

COUNCIL ASSESSMENT REPORT

HUNTER AND CENTRAL COAST REGIONAL PLANNING PANEL

PANEL REFERENCE & DA NUMBER	PPSHCC-203 – [DA 42/2023]
PROPOSAL	Wyndham Quarry – Continuing operation and increase production from 100,000 tonnes per annum to 330,000 tonnes per annum for 15 years
ADDRESS	4458 Golden Highway, Merriwa, NSW 2329 Lot 1521 DP 1133556 Lot 1522 DP 1133556
APPLICANT	Mopoke Portfolio Pty Ltd
OWNER	Mopoke Portfolio Pty Ltd
DA LODGEMENT DATE	2 June 2023
APPLICATION TYPE	Designated Development and Integrated Development
REGIONALLY SIGNIFICANT CRITERIA	Clause 2.19, Schedule 6 of <i>State Environmental Planning Policy (Planning Systems) 2021</i> : Extractive Industry
CIV	\$2,930,000 (excluding GST)
CLAUSE 4.6 REQUESTS	Nil
KEY SEPP/LEP	<ul style="list-style-type: none"> • Upper Hunter Local Environmental Plan 2013 • State Environmental Planning Policy (Resources and Energy) 2021
TOTAL & UNIQUE SUBMISSIONS ISSUES KEY IN SUBMISSIONS	0
DOCUMENTS SUBMITTED FOR CONSIDERATION	Environmental Impact Statement (EMM, May 2023) (including supporting documents as Appendices)

SPECIAL INFRASTRUCTURE CONTRIBUTIONS (\$7.24)	NA
RECOMMENDATION	Approval, subject to conditions of consent
DRAFT CONDITIONS TO APPLICANT	Yes
SCHEDULED MEETING DATE	27 March 2024
PLAN VERSION	Plans are within EIS
PREPARED BY	Paul Smith
DATE OF REPORT	16 January 2024

EXECUTIVE SUMMARY

The development application (DA 42/2023) seeks consent for Wyndham Quarry for the continuing operation and increased production from 100,000 tonnes per annum to 330,000 tonnes per annum for 15 years.

The subject site is known as Lot 1521 and 1522 DP 1133556 ('the site') and comprises rural lots a rural setting, bounded by rural land to the north, south east and west. It is also adjacent to and immediately adjoins the rail corridor of the Sandy Hollow to Merriwa Rail Line (disused). It is located approximately 7km east of the Merriwa township.

Existing development on the site comprises the Wyndham Quarry which has been operating for approximately 40 years under Development Consent 7/1980. At present, the quarry covers an area of approximately 21ha. This comprises the existing extraction area, stockpile and handling areas and infrastructure areas.

The site is located in the RU1 Primary Production Zone pursuant to Clause 2.2 of the *Upper Hunter Local Environmental Plan 2013* ('UHLEP') in which extractive industries are permissible with consent.

The principal planning controls relevant to the proposal include *State Environmental Planning Policy (Resources and Energy) 2021*, *UHLEP* and the *Upper Hunter Development Control Plan 2023* ('UHDCP'). The proposal is consistent with various provisions of the planning controls including:

- The RU1 Primary Production Zone of the UHLEP has the objective that extractive industries *will not destroy or impair the agricultural production potential of the land ...* The development application is expanding the existing quarry resulting in the loss of small area of agricultural land.
- The RU1 Primary Production Zone of the UHLEP has the objective that extractive industries *will not detrimentally affect the quantity, flow and quality of water in either subterranean or surface water system.* This arrangement will continue as part of the proposed development. Appropriate soil and water management considerations to protect water quality in the adjacent watercourse are proposed.
- fully consistent with the outcomes to be achieved in the UHDCP (Part 8d – Extractive

Industries which states: *The rehabilitation of extraction areas are undertaken progressively throughout the life of an operation.* The rehabilitation strategy states “there will be no real opportunities for progressive rehabilitation. The outcomes also state: *Rehabilitation is integrated with the surrounding area, incorporating shape, form, contour, land use, drainage, characteristics, topography, landscape quality and biodiversity.* A large proportion of the extraction area will remain the un-rehabilitated quarry floor and benches. Notwithstanding the rehabilitation strategy proposes that the remaining quarry benches with the excavated void will be treated with native plant seed and fertiliser to encourage partial revegetation to reduce the visual impacts.

The development is integrated development pursuant to Section 4.46 of the *Environmental Planning and Assessment Act 1979* (‘EP&A Act’). Concurrences and general terms of approval were obtained from the NSW Environment Protection Authority, and the Department of Planning and Environment – Water.

In addition, a referral to Transport for NSW pursuant to *State Environmental Planning Policy (Resources and Energy) 2021* was made with a response requiring the upgrade of the haulage road-Golden Highway intersection.

The proposal was notified in accordance with the Upper Hunter Community Participation Plan from 7 July 2023 until 5 July 2023 and again from 9 August 2023 and 5 September 2023. No submissions were received.

The development application is being referred to the Regional Planning Panel (‘the Panel’) as the development is ‘*regionally significant development*’, pursuant to Section 2.19(1) and Clause (5)(b) of Schedule 6 of *State Environmental Planning Policy (Planning Systems) 2021* as the proposal is an extractive industry.

A briefing was held with the Panel on 2 August 2023 where key issues were discussed, including the requirement for a proper rehabilitation framework that deals with the whole site. A site inspection was carried out on 27 October 2023 and a follow-up Panel briefing on 15 November 2023 where issues including addressing the SEARs, rehabilitation and the Biodiversity Offsets Scheme requirement were discussed. The Applicant was issued with a notice requesting further information on 31 October 2023 in relation to these matters.

The key issues associated with the proposal included:

- Rehabilitation and Final Landform – only partial rehabilitation of the extraction area is likely to be achievable due to limited on-site topsoil and depth of the existing/extended quarry.
- Soil and Water Management (controlled drainage system) – the soil and water management system will be constructed in accordance with the *Managing Urban Stormwater – Mines and Quarries*.
- Impact on waterfront land – through the redirection of a natural watercourse (existing quarry)
- Measures to maintain or improve the biodiversity values of the site in the medium to long term – does not adequately address the SEARs or Upper Hunter Development Control Plan 2023.

- The development does not comply with the SEARs in relation to the quantity and nature of the waste streams.
- The development does not comply with the SEARs as it does not provide a detailed description of the water monitoring program – this could be address through a condition of consent.
- Biodiversity Development Assessment Report has been submitted.
- Haulage Road-Golden Highway intersection

Overall these issues have been satisfactorily addressed or can be addressed through the recommended conditions of consent. Notwithstanding, the rehabilitation strategy is not fully consistent with best practice as reflected in mine rehabilitation guidelines, the Upper Hunter Development Control Plan 2023 and the SEARs. In particular there are concerns about the uncertainties created delay by the in any rehabilitation and the limited rehabilitation to the actual quarry area. There are also concerns about the loss of biodiversity habitat and the limited commitment to on-site biodiversity conservation measures. In this regard it is recommended that in lieu of a progressive rehabilitation program greater on-site conservation measures are implemented on lands adjacent to the quarry area through a combination of restoration and enhancement of the ecological community that is being removed.

Provided such measures are implemented it is recommended that the development application for the Wyndham Quarry – Continuing operation and increase production from 100,000 tonnes per annum to 330,000 tonnes per annum be approved subject to conditions of consent for a 15 year period.

1. THE SITE AND LOCALITY

1.1 The Site

The development site comprises two existing rural zoned lots areas of approximately 98.8ha and 368.3ha (Lot 1521 and Lot 1522 DP 113356). The quarry itself is on Lot 1522. The current area is approximately 21.6ha, comprising approximately 14.7ha extraction area and approximately 5.2ha previously disturbed for the rail material stockpile and haul road.

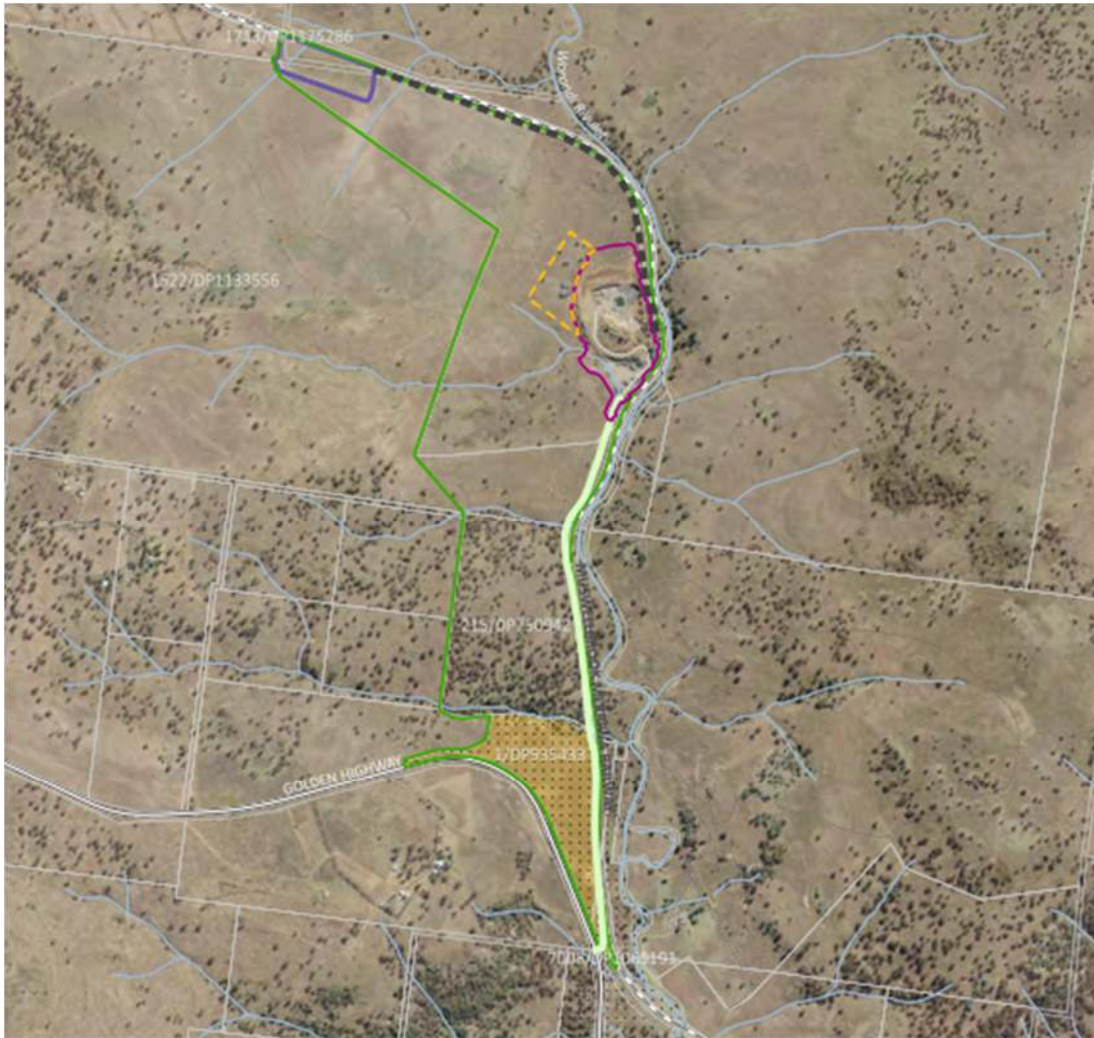
The Wyndham Quarry is located on a low ridge in a landscape consisting of low rolling hills which are mostly cleared of native vegetation and have been used for farming and grazing purposes for over 150 years. Many adjacent areas are regularly cropped for grain production or consist of improved pastures, with grazing of cattle and sheep also being undertaken in these adjacent areas. There are no nearby industrial or commercial developments.

Immediately east of the quarry site is the alignment of the former Sandy Hollow to Merriwa rail line, which is now abandoned. At the nearest point, the quarry is approximately 40 m from the former rail alignment (and also separated by Lot 123 DP 591025 – owned by Gundibri Pty Ltd). The infrastructure area directly adjoins the rail corridor.

The Worondi Rivulet lies further east of the former rail alignment, at its closest point approximately 60 m from the quarry. The quarry excavations are raised above the level of the creek banks, being located farther up the hill slope to the west/north-west. The Worondi Rivulet

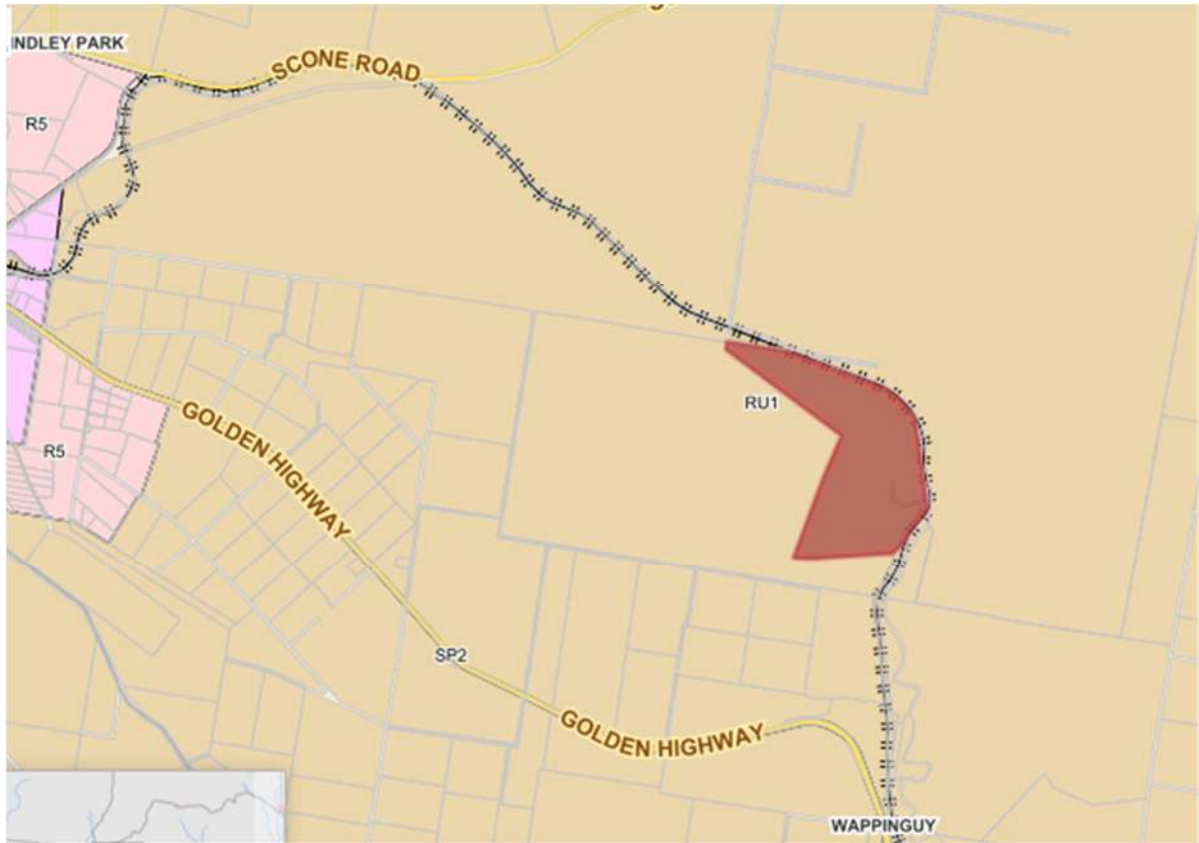
is a permanent tributary of the Goulburn River which it joins approximately 24 km to the south-east.

Access to the quarry site will be from the Golden Highway via an existing right of carriageway (haulage road) over Lot 7008 DP 1065191, Lot 1 DP 535433 and Lot 215 DP 750942.



1.2 The Locality

The Wyndham Quarry is located approximately 7km east of the Merriwa township. The nearest private residences are located approximately 2.02 km southwest and 2.2 km south of the quarry. The quarry is only visible from the private residence located approximately 2.2 km south of the site and is not visible from any public road locations.



2. THE PROPOSAL AND BACKGROUND

2.1 The Proposal

The applicant seeks a new development consent for this project to supersede the current Wyndham Quarry development consent, for ongoing quarry operations comprising the following key components:

- increase quarry production from 100,000 tpa to 330,000 tpa
- extraction of approximately 4.8 million tonnes (Mt) basalt resource over the life of the quarry life of approximately 15 years
- extract basalt resources from within the existing disturbance area for approximately 18 months, followed by expanding the quarry footprint by approximately 4.4 hectares (ha) of new disturbance area for ongoing basalt extraction. It should be noted that the current disturbance area is approximately 12.5ha and that the total disturbance area will be approximately 17ha.
- increase direct employment from three to five full time equivalent (FTE) employees to approximately eight FTE

- upgrade existing crushing and screening facilities
- reduced blast frequency from three times per week to once per week
- increase road transportation of quarry products from currently approved limit of 1,000 tonnes per day (tpd) to 2,100 tpd
- undertake improvements to the intersection of the quarry access road and the Golden Highway to accommodate the proposed increased road haulage. Road haulage will not exceed 1,000 tpd until the road intersection has been upgraded.

Table 1: Development Data

Control	Proposal
Site area	100ha (Lot 1531)
Disturbance Area	Current: 21.6ha (14.7ha extraction area and 5.2ha haul road and rail material stockpile) New: 4.4ha new extraction area
Annual extraction and product transport limit	330,000tpa
Approval timeframe	15 years
Blasting	Maximum 1 blast per week
Product transport	2,100 tpd

2.2 Background

The site contains an existing quarry operation approved under DA 7/1980 on 1st June 1981 for a Gravel Quarry, Rail Siding and Stock Pile - "Wyndham", Merriwa. According the EIS: *The quarry has an established local, regional and domestic market for sale of products. The quarry's location allows for the efficient distribution of basalt materials to the local Upper Hunter construction and road building sectors. The quality basalt material is primarily used for construction and infrastructure projects.*

A pre-lodgement meeting was held prior to the lodgement of the application on 2 December 2021 to discuss the appropriate approval pathway for the quarry expansion. Council advised that Applicant that a new development consent was considered appropriate given the scale of the expansion and the age of the existing consent.

The development application was lodged on **2 June 2023**. A chronology of the development application since lodgement is outlined below including the Panel's involvement (briefings, deferrals etc) with the application:

Table 2: Chronology of the DA

Date	Event
2 June 2023	DA lodged
7 June 2023	DA referred to external agencies – Environment Protection Authority, Transport for NSW and Department of Planning and Environment - Water
7 July 2023	Exhibition of the application
25 July 2023	Amended DA to change project boundaries – removal of land owned by NSW Country Rail Infrastructure Authority (CRIA), and an area of Crown Road reserve,
2 August 2023	Preliminary Panel briefing
19 August 2023	2 nd Exhibition of the application – expanded area for direct notification
27 October 2023	Panel Site Inspection
15 November 2023	Panel Briefing
31 October 2023	Request for Information from Council to applicant – Detailed Rehabilitation Strategy and Biodiversity Development Assessment Report
20 December 2023	Response to request for further information submitted including Rehabilitation Strategy and Biodiversity Development Assessment Report.
8 April 2024	Condition Review Meeting between Planning Officer and Applicant

3. STATUTORY CONSIDERATIONS

Biodiversity Conservation Act 2016

Section 1.7 of the Environmental Planning and Assessment Act 1979 provides *this Act has effect subject to the provisions of Part 7 of the Biodiversity Conservation Act 2016* that relate to the operation of this Act in *connection with the terrestrial environment*. In summary, Part 7 requires the consent authority to:

Determine whether there is likely to be a significant impact on threatened species or threatened ecological communities (either as a result of exceeding the vegetation clearing threshold, the land being identified on the Biodiversity Values Map, or by undertaking a threatened species test of significance) and therefore whether a Biodiversity Development Assessment Report (BDAR) must accompany the development application.

Where a BDAR is required this must be prepared by an accredited assessor to accompany the development application. The BDAR must meet Biodiversity Assessment Methodology (BAM) requirements including documenting measures taken to avoid and minimise impacts on biodiversity values and determining a biodiversity offset credit requirement for the NSW Biodiversity Offset Scheme (BOS) where avoiding and minimising biodiversity impacts is not feasible.

The development proposal for the quarry triggers the BOS as it proposes to clear 4.4ha of native vegetation in excess of the 1ha clearing threshold and as such the applicant has submitted a BDAR (OzArk, December 2023). The adequacy of the BDAR is given consideration in Attachment D. Overall the BDAR is considered adequate for the purpose of this development application in relation to the BOS.

It should be noted that a BDAR is strictly concerned with meeting the legislative requirements under the BC Act. A BDAR does not have regard to the additional matters relevant to biodiversity that the consent authority is required to consider in determining the application. It is not intended or required for a BDAR to provide a comprehensive and full assessment of biodiversity. In this regard biodiversity and flora/fauna impacts are also considered under Section 4.15(1) of the Environmental Planning and Assessment Act 1979 (below).

Environmental Planning and Assessment Act 1979

When determining a development application, the consent authority must take into consideration the matters outlined in Section 4.15(1) of the *Environmental Planning and Assessment Act 1979* ('EP&A Act'). These matters as are of relevance to the development application include the following:

- (a) *the provisions of any environmental planning instrument, proposed instrument, development control plan, planning agreement and the regulations*
 - (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), 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.*

These matters are further considered below.

It is noted that the proposal is considered to be (which are considered further in this report):

- Integrated Development (s4.46)
- Designated Development (s4.10)
- Requiring concurrence/referral (s4.13)

3.1 Environmental Planning Instruments, proposed instrument, development control plan, planning agreement and the regulations

The relevant environmental planning instruments, proposed instruments, development control plans, planning agreements and the matters for consideration under the Regulation are considered below.

(a) Section 4.15(1)(a)(i) - Provisions of Environmental Planning Instruments

The following Environmental Planning Instruments are relevant to this application:

- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Resources and Energy) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *Upper Hunter Local Environmental Plan 2013;*

A summary of the key matters for consideration arising from these State Environmental Planning Policies are outlined in **Table 3** and considered in more detail below.

Table 3: Summary of Applicable Environmental Planning Instruments

EPI	Matters for Consideration	Comply (Y/N)
State Environmental Planning Policy (Biodiversity & Conservation) 2021	Chapter 3: Koala Habitat Protection 2020 Chapter 4: Koala Habitat Protection 2021	Y
State Environmental Planning Policy (Planning Systems) 2021	Chapter 2: State and Regional Development • Section 2.19(1) declares the proposal regionally significant development pursuant to Clause 7(1)(a) of Schedule 6 as it comprises an extractive industry.	Y
SEPP (Resilience & Hazards)	<p>Part 2 Hazardous and Offensive Development</p> <p>The development application for the quarry does not include activities that would require consideration under this SEPP. The applicant advises that a preliminary risk screening of potential hazardous risks was undertaken and the following identified that given the significant distances from the proposed project from any residential location, being approximately 2.02 km, and the absence of any other nearby industry or hazardous or flammable storage facility, the risk consequences represented by the proposed project are low. In this regard, the development is not considered a potentially hazardous or offensive development.</p> <p>Chapter 4: Remediation of Land</p> <ul style="list-style-type: none"> • Section 4.6 - The land is not listed on the EPA or Upper Hunter Shire contaminated land registers. Also extractive industries are listed as a potentially contaminating activity however, the likelihood of contamination is low as the material being extracted comprises rock and soil. 	Y
State Environmental Planning Policy (Resources and Energy) 2021	• Chapter 2: Mining, petroleum production and extractive industries	Y

Upper Hunter Local Environmental Plan 2013	• Clause 2.3 – Permissibility and zone objectives	Y
Upper Hunter Development Control Plan 2023	Part 8d – Extractive Industries	Not fully.

Consideration of the relevant SEPPs is outlined below:

State Environmental Planning Policy (Biodiversity and Conservation) 2021

Clause 4.9 requires the consent authority to assess *whether the development is likely to have any impact on koalas or koala habitat*. Information to enable consideration of this has been provided in the BDAR. This identifies the site as potential koala habitat as it is greater than 1ha and contains Koala feed trees (*Eucalyptus albens* – White Box) and the intersection with koala use trees (*Eucalyptus tereticornis* – Forest Red Gum). The BDAR concludes that the site is unlikely to be core koala habitat as there are no koalas present and only one recorded siting of a koala is known from within 10km in 2002. In addition, the targeted survey did not identify any evidence of current or former occupation. In this regard, it is unlikely the site is core koala habitat.

State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 4: Remediation of Land

The provisions of Chapter 4 of *State Environmental Planning Policy (Resilience and Hazards) 2021* ('the Resilience and Hazards SEPP') have been considered in the assessment of the development application. Section 4.6 of Resilience and Hazards SEPP requires consent authorities to consider whether the land is contaminated, and if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out.

The land is not listed on the EPA or Upper Hunter Shire contaminated land registers. Although extractive industries are listed as a potentially contaminating activity, the likelihood of contamination is low as the material being extracted comprises rock and soil.

State Environmental Planning Policy (Resources and Energy) 2021

Part 2.3 provides for development applications – matters to be considered including: a set of non-discretionary development standards for mining and:

- Compatibility with other land uses
- Consideration of voluntary land acquisition and mitigation
- Compatibility with mining, petroleum production and extractive industry
- Natural resource management and environmental management
- Resource recovery
- Transport
- Rehabilitation

These are given consideration in Attachment 1.

Upper Hunter Local Environmental Plan 2013

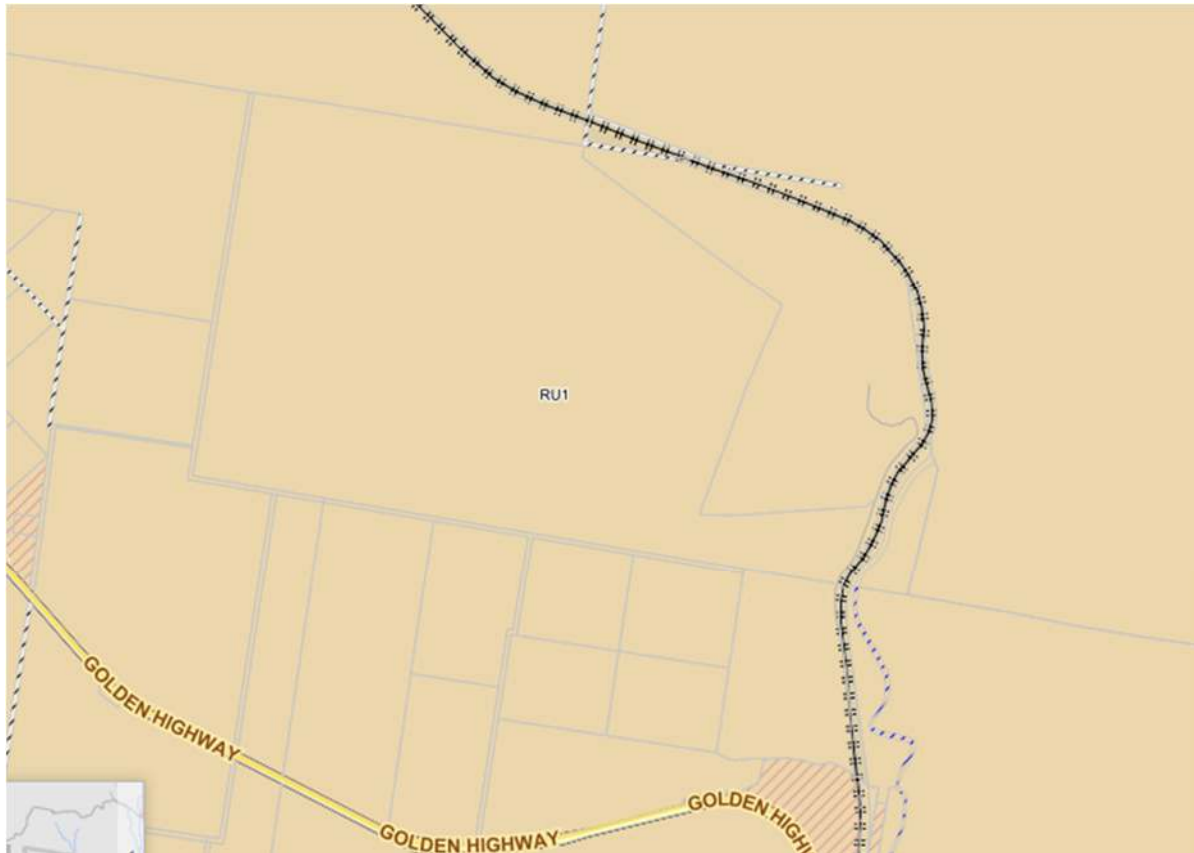
The relevant local environmental plan applying to the site is the *Upper Hunter Local Environmental Plan 2013* ('the LEP'). The aims of the LEP include:

- (a) *to encourage the proper management, development and conservation of natural and human-made resources in the Upper Hunter by protecting, enhancing and conserving the following—*
 - (i) *important agricultural resources,*
 - (ii) *timber, minerals, soil, water and other natural resources,*
 - (iii) *the environmental, scenic and cultural heritage of the Upper Hunter,*
- (b) *to protect and conserve—*
 - (i) *soil stability by controlling development in accordance with land capability, and*
 - (ii) *remnant native vegetation, and*
 - (iii) *water resources, water quality and wetland areas, natural flow patterns and their catchments and buffer areas,*
- (c) *to establish a pattern of broad development zones as a means of—*
 - (i) *separating incompatible uses, and*
 - (ii) *minimising the cost and environmental impact of a development, and*
 - (iii) *maximising efficiency in the provision of utility, transport, retail and other services,*
- (d) *to manage the urban areas of the Upper Hunter by strengthening retail centres and employment opportunities, promoting appropriate tourism development, guiding affordable urban form and providing for the protection of heritage items and precincts,*
- (e) *to promote ecologically sustainable urban and rural development and control the development of flood liable land,*
- (f) *to secure a future for agriculture by expanding the Upper Hunter's economic base and minimising the loss or fragmentation of productive agricultural land,*
- (g) *to protect, enhance and provide for biological diversity, including native threatened species, populations and ecological communities, by long-term management and by identifying and protecting habitat corridors and links throughout the Upper Hunter.*

Overall the proposal is consistent with these aims, however does not adequately promote ecologically sustainable development, protect or conserve remnant native vegetation or protect, enhance and provide for biological diversity due to the removal of a 4.4ha area of native vegetation and limited rehabilitation.

Zoning and Permissibility (Part 2)

The site is located within the RU1 Primary Production Zone pursuant to Clause 2.2 of the LEP.



According to the definitions in Clause 1.4 (contained in the Dictionary), the proposal satisfies the definition of Extractive Industry which is a permissible use with consent in the Land Use Table in Clause 2.3.

The zone objectives include the following (pursuant to the Land Use Table in Clause 2.3):

- *To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.*
- *To encourage diversity in primary industry enterprises and systems appropriate for the area.*
- *To minimise the fragmentation and alienation of resource lands.*
- *To minimise conflict between land uses within this zone and land uses within adjoining zones.*
- *To protect the agricultural value of rural land.*
- *To maintain the rural landscape character of the land in the long term.*
- *To ensure that development does not unreasonably increase demand for public services or public facilities.*
- *To ensure that development for the purposes of extractive industries, underground mines (other than surface works associated with underground mines) or open cut mines (other than open cut mines from the surface of the flood plain) will not—*

- (a) *destroy or impair the agricultural production potential of the land or, in the case of underground mining, unreasonably restrict or otherwise affect any other development on the surface, or*
- (b) *detrimentally affect the quantity, flow and quality of water in either subterranean or surface water systems, or*
- (c) *visually intrude into its surroundings, except by way of suitable screening.*

The proposal is not considered to be consistent with these zone objectives in relation to:

- *destroy or impair the agricultural production potential of the land or, in the case of underground mining, unreasonably restrict or otherwise affect any other development on the surface*

The expansion of the existing quarry will result in the loss of agricultural land and other than proposing a large waterbody for agricultural use does not propose any actions to rehabilitate the extraction area. In this regard the development is not consistent with this objective. Notwithstanding it is only a small area of agricultural land in the context of the surrounding landscape and landuse.

- *detrimentally affect the quantity, flow and quality of water in either subterranean or surface water systems.*

The existing quarry has resulted in the redirection of a watercourse which is now diverted through the infrastructure area. This arrangement will continue as part of the proposed development. The soil and water management considerations do not provide sufficient information about the current condition of this system and what measures need to be implemented to make it fit for the expanded quarry operations. However through appropriate conditions of consent the soil and water management system may be upgraded to a standard. It is unlikely that the quarry will adversely affect groundwater.

The LEP also contains controls relating to development standards, miscellaneous provisions and local provisions which are not relevant to this development application. Clause 6.3 Terrestrial Biodiversity must also be considered. This provides:

- (1) *The objective of this clause is to maintain terrestrial biodiversity by—*
 - (a) *protecting native fauna and flora, and*
 - (b) *protecting the ecological processes necessary for their continued existence, and*
 - (c) *encouraging the conservation and recovery of native fauna and flora and their habitats.*
- (2) *This clause applies to land identified as “Biodiversity” on the [Terrestrial Biodiversity Map](#).*
- (3) *Before determining a development application for development on land to which this clause applies, the consent authority must consider—*
 - (a) *whether the development is likely to have—*
 - (i) *any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and*
 - (ii) *any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and*

- (iii) *any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and*
- (iv) *any adverse impact on the habitat elements providing connectivity on the land, and*
- (b) *any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.*
- (4) *Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that—*
 - (a) *the development is designed, sited and will be managed to avoid any significant adverse environmental impact, or*
 - (b) *if that impact cannot be reasonably avoided by adopting feasible alternatives—the development is designed, sited and will be managed to minimise that impact, or*
 - (c) *if that impact cannot be minimised—the development will be managed to mitigate that impact.*

Part of the land (Lot 1522) is identified on the Terrestrial Biodiversity Map, however it is not proposed to disturb the vegetation on this land as part of the development application. The actual quarry and area of vegetation to be cleared is located on Lot 1521 – this land is not identified on the Terrestrial Biodiversity Map.

(b) Section 4.15 (1)(a)(ii) - Provisions of any Proposed Instruments

There are no relevant proposed instruments.

(c) Section 4.15(1)(a)(iii) - Provisions of any Development Control Plan

The following Development Control Plan is relevant to this application:

- ***Upper Hunter Development Control Plan 2023***

The Part 8d of the Upper Hunter Development Control 2023 (UHDCP) establishes specific requirements for Extractive Industries. These closely align with the key issues set out in the Planning Secretary's Environmental Assessment Requirements (SEARs) including:

- A. Compatibility with and relationship to surrounding land uses
- B. Access, transport and haulage
- C. Erosion and soil management
- D. Visual amenity and landscaping
- E. Water management
- F. Riparian land
- G. Groundwater
- H. Flood prone land
- I. Biodiversity
- J. Vegetation (including trees)
- K. Bush fire risk
- L. Acoustic management
- M. Blasting
- N. Air quality and dust management
- O. Waste
- P. Rehabilitation
- Q. Closure and post-extraction land use

Consideration of the UHDCP is given in detail in Attachment B. Overall the development satisfies the Outcomes and design guidelines of the UHDCP, with the exception of biodiversity and rehabilitation.

The following contributions plans are relevant pursuant to Section 7.18 of the EP&A Act and have been considered in the recommended conditions (notwithstanding Contributions plans are not DCPs, they are required to be considered):

- **Upper Hunter S7.11 Development Contributions Plan 2017**

Section 7.5.3 Haulage Vehicles

The purpose of this provision is to provide for contributions towards undertaking works that are required as a result of the impact of heavy haulage vehicles on the local road system.

The primary haulage route will be on the Golden Highway which is a state classified road, not a local road. In this regard the contributions plan is not applicable.

- **Upper Hunter S7.12 (94A) Development Contributions Plan 2008**

This plan imposes a 1% levy on any development with an estimated value of \$200,000 or more. The proposed development has an estimated value of \$2,930,000.00. In this regard a contribution of \$29,300.00 is payable. An appropriate condition of consent will be included.

(d) Section 4.15(1)(a)(iiia) – Planning agreements under Section 7.4 of the EP&A Act

There have been no planning agreements entered into and there are no draft planning agreements being proposed for the site.

(e) Section 4.15(1)(a)(iv) - Provisions of Regulations

The provisions of the EP&A Regulation 2021 have been considered and are addressed in the recommended draft conditions (where necessary). The development application has been considered in relation to the Secretary's Environmental Assessment Requirements (SEARs) issued under Section 4.12(8) of the EP&A Act. These have been considered in the overall assessment and the compliance table in Attachment C.

3.2 Section 4.15(1)(b) - Likely Impacts of Development

The consideration of impacts on the natural and built environments includes the following:

- **Context and setting** – The Wyndham Quarry is located approximately 1.6km from the Golden Highway and is well within the boundary of private lands. It is situated low in the undulating landscape. In this regard, from public areas the quarry is unlikely to adversely impact on the streetscape or local scenic qualities.
- **Access and traffic** – Quarries have the potential to generate high frequency of heavy vehicle movements which can adversely impact on public roads and amenity. The development application proposes to extract and transport 330,000 tonnes of material per annum and 2100 tonnes per day. According to the EIS, the product will be

transported by trucks that carry an average of 25 tonnes. It is anticipated that the daily truck movements would increase from 40 quarry product pickups per day (80 truck movements) to 84 product pick-ups per day (168 truck movements).

The haulage route from the quarry site to the intersection with the Golden Highway is via a 1.1km unsealed road over Lots 215 DP 750942 (owned by T Shannon – quarry land owner), Lot 1 DP 535433 and Lot 7008 DP 1065191 (Crown Land under the control of the Central North Livestock and Pest Authority). There are no other properties gaining access from the road and use of the road is unlikely to have adverse impacts on adjoining properties.

The major likely impact is the movement to/from the Golden Highway of quarry related haulage vehicles. In this regard, TfNSW requires the intersection to be upgraded to a BAR/BAL standard for any continued use of the quarry.

- **Heritage** – The development application increases the disturbance footprint of the quarry by 4.4ha (including the removal of trees). This has the potential to disturb items of archaeological significance. The applicant has submitted an Archaeological Technical Report (OzArk, March 2023). This overall concludes that there is a low likelihood that the proposed work will adversely harm Aboriginal cultural heritage items or sites. Notwithstanding it is recommended that a condition of consent be imposed that requires the inclusion of an unexpected archaeological finds procedure and Unanticipated Skeletal Remains Protocol to be developed and included in the Environmental Management Plan (that will be a requirement as part of the conditions of consent).
- **Water/soils impacts** - The development involves substantial ground disturbance and has the potential to adversely impact on soil and surface water. The nearest major watercourse is the Worandi Rivulet. The proponent submitted a *Soil and Water Management Plan* (EMM, 18 May 2023) showing the basic soil and water measures including clear water (“freshwater”) diversion structure around the north and north-western extent of the extraction area. This diverts some clean water to a natural watercourse (1st Order, but still regarded as waterfront land) to the west which then flows into Dam East 1, which spills into a constructed channel and passes through the quarry infrastructure area, through a culvert beneath the haulage road, before flowing into the Worandi Rivulet.

There are three main concerns with this proposed water management system. Firstly, it is unclear where the clean water flows to around the northern part of the quarry to the east. This should be directed into a grassed waterway with sufficient capacity however insufficient information has been provided about the discharge area. Secondly, there is potential for contamination of the clean water. The clean water diversion channel comprise poorly vegetated or treated sections especially from Dam East 1 resulting in sedimentation of the “clean water”. The existing “sediment control dam” is likely to be under capacity and seems to interact with the clean water system.

The clean water system and dirty water system interact as it passes through the infrastructure area. In addition it is unlikely that the sediment dam has sufficient capacity to contain the likely discharges from the infrastructure area and there is evidence of gravel sediment leaving the quarry site. There is at least one potential discharge point from the quarry site into the Worandi Rivulet. This comprises a culvert beneath the rail corridor with an incised outlet located just to the south of the site office.

In this regard there is potential for pollution of the Worandi Rivulet under the existing arrangement and as such upgrades will be needed to support the continued operation and expansion at increased production levels.

Thirdly, the access road from the Golden Highway to the quarry site is a potential source of sediment. There is at least one culvert beneath this road that discharges beneath rail corridor and into Worandi Rivulet.

There are also concerns about the geomorphic stability of the Worandi Rivulet in relation to the clear water discharge outlets. These have been used as part of the existing quarry operation however with the increased disturbance area and required upgrades to the water management system there may be a need to undertake stabilisation works for the outlet areas.

It is recommended that a condition is imposed prior to the commencement operation under the new consent that the existing soil and water management system be upgraded to the standard as require by the Managing Urban Stormwater best practice guidelines. An appropriate water management plan with a water monitoring system and an adaptive management approach that provides for changes should problems arise.

The EIS also gives consideration to the likely impact of the quarry on groundwater. While there is a local groundwater system at the base of the basalt material, the proposed continuing use and additional area will not be deeper than the current depth of the existing quarry. To date no groundwater has been encountered and as the direction of the quarry is uphill from the Worandi Rivulet it is not anticipated that groundwater will be encountered. It is considered there is negligible risk to groundwater in the basalt aquifer or groundwater in the deeper sandstone aquifer.

- **Air quality** - The quarry operations have the potential to generate particulates from blasting, excavations, the operation of machinery and wheel generated dust from haulage vehicles. An *Air Quality Impact Assessment* (EMM) was submitted as Appendix J in the EIS. This concludes: The results of the dispersion modelling indicated that the proposed increase in quarry throughput and product transportation would generate low incremental concentrations at surrounding residential assessment locations relative to existing background concentrations and applicable impact assessment criteria.

The EIS proposes a number of mitigation measures to address the air quality impacts. These include: The use of water carts on the stockpile areas and in the pit area; Water sprays at the crushing /screening components; and the use of water carts on the unpaved haul roads.

It is recommended that a condition of consent be imposed that requires the implementation of air quality operating protocols and contingencies for air quality mitigation.

- **Flora and fauna impacts** - The development application proposes the removal of both grassland and tree vegetation from within the identified area of the quarry and from the intersection of the haul road and the Golden Highway. While the applicant has submitted a BDAR, the BAM does assess all relevant biodiversity impacts including its local values and the strategic conservation context. Although the EIS gives broader consideration to other biodiversity issues such as groundwater dependent ecosystems and waterbodies, it does not consider the loss of biodiversity values in the local context

or the long-term strategic value. In this regard it is considered appropriate that measures are included to enhance and conserve the existing biodiversity values of the site adjacent to the disturbance area. It is therefore recommended that a condition of consent is included that requires the submission of a biodiversity management plan.

- **Natural environment** – the expanded operation of the quarry is likely to have significant impact on the landform, drainage patterns, soils and ecological attributes of the land. In particular the quarry will result in an additional disturbance area and as such rehabilitation of the site is of critical importance.

The EIS (Section 5.7) for the existing quarry DA 7/1980 which forms part of the existing consent undertook:

“On completion of operations at the site and if it is considered that the quarry has no further use as source of rock material, then it will be left in a stable condition and disturbed surfaces revegetated. The quarry face will be battered to a safe and stable angle with broken rock and stockpiled overburden and scalps. The face area and plant site will be restored, grass seeded and fertilised in accordance with the requirements of the Soil Conservation Service and Merriwa Shire Council”.

In this regard, from the commencement there was a commitment under the existing consent to undertake quarry area with vegetation.

While the Applicant has submitted a more detailed Rehabilitation Strategy (RS) as requested in the RFI, there are concerns about the lack of progressive rehabilitation and the possible inability to rehabilitate the majority of the quarry floor and benches.

The RS outlines broad goals for rehabilitation creating safe, stable and non-polluting landforms, however does not clearly demonstrate how key success criteria can be achieved. It suggests that the topsoil resources are limited and it is not possible to return the area to a viable native forest, however despite the limitations the areas within the quarry can be rehabilitated to provide enhanced biodiversity values.

The RS suggests there will be limited opportunities for progressive rehabilitation, contrary to most of the best practice guidelines. The *Mine Rehabilitation* guidelines (above) establish the importance of progressive rehabilitation advising that “failure to start rehabilitation early in the operation (or in the later stages of project development) may create an obstacle to building the knowledge and capacity necessary to deliver a sustainable outcome that meets the success criteria” (Page 5). While the result of the past quarrying activities (and lack of consideration of rehabilitation) it creates a high risk that the quarry area will not be adequately rehabilitated leading to ongoing and long-term impacts on the landscape.

The RS suggests that the topsoil resources are limited and it is not possible to return the area to a viable native forest, however despite the limitations the areas within the quarry can be rehabilitated to provide enhanced biodiversity values. Given that the proposal is a continuation and extension of an old existing quarry the proposed rehabilitation efforts are considered appropriate. However, it is recommended that a rehabilitation management plan be submitted to the consent authority prior to the commencement of quarry operations under the new consent.

While the proposal is unlikely to have significant adverse environmental impacts provided appropriate mitigation measures for noise and air quality are implemented, there are concerns

about the impacts of the limited and delayed rehabilitation and loss of biodiversity values (from the 4.4ha area). In this regard, it may be appropriate to enhance the level of on-site biodiversity conservation and the restoration of the ecological community (Grey Box – White Box Grassy Woodland) in areas adjacent to the quarry through the establishment of conservation areas within the site (commensurate with the existing disturbed area and addition – 26ha). In this regard it is recommended that prior to the commencement of the consent, the Applicant must submit a Biodiversity Management Plan that proposes measures to restore and enhance the biodiversity values of the area surrounding the quarry.

3.3 Section 4.15(1)(c) - Suitability of the site

Overall the site is considered to be suitable for the development of the quarry in the sense that there is resource available and it is in a relatively isolated area that is unlikely to impact on nearby residents/land uses. However, as the site has been used for quarrying over the last 40 years, the configuration, depth, extent and apparent limited topsoil means progressive rehabilitation and full rehabilitation may not be achievable. In this regard there remain concerns that quarry operation at this site will leave a legacy of an exposed quarry void.

3.4 Section 4.15(1)(d) - Public Submissions

No public submissions were received.

3.5 Section 4.15(1)(e) - Public interest

One of the key objects of the Environmental Planning and Assessment Act 1979 is: *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment*. In the case of the proposed quarry the economic gain of winning the resource takes precedent over providing certainty that rehabilitation will be achieved. Poorly rehabilitated or derelict mine/quarry sites impose a cost on the community and the environment and expectation of appropriate mine site rehabilitation is set out in best practice documents such as *Mine Rehabilitation: Leading Practice Sustainable Development Program for the Mining Industry* (referenced in the SEARs) and *Extractive Industry Quarries – EIS Guideline* which identify/reflect progressive rehabilitation as best practice.

The Wyndham Quarry provides an important local source of construction material for public roads and renewable energy projects. Furthermore, the continued use of an existing and established quarry helps minimise the disturbance of other areas. This needs to be considered in relation to broader community expectation about how extractive industry developments are carried out. Provided rehabilitation can be addressed and greater on-site biodiversity conservation measures can be implemented, the development is in the public interest.

4. REFERRALS AND SUBMISSIONS

4.1 Agency Referrals and Concurrence

The development application has been referred to various agencies for comment/concurrence/referral as required by the EP&A Act and outlined below in Table 5.

There are no outstanding issues arising from these concurrence and referral requirements subject to the imposition of the recommended conditions of consent.

Table 4: Concurrence and Referrals to agencies

Agency	Concurrence/ referral trigger	Comments (Issue, resolution, conditions)	Resolved
Concurrence Requirements (s4.13 of EP&A Act)			
Transport for NSW	Clause 2.22 of SEPP (Resources and Energy)	<p>The TfNSW response requires that the intersection of the quarry haulage road and the Golden Highway be upgraded to BAR/BAL standard, warning signs for northbound traffic, tree removal (1 tree) and vegetation trimming, shoulder widening and design vehicle. An appropriate condition of consent will be imposed that requires the upgrade and other works to the intersection prior to the commencement of the consent.</p> <p>Notwithstanding TfNSW also advise: <i>Delaying the necessary intersection upgrade will create additional risks upon the safety and efficiency of the State road network.</i></p>	Yes
Referral/Consultation Agencies			
Central Northern Livestock and Pest Authority	Controlling Authority of Crown Land - Lot 1 DP 535433 and Lot 1065191	Referred on 7 June 2023. No response has been forthcoming	NA
Country Rail Infrastructure Authority	The site adjoins the Merriwa to Sandy Hollow Rail Line (disused)	Referred on 8 August 2023. No response has been forthcoming.	NA

NSW Government – Crown Lands	The haulage route is through Crown Land on Lot 1 DP 535433 and Lot 1065191	Referred on 8 August 2023. No response has been forthcoming.	NA
Integrated Development (S 4.46 of the EP&A Act)			
Environment Protection Authority	Ss43(a), 47 and 55 of the Protection of the Environment Operations Act 1997.	<p>The development application was referred to the NSW Environmental Protection Authority pursuant to Section 4.46 Environmental Planning and Assessment Act 1979. The General Terms of Approval were issued on 4 August 2023 in relation to:</p> <ul style="list-style-type: none"> • Pollution of waters • Waste • Blasting • Hours of operation • Potentially offensive odour • Noise limits • Dust • Stormwater/sediment control – Construction Phase • Stormwater/sediment control – Operation Phase • Chemical and fuel storage • Along with the mandatory, monitoring and reporting conditions <p>An appropriate set of conditions will be imposed.</p>	Yes
Department of Climate Change, Energy, Environment and Water (DCCEEW)	Controlled Activity Approval under the Water Management Act 2000	The EIS states that the “extension and approved extraction area are not within 40m of a watercourse and therefore an activity approval is not required”. The DCCEEW advise that “a controlled activity approval is warranted” as the development impacts on waterfront land and have issued general terms of approval.	Yes

4.2 Council Officer Referrals

The development application has been referred to various Council officers for technical review as outlined **Table 6**.

Table 5: Consideration of Council Referrals

Officer	Comments	Resolved
Traffic/Roads (Infrastructure Services) – Assets Manager	The development application was referred to the Council's Assets Manager who recommended that the Applicant undertake improvements to the intersection of the quarry access road and the Golden Hwy to accommodate the proposed increased road haulage.	Yes
Building	Not referred	NA
Water and Sewer	Not referred	NA
Health	Not referred	NA
Waste	Not referred	NA
Public Domain/ Assets	Not referred	NA
Heritage	Not referred	NA

The outstanding issues raised by Council officers are considered in the Key Issues section of this report.

4.3 Community Consultation

The proposal was notified in accordance with the Upper Hunter Community Participation Plan from 7 July 2023 until 5 July 2023 and again from 9 August 2023 and 5 September 2023. The Council no submissions.

5. KEY ISSUES

The following key issues are relevant to the assessment of this application having considered the relevant planning controls and the proposal in detail:

- 5.1 Rehabilitation and Final Landform – limited rehabilitation of the quarry floor and benches with a vegetative cover.
- 5.2 Soil and Water Management (controlled drainage system) – there are concerns about the capacity of the system to manage water such as to prevent pollution.

Notwithstanding, the applicant has signalled the intention to develop the system in accordance with the *Managing Urban Stormwater – Mines and Quarries*.

- 5.3 Measures to maintain or improve the biodiversity values of the site in the medium to long term (also as required by the UHDCP) – it is recommended that prior to the commencement of operations under this consent the applicant submits a biodiversity management plan.
- 5.4 The development does not strictly comply with the SEARs in relation to the quantity and nature of the waste streams - this could be addressed through a condition of consent.
- 5.5 The development does not strictly comply with the SEARs as it does not provide a detailed description of the water monitoring program – this could be addressed through a condition of consent.
- 5.6 Haulage Road-Golden Highway intersection

6. CONCLUSION

The development application was submitted on 2 June 2023 and has been considered in accordance with the requirements of the EP&A Act and the Regulations as outlined in this report. Following a thorough assessment of the relevant planning controls, issues raised in agency responses and the key issues identified in this report, it is considered that overall the proposal to increase the quarry production and extend the area by 4.4ha is unlikely to have a significant detrimental impact on the environment.

Notwithstanding, there are significant uncertainties created by the lack of progressive rehabilitation and the likely inability to fully rehabilitate the quarry floor and benches. Nevertheless, such a level of rehabilitation is unlikely to be attainable given the limited topsoil resource, and the depth and extent of the existing quarry and the proposed additional area.

Consequently the rehabilitation strategy is not fully consistent with best practice as reflected in Mine Rehabilitation guidelines, the Upper Hunter Development Control Plan 2023 and the SEARs. There are also concerns about the loss of biodiversity habitat and the limited commitment to on-site biodiversity conservation measures. In this regard, it is recommended that in lieu of a progressive rehabilitation program and greater rehabilitation of the quarry floor and benches, greater on-site conservation measures are implemented on lands adjacent to the quarry area through a combination of restoration and enhancement of the ecological community that is being removed.

Provided such measures are implemented it is recommended that the development application for the Wyndham Quarry – Continuing operation and increase production from 100,000 tonnes per annum to 330,000 tonnes per annum be approved for a period of 15 years subject to conditions of consent.

7. RECOMMENDATION

That the Development Application DA 42/2023 for Wyndham Quarry – Continuing operation and increase production from 100,000 tonnes per annum to 330,000 tonnes per annum at Lot 1521 and 1522 DP 1133556 (No. 4458 Golden Highway Merriwa be granted consent pursuant

to Section 4.16(1)(a) or (b) of the *Environmental Planning and Assessment Act 1979* subject to the conditions of consent in Attachment E.

The following attachments are provided:

- Attachment A: SEPP (Recourses and Energy) 2021
- Attachment B: Upper Hunter Development Control Plan 2023 - Compliance Table - Part 8d – Extractive Industries
- Attachment C: Tables of Compliance - SEARs
- Attachment D: Consideration of Biodiversity Development Assessment Report
- Attachment E: Recommended Conditions of Consent (under separate attachment)

ATTACHMENT A – SEPP (RESOURCES AND ENERGY) 2021 – PART 2.3 MATTERS FOR CONSIDERATION

Clause No/title	Clause	Consideration	Considered to Comply (Yes/No)
2.17 Compatibility of proposed mine, petroleum production or extractive industry with other land uses	<p><i>Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must—</i></p> <p><i>(a) consider—</i></p> <p><i>(i) the existing uses and approved uses of land in the vicinity of the development, and</i></p> <p><i>(ii) whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and</i></p> <p><i>(iii) any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and</i></p> <p><i>(b) evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a)(i) and (ii), and</i></p> <p><i>(c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii).</i></p>	<p>Most of the land in the vicinity of the application site is used for agricultural purposes. The proposed quarry extension is considered to be compatible with the existing surrounding uses.</p>	Yes

<p>2.20 Natural resource management and environmental management</p>	<p>(1) <i>Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following—</i></p> <p>(a) <i>that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable,</i></p> <p>(b) <i>that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,</i></p> <p>(c) <i>that greenhouse gas emissions are minimised to the greatest extent practicable.</i></p> <p>(2) <i>Without limiting subsection (1), in determining a development application for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions.</i></p>	<p>The development is not located in close proximity to any major watercourse. The proposed quarry extension is unlikely to penetrate a groundwater aquifers. The disturbance area will include a 4.4ha of an engendered ecological community – White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland and threatened species. In relation to greenhouse gas emissions a Sustainability Report was submitted which states:</p> <p><i>Carbon emissions during construction earthworks and quarry operations will be generated by mobile quarry equipment exhaust emissions and through power generation for electricity supplies. Emissions reduction measures include plant and equipment maintenance schedules, efficient quarry layout design including in-pit primary crushing to reduce haulage routes and material rehandling. Emissions calculations have not been made.</i></p> <p>In the operational phase carbon emissions are likely to be negligible and limited to the operation of plant and equipment.</p>	<p>Yes</p>
<p>2.21 Resource recovery</p>	<p>(1) <i>Before granting consent for development for the purposes of mining, petroleum production or</i></p>	<p>Section 3.4 of the EIS does not address the resource recovery issue in any detail.</p>	<p>Yes</p>

	<p><i>extractive industry, the consent authority must consider the efficiency or otherwise of the development in terms of resource recovery.</i></p> <p><i>(2) Before granting consent for the development, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at optimising the efficiency of resource recovery and the reuse or recycling of material.</i></p> <p><i>(3) The consent authority may refuse to grant consent to development if it is not satisfied that the development will be carried out in such a way as to optimise the efficiency of recovery of minerals, petroleum or extractive materials and to minimise the creation of waste in association with the extraction, recovery or processing of minerals, petroleum or extractive materials.</i></p>	<p>However Section 6.13.2 explains how all waste will be separated into recyclable or non-recyclable streams.</p>	
2.22 Transport	<p><i>1) Before granting consent for development for the purposes of mining or extractive industry that involves the transport of materials, the consent authority must consider whether or not the consent should be issued subject to conditions that do any one or more of the following—</i></p> <p><i>(a) require that some or all of the transport of materials in connection with the development is not to be by public road,</i></p> <p><i>(b) limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools,</i></p> <p><i>(c) require the preparation and implementation, in relation to the development, of a code of conduct relating to the</i></p>	<p>It is considered appropriate that the material is transported by public road, given the proximity to the Golden Highway and the lack of alternative transport modes. The quarry is located approx. 8.2km by road from Merriwa. Only haulage vehicles travelling due west would need to pass through Merriwa on Bettington Street (Golden Highway). This would involve passing through residential leading into and out of Merriwa (unless there were deliveries within Merriwa). A condition of consent will be imposed that requires the preparation of</p>	Yes

	<i>transport of materials on public roads.</i>	development of a code of conduct for the transport of material on public roads.	
	<p>2) <i>If the consent authority considers that the development involves the transport of materials on a public road, the consent authority must, within 7 days after receiving the development application, provide a copy of the application to—</i></p> <p>(a) <i>each roads authority for the road, and</i></p> <p>(b) <i>the Roads and Traffic Authority (if it is not a roads authority for the road).</i></p> <p>(3) <i>The consent authority—</i></p> <p>(a) <i>must not determine the application until it has taken into consideration any submissions that it receives in response from any roads authority or the Roads and Traffic Authority within 21 days after they were provided with a copy of the application, and</i></p> <p>(b) <i>must provide them with a copy of the determination.</i></p>	The development application was referred to TfNSW on 2 June 2023. A response was provided requiring upgrades to the haul road-Golden Highway intersection.	Yes
	(4) <i>In circumstances where the consent authority is a roads authority for a public road to which subsection (2) applies, the references in subsections (2) and (3) to a roads authority for that road do not include the consent authority.</i>	The roads Authority for the Golden Highway is TfNSW.	
2.23 Rehabilitation	<p>1) <i>Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring the rehabilitation of land that will be affected by the development.</i></p> <p>(2) <i>In particular, the consent authority must consider whether conditions of the consent should—</i></p>	A condition of consent should be imposed that requires the rehabilitation of the whole quarry site. A condition of consent will be imposed that requires the preparation and submission of a remediation action plan.	Yes

	<p>(a) <i>require the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated, or</i></p> <p>(b) <i>require waste generated by the development or the rehabilitation to be dealt with appropriately, or</i></p> <p>(c) <i>require any soil contaminated as a result of the development to be remediated in accordance with relevant guidelines (including guidelines under clause 3 of Schedule 6 to the Act and the Contaminated Land Management Act 1997), or</i></p> <p>(d) <i>require steps to be taken to ensure that the state of the land, while being rehabilitated and at the completion of the rehabilitation, does not jeopardize public safety.</i></p>		
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Attachment B: Upper Hunter Development Control Plan 2023 – Compliance Table - Part 8d – Extractive Industries

Table Colour Code

Complies
Does Not Comply – but could be addressed through condition
Does not comply – issue is discussed in main report

Section	Outcomes to be achieved	Consideration	Considered to Comply (Yes/No)
Compatibility with and relationship to surrounding land uses	<ul style="list-style-type: none"> <i>The development is compatible with surrounding existing or proposed land uses, particularly any residential, special uses (such as schools, hospitals, community buildings) and any sites of outstanding natural or environmental value or high tech industries</i> <i>The proposal is designed to accommodate the following:</i> <ul style="list-style-type: none"> <i>provision of habitat and corridors for the movement of wildlife throughout the Shire (in accordance with the part 11b Biodiversity conservation);</i> <i>maintenance or enhancement of the visual and acoustic amenity within the local area;</i> <i>setbacks to roads and adjacent property boundaries capable of maintaining a landscape buffer to enhance the visual environment of road users and residents;</i> <i>provision of setbacks to electricity transmission lines capable of maintaining an effective buffer for safety and access for maintenance purposes</i> <i>The development meets the provisions of part 11i Buffer areas and separation distances</i> 	The surrounding land uses are primarily related to primary production. It is considered that the extractive industry use is compatible with these uses. The site is unlikely to compromise habitat corridors. The quarry site will not be visible from public roads (1.8km from Golden Highway) and is unlikely to have amenity or acoustic impacts on sensitive land uses. Effective buffer distances can be maintained with sensitive land uses.	Yes

Access, Transport and Haulage	<ul style="list-style-type: none"> <i>All access and vehicle parking must meet the requirements of part 12a Access and vehicle parking</i> 	The development complies – on-site parking is provided. Access suitable for the haulage vehicles.	Yes
	<ul style="list-style-type: none"> <i>The design and development of access and haulage roads must be consistent with the relevant requirements of the following standards:</i> <ul style="list-style-type: none"> <i>Austroad - Guide to Traffic Engineering Practice;</i> <i>Transport for NSW - Road Design Guide;</i> <i>Transport for NSW - Guide to Traffic Generating Developments;</i> <i>Or other designs agreed to by Transport for NSW</i> 	The applicant has submitted a design for the proposed access road-Golden Highway intersection. This design is considered sufficient for the purpose of the development application.	Yes
	<ul style="list-style-type: none"> <i>Internal access and haulage routes must be set back no less than:</i> <ul style="list-style-type: none"> <i>10m from adjoining property boundaries;</i> <i>50m from environmentally sensitive areas including water courses and habitats of threatened species;</i> <i>100m from residences not associated with the extraction.</i> 	The internal access and haulage roads meet the setback requirements to property boundaries, environmentally sensitive area (Terrestrial Biodiversity) and residences not associated with the extraction.	Yes

Erosion and Soil Management	<ul style="list-style-type: none"> <i>The conservation of soil resources is adequately managed, in particular those soil resources which are not the extraction material.</i> 	The EIS explains that the topsoil will be stripped from the proposed disturbance area following the establishment of appropriate erosion and sediment controls (Page 81). The topsoil will then be separately stockpiled within the disturbance area for later re-use on site.	Yes
	<ul style="list-style-type: none"> <i>The basic elements of the conservation of soil resources are met, which are to minimise the extent of cleared areas, implement controls on those areas which are cleared or disturbed and rehabilitate all areas as soon as possible.</i> 	The quarry is designed to the minimum area considered necessary for extraction (the pit), stockpiling and other infrastructure and the soil and water management system (clean water diversion/separation and sediment water retention). There are some concerns that the existing clean water system and sediment water below Dam East 1 and the Sediment Control Dam are not adequate and as such it will need to be upgraded to support the new development.	Yes
	<ul style="list-style-type: none"> <i>Haulage roads and site access points are managed so as to minimise the opportunity for erosion and dust nuisance to occur, including adequate maintenance and sealing and/or wetting down to ensure that dust and soil does not migrate from the site.</i> 	The EIS advises that the access road into the quarry site is/will be constructed to direct transport access to the Golden Highway. The access road has been constructed using a hard rock gravel surface to reduce dust and to improve serviceability during wet weather (Page 15) and the run-off water will be directed to the sediment dam.	Yes
	<ul style="list-style-type: none"> <i>The development meets the provisions of part 11f Soil and water management and Managing Urban Stormwater: Soils and Construction Volume 2E Mines and Quarries</i> 	The Soil and Water Management Plan submitted with the development application advises it has given consideration to Managing Urban Stormwater: Soils and Construction Volume 2E Mines and Quarries.	Yes – would need to be subject to condition of consent.
Visual Amenity and landscaping	<ul style="list-style-type: none"> <i>The development meets the provisions of part 11i Buffers areas and separation distances.</i> <i>The visual impact of the</i> 	The quarry site is not visible from the Golden Highway or any other public roads. While it is likely to be visible from adjoining agricultural lands to the north (Lot 123 DP	Yes

	<i>extractive industry is minimised or effectively mitigated.</i>	591025) and east (Lot 41 DP 995616), the nearest rural dwelling houses (not associated with the quarry) are over 1km away (as shown in Fig 5.1 on Page 62 of the EIS) .There is a disused rail line adjacent to the site and it is unlikely that the use of the rail will be reinstated.	
Water Management	<ul style="list-style-type: none"> <i>The development meets the provisions of part 11f Soil and water management</i> 	The DA was accompanied by a soil and water management plan. This demonstrates the application of best management practices through the establishment of a clear water division system around the quarry area and the development of a sediment containment system. It is noted however that part of the clear water division passes through the processing area and close to the sediment dam. Also it will be necessary to ensure the clear water diversion system has appropriate groundcover to limit the movement of fine sediments.	Yes – the plan is satisfactory, but it needs to be demonstrated that it can be implemented.
Riparian Land	<ul style="list-style-type: none"> <i>The development meets the provisions of part 11c Riparian land and watercourses</i> 	There is a watercourse to the east of the site and the disused rail corridor (known as the Worondi Rivulet. The closest point the quarry goes to this watercourse is approximately 35m (from the sediment pond). According to the NSW hydrolines spatial data (and also shown on Fig 3.3 in the EIS) there is a minor watercourse (2 nd Order) that passes through the stockpile area and joins with the Worondi Rivulet. This watercourse has evidently been diverted around the stockpile area from the clear water dam ("Dam East 1"). The development also proposes to retain the existing stockpile area to the north that is intersected by a first order watercourse.	Yes
Biodiversity	<ul style="list-style-type: none"> <i>Where impacts on biodiversity values cannot be avoided, appropriate biodiversity offsets are to be provided to</i> 	The vegetation within the disturbance area is Grey Box- White Box grassy open woodland on basalt hills in the Merriwa region (PCT 483). This is a critically endangered ecological community	No

	<p><i>compensate for biodiversity loss</i></p> <ul style="list-style-type: none"> <i>Biodiversity offset arrangements are required in perpetuity.</i> <i>Biodiversity offsets are to be as close as possible to the development site, and within the Upper Hunter Local Government Area, unless it can be demonstrated that this is not appropriate or feasible</i> 	<p>(EEC) and identified as an SAI entity. The development as proposed removes a 4.4ha area plus 1 tree (at the intersection), and removes the habitat of at least the Pink Tailed Legless Lizard, Stripped Legless Lizard and Barking Owl. Although the applicant proposes to purchase ecosystem credits or species credits under the BOS. No consideration been given to offsetting in relation to the UHDCP.</p>	
Bushfire Risk	<p>The development meets the provisions of part 10b Bushfire risk. Bush fire risk is managed while recognising and protecting the ecological and natural values of the site and adjoining land.</p>	<p>The applicant has submitted a Bushfire Assessment Report that recommends that asset protection zones be created around key infrastructure such as the site office – 10m and the fuel storage area/potential new building – 50m. Which would require clearing of vegetation to comply. These areas have not been given consideration as part of the BDAR or EIS.</p>	Yes
Acoustic Management	<p>Noise emissions from the proposed operations should achieve minimum acoustic criteria and standards as contained in the NSW Noise Policy for Industry (2017) v The proposal meets the requirements of part 11i Buffer areas and separation distances</p>	<p>The quarry operation has the potential to generate noise. The EIS is supported by a noise and vibration assessment report. This identifies 8 residential noise assessment locations the closest of which is approximately 2km south of the quarry site. It is proposed that quarry operations will occur during daytime hours (6.00am to 7.00pm Monday to Saturday). The report concludes:</p> <p><i>Project noise and vibration levels are predicted to comply with relevant targets at all assessment locations, with a single exception. Operational noise levels were predicted to exceed the relevant target by 1 dB at one assessment location (Residence No. 1) during the morning and evening shoulder periods from 6-7am and 6-7pm only.</i></p>	Yes

		<p><i>Due to several conservative assumptions in the noise model, which all occur simultaneously in the model, a single predicted exceedance of 1 dB during shoulder periods may not eventuate in real world conditions. Attended validation monitoring, as recommended by the EPA, should occur to determine whether the potential exceedance is occurring, and to determine if additional mitigation measures are justified.</i></p> <p><i>It is not anticipated that noise mitigation measures will be required.</i></p> <p>It is recommended that a condition of consent be imposed that requires attended validation monitoring once the quarry is operational to establish whether or not adverse impacts are occurring. Where impacts are occurring then it may be necessary to apply appropriate noise attenuation measures to the affected residences or review quarry operations.</p>	
Blasting	The proposal meets the requirements of Australian and New Zealand Environment Council: Technical Basis for Guidelines to Minimise Annoyance Due to Blasting Overpressure and Ground Vibration (Sept.	<p>The development application also proposes that blasting will be undertaken as part of the quarry operation. The acoustic assessment report makes the following comments about the proposed blasting:</p> <p><i>Assessment locations surrounding the project are outside blast offset distances required to maintain acceptable vibration and overpressure levels from blasting activities, with the nearest residential dwelling approximately 1,800m [2,020km] distant. Therefore, blast vibration impacts on assessment locations are considered unlikely.</i></p> <p><i>Predicted project blast overpressure and vibration</i></p>	Yes

		<p><i>complied with relevant targets at all assessment locations.</i></p> <p><i>The ANZEC blasting guideline recommends that blasting be conducted during the day period (9 am to 5 pm Monday to Saturday) to avoid annoyance during the more sensitive evening and night periods.</i></p> <p>It is recommended that the blasting times be imposed as a condition of consent.</p>	
Air Quality and Dust Management	<ul style="list-style-type: none"> The proposal meets the requirements of the Protection of the Environment Operations Act 1997. The proposal meets the objectives of NEPM (Federal Government's National Environmental Protection Measures). 	It is considered that the mitigation measures proposed in the EIS (Section 6.7.7) are implemented including the use of water carts on stockpiling and extraction areas, water sprays at crushing/screening areas and the use of water carts on the unsealed haulage roads.	Yes
Waste	<p>A Site Waste Minimisation and Management (SWMMP) is required to be submitted that includes the following:</p> <ul style="list-style-type: none"> <i>the location of waste management facilities proposed both during construction and for ongoing operation.</i> <i>volume and type of waste and recyclables to be generated</i> <i>storage and treatment of waste and recyclables on site</i> <i>disposal of residual waste and recyclables</i> <i>operational procedures for ongoing waste management once the development is complete.</i> 	<p>A SWMMP has not been provided. The EIS provides a broad coverage of the waste classes likely to be produced - liquid waste, hazardous waste, general solid waste (putrescible) and general solid waste (non-putrescible). However it does not provide the volume and specific type of waste (as per the SEARs). It is recommend that prior to the operation of the consent a waste management plan (as part of an operational environmental management plan) is provided in accordance with the DCP requirements. It is noted that the EIS advises that although hazardous material (diesel and hydraulic fluids) will be stored on site so further details of the storage is also required.</p>	No
Rehabilitation	<ul style="list-style-type: none"> <i>The rehabilitation of extraction areas are undertaken progressively throughout the life of an operation.</i> 	The development is not proposing to carry out significant progressive rehabilitation. The applicant has provided reasons in relation to the constraints imposed by the	No

	<ul style="list-style-type: none"> • <i>Rehabilitation is integrated with the surrounding area, incorporating shape, form, contour, land use, drainage characteristics, topography, landscape quality and biodiversity.</i> • <i>Rehabilitation activities are commenced as soon as an area becomes available for stabilisation and revegetation</i> 	existing operation and the proposed additional area, however the outcome remains not satisfied. The rehabilitation as proposed within the quarry area is unlikely to be integrated into the surrounding area.	
Closure and Post Extraction Land Use	<ul style="list-style-type: none"> • <i>The final landform proposed to remain following the completion of extraction activities must be consistent with the surrounding landform and proposed land use.</i> • <i>The final landform is consistent with the biodiversity of the surrounding landscape having regard to the proposed post- extraction land use.</i> • <i>The site is suitably operated, managed, rehabilitated and designed to be usable for other permissible post development land uses.</i> • <i>Post extractive land uses do not sterilise or conflict with any possible extraction operations on adjoining lands.</i> 	It is proposed that the extraction area (pit) would be benched and the final landform will remain as a storage for rainfall runoff, which would be used as an agricultural water supply. There seems to be limited plans or demonstrated capacity to establish a landform that is consistent with the surrounding landscape.	No

Attachment C: Compliance Table – Consideration of SEARs

Table Colour Code

Complies
Does Not Comply – but could be addressed through condition
Does not comply – issue is discussed in report

General Requirements	EIS Requirements	Comment	Considered to comply (Yes/No)
	<p>The Environmental Impact Statement (EIS) for the development must comply with the requirements in Clauses 190, 192 and 193 of Part 8 Division 5 2 of the Environmental Planning and Assessment Regulation 2021.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> • an executive summary; • a comprehensive description of the development, including: <ul style="list-style-type: none"> - a detailed site description and history of any previous quarrying on the site, including a current survey plan; - identification of the resource, including the amount, type, composition; - the layout of the proposed works and components (including any existing infrastructure that would be used for the development); - an assessment of the potential impacts of the development, as well as any cumulative impacts, including the measures that would be used to minimise, manage or offset these impacts; - a detailed rehabilitation plan for the site; 	Overall the EIS satisfies these requirements (notwithstanding some of details as will be discussed).	Yes

	<ul style="list-style-type: none"> - any likely interactions between the development and any existing/approved developments and land uses in the area, paying particular attention to potential land use conflicts with nearby residential development; - a list of any other approvals that must be obtained before the development may commence; - the permissibility of the development, including identification of the land use zoning of the site; - identification of sensitive receivers likely to be affected by the development using clear maps/plans, including key landform areas, such as conservation areas and waterways; 		
	<p>a conclusion justifying why the development should be approved, taking into consideration:</p> <ul style="list-style-type: none"> - alternatives; - the suitability of the site; - the biophysical, economic and social impacts of the project, having regard to the principles of ecologically sustainable development; and - whether the project is consistent with the objects of the Environmental Planning and Assessment Act 1979; and 		Yes
	a signed declaration from the author of the EIS, certifying that the information contained within the document is neither false nor misleading.	Provided	Yes

Key Issues	Details	Comment (Has the issue been address?)	
The EIS must assess the potential impacts of the proposal at all stages of the development, including the establishment, operation and decommissioning of the development.			
Noise	<ul style="list-style-type: none"> - Construction and operational noise and off-site transport noise impacts of the development in accordance with the Interim Construction Noise Guideline, NSW Noise Policy for Industry and NSW Road Noise Policy respectively; - reasonable and feasible mitigation measures to minimise noise emissions; and - monitoring and management measures; 	Addressed	Yes
Blasting and Vibration	proposed hours, frequency, methods and impacts; and an assessment of the likely blasting and vibration impacts of the development, having regard to the relevant ANZECC guidelines and paying particular attention to impacts on people, buildings, livestock, infrastructure and significant natural features;	Addressed	Yes
Air	Air – including an assessment of the likely air quality impacts of the development in accordance with the <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i> . The assessment is to give particular attention to potential dust impacts on any nearby private receivers due to construction activities, the operation of the quarry and/or road haulage;	Addressed	Yes

Water	<ul style="list-style-type: none"> - a detailed site water balance and an assessment of any water licensing requirements or other approvals required under the Water Act 1912 and/or Water Management Act 2000 , including a description of the measures proposed to ensure the development can operate in accordance with the requirements of any relevant Water Sharing Plan or water source embargo - an assessment of potential impacts on the quality and quantity of existing surface and ground water resources, including a detailed assessment of proposed water discharge quantities and quality against receiving water quality and flow objectives; and 	Addressed - Site water balance has been provided.	Yes
	<ul style="list-style-type: none"> - a detailed description of the proposed water management system, water monitoring program and other measures to mitigate surface and groundwater impacts; 	The need for a water management system is provided in the Soil and Water Management Plan. No details of the water monitoring program has been provided. However this could be subject to a condition of consent requiring an appropriate water quality monitoring plan.	No
Biodiversity	<ul style="list-style-type: none"> - accurate predictions of any vegetation clearing on site; 	Addressed – removal of at least 4.4ha of native vegetation.	Yes
	<ul style="list-style-type: none"> - a detailed assessment of the potential biodiversity impacts of the development, paying particular attention to threatened species, populations and ecological communities and groundwater dependent ecosystems undertaken in 	The applicant has submitted a BDAR that only covers the additional 4.4ha area. The DA is for the whole quarry site including the existing area and new area. The existing quarry area has the potential to contain habitat features	Yes

	accordance with Sections 7.2 and 7.7 of the Biodiversity Conservation Act 2016; and	for some species (including the remnant trees). It also does not consider removal of vegetation for the establishment of Asset Protection Zones.	
	- a detailed description of the proposed measures to maintain or improve the biodiversity values of the site in the medium to long term, as relevant.	RFI (Dec 2023) The applicant proposes to carry out a range of activities including sustainable grazing management, introduced species management and riparian restoration. The first two are actions that should already be undertaken as routine farm rural management and would be difficult to measure in relation to the development as proposed. Riparian restoration - seems appropriate, however insufficient details (as required) are provided. It is noted that Lot 1521 does not have any frontage to the Worandi Rivulet and Lot 1522 only has a 640m frontage on the eastern side of the rail corridor. In this regard the applicant has not satisfied the SEARs.	No
Heritage	- an assessment of the potential impacts on Aboriginal heritage (cultural and archaeological), including evidence of appropriate consultation with relevant Aboriginal communities/parties and documentation of the views of these stakeholders regarding the likely impact of the	Addressed including consultation log.	Yes

	<p>development on their cultural heritage; and</p> <ul style="list-style-type: none"> - identification of Historic heritage in the vicinity of the development and an assessment of the likelihood and significance of impacts on heritage items, having regard to the relevant policies and guidelines listed in Attachment 1; 		
Traffic and Transport	<ul style="list-style-type: none"> - accurate predictions of the road traffic generated by the construction and operation of the development, including a description of the types of vehicles likely to be used for transportation of quarry products; - an assessment of potential traffic impacts on the capacity, condition, safety and efficiency of the local and State road networks, detailing the nature of the traffic generated, transport routes, traffic volumes and potential impacts on local and regional roads; - a description of the measures that would be implemented to maintain and/or improve the capacity, efficiency and safety of the road network (particularly the proposed transport routes) over the life of the development; - evidence of any consultation with relevant roads authorities, regarding the establishment of agreed contributions towards road upgrades or maintenance; and - a description of access roads, specifically in relation to nearby Crown roads and fire trails; 	Addressed – Appendix M	Yes

Land Resources	potential impacts on soils and land capability (including potential erosion and land contamination) and the proposed mitigation, management and remedial measures (as appropriate); and - an assessment of activities that could cause erosion or sedimentation issues, and the proposed measures to prevent or control these impacts;	Addressed – Section 3.7 Resource Assessment	Yes
Waste	including estimates of the quantity and nature of the waste streams that would be generated or received by the development and any measures that would be implemented to minimise, manage or dispose of these waste streams;	Insufficiently provided – Section 6.13 - Does not provide estimates of the quantities of the waste streams. Does not provide specific detail the particular waste materials.	No
Hazards	– including an assessment of the likely risks to public safety, paying particular attention to potential bushfire risks and the transport, storage, handling and use of any hazardous or dangerous goods;	Provided – Section 6.11	Yes
Visual	including an assessment of the likely visual impacts of the development on private landowners in the vicinity of the development and key vantage points in the public domain, including with respect to any new landforms;	Addressed in Section 6.10	Yes
Social and Economic	an assessment of the likely social and economic impacts of the development, including consideration of both the significance of the resource and the costs and benefits of the project; and	Addressed in Section 6.14	Yes
Rehabilitation	- a detailed description of the proposed rehabilitation measures that would be undertaken throughout the development and during quarry closure;	A The Rehabilitation Strategy (in response RFI – Dec 2023) was provided as requested in the RFI. <u>However the Applicant has not been</u>	Yes

	- a detailed rehabilitation strategy, including justification for the proposed final landform and consideration of the objectives of any relevant strategic land use plans or policies; and - potential impacts on landforms (topography), paying particular attention to the long-term geotechnical stability of any new landforms (such as overburden dumps, bunds etc).	<u>able to provide details of the proposed rehabilitation measures to be undertaken throughout the development.</u>	
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Attachment D: Consideration of the Biodiversity Development Assessment Report

General Issues

1. It is likely that biodiversity records in the vicinity of the development are relatively limited and/or patchy due to lack of past surveys in the locality. This underrepresentation would affect the database results and prediction of species that may occur.
2. Field survey effort is quite limited, and comprised 3 days at times of year that are not ideal for comprehensive plant or threatened species survey. This means limitations in biodiversity data as recognised in Section 2.2.3 ("site assessments took place outside the specified survey period") and Section 2.5 of the BDAR. Notwithstanding further field work may not confirm presence or absence particularly in relation to fauna species.
3. The total number of species identified in surveys is likely to be low and potentially underestimates the biodiversity of the land.
4. The bushfire asset protection zone extent and required measures are not identified. This has the potential to affect clearing and/or management of native vegetation, and potentially to increase the development footprint (notwithstanding these areas are already disturbed).
5. The BDAR makes no reference to the specific matters raised in the Upper Hunter DCP, including the opportunity to provide local biodiversity offsets near the development site (as discussed above).

Consideration of Threatened Species

Nineteen threatened species were identified as having records within 10 km of the development, 13 ecosystem credit species were predicted to occur, 8 species credit species were predicted to occur, with 3 species being both species and ecosystem credit species. Review of these records and information shows that some species with records nearby have been excluded without explanation. This means the BDAR relies on assumed presences and then opts for the purchase of credits.

Avoidance of biodiversity impacts

As identified in Section 2 above, the *Biodiversity Conservation Act 2016* requires the consent authority to be satisfied that measures to avoid or minimise impacts on biodiversity values have been taken before the development can be considered for approval and offsets can be applied under the NSW Biodiversity Offset Scheme.

To meet the legislative requirement to avoid biodiversity impacts, a range of options should have been considered, reviewed and described in the development application, including the following:

1. No development
2. Choosing a suitable alternative site with less impact on biodiversity values and reduced bush fire asset protection requirements
3. Alternative footprint options

The legislative provisions of the BC Act provide that unless the consent authority is satisfied that reasonable measures have been taken to avoid biodiversity impacts, the Biodiversity Offset Scheme cannot be used to provide biodiversity offsets. The BDAR gives a basic consideration to one of these options – with consideration to an *alternative footprint* on the basis that it will have a reduced footprint.

Biodiversity Development Assessment Report - Critical Review

Key review questions are as follows:

1. Whether the Biodiversity Development Assessment Report accompanying the application meets all relevant regulatory requirements.

COMMENT – Generally yes. Notwithstanding some of the information has not been communicated or explained particularly well.

2. Whether the requirements in the *Biodiversity Conservation Act 2016* and regulation to avoid impacts on biodiversity values (1) has been demonstrated in the development application, and (2) has been satisfactorily achieved.

COMMENT – Avoidance has been considered, and this is not a major issue for the development.

3. Whether the number and class of biodiversity credits required to offset the residual impacts on biodiversity values have been appropriately calculated.

COMMENT – The calculation of offset credits appears reasonable, provided that the exclusion of potential species occurrence is accepted. It should be noted that some of the species assumed present by the BAM may not in fact occur, and this may overestimate the real offset credit obligation. No consideration has been given to sourcing and providing local offsets which is a desired outcome of Upper Hunter DCP.

Attachment E: Draft Recommended Conditions of Consent

(Provided as a separate document in PPSHCC-203)