



Premise

BORAL RESOURCES (COUNTRY) PTY LTD

Statement of Environmental Effects

IN SUPPORT OF A MODIFICATION APPLICATION



Report No: 221296_SEE_002

Rev: B

5 June 2023

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DOCUMENT AUTHORISATION				
Revision	Revision Date	Report Details		
A	24/03/23	Draft		
B	05/06/23	Final		
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1. INTRODUCTION

1.1 The Quarry

Boral Resources (Country) Pty Limited (Boral) operates Currabubula Quarry (the quarry), a hard rock quarry located at 3716 Werris Creek Road, approximately 28 kilometres (km) south west of Tamworth and 4 km south east of Currabubula, within the Liverpool Plains Shire Local Government Area (LGA) (**Figure 1**).

Development consent applies to the following land parcels, all of which are owned by Boral:

- Lots 1 – 12 on DP1114811;
- Lots 5-11 and 17-19 on DP114714; and
- Lots 70, 92, 97-98, 211 and 236 on DP751011.

The above land parcels (development site) cover a total area of approximately 556 ha.

The quarry operates under Environment Protection Licence 5846 (EPL 5846).

The development site is depicted in Figure 2.

1.2 The Proposal

Boral is seeking to modify the existing development consent (DA10.2017.51.3, approved 28/9/22) to construct a 3 megalitre (ML) holding water pond downstream of the existing sediment basin, including access and ancillary infrastructure necessary for water management and monitoring.

The holding water pond is proposed to address management issues identified with the existing sediment basin and improve site water management, as detailed in **Section 2.2**.

The proposed location of the holding pond is shown in **Figure 3**.

Figure 1 – Regional context

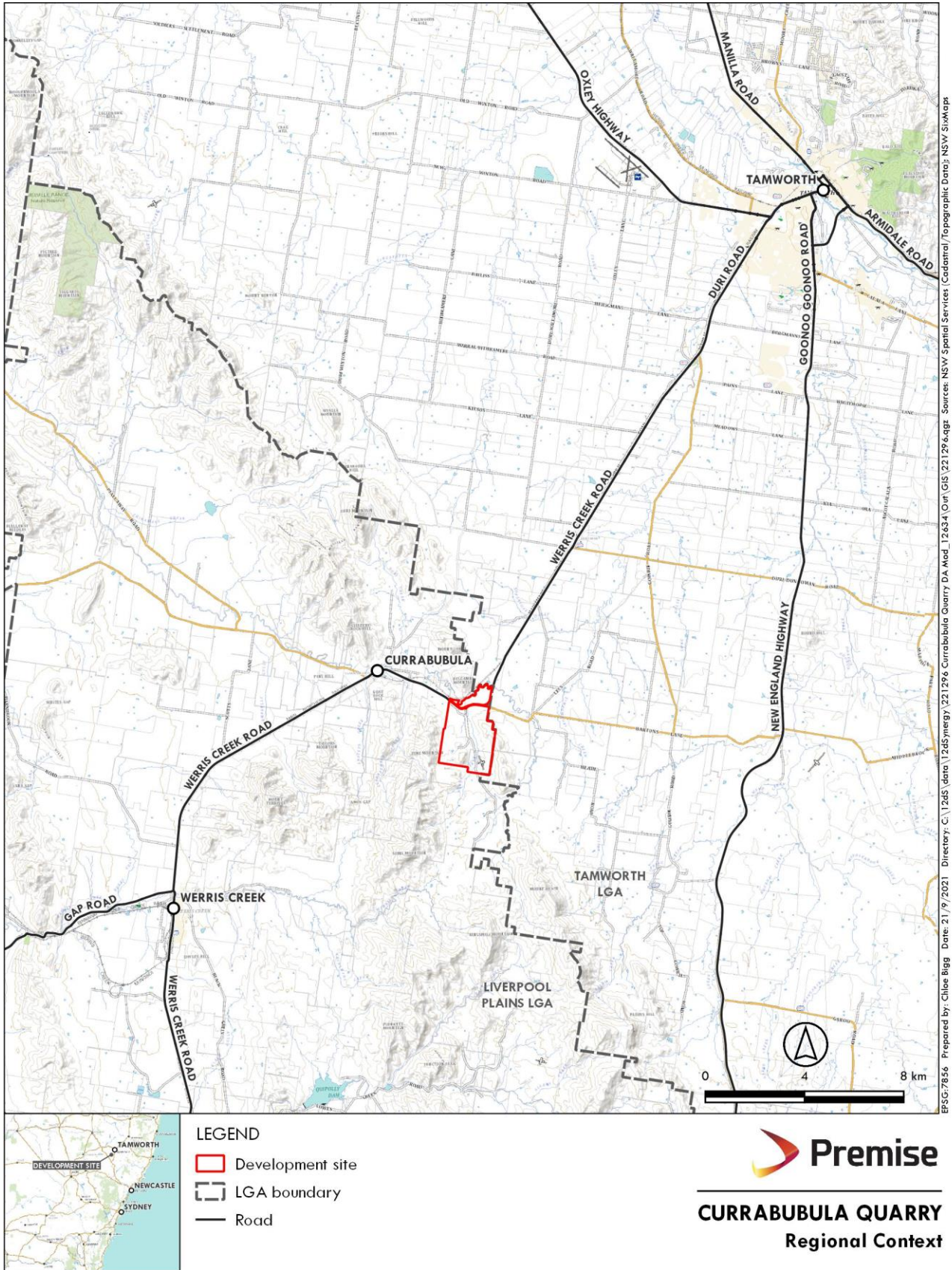
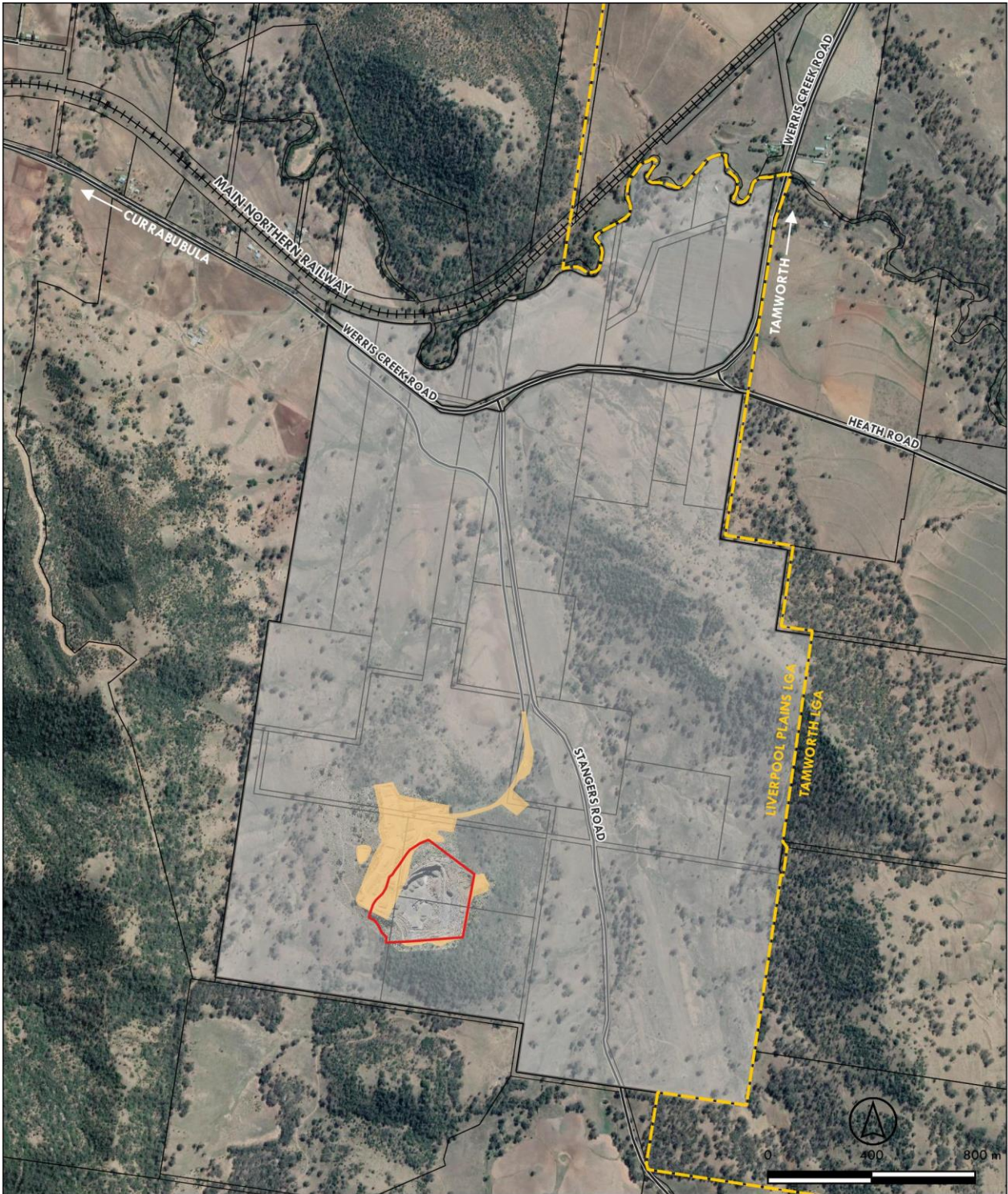


Figure 2 – Development site



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- | | | |
|--|---|--|
|  Development site |  Railway |  Existing area of operations |
|  LGA boundary |  Road |  Approved quarry pit area
(DA 20/2006) from ERM (2006) SEE |
|  Cadastre | |  Ancillary works |

Figure 3 – Proposed Works



EPSC:7856 Prepared by: adam.davis Date: 1/11/2022 File: 221296.dwg Sources: Premise Drone Survey (2021); Premise Concept Design 221296_018 (2022)

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-  Proposed Holding Pond Concept Design
-  Holding Pond Development Footprint (0.5 ha)
Inclusive of minimum 5m construction buffer and 5m wide access road to embankment

1.3 Background

The approvals history is outlined in **Table 1**. The original consent, DA95/114, was granted in 1996 and has been modified four (4) times during which time the application reference has changed. The modified development consent is currently known as DA10.2017.51.3.

The general layout of the site, taking into consideration the chronology of modifications is provided in **Figure 2**, including the extent of the approved pit (expanded under DA20/2006) and all areas of disturbance that support ancillary works associated with the primary consent (DA95/114) and minor changes in layout and use in subsequent modifications.

The operations area of the quarry covers a total of 22 ha of the broader site, which is approximately 556 ha.

Table 1 – Approval history

Consent	Granted	Consent authority	Approved development
DA 95/114	25/1/1996	Parry Shire Council	Approved the establishment and operation of a hard rock (andesite) quarry for the extraction of 200,000 tpa with a quarry life of 45 years.
DA 20/2006	2/6/2006	Liverpool Plains Shire Council	Modification of DA95/114, to expand the approved quarry pit. <u>Note:</u> DA 20/2006 stated that all of the conditions of DA 95/114 remained applicable to DA 20/2006, including an extraction limit of 200,000 tpa.
DA 51/2017	26/2/2018	Liverpool Plains Shire Council	Modification to development consent, DA20/2006, to increase extraction and processing rate to 300,000 tpa of andesite and permit the establishment of an ancillary use involved in the receipt/processing of up to 5,000 tpa of recycled concrete and asphalt pavement from concrete plants and road works within the region. The modification application did not include any changes in the extent of the approved pit or areas of ancillary operations. The establishment of the recycling operation was within the existing footprint of the processing yard west of the pit. <u>Note:</u> DA51/2017 superseded the previous consents DA 95/114 and DA 20/2006, as stated in the notice of determination.
DA 51/2017_02	7/12/2020	Liverpool Plains Shire Council	Modification to DA51/2017 to permit a short-term production increase to 330,000 tpa for the 2020 calendar year to address a shortfall in supply to meet market demand. <u>Note:</u> DA51/2017_2 superseded the previous consents DA 95/114 and DA 20/2006, as stated in the notice of determination.
DA10.2017.51.3	28/9/2022	Liverpool Plains Shire Council	Modification to DA 51/2017_02 to permit a permanent production increase to 400,000 tpa, operation of a mobile pug mill and increasing the existing sediment basin capacity from 3.2 to 5.2 ML.
Ancillary development			
DA-14/2018	26/02/2018	Liverpool Plains Shire Council	Approval for the importation and blending of up to 5000 tpa of recycled concrete and asphalt (i.e. resource recovery activity).

1.4 Purpose

This statement of environmental effects (SEE) has been prepared by Premise to accompany an application to modify development consent DA10.2017.51.3. The proposed modification is sought under Section 4.55(2) of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The consent authority for the application is Liverpool Plains Shire Council.

1.5 Applicant

Applicant: Boral Resources (Country) Pty Limited

Address: 39 Delhi Road, North Ryde NSW

Boral Resources (Country) Pty Limited (Boral) is the applicant for this proposal. Boral is the largest integrated construction materials company in Australia, with a leading position underpinned by strategically located quarry reserves and a network of 379 operating sites. Boral manufacture and supply a focused range of building products, serving customers nationally in the infrastructure, commercial and residential construction markets.

In NSW, Boral operates over 110 quarries, sand pits, gravel operations, asphalt and concrete plants producing products such as concrete aggregates, crushed rock, asphalt and sealing aggregates, road base materials, sand and gravels for the Australian construction materials industry.

1.6 Consultation

1.6.1 STATUTORY AUTHORITIES

Premise issued consultation letters to the NSW Environment Protection Authority (EPA) and NSW Natural Resources Access Regulator (NRAR) on 17 October 2022.

No response was received from the NRAR by the 5 June 2023.

Responses received from statutory authorities are outlined in **Table 2** below, including where relevant requirements are addressed in this SEE.

It should be noted that the proposed modification is considered to be substantially the same development (refer **Section 3.2.1.2**) and that the broader operation of the quarry is already addressed under the approved Environmental Impact Statement (EIS) and compliance with an Environment Protection Licence.

Table 2 – Consultation summary

Date/ Regulator	Response summary	Comment
03/11/2022 NSW EPA	<p>A copy of the EPA response is provided in Appendix D.</p> <p><i>In summary the EPA's key information requirements for the proposal include an adequate assessment of</i></p> <ol style="list-style-type: none"> <i>Water and Soils – Water balance, water management systems and the implementation of adequate erosion and sediment controls to control runoff from the quarry.</i> <p>Attachment A of the EPA response details a range of environmental assessment requirements generally associated with quarry operations. These requirements are detailed in rows below.</p>	<p>Potential impacts to water and soils are address in Section 4.2, 4.3 and 4.4 of this SEE.</p> <p>Note: The majority of environmental assessment requirements provided in Attachment A of the EPA response relate to the broader operation of the quarry and are already addressed under the approved Environmental Impact Statement (EIS) and Environment Protection Licence (EPL).</p> <p>References to sections of this SEE are therefore only included for</p>

Date/ Regulator	Response summary	Comment
		<p>environmental assessment requirements considered relevant to the proposed dam modification.</p> <p>Appropriate references to requirements already addressed within the EIS and EPL are referenced where required.</p>
EPA Response - Attachment A		
1. Environmental impacts of the project		
	<p>1.1 <i>The EIS must address the requirements of Section 45 of the Protection of the Environment Operations Act 1997 (POEO Act) by determining the extent of each impact and providing sufficient information to enable the EPA to determine appropriate conditions, limits and monitoring requirements for an Environment Protection Licence (EPL).</i></p>	<p>The general operation of Currabubula quarry is managed in accordance with approval conditions under DA10.2017.51.3.</p> <p>The modification is considered to result in substantially the same development (refer to Section 3.2.1.2)</p>
	<p>1.2 <i>Impacts related to the following environmental issues need to be assessed, quantified and reported on:</i></p> <ul style="list-style-type: none"> • <i>Air Issues, including odour: air quality including dust and odour generation from the operation on the surrounding landscape and/or community;</i> • <i>Noise and vibration impacts associated with blasting, and operational noise particularly machinery and plant movements;</i> • <i>Waste including hazardous materials and radiation. Consideration needs to be given to disposal options for general waste, sanitary waste as well as hazardous materials and radiation, where relevant.</i> • <i>Water and Soils including site water balance and sediment and erosion controls during construction and operation phases.</i> <p><i>The Environmental Impact Statement (EIS) should address the specific requirements outlined under each heading below and assess impacts in accordance with the relevant guidelines mentioned.</i></p>	<p>The general operation of Currabubula quarry is managed in accordance with approval conditions under DA10.2017.51.3.</p> <ul style="list-style-type: none"> • This SEE assesses the proposed modification in relation to the following matters: • Air quality (Section 4.7.3) • Noise and Vibration (Section 4.7.4) • Waste (Section 4.8.1) • Surface Water (Section 4.2) • Groundwater (Section 4.3) • Soils and Geology (Section 4.4)
2. Licensing requirements		
	<p>2.1 <i>The development is a scheduled activity under the Protection of the Environment Operations Act 1997 (POEO Act) and will therefore require an Environment Protection Licence (EPL) if approval is granted.</i></p>	<p>The quarry is defined as a scheduled premise and has an EPL (EPL 5846) administered by the EPA (refer to Section 3.2.3).</p>
	<p>2.2 <i>Should project approval be granted, the proponent will need to make an application to the EPA for its EPL for the proposed facility prior to undertaking any on site works. Additional information is available through the EPA Guide to Licensing document (www.epa.nsw.gov.au/licensing/licenceguide.htm).</i></p>	<p>As above</p>
SPECIFIC ISSUES		
3. Air issues		

Date/ Regulator	Response summary	Comment
	<p>3.1 The EIS must demonstrate the proposal's ability to comply with the relevant regulatory framework, specifically the Protection of the Environment Operations (POEO) Act (1997) and the POEO (Clean Air) Regulation (2002). Particular consideration should be given to section 129 of the POEO Act concerning control of "offensive odour".</p>	<p>As outlined in Section 3.2.7.2.2, The operation of the quarry has been subjected to quantitative noise and air quality assessments that demonstrated that, with environmental safeguards in place, the quarry's operation would not result in significant noise or air quality impacts</p> <p>The proposed modification is considered unlikely to result in significant adverse air quality impacts due to potential impacts being minor, localised and manageable by ongoing implementation of existing quarry operation management measures.</p>
	<p>3.2 The EIS must include an air quality impact assessment (AQIA). The AQIA must be carried out in accordance with the document, Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (2016), available at: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/air/approved-methods-for-modelling-and-assessment-of-air-pollutants-in-nsw-160666.pdf</p>	<p>As above.</p>
	<p>3.3 The EIS must detail emission control techniques/practices that will be employed at the site and identify how the proposed control techniques/practices will meet the requirements of the POEO Act, POEO (Clean Air) Regulation and associated air quality limits or guideline criteria.</p>	<p>As above.</p> <p>Potential Air quality impacts and mitigation, associated with the modification, are addressed in Section 4.7.3.</p>
	<p>4. Noise and Vibration</p>	
	<p>The EIS must assess the following noise and vibration aspects of the proposed development</p>	<p>Refer to below</p>
	<p>4.1 Construction noise associated with the proposed development should be assessed using the Interim Construction Noise Guideline (DECC, 2009). These are available at: https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/interim-constructionnoise-guideline</p>	<p>As outlined in Section 3.2.7.2.2, The operation of the quarry has been subjected to quantitative noise and air quality assessments that demonstrated that, with environmental safeguards in place, the quarry's operation would not result in significant noise or air quality impacts.</p> <p>Potential Air quality impacts and mitigation, associated with the modification, are addressed in Section 4.7.3.</p>
	<p>4.2 Vibration from all activities (including construction and operation) to be undertaken on the premises should be assessed using the guidelines contained in the Assessing Vibration: a technical guideline (DEC, 2006). These are available at: https://www.epa.nsw.gov.au/yourenvironment/noise/industrial-noise/assessing-vibration</p>	<p>As above.</p>

Date/ Regulator	Response summary	Comment
	<p>4.3 <i>If blasting is required for any reasons during the construction or operational stage of the proposed development, blast impacts should be demonstrated to be capable of complying with the guidelines contained in Australian and New Zealand Environment Council – Technical basis for guidelines to minimise annoyance due to blasting overpressure and ground vibration (ANZEC, 1990). These are available at: https://www.epa.nsw.gov.au/yourenvironment/noise/in-dustrial-noise/interim-construction-noise-guideline</i></p>	<p>As above. Note: No blasting activity is proposed as part of the modification.</p>
	<p>4.4 <i>Operational noise from all industrial activities (including private haul roads and private railway lines) to be undertaken on the premises should be assessed using the guidelines contained in the NSW Noise Policy for Industry (EPA, 2017). https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-forindustry-(2017)</i></p>	<p>As outlined in Section 4.7.2 no off-site traffic impacts would occur as part of the proposed modification.</p>
	<p>4.5 <i>Noise on public roads from increased road traffic generated by land use developments should be assessed using the guidelines contained in the NSW Road Noise Policy and associated application notes (EPA, 2011). https://www.epa.nsw.gov.au/yourenvironment/noise/tr-ansport-noise</i></p>	<p>As above.</p>
<p>5. Waste, chemicals and hazardous materials and radiation</p>		
	<p>5.1 <i>The EIS must assess all aspects of waste generation, management and disposal associated with the proposed development.</i></p>	<p>Waste impacts associated with the quarry's operation are provided in the EIS and managed in accordance with DA10.2017.51.3. Potential waste impacts and mitigation, associated with the modification, are addressed in Section 4.8.1.</p>
	<p>5.2 <i>The EIS must demonstrate compliance with all regulatory requirements outlined in the POEO Act and associated waste regulations.</i></p>	<p>As above.</p>
	<p>5.3 <i>The EIS must identify, characterise and classify the following in accordance with the EPA's Waste Classification Guidelines (2014) and associated addendums:</i></p> <ul style="list-style-type: none"> (i) <i>all waste that will be generated onsite through excavation, demolition or construction activities, including proposed quantities of the waste;</i> (ii) <i>all waste that is proposed to be disposed of to an offsite location, including proposed quantities of the waste and the disposal locations for the waste. This includes waste that is intended for re-use or recycling. Note: The EPA's Waste Classification Guidelines (2014) and associated addendums are available at:</i> 	<p>As above.</p>

Date/ Regulator	Response summary	Comment
	<p>https://www.epa.nsw.gov.au/your-environment/waste/classifying-waste</p>	
	<p>5.4 <i>The EIS must outline contingency plans for any event that may result in environmental harm, such as excessive stockpiling of material, or dirty water volumes exceeding the storage capacity available on-site.</i></p>	<p>As above.</p> <p>A PIRMP, Water Management Plan and Waste Management Plan for the quarry provide contingency measures for controlling pollution incidents that may result in environmental harm including measures to control: the excessive stockpiling of waste and exceedance of dirty water storage volumes.</p> <p>An assessment of potential impacts associated with the proposed modification relating to:</p> <ul style="list-style-type: none"> • Waste is provided in Section 4.8.1 • Surface Water Management is provided in Section 4.2.
	<p>5.5 <i>The EIS must demonstrate that appropriate spill containment will be provided for storage, filling and loading of all fuels and other chemicals to be used on site, in accordance with the relevant Australian Standard.</i></p>	<p>Storage, filling and loading of fuels and chemicals associated with the general operation of the quarry are managed in accordance with DA19.2017.51.3 and the development's EIS.</p> <p>As outlined in Section 4.3.3 and 4.4.3, a suitable spill response and containment kit for the proposed modification will be provided at the construction site for the full duration of the construction period.</p>
	<p>6. Water</p>	
	<p>6.1 <i>The EIS must demonstrate how the proposed development will meet the requirements of section 120 of the POEO Act.</i></p>	<p>An updated water balance for the proposed modification is provided in Appendix C.</p>
	<p>6.2 <i>The EIS must include a water balance for the development including water requirements (quantity, quality and source(s)) and proposed storm and wastewater disposal, including type, volumes, proposed treatment and management methods and re-use options.</i></p>	<p>As above.</p> <p>Potential Surface water impacts and mitigation, associated with the modification, are addressed in Section 4.2.</p>
	<p>6.3 <i>If the proposed development intends to discharge waters to the environment, the EIS must demonstrate how the discharge(s) will be managed in terms of water quantity, quality and frequency of discharge and include an impact assessment of the discharge on the receiving environment. This should include:</i></p> <ul style="list-style-type: none"> • <i>Description of the proposal including position of any intakes and discharges, volumes, water quality and frequency of all water discharges</i> • <i>Description of the receiving waters including upstream and downstream water quality as well as any other water users. · Demonstration that all practical options to avoid discharge have been</i> 	<p>As detailed in Section 4.2, the proposed modification seeks to increase the capacity for stormwater storage, decreasing spill frequency and therefore enhancing compliance with EPA requirements.</p> <p>The proposed location of the modification is detailed in Figure 3.</p> <p>A summary of the updated water balance and an assessment of stream water quality is provided in Section 4.2.2.3</p>

Date/ Regulator	Response summary	Comment
	<i>implemented and environmental impact minimised where discharge is necessary.</i>	
	6.4 <i>The EIS must refer to Water Quality Objectives for the receiving waters and indicators and associated trigger values or criteria for the identified environmental values of the receiving environment. This information should be sourced from the ANZECC (2018) Guidelines for Fresh and Marine Water Quality, available at: https://www.waterquality.gov.au/anzguidelines</i>	As above. The modification is proposed to enhance compliance with EPA requirements determined in consideration of water quality objectives.
	6.5 <i>The EIS must describe how stormwater will be managed in all phases of the project, including details of how stormwater and runoff will be managed to minimise pollution. Information should include measures to be implemented to minimise erosion, leachate and sediment mobilisation at the site. The EIS should consider the guidelines Managing urban stormwater: soils and construction, vol. 1 (Landcom 2004) and vol. 2 (A. Installation of services; C. Unsealed roads; D. Main Roads; E. Mines and quarries) (DECC, 2008).</i>	As above. As outlined in Section 4.2.3 , an Erosion and Sediment Control Plan and Soil and Water Management Plan shall be implemented as appropriate to minimise erosion, leachate and sediment mobilisation.
	6.6 <i>The EIS must describe any water quality monitoring programs to be carried out at the project site. Water quality monitoring should be undertaken in accordance with the Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (2004) which is available at: https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/water/approvedmethodswater.pdf</i>	Water quality monitoring programs are operated in compliance with the EIS DA DA19.2017.51.3 and EPL 5846. No change to EPL 5846 is proposed. As outlined in Section 4.2 , the proposed holding pond is to be managed in an identical manner to the exiting sediment basin with monitoring of discharge quantity and quality.

1.6.2 COMMUNITY

No community consultation was undertaken given the small scale of the modification and absence of any significant adverse off-site impacts or interactions.

2. PROPOSED MODIFICATION

2.1 Purpose

The holding pond is proposed to address surface water management issues identified in an internal review of surface water management completed by Premise for Currabubula Quarry. The review included:

- A review of sediment basin sizing including the contributing catchment and runoff coefficient;
- Development of a site specific water balance model; and
- Identification and examination of options to address current surface water management issues.

The review recommended a holding pond downstream of the existing sediment basin to address the following issues:

- Difficulty in restoring basin air space within 5 days of rainfall. This is difficult after significant rain events as water continually seeps into the existing sediment basin from the surrounding stockpile areas;
- Some exceedances of the EPL 5846 discharge limit for total suspended solids (50 mg/L); and
- Water shortages due to limited basin volume and needing to restore capacity in the sediment basin within 5 days of rainfall.

The proposed 3 ML holding pond would complement the existing sediment basin and improve site water management. It would:

- Increase the volume of surface water reused in the quarry operations;
- Reduce the demand on groundwater from the existing groundwater bore; and
- Reduce the number of controlled and uncontrolled discharge events.

2.2 Proposal

The proposal would involve the following:

- Construction of a 3 ML holding pond downstream of the existing sediment basin. The holding pond would have a footprint of approximately 0.5 ha, inclusive of a 5 m buffer for construction activities and 5 m access road to the holding pond embankment. Subject to the results of geotechnical testing, it is envisaged that the holding pond embankment would be constructed using on site material excavated from the upstream side of the proposed earthen embankment. On site material may be supplemented with material from the quarry. The holding pond would include a suitable clay liner to help manage water loss.
- Operation of the proposed 3 ML holding pond in conjunction with the existing 5.2 ML sediment basin to improve site water management as follows:
 - Water would be discharged from the sediment basin to the holding pond to restore at least 3 ML of capacity within 5 days of rainfall – this would restore the design capacity of the sediment basin;
 - Water would continue to be reused from the remaining stored water in the sediment basin to meet site operational water demand;
 - Water would also be used from the holding pond to meet site demand. This would be achieved using either a small pump to transfer water back to the sediment basin or using a second suction line on the existing pump; and
 - Making controlled releases from the holding pond if the water quality meets the 100 percentile concentration limits specified in EPL 5846.

The proposal does not seek to change any other aspect of quarry operations.

The water balance and an assessment of potential impacts is provided in **Section 4.2** of this SEE.

2.3 Changes to Consent Conditions

Boral proposes to modify the DA10.2017.51.3 as outlined below.

Table 3 – Proposed changes to consent conditions

No.	DA10.2017.51.3 Condition	Proposed Change
1	<p><i>The development is to be carried out generally in accordance with:</i></p> <ul style="list-style-type: none"> • <i>Environmental Impact Statement (EIS) dated 12th September 1995 prepared by Valerie Smith & Associates;</i> • <i>Currabubula Quarry: Section 96 Modification Extension of Quarrying dated February 2006, prepared by Environmental Resources Management (ERM); and</i> • <i>Statement of Environmental Effects (SEE) dated 20 September 2017 prepared by EMM (as modified by supplementary information provided:</i> <ul style="list-style-type: none"> - <i>Brief to Liverpool Plains Shire Council - Currabubula Quarry Modification, dated 24 August 2017 prepared by Boral;</i> - <i>Noise Matters email dated 11 December 2017, prepared by Brett McLennan (EMM Consulting);</i> - <i>Response to Council comments, dated 12 December 2017, prepared by Rod Wallace (Boral).</i> - <i>Except as superseded by the Statement of Environmental Effects 'Currabubula Quarry – Short Term Production Increase', Prepared by F Gainsford, Dated 9 November 2020.</i> - <i>Statement of Environmental Effects (SEE) dated November 2021 prepared by Premise</i> - <i>Response to Council comments, dated 11 April 2022, prepared by Rachel Snape (Boral).</i> <p><i>If there is any inconsistency between the Conditions of Consent and the documents listed above, the Conditions of Consent shall prevail to the extent of the inconsistency</i></p>	<p><i>The development is to be carried out generally in accordance with:</i></p> <ul style="list-style-type: none"> • <i>Environmental Impact Statement (EIS) dated 12th September 1995 prepared by Valerie Smith & Associates;</i> • <i>Currabubula Quarry: Section 96 Modification Extension of Quarrying dated February 2006, prepared by Environmental Resources Management (ERM); and</i> • <i>Statement of Environmental Effects (SEE) dated 20 September 2017 prepared by EMM (as modified by supplementary information provided:</i> <ul style="list-style-type: none"> - <i>Brief to Liverpool Plains Shire Council - Currabubula Quarry Modification, dated 24 August 2017 prepared by Boral;</i> - <i>Noise Matters email dated 11 December 2017, prepared by Brett McLennan (EMM Consulting);</i> - <i>Response to Council comments, dated 12 December 2017, prepared by Rod Wallace (Boral).</i> - <i>Except as superseded by the Statement of Environmental Effects 'Currabubula Quarry – Short Term Production Increase', Prepared by F Gainsford, Dated 9 November 2020.</i> - <i>Statement of Environmental Effects (SEE) dated November 2021 prepared by Premise</i> - <i>Response to Council comments, dated 11 April 2022, prepared by Rachel Snape (Boral).</i> - <i>Statement of Environmental Effects (SEE) dated March 2023 prepared by Premise.</i> <p><i>If there is any inconsistency between the Conditions of Consent and the documents listed above, the Conditions of Consent shall prevail to the extent of the inconsistency</i></p>
15	<p><i>An extended archaeological survey by a qualified archaeologist, of the proposed earthworks on the site (ie areas proposed to be disturbed by water storage dams and sediment basins) shall be undertaken in consultation with the Tamworth Local Aboriginal Land Commission (TLALC) prior to commencement of works. If aboriginal relics such as stone artefacts or bone are exposed at anytime during the survey or quarry works, then work in and adjacent to the material must cease and the Tamworth Local Aboriginal Land Commission and the Upper Hunter</i></p>	<p><i>The proposed impact area has been assessed by a qualified archaeologist and in consultation with Tamworth and Nungaroo Local Aboriginal Land Councils (LALCs) prior to commencement of works.</i></p> <p><i>An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW.</i></p> <p><i>If Aboriginal relics are exposed. Works must cease immediately and Heritage NSW, Nungaroo LALC and</i></p>

No.	DA10.2017.51.3 Condition	Proposed Change
	<i>District office of the New South Wales National Parks and Wildlife Service must be informed. Works shall not recommence until the approval of these two (2) bodies has been obtained.</i>	<i>Tamworth LALC notified. If human remains are exposed the Police must also be notified. Works shall not recommence until <u>advised by Heritage NSW</u>.</i>

3. STATUTORY PLANNING FRAMEWORK

This section provides an overview of the statutory framework relevant to the proposal including Commonwealth and State legislation, and State, regional and local plans and policies.

3.1 Commonwealth legislation

3.1.1 ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), actions that may have a significant impact on a matter of national environmental significance (MNES) are 'controlled actions' and require referral and approval under the EPBC Act.

A search using the Protected Matters Search Tool (PMST) was completed on 28 September 2022. Five threatened fauna species (Regent Honeyeater, Grey Falcon, Swift Parrot, Large-eared Pied Bat and Koala) classified as MNES were identified as likely to utilise the Development Footprint for foraging. Based on the Five Part Test addressed in the BAR, the Project is not anticipated to have a significant impact on any of these species. Therefore, no referrals to the Commonwealth government are required.

The proposed modification is not considered likely to have any significant impacts on any MNES and, accordingly, a referral under the EPBC Act has not been made.

3.2 State legislation

3.2.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

3.2.1.1 General

The EP&A Act defines the statutory framework for planning approvals and environmental assessments in NSW.

A development consent issued under the EP&A Act may be modified under Section 4.55 of the Act, provided that the development subject to the proposed modification is substantially the same development as the development for which consent was originally granted. There are three types of modifications under Section 4.55 of the EP&A Act:

- Section 4.55(1) modifications involving minor errors, misdescriptions or miscalculations;
- Section 4.55(1A) modifications involving minimal environmental impact; and
- Section 4.55(2) other modifications.

The proposed modification is considered likely to be 'substantially the same development as the development for which consent was originally granted'. Therefore, the application would be assessed under Section 4.55(2)(a) of the EP&A Act. Consideration of Section 4.55(2) is provided in the following sections.

3.2.1.2 Substantially the same development

The Land and Environment Court has repeatedly described the modification process as being both beneficial and facultative and is designed to assist with the modification process rather than act as an impediment to it, *"It is to be construed and applied in a way that is favourable to those who seek to benefit from the provision"* (North Sydney Council v Michael Standley & Associates Pty Limited (1998)).

Two legal tests apply to a modification, these being alteration without radical transformation and that the development is substantially the same development; these are discussed as follows.

3.2.1.2.1 Alteration without radical transformation

This is a broad threshold that requires careful consideration. Unpacking these terms, it is sensible to consider their ordinary definitions.

The Macquarie Australian Dictionary defines radical as:

1. going to the root or origin; fundamental: a radical change.
2. thorough going or extreme, especially towards reform.

The Macquarie Australian Dictionary defines transformation as:

1. the act of transforming.
2. the state of being transformed.
3. change in form, appearance, nature, or character.

It is sensible to consider firstly whether the proposed modification represents a transformation; if it is concluded that no transformation has taken place, then the degree (or radicalness) is moot. Taking consideration of the above definition, specifically point 3, it is considered that the development does not represent a transformation on the following basis:

- Form – overall form of the development is generally consistent with the approved form;
- Appearance – no significant change to the appearance of the site is proposed;
- Nature – no significant change to the nature of the quarry operation is proposed; and
- Character – no change to the character of the quarry operation is proposed.

On the above basis it is not considered a transformation. Should the alternate view be taken, the question then becomes whether that transformation is considered radical. It is evident from the definition of radical that the change must be one of extremes and must result in an alteration at a fundamental level.

Section 2 sets out the description of the proposed modification. It is evident from that description that the modification is not radical. The proposed use:

- would not significantly alter the approved disturbance area;
- would not lead to any change in operational hours;
- would not result in a significant impact to the environment with respect to traffic, noise, air quality, hydrology, soil, biodiversity and heritage, refer **Section 4**;
- is unlikely, through the effective implementation of proposed mitigation measures, to result in any significant increase in environmental impacts.

On the basis of the above it is considered that the development does not involve radical transformation and therefore satisfies the first test for a modification.

Once the consent authority is satisfied that the development is alteration and not radical transformation, they may then turn to the second issue, namely, confirmation that the development remains substantially the same.

3.2.1.2.2 Substantially the same

To determine whether a proposed modification remains substantially the same as the approved development, there are a number of matters that require consideration, including:

- the numerical differences in all key aspects of the development;
- non-numerical factors (e.g. in visual impact, traffic impacts or changed land uses); and
- any changes relating to a material and essential feature of the approved development.

To demonstrate the proposed modification is substantially the same development as the approved development, the key operational features and environmental impacts are compared in **Table 4** overleaf.

As demonstrated in **Table 4**, the proposed modification would not result in any significant change to the level of environmental impacts associated with the quarry, and is therefore considered to be 'substantially the same development'.

Table 4 – Comparison of approved and proposed development

Aspect	Approved Development DA 95/114 & DA 20/2006	Approved Development DA 51/2017_2	Approved Development DA10.2017.51.3	Proposed development
Operations				
Production rate	200,000 tpa	300,000 tpa	400,000 tpa	No change proposed
Employment	Four (4) employees plus contractors	Five (5) employees plus contractors	Five (5) employees plus contractors	No change proposed
Hours of operation	7 am and 6 pm Monday to Friday and 7 am to 2 pm on Saturday	7am to 6pm Monday to Friday 7am to 2pm on Saturday	7am to 6pm Monday to Friday 7am to 2pm on Saturday	No change proposed
Blasting	Average frequency of 1 blast per fortnight	Four (4) blasts per year	Average of six (6) blasts per year Maximum of eight (8) blasts per year	No change proposed
Blasting hours	9am to 3pm Monday to Friday	<ul style="list-style-type: none"> 9am to 3pm Monday to Friday 9am to 2pm on Saturday No blasting on Sundays or Public Holidays without prior approval of the EPA. 	<ul style="list-style-type: none"> 9am to 3pm Monday to Friday 9am to 2pm on Saturday No blasting on Sundays or Public Holidays without prior approval of the EPA. 	No change proposed
Truck movements	The EIS described 36 trucks per day (72 movements per day), with a maximum of 40 loads per day (80 movements per day) at peak productivity.	Average daily truck dispatches: <ul style="list-style-type: none"> 40 truckloads per day 80 movements per day Average hourly truck dispatches: <ul style="list-style-type: none"> 4 truckloads per hour 8 movements per hour 	Average daily truck dispatches: <ul style="list-style-type: none"> 50 truckloads per day 100 movements per day Average peak hourly truck dispatches: <ul style="list-style-type: none"> 6 truckloads per hour 12 movements per hour Maximum daily truck dispatches: <ul style="list-style-type: none"> 120 truckloads per day 	No change proposed

Aspect	Approved Development DA 95/114 & DA 20/2006	Approved Development DA 51/2017_2	Approved Development DA10.2017.51.3	Proposed development
		Maximum daily truck dispatches: <ul style="list-style-type: none"> • 75 truckloads per day • 150 movements per day Maximum peak hourly truck dispatches: <ul style="list-style-type: none"> • 8 loads per hour • 16 movements per hour 	<ul style="list-style-type: none"> • 240 movements per day Maximum peak hourly truck dispatches: <ul style="list-style-type: none"> • 15 truckloads per hour • 30 traffic movements per hour Stabilment for pugmill requires 72 loads one-way (incoming) per annum. Note: All out-going stabilised product forms the total quarry production and is accounted for in average/maximum truck dispatches stated above.	
In pit processing equipment	Primary and tertiary crushing and screening facilities in the quarry pit.	Primary and tertiary crushing and screening facilities in the quarry pit.	Primary and tertiary crushing and screening facilities in the quarry pit. New mobile pug mill proposed in the pit with annual production of 50,000 tpa. The pug mill output forms part of the total 400,000 tpa production proposed via this modification.	No change proposed
Pre-Coat Plant	<ul style="list-style-type: none"> • Conveyor and boot bin • Diesel generator motor • 20,000 t annual throughput • Maximum 20 hours/week 	<ul style="list-style-type: none"> • Conveyor and boot bin • Diesel generator motor • 20,000 t annual throughput • Maximum 20 hours/week 	<ul style="list-style-type: none"> • Conveyor and boot bin • Diesel generator motor • 20,000 t annual throughput • Maximum 20 hours/week 	No change proposed

Aspect	Approved Development DA 95/114 & DA 20/2006	Approved Development DA 51/2017_2	Approved Development DA10.2017.51.3	Proposed development
Resource Recovery	N/A	Resource recovery for up to 5,000 tpa of dry concrete and asphalt waste.	Resource recovery for up to 5,000 tpa of dry concrete and asphalt waste. Resource recovery output will continue to be in addition to the total annual production from the quarry.	No change proposed
Environmental				
Traffic	The EIS described 36 trucks per day (72 movements per day), with a maximum of 40 loads per day (80 movements per day) at peak productivity.	Existing approved production at 300,000 tpa: <ul style="list-style-type: none"> • Average 80 trips/day • Maximum 150 trips/day 	Proposed production at 400,000 tpa: <ul style="list-style-type: none"> • Average 100 trips/day • Maximum 240 trips/day The net increase is: <ul style="list-style-type: none"> • Average 20 trips/day • Maximum 90 trips/day 	No change proposed
Noise	Condition 23 requires the applicant to use all practical means to obtain a maximum design goal of day time 45 dB(A) and night time 35 dB(A) noise levels at all residences.	Condition 23 requires the applicant to use all practical means to obtain a maximum design goal of day-time 45 dB(A) and night-time 35 dB(A) noise levels at all residences.	Condition 23 requires the applicant to use all practical means to obtain a maximum design goal of day-time 45 dB(A) and night-time 35 dB(A) noise levels at all residences.	No change proposed
Air quality	No specific air quality objectives provided.	No specific air quality objectives provided.	No specific air quality objectives provided.	No change proposed
Surface Water	Condition 4 pertains to water management dams and Condition 11 pertains to stockpiling near water courses.	Condition 4 pertains to water management dams and Condition 11 pertains to stockpiling near water courses.	Condition 4 pertains to water management dams and Condition 11 pertains to stockpiling near water courses.	No change proposed

Aspect	Approved Development DA 95/114 & DA 20/2006	Approved Development DA 51/2017_2	Approved Development DA10.2017.51.3	Proposed development
Heritage	Conditions 15 to 17 pertain to archaeological surveys and identification/fencing of Aboriginal sites	Conditions 15 to 17 pertain to archaeological surveys and identification/fencing of Aboriginal sites	Conditions 15 to 17 pertain to archaeological surveys and identification/fencing of Aboriginal sites	<p>Minor changes to Condition 15 proposed – refer to Section 2.3.</p> <p>The proposed modification is unlikely to result in direct impacts to Aboriginal heritage (Section 4.6)</p> <p>Aboriginal heritage has been identified in the broader study area, however mitigation measures for construction of the proposed modification include a minimum 20m buffer area around identified Aboriginal sites during construction.</p> <p>The assessment has concluded that works should avoid known aboriginal sites. If unavoidable, further investigations and an AHIP would need to be submitted.</p>
Biodiversity	Condition 18 pertains to fauna surveys and Condition 19 pertains to revegetation.	Condition 18 pertains to fauna surveys and Condition 19 pertains to revegetation.	Condition 18 pertains to fauna surveys and Condition 19 pertains to revegetation.	<p>No change proposed.</p> <p>The proposed modification, as defined by the Development Area (Figure 3), will not have a significant impact on any threatened species, population or ecological community or their habitat.</p>
Visual	No visual amenity related conditions provided.	No visual amenity related conditions provided.	No visual amenity related conditions provided.	No change proposed
Waste	Condition 33 relates to the disposal of solid waste at the quarry.	Condition 33 relates to the disposal of solid waste at the quarry.	Condition 33 relates to the disposal of solid waste at the quarry.	No change proposed

3.2.1.3 Relevant matters for consideration

This proposal is made under Part 4 of the EP&A Act. Under Section 4.15(1)(a) of the EP&A Act, a consent authority is to take into consideration the following matters as relevant to an application:

- (a) the provisions of—
 - (i) any environmental planning instrument, and
 - (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and
 - (iii) any development control plan, and
 - (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and
 - (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),
 - (v) (Repealed)

that apply to the land to which the development application relates,

- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,
- (c) the suitability of the site for the development,
- (d) any submissions made in accordance with this Act or the regulations,
- (e) the public interest.

The matters relevant to the proposed modification have been addressed in the following sections.

3.2.2 ENVIRONMENTAL PROTECTION AND ASSESSMENT REGULATION 2021

An application for modification of a development consent under Section 4.55 of the EP&A Act must contain the information stipulated in Section 100 of the EP&A Regulation. The required information and where it has been addressed in this report is detailed in **Table 5**.

Table 5 – Section 100 requirements for Section 4.55 applications

Requirement	Addressed
(a) the name and address of the applicant,	Section 1.5
(b) a description of the development that will be carried out under the development consent,	Section 2.2
(c) the address and folio identifier of the land on which the development will be carried out,	Section 1.1
(d) a description of the modification to the development consent, including the name, number and date of plans that have changed, to enable the consent authority to compare the development with the development originally approved,	Section 2.3
(e) whether the modification is intended to— <ul style="list-style-type: none"> (i) merely correct a minor error, misdescription or miscalculation, or (ii) have another effect specified in the modification application, 	Section 3.2

Requirement	Addressed
(f) a description of the expected impacts of the modification,	Section 4
(g) an undertaking that the modified development will remain substantially the same as the development originally approved,	Section 3.2.1.2
(h) for a modification application that is accompanied by a biodiversity development assessment report—the biodiversity credits information,	Not applicable
(i) if the applicant is not the owner of the land—a statement that the owner consents to the making of the modification application,	The applicant is the owner of the development site.
(j) whether the modification application is being made to— (i) the Court under the Act, section 4.55, or (ii) the consent authority under the Act, section 4.56.	Not applicable

3.2.3 PROTECTION OF THE ENVIRONMENT OPERATIONS ACT 1997

The NSW *Protection of the Environment Operations Act 1997* (POEO Act) requires that scheduled premises, which are defined in Schedule 1 of the Act, obtain and operate under an EPL. The quarry is defined as a scheduled premise and has an EPL (EPL 5846) administered by the NSW Environment Protection Authority (EPA). The EPL licences:

- extraction and processing of 100,000-500,000 tpa of hard rock material; and
- resource recovery for up to 5,000 tpa of dry concrete and asphalt waste.

EPL 5846 includes one licensed discharge point in Condition P1.1 identified as Point 1 below:

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Wet weather discharge Discharge water quality monitoring	Wet weather discharge Discharge water quality monitoring	Outlet of Dam 1 (west of stockpile area), labelled as 'MP No 1' in Figure 4 of the report titled Currabubula Quarry Water Management Plan, dated March 2016 and submitted to the EPA 16 March 2016 (DOC15/495504-03).

This licensed discharge point is used to monitor discharge from the existing sediment basin.

Concentration limits applied to this discharge points are defined in Conditions L2.4 and L2.5 which are reproduced below:

L2.4 Water and/or Land Concentration Limits

POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Oil and Grease	milligrams per litre				10
pH	pH				6.5-8.5
Total suspended solids	milligrams per litre				50

L2.5 The Total Suspended Solids concentration limits specified in the table above may be exceeded for water discharged from the sediment basins provided that:
 (a) the discharge occurs solely as a result of rainfall measured at the premises that exceeds 39.2 millimetres over any consecutive 5 day period immediately prior to the discharge occurring; and
 (b) all practical measures have been implemented to dewater all sediment dams within 5 days of rainfall such that they have sufficient capacity to store runoff from a 39.2 millimetre, 5 day rainfall event.

Note: 39.2 millimetres equates to the 5 day 90%ile rainfall depth for Tamworth sourced from Table 6.3a Managing Urban Stormwater: Soils and Construction Volume 1: 4th edition, March 2004.

The proposed holding pond would enhance compliance with EPL 5846 Conditions L2.4 and L2.5 as:

- The design capacity of the sediment basin would be restored with 5 days of rainfall;
- More surface water would be reused for operation water demand;
- The spill frequency would be reduced; and
- The additional retention time would improve water quality prior to discharge (if discharge is required).

The licensee will make an application to vary EPL 5846 to move the site discharge point to the new holding pond following development consent.

3.2.4 BIODIVERSITY CONSERVATION ACT 2016

Section 1.7 of the EP&A Act requires consideration of Part 7 of the NSW *Biodiversity Conservation Act 2016* (BC Act). Part 7 of the BC Act relates to an obligation to determine whether a proposal is likely to significantly affect threatened species. A development is considered to result in a significant impact in the following assessed circumstances:

- (a) it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or
- (b) the development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or
- (c) it is carried out in a declared area of outstanding biodiversity value

The site of the proposed holding pond has been the subject of a Biodiversity Assessment Report (BAR), completed by Premise (2022). Consideration of Section 1.7 of the EP&A Act is provided in **Table 6**.

Table 6 – Consideration of Section 1.7 of the EP&A Act

Test	Assessment
1. it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or	No threatened flora or TEC are considered likely to occur on the Development Footprint based on targeted searches and vegetation surveys. Six threatened fauna species are considered to potentially utilise the Development Footprint for foraging purposes. These species were considered in the Threatened Species Test of Significant (Five Part Test). The proposed activity is not considered likely to have an adverse impact on the life cycle or habitat of any of the six threatened species identified as having potential to occur on the Development Footprint. A Species Impact Statement is not required under Section 7.8 of the BC Act, nor does the proposed activity trigger the Biodiversity Offsets Scheme under Section 7.2 of the BC Act.
2. the development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or	The Project does not trigger entry into the Biodiversity Offset Scheme (BOS) because the minimum clearing threshold will not be exceeded, the Development Footprint does not intersect the NSW Biodiversity Values Map and the Project will not have a significant impact on threatened flora, fauna or ecological communities as determined by a Five Part Test of Significance.
3. it is carried out in a declared area of outstanding biodiversity value.	No Areas of Outstanding Biodiversity Value as identified by the BC Act have been declared on or near the Development Footprint.

3.2.5 NATIONAL PARKS AND WILDLIFE ACT 1974

The NSW *National Parks and Wildlife Act 1974* (NPW Act) provides for nature conservation in NSW including the conservation of places, objects and features of significance to Aboriginal people. A person must not harm or desecrate an Aboriginal object or place without an Aboriginal Heritage Impact Permit under Section 90 of the NPW Act.

The site of the proposed holding pond has been the subject of an Aboriginal Heritage Due Diligence Assessment, completed by Premise (2022). With respect to the NPW Act, the Due Diligence Assessment determines that areas of archaeological sensitivity were located in proximity to the proposed works with a watercourse identified within 200 metres.

Three new sites and one previously recorded aboriginal site were identified via database searches. Only one of these sites, however, was located within the due diligence assessment study area. The proposed works are considered capable of avoiding adverse impacts to recorded aboriginal sites.

In accordance with the OEH due diligence guidelines, the due diligence assessment outlines that no Aboriginal objects, or areas of archaeological sensitivity, were identified within the proposed impact area. No further Aboriginal archaeological assessment is therefore recommended (refer **Section 4.6.1.2** and **Appendix B**).

If suspected Aboriginal objects are located during future works, works should cease, and an Aboriginal heritage consultant advised to assess the find and recommend if further investigation or permits are required (refer **Section 4.6.1.2**)

Where impacts to areas of archaeological sensitivity cannot be avoided, further assessment must be undertaken in the form of ACHAR and an AHIP permit approval must be obtained before works commence.(refer **Section 4.6.1.2**).

3.2.6 WATER MANAGEMENT ACT 2000

The NSW *Water Management Act 2000* (WM Act) governs the issue of water licences and allocations for those water sources in NSW where water sharing plans have commenced, as well as controlled activity approvals.

The quarry holds Water Access Licence (WAL) 27988 which has an annual allocation of 6 ML. No changes to the WAL or its use are required as part of the proposed modification.

A controlled activity approval is required as the proposed holding pond is located on waterfront land, specifically within 40 m of a mapped first order watercourse immediately downstream of the existing embankment as shown in **Figure 4**.

Review of [WaterNSW guidance](#) on licencing requirements confirms the following:

- Licences are not required for harvestable rights dams built on minor streams that capture 10 per cent of the average regional rainfall run-off on land in the Central and Eastern Divisions of New South Wales, and up to 100 percent on land in the Western Division. The total capacity of all dams on a property allowed under the harvestable right is called the Maximum Harvestable Right Dam Capacity (MHRDC).
- A water supply work approval is required for a dam which exceeds the MHRDC, unless the water is taken under a domestic and stock right or native title right.
- Some types of dams should not be included when you are calculating the capacity of dams allowed on a property under a harvestable right. Considered relevant to Currabubula Quarry, this includes:

Dams for the capture, containment and recirculation of drainage and/or effluent that conform to best management practice or are required by regulation to prevent the contamination of a water source. The harvestable right is not intended to be contrary to initiatives to prevent pollution of water sources. Many landholders are required to install dams to capture contaminated water or to collect and re-use irrigation tailwater. These dams are not considered in assessing your harvestable right.

Using the [MHRDC calculator](#), the MHRDC for the development site (556 ha) is 41.7 ML.

In addition to the existing sediment basin (capacity recently approved to increase from 3.2 to 5.2 ML with raised embankment), there is one other dam located within the development site which is estimated to have a capacity of 1 ML. Notwithstanding that the MHRDC would not include the volume of the existing sediment basin (based on the above definition), the MHRDC would not be exceeded as a result of the proposed modification. No water supply work approval is required.

Figure 4 – Watercourse downstream of the existing sediment basin embankment



3.2.7 STATE ENVIRONMENTAL PLANNING POLICIES

3.2.7.1 State Environmental Planning Policy (Resources and Energy) 2021

State Environmental Planning Policy (Resources and Energy) 2021 (Resources SEPP) aims to provide for the proper management and development of mineral, petroleum and extractive material resources for the social and economic welfare of the state.

Part 2.3 of the Resources SEPP sets out matters for consideration for development applications. Section 2.16 of Part 2.3 of the Resources SEPP states:

(2) The matters set out in this clause are identified as non-discretionary development standards for the purposes of section 4.15(2) and (3) of the Act in relation to the carrying out of development for the purposes of mining.

Modifications under Section 4.55(2) of the EP&A Act only require consideration of Section 4.15(1) of the EP&A Act. Therefore, no further consideration is provided.

3.2.7.2 State Environmental Planning Policy (Resilience and Hazards) 2021

State Environmental Planning Policy (Resilience and Hazards) 2021 (Hazards SEPP) applies to development considered to be a potentially hazardous industry or potentially offensive industry. Consideration of relevant sections of the Hazards SEPP is provided in the following subsections.

3.2.7.2.1 Potentially hazardous industry

Section 3.2 of the Hazards SEPP defines “potentially hazardous industry” as:

a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality—

(a) to human health, life or property, or

(b) to the biophysical environment,

and includes a hazardous industry and a hazardous storage establishment.

In determining whether a development meets the definition of a potentially hazardous industry, Section 3.7 of the Hazards SEPP requires consideration of current circulars or guidelines published by the Department of Planning relating to hazardous or offensive development. The current guidelines are the *Hazardous and Offensive Development Application Guidelines – Applying SEPP 33* (Department of Planning, 2011), hereafter referred to as the SEPP 33 Guidelines.

Where a development is considered to meet the definition of potentially hazardous industry by reference to the SEPP 33 Guidelines, it is a “potentially hazardous development” and a preliminary hazard analysis (PHA) is required in accordance with Section 3.11 of the Hazards SEPP. The consent authority is also prevented from granting development consent unless it has considered the matters raised in Section 3.12 of the Hazards SEPP.

The SEPP 33 Guidelines sets out screening tests by reference to the Class and Packing Group (PG) under the *Australian Dangerous Goods Code* (ADG) (National Transport Commission, 2020) and quantity of dangerous goods (DG).

DGs typically associated with solar farms are limited to lithium batteries which are classified as a class 9 DG under the ADG. Class 9 goods do not exceed the screening threshold under the guideline as they “pose little threat to people or property” (p. 33).

Review of Boral’s *Hazardous Chemicals and Dangerous Goods Register* (Reference: HSEQ-4-04-F01, Version 3) confirms that dangerous goods stored on site do not exceed screening thresholds specified in the SEPP 33 Guidelines. Therefore, the quarry operation including the proposed modification, is not considered to be a potentially hazardous industry. Accordingly, no further assessment is required.

3.2.7.2.2 Potentially offensive industry

A “potentially offensive industry” is defined under Section 3.2 of the Hazards SEPP as:

...means a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.

The quarry operation including the proposed modification is not considered to be a potentially offensive industry on the basis that:

- quantitative noise and air quality impact assessments completed for the original development and subsequent modifications demonstrate that, with environmental safeguards in place, the quarry operation would not result in significant adverse noise or air quality impacts; and
- the proposed modification is unlikely to result in significant adverse noise or air quality impacts due to potential impacts being minor, localised and manageable by ongoing implementation of existing quarry operation management measures for noise and air quality.

3.2.7.2.3 Remediation of Land

Section 4.6(1) of the Hazards SEPP prevents the consent authority from granting development consent to the carrying of development unless it has considered, among other things, whether the land is contaminated. If the land is contaminated, it must be satisfied that the land is suitable in its contaminated state or will be made suitable after remediation.

Section 4.6(4) of the Hazards SEPP identifies land where a consent authority must consider contamination and remediation in determining a development application, including:

(4) The land concerned is—

(a) land that is within an investigation area,

(b) land on which development for a purpose referred to in Table 1 to the contaminated land planning guidelines is being, or is known to have been, carried out,

(c) to the extent to which it is proposed to carry out development on it for residential, educational, recreational or child care purposes, or for the purposes of a hospital—land—

(i) in relation to which there is no knowledge (or incomplete knowledge) as to whether development for a purpose referred to in Table 1 to the contaminated land planning guidelines has been carried out, and

(ii) on which it would have been lawful to carry out such development during any period in respect of which there is no knowledge (or incomplete knowledge).

With respect to the above, the location of the proposed holding pond:

- is not within an investigation area;
- is not known to have been used for any of the purposes specified in Table 1 of the *Managing Land Contamination – Planning Guidelines – SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998); and
- is not to be used for a specified sensitive use.

In addition the above:

- There are no records of contaminated sites at or near the site under the NSW EPA List of Notified Sites (last updated 8 September 2022, viewed 21 September 2022) or NSW EPA Contaminated Land Record (searched 21 September 2022).
- No contamination incidents have been reported at the quarry during its operational history.

On the above basis, the site of the proposed holding pond is not considered to be contaminated land. Accordingly, no further assessment is provided.

3.2.7.3 State Environmental Planning Policy (Biodiversity and Conservation) 2021

The State Environment Planning Policy (Koala Habitat Protection) 2020 (K-SEPP 2020) now lies within Chapter 3 of the State Environment Planning Policy (Biodiversity and Conservation) 2021. Section 3.3(1) provides that Chapter 3 applies to land within the RU1 Primary Production, RU2 Rural Landscape and RU3 Forestry and equivalent zones in an LGA not marked with a '*' in Schedule 1 of the Biodiversity SEPP.

The site is located with land zoned RU1 Primary Production under the *Liverpool Plains Local Environmental Plan 2011* (LEP) and the Liverpool Plains LGA is listed in Schedule 1 without an asterisk. Therefore, Chapter 3 applies to the land.

A three-step process under Part 3.2 of the Biodiversity SEPP determines whether the land is potential or core koala habitat, and whether consent can be granted in relation to core koala habitat. Consideration of the three-step process is provided in the Biodiversity Assessment Report (BAR) forming part of this application at **Appendix A**.

The BAR identified the Development Footprint as potential koala habitat, however the site is not considered core koala habitat as no recorded sightings occur in proximity to the Development Footprint and breeding habitat is likely to be absent from the site and surrounds. Impact avoidance and minimisation methods for potential koalas on the Development Footprint are identified in Section 5.1. of the BAR.

3.3 Local Legislation and Plans

3.3.1 LIVERPOOL PLAINS LOCAL ENVIRONMENTAL PLAN 2011

The land subject to the proposal is in the Liverpool Plains Shire LGA and zoned RU1 Primary Production under the *Liverpool Plains Local Environmental Plan 2011* (LEP). The approved uses at the quarry are permissible with consent in the RU1 zone and no change to land use is proposed via this modification.

3.3.2 LIVERPOOL PLAINS DEVELOPMENT CONTROL PLAN 2012

The *Liverpool Plains Development Control Plan 2012* (DCP) applies to Liverpool Plains Shire LGA. Consideration to Section 4.2 (Environmental Controls) of the DCP is provided in **Table 7**.

Table 7 – Consideration of DCP Section 4.2

Section	Requirement	Consideration
4.2.1 Environmental Effects	<p>The application documentation shall identify any potential environmental impacts of the development and demonstrate how they will be mitigated. These impacts may relate to:</p> <ul style="list-style-type: none"> • Traffic • Flood liability • Slope • Construction impacts • Solid and Liquid Waste • Air quality (odour and pollution) • Noise emissions • Water quality • Sustainability 	Addressed via environmental assessment in Section 4
4.2.2 Erosion and sediment control	<ul style="list-style-type: none"> • Runoff shall be managed to prevent any land degradation including offsite sedimentation. • Reference shall be made to the NSW Governments Managing urban stormwater: soils and construction, Volume 1 (available from LandCom), commonly referred to as "The Blue Book". • Cut and fill will be minimised, and the site stabilised during and after construction. • Arrangements in place to prompt revegetation of earthworks to minimise erosion. 	Erosion and sediment control mitigation measures are provided in Section 4.2
4.2.3 Land Use Buffers	<ul style="list-style-type: none"> • Buffers are an important tool to reduce land use conflicts where competing or conflicting uses are proposed. People intending to develop within a rural area or within the rural/residential interface should contact Council to find out about the buffer requirements specific to their locality, site and the land use proposed. • There are several statutory and recommended buffers that can apply to a specific sites and situations. These include: <ul style="list-style-type: none"> – Bushfire protection buffers – Airport buffers – Power line buffers – Rifle range buffers – Railway line buffers – Cultural heritage buffers • Development needs to comply with the recommended buffers in the NSW DPI Living and Working in Rural Areas Handbook unless it can be demonstrated to Council Officers that the proposed development will not result in adverse impacts. • With regard to Aboriginal cultural heritage issues, including significant sites, places and landscapes, it is recommended that you consult with the local Aboriginal Land Councils. • Buffer zones and management options will vary according to the significance of a site, its locality, the topography of the land 	Consideration of relevant buffers and avoidance measures for cultural heritage and bushfires is provided in Sections 4.6 and 4.7.1 (respectively)

Section	Requirement	Consideration
	and its relationship to a range of other geographic and culturally relevant factors.	
4.2.4 On-site Wastewater Management Systems	N/A – not required for proposed modification	
4.2.5 Waste Management	General waste storage and collection arrangements shall be specified.	Waste is addressed in Section 4.8.1
4.2.6 Stormwater management	Reference should be made to Council's Engineering Guidelines for Subdivision and Development.	Surface water is addressed in Section 4.2
4.2.7 Noise	Where relevant, applications are to contain information about likely noise generation and the method of mitigation.	Noise is addressed in Section 4.7.4.
4.2.8 Geology	The design process must give consideration to the potential impact of erosive soils, saline soils, soils of low wet strength, highly reactive soils and steep slopes and document how these constraints are addressed.	Geology and soils is addressed in Section 4.4
4.2.9 Vegetation Management & Biodiversity	<ul style="list-style-type: none"> • The clearing of native vegetation associated with a proposed development requires development consent is also subject to consent as a part of a DA. The DA submission must include suitable documentation to assess biodiversity impacts, including but not limited to: <ul style="list-style-type: none"> – A scaled and accurate site plan (preferably using aerial imagery) showing the proposed development, existing buildings and structures, any existing or proposed effluent disposal areas, the extent of the area to be disturbed, including any access tracks or driveways, the extent and type of vegetation that is proposed to be removed and any other environmental constraints; – A description of the vegetation to be cleared (i.e. type and condition of the vegetation to be cleared), photographs of the vegetation and a statement addressing the biodiversity impact of the proposed development; – Council may require the submission of a report by a suitably qualified professional (e.g. ecologist) to verify the species and condition of the vegetation to be cleared; – Evidence to demonstrate whether the proposed clearing will or will not exceed the Biodiversity Offsets Scheme Threshold. Additionally, if the proposed clearing does not exceed the Biodiversity Offset Scheme threshold, a test of significance is to be provided. • The applicant will be notified of Council's decision as part of any consent for the development. The consent may have 	Biodiversity is addressed in Section 4.5 and a Biodiversity Assessment Report (BAR) is provided in Appendix A.

Section	Requirement	Consideration
	<p>specific conditions regarding remedial actions or mitigation measures.</p> <ul style="list-style-type: none"> • A Biodiversity Development Assessment Report (BDAR) must be submitted with a DA where the development involves the clearing of vegetation and: <ul style="list-style-type: none"> – The extent of clearing exceeds the Biodiversity Offsets Scheme Threshold; or, – The vegetation to be cleared is identified on the Biodiversity Values Map; or, – The development is likely to have a significant impact on listed threatened species or threatened ecological communities, or their habitats, as prescribed under the <i>Biodiversity Conservation Act 2016</i>. • The BDAR must be prepared in accordance with the NSW Office of Environment and Heritage NSW Guidelines. • If clearing specified vegetation in non-rural areas, either an approval from the NSW Native Vegetation Panel or a clearing permit from Council may be required in accordance with the provisions under State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017. • The controls under Section 4.2.9 are additional to any other controls under this DCP. 	

4. ENVIRONMENTAL ASSESSMENT

4.1 Introduction

Pursuant to Section 4.15(b) of the EP&A Act, this section of the report outlines the likely impacts of that proposed modification, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality. Mitigation measures are also provided where necessary to prevent or minimise environmental impacts.

The following technical studies were completed to inform the environmental assessment of the proposed modification, including:

- Biodiversity Assessment Report
- Aboriginal Heritage Due Diligence Assessment

4.2 Surface Water

4.2.1 EXISTING ENVIRONMENT

Around the quarry, natural drainage flows away from the hill in all directions, ultimately draining into Sandy Creek which flows north into Currabubula Creek approximately 1.8 km north of the quarry. The local surface water environment is depicted in **Figure 5**, including Strahler stream orders.

The watercourse mapped downstream of the existing sediment basin is a 1st order Strahler stream that flows into a 3rd order unnamed Strahler stream. Apart from the existing sediment basin, there is one other dam located within the development site which is approximately 60 m south-west of the approved quarry pit area,

as shown in **Figure 5**. This dam is not used by the quarry operation and only collects clean water from the surrounding catchment.

Downstream of the existing sediment basin (where the holding pond is proposed) is shown in **Figure 6**.

Figure 5 – Surface water



LEGEND




- | | |
|--|---|
| Existing area of operations |  Dam |
|  Approved quarry pit area
(DA 20/2006) from ERM (2006) SEE |  Watercourse |
|  Ancillary works |  Strahler Stream Order |
| |  Road |

Figure 6 – Downstream of existing sediment basin



4.2.2 EXISTING SURFACE WATER MANAGEMENT

4.2.2.1 Existing water management plan

A Water Management Plan (WMP), prepared in March 2016, is implemented at the quarry. The WMP documents the locations and types of structures used to divert clean water around the working areas of the quarry and structures used to manage water collected in the working areas of the quarry.

4.2.2.2 Existing surface water management system

The existing quarry surface water management system includes a series of clean and dirty water drains and a sediment basin. The sediment basin is positioned to capture the dirty water runoff from disturbed areas including active quarry areas, unsealed roads and material stockpiles. Some captured water is reused from the sediment basin for on-site dust suppression and product processing. Excess water discharges off-site to an unnamed watercourse. The discharge point is licensed under EPL 5846 (EPL point 1). Releases from the sediment basin are managed to achieve the EPL water concentration limits.

The sediment basin recently approved (DA10.2017.51.3) to increase the capacity from 3.2 to 5.2 ML via a 1 m raised embankment. Construction work has not yet commenced.

The catchment area draining to the sediment basin is 16.79 ha.

4.2.2.3 Water balance

A water balance model is presented in Appendix C. Results are summarised in Table 8.

These results demonstrate the addition of the proposed 3 ML holding pond into the surface water management system:

- Increases the volume of surface water reuse at the quarry. This reduces the reliance on the groundwater system;
- Maintains the average volume of water discharged from the site; and
- Reduces the average number of spill events from the surface water management system from 4 per year to once per year.

Controlled releases would be made from the holding pond when operational water demand is low to ensure adequate capacity remains in the system to manage rainfall events. Controlled releases would only be made if the water quality meets the 100 percentile concentration limits specified in EPL 5846.

Table 8 – Summary of water balance results

Parameter	Existing Operations (400,000 tpa) with 5.2 ML sediment basin capacity	Existing Operations (400,000 tpa) with 5.2 ML sediment basin + 3 ML holding pond
Average annual site run-off (ML/year)	31	31 Note: there is no change as there is no change to the quarry catchment area
Reuse from surface water system (ML/year)	19.8	20.1
Average annual bore use (ML/year)	5.6	5.3

Parameter	Existing Operations (400,000 tpa) with 5.2 ML sediment basin capacity	Existing Operations (400,000 tpa) with 5.2 ML sediment basin + 3 ML holding pond
Average annual site discharge (ML/year)	10.8	10.8
Average spill events per year	4	1

The water balance results demonstrate that the proposed holding pond reduces the number of spill events per year to less than 4 which is better than the design guidelines for a 90th percentile design basis (DECC, 2008) which allows spill 4 to 6 times per year.

As stated in **Section 3.2.6**, the increased surface water system holding capacity would not result in the MHRDC being exceeded and therefore, no water supply work approval is required and significant adverse impacts to downstream water resources is considered unlikely. The modelling demonstrates that the average annual volume discharging from the site remains the same which will avoid any downstream water impacts.

4.2.3 MITIGATION MEASURES

Potential impacts to surface water will be managed by implementation of the following mitigation measures:

- Preparation of a detailed design for the holding pond, to be informed by site survey and geotechnical investigations (where appropriate).
- Updating the site Water Management Plan to include operation of the proposed holding pond.
- Preparation of an Erosion and Sediment Control Plan (ESCP) prior to construction.
- Implementation of all controls and management actions in the ESCP. This is anticipated to include the use of a temporary diversions during holding construction to control the flow of an unnamed drainage line. This may further involve pumping water out of diversion structures to provide a dry working environment and minimise the impact to the drainage line further downstream.
- Discharge from the holding pond will continue to be monitoring in compliance with EPL 5846
- An identical monitoring regime for the holding pond proposed by this modification shall be implemented to ensure that discharge from the site meets the requirements of EPL 5846 including:
 - L2.4 which determines 100 percentile concentration limits for Oil and Grease, pH and Total suspended solids (TSS)
 - L2.5 which provides a condition where TSS concentrations for water discharged from sediment basins may exceed 100 percentile concentration limits provided that:
 - The discharge occurs solely as a result of rainfall measured at the premises that exceeds 39.2 millimetres over any consecutive 5 day period immediately prior to discharge occurring; and
 - All practical measures have been implemented to dewater all sediment dams within 5 days of rainfall such that they have sufficient capacity to store runoff from a 39.2 millimetre, 5 day rainfall event.
-

4.3 Groundwater

4.3.1 EXISTING ENVIRONMENT

The original EIS stated that the quarry would be unlikely to intercept groundwater. No groundwater has been intercepted during quarry operations to date. The existing sediment basin does not appear to be significantly influenced by groundwater, with surrounding surface water inflows the dominant influence on water levels.

A review of available groundwater data from Water NSW identified one (1) registered bore 500 m east of the proposed holding pond site, GW900658 (Industrial), and no other bores within a 1 km radius. The bore was drilled to 35.6 m and has water bearing zones at 18.2 m and 30.4 m with a standing water level of 17.4 m. Water bearing zones are hosted in shale according to the drillers log.

A review of the following datasets in the NSW DPE SEED Portal was undertaken:

- High Ecological Value Aquatic Ecosystems (HEVAE) – Vegetation Groundwater Dependent Ecosystems – Namoi.
- Probable Vegetation Groundwater Dependent Ecosystems – Namoi.

Review of the above datasets identified that:

- There are no HEVAE vegetation groundwater dependent ecosystems present at the site of the proposed holding pond; and
- The Plant Community Type (PCT) Queensland Bluegrass - Redleg Grass - Rats Tail Grass - spear grass - panic grass derived grassland of the Nandewar Bioregion and Brigalow Belt South Bioregion (PCT 511) was mapped as a probable vegetation Groundwater Dependent Ecosystem (GDE).

During biodiversity surveys and database searches, it was determined that native grassland areas on the site were derived of PCT 588 (White box – White Cypress Pine shrubby hills open forest mainly in the Nandewar Bioregion). Justification of PCT selection is provided in Section 4.1.3 of the BAR.

4.3.2 IMPACT ASSESSMENT

The proposed holding pond is not considered likely to significantly affect or interact with groundwater in the locality.

The proposed modification does not propose any additional use of groundwater and instead reduces the demand on the existing groundwater bore dependent on climatic conditions. PCTs identified on the Development Footprint are not recognised as GDE. Therefore, an impact assessment for GDEs is not required.

4.3.3 MITIGATION MEASURES

Potential impacts to groundwater will be managed by implementation of the following mitigation measures:

- Preparation of a detailed design for the holding pond, as per **Section 4.2.3**.
- Ensuring the design and construction of the pond includes adequate compaction of suitable site material to minimise pond water loss.
- Implementation of all controls and management actions in an ESCP, as per **Section 4.2.3**.
- A suitable spill response and containment kit will be provided at the construction site for the full duration of the construction period.
- No chemicals or fuels will be stored at the construction site. All chemical storage and refuelling activities will be undertaken within the quarry area.

- If construction activities intersect groundwater of greater volume than short-term seepage, immediately cease the activity and engage a suitably qualified professional to assess the groundwater resource, identify potential impacts and provide management measures.

4.4 Soils and Geology

4.4.1 EXISTING ENVIRONMENT

Macquarie Geotechnical (2022) completed a desktop assessment and initial site assessment of geotechnical constraints at the proposed holding pond site. The inspection was undertaken on 12 April 2022. The assessment identified:

- The soils observed at the site are a mixture of extremely weathered rock material, residual soils and transported colluvial soils from upslope. The soils observed consist of a sandy clay mixture. Soil depth was not able to be determined but it is assumed to be relatively shallow and underlain by andesite bedrock.
- Geologically the site is considered low risk.
- Existing slope stability at the site is not anticipated to be a high geotechnical risk.
- Soil dispersivity is anticipated to be relatively low risk with some dispersion most likely to occur, particularly after high flow or constant heavy rainfall event.
- Soil permeability is anticipated to be moderate to moderately slow given the clay content observed at the site.
- the site is underlain by andesite rock which can be used as a component for fill materials. Given the site is contained within a quarry operation, quarry won materials can be easily and readily available for construction purposes.
- Given the natural geomorphology of the area, a suitable source of clay material was not identified and may not be easily won at the quarry site. This material may need to be sourced from other avenues. Clay material is often required for use in dam construction as liners or for earth fill dam wall construction.

4.4.2 IMPACT ASSESSMENT

Potential impacts to soils may occur during the following soil disturbance activities:

- Vegetation clearing that exposes soils
- Construction (and use) of tracks
- Earthworks (cut and fill, grading and compacting)
- Stockpiling of soils

Potential impacts to soils during construction may include:

- Erosion, soil loss and sedimentation
- Reduced soil permeability and increased run-off
- Soil contamination from spills from construction equipment

4.4.3 MITIGATION MEASURES

Potential impacts to soils will be managed by implementation of the following mitigation measures:

- Preparation of a detailed design for the holding pond, as per **Section 4.2.3**.
- Implementation of all controls and management actions in an ESCP and SWMP, as per **Section 4.2.3**.

- A suitable spill response and containment kit will be provided at the construction site for the full duration of the construction period.
- No chemicals or fuels will be stored at the construction site. All chemical storage and refuelling activities will be undertaken within the quarry area.

4.5 Biodiversity

Biodiversity surveys were conducted on 2nd and 3rd November 2021 to identify and describe vegetation composition, structure and available fauna habitat, and assess the likelihood of any potential impacts of the proposal on threatened species.

4.5.1 EXISTING ENVIRONMENT

Vegetation on the Development Footprint was classified into five Mapping Units: Remnant Woodland (moderate condition), Derived Native Grassland (DNG) (moderate condition), DNG (poor condition), Exotic Riparian Vegetation and Disturbed Ground. Native vegetation was assigned to PCT 588 – White Box – White Cypress Pine shrubby hills open forest mainly in the Nandewar Bioregion. PCT selection justification is provided in Section 4.1.3 of the BAR.

Four broad habitat features were identified on the Development Footprint: native vegetation, riparian vegetation, the unnamed drainage line and rocky areas.

4.5.1.1 Threatened Biodiversity

Literature and database searches identified eight threatened species with potential to occur on the Development Footprint including two threatened flora species: *Dichanthium setosum* (Bluegrass) and *Eucalyptus nicholii* (Narrow-leaved Peppermint); and six threatened fauna species: *Anthochaera Phrygia* (Regent Honeyeater), *Falco hypoleucos* (Grey Falcon), *Lathamus discolor* (Swift Parrot), *Neophema pulchella* (Turquoise Parrot), *Chalinolobus dwyeri* (Large-eared Pied Bat) and *Phascolarctos cinereus* (Koala).

No Threatened Ecological Communities (TEC) listed under the Biodiversity Conservation Act 2016 were identified as likely to occur on the Development Footprint. PCT 588 is also not associated with any TECs in the BioNet Vegetation Classification database.

4.5.2 IMPACT ASSESSMENT

Targeted surveys were conducted for the two threatened flora species (Bluegrass and Narrow-leaved Peppermint). As neither of these species were found on the site, no impact assessment is required.

The potential impact of the proposed development on the six threatened fauna species considered to potentially utilise the site for foraging purposes was assessed in the Threatened Species Test of Significance (Five Part Test) (Section 5.3.1 of the BAR). The Five Part Test concluded that the Project is not considered likely to have an adverse impact on the life cycle or habitat of any threatened species identified as having potential to occur on the Development Footprint. A Species Impact Statement is not required under Section 7.8 of the BC Act, nor does the proposed activity trigger the Biodiversity Offsets Scheme under Section 7.2 of the BC Act.

Based on the Five Part Test, the Project is also not anticipated to have a significant impact on five threatened fauna species (Regent Honeyeater, Grey Falcon, Swift Parrot, Large-eared Pied Bat and Koala) classified as MNES.

Three species (Regent Honeyeater, Swift Parrot and Large-eared Pied Bat) listed as species at risk of Serious and Irreversible Impacts (SAII) were considered likely to utilise the Development Footprint for foraging.

However, as the native vegetation clearing associated with the Project is below the clearing threshold (<1 ha) for entry into the Biodiversity Offset Scheme, SAII do not apply.

4.5.3 MITIGATION MEASURES

Measures to avoid biodiversity impacts were established in the planning phase of the proposal. After biodiversity surveys were undertaken, the Development Footprint was redesigned to avoid large remnant woodland patches, hollow-bearing trees and most of the rocky habitat. The Development Footprint also allows for a 5 m construction buffer surrounding the water holding pond to reduce biodiversity impacts on surrounding native vegetation.

The Project has been designed to minimise impacts on biodiversity using the following strategies:

- Prior to clearing, all surrounding vegetation to be retained will be identified to prevent inadvertent damage;
- Prior to clearing, temporary fencing will be erected around significant environmental features (i.e., adjacent remnant woodland, rocky areas to be retained);
- Pre-clearing fauna surveys will be undertaken by a qualified Ecologist or equivalent specialist to inspect trees for the presence of fauna, and any identified fauna are to be captured, treated and relocated by WIRES;
- Clearing activities will be undertaken during late summer/autumn to avoid critical lifecycle events;
- Felled trees, fallen timber and surface rocks will be relocated to surrounding woodland areas to enhance habitat values;
- Machinery will be stored away from riparian areas and adjacent woodland to minimise soil compaction and disturbance where possible.
- All rubbish and materials will be removed from the lay down areas when construction is completed.
- Erosion from exposed ground during the water holding pond and access road construction will be minimised using sediment traps.
- Topsoil will be stockpiled and stored on site and sediment fencing erected to prevent sediment runoff into the unnamed drainage line.
- A cofferdam will be constructed to temporarily stop the flow of the unnamed drainage line during the construction of the water holding pond. This involves pumping water out of the constructed cofferdam to provide a dry working environment and minimise the impact to the drainage line.
- Construction will take place during the day to avoid disturbance of nocturnal animals.
- Dust suppression measures will be put in place during earthworks.

4.5.4 CONCLUSION

The proposal to construct a 3ML holding water pond and associated access track at the Currabubula Quarry will not disrupt the life cycle of threatened species or place them at risk of extinction and will not contribute to key threatening processes or increase the impact of a key threatened process.

The proposal is also not likely to have a significant impact on any threatened species, populations or ecological communities or their habitat, and accordingly, does not trigger the Biodiversity Offsets Scheme (BOS) and no referral to the Commonwealth Government is required.

4.6 Heritage

4.6.1 EXISTING ENVIRONMENT

4.6.1.1 Historic heritage

The original EIS states there are no known European heritage sites in proximity to the development site. A review of the following desktop sources confirms there are no known historic heritage sites at or near the development site based on the:

- State Heritage Inventory;
- NSW Planning Portal;
- Protected Matters Search Tool;
- Register of the National Estate Australian Database (DEECW); and
- Liverpool Plains Local Environmental Plan 2011.

4.6.1.2 Aboriginal heritage

An Aboriginal heritage Due Diligence assessment was prepared by Premise (2022) for the proposed modification in consultation with Nungaroo and Tamworth LALCs (refer **Appendix B**).

A site inspection was undertaken in December 2021, which identified that the study area is located within a semi-disturbed context. The assessment concluded:

- One previously recorded Aboriginal site is located within the study area.
- Three newly recorded Aboriginal sites are located to the immediate north east of the study area.
- Areas of archaeological sensitivity were identified within the broader study area (sites recorded within 200m of water).
- One Native Title claim, determinations or registration is located within the study area.
- The proposed activity is located within a semi-disturbed context.

The following recommendations are made:

- Impacts to sites located within the study area must be avoided where at all possible. If impacts cannot be avoided further assessment must be undertaken in the form of ACHAR and an AHIP permit approval must be obtained before works commence.
- Similarly it is noted that three newly recorded AHIMS sites are out of the study area, however care must be taken to avoid any impacts to these sites during construction. If impacts cannot be avoided further assessment must be undertaken in the form of ACHAR and an AHIP permit approval must be obtained before works commence.
- At a minimum a buffer area of 20 metres must be implemented when construction work is taking place around all AHIMS sites associated with the study area.
- If the footprint of the study area changes, a review of Aboriginal sites and their location in regard to impacts must be addressed.
- If suspected Aboriginal objects are located during future works, works should cease, and an Aboriginal heritage consultant advised to assess the find and recommend if further investigation or permits are required.

- In accordance with the OEH due diligence guidelines, this assessment has not identified Aboriginal objects, or areas of archaeological sensitivity, within the proposed impact area. No further Aboriginal archaeological assessment is recommended.
- Both Nungaroo and Tamworth Local Aboriginal Land Councils wish to be involved if further assessment is required in the event that impacts cannot be avoided.
- Nungaroo Local Aboriginal Land Council also recommends the following:
 1. An area be set aside to be re-vegetated to compensate for habitat loss.
 2. The installation of nesting boxes and hides to compensate for loss of dead trees, logs and hollows.
 3. The top soil layer likely to carry objects be put somewhere close to its existing site so objects are not translocated great distances from where they originate.
 4. That monitors be employed to walk over the area as the top soil is removed to identify, record and photograph any new sites unearthed and salvage them; and
 5. Any objects salvaged be given to the LALC for care and control.

4.7 Other matters

4.7.1 NATURAL HAZARDS

The development site contains mapped bushfire prone land but is not known to be affected by other natural hazards such as acid sulphate soils, salinity, naturally occurring asbestos, flooding or landslide risks.

The proposed holding pond itself, is considered to present a low risk as a source of a bushfire being a waterbody with limited infrastructure (i.e. pump) separated from vegetation. However, construction activities do present a risk as a source of ignition for a bushfire.

The *Rural Fires Act 1997* places a duty of care on all land managers/owners to prevent a fire spreading on or from their land. The site layout and mitigation measures will be consistent with the recommendations under Section 8.3.6 of the *RFS Planning for Bushfire Protection 2019* (PFBP 2019) specifically:

- Clearing would not be undertaken during periods of extreme fire danger.
- No burning of vegetation or any waste material would take place.
- Provision and maintenance of a 10 m asset protection zone (APZ) around the pump infrastructure.

Implementation of existing quarry operation management measures for fire risks will also continue, including:

- Fire extinguishers will be available in all vehicles, and all site personnel would be instructed in the use of appropriate firefighting equipment.
- Provision and maintenance of appropriate fire-fighting equipment on site.
- Water available at the quarry site would be made available for fighting local fires if required.
- Liaise with the local Rural Fire Service regarding fire hazard minimisation within the area of the quarry as necessary.

4.7.2 TRAFFIC

The proposed holding pond construction is likely to undertaken by on-site staff using plant and equipment available on site. Therefore, no off-site traffic impacts would occur. Use of an existing access road to the sediment basin would be required during the construction period. This road is on land owned by Boral and only used by Boral.

In the event a local contractor is engaged to undertake construction work, minor additional traffic movements to and from the site would occur during the construction period along Werris Creek Road. This is not expected to result in significant adverse impacts to the local traffic environment.

4.7.3 AIR QUALITY

Potential impacts to air quality during construction of the holding pond include:

- Dust generation
- Emissions from construction plant and vehicles

Potential impacts are considered minor and localised, and manageable by ongoing implementation of existing quarry operation management measures for air quality including:

- Avoiding dust generating activities during construction if windy and dry conditions occur.
- Maintain road surfaces and adhere to existing site speed limits to minimise dust emissions.
- Strategic watering as required, utilising reclaimed surface water run-off from the quarry.
- Maintaining all equipment in good working condition to minimise emissions.
- Maintain the existing process for receipt and investigation of complaints.

4.7.4 NOISE AND VIBRATION

Potential noise impacts during construction include noise generated by construction plant and equipment. Vibration impacts are not likely as blasting is not proposed, nor is any significant vibrating equipment likely to be required (i.e. rock-breaker).

Potential impacts are considered minor and localised, and manageable by ongoing implementation of existing quarry operation management measures for noise and vibration including:

- Limiting construction activities to existing approved operational hours.
- Maintain the existing process for receipt and investigation of complaints.
- Maintaining all plant and equipment in good working order to prevent excessive noise.
- Ensuring compliance with DA10.2017.51.3 Condition 23, requiring Boral to use all practical means to obtain a maximum design goal of day-time 45 dB(A) and night-time 35 dB(A) noise levels at all residences.

4.8 Rehabilitation

The original EIS by Valerie Smith and Associates (1995) and the *Currabubula Quarry Plan of Management 1998* both identify that sedimentation dams will be retained after rehabilitation to increase the agricultural value of the land by providing additional stock watering dams on the property.

The holding pond is considered appropriate to retain downstream of the existing sediment basin to ensure appropriate long-term water management for the site for rehabilitation and stock watering. Therefore, no amendments are required to the adopted rehabilitation plan.

Rehabilitation will continue be undertaken in accordance with the relevant conditions of consent and the rehabilitation section of *Currabubula Quarry Plan of Management 1998*.

4.8.1 WASTE

The proposed modification is not expected to generate any significant waste rock or soil as no excavation is required to facilitate holding pond construction. Existing materials are available from within Currabubula Quarry for the construction of the holding pond embankment.

Some vegetation clearing is required to facilitate construction of the holding pond. Cleared timber will be retained as a habitat resource for rehabilitation. Other vegetative material will be mulched and applied on rehabilitating surfaces. Preference will be given to utilising rehabilitation materials in the vicinity of the holding pond.

General waste would continue to be managed in accordance with an existing Waste Management Plan.

4.8.2 SERVICING

Existing services to the site are sufficient to support the proposed modification. No significant augmentation of services is proposed.

The existing water supply infrastructure will require minor modification to manage water supply from the existing sediment basin and proposed holding pond. This would be achieved using either a small pump to transfer water back to the sediment basin or using a second suction line on the existing pump.

4.8.3 VISUAL

Visibility of the quarry is limited from receptors and Werris Creek Road due to presence of vegetation around the quarry.

The 2006 SEE determined that the extension of the quarry workings would have a minor additional impact and that this would be reduced with additional tree plantings. Plantings are an ongoing activity undertaken in consultation with neighbours.

The proposed holding pond would be located immediately downstream of an existing sediment basin and is not expected to result in a significant change to the visual setting. The holding pond would also be retained in accordance with the rehabilitation requirements in the *Currabubula Quarry Plan of Management 1998*.

4.8.4 SOCIO-ECONOMIC

The proposed modification is not expected to result in any significant socio-economic impacts, based on the localised nature of work and lack of off-site interactions. Dam construction may be undertaken by existing Boral staff or local contractors, which may generate minor positive economic impacts.

4.8.5 CUMULATIVE IMPACTS

The proposed holding pond would not result in any significant off-site impacts or interaction with other projects in the locality. Potential impacts are localised and manageable via implementation of mitigation measures identified in this SEE. The proposed modification is not considered likely to result in cumulative impacts such as:

- individual impacts so close in time that the effects of one are not dissipated before the next (time crowded effects);
- individual impacts so close in space that the effects overlap (space crowded effects);
- repetitive, often minor impacts eroding environmental conditions (nibbling effects); or
- different types of disturbances interacting to produce an effect which is greater or different than the sum of the separate effects (synergistic effects).

5. JUSTIFICATION AND CONCLUSION

5.1 Introduction

The proposed modification is to construct a holding water pond downstream of the existing sediment basin, including access and ancillary infrastructure necessary for water management and monitoring.

5.2 Strategic justification

The proposed modification is relatively minor in a strategic context but is considered to support the ongoing and sustainable production of quarry product, consistent with the following relevant strategic plans:

- Sustainable water management to support quarry production will ensure the continued supply of materials to meet demand for transport infrastructure projects, including those projects mapped in the *Projects and Initiatives Map* as part of the TfNSW *Future Transport 2056 Strategy* including 41 infrastructure projects in the North West New England region; and
- Sustainable water management to support quarry production is consistent with relevant goals within the *New England North West Regional Plan 2036*, in particular:
 - Goal 1 – A strong and dynamic regional economy, specifically Direction 4 – Sustainably manage mineral resources. The Regional Plan notes the resources available in the region for major infrastructure projects and the need to avoid sterilisation of those resources, whilst also minimising negative impacts to the environment and community. The proposed modification is considered to promote the sustainable management of the hard rock resource as it would not result in disturbance outside the existing area of operations and would continue to extract available resources from the existing approved quarry, which is also well separated from sensitive land uses and receptors.
 - Goal 3 – Strong infrastructure and transport networks for a connected future, specifically Direction 14 – Enhance transport and infrastructure networks. Increasing annual production and operating a mobile pug mill will allow Boral to meet current market demand and requirements for aggregate products used to construct and enhance transport networks.

5.3 Site suitability

The site is considered suitable for the proposed modification for the following reasons:

- It is the site of an existing operational quarry;
- The modification would improve long-term surface water management to ensure quarry operations can continue sustainably;
- The quarry has been operating with minimal complaints from neighbouring properties for about 20 years;
- The quarry and holding pond location is well screened from neighbouring properties by topography and vegetation;
- The proposed modification would not require any change to existing operations in terms of employment levels, infrastructure, operating hours, or quarry pit size and depth; and the remaining resource can be extracted with minimal environmental impacts.
- Impacts to known Aboriginal heritage would be avoided.
- The proposed modification does not trigger entry into the Biodiversity Offset Scheme (BOS) because the minimum clearing threshold will not be exceeded, the Subject Land does not intersect the NSW

Biodiversity Values Map and the Project will not have a significant impact on threatened flora, fauna or ecological communities as determined by a Five Part Test of Significance.

- Other environmental impacts, such as traffic, air quality, hydrology, noise and vibration are not considered likely to result in significant adverse impacts.

5.4 Submissions

It is understood that adjoining properties will be notified of the application to modify the development consent by Council. Any submissions made on the application will be considered by Council in their determination of the application.

5.5 Public interest

The proposed modification is considered to be in the public interest as it supports the continuation of supply of high quality and competitively priced construction materials into the expanding regional construction industry whilst improving the sustainability of water management at the site.

The socio-economic benefits of the quarry outputs and employment will continue and be of benefit to the local and regional economies without causing any significant adverse impacts.

Water balance modelling indicates the average annual site discharge remains unchanged which will avoid potential impacts on downstream water users.

5.6 Conclusion

The proposed modification seeks to construct a holding pond downstream of the existing sediment basin, including access and ancillary infrastructure necessary for water management and monitoring. This SEE describes and assesses the proposed modification against the relevant provisions of Section 4.15 of the EP&A Act.

The proposed modification is considered to be substantially the same as the originally approved development as it does not result in any change to the material nature of the development. The relevant environmental impacts, including numerical factors, associated with the proposed modification have been assessed and are not likely to result in significant adverse impacts.

The proposed modification is in accordance with the requirements of relevant planning instruments, policy and guidelines and is not considered likely to result in significant adverse environmental impacts to the site and surrounds where environmental management measures and the specific mitigation measures in this SEE are implemented effectively.

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APPENDIX A

BIODIVERSITY ASSESSMENT REPORT



APPENDIX B

DUE DILIGENCE ASSESSMENT



APPENDIX C

WATER BALANCE



APPENDIX D

CONSULTATION



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