

## APPENDIX 2

### Agency Correspondence

Isaac Lancaster  
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Delivered via email: [isaac.lancaster@portstephens.nsw.gov.au](mailto:isaac.lancaster@portstephens.nsw.gov.au)

02 November 2023

Dear Isaac,

**Re: SSD-10432 - Response to Council Submission re Traffic (Your Ref xxx )**

As discussed by telephone on 31 October 2023, we provide a response to Port Stephens Council's (PSC) submission in relation to the Stone Ridge Quarry Project (SSD-10432). This response relates to the traffic-related comments only. Where relevant the Environmental Impact Statement (EIS) and Traffic Impact Assessment (TIA) has been referenced and should be referred to for further information. A Traffic Impact Assessment Addendum (TIA addendum) has been prepared to address the submission from Boral and is attached for your information (**Attachment 1**).

It is understood that PSC has engaged an external consultant to review the TIA and provide the comments DPE issued to the applicant. It is apparent that the external consultant may not be fully aware of the project background, details of the application or early stakeholder engagement with PSC and TfNSW, as a number of comments refer to extrinsic matters.

To inform the preparation of the submissions report in relation to the specific issues raised by PSC in its submission on the Project, it would be appreciated if PSC could review and if/where necessary, provide comments on the responses provided in **Table 1**. Further, given that the preparation of Council's review of the traffic assessment has been undertaken by an external consultant (who may not be fully across the project consultation with Council as described above), it may also be prudent and expeditious to hold a short MS Teams meeting with Council's traffic engineers and consultant (and ARDG's consultant GHD) to run through the response contained herein.

We trust this response addresses the comments and provides any additional information required to close out any outstanding issues. Please do not hesitate to contact the undersigned should you require clarification or further information. It would be appreciated if you could provide a response to the above to inform the preparation of our submissions report to DPE.

Yours sincerely,



Dr Justin Meleo  
Director – Planning and Development

**Table 1 Council Traffic Related Comments with Response**

Item	Comment	ARDG Response
1	An enforceable undertaking will be required to ensure that all heavy vehicles use the left-in/left-out of Italia Road. The Transport Impact Assessment has not identified how physically this can be achieved.	<p>ARDG have already committed to the following management measure (refer to Appendix 3 of the EIS):</p> <p><i>No quarry product will be transported from the site until the Italia Road-Pacific Highway intersection works (the subject of a separate development application process by Boral) are completed to the satisfaction of Port Stephens Council/TfNSW. To prevent conflicts on the road network, heavy vehicles would only be permitted to turn left out of Italia Road onto the Pacific Highway.</i></p> <p>ARDG does not oppose conditioning of the development consent to reflect this management measure and it is anticipated that the means of implementing and monitoring compliance with this condition would be reflected in a Traffic Management Plan. Such a condition would be enforceable under the EP&amp;A Act through either civil or criminal enforcement procedures.</p> <p>An alternative or additional measure can include a regulatory sign posting regime at and in advance of the proposed intersection upgrade (subject to a separate application) to prohibit quarry trucks turning right from Italia Road onto the highway. The specifics would be subject to detail design and Section 138 approval under the Roads Act. ARDG would not be opposed to such a measure being implemented and note that this would be consistent with the existing proposed management measure reproduced above.</p> <p>As per the Australian Road Rules Regulations, this is enforceable with a maximum penalty of 20 units.</p> <p>It is noted that ARDG cannot make undertakings associated with heavy vehicle movements associated with other quarries or heavy vehicle movements servicing other residences and businesses on Italia Road.</p>
2.1	Consideration should be given to banning all heavy vehicle right turns from Italia Road to the Pacific Highway and not just heavy vehicles from the proposed Stone Ridge Quarry, in the interests of road safety.	<p>The intersection configuration is as agreed with TfNSW following extensive development and consultation by multiple parties in relation to quarry traffic from independent and separate operating quarries and proposed quarry sites (including consideration of existing traffic).</p> <p>With regards to safety, no heavy vehicle movements turning right onto the Pacific Highway are proposed as part of the Project. As demonstrated in the TIA, this intersection does not have a significant crash history, this comment relates to existing traffic generation and traffic movements not impacted by the Project. Further as demonstrated in the TIA, there is also substantial capacity in this intersection.</p> <p>ARDG have committed to restricting quarry traffic to turn left only as part of a management commitment directly related to the Project (refer to Item 1 above). Banning of all right turns from Italia Road is outside the scope of the assessment of the Project and therefore does not form part of the development proposal and there is no direct nexus to ban all right turn traffic from Italia Road. As such this is a strategic network planning matter not related to the application.</p> <p>If PSC has concerns with safety aspects of the intersection as it currently operates, then it is expected this is resolved between TfNSW and PSC under their obligations as the Road Authority under the Roads Act, 1993.</p>

Item	Comment	ARDG Response
2.2	The Transport Impact Assessment notes that this intersection treatment forms part of a separate assessment and approval process. The design of the upgrades at this intersection should be considered as part of this project under mitigation measures.	<p>The upgrade of the Italia Road/Pacific Highway intersection is being pursued under a separate approval process and proposed to be operational prior to the quarry exporting material through the intersection and as such is a mitigation measure. Should the Project be approved the development consent can be conditioned as such that no material can be transported from the site prior to the intersection being constructed.</p> <p>The operation of the proposed intersection from a traffic impact perspective has been assessed as part of the EIS.</p>
2.3	Approval from TfNSW will be required for any upgrade works on the Pacific Highway.	<p>Agreed.</p> <p>The proponent and other relevant quarry operators have been engaging with TfNSW on a range of treatment measures for the intersection since mid-2019 and the option proposed in a separate assessment process is as agreed in principle with TfNSW.</p>
2.4.1	SIDRA Models to include banning of all right turn traffic to highway including, Eagleton Quarry	<p>It is understood that the intersection upgrade design, which is being pursued as part of a separate assessment process, considers the two (2) currently proposed quarries and the existing Boral Seaham quarry. SIDRA modelling undertaken for the EIS has been undertaken based on an assumption that all heavy vehicles associated with the Project exiting Italia Road will turn left.</p> <p>Restrictions on light vehicle movements does not form part of the proposal and is beyond the scope of the Project, it is a strategic network planning matter. Further, ARDG notes that a ban on all right-out turns (including light vehicle movements) may significantly impact property owners and businesses on Italia Road and potential result in unintended impacts such as increased use of backroads, other local roads and/or risky behaviour by motorists in executing U-turn manoeuvres on the Pacific Highway.</p> <p>It is understood that TfNSW is progressing its strategic planning as part of a "Post Duplication Strategy" for this section of the Pacific Highway and enquiries by PSC should be directed to TfNSW.</p>
2.4.2	SIDRA Models to include banning of all right turn traffic from highway including Eagleton Quarry	<p>See the responses to Item 1 and Item 2.4.1 above.</p> <p>As documented in the TIA, it is assumed all heavy vehicle traffic (including traffic associated with the proposed Eagleton Quarry) will transport quarry material to the south, ref S1.5 Assumptions. Existing measured local and heavy vehicle movements using the right-in turn have been assumed in SIDRA modelling. This is a conservative assumption as the banning of right-in traffic would result in an overall improvement in traffic performance at the Italia Road/ Pacific Highway intersection.</p> <p>ARDG notes that a ban on all right-in turns (including light vehicle movements) is not presently proposed and may significantly impact property owners and businesses on Italia Road and potential result in unintended impacts such as increased use of backroads and other local roads. Such impacts should be carefully considered in any discussions regarding strategic network planning involving TfNSW and PSC. Other than noting the potential adverse impacts of such a restriction on local resident, ARDG does not have a strong view on such a ban.</p>

Item	Comment	ARDG Response
2.4.3	Heavy Vehicle north-south split, banning of all right turns into Italia Road.	As per item 2.4.1 and 2.4.2
3	The proposed channelisation treatment at the quarry access road off Italia Road is considered satisfactory and could cater for the right turning traffic for the life of the quarry. However, the existing Basic Left Turn (BAL) treatment for the Boral Quarry Access has been removed from the proposed design and should be included in the design.	The Boral access has not been removed. It is only proposed to configure the intersection on the northern side of Italia Road to suit the proposal, no works are proposed as part of the Project that would impact the Boral access. Potential access issues associated with Boral access are considered in the attached TIA Addendum.
4	The TIA or EIS should include a discussion on alternate design options that were previously proposed for the intersection, including the grade separated interchange and the justification for the selected intersection design.	As outlined in the EIS and TIA the proposed intersection works do not form part of the Project and approval is being pursued under a separate assessment process. As noted above and in the EIS, significant optioneering and engagement was conducted with TfNSW since 2019. Consultation with Council regarding traffic issues, including the Italia Road / Pacific Highway intersection, has occurred on numerous occasions, including meetings in 2019, 2020 and 2022 (x2 meetings) TfNSW subsequently advised they would undertake strategic network planning for a Pacific Highway corridor extending from Raymond Terrace to north of the Bucketts Way. This broader strategic network planning is beyond the scope of the Project. Refer to TfNSW's correspondence for in principle support for the intersection treatment, submitted with the separate development application for the intersection works (currently under assessment by PSC).
5	Assessment of cumulative impact – traffic volumes and congestion	Cumulative traffic impacts are considered in S5.4 (ref Scenario 3 which included the upgraded Pacific Highway / Italia Road intersection). Appendix B also included a capacity assessment of Tarean Road interchange with Stone Ridge, Eagleton and the existing Seaham Quarry in operation as well as significant, additional heavy vehicle traffic to demonstrate excess capacity. The TIA Addendum considers updated traffic numbers provided by Boral's future expansion application to demonstrate performance at the site access (Hamburger Trail) and along Italia Road. The level of service (LOS) entering and exiting the development site is LOS A, and along Italia Road towards the Pacific Highway is also LOS A having regard to both current and proposed Boral truck movement as well as those associated with the Project. The separate development application for the intersection works (currently under assessment by PSC), has been designed in consideration of the two proposed quarries, existing Seaham Quarry and possible future expansion submission for Seaham Quarry. The SIDRA assessment of the proposed intersection design demonstrates an improvement in level of service relative to current operating conditions due to the redirection of traffic to the Tarean Road Interchange (refer to Appendix 13 of the EIS).

Item	Comment	ARDG Response
5.1	Assessment of cumulative impact – traffic noise	The Noise Impact Assessment has assessed potential traffic noise impacts in accordance with relevant assessment requirements and specifically considers cumulative impacts associated with existing and proposed quarry operations (refer to section 5 and 6 of the noise impact assessment).
5.2	Assessment of cumulative impact – road safety	As documented in the TIA, and via extensive stakeholder engagement with TfNSW and PSC, it is acknowledged that the proposed Pacific Highway/Italia Road intersection upgrade (Subject to a separate development application) will result in a significant improvement in safety in the locality by directing proposed quarry trucks to the Tarean Road Interchange, removing the right turn conflict across the Pacific Highway from Italia Road. AS documents in the response to Item 1 above, ARDG has commitment to there being no outbound product movement from the site until the proposed intersection has been constructed.
5.3	Assessment of cumulative impact – Road Maintenance	Maintenance of Italia Road is PSC's responsibility as the road authority. ARDG have committed to payment of the maintenance levy calculated in accordance with the Port Stevens Council Local Infrastructure Contribution Plan for heavy vehicle usage on Italia Road.  The Pacific Highway is the major transport route in the region and is a gazetted B-Double Route which is in good condition. The maintenance of this highway is the responsibility of TfNSW and is jointly funded by the State and Commonwealth Governments.
5.4	Assessment of cumulative impact – traffic mitigation measures	As documented in the TIA, the key mitigation measures are: - Site access intersection utilising a channelised right turn from Italia Road into the Project Area - Use of the Pacific Highway / Italia Road Intersection upgrade (once constructed) - subject to a separate development application - Quarry trucks heading south will utilise a left turn out at Italia Road heading north and turn around at the Tarean Road Interchange. This commitment will improve performance at the intersection and improve safety by eliminating the currently permitted right turn across the highway for quarry trucks.
6	All traffic mitigation measures should be clearly outlined in the Transport Impact Assessment, and nearby residents and community groups should be consulted.	The Traffic Mitigation Measures are outlined in Section 6.9 and Appendix 3 and 13 of the EIS.  Community consultation has been undertaken (refer to Section 5.0 and Section 6.14 of the EIS) and community members have had an opportunity to formally comment of potential impacts associated with truck movements through the EIS public exhibition processes.

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# Attachment 1

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TIA Addendum Report – Prepared by GHD



# Report

08 September 2023

<b>To</b>		<b>Contact No.</b>	+61 3 8651 9283
<b>Copy to</b>	Mark Petrusma, Grant Wood	<b>Email</b>	Madeleine.Fletcher-Kennedy@ghd.com
<b>From</b>	Madeleine Fletcher-Kennedy	<b>Project No.</b>	2219467
<b>Project Name</b>	ARDG - Pac Hwy Intersection Upgrade		
<b>Subject</b>	ARDG Stone Ridge Quarry – Addendum to Transport Impact Assessment		

## 1. Introduction

### 1.1 Background

Australian Resource Development Group Pty Ltd (ARDG) is seeking development consent for a new hard rock quarry known as Stone Ridge Quarry (the project). The project is located within Wallaroo State Forest at Balickera, NSW, approximately 25 kilometres north of Newcastle. The project is seeking access to a high quality, hard rock resource suitable for producing a wide range of quarry products for the Lower Hunter, Central Coast and northern Sydney construction materials markets (ARDG 2020).

### 1.2 Purpose of this report

GHD was previously engaged by ARDG to prepare a Transport Impact Assessment (TIA) to support the preparation of an Environmental Impact Statement (EIS) for the project. The TIA was submitted and subsequently, questions have been raised by Boral, the operator of the Seaham Quarry located on the opposite side of Italia Road. Boral were seeking information on the impact of the Stone Ridge Quarry on their access to Italia Road, noting the Stone Ridge Quarry access will form a cross-intersection with the Boral Seaham Quarry access. This report has therefore been prepared as an addendum to the TIA with the purpose of addressing Boral's concerns by specifically assessing the impact of the Stone Ridge Quarry access.

### 1.3 Limitations

This report: has been prepared by GHD for Australian Resource Development Group Pty Limited and may only be used and relied on by Australian Resource Development Group Pty Limited for the purpose agreed between GHD and Australian Resource Development Group Pty Limited as set out in Section 1.2 of this report.

GHD otherwise disclaims responsibility to any person other than Australian Resource Development Group Pty Limited arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer Section 2 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Australian Resource Development Group Pty Limited and others who provided information to GHD (including Government authorities)], which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

## 2. Assumptions

This report was developed based on the following assumptions developed with ARDG:

- All light vehicles arrive to the site prior to 8:00am.
- 50% of staff in light vehicles depart the site during the 15:00-16:00pm peak hour.
- All vehicles travelling to/from the quarries will be distributed from the Italia Road/Pacific Highway intersection.
- The future expansion of the Boral Seaham Quarry will see an additional 80vph in the peak hours, equally split between inbound and outbound movements.

## 3. Traffic modelling

### 3.1 Intersection location

The Stone Ridge Quarry access will utilise the existing Hamburger Trail which is located directly opposite, and north of, the existing Seaham Quarry access. Together the two accessways would form a cross-intersection with Italia Road, as shown in the concept design provided below in Figure 1.

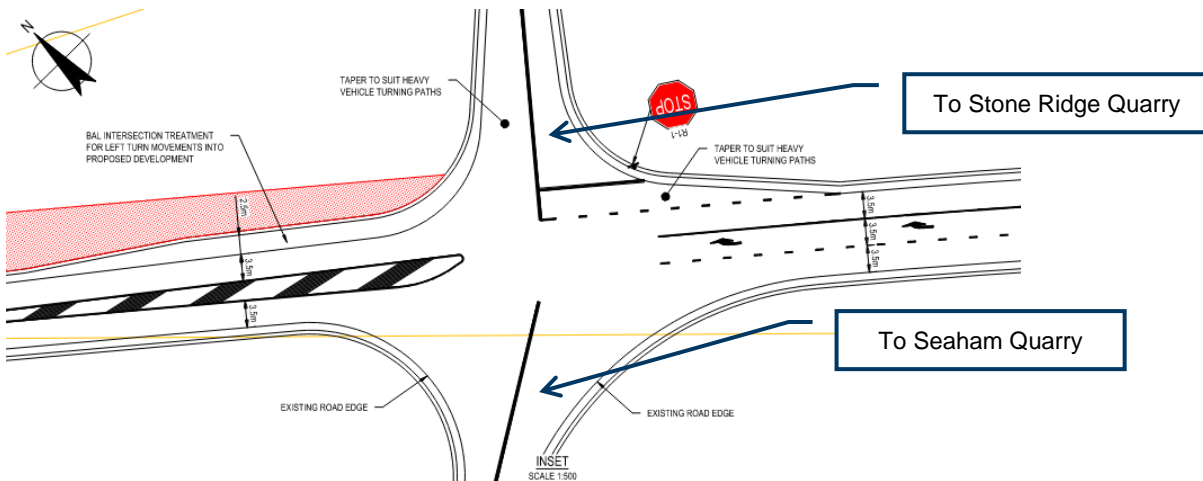


Figure 1 Intersection arrangement

### 3.2 Modelled scenarios

The performance at the site access to Italia Road has been modelled under three scenarios, in order to determine the impact of each the ARDG quarry on the north side of the road and the Boral quarry on the south side of the street. These scenarios include:

- Base case Existing traffic (only Boral quarry in operation)
- Scenario 1 Existing traffic + ARDG site traffic
- Scenario 2 Existing traffic + ARDG site traffic + Future Boral expansion traffic

It is noted that each of the scenarios have been modelled in the AM and PM peak hours.

### 3.3 Traffic volumes

The existing traffic volumes have been determined using the 7-day tube count undertaken on Italia Road, to the northwest of the Ringwood Park Motor Complex and Killaloe Lane, from 14 June 2022. For purposes of this assessment, it has been assumed all of the heavy vehicles recorded at the tube count were travelling to or from Boral and therefore turning left-in or right-out of this access point.

Noting the Seaham Quarry also generates some light vehicle traffic, it is further assumed that of the 28 staff that were working at the time of the surveys, all arrive to the site prior to the AM peak hour (9:00-10:00am) and half departed during the PM peak hour (15:00-16:00pm) for a total of 14 outbound movements.

The adopted AM and PM peak hour traffic volumes for each scenario are shown in Figure 2-Figure 4.

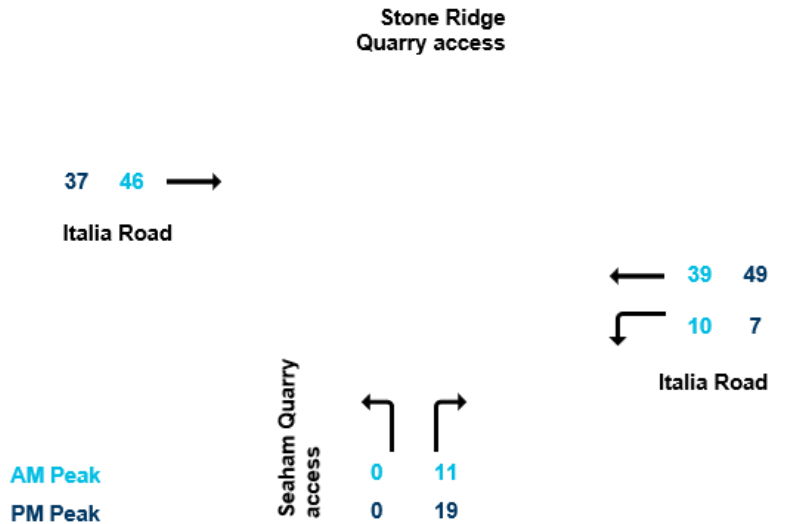


Figure 2 Traffic volumes – Base case

The traffic generated to/from the Stone Ridge Quarry for Scenario 1 has been adopted from the TIA (dated 17 May 2023). Note that the adoption of 30 inbound and 30 outbound trucks is considered very conservative and represents peak operation of the quarry.

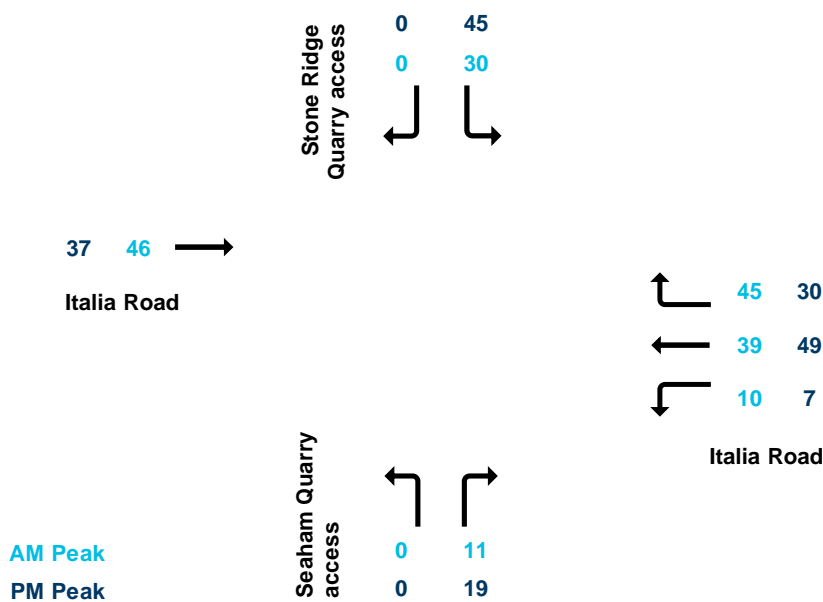


Figure 3 Traffic volumes – Scenario 1

For purposes of this assessment, it has been assumed that future expansion of the Seaham Quarry may be up to 80 heavy vehicles per hour in each of the peak hours, equally split between inbound and outbound movements. This equates to an additional 40 trucks turning left into the site and 40 trucks turning right out of the site in both peaks and is considered a very conservative assumption representing a 400% increase in peak hour volumes from the Seaham site, undertaken to stress test the intersection.

These volumes have therefore been adopted for Scenario 2, as shown in Figure 4.

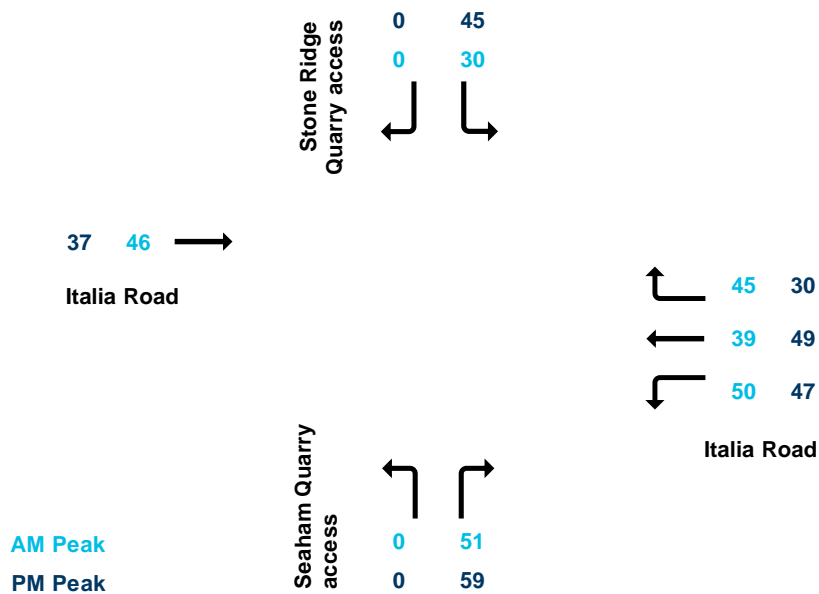


Figure 4 Traffic volumes – Scenario 2

### 3.4 SIDRA results

The SIDRA results for the Seaham Quarry access/Italia Road/Stone Ridge Quarry access under each of the modelled scenarios is included below in Table 1.

Table 1 SIDRA results

Approach	Movements	Degree of Saturation			Average delay (s)			Level of Service			95 <sup>th</sup> Percentile Queue Length (m)		
		B	1	2	B	1	2	B	1	2	B	1	2
AM Peak													
Seaham access	Left	3.3%	8.1%	45.4%	8.2	8.2	16.0	A	A	B	2.5	6.8	55.2
	Right	3.3%	8.1%	45.4%	15.7	33.9	53.4	B	C	D	2.5	6.8	55.2
Italia Road (east)	Left	3.6%	3.6%	9.5%	10.3	10.3	10.3	A	A	A	0.0	0.0	0.0
	Through	3.6%	3.6%	9.5%	0.0	0.0	0.0	A	A	A	0.0	0.0	0.0
	Right	-	5.8%	5.8%	-	9.7	9.7	-	A	A	-	5.1	5.1
Hamburger Trail	Left	-	6.3%	6.3%	-	15.0	15.0	-	B	B	-	6.2	6.2
	Right	-	6.3%	6.3%	-	9.0	9.0	-	A	A	-	6.2	6.2
Italia Road (west)	Left	-	2.6%	2.6%	-	7.4	7.4	-	A	A	-	0.1	0.1
	Through	2.5%	2.6%	2.6%	0.0	0.0	0.0	A	A	A	0.0	0.1	0.1
	Right	2.5%	2.6%	2.6%	7.1	7.1	7.7	A	A	A	0.0	0.1	0.1
PM Peak													
Seaham access	Left	2.3%	5.9%	42.0%	8.2	8.2	13.1	A	A	A	0.6	2.1	39.0
	Right	2.3%	5.9%	42.0%	9.1	16.3	42.4	A	B	C	0.6	2.1	39.0
Italia Road (east)	Left	3.3%	3.7%	9.6%	9.6	10.3	10.3	A	A	A	0.0	0.0	0.0
	Through	3.3%	3.7%	9.6%	0.0	0.0	0.0	A	A	A	0.0	0.0	0.0
	Right	-	4.8%	4.8%	-	10.7	10.7	-	A	A	-	5.5	5.5
Hamburger Trail	Left	-	7.3%	7.3%	-	12.6	12.6	-	A	A	-	5.6	5.6
	Right	-	7.3%	7.3%	-	8.9	8.9	-	A	A	-	5.6	5.6
Italia Road (west)	Left	-	2.1%	2.1%	-	7.4	7.4	-	A	A	-	0.1	0.1
	Through	2.5%	2.1%	2.1%	0.0	0.0	0.0	A	A	A	0.0	0.1	0.1
	Right	2.5%	2.1%	2.1%	7.1	7.2	7.8	A	A	A	0.0	0.1	0.1

### 3.5 Description of outputs

A description of the SIDRA traffic modelling outputs is provided below:

- **Degree of saturation (DoS)** is a measure of the traffic volume as a ratio of the total capacity for that movement. It is expressed as a percentage. A movement that is operating at a degree of saturation of 50% is effectively operating at half of its total capacity.
- **Average delay (s)** is a measure of the average delay experienced by any one vehicle performing a particular movement. It includes time spent in queue, time spent waiting at the stop line as well as time taken to perform the left or right turn movement (i.e. geometric delay). For large trucks, geometric delay is often a material portion of the overall delay at the intersection.
- **Level of service (LOS)** is a qualitative measure of the performance of the intersection. It is calculated based on the average delay as shown in Figure 5. The target level of service is LOS C, however LOS D is typically acceptable in most circumstances.

Level of Service	Control delay per vehicle in seconds (d) (including geometric delay)
	All Intersection Types
<b>A</b>	$d \leq 14.5$
<b>B</b>	$14.5 < d \leq 28.5$
<b>C</b>	$28.5 < d \leq 42.5$
<b>D</b>	$42.5 < d \leq 56.5$
<b>E</b>	$56.5 < d \leq 70.5$
<b>F</b>	$70.5 < d$




Figure 5 Level of service definitions (RTA NSW method)

Source: SIDRA Intersection 9.1

- **95<sup>th</sup> percentile queue length (m)** is a measure of the queue length that is not exceeded 95% of the time. It generally represents the longest queue that would be experienced by most road users and is used as a key performance metric in the design of the length of turn lanes.

### 3.6 Discussion



The results of the SIDRA modelling demonstrate the cross intersection formed by the two quarry accessways is operating and under excellent conditions, with minimal queuing and delays in both peak hours. Notably, the intersection is operating at between 4% and 8% of its capacity during both the AM and PM peak periods under the baseline (surveyed) conditions as well as Scenario 1 which represents the development of the Stone Ridge Quarry.

The assumption of an additional 40 trucks travelling to and from the Seaham Quarry is a highly conservative assumption, and represents close to a 400% increase in peak hour volumes using this access point. Furthermore, the assessment assumes that the operating peak of the Seaham Quarry coincides with both the operating peak of the Stone Ridge Quarry as well as the peak of the road network.

Notwithstanding, the traffic modelling shows that even with this significant increase in traffic, the intersection would still only be operating at approximately 45% of its capacity, with a maximum queue length of up to three trucks (55 metres) on the Seaham Quarry approach. The performance of the approach is Level of Service D, which is considered acceptable given that queuing is contained within the private access.

Based on the above, this report demonstrates that the addition of the Stone Ridge Quarry traffic has little impact on the intersection. With the additional traffic anticipated to be directed to/from the Seaham Quarry following further expansion, the intersection continues to operate with acceptable performance.

Based on the foregoing, neither quarry is significantly impacted by the other quarry's traffic movements.

<b>Project name</b>		ARDG - Pac Hwy Intersection Upgrade					
<b>Document title</b>		Report   ARDG Stone Ridge Quarry – Addendum to Transport Impact Assessment					
<b>Project number</b>		2219467					
<b>File name</b>		2219467-REP-TIA_Addendum.docx					
<b>Status Code</b>	<b>Revision</b>	<b>Author</b>	<b>Reviewer</b>		<b>Approved for issue</b>		
			<b>Name</b>	<b>Signature</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>
S4	0	M Petrusma	A Sneddon		A Sneddon		08/09/23

**GHD Pty Ltd | ABN 39 008 488 373**

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## Correspondence with BCD

**From:** Giorginna Xu <giorginna.xu@environment.nsw.gov.au>

**Sent:** Wednesday, November 8, 2023 10:39 AM

**To:** Penelope Williams <pwilliams@umwelt.com.au>

**Cc:** Steven Crick <Steven.Crick@environment.nsw.gov.au>; David Holmes <dholmes@umwelt.com.au>; Jacob Manners <jmanners@umwelt.com.au>; Kate Connolly <kconnolly@umwelt.com.au>; EHG HCC Planning Mailbox <hcc.planning@environment.nsw.gov.au>

**Subject:** FW: Stone Ridge Quarry SSD 10432 - PCT and MNES questions

*This message originated from outside of Umwelt - **BE CAUTIOUS** opening any link or attachment.*

Hi Penelope,

Thank you for your patience.

Please see BCD's response provided in **red** below.

As mentioned, BCD is currently experiencing a high volume of requests. Should you seek any further information regarding the below, please lodge a request through the Major Projects Portal.

Thanks,  
Giorginna

### **Giorginna Xu**

Senior Conservation Planning Officer

Hunter Central Coast Branch

Biodiversity and Conservation Division

**Department of Planning and Environment**

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**Working days** Monday to Friday



**Planning,  
Industry &  
Environment**

*The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically*

**From:** Penelope Williams <[pwilliams@umwelt.com.au](mailto:pwilliams@umwelt.com.au)>

**Sent:** Tuesday, 19 September 2023 12:14 PM

**To:** Giorginna Xu <[giorginna.xu@environment.nsw.gov.au](mailto:giorginna.xu@environment.nsw.gov.au)>

**Cc:** Steven Crick <[Steven.Crick@environment.nsw.gov.au](mailto:Steven.Crick@environment.nsw.gov.au)>; Jayme Lennon <[jayme.lennon@environment.nsw.gov.au](mailto:jayme.lennon@environment.nsw.gov.au)>; David Holmes <[dholmes@umwelt.com.au](mailto:dholmes@umwelt.com.au)>; Jacob Manners <[jmanners@umwelt.com.au](mailto:jmanners@umwelt.com.au)>; Kate Connolly <[kconnolly@umwelt.com.au](mailto:kconnolly@umwelt.com.au)>

**Subject:** RE: Stone Ridge Quarry SSD 10432

Hi Giorginna,

As requested, please see table below outlining the matters raised by BCD in the Stone Ridge Quarry submission and our comments/information to inform a meeting.

Can you please advise availability to meet and discuss?

Thanks

Matters Raised by BCD	Umwelt Approach for Meeting Discussion	BCD Comment
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<p>1. BCD require further microbat surveys and assessment specifically for the Balickera tunnel.</p>	<p>Balickera Tunnel post construction microbat monitoring has been undertaken by WSP (2023). The surveys included four seasonal surveys in July 2022 , October 2022, February 2023 and May 2023 which <u>each</u> consisted of:</p> <ul style="list-style-type: none"> <li>- 2 nights of thermal recording at the upstream portal,</li> <li>- 4 nights ultrasonic detection at each tunnel portal,</li> <li>- 3 harp traps x 1 night near upstream portal</li> <li>- Internal tunnel autonomous surface vessel inspection</li> <li>- Bat box and bridge inspections</li> </ul> <p>The results of these surveys are generally consistent with the conclusions on microbat occupation made in the ELA SIS, that the tunnel is not a maternity roost for bent-winged bats, however may provide breeding habitat for the southern myotis. Umwelt intend to rely on this additional comprehensive documentation in lieu of undertaking further surveys.</p> <p>The proponent’s vibration and noise specialist will also provide further input to further inform the impact assessment and explain the current conclusions.</p>	<p>All external reporting intended to be relied upon during assessment should be appended to the BDAR.</p>
<p>2. Amend BAM Calculator to include PCTs 762,1618,1716 as commensurate with EPBC listed TECs</p>	<p>The BAM-C currently has no functionality to allow assessors to re-assign or select TECs other than those already associated in the VIS. There is also no functionality which allows separate selections for BC and EPBC Act entities.</p> <p>Umwelt would welcome further BAM-C updates to allow this functionality, however currently cannot amend the BAM C case to achieve this request.</p>	<p>Currently there is no BAM-C functionality to assign to TEC to a PCT if the PCT is not also associated in Veg-C. However, if you need to assess the impact on a given TEC you may select a different PCT which is associated with the TEC. If possible, you should select a PCT in the same vegetation class as the original PCT to ensure the same benchmarks are applied and the VI and credit outcome will be very similar. The offset requirement will be in the same offset trading group (the TEC) as that of the original PCT.</p> <p>You can currently select separate BC and EPBC Act TECs in the BAM-C. If the PCT selected is associated with TECs in both acts, you should see all the associated TECs in the TEC drop down on Tab 3.</p>

1. Assessment details 2. Site context 3. Vegetation 4. Habitat suitability: Predicted 5. Habitat suitability: Current  
7. Credits 8. Credit classes 9. Price

All fields marked with an asterisk (\*) are mandatory

Plant community types (PCT) & ecological communities

Formation *	Class *	Plant community type *	PCT % cleared	Associated TEC *	BC Act listing status	EPBC Act listing status
Grassy Woodlands	Coastal Valley Grassy Woodlands	3318 - Cumberland Moist Shale Woodland	77	Moist Shale Woodland in the Sydney Basin Bioregion	Endangered Ecological Community	Not Listed
Grassy Woodlands	Coastal Valley Grassy Woodlands	3318 - Cumberland Moist Shale Woodland	77	Western Sydney Dry Rainforest and Moist Woodland on Shale	Not Listed	Critically Endangered

3. Species polygon and offset required for Southern Myotis and Eastern Cave Bat

The southern myotis species polygon drawn in Figure 5.5 of the BDAR and does not intersect with the Development Footprint.

For the Eastern Cave Bat no conclusive identification was made through call analysis and the survey guide identifies that for this species, the species polygon should align with PCTs on the subject land which the species is associated with that are within 2km of identified potential roost habitat features. The PCTs on the subject land are not associated with this species in the TBDC and in accordance with the NSW survey guide, credits would not be required for this species due to lack of associated PCTs. This species has also not been identified during harp trapping surveys completed in association with the Balickera Tunnel remediation impact assessment and post works monitoring.

Can BCD please clarify the approach recommended for credit generation or prescribed impact assessment and confirm that the approach is consistent with the current NSW Guide and application across other projects.

As noted in the BCD Letter dated 19 July 2023, section 4.4.1 of the BAM Ops Manual – Stage 1, if any past surveys of the subject land have recorded the presence of a threatened species or it has been incidentally observed on site, the species must be assessed in accordance with Steps 2–6 in BAM Subsections 5.2.2 to 5.2.6, irrespective of the criteria in Table 11.

Pursuant to the above, southern myotis is recorded on site and is known to roost within the Balickera Tunnels. Therefore, a species polygon must be prepared in accordance with Box 2 of the Biodiversity Assessment Method 2020 (BAM) irrespective of the criteria in Table 11 of the BAM Ops Manual – Stage 1, which includes species associations with PCTs. A lack of PCT association does not negate the fact the species has been recorded utilising the site.

Section 5.2.2.2 (g) of the BDAR states eastern cave bat was identified as potentially occurring. A precautionary approach should be taken, and the species assumed present unless further evidence can be provided to discount the species. If further evidence cannot be provided, the species must be assessed in accordance with Steps 2–6 in BAM Subsections 5.2.2 to 5.2.6, irrespective of the criteria in Table 11 of the BAM Ops Manual – Stage 1.

The BAM is part of the Biodiversity Offsets Scheme (BOS), and is a legislated framework that is required when addressing impacts on terrestrial biodiversity from development and clearing. The above

		approach is outlined in the BAM therefore it is consistent with current NSW Guide and application across other projects.
4. Further justification for the selection of PCT 762	<p>While the name of PCT 762 suggests it includes or is dominated by Cabbage Gum, the VIS only lists <i>Eucalyptus moluccana</i>, <i>Eucalyptus tereticornis</i> and <i>Angophora floribunda</i> as upper stratum species and Umwelt maintain that the presence of this PCT is justified.</p> <p>PCT 1594 is described in the VIS as being dominated by Cabbage Gum.</p> <p>PCT 1749 is a poor fit as it is part of the Hunter Lowland Redgum Forest TEC which is not present and is characterised by a canopy of <i>Eucalyptus punctata</i> in association with <i>Eucalyptus tereticornis</i> with restricted to riparian zones in the Rothbury and Stanford Merthyr areas.</p>	BCD has reviewed the floristic data for BAM ploys P17 and P22, in the vegetation zone in question. Site data was compared with attributes for the following PCTs: 762, 1064, 1594, 1595, 1598 and 1749, all of which were selected based on geographic location and presence of <i>Eucalyptus tereticornis</i> . None of the PCTs are a good fit for the on-ground vegetation. Based on IBRA subregion, position in landscape, and presence on landscape PCT 762 is the best fit. PCT 1594 was also considered as an option, but the position in landscape, vegetation structure and presence of <i>E. amplifolia</i> makes this a weak match.
5. Additional information to confirm compliance with threatened species survey requirements.	<p><b>Red Helmet Orchid</b> Additional seasonal searches undertaken will be documented in an updated BDAR in the Response to Submissions. Five representative samples were picked and sent to the NSW Herbarium for formal identification, and all were confirmed as <i>Corybas aconitiflorus</i>. <i>Corybas dowlingii</i> was not recorded and NSW Herbarium correspondence will be provided.</p> <p><b>Raptors</b> Can BCD please clarify what additional information is required for raptor surveys. Bird census points, dates, timing, person hours and weather conditions are already provided in Table 2.5 and Figure 2.3 of the BDAR. Track logs were not specifically recorded for all raptor surveys, however some of these were undertaken in conjunction with flora surveys and PCT grid based rapid flora assessments for which points or tracklogs were recorded.</p> <p><b>Amphibians</b> Can BCD please clarify what additional information is required for amphibian surveys. Tracks, dates, timing, person hours and weather conditions are already provided in Table 2.6 and Figure 2.3 of the BDAR. Photographs were not provided as no candidate threatened amphibians were observed.</p>	<p><b>Red helmet orchid</b> BCD will review and comment once the revised BDAR has been lodged.</p> <p><b>Raptors and glossy black-cockatoo</b> Table 5.7 of the BDAR states targeted surveys for raptors included '287 hrs over 21 days (2-4 people)' and targeted surveys for glossy black-cockatoo included '121 hrs over 10 days (2 people).' As mentioned in the BCD Letter, and outlined in table 9 of the BAM Ops Manual – Stage 1, geospatial coordinates, tracks, dates, timing and weather conditions are required to be provided for targeted surveys undertaken. A flora survey cannot be considered a targeted raptor survey nor a targeted glossy black-cockatoo survey. Additional information such as geospatial coordinates and tracks are required to confirm raptor and glossy black-cockatoo surveys were conducted in accordance with relevant guidelines. If additional information cannot be provided, additional surveys should be undertaken.</p> <p><b>Amphibians</b> It is a requirement of the NSW Survey Guide for Threatened Frogs: A guide for the survey of threatened frogs and their habitats for the Biodiversity Assessment Method for targeted amphibian surveys to be conducted during periods of rainfall. Table 2.6 of the BDAR notes 'no rain' during surveys. Therefore, surveys have not been conducted in</p>

	<p><b>Forest Owls</b> Additional stag watching surveys were completed during 2023 breeding season for large forest owls at all suitable nesting hollows with no breeding activity detected during 2023. The details of these surveys have recently been provided to BCD and will also be included in a revised BDAR as part of the Response to Submissions. Can BCD please clarify if any further information is requested for this.</p> <p><b>Glossy Black-Cockatoo</b> Can BCD please clarify what additional information is required for the Glossy Black-Cockatoo breeding surveys undertaken. Bird census points, dates, timing, person hours and weather conditions are already provided in Table 2.5 and Figure 2.3 of the BDAR. Track logs were not specifically recorded for all Glossy Black-Cockatoo surveys, however these were undertaken in conjunction with flora surveys and PCT grid based rapid flora assessments for which tracklogs or points were recorded.</p>	<p>accordance with relevant guidelines. Additional surveys or a report from a species expert, or assumed presence is required. Furthermore, it is a requirement of the BAM to provide data to support the survey approach taken. Spatial data and photographs of the areas surveyed for amphibians should be provided to confirm suitable habitat was targeted.</p> <p><b>Forest owls</b> BCD will review and provide comment once the revised BDAR has been lodged.</p>
6. Further measures for prescribed impacts	Project will retain land to maintain connectivity along western site boundary and will not operate at night-time. Any fencing would be limited to the quarry pit area only and not the haul road.	<p>As noted in the BCD Letter, The Project will contribute to cumulative impact on habitat patch size and crossing width within Italia Road and the Boral Seaham Quarry. The Project will also increase risk of vehicle strike along Pacific Highway and Italia Road. Loss, modification and fragmentation of habitat, and vehicle strike are identified as a key threatening process for the koala. The BDAR should include adequate measures to mitigate loss of habitat connectivity and increased vehicle strike for threatened species on site (i.e.: koala).</p> <p>Limiting fencing to the quarry pit area is not considered adequate mitigation for the loss of habitat patch size and crossing width within the Italia Road and the Boral Seaham Quarry, nor does the proposed fencing address increase risk of vehicle strike along Pacific Highway and Italia Road.</p>
7. Further consideration of GDEs and ground water drawdown	<p>Umwelt will map PCTs in drawdown areas to enable further indirect impact assessment.</p> <p>Further consideration on GDEs and the nature of groundwater reliance and impacts will also be provided, in consultation with the Proponent's groundwater specialist.</p>	Noted. BCD will review and provide comment once the revised BDAR has been lodged.

<p>8. Comprehensive survey of all tree hollows.</p>	<p>The large hollows mapped by Umwelt were limited to those suitable for use as breeding habitat the powerful owl (&gt;20cm opening). These surveys were informed by targeted observations and opportunistic observations completed during comprehensive threatened flora searches, plot surveys and rapid flora surveys.</p> <p>Can BCD please confirm / provide the locations of any additional hollows observed with openings &gt;20cm.</p> <p>Umwelt are not aware of any requirement under the BAM for mapping all tree hollows and the completion of this activity is not a standard requirement under the BAM. Can BCD please confirm whether it is necessary to survey all hollow trees for BAM compliance.</p>	<p>Table 5.3 of the BDAR includes fauna species credit species predicted to occur within the development footprint. It outlines forest owls were 'Retained for assessment, although excluded from PCTs with no suitable breeding habitat / hollow bearing trees.'</p> <p>The assessor should provide information such as hollow-bearing tree mapping to support the above approach. If hollow-bearing tree mapping was not undertaken, PCTs cannot be excluded from assessment as it cannot be concluded that hollows do not occur within the removed PCTs.</p> <p>Please see attached an example of a &gt;20cm HBT located during BCD's site inspection. GPS coordinates can be found within the image properties. Unfortunately, other HBTs observed were not photographed as BCD's main objection for the site inspection was to verify the data provided in the BDAR, not collect additional survey data.</p>
<p>9. Additional fauna management and release measures</p>	<p>Umwelt generally agree with these BCD measures and can include them in the BDAR, however note that it would be standard practice and more appropriate to address this level of detail in post approval documentation (subject to project approval).</p>	<p>It is a requirement under section 8.4 the BAM to identify measures to mitigate and manage impacts.</p>
<p>10. Flooding and flood risk</p>	<p>Not relevant to BDAR, to be addressed by other project specialist.</p>	<p>N/A</p>
<p>11. MNES Assessment</p>	<p>It is Umwelt's understanding that surveys should not be required for ecosystem credit entities such as the New Holland mouse and swift parrot (foraging habitat) and regent honeyeater (foraging habitat).</p>	<p>The Bilateral Assessment will require potential impacts on all MNES that are likely to be or may be significantly impacted by the project to be quantified and thus to be assessed in relation to the local scale, state scale and national scale. BCD is not satisfied that adequate targeted surveys have been undertaken for the New Holland mouse to support the statement that the project is not likely to impact this species. Further surveys, or assumed presence or an expert report, and a like-for-like offset, may be required if the Commonwealth DEECCW disagrees with conclusions in the BDAR for this species. Impacts to mapped important habitat for the regent honeyeater and swift parrot will be required to be offset on a like-for-like basis, that is, with mapped important habitat area for both species.</p>

Regards

**Penelope Williams**

Principal Environmental Consultant

p. 1300 793 267

m. 0415 880 165

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**From:** Giorginna Xu <[giorginna.xu@environment.nsw.gov.au](mailto:giorginna.xu@environment.nsw.gov.au)>

**Sent:** Thursday, August 24, 2023 11:46 AM

**To:** Penelope Williams <[pwilliams@umwelt.com.au](mailto:pwilliams@umwelt.com.au)>

**Cc:** Steven Crick <[Steven.Crick@environment.nsw.gov.au](mailto:Steven.Crick@environment.nsw.gov.au)>; Jayme Lennon <[jayme.lennon@environment.nsw.gov.au](mailto:jayme.lennon@environment.nsw.gov.au)>

**Subject:** RE: Stone Ridge Quarry SSD 10432

*This message originated from outside of Umwelt - **BE CAUTIOUS** opening any link or attachment.*

Hi Penelope,

Thank you for your email.

We're happy to meet if required. However, due to the current high volume of meeting requests, we request that specific issues to be discussed are outlined beforehand so that we can potentially resolve them without needing to schedule a meeting.

Could you please send through an email or letter outlining your questions and/or concerns?

Thanks,  
Giorginna

**Giorginna Xu**

Senior Conservation Planning Officer  
Hunter Central Coast Branch  
Biodiversity and Conservation Division  
**Department of Planning and Environment**

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6 Stewart Avenue, Newcastle, NSW 2300  
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**Working days** Monday to Friday



**Planning,  
Industry &  
Environment**

*The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically*

**From:** Penelope Williams <[pwilliams@umwelt.com.au](mailto:pwilliams@umwelt.com.au)>  
**Sent:** Thursday, 24 August 2023 6:57 AM  
**To:** Giorginna Xu <[giorginna.xu@environment.nsw.gov.au](mailto:giorginna.xu@environment.nsw.gov.au)>  
**Cc:** Jayme Lennon <[jayme.lennon@environment.nsw.gov.au](mailto:jayme.lennon@environment.nsw.gov.au)>  
**Subject:** Stone Ridge Quarry SSD 10432  
**Importance:** High

Hi Giorginna,

We are currently reviewing the submissions for the Stone Ridge Quarry Project, is it possible to have a quick meeting to run through you submission with our biodiversity team? The purpose of the meeting is to clarify exactly what you are asking for in the submission, half an hour should be fine.

If you could provide some availability options in the next two weeks that would be appreciated.

Thanks

Pen

**Penelope Williams**  
Principal Environmental Consultant

p. 1300 793 267  
m. 0415 880 165  
w. [www.umwelt.com.au](http://www.umwelt.com.au)

16 November 2023

Australian Resource Development Group Pty Limited  
69 Ross Street  
Belmont NSW 2280

**APPLICATION NO:** SSD-10432 (Our Ref. 25-2023-10-1)  
**PROPOSAL:** Stone Ridge Quarry Project  
**PROPERTY:** 150 Italia Road, BALICKERA (LOT: 65 DP: 753200)

Attention: Justin Meleo

Dear Sir,

Thank you for your correspondence dated 2 November 2023 requesting Council's comments on additional traffic and transport information, which responds to issues raised by Council in its submission to The Department of Planning and Environment. Council has reviewed the additional information, and makes the following comments.

### **Traffic and Transport**

- It is understood that the proposed upgrade to the intersection configuration at Italia Road with Pacific Highway has been agreed with TfNSW following extensive consultation with Council. It is not known if any right turns restrictions have been incorporated in the agreed intersection configuration.
- ARDG have committed to restricting quarry traffic to turn left only as part of a management commitment directly related to the Project.
- The upgrade of the Italia Road/Pacific Highway intersection is being pursued under a separate approval process and proposed to be operational prior to the quarry exporting material through the intersection.
- It is understood that a ban on all right-out turns (including light vehicle movements) may impact property owners and businesses on Italia Road and has potential to increase use of backroads, other local roads and/or risky behavior by motorists in executing U-turn manoeuvres on the Pacific Highway.
- The TIA Addendum considers updated traffic numbers provided by Boral's future expansion application to demonstrate performance at the site access.
- The Stone Ridge Quarry access will utilise the existing Hamburger Trail, which is located directly opposite, and north of, the existing Seaham Quarry access. Together the two accessways would form a cross-intersection with Italia Road.
- The results of the SIDRA modelling demonstrate the cross intersection formed by the two quarry accessways is operating and under excellent conditions, with minimal queuing and delays in both peak hours.
- No objection in principle is raised from traffic management perspective.

- Minimal safety concerns anticipated with the proposed additional traffic including heavy vehicles that would generate from the proposed quarry development.

Considering the above findings, should DPIE decide to approve the proposed quarry development, the following conditions are recommended:

1. *No quarry product will be transported from the site until the Italia Road-Pacific Highway intersection works are completed to the satisfaction of Port Stephens Council/TfNSW.*
2. *A regulatory sign posting regime, at and in advance of the proposed intersection upgrade to prohibit quarry trucks turning right from Italia Road onto the highway, be submitted and approved through Councils Local Traffic Committee, and implemented at no cost to Council.*

Should you have any further enquires or if you wish to discuss the application, please contact me on the number below and I will be happy to assist.

Yours Faithfully

**Isaac Lancaster**  
**Senior Development Planner**

**Port Stephens Council**

Phone: 4988 0566

Email: [isaac.lancaster@portstephens.nsw.gov.au](mailto:isaac.lancaster@portstephens.nsw.gov.au)

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## PROPERTY DETAILS

<b>Property Address</b>	150 Italia Road BALICKERA
<b>Lot and DP</b>	LOT: 65 DP: 753200
<b>Current Use</b>	Vacant/Rural
<b>Zoning</b>	RU3 FORESTRY
<b>Legislation/Policy</b>	State Environmental Planning Policy (Biodiversity and Conservation); Port Stephens Local Environmental Plan 2013; and Port Stephens Development Control Plan 2014.
<b>Site Constraints</b>	Bush Fire Prone Land – Vegetation Category 1 & 2 Acid Sulfate Soils – Class 5; Koala Habitat Map – Preferred, Preferred Over Marginal and Marginal; Endangered Ecological Communities – Hunter Valley Dry Rainforest; Height Trigger Map – 75; Hunter Water Special Areas – Grahamtown Dam; Drinking Water Draw Zones – Grahamstown Dam Hydro Catchment; Combined Corridor Map – Landscape Habitat Link, Core Habitat and Landscape Habitat Link; NSW Wildlife Atlas – Fauna – Phascolarctos Cinereus and Glossopsitta pusilla; Watercourses; and Biodiversity Values Map.

## MEETING DETAILS

<b>Date:</b>	23 November 2023
<b>Time:</b>	10am
<b>Proposed Development:</b>	Pre-Lodgement Meeting

**Attendee(s):**
**Council Officer(s):**

<i>Name</i>	<i>Contact No.</i>	<i>Position</i>
Isaac Lancaster		Senior Development Planner
Emily Lawrence		Planning Officer
Ryan Falkenmire		Coordinator Development Planning
Ashley Bacales		Environmental Planning Team Leader
Kimberley Baker		Environmental Planner

**Applicant/ Proponent(s):**

Justin Meleo		Director
David Holmes		Principal Environmental Consultant
Penny Williams		Principal Environmental Consultant
Jacob Manners		Senior Ecologist

**NOTE**

- 1) These minutes identify key issues discussed between Council staff and the proponent and do not seek to represent the full discussion undertaken;
- 2) The views expressed may vary once detailed plans and documentation are submitted and formally assessed, or as a result of issues contained in submissions by other parties; and
- 3) Amending the request/proposal will require further assessment.

**Development Proposal**

The proposed development is for Stone Ridge Quarry Project located at 150 Italia Road, Balickera. Department of Planning and Environment (DPE) requested Council's comments regarding the Environmental Impact Statement (EIS) for State Significant Development (SSD-10432) for the purpose of extracting hard rock resource from land within Wallaroo State Forest.



The Project Area occupies 139 ha of land; including extraction, processing, stockpiling area and buffers, with a disturbance area of approximately 68.09ha. The Project would produce up to 1.5 million tonnes per annum (Mtpa) of saleable quarry product with approval sought for an initial 30-year quarrying period.

After reviewing the proposal and documentation, Council provided comments on August 2, 2023. The Australian Resource Development Group would like to initiate discussions regarding incorporating additional surveys and data related to biodiversity and traffic into the project design. These changes are proposed to address the concerns raised by the Council in its submission to the Department of Planning and Environment (DPE).

Proposed changes in response to Council submission;

- The amendment to the development footprint has resulted in a reduction from 79.02 hectares to 68.09 hectares. The primary modifications involve pulling back the southwestern boundary by 50 meters from the road. Additionally, this revision entails the complete removal of the north pit from the project and a retraction on the northeastern side from Nine Mile Creek.
- Update of biodiversity assessment along with associated addendums have been conducted to complement other ecological studies. This comprehensive update will form a formal submission to the DPE.
- The stockpile area has been reconfigured, effectively dropping down by a 15-meter bench for the processing pit. This adjustment optimises the processing area and brings additional benefits by reducing noise and dust impacts. The revision encompasses a thorough review of noise impacts, dust impacts, and surface water impact modelling.
- Dimension and shape changes as well as a reduction in depth to minimise the level of drawdown. This involves a comprehensive remodelling of groundwater dynamics and a thorough assessment of groundwater impacts.
- 14-15% reduction in project disturbance, preserving essential resources through strategic redesign.

## Issues Discussed

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### Biodiversity

The proponent advised that additional information and number of subsequent studies/surveys had been undertaken following Councils initial review and comments on the SSD. A copy of this additional information has not been provided to Council for review or comment, consequently the meeting discussion and comments provided below only consider this additional information in very high level detail. It is likely that following provision of this additional information, that Council may identify additional comments or concerns.

### Avoid and Minimise

It is acknowledged that the removal of the north pit will reduce impacts on threatened biodiversity including habitat for the Rusty Greenhood Orchid (*Pterostylis chaetophora*), Squirrel Glider (*Petaurus norfolcensis*), Brush-tailed Phascogale (*Phascogale tapoatafa*), Koala (*Phascolarctos cinereus*) and Subtropical Coastal Floodplain Forest EEC. However, impacts to River flat eucalypt forest EEC and Koala habitat associated with the entry road have not been avoided.

It is noted that surveys have recently been undertaken for *Corybas dowlingii* and Powerful Owl. If these species were recorded on site, impacts should be avoided and minimised accordingly and copies of these reports provided to Council.

Further blast analysis has been conducted to assess potential vibration impacts on cave roosting microbats within the Balickera tunnel. The blast plan has been revised to reduce charge mass and spacing to ensure that vibration levels are minimised. Details of the revised blast plan should be provided. It is expected that monitoring of vibration impacts is conducted during operation of the proposal and where vibration levels are projected to exceed thresholds, additional blast management measures must be established and monitored.

More detailed information is also sought regarding the microbat surveys within the tunnel. Surveys are required to adhere to NSW survey guidelines. Without access to this information, providing a comprehensive comment is challenging. Council is concerned that threatened microbats may be breeding in the tunnel.

Council is offering high-level comments until additional information becomes available. As additional survey efforts and information are undertaken, Council is pleased to review and provide comments before submitting a formal response to the Department.

### Ground Water

Revised groundwater modelling has been conducted and will be provided in the revised groundwater assessment and BDAR to demonstrate that impacts to groundwater dependent ecosystems are unlikely.



## Habitat Corridors

Disturbance impacts and increased pinch points along the Balickera Tunnel land bridge is considered detrimental to the movement of a wide range of fauna including threatened species such as koala and Squirrel Glider. It is requested that mitigation measures associated with connectivity be considered such as:

- Construction of a new section of land bridge over the Balickera Canal to facilitate fauna movement (particularly to the south-east of the tunnel portal).
- Glider bridges or poles.
- Implementation of signage and road markings for koala crossings to enhance driver awareness and mitigate impacts.

It is suggested that the applicant collaborate with other landowners, including Hunter Water and Council, to negotiate establishing connectivity structures where possible. Hunter Water has expressed openness to such initiatives.

With a substantial area serving as a habitat for various species, it is recommended that local offsets be secured to ensure local biodiversity is conserved and improved. It is acknowledged that it is the intention to secure the remainder of the site under a stewardship / conservation agreement.

## Cumulative Impact

As previously requested, the impacts of the project should be considered in relation to the other proposed developments within the area that would also remove large areas of habitat, and whether this quarry along with those other developments is likely to result in the decline of the western population of Koalas in Port Stephens. In addition to habitat loss, the assessment should assess the potential for the project to further impede gene flow from Koalas north of Italia Road to the Kings Hill population and the impact that this is likely to have into the future.

Council, is concerned that cumulatively these impacts to habitat connectivity for terrestrial fauna species could result in the collapse of the western population of Koalas in Port Stephens.

Any ecological assessment should thoroughly evaluate the broader impacts on the region's biodiversity, especially as other developments are currently under assessment. Considering the proposed footprints and cumulative effects on the region's biodiversity is imperative.

The local population of Koalas in Kings Hill are of particular concern. The primary connection for this Koala population is the land bridge over the Balickera Canal. Cumulative and direct impacts on this population could be substantial.

## Speed Reduction

During the meeting, the possibility of implementing a speed reduction on a section of Italia Road was discussed. Speed limits are regulated by Transport for NSW and can be finalised post-consent. This process is lengthy and may take some time to complete. We recommend collaborating with council to gather recommendations and facilitate the approval process



## DA Lodgement

The applicant is advised that any future development application must be lodged with supporting information in accordance with Schedule 1 of the *Environmental Planning and Assessment Regulations 2000*, inclusive of the following:

	DEVELOPMENT TYPE																								
		Dwelling House (1 storey)	Dwelling House (2+ storey)	Semi-Detached Dwelling	Secondary Dwelling	Dual Occupancy	Attached Dwellings	Multi-Dwelling Housing	Residential Flat Building	Alterations /Additions	Outbuildings (i.e. pergolas)	Pools	Commercial / Retail / Office	Change of Use	Industrial	Home Business / Home Industry	Community Facility	Tourism	Signage	Demolition	Earthworks	Temporary Event / Land Use	Subdivision		
SUPPORTING DOCUMENTATION PLANS	Elevation Plans	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Erosion Sedimentation Plan	B	B	B	B	B	B	B	B	B	B	B	B		B		B	B		B	✓			DCP	
	Floor Plans	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓							DCP
	Landscape Plan					✓	✓	✓	✓				✓		✓		✓	✓							DCP
	Notification Plan (A4)		✓	✓	✓	✓	✓	✓	✓	2*			✓	✓	✓	✓	✓	✓					✓		DCP
	Sections	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				✓			
	Signage Plan																		✓						
	Site Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Site Analysis Plan*	B	B	✓	✓	✓	✓	✓	✓	B	B		✓		✓		✓	✓							✓
	Stormwater Drainage Plan	B	B	✓	✓	✓	✓	✓	✓	B		B	✓		✓		✓	✓							✓
	Survey Plan/Reference Levels	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				✓			✓
	BASIX Certificate	✓	✓	✓	✓	✓	✓	✓	✓	C		C													
	Subdivision Plan																								✓
	REPORTS	Demolition Plan																			✓				
Statement of Environmental Waste Management Plan		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

- ✓ Mandatory. Application will not be accepted without this documentation.
- \* Can be incorporated on site plan
- 2\*\* For 2+ Storey Structure
- C BASIX certificate is also required for residential alteration/additions with a value greater than \$50,000 and pools with more than 40,000 litres.
- B Beneficial. It will facilitate and speed up the assessment process. May be requested during assessment if not provided at lodgement
- DCP The DCP contains specific lodgement requirements for these documents and development types. Please refer to the relevant section of the DCP.

**NOTE:** The completeness and quality of the application can impact upon the assessment time. Further, any incomplete or insufficient applications may not be accepted. Council required development applications to be lodged in digital format to facilitate a more efficient electronic assessment process while minimising paper and the impact on the environment. For electronic lodgement, please visit the Port Stephens Council Website and follow the guidelines described. If you choose to lodge the application in paper form, you must provide only one paper copy of all the supporting documentation. A scanning fee will apply for applications lodged in paper form.