ballina Shire Council

**File No:** 9058964

Number	Condition
	required.
<b>Security deposits</b>	
9	N/A
<b>Access-ways</b>	
10	N/A
11	N/A
<b>Bridge, causeway, culverts, and crossing</b>	
12	N/A
13	N/A
<b>Disposal</b>	
14	The consent holder must ensure that no materials or cleared vegetation that may (i) obstruct flow, (ii) wash into the water body, or (iii) cause damage to river banks; are left on waterfront land other than in accordance with a plan approved by the NSW Office of Water.
<b>Drainage and Stormwater</b>	
15	The consent holder is to ensure that all drainage works (i) capture and convey runoffs, discharges and flood flows to low flow water level in accordance with a plan approved by the NSW Office of Water; and (ii) do not obstruct the flow of water other than in accordance with a plan approved by the NSW Office of Water.
16	The consent holder must stabilise drain discharge points to prevent erosion in accordance with a plan approved by the NSW Office of Water.
<b>Erosion control</b>	
17	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by the NSW Office of Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.
<b>Excavation</b>	
18	The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by the NSW Office of Water.
19	N/A
<b>Maintaining river</b>	
20	The consent holder must ensure that (i) river diversion, realignment or alteration does not result from any controlled activity work and (ii) bank control or protection works maintain the existing river hydraulic and geomorphic functions, and (iii) bed control structures do not result in river degradation other than in accordance with a plan approved by the NSW Office of Water.
21	N/A

**Our Reference:** 30 ERM2014/1186 **File No:** 9058964  
**Site Address:** Old Baggotville Road, Baggotville  
**DA Number:** DA2014/615  
**LGA:** Ballina Shire Council

Number	Condition
<b>River bed and bank protection</b>	
22	N/A
23	The consent holder must establish a riparian corridor along the unnamed creek in accordance with a plan approved by the NSW Office of Water.
<b>Plans, standards and guidelines</b>	
24	N/A
25	N/A
26	N/A
27	N/A
<b>END OF CONDITIONS</b>	

## General Terms of Approval

for work requiring a license  
under the Water Act 1912

**Our Reference:** 30 ERM2014/1186 **File No:** 9058964  
**Site Address:** Old Baggotville Road, Baggotville  
**DA Number:** DA2014/615  
**LGA:** Ballina Shire Council

### General Conditions (all approvals)

The purposes of these conditions are to:

- Define certain terms used in other conditions
- Specify the need to obtain a license, permit or authority before commencing any works
- Specify that, in most cases an approval will only be issued to the occupier of the lands where the works are to be located (as required by the Water Act)
- Require existing approvals to be cancelled or let lapse when a license is issued (if applicable)
- Require the safe construction and operation of all works
- Require the use of appropriate soil conservation measures
- Limit vegetation destruction or removal to the minimum necessary
- Require the separate authorisation of clearing under the NVC Act
- Allow conditions to be imposed for management of fuel (petroleum)

In the following conditions relating to an approval under the Water Act 1912;  
'the department' means the department administering the Water Act 1912;  
'approval' means a license, permit, authority or approval under that Act;

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**Our Reference:** 30 ERM2014/1186

**File No:** 9058964

**Site Address:** Old Baggotville Road, Baggotville

**DA Number:** DA2014/615

**LGA:** Ballina Shire Council

'river' has the same meaning as in Section 5 of the Water Act 1912;

'work' means any structure, earthwork, plant or equipment authorised under the approval to be granted, as defined in Section 5 and 105 of the Water Act 1912;

controlled work' means any earthwork, embankment or levee as defined in Section 165 of the Water Act 1912

Before commencing any works or using any existing works for the purpose of industrial (sand & gravel extraction) an approval under Part V of the Water Act 1912 must be obtained from the department. The application for the approval must contain sufficient information to show that the development is capable of meeting the objectives and outcomes specified in these conditions.

An approval will only be granted to the occupier of the lands where the works are located, unless otherwise allowed under the Water Act 1912.

When the department grants an approval, it may require any existing approvals held by the applicant relating to the land subject to this consent to be surrendered or let lapse.

All works subject to an approval shall be constructed, maintained and operated so as to ensure public safety and prevent possible damage to any public or private property.

All works involving soil or vegetation disturbance shall be undertaken with adequate measures to prevent soil erosion and the entry of sediments into any river, lake, waterbody, wetland or groundwater system.

The destruction of trees or native vegetation shall be restricted to the minimum necessary to complete the works.

All vegetation clearing must be authorised under the Native Vegetation Conservation Act 1997, if applicable.

The approval to be granted may specify any precautions considered necessary to prevent the pollution of surface water or groundwater by petroleum products or other hazardous materials used in the construction or operation of the works.

A license fee calculated in accordance with the Water Act 1912 must be paid before a license can be granted.

**Conditions of water use (including irrigation)**

The purpose of these conditions are to:

- Allow the department to obtain an accurate measure of water use where necessary
- Specify the purpose(s) for which the water may be used

If and when required by the department, suitable devices must be installed to accurately measure the quality of water extraction or diverted by the works.

All water measuring equipment must be adequately maintained. It must be tested as and when required by the department to ensure its accuracy.

The water extracted under the approval to be granted shall be used for the purpose of industrial (sand & gravel extraction) and for no other purpose. A proposed change in purpose will require a replacement license to be issued.

**Our Reference:** 30 ERM2014/1186

**File No:** 9058964

**Site Address:** Old Baggotville Road, Baggotville

**DA Number:** DA2014/615

**LGA:** Ballina Shire Council

### Conditions for bores and wells

*See also 'general conditions' and 'conditions for water use'*

The purpose of these conditions are to:

- Set a limited period bore construction
- Require the bore to be properly completed and sealed
- Require certain information to be provided on completion of the work, including a location plan
- Allow NSW Office of Water access for inspection and testing
- Specify procedures if saline or polluted water found
- Specify a volumetric allocation for the works purpose
- Allow NSW Office of Water to alter the allocation at any time

Works for construction of bore must be completed with such period as specified by the department.

Within two months after the works are completed the department must be provided with an accurate plan of the location of the works and notified of the results of any pumping tests, water analysis and other details as are specified in the approval.

Any water extracted by the works must not be discharged into any watercourse or groundwater if it would pollute that water.

The Department has the right to vary the volumetric allocation or the rate at which the allocation is taken in order to prevent the overuse of an aquifer.

(1) The licensee must allow authorised officers of the NSW Office of Water, and its authorised agents reasonable access to the works with vehicles and equipment at any time for the purposes of:

- Inspecting the said work
- Taking samples of any water or material in the work and testing the samples.

(2) The licensee shall within 2 weeks of being notified install to the satisfaction of the NSW Office of Water in respect of location, type and construction an appliance(s) to measure the quantity of water extracted from the works. The appliance(s) to consist of either a measuring weir or weirs with automatic recorder, or meter or meter(s) of measurement as may be approved by the NSW Office of Water. The appliance(s) shall be maintained in good working order and condition. A record of all water extracted from the works shall be kept and supplied to the NSW Office of Water upon request. The licensee when requested must supply a test certificate as to the accuracy of the appliance(s) furnished either by the manufacturer or by some person duly qualified.

(3) The authorised work shall not be used for the discharge of polluted water into a river or lake otherwise than in accordance with the conditions of a licence granted under the protection of the environment operations act 1997. A copy of the licence to discharge is to be provided to the NSW Office of Water.

(4) The term of this licence shall be five (5) years.

(5) The volume of groundwater authorised from the work by this licence shall not exceed 30 megalitres per water year.

(6) The authorised work shall not be used for the discharge of water unless the ph of the water is between 6.5 and 8.5, or the water has been treated to bring the ph to a level between 6.5 and 8.5 prior to discharge, or the water is

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170912



**Our Reference:** 30 ERM2014/1186

**File No:** 9058964

**Site Address:** Old Baggotville Road, Baggotville

**DA Number:** DA2014/615

**LGA:** Ballina Shire Council

discharged through the council's sewerage treatment system.

(7) The licensee shall test the ph of any water extracted from the work prior to the commencement of any discharge and at least twice daily thereafter and record the date, time and result of each test in the site log. A copy of the records of the ph testing is to be returned with the form 'ag'.

(8) A modified Groundwater Management Plan must be developed for the site including a comprehensive monitoring bore network, a comprehensive list of analytes, and proposed threshold values for parameters with contingency and reporting measures outlined for threshold breaches. Additional monitoring bores may be required.

(9) An acid sulphate soil management plan to the satisfaction of the NSW Office of Water must be developed for the site in accordance with the ASSMAC guidelines which includes management of impacts on both soils and the pit water. The need for procedures such as mechanical removal of ASS fines and lime dosing should be considered.

(10) The works shall be managed in accordance with the approved Groundwater Management Plan.

(11) A Security Deposit may be required for remediation of the site for events that may cause adverse environmental impacts occurring from operation of the quarry including groundwater quality impacts within the groundwater excavation at the site.

**END OF CONDITIONS**

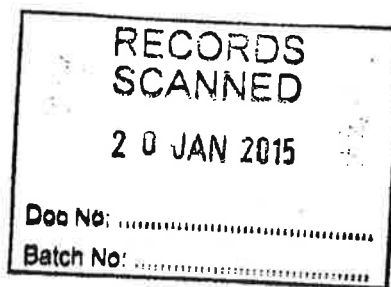
## General Terms of Approval - Issued

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Notice No: 1527208

Ballina Shire Council  
PO Box 450  
Ballina, NSW 2478



Attention: Rod Willis

Notice Number     1527208  
File Number        EF14/5986  
Date                 15-Jan-2015

**Re: The General Terms of Approval for the expansion of an existing quarry – Old Bagotville Road**

**Issued pursuant to Section 91A(2) Environmental Planning and Assessment Act 1979**

Dear, Rod Willis

I refer to your letter of 8 December 2014 in relation to the Designated Development Application (number 2014/615) of the quarry at Lot 2 & 3 DP1192234, Old Bagotville Road and Montis Road Bagotville in Ballina Shire Council

The EPA has reviewed the information provided and has determined that the EPA is able to issue an Environment Protection Licence for the proposal subject to a number of conditions. The applicant will need to make a separate application to EPA to obtain this licence prior to the commencement of operations. The General Terms of Approval (GTA) for this proposal are provided at Attachment A. If development consent for this proposal is granted, EPA recommends these general terms should be incorporated into the consent.

The general terms relate to the development as proposed in the documents and information currently provided to the EPA. In the event that the development is modified either by the applicant prior to the granting of consent or as a result of the conditions proposed to be attached to the consent, it will be necessary to consult with EPA about the changes before the consent is issued. This will enable us to determine whether our general terms need to be modified in light of the changes.

The applicant must complete the noise mitigation works as outlined in the *Noise & Vibration Impact Assessment – Expansion of an existing Extractive Industry Lots 2 & 3 DP 1192234 Old Bagotville Road*



## **General Terms of Approval - Issued**

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Notice No: 1527208

*Bagotville*, by Tim Fitzroy and Associates in Appendix J of the EIS prepared by Ardill Payne and Partners November 2014.

Should you wish to discuss the EPA's GTA for this project or require any further information please contact Peter Lynch on 6640 2502.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Graeme Budd'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

**Graeme Budd**  
**Head Environmental Management Unit North Coast**  
**Environment Protection Authority**

# General Terms of Approval - Issued



Notice No: 1527208

## Attachment A. General Terms of Approval for Existing Extractive

### Administrative conditions

#### A1. Information supplied to the EPA

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

- the development application 2014/615 submitted to Council and attachments;

#### A2. Fit and Proper Person

A2.1 The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environment Operations Act 1997, having regard to the matters in s.83 of that Act.

### Discharges to Air and Water and Applications to Land

P1.1 The following utilisation areas referred to in the table below are identified in the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, for the purposes of the monitoring and/or setting of limits for any application of solids or liquids to the utilisation area.

#### Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
Sediment Basin Discharge	Water	Water	Overflow point of stormwater from quarry floor.

### Limit conditions

#### L1. Pollution of waters

L1.1 Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

#### L2. Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table/s (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.



## General Terms of Approval - Issued



Notice No: 1527208

✓ **L2.2** Where a pH quality limit is specified in the Table, the specified percentage of samples must be within the specified ranges.

✓ **L2.3** To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.

### **L2.4 Water and/or Land Concentration Limits**

#### **DISCHARGE POINT 1 (Sediment Basin Discharge)**

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

✓ **L2.5** The concentration limits in the above table do not apply to any discharge from the sediment basin (at Point 1) solely arising from rainfall measured at the premises exceeding 60.2 mm in total falling over any consecutive five day period.

✓ **L2.6** If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must develop a statistical correlation which identifies the relationship between NTU and TSS for water quality in the sediment basin/s in order to determine the NTU equivalent of 50 mg/L TSS prior to its use.

✓ **L2.7** If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must provide the EPA with a copy of the statistical correlation assessment methodology and results before using NTU in place of TSS.

✓ **L2.8** If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must develop and implement a method to enable the ongoing verification of the relationship between NTU and TSS.

✓ **L2.9** If the applicant uses turbidity (NTU) in place of total suspended solids (TSS) to determine compliance with the EPA's general terms of approval, or a licence issued under the Protection of the Environment Operations Act 1997, the applicant must provide the EPA with any amendments the applicant makes to the statistical correlation as a result of the ongoing verification required by Condition L2.8 before using the revised statistical correlation.

### **L3. Waste**

## General Terms of Approval - Issued

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Notice No: 1527208

**L3.1** The applicant must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

### **L4. Noise limits**

**L4.1** Noise from the premises must not exceed an LAeq (15 minute) noise emission criterion of 35 dB(A) for receivers dwellings 1, 2, 3 and 4, except as expressly provided by these general terms of approval:

**L4.2** Noise from the premises is to be measured at residential receiver's dwellings 1, 2, 3 and 4 as identified in the Noise and Vibration Impact Assessment by Tim Fitzroy and Associates. This condition does not apply if written permission from the property owners for an exceedance of condition L4.1 has been provided to the EPA.

**L4.3** The noise limits set out in condition L4.1 apply under all meteorological conditions except for the following:

- Wind Speeds greater than 3 metres/second at 10 metres above ground level; or
- Temperature inversion conditions up to 3°C/100m and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- Temperature inversion conditions greater than 3°C/100m.

### **L5. Blasting**

**L5.1** Blasting operations at the premises may only take place between 09:00 to 15:00 Monday to Friday. (Where compelling safety reasons exist, the Authority may permit a blast to occur outside the above mentioned hours. Prior written (or facsimile) notification of any such blast must be made to the Authority).

**L5.2** The airblast overpressure level from blasting operations in or on the premises must not exceed:  
a) 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period;  
and  
b) 120 dB (Lin Peak) at any time,  
at any point within 1 meter of any affected residential boundary or other noise sensitive location unless the location is owned by the licensee or is subject to a private written agreement between the owner of the residence or noise sensitive location as to an alternative overpressure level.

**L5.3** The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed:

- a) 5mm/s for more than 5% of the total number of blasts carried out on the premises during each reporting period; and
- b) 10 mm/s at any time,

at any point within 1 meter of any affected residential boundary or other noise sensitive location unless the location is owned by the licensee or is subject to a private written agreement between the owner of the residence or noise sensitive location as to an alternative ground peak velocity level.

**L5.4** All sensitive receivers are to be given at least 24 hours' notice when blasting is to be undertaken.

## General Terms of Approval - Issued

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Notice No: 1527208

### **L6. Hours of operation**

**L6.1** Activities covered by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, must only be carried out between the hours of 7:00 am and 6:00 pm Monday to Friday, and 8:00 am and 1:00 pm Saturday, and at no time on Sundays and Public Holidays.

**L6.2** This condition does not apply to the delivery of material outside the hours of operation permitted by condition L6.1 if that delivery is required by police or other authorities for safety reasons; and/or the operation or personnel or equipment are endangered. In such circumstances, prior notification must be provided to the EPA and affected residents as soon as possible, or within a reasonable period in the case of emergency.

### **Operating conditions**

#### **O1. Dust**

**O1.1** Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.

#### **O2. Processes and management**

**O2.1** Sediment basins shall be treated, if required, to reduce the Total Suspended Solids level to the concentration limit of 50 mg/L provided by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, before being released to the environment. Treatment can be with gypsum or any other material that has been approved by the EPA.

**O2.2** The applicant must maximise the diversion of run-on waters from lands upslope and around the site whilst land disturbance activities are being undertaken.

**O2.3** The applicant must maximise the diversion of stormwater runoff containing suspended solids to sediment basins installed on the premises.

**O2.4** Where sediment basins are necessary, all sediment basins and associated drainage must be installed and commissioned prior to the commencement of any clearing or grubbing works within the catchment area of the sediment basin that may cause sediment to leave the site.

**O2.5** The applicant must ensure the design storage capacity of the sediment basins installed on the premises is reinstated within 5 days of the cessation of a rainfall event that causes runoff to occur on or from the premises.

**O2.6** The applicant must ensure that sampling point(s) for water discharged from the sediment basin(s) are provided and maintained in an appropriate condition to permit:

- a) the clear identification of each sediment basin and discharge point;
- b) the collection of representative samples of the water discharged from the sediment basin(s); and
- c) access to sampling point(s) at all times by an authorised officer of the EPA.

**O2.7** The applicant must endeavour to maximise the reuse of captured stormwater on the premises.



# General Terms of Approval - Issued

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Notice No: 1527208

✓ **O2.8** Each sedimentation basin must have a marker (the "sediment basin marker") that identifies the upper level of the sediment storage zone.

✓ **O2.9** Whenever the level of liquid and other material in any sedimentation basin exceeds the level indicated by the sedimentation basin marker, the licensee must take all practical measures as soon as possible to reduce the level of liquid and other material in the sedimentation basin.

✓ **O2.10** The sediment basins must meet the design and operational standards of *Managing Urban Stormwater Soils and Construction: Volume 1 and Volume 2 E. Mines and quarries*. This document requires that at a minimum 90 percentile five-day rainfall event be used to determine basin sizing for quarries.

✓ **O2.11** All liquid chemicals, fuels and oils must be stored in tanks or containers inside suitable bund(s). Bund(s) are to be designed, constructed and maintained in accordance with AS1940-2004 Storage and Handling of Flammable and Combustible Liquids.

## Monitoring and recording conditions

### **M1 Monitoring records**

✓ **M1.1** The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

✓ **M1.2** All records required to be kept by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, must be:

- a) in a legible form, or in a form that can readily be reduced to a legible form;
- b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- c) produced in a legible form to any authorised officer of the EPA who asks to see them.

✓ **M1.3** The following records must be kept in respect of any samples required to be collected:

- a) the date(s) on which the sample was taken;
- b) the time(s) at which the sample was collected;
- c) the point at which the sample was taken; and
- d) the name of the person who collected the sample.

### **M2. Requirement to monitor concentration of pollutants discharged**

✓ **M2.1** The applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

## **POINT 1 Water and Land**

### **Discharge point 1**

## General Terms of Approval - Issued



Notice No: 1527208

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

< *Special Frequency 1* > means sampling any discharge, whether controlled or otherwise, which has not occurred from rainfall exceeding 60.2 mm over any consecutive five day period.

### **M3. Testing methods - concentration limits.**

**M3.1** Subject to any express provision to the contrary of the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

### **M4. Environmental monitoring**

**M4.1** The applicant is required to install and maintain a rainfall depth measuring device.

**M4.2** Rainfall at the premises must be measured and recorded in millimetres per 24 hour period, at the same time each day.

Note: The rainfall monitoring data collected in compliance with Condition M4.2 can be used to determine compliance with L2.4.

### **M5. Other monitoring and recording condition**

**M5.1** For the purposes of monitoring for compliance with the noise limit conditions of the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, (condition L4) noise emitted from the premises must be measured or computed at 30 metres from the nearest residential dwelling/s over a period of 15 minutes using the "FAST" response on the sound level meter. A modifying factor correction must be applied for tonal, impulsive, or intermittent noise in accordance with the document NSW Industrial Noise Policy (NSW EPA, January 2000).

### **M6. Blast Monitoring**

**M6.1** The time of blasting, the air-blast overpressure level from blasting operations and the ground vibration peak particle velocity from blasting operations must be measured at the nearest sensitive receiver for each blast.

## Reporting conditions

**R1.1** The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in

## General Terms of Approval - Issued

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Notice No: 1527208

pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation worksheets with the return.

### Special Conditions

#### Special Condition 1. Installation of noise mitigation works

✓ The licensee must install all noise mitigation works as outlined in *Noise & Vibration Impact Assessment – Expansion of an existing Extractive Industry Lots 2 & 3 DP 1192234 Old Bagotville Road Bagotville* by Tim Fitzroy and Associates, with in 1 months of the commencement of quarrying activities, under this approval/licence.

#### Special Condition 2. Compliance noise monitoring report

The licensee must engage a noise consultant to conduct compliance noise monitoring of normal quarry operations and provide a report detailing the results of that monitoring.

✓ The details of plant and equipment operating on site at the time of monitoring must be provided in the report. The compliance noise monitoring report must be provided to the EPA within 2 months of the commencement of quarrying activities, under this approval/licence.

#### Special Conditions 3. Dust Management Plan

The EPA requires a Dust Management Plan to be prepared.

✓ The Dust Management Plan must include, but is not limited to:

- Detailed measures to address all the principal sources of dust e.g. extraction, processing (handling/loading/crushing), stockpiling *and* storage and road transport so that the quarry meets the quarry meets a PM10 criterion of 50 g/m3. Dust control measures that represent both proactive and reactive management should be included.
- Outline the measures for dust suppression on equipment (eg. Crushing and screening equipment, etc).
- Detail the water supply for these measures.

Due date: This report is to be submitted to the EPA prior to the commencement of quarrying activities under this approval/licence on the premise.



## **General Terms of Approval - Issued**

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Notice No: 1527208

### **Attachment B – Mandatory Conditions for all EPA licences**

#### **Administrative conditions**

##### ***Other activities***

(To be used on licences with ancillary activities)

This licence applies to all other activities carried on at the premises, including:

- Extractive Activities; and
- Crushing

#### **Operating conditions**

##### ***Activities must be carried out in a competent manner***

Licensed activities must be carried out in a competent manner.

This includes:

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

##### ***Maintenance of plant and equipment***

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

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

#### **Monitoring and recording conditions**

##### ***Recording of pollution complaints***

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

The record must include details of the following:

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

## General Terms of Approval - Issued

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Notice No: 1527208

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

The record of a complaint must be kept for at least 4 years after the complaint was made.

The record must be produced to any authorised officer of the EPA who asks to see them.

### **Telephone complaints line**

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

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

This condition does not apply until 3 months after this condition takes effect.

## Reporting conditions

### **Annual Return documents**

#### **What documents must an Annual Return contain?**

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

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

A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence.

Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

#### **Period covered by Annual Return**

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

Where this licence is transferred from the licensee to a new licensee,

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

*Note: An application to transfer a licence must be made in the approved form for this purpose.*

Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on

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

## **General Terms of Approval - Issued**

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Notice No: 1527208

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

### **Deadline for Annual Return**

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

### **Licensee must retain copy of Annual Return**

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

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

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

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

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

### **Notification of environmental harm**

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

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

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

### **Written report**

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

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

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

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

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;



## **General Terms of Approval - Issued**

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Notice No: 1527208

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

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

### **General conditions**

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

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

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

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



File No: NTH06/00735  
Your Ref: DA2014.615

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

Attention: Anthony Peters – Development Assessment Officer

Dear Sir / Madam,

**Further advice relating to Proposed Extractive Industry, Old Bagotville Road, Bagotville**

I refer to your email correspondence of 17 March 2015 regarding the abovementioned development application referred to Roads and Maritime Services for consideration.

**Roles & Responsibilities**

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

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.

In accordance with Clause 100 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) the Consent Authority is required to obtain the concurrence of the Chief Executive Officer of Roads and Maritime Services for development on land reserved for the purposes of a classified road. Council has requested Roads and Maritime to provide clarification as to whether it considers that it has a concurrence role under this clause.

**Roads and Maritime Response**

The subject site is located within the alignment of the approved Woolgoolga to Ballina Pacific Highway Upgrade (W2B) Project. The W2B Pacific Highway Upgrade Project is identified as critical infrastructure under Schedule 5 of the *State Environmental Planning Policy (State and Regional Development) 2011*, due to the importance of this project for the State.

Approval for the W2B Project was granted under Part 5.1 of the *Environmental Planning and Assessment Act 1979* in August 2014. The property owner was advised of Roads and Maritime's intention to acquire the affected land. Works under the project approval have commenced at the southern end of the project alignment between Woolgoolga and Glenugie.

**Roads & Maritime Services**

However, the approved alignment has yet to be gazetted under the *Ballina Local Environment Plan 2012* (LEP) and, accordingly the subject site is not identified under an environmental planning instrument as a "*classified road*".

Whilst it is at least arguable, especially given the W2B Project approval, that the subject land is reserved for the purposes of a classified road, it is difficult to determine conclusively that concurrence is required under Clause 100 of the ISEPP as the land has yet to be identified under an environmental planning instrument.

Notwithstanding, it is clear that the proposed development would significantly impact on the approved critical infrastructure project. The proposed development would, if carried out, impose a significant engineering constraint on W2B, making construction substantially more difficult and more expensive. An acquisition plan indicative of the W2B project boundary in the context of the subject site is enclosed for reference.

In this sense, the site is clearly not suitable for the proposed development.

Further, the public interest is not served by directly inconsistent land uses and the approval of the proposed development is likely to give rise to inconsistent land uses between the W2B Project and the proposed development.

Consequently, Roads and Maritime requests that the Consent Authority give consideration to refusing the development application.

#### **Advice to the Consent Authority**

Upon determination of the application, it would be appreciated if Council could forward a copy of the Notice of Determination for our records. If you have any further enquiries regarding the above comments please do not hesitate to contact Liz Smith, Manager Land Use Assessment on (02) 6640 1362 or via email at: [development.northern@rms.nsw.gov.au](mailto:development.northern@rms.nsw.gov.au)

Yours faithfully

*for*  15-4-2015  
Monica Sirol  
Network & Safety Manager, Northern Region

Enclosed: W2B Acquisition Plan



Acquisition from:  
LOT 2 DP1192234  
Allan Keith Monti  
Phillip Daniel Monti  
Christopher John Monti

LGA: BALLINA  
Locality: BAGGOTVILLE  
Parish: BROADWATER  
County: ROUS  
LOT2/DP1192234  
Old Baggotville Road  
BAGGOTVILLE NSW 2477

**Legend**

- Concept Design
- Area to be acquired
- Property of interest
- Proposed road boundary
- Sediment Basin (permanent)
- Sediment Basin (temporary)

**Accuracy Disclaimer:**  
Areas and boundaries  
subject to final survey.  
SCALE 1:3,000 @ A3  
Map produced 4/04/2014  
GDAL MGA Zone 56

Point No.	Easting	Northing	Line No.	Distance (m)
P1	54197.0	6795760.9	L1	239.32
P2	54207.8	6795547.3	L2	144.71
P3	54202.5	6795408.6	L3	103.39
P4	54204.4	6795105.3	L4	67.21
P5	54203.3	6795260.0	L5	75.33
P6	54203.4	6795175.3	L6	13.99
P7	542019.8	6795181.4	L7	93.34
P8	54195.5	6795267.0	L8	38.08
P9	54195.5	6795291.7	L9	36.38
P10	541919.4	6795304.3	L10	108.47
P11	541892.9	6795409.4	L11	379.34
P12	541837.7	6795784.7	L12	112.56
P13	541948.7	6795765.8	L13	28.69
P14	541925.4	6795280.6	L14	18.991
P15	541943.2	6795274.0	L15	2.78
P16	541945.4	6795272.2	L16	27.07
P17	541965.0	6795254.7	L17	96.14
P18	54200.4	6795168.6	L18	31.87
P19	54207.6	6795150.5	L19	18.75
P20	54194.9	6795171.6	L20	91.11
P21	54190.4	6795212.3	L21	85.26
P22	54181.2	6795234.9	L22	123.26
P23	54194.1	6795207.4	L23	39.04
P24	541925.8	6795245.2	L24	37.41
			L25	12.06

Property Description	Total Area of Acquisition (m <sup>2</sup> )	Severed Area (m <sup>2</sup> )	Total retained Area (m <sup>2</sup> )
LOT 2 DP1192234	45.90	3.00	37.25
LOT 1 DP1192234	448.71	0.00	448.71
LOT 2 DP1192234	14.13	0.00	14.13
LOT 2 DP1192234	20.22	0.00	20.22
TOTAL	529.06	3.00	526.06



Area to be acquired  
8.346 ha

LOT 2  
DP1192234  
Residual Area  
37.55 ha

Note: Access to be restricted across the boundary marked A-B-C-D-E-F

Note: Access to be restricted across the boundary marked G-H-I-J-K-L-M

Area of land to be closed under the Roads Act 1993

Area to be acquired  
3897 m<sup>2</sup>

ACQUISITION BOUNDARIES APPROVED BY:  
BOB HIGGINS, GENERAL MANAGER, PACIFIC HIGHWAY  
PLAN No. W86, APC 514, MONTI TR A V7 1600  
FILE No. *Antur*  
SIGNED *Antur* REC CAUSE 3375  
DATE *4/4/14* ROAD TO BE CLOSED IDENTIFIED.

# ARDILL PAYNE

& P a r t n e r s  
[www.ardillpayne.com.au](http://www.ardillpayne.com.au) e:info@ardillpayne.com.au  
ABN: 51 808 558 977



6101 - reply to council's letter of 15 february 2015

3 March 2015

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



**Attn: Mr Anthony Peters**

**Dear Anthony**

**re: DA 2014/615**

I refer to recent communications in respect of the subject matter and in particular to the following:

- your letters dated 15<sup>th</sup> January and 12<sup>th</sup> February 2015
- the RMS's letter dated 23<sup>rd</sup> December 2014
- our letters dated 21<sup>st</sup> January and 6<sup>th</sup> and 19<sup>th</sup> February 2015 in respect of the "cost of work" for the proposed quarry expansion

Attached herewith is an addendum to the Traffic Impact Study, which has been prepared to address the issues raised by the RMS.

It is noted that the public exhibition of the DA/EIS expired on Friday 23<sup>rd</sup> January 2015. Council's DAs On-line was accessed on the 24<sup>th</sup> February 2015, upon which was posted the following objections:

- Cathrine Tarrant – letter dated 22<sup>nd</sup> January 2015
- Cathrine Tarrant – email dated 26<sup>th</sup> January 2015
- Rhonda Sly – undated
- Wardell Residents Group (M Cassidy, L Cassidy, C Tarrant, W Knight, C Morton, B Avery, S Felsch, R Sly) – letter dated 30<sup>th</sup> January 2015
- L & M Cassidy – letter dated 30<sup>th</sup> January 2015

**Engineers | Planners | Surveyors | Environmental | Project Management**

**BALLINA**  
45 River Street  
PO Box 20  
BALLINA NSW 2478  
Ph: 02-6686 3280

**BRISBANE**  
Level 1, The Designbank  
89 Grey Street  
SOUTH BRISBANE QLD 4101  
Ph: 07-3123 6675

**GUNNDAH**  
Germane House,  
285 Conadilly Street,  
GUNNDAH NSW 2380  
Ph: 02-6742 9955



- Cheryl Morton –undated

The following comments are made in response to the pertinent issues raised in these objections:

### ***Montis and Eatons Quarries***

The basis for a number of the local resident's concerns, particularly in respect of heavy vehicle movements through Wardell, appears to relate to the prior activities of other quarries at Bagotville. It is submitted that these concerns relate to the "Montis" and "Eatons" quarries which were approved under the terms and conditions of DAs 1996/30 and 1996/29 respectively and which are on different land and have no relationship whatsoever to the quarry that the Montis are currently operating (under DA 2006/718) and which is proposed to be expanded (under DA 2014/615).

Both of the quarries operating under DAs 1996/30 and 1996/29 substantially exceeded their permissible extraction rates during 2009-2011, which resulted in much higher than approved/permitted truck movements through Wardell.

Council undertook regulatory action in respect of these two quarries and issued a total of six (6) Penalty Infringement Notices (fines) in July 2012 to the operators for breaches of the respective development consents.

To avoid any on-going confusion, it is suggested that the quarry approved under DA 1996/30 should be referred to as "Old Montis Quarry" and the quarry approved under DA 2006/718 and subject of the proposed expansion, should be referred to as "New Montis Quarry".

As articulated in the DA/EIS for the quarry expansion (DA 2014/615), New Montis Quarry has only extracted some 55,000 tonnes (37,000m<sup>3</sup>) since commencement of operations in November 2011 and has been operating in accordance with its relevant operational conditions of consent.

It is very important that a clear distinction be made between the operators/operations of the New Montis Quarry and any problems that may have arisen with the prior operators/operation of Old Montis and Eatons Quarries, so that New Montis Quarry is not tarnished with or blamed for any prior problems or breaches of consents.

### ***Cumulative Impacts***

In order to clarify the cumulative impact situation, particularly with respect to haulage vehicle movements, the following information has been sourced from Council in respect of the status of the quarries at Bagotville:

3 March 2015

Quarry	Address	DA No.	Approval Date	Duration of Consent	Approved Development and Extraction Rates	Expiry Date
Old Montis	Lot 1 DP 787102 Old Bagotville Road	1996/30	22 Feb 1996	27 years or total resource of 1.5 million tonnes whichever is achieved first (Cond 11)	The continued operation and expansion of an extractive industry – extraction of shale and chert with extraction rates at 56,000 tonnes per annum (total resource estimated to be 1.5 million tonnes)	22 Feb 2023
Eatons	Lot 3 DP 618233 Old Bagotville Road	1996/29	22 Feb 1996	20 years or total resource of 975,000 tonnes whichever is achieved first (Cond 12)	The continued operation and expansion of an extractive industry – extraction of shale and chert with extraction rates at 50,000 tonnes per annum (total resource estimated to be 975,000 tonnes)	22 Feb 2016 – <b>EXPIRES NEXT YEAR</b>
Gibsons	Lot 2 DP 585377 Old Bagotville Road	1999/537	27 May 1999	13 years or total resource of 250,000 tonnes whichever is achieved first (Cond 5)	The continued operation and expansion of an extractive industry – extraction of shale and chert with extraction rates of between 20,000 and 50,000 tonnes per annum (total resource of 250,000 tonnes)	27 May 2012 - <b>EXPIRED</b>
Jali	Lot 244 DP 755691 Old Bagotville Road	NIL	N/A	N/A	N/A	<b>NO CONSENT TO OPERATE</b>
Ballina Council	Lot 5 DP 843369 Old Bagotville Road	NIL	N/A	N/A	N/A	<b>NO CONSENT TO OPERATE</b>
New Montis	Lots 2 & 3 DP 1192234 Montis Road and Old Bagotville Road	2006/718	22 Feb 2007	20 years or total resource of 700,000m <sup>3</sup> whichever is achieved first (Description of Development)	Extractive industry (shale quarry) with maximum extraction rates of 50,000m <sup>3</sup> per annum and an operating life of 20 years or until 700,000m <sup>3</sup> is extracted, whichever occurs first	22 Feb 2027

Therefore based on the above, there are now only 3 quarries that have consent to operate in Bagotville (being Old Montis, Eatons and New Montis), with one of these scheduled to expire early next year.

In terms of cumulative impact:

- vehicle movements associated with approved haulage of up to 50,000 tonnes/annum from Gibsons Quarry **have now ceased**
- vehicle movements associated with approved haulage of up to 50,000 tonnes/annum from Eatons Quarry **will cease in early 2016**
- should it be deemed appropriate, it is suggested that if consent was to be granted to the proposed expansion (DA 2014/615), that it could be conditional upon the expansion operation not commencing until such time as Eatons Quarry expires and haulage operations therefore have been discontinued – this would result in up to 100,000 tonnes/annum of material not being hauled on the local road network
- as articulated in Section 3.10.1 and Appendix K of the EIS, DA 2006/718 was approved based on the same peak traffic generation as that proposed under DA 2014/615, being a maximum of 204 vehicle movements/day, or approximately 20 vehicles/hour along the same haulage routes – ***“The proposed expansion will***



***therefore not increase the actual daily or hourly truck movements, rather it will enable peak haulage to be conducted over a greater number of days/year."***

- based on the above, the proposed effective doubling of annual permitted extraction from New Montis Quarry will not have any actual cumulative impacts on the environment and in particular on the local road network

### **Section 138**

A Section 138 application is not required to be lodged concurrently with the DA/EIS. Should external road works be required by conditions of consent, they will have to be subject of a Section 138 application (and civil design plans) being prepared and lodged with Council.

### **Traffic Impact Study (TIS)**

An addendum to the TIS has been prepared to address the issues raised by the RMS (which also addresses a number of the issues raised by the objectors) and includes additional information including:

- assessment of cumulative impacts
- traffic counts undertaken in January 2015
- detailed intersection analysis along the haulage route

As is the case with all extractive operations in the Shire, developer contributions will be collected by Council for every tonne of material hauled from the site and will be used by Council for the on-going maintenance of the local road network.

### **Road and Pedestrian Safety**

As detailed in the EIS, a number of recommendations (which would be incorporated into conditions of consent and are also recommended by the RMS in their 23<sup>rd</sup> December 2014 letter) are made in respect of traffic and pedestrian safety, including:

- erection of truck turning signs on Old Bagotville Road
- sign-posting and improvements along Old Bagotville Road and Back Channel Road
- 2m wide footpath to be constructed along Carlisle Street, extending from the existing footpath at the Bath/Carlisle Street intersection to the existing bus shelter in front of No. 49 Carlisle St
- preparation of a truck movement plan and truck driver code of conduct

5.

3 March 2015

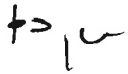
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**Traffic Noise**

The Noise Impact Assessment (Appendix J to the EIS), confirmed that results of the investigation and noise modelling using vehicle volumes that present a worst case scenario at the worst affected dwellings (being along Carlisle Street) indicate that truck noise heard at the nearest residences will be within the daytime criteria of 55 LA<sub>eq</sub> 1hr (Road Noise Policy – EPA 2011).

Should you have any questions in respect of this matter please contact me on 6686 3280 or [pauls@ardillpayne.com.au](mailto:pauls@ardillpayne.com.au).

**Yours faithfully**



Paul Snellgrove

**ARDILL PAYNE & PARTNERS**

s:\01 jobs\6100-6199\6101 monti's quarry bagotville\03 town planning\6101 - 2014 da.eis for quarry expansion\6101 - reply to council's letter of 15 february 2015.doc

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ABN: 51 808 558 977

6101 tis addendum.doc



## ADDENDUM TO TRAFFIC IMPACT STUDY

Submission to Ballina Shire Council



Proposed Extractive Industry  
Quarry Expansion

Old Bagotville Rd, Bagotville  
Lots 2 and 3 DP 1192234

for:  
The Monti Family

February 2015

---

Engineers | Planners | Surveyors | Environmental | Project Management

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## Addendum to Traffic Impact Study

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This document serves as an addendum to the *Traffic Impact Study* prepared by Ardill Payne & Partners (October 2014) for the expansion of New Monti's Quarry at Lots 2 and 3 DP 1192234, under DA 2014/615, to address the matters raised by RMS in their letter dated 23 December 2014 (refer **Attachment 1**).

Point numbers below refer to item within the aforementioned letter.

1. *There is insufficient information to accurately determine the traffic impacts of the proposal*

**Response:** The additional information contained herein will allow the traffic impacts to be more accurately determined.

2. *The traffic study relies on historical traffic data. There are currently several quarries accessing Old Bagotville Road in the area. Current traffic volumes including cumulative haulage impacts of other quarry operations should have been used to more accurately determine the impact of increased extraction on the local road network.*

**Our response:** Old Bagotville Road is a rural road servicing approximately 25 separate rural properties (inclusive of a number of quarries). Back Channel Road serves a similar number of properties (with no quarries) and also provides access to the settlement on Cabbage Tree Island.

The traffic volumes used to assess Old Bagotville Road dated back to several traffic counts undertaken in 1995, indicating a peak daily volume of 156 vehicles (including quarry haulage trucks). More recent traffic count data has since been obtained from Ballina Shire Council, indicating a similar peak daily volume of 150 vehicles existing in 2008.

APP undertook traffic counts on the 30<sup>th</sup> January 2015 (refer **Attachment 2**) which indicated a daily volume on Old Bagotville Road less than 100. No heavy vehicles were recorded during the APP counts, confirming that the existing quarries were not hauling material at that time.

Projected highway construction work will create a high demand for any operational quarry in the area, resulting in an increased output to the maximum allowable rate. In the event all Bagotville quarries were simultaneously operating at their respective peak levels, the cumulative impact resulting from the haulage vehicles would be significant.

However, not all of the existing quarries on Old Bagotville Road have current consent to extract material. The following table contains data obtained from Ballina Shire Council. It lists the existing quarries on Old Bagotville Road and their approval status.



**Table 1: Existing Quarries on Old Bagotville Road**

Quarry & Address	DA No. & Approval Date	Duration of Consent	Approved Extraction Rates
New Monti's Quarry Lots 2 and 3 DP1192234 Old Bagotville Rd	DA 2006/718 Commence: 22/02/07 Expires: 22/02/27	20 years or total resource 700,000 tonnes whichever achieved first	Extractive industry (shale quarry) with maximum extraction rates of 50,000m³ per year
Old Monti's Quarry Lot 1 DP787102 Old Bagotville Rd	DA 1996/30 Commence: 22/02/96 Expires: 22/02/23	27 years or total resource 1,500,000 tonnes whichever achieved first	The continued operation and expansion of an extractive industry: Extraction of shale and chert with extraction rates at 56,000 tonnes/year
Eaton's Quarry Lot 3 DP618233 Old Bagotville Rd	DA 1996/29 Commence: 22/02/96 Expires: 22/02/16	20 years or total resource 975,000 tonnes whichever achieved first	The continued operation and expansion of an extractive industry: Extraction of shale and chert with extraction rates at 50,000 tonnes/year
Gibson's Quarry Lot 2 DP585377 Old Bagotville Rd	DA 1999/537 Commence: 27/05/99 Expires: 27/05/12	13 years or total resource 250,000 tonnes whichever achieved first	The continued operation and expansion of an extractive industry: Extraction of shale and chert with extraction rates between 20,000 and 50,000 tonnes/year
JALI Quarry Lot 244 DP75569 Old Bagotville Rd	No current DA	<u>No consent to operate</u>	
BSC Quarry Lot 5, DP843369 Old Bagotville Rd	No current DA	<u>No consent to operate</u>	

Based on the information in Table 1, three of the six quarries are no longer in operation and three quarries have current consents to operate, being Old Monti's Quarry, New Monti's Quarry and Eaton's Quarry. Additionally, Eaton's Quarry is nearing the end of its economic life, leaving only the Old and New Monti's Quarries operating post February 2016.

As such the proposed effective doubling of annual permitted extraction from New Montis Quarry will not have any actual cumulative impacts on the local road network.

We understand there have been anecdotal reports of traffic volumes, specifically quarry haulage vehicles, utilising the road network under investigation in excess of 300 vehicles per hour, with peaks of 18 vehicle movements in a five minute period. These reports cannot be confirmed, however it is accepted that at least two Bagotville quarries substantially exceeded their permissible extraction rates during 2009-2011, resulting in extreme heavy vehicle traffic volumes from Old Bagotville Road through to the Carlisle Street / Pacific Highway intersection. The operations that were issues fines by Council for the breaches of consent were Old Monti's Quarry and Eaton's Quarry.

It should be noted that the New Monti's Quarry only commenced operations in November 2011, having extracted 37,000m<sup>3</sup> since that date in accordance with the operational conditions of consent.

3. *The safety audit states that no work is required at the Carlisle Street intersection with the Pacific Highway or the Carlisle/Bath Street intersection, however there is no traffic analysis supporting this recommendation. It is suggested that current peak hour turning vehicle counts be undertaken and that 10 year traffic growth projections be applied to determine appropriate intersection treatments based on Austroads warrants.*

**Our response:** Current AM and PM peak hour traffic movements have been obtained for the two Carlisle Street intersections likely to be affected by the proposal during investigations and counts carried out by APP on the 29<sup>th</sup> and 30<sup>th</sup> of January 2015 (refer **Attachment 2**).

The two intersection layouts are attached (**Attachment 3**, Figures 1 and 2). The Carlisle Street/Pacific Highway intersection comprises channelised left and right turn treatments for traffic heading in both directions on the highway. Sufficient space is available to act as short, informal auxiliary left turn lanes on the minor roads. This is acceptable in accordance with the warrants described in *Austroads Guide to Road Design Part 4(a)*. The intersection layout will still be acceptable in ten years, applying annual growth rates of 1.7% and 1.2% to local and highway traffic counts respectively and assuming no increase in the percentage of heavy vehicles except for those associated with the proposed quarry expansion.

The Carlisle/Bath Street intersection comprises basic left and right turn treatments on the major road (Carlisle Street) and a basic left turn on the minor street. The latter could be considered a short, unmarked auxiliary lane, as there is sufficient room provided for a vehicle to turn left whilst another vehicle waits to turn right. Although this is the most basic level of treatment for an intersection, given the low major road traffic volumes, it is acceptable under the warrants provided in Austroads *Guide to Road Design Part 4(a)*. Once again the intersection will still be acceptable in its current form in ten years, applying the growth projections described above.

The two intersections have been modelled using SIDRA Intersection software for the existing AM and PM peak hours and for numerous scenarios based on a ten year design horizon. Annual growth rates were applied to the traffic counts as described above, assuming no increase in the percentage of heavy vehicles except for those associated with the proposed quarry expansion. As described in the TIS, the peak hour heavy vehicle trip rate associated with proposal is 18 trips per hour (i.e. 9 in, 9 out).

All movements (turning and through) for the existing case at both intersections were found to be operating at either a LOS A or LOS B (i.e. the intersections are currently operating effectively).

The 2025 AM and PM peak hours were modelled using the growth rates mentioned above for both intersections, excluding additional heavy vehicles associated with the proposal. Results showed no change in the level of service for any movement with the following three exceptions:

- Carlisle Street/Pacific Highway intersection 2025 AM Peak Hour (Fig. 3):
  - Right turn from Pacific Hwy onto Carlisle St dropped from LOS B to LOS C
  - Right turn from Fitzroy St onto Pacific Hwy dropped from LOS B to LOS C
- Carlisle Street/Pacific Highway Intersection 2025 PM Peak Hour (Fig. 4):
  - Right turn from Carlisle St onto Pacific Hwy dropped from LOS B to LOS C

The AM and PM peak hour 2025 LOS diagrams for each of the two intersections are attached (Figures 3 to 6). Note the diagrams for the Carlisle/Bath Street intersection show all movements are predicted to still be operating at LOS A in 2025.

The peak haulage rate for the proposed expanded quarry will be limited to 9 truckloads per hour (i.e. 9 trucks leaving the quarry and potentially returning in a peak hour). The following future potential 'worst cases' have also been modelled, adding in the maximum allowable truck movements per hour associated with the proposal:

- Carlisle Street/Pacific Highway Intersection 2025 AM Peak Hour:
  - Haulage north along Pacific Highway, assuming 9 additional HVs turn left onto Pacific Hwy from Carlisle and 9 additional HVs turn right onto Carlisle St from Pacific Hwy (Fig. 7)
  - Haulage south along Pacific Highway, assuming 9 additional HVs turn right onto Pacific Hwy from Carlisle St and 9 additional HVs turn left onto Carlisle St from Pacific Hwy (Fig. 8)
  - Worst case combination of two right-hand turn movements across the highway, assuming 9 additional HVs turn right onto Pacific Hwy from Carlisle St and 9 additional HVs turn right onto Carlisle St from Pacific Hwy (Fig. 11)
- Carlisle Street/Pacific Highway Intersection 2025 PM Peak Hour:
  - Haulage north along Pacific Highway, assuming 9 additional HVs turn left onto Pacific Hwy from Carlisle St and 9 additional HVs turn right onto Carlisle St from Pacific Hwy (Fig. 9)
  - Haulage south along Pacific Highway, assuming 9 additional HVs turn right onto Pacific Hwy from Carlisle St and 9 additional HVs turn left onto Carlisle St from Pacific Hwy (Fig. 10)
  - Worst case combination of two right-hand turn movements across the highway, assuming 9 additional HVs turn right onto Pacific Hwy from Carlisle Stand 9 additional HVs turn right onto Carlisle St from Pacific Hwy (Fig. 12)
- Carlisle Street/Bath Street Intersection 2025 AM Peak Hour:
  - Haulage westward along Bath St, assuming 9 additional HVs turn left onto Bath St from Carlisle St and 9 additional HVs turn right onto Carlisle St from Bath St
  - Haulage eastward to Pacific Hwy, assuming 9 additional HVs proceed east through the intersection on Carlisle St and 9 additional HVs proceed west through the intersection on Carlisle St
  - Worst case combination, assuming 9 additional HVs turn right onto Carlisle St from Bath St and 9 proceed east through the intersection on Carlisle St
- Carlisle Street/Bath Street Intersection 2025 PM Peak Hour:
  - Haulage westward along Bath St, assuming 9 additional HVs turn left onto Bath St from Carlisle St and 9 additional HVs turn right onto Carlisle St from Bath St
  - Haulage eastward to Pacific Hwy, assuming 9 additional HVs proceed east through the intersection on Carlisle St and 9 additional HVs proceed west through the intersection on Carlisle St
  - Worst case combination, assuming 9 additional HVs turn right onto Carlisle St from Bath St and 9 proceed east through the intersection on Carlisle St



Note that the modelling of all the Carlisle/Bath Street intersection AM and PM peak movements resulted in no change to the expected level of service and as such, diagrams have not been provided.

Results show that both intersections are expected to operate satisfactorily during the AM and PM peak hours in 10 years (2025). It is important to note that the quarry operators will likely time their operations to avoid hauling during the daily peak hours.

It should also be noted that the Ballina to Woodburn Pacific Highway upgrade will alter the functionality of the intersections modelled, and has been ignored for the purposes of this analysis.

4. *Hinged truck turning signs should be provided on Old Bagotville Road in advance of the quarry access. These signs should be displayed when quarry haulage is taking place.*

**Our response:** The original TIS included a recommendation to install 'Trucks Turning' signage on the southern approach to the quarry site. This recommendation has been expanded to specifically call for a hinged sign and that the symbol should be displayed while quarry haulage is taking place. Note there is already a permanent 'Trucks Turning' sign on Old Bagotville Road approximately 300m north of Montis Road.

Refer to the revised Section 5.2 Recommendations (**Attachment 4**).

5. *The road safety audit of haulage routes recommends delineation and signposting improvements along Old Bagotville Road. These improvements should be carried out prior to increasing haulage rates.*

**Our response:** The original TIS included a recommendation to install signage, reflective guide posts and line-marking where required along the haulage route. A note had been added to this recommendation specifying that these improvements should be carried out prior to any increase in the haulage rate.

Refer to the revised Section 5.2 Recommendations (**Attachment 4**).

6. *A Drivers Code of Conduct could be prepared to address, but not be limited to, the following:*
  - *A map of primary haulage routes highlighting critical locations;*
  - *Safety initiatives for trucks travelling along school bus routes and through residential areas and school zones;*
  - *An induction process for vehicle operators;*
  - *Format of regular toolbox meetings;*

- *A complaints resolution and disciplinary procedure; and*
- *Any community consultation measures to address peak haulage periods.*

**Our response:** The original TIS included a recommendation to prepare a Truck Movement Plan and Code of Conduct for haulage vehicle operators. The above items have been appended to this recommendation.

Refer to the revised Section 5.2 Recommendations (**Attachment 4**).

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## Attachments

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Attachment 1	Letter from RMS
Attachment 2	Traffic Count Data
Attachment 3	SIDRA Intersection Figures
Attachment 4	Revised Recommendations

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ATTACHMENT 1

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**Attachment 1:** Letter from RMS



14/92381.



Transport  
Roads & Maritime  
Services

File No: NTH10/ 00134, CR 2014/006157  
Your Reference: DA 2014/615

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

Attention: Anthony Peters

Dear Sir

**Development Application 2014/615 Expansion of Existing Extractive Industry  
Lots 2 & 3 DP 1192234, Old Bagotville Road and Montis Road, Bagotville**

I refer to your letter of 9 December 2014 regarding an expansion of the existing Montis Quarry at Bagotville.

#### **Roles & Responsibilities**

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

In accordance with *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:

1. There is insufficient information to accurately determine the traffic impacts of the proposal.
2. The traffic study relies on historical traffic data. There are currently several quarries accessing Old Bagotville Road in this area. Current traffic volumes including the cumulative haulage impacts of other quarry operations should have been used to more accurately determine the impact of increased extraction on the local road network.
3. The safety audit states that no work is required at the Carlisle Street intersection with the Pacific Highway or the Carlisle Street / Bath Street intersection however there is no traffic analysis supporting this recommendation. It is suggested that current peak hour turning vehicle counts be undertaken and that 10 year traffic growth projections be applied to determine appropriate intersection treatments based on Austroads warrants.

Roads & Maritime Services

4. Hinged truck turning signs should be provided on Old Bagotville Road in advance of the quarry access. These signs should be displayed when quarry haulage is taking place.
5. The road safety audit of haulage routes recommends delineation and signposting improvements along Old Bagotville Road. These improvements should be carried out prior to increasing haulage rates.
6. A Drivers Code of Conduct could be prepared to address, but not be limited to, the following:
  - A map of primary haulage routes highlighting critical locations;
  - Safety initiatives for trucks travelling along school bus routes and through residential areas and school zones;
  - An induction process for vehicle operators;
  - Format of regular toolbox meetings;
  - A complaints resolution and disciplinary procedure; and
  - Any community consultation measures to address peak haulage periods.

If you require further information please contact Mr Michael Baldwin on 6640 1362 or email [Development.Northern@rms.nsw.gov.au](mailto:Development.Northern@rms.nsw.gov.au).

Yours faithfully



23 December 2014

for Peter Lane  
Acting Network and Safety Manager, Northern Region

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## ATTACHMENT 2

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**Attachment 2:** Traffic Count Data

**OLD BAGOTVILLE ROAD: Between Monti's Road and Back Channel Road**

DAY AND DATE: Friday 30/01/2015

START TIME: 15:25


END TIME: 16:25

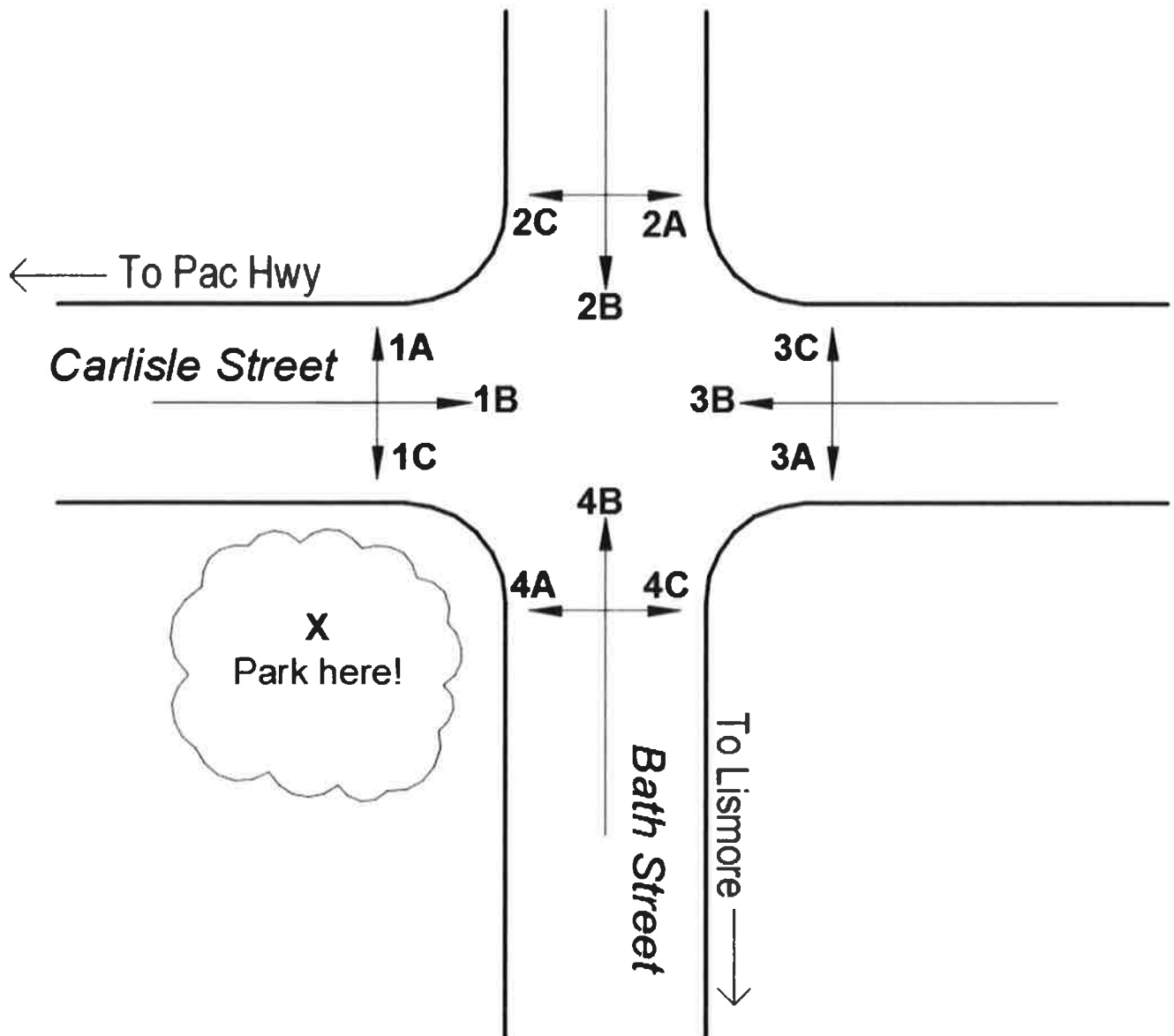
WEATHER: Fine, dry

RECORDED BY: Arthur Hyde

RISK ASSESSMENT COMPLETED? Y/N YES

**Total Traffic (both directions)**

Passenger Vehicles	Heavy Vehicles
 (6)	(0)



DAY AND DATE: Thursday 29/01/2015

START TIME: 08:30

END TIME: 09:30

WEATHER: Fine, dry

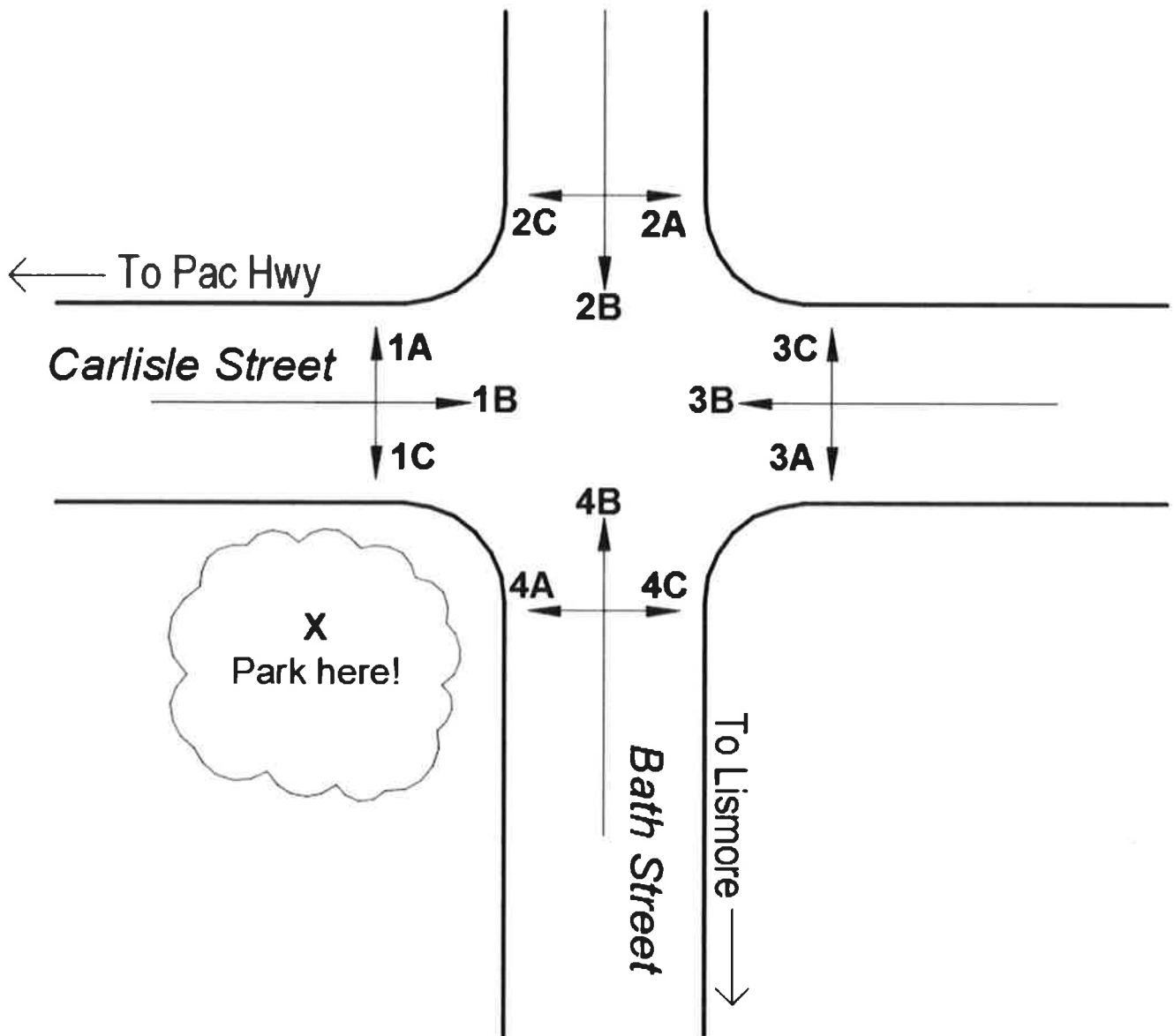
RECORDED BY: Arthur Hyde

RISK ASSESSMENT COMPLETED? Y/N Yes



①

[illegible]



DAY AND DATE: Thursday 29/01/2015

START TIME: 16:30

END TIME: 17:30

WEATHER: Fine, dry

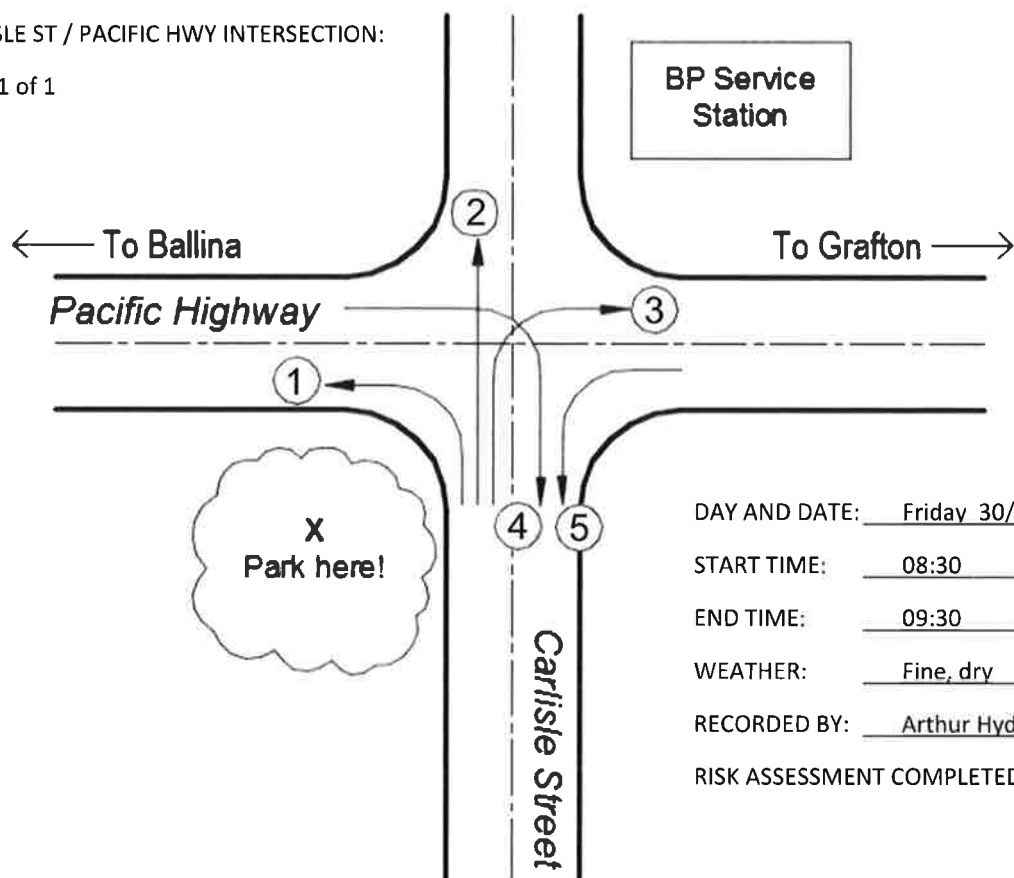
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


RISK ASSESSMENT COMPLETED? Y/N Yes

CARLISLE / BATH STREET INTERSECTION: Sheet 2 of 2

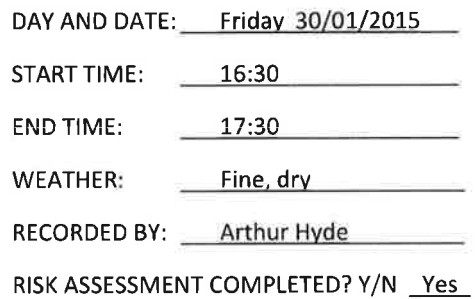
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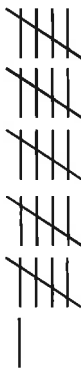

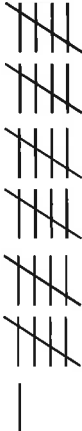
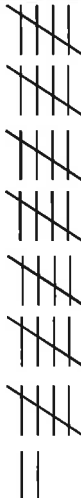

Sheet 1 of 1

RISK ASSESSMENT COMPLETED? Y/N Yes

Movement									
1 		2 		3 		4 		5 	
p	h	p	h	p	h	p	h	p	h
									

## Sheet 1 of 1



Movement									
1 		2 		3 		4 		5 	
p	h	p	h	p	h	p	h	p	h
									

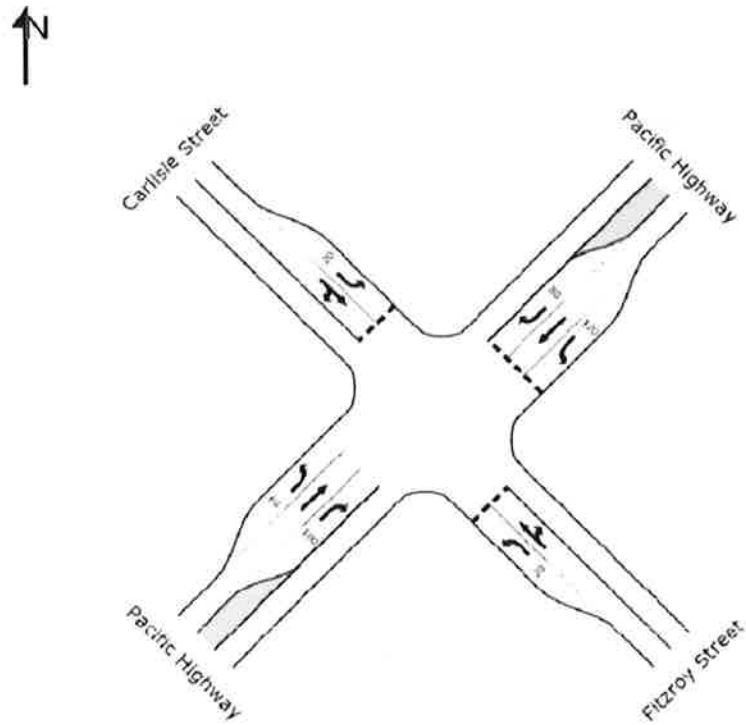


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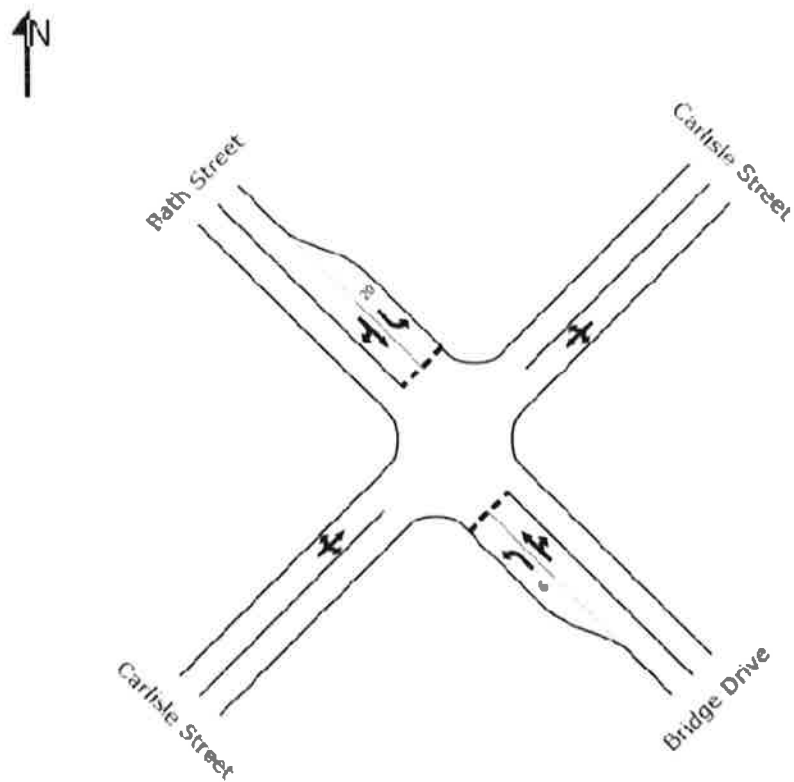
ATTACHMENT 3

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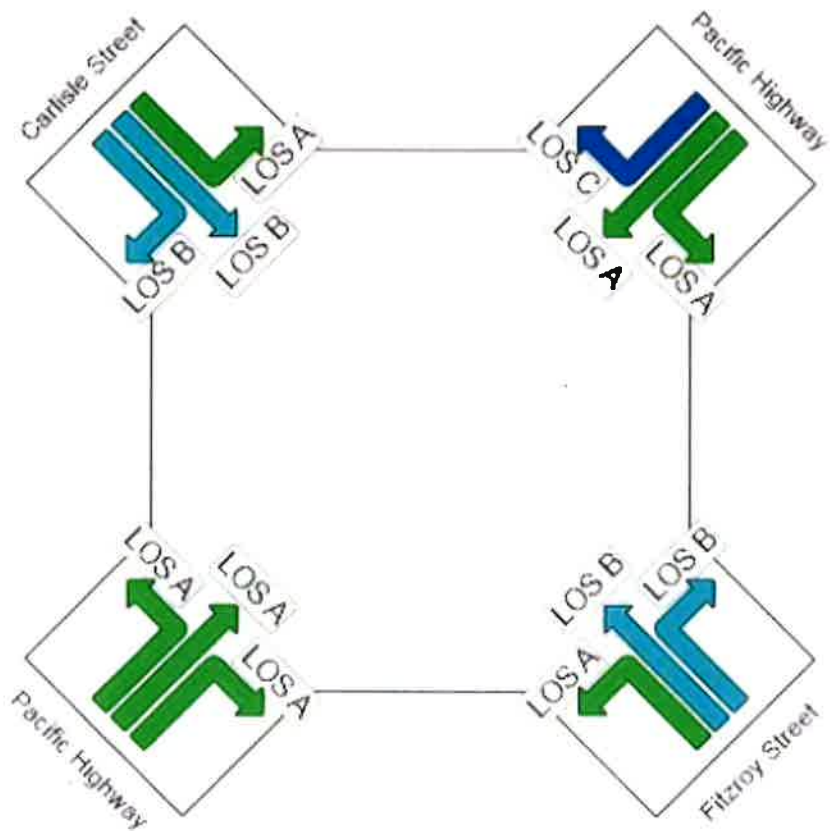
**Attachment 3:**      SIDRA   Intersection  
                                 Figures



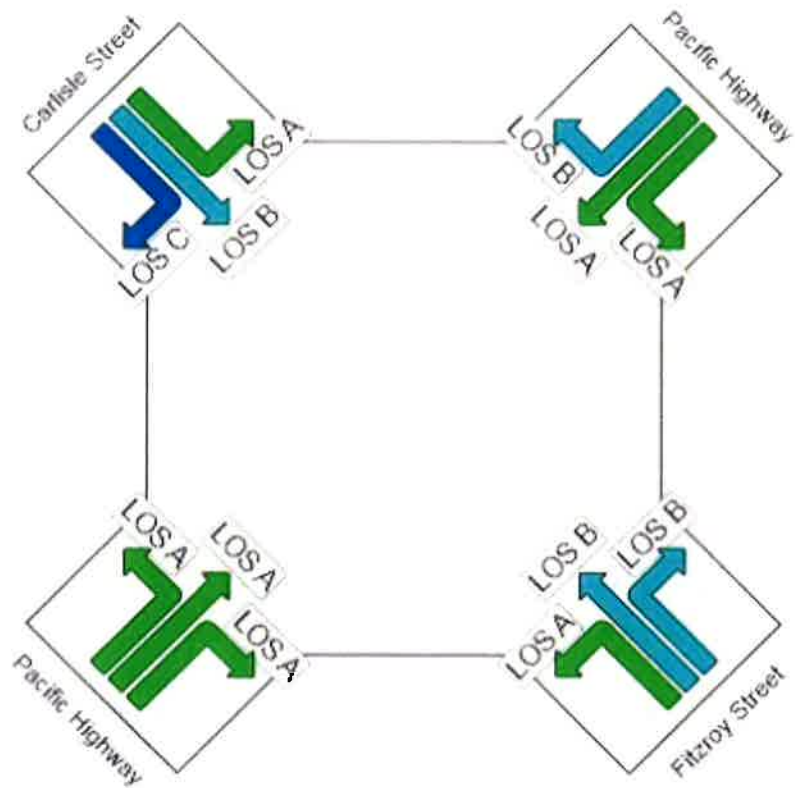
**Fig. 1. Carlisle Street / Pacific Highway Intersection Layout**



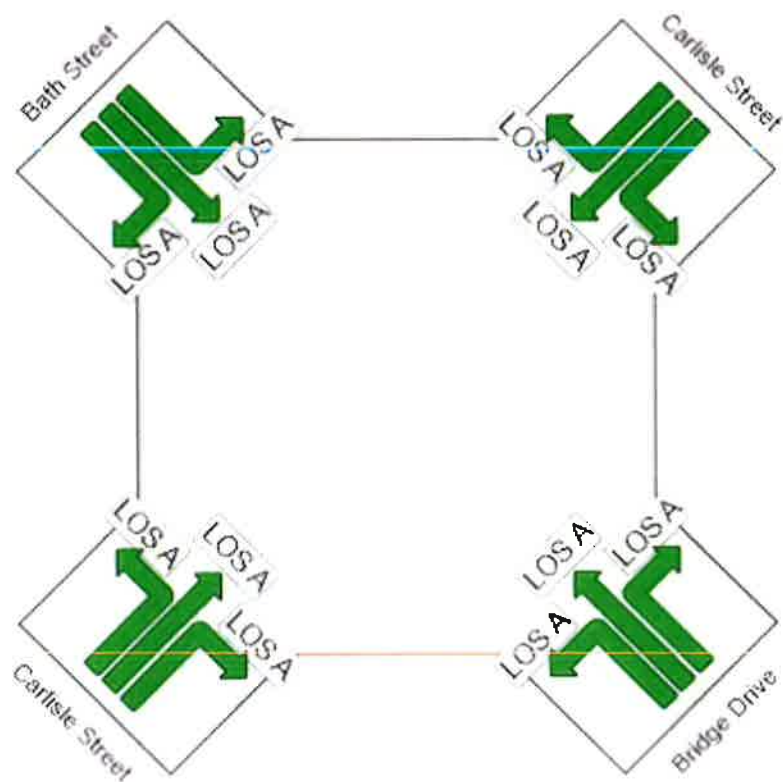
**Fig. 2. Carlisle Street / Bath Street Intersection Layout**



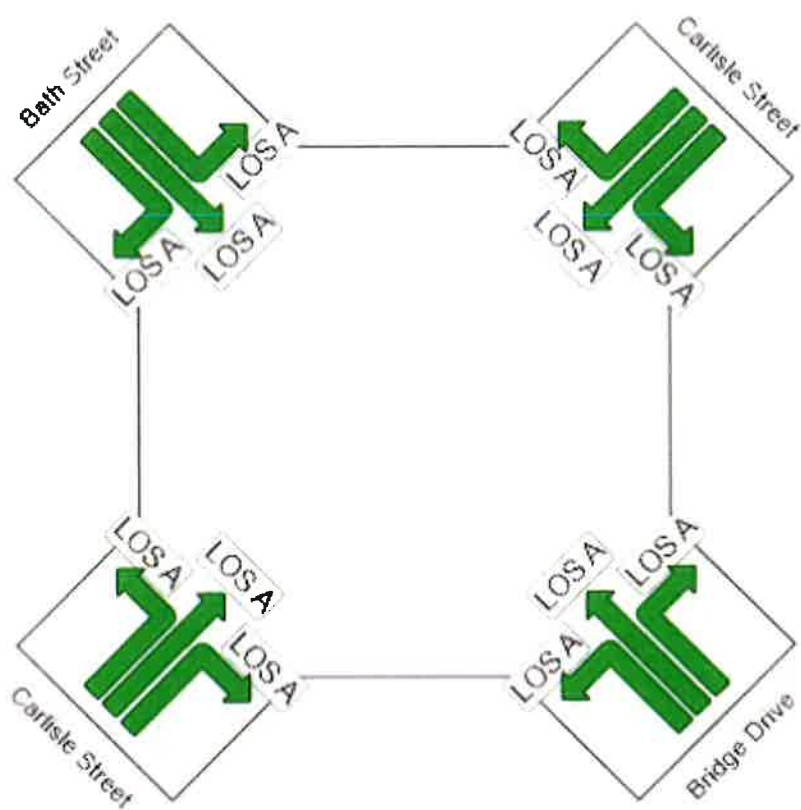
**Fig. 3. Carlisle / Pac Hwy 2025 AM**  
**No additional HVs associated with proposal**



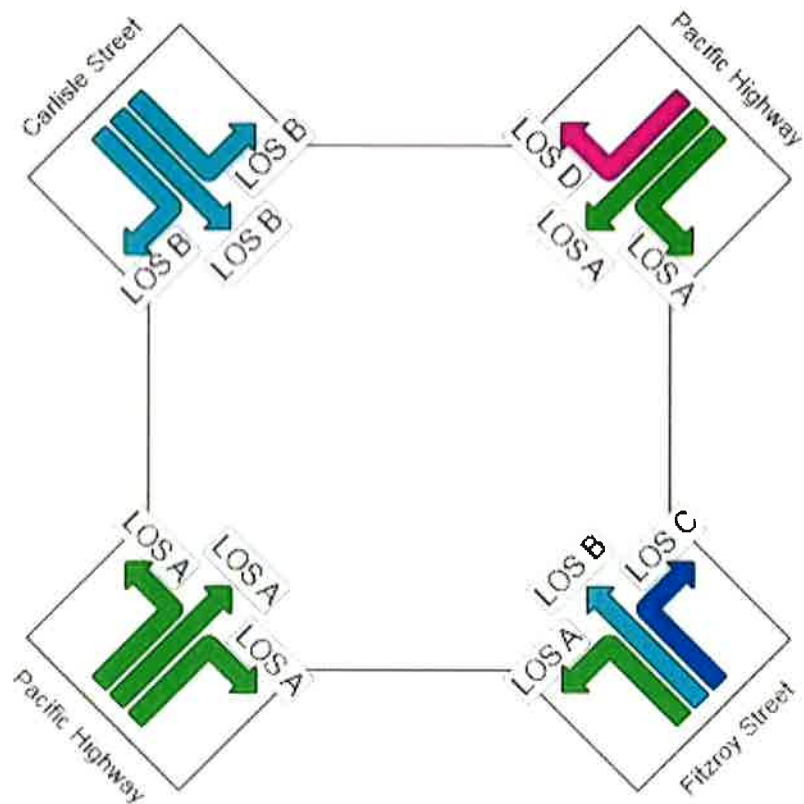
**Fig. 4. Carlisle / Pac Hwy 2025 PM**  
**No additional HVs associated with proposal**



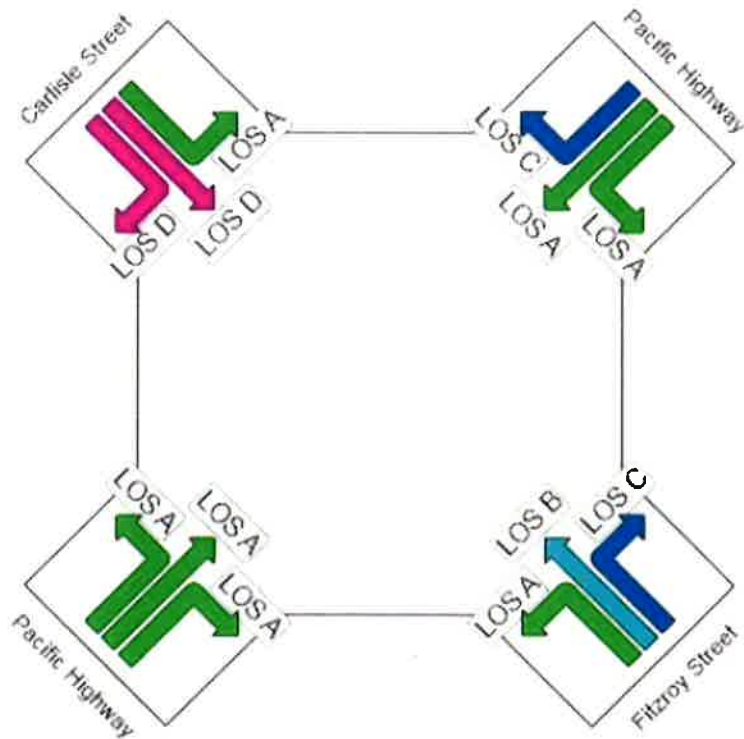
**Fig. 5. Carlisle / Bath 2025 AM**  
**No additional HVs associated with proposal**



**Fig. 6. Carlisle / Bath 2025 PM**  
**No additional HVs associated with proposal**

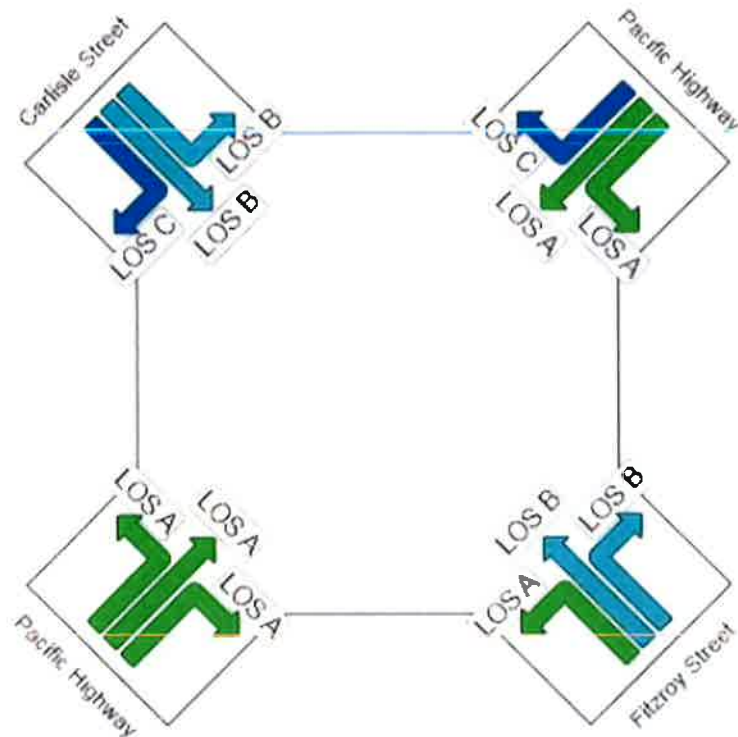


**Fig. 7. Carlisle / Pac Hwy 2025 AM: Haulage North along Pacific Highway  
9 HV turn left onto PH from Carlisle, 9 HV turn right onto Carlisle from PH**

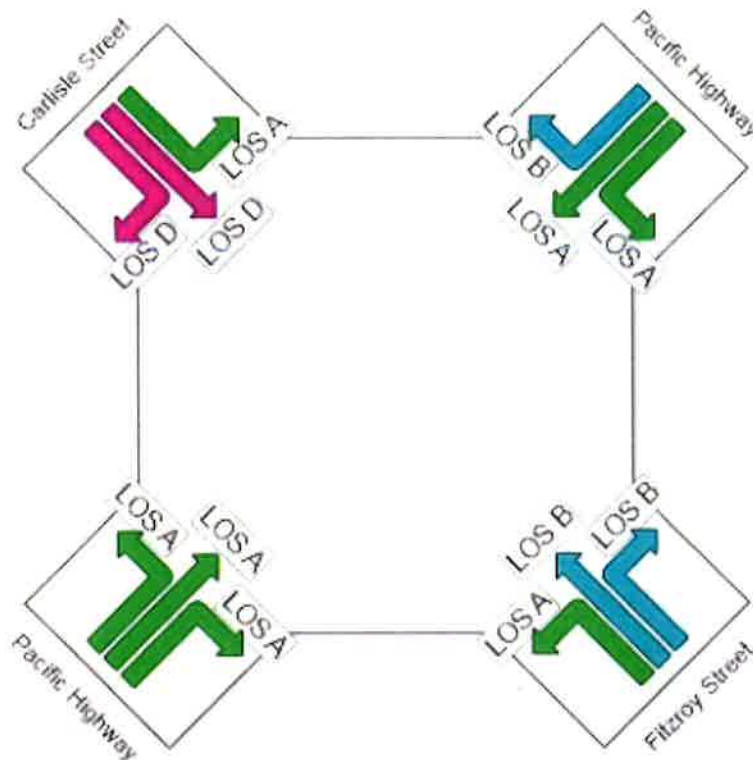


**Fig. 8. Carlisle / Pac Hwy 2025 AM: Haulage South along Pacific Highway  
9 HV turn right onto PH from Carlisle, 9 HV turn left onto Carlisle from PH**

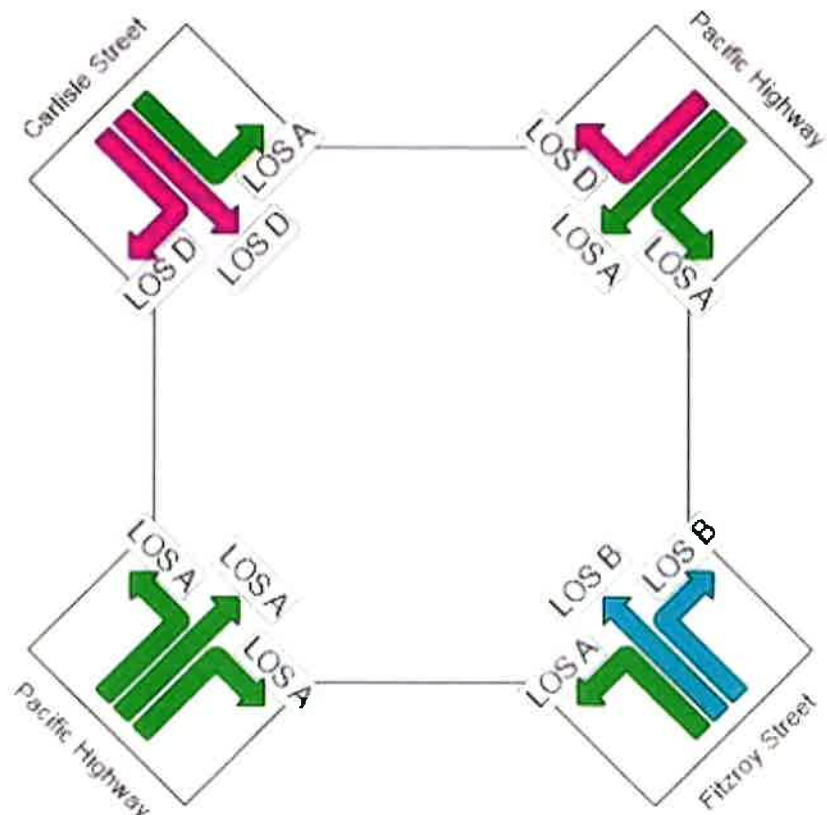




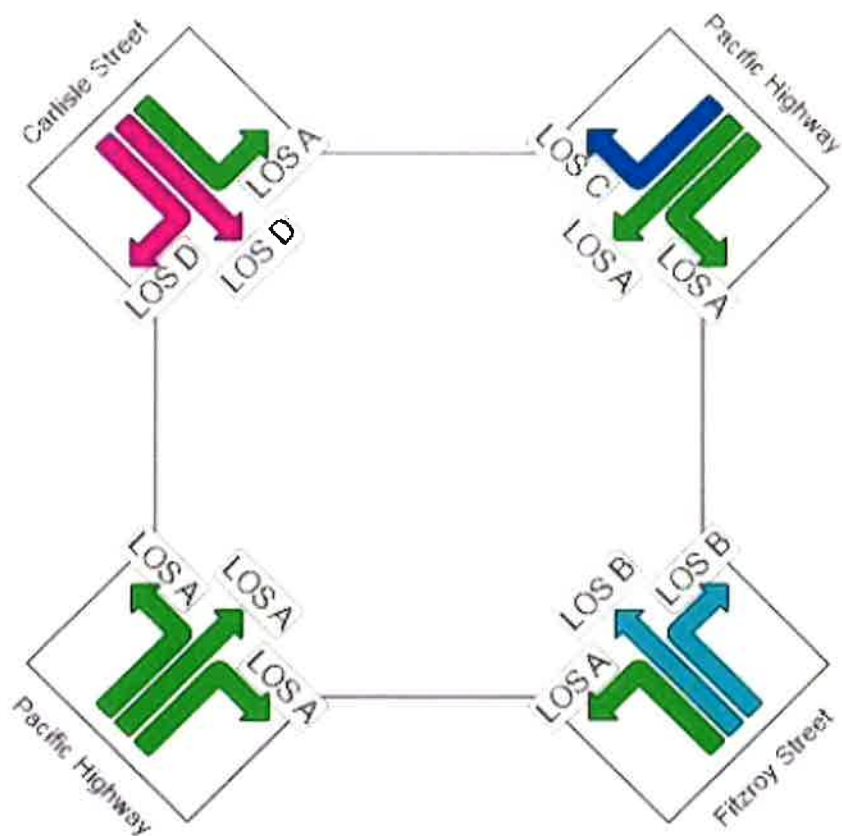
**Fig. 9. Carlisle / Pac Hwy 2025 PM: Haulage North along Pacific Highway  
9 HV turn left onto PH from Carlisle, 9 HV turn right onto Carlisle from PH**



**Fig. 10. Carlisle / Pac Hwy 2025 PM: Haulage South along Pacific Highway  
9 HV turn right onto PH from Carlisle, 9 HV turn left onto Carlisle from PH**



**Fig. 11. Carlisle / Pac Hwy 2025 AM: Two right hand turn movements across Pac Hwy  
9 HV turn right onto PH from Carlisle, 9 HV turn right onto Carlisle from PH**



**Fig. 12. Carlisle / Pac Hwy 2025 PM: Two right hand turn movements across Pac Hwy  
9 HV turn right onto PH from Carlisle, 9 HV turn right onto Carlisle from PH**

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## ATTACHMENT 4

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**Attachment 4:** Revised  
Recommendations

## 5.2 Recommendations

The following recommendations shall be implemented prior to any increase in the haulage rate:

- The intersection of Monti's Road and Old Bagotville Road shall undergo minor works to ensure priority of traffic is made clear.
- Signage and line-marking shall be added to the intersection of Old Bagotville Road and Back Channel Road to ensure priority of traffic is made clear.
- Reflective guide posts shall be installed as required to concealed headwalls located within the clear zone of the Old Bagotville Road and Back Channel Road portions of the haulage route.
- A hinged 'Trucks Turning' warning sign shall be installed on the southern approach to Monti's Road. The sign shall be displayed while quarry haulage is taking place. Note there is already a permanent 'Trucks Turning' sign on Old Bagotville Road approximately 300m north of Montis Road.
- A two-metre wide footpath shall be constructed along the southern side of Carlisle Street, extending from the existing footpath at the Bath and Carlisle Street intersection to the existing bus shelter in front of No. 49 Carlisle Street, Wardell.
- A truck movement plan and code of conduct for haulage operators shall be prepared and implemented for haulage of quarry material. This will include, but not be limited to:
  - an induction process for vehicle operators
  - commitment to speed management
  - ensuring compliance with truck load limits
  - implementation of a 'covered load' policy
  - a map of primary haulage routes highlighting critical locations
  - ensuring truck drivers are made aware of existing school bus routes, bus stop locations and timetables along the proposed haulage routes
  - safety initiatives for trucks travelling along school bus routes and through residential areas and school zones
  - format of regular toolbox meetings
  - a complaints resolution and disciplinary procedure
  - any community consultation measures to address peak haulage periods