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Independent Planning Commission

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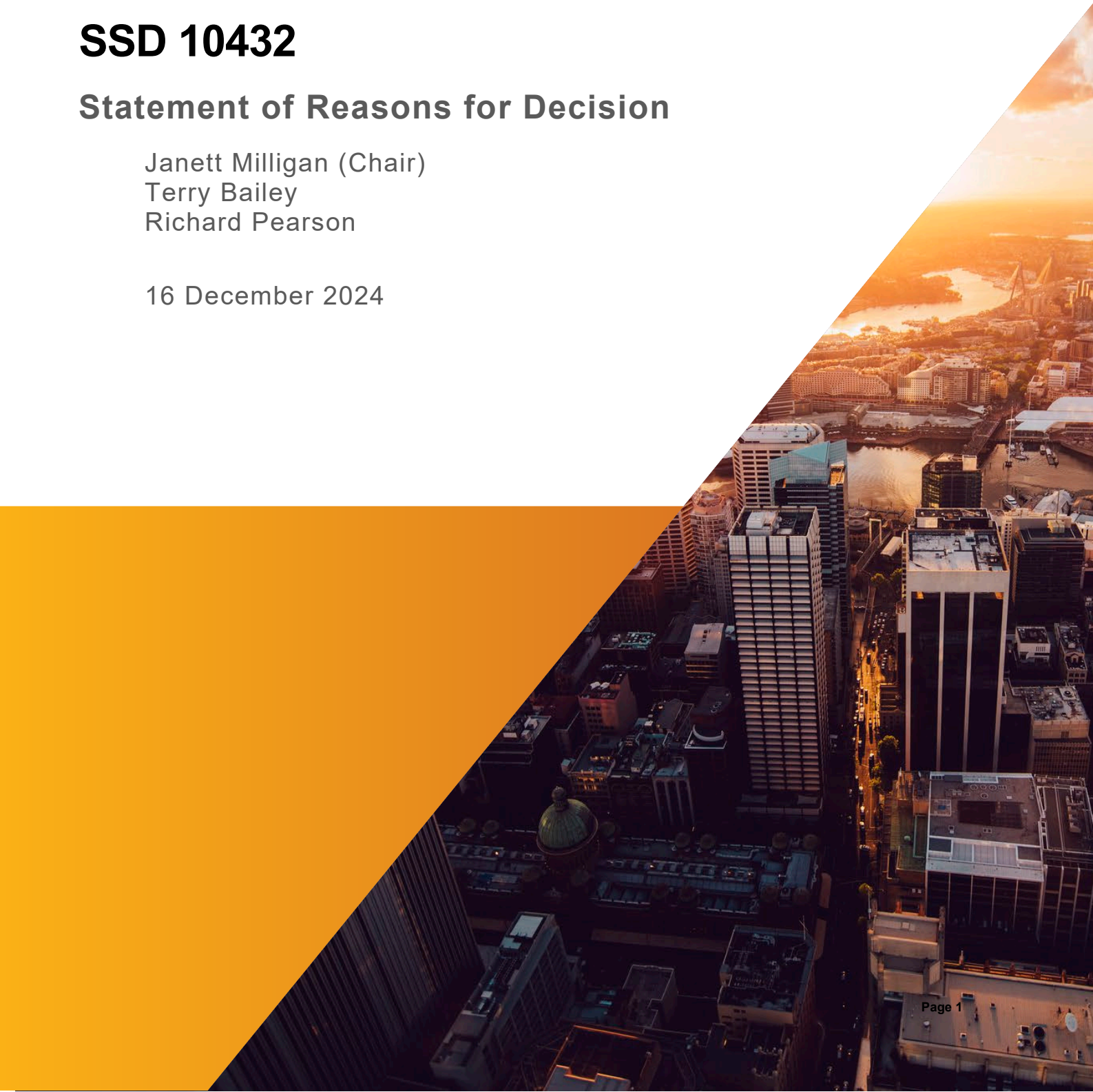
Stone Ridge Quarry

SSD 10432

Statement of Reasons for Decision

Janett Milligan (Chair)
Terry Bailey
Richard Pearson

16 December 2024



Executive Summary

Australian Resource Development Group Pty Limited (Applicant) has sought consent for the development of a new hard rock quarry to extract, process and transport up to 1.5 million tonnes per annum of hard rock material over a 30-year period (Project). The site is located on Italia Road, Balickera, within the Wallaroo State Forest (the Site) approximately 30km north of Newcastle in the Port Stephens local government area (LGA).

During operation, the Project would generate approximately 10 full time equivalent jobs and 5 part time positions.

The Application is State Significant Development (SSD) pursuant to section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and section 2.6(1) of *State Environmental Planning Policy (Planning Systems) 2021* (SEPP Planning Systems). The NSW Independent Planning Commission (Commission) is the consent authority for the Project as more than 50 public submissions by way of objection were made to the Department of Planning, Housing and Infrastructure (Department).

Commissioners Janett Milligan (Chair), Richard Pearson and Terry Bailey were appointed to constitute the Commission Panel in determining the application. As part of the determination process the Commission met with representatives of the Applicant, the Department, Port Stephens Council (Council) and Transport for NSW (TfNSW).

The Commission held a Public Meeting for the Project on 14 November 2024 which was livestreamed via the Commission's website. The Commission also received written submissions on the Project.

Key issues which are the subject of findings in this Statement of Reasons for Decision relate to traffic, biodiversity, air quality, water resources, and noise. Considering the Project's key issues, the Commission also sought additional information from the Applicant, Council and Department.

After consideration of all relevant matters, the Commission has determined that development consent should be granted to the SSD Application.

The Commission has imposed conditions of consent which seek to prevent, minimise and/or offset potential adverse impacts of the Project. Ongoing monitoring and environmental management requirements also form part of the Commission's imposed conditions.

Specific conditions are imposed to address biodiversity matters, road safety and efficiency, compliance with the Applicant's proposed material haulage route and local amenity. These aspects of the Project were found to be critical elements for the Panel in the determination of the Application. With the conditions imposed the Panel has determined to approve the proposed development.

The Commission finds that the Project is consistent with the strategic land use planning framework and relevant statutory requirements. The Commission is also satisfied that the Project is in accordance with the Objects of the EP&A Act.

The Commission's reasons for approval of the Project are set out in this Statement of Reasons for Decision.

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Defined Terms

ABBREVIATION	DEFINITION
ACHAR	Aboriginal Cultural Heritage Assessment Report
AHD	Australian Height Datum
AIP	NSW Aquifer Interference Policy
Applicant	Australian Resource Development Group Pty Limited
Application	Stone Ridge Quarry Project (SSD-10432)
Approved Methods	Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016)
AQGHGA	Air Quality and Greenhouse Gas Assessment
AR Appendix	Appendix of the Department's Assessment Report
AR para	Paragraph of the Department's Assessment Report
AR Table	Table of the Department's Assessment Report
BAM	Biodiversity Assessment Method
BC Act	NSW <i>Biodiversity Conservation Act 2016</i>
BCS	Biodiversity Conservation and Science Group within NSW DCCEEW
BDAR	Biodiversity Development Assessment Report
BIA	Blast Impact Assessment
BMP	Blast Management Plan
BOS	Biodiversity Offset Strategy
CKPoM	Port Stephens Council Comprehensive Koala Plan of Management
Commission	Independent Planning Commission of NSW
Council	Port Stephens Council
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water
Deed	Deed of Agreement
Department	Department of Planning, Housing and Infrastructure
Department's AR	Department's Assessment Report, dated October 2024
EEC	Endangered ecological community
EIS	Environmental Impact Statement titled "Stone Ridge Quarry Environmental Impact Statement", dated January May 2023 and prepared by Umwelt (Australia) Pty Limited; "Stone Ridge Quarry Project Submissions Report" dated March 2024 and prepared by Umwelt (Australia) Pty Limited; "Stone Ridge Quarry Amendment Report" dated March 2024 and prepared by Umwelt (Australia) Pty Limited; and the Applicant's additional information responses in support of the Application and included in Appendix F of the Department's assessment report on Stone Ridge Quarry Project, dated October 2024.
EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
EP&A Act	NSW <i>Environmental Planning and Assessment Act 1979</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FCNSW	Forestry Corporation of NSW
FML	Forest Materials Licence
Forestry Act	<i>Forestry Act 2012</i>
FTE	Full time equivalent (jobs)
GDEs	Groundwater dependent ecosystems
GIA	Groundwater Impact Assessment
GPS	Global positioning system

ICNG	Interim Construction Noise Guideline
km	Kilometre
LEP	Local Environmental Plan
LGA	Local Government Area
LOS	Level of service
Mandatory Considerations	Relevant mandatory considerations, as provided in s 4.15(1) of the EP&A Act
Material	The material as described in Section 3.1
MIC	Maximum instantaneous charge
Minister	Minister for Planning and Public Spaces
MNES	Matters of national environmental significance
Mt	Mega (million) tons
Mtpa	Megatons per annum
New England Fold Belt Coast Groundwater Source	Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources
NorBE	Neutral or Beneficial Effect
NPfi	NSW Noise Policy for Industry
NVIA	Noise and Vibration Impact Assessment
PCT	Plant Community Types
Plan	Hunter Regional Plan 2041
PNTLs	Project Noise Trigger Levels
Project	Stone Ridge Quarry Project as detailed in Section 2.2
RAPs	Registered Aboriginal Parties
Regulations	NSW <i>Environmental Planning and Assessment Regulation 2021</i>
RL	Reduced level
RNP	Daytime Road Noise Policy
RtS	Response to Submissions
RU2 zone	RU2 Rural Landscape zone under the <i>Port Stephens Local Environmental Plan 2013</i>
RU3 zone	RU3 Forestry zone under the <i>Port Stephens Local Environmental Plan 2013</i>
SAII	Serious and irreversible impacts
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP Biodiversity and Conservation	<i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i>
SEPP Planning Systems	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
SEPP Resilience and Hazards	<i>State Environmental Planning Policy (Resilience and Hazards) 2021</i>
SEPP Resources and Energy	<i>State Environmental Planning Policy (Resources and Energy) 2021</i>
SEPP Transport and Infrastructure	<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>
SIA Guideline	Social Impact Assessment Guideline for State Significant Projects (NSW Government, 2021)
SIDRA	Signalised/unsignalised Intersection Design and Research Aid
Site	The Stone Ridge Quarry Project area, as described in Section 2.1
SSD	State Significant Development
SWIA	Surface Water Impact Assessment
TAPs	Threat abatement plans
TEC	Threatened ecological communities

TfNSW	Transport for NSW
TIA	Traffic Impact Assessment
TMP	Traffic Management Plan
TSP	Total suspended particulate
VLAMP	Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Developments, NSW Government (September 2018)
vtpd	Vehicle trips per day
vtpH	Vehicle trips per hour
Water Group	NSW Department of Climate Change, Energy, the Environment and Water – Water Group
WM Act	<i>Water Management Act 2000</i>

1. Introduction

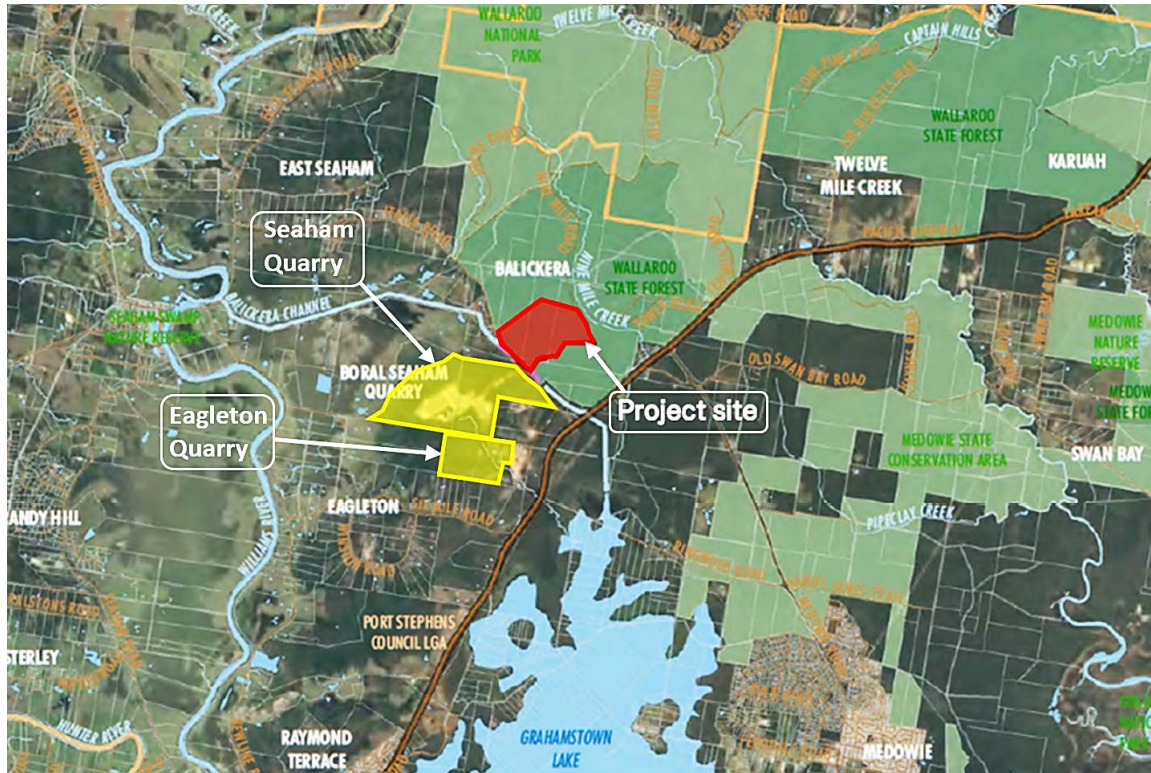
1. On 17 October 2024, the NSW Department of Planning, Housing and Infrastructure (**Department**) referred the State significant development (**SSD**) Application SSD-10432 (**Application**) from Australian Resource Development Group Pty Limited (**Applicant**) to the NSW Independent Planning Commission (**Commission**) for determination.
2. The Application seeks approval for the Stone Ridge Quarry (the **Project**) located in the Port Stephens Local Government Area (**LGA**) under section 4.38 of the *Environmental Planning and Assessment Act (EP&A Act)*.
3. In accordance with section 4.5(a) of the EP&A Act and section 2.7 of the *State Environmental Planning Policy (Planning Systems) 2021 (SEPP Planning Systems)*, the Commission is the consent authority as more than 50 unique public submissions have been made by way of objection.
4. Andrew Mills, Chair of the Commission, determined that Janett Milligan (Chair), Terry Bailey and Richard Pearson would constitute the Commission for the purpose of exercising its functions with respect to the Application.
5. The Department concluded in its Assessment Report (**AR**) that the benefits of the Project outweigh its residual costs, the Site is suitable for the proposed development and that the Project is in the public interest and is approvable, subject to the recommended conditions of consent.

2. The Application

2.1 Site and Locality

6. The Project area (the **Site**) is located within the Wallaroo State Forest at Balickera (Figure 1), in the Port Stephens local government area (**LGA**), approximately 30 kilometres (**km**) north of Newcastle (AR para 1). Wallaroo State Forest extends beyond the Site to the north, east and south, Italia Road runs parallel to the Site's south-western boundary with the Pacific Highway approximately 1.5 km to the south-east of the Site (AR, para 4).
7. The Commission notes from its Site inspection (see Table 4) that the Site's topography undulates, with most of the Site being heavily vegetated and intersected by a series of vehicular access trails.
8. The Department's AR (paras 5-6) notes:
 - Several dwellings are located to the north-west along Italia Road and to the south-east near the Pacific Highway.
 - The western side of Italia Road is comprised of remnant woodland vegetation interspersed with several industrial, recreational and extractive industry developments, including the existing Seaham Quarry (opposite the Site to the south-east), and the recently approved (but not yet operational) Eagleton Quarry (Figure 1); and
 - The Site is located within the catchment of Grahamstown Dam, the Hunter region's largest drinking water supply dam (see Figure 1).

Figure 1 – The Site and surrounding locality (Source: Department’s AR, Figure 2-1 with mark ups by the Commission)



2.2 The Project

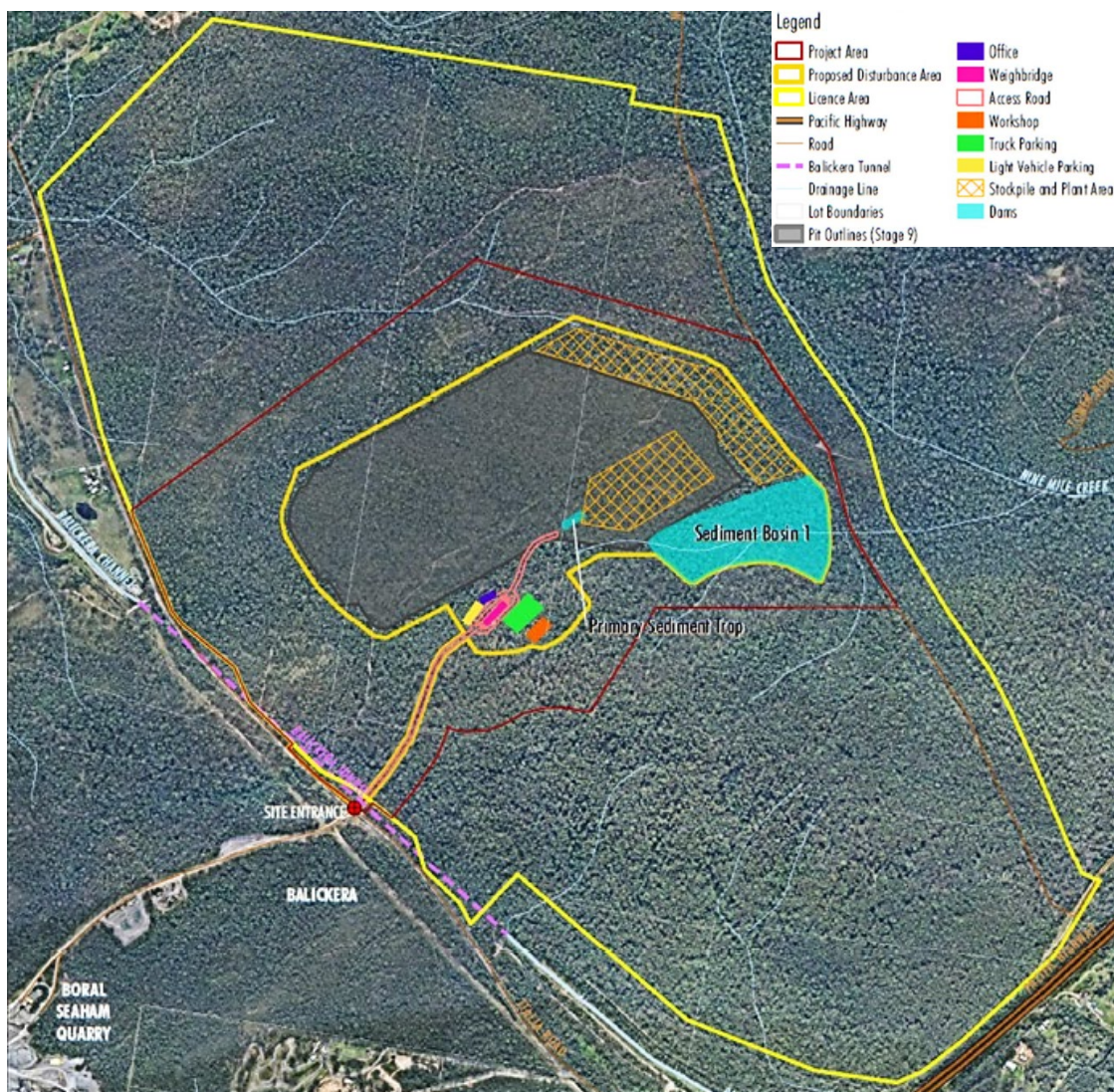
9. The Applicant is seeking approval for the development of a new hard rock quarry, proposing to extract, process and transport up to 1.5 million tonnes per annum (**Mtpa**) of materials over a period of 30 years (AR para 2). Key aspects of the Project are outlined in Table 1. An extract of the proposed quarry layout can be seen in Figure 2 - please refer to Appendix A for the full project conceptual quarry layout (as amended).

Table 1 – Summary of Key Aspects of the Project (Source: Department’s AR, Table 2-1)

Aspect	Description
Project life	30 years
Production limit	1.5 Mtpa of quarry products
Project area	Approximately 139 ha, with a 68.02 ha disturbance footprint. <i>Note: as revised through project amendments or additional information provided during the Department’s assessment</i>
Depth of extraction	Pit floor -2 m Australian Height Datum (AHD)
Extraction method	Drill, blast, load and haul
Material processing	On site mobile crushing and screening and fixed processing plant
Quarry products	Concrete, asphalt and sealing aggregates, gabion, armour stone, road base and other crushed rock products

Resource estimate	Approximately 49 million tonnes (Mt)
Product transport	<ul style="list-style-type: none"> • Road transport via Italia Road and the Pacific Highway • Up to 60 truck movements (30 laden trucks) per hour and 334 truck movements (167 laden trucks) per day
Workforce	<ul style="list-style-type: none"> • Construction: 10 to 15 full time equivalent (FTE) positions • Operation: Up to 10 FTE positions and 5 part-time positions
Project hours	<ul style="list-style-type: none"> • Construction: 7am to 6pm Monday to Friday, 8am to 1pm Saturday • Operation: <ul style="list-style-type: none"> ○ Drilling, extraction and processing 7am to 6pm Monday to Friday, 7am to 3pm Saturday ○ Blasting 9am to 5pm Monday to Friday ○ Truck loading, product transport and maintenance 6am to 10pm Monday to Friday, 7am to 3pm Saturday ○ No operation on Sundays or public holidays apart from maintenance

Figure 2 – Conceptual quarry layout as amended (Source: AR, Figure 2-2)



3. The Commission's Consideration

3.1 Material Considered by the Commission

10. In making this determination, the Commission has considered the following material (**Material**):
- the Planning Secretary's Environmental Assessment Requirements (**SEARs**);
 - the Applicant's EIS including:
 - Submissions Report, dated March 2024;
 - Amendment Report dated March 2024; and
 - Applicant's additional information responses in support of the application
 - all public submissions on the EIS made to the Department during public exhibition;
 - all Government Agency advice to the Department;
 - the Department's AR, dated October 2024;
 - the Department's recommended conditions of consent, dated October 2024;
 - comments and presentation material at meetings with the Department, Applicant, Council and Transport for NSW as referenced in Table 2 below;
 - responses to the Commission's requests for information and questions taken on notice by the Department dated 11 November 2024;
 - responses to the Commission's request for information and questions taken on notice by Council dated 14 November 2024;
 - responses to the Commission's request for information and questions taken on notice by the Applicant dated 15 November 2024;
 - Council's written submission to the Commission, dated 13 November 2024;
 - the Applicant's submission to the Commission, dated 21 November 2024 and further information via email dated 6 December 2024;
 - all written comments made to the Commission and material presented at the Public Meeting;
 - all written submissions and comments received by the Commission up until 5pm, 21 November 2024; and
 - the Department's comments dated 4 December 2024 and 9 December 2024 on the feasibility and workability of proposed conditions.

3.2 Strategic Context

3.2.1 Plans, policies and guidelines

11. The Commission has considered the strategic context relevant to the Project, including the plans, policies and guidelines as detailed in Table 2 below. The Commission finds the Project to be generally consistent with, and give effect to, relevant plans, policies and guidelines.

Table 2 – Strategic planning Framework, policies and guidelines

Strategic Context	Discussion
Hunter Regional Plan 2041	<p>The Hunter Regional Plan 2041 (the Plan) is a 20-year plan, setting out the NSW Government’s strategic vision for the Hunter region. It aims to strengthen the region’s economic resilience, maintain its well-established economic and employment bases, and build on its existing strengths to foster greater market and industry diversification (AR para 8).</p> <p>The Plan predicts that the Hunter region will require an additional 101,800 dwellings by 2041 to meet the needs of a growing population. The Plan also recognises the Hunter region as a leading regional economy and identifies the need for additional employment land, expanded freight and passenger rail networks, and better inter-regional transport connections (AR para 13). The Department’s assessment highlights that this housing and infrastructure will require a reliable and affordable supply of hard rock quarry products (AR para 14).</p>
Greater Newcastle Metropolitan Plan 2036 (GNMP)	<p>The GNMP sets out strategies and actions that will drive sustainable growth across Greater Newcastle, which includes the Port Stephens LGA. The Site is located just outside to the north of the GNMP ‘metro frame’ however the Commission finds that the Project will contribute to the GNMPs economic vision for Greater Newcastle by providing employment opportunities in the region and a hard rock resource for use in building and maintaining the region’s housing and infrastructure, positively contributing to the economic growth of Greater Newcastle.</p>
Port Stephens Local Strategic Planning Statement (LSPS)	<p>The LSPS identifies the 20-year vision for land use in the Port Stephens LGA. The LSPS is the tool that gives local-level effect to State government regional plans by informing local statutory plan making and development controls. The Commission considers the Project to be generally consistent with relevant planning priorities of the LSPS, in particular the following:</p> <ul style="list-style-type: none"> • Planning Priority 6 – Plan infrastructure to support communities: “As <i>Port Stephens grows, communities will require housing, infrastructure and services that can meet changing needs</i>”. The proposed quarry will assist in the delivery of housing and infrastructure in the LGA by providing a suitable hard rock resource which is required for the construction industry.
Port Stephens Council Comprehensive Koala Plan of Management (CKPoM)	<p>The Comprehensive Koala Plan of Management (CKPoM), prepared by Port Stephens Council, aims to support community development and koala conservation within the LGA. It provides strategic and development planning guidance, identifies koala habitats, and outlines threats to koalas. The CKPoM includes performance criteria for development applications involving sites within or near Preferred or Supplementary Habitat, Habitat Buffers, or Habitat Linking Areas.</p> <p>The Applicant provided an assessment (dated 15 August 2024) of the Project against the performance criteria for development applications set out in the CKPoM at the request of the Department.</p> <p>With consideration of minor habitat loss, the extensive surrounding habitat, and the proposed mitigation, management, and offsetting measures, the Department concluded that the Project aligns with the CKPoM’s performance criteria (AR para 63).</p>

The Commission considers the Project to have appropriately addressed the CKPoM's performance criteria and that it aligns with the CKPoM's overall aims and objectives. Further discussion of potential impacts to koalas is provided at Section 5.2 of this report.

3.2.2 Construction materials demand

12. In its December 2023 Infrastructure Market Capacity Report, Infrastructure Australia rated the capacity risk for quarry products as high, meaning that the potential for hard rock supply shortages currently threatens infrastructure and development projects. The report also acknowledged that due to high transportation costs relative to the value of materials, quarry products must be sourced locally.
13. Infrastructure investment needs in NSW are identified in key State strategy documents (AR para 13), including:
 - *The Future Transport Strategy: Our vision for transport in NSW (Transport for NSW (TfNSW), 2022)*: Within the Lower Hunter and Newcastle regions this includes establishing better road, rail and freight connections with the aim of creating '30-minute cities'.
 - *State Infrastructure Strategy 2022-2042: Staying ahead (NSW Government, 2022)*: The Strategy identifies that the future infrastructure investment pipeline in NSW remains healthy and consistent with the commitments of the past 10 years.
14. The Commission notes that the NSW Government has committed over \$108 billion in infrastructure up to 2025. This includes multi-billion dollar road and rail projects in the Sydney metropolitan area, new and upgraded education and health infrastructure throughout the State, and several major infrastructure projects within the Hunter region, including the Newcastle Power Station, Jesmond to Rankin Park Bypass, M1 Pacific Motorway Extension to Raymond Terrace, and Lower Hunter Freight Corridor. Such projects will require a reliable and affordable supply of hard rock quarry products (AR para 14).
15. The Commission considers that the Project will positively contribute to construction material supply and help address the demand that these projects will create within the Hunter Region, and more broadly across greater Sydney and NSW.

3.3 Statutory Context

3.3.1 Objects of the EP&A Act

16. In its determination, the Commission has reviewed the Department's assessment of the Objects of the EP&A Act, as outlined in Appendix C of the Department's AR. The Commission agrees with this assessment and is satisfied that the Project aligns with the Objects of the EP&A Act, with impacts effectively managed or mitigated through the conditions of consent imposed by the Commission. The Commission finds the proposed development to be an orderly and economic use of the land.

3.3.2 Amended Application

17. With the agreement of the consent authority (or its delegate), a development application can be amended at any time before the application is determined.

18. The Department requested the Applicant respond to issues raised in submissions and government agency advice on 3 August 2023. The Applicant subsequently provided a Submissions Report and an Amendment Report to the Department on 27 March 2024. The Amendment Report requested the following changes to the application (Department letter of amendment acceptance, dated 3 April 2024):
- a revision to the conceptual quarry layout to remove the previously proposed North Pit, associated sediment basin 2 and North Pit access road resulting in a reduction of the project footprint by approximately 11ha; and
 - a revision to the staging and extraction area of the Main Pit to enable the relocation of processing plant and loading facilities into the pit in the later stages of the Project.
19. The Department (as the Commission's delegate) agreed to the amendments to the application sought in the Amendment Report on 3 April 2024.

3.3.3 Permissibility and State Significant Development

Permissibility

20. The Site is located within the RU3 Forestry zone (**RU3 zone**) pursuant to the *Port Stephens Local Environmental Plan 2013 (LEP)*. Part of the proposed access road and intersection works are located upon land within the RU2 Rural Landscape zone (**RU2 zone**) (AR Table 4-1).
21. The LEP provides that 'uses authorised under the *Forestry Act 2012 (Forestry Act)* are permitted without consent on land zoned RU3. The proposed access road and intersections works are characterised as 'roads' and are ancillary to the predominant proposed land use of 'extractive industries' - both land uses are permitted with consent in the RU2 zone (AR Table 4-1).
22. The taking of 'forest material', defined as rock, stone, clay, shells, earth, sand, gravel or any like material under the Forestry Act, can be carried out in accordance with a Forest Materials Licence (**FML**) pursuant to the Forestry Act. The Applicant holds a Deed of Agreement (**Deed**) for a FML with Forestry Corporation of NSW (**FCNSW**) which allows them to seek approval for the operation of a hard rock quarry within a defined Licence Area within the Wallaroo State Forest (AR Table 4-1).
23. Notwithstanding, section 2.9(3) of the *State Environmental Planning Policy (Resources and Energy) 2021 (SEPP Resources and Energy)* provides that development for the purpose of an 'extractive industry' may be carried out with consent on land on which development for the purposes of 'agriculture' is permissible (with or without consent).
24. The land use of 'aquaculture' is permitted with development consent within the RU3 zone, which is a type of 'agriculture' as defined in the LEP. As the provisions of the SEPP Resources and Energy prevail to the extent of any inconsistency with the LEP (section 3.28 of the EP&A Act), development for the purpose of an extractive industry is permissible with consent on the Site with development consent.

State Significant Development

25. The Project is an 'extractive industry' that would extract 1.5 million tonnes per annum (**Mtpa**) from a total identified resource of 49 million tonnes (AR Table 4-1) over 30 years. The Project is SSD pursuant to section 4.36(2) of the EP&A Act, as it is declared to be SSD pursuant to section 2.6(1) of SEPP Planning Systems.

3.3.4 Commonwealth Matters

26. On 8 December 2022, a delegate of the Commonwealth Department of Climate Change, Energy, the Environment and Water (**DCCEEW**) determined that the Project was a 'controlled action' pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**), due to its potential impacts on threatened species and communities (see sections 18 & 18A of the EPBC Act) (AR para 27).
27. In its determination, the Commonwealth agreed that the proposal may be assessed by the NSW Government, in accordance with the Bilateral Agreement between the NSW and Commonwealth Governments. The Department issued SEARs for the Project addressing matters of national environmental significance (**MNES**) on 19 January 2023 (AR para 28).
28. Following the Commission's determination of SSD-10432 (if approved), the matter would be referred to DCCEEW for determination under the EPBC Act.

3.3.5 Integrated and other NSW Approvals

29. Pursuant to section 4.41 of the EP&A Act, several approvals are integrated into the SSD process, and therefore are not required to be separately obtained for the Project (AR para 16). Pursuant to section 4.42 of the EP&A Act, some other approvals that may be required cannot be refused and must be substantially consistent with the development consent for the Project (AR para 17).

3.4 Mandatory Considerations

30. In determining this Application, the Commission is required by section 4.15(1) of the EP&A Act to take into consideration such of the listed matters as are of relevance to the development the subject of the Application (**Mandatory Considerations**). The mandatory considerations are not an exhaustive statement of the matters the Commission is permitted to consider in determining the Application. To the extent that any of the Material does not fall within the mandatory considerations, the Commission has considered that Material where it is permitted to do so, having regard to the subject matter, scope and purpose of the EP&A Act.

Table 3 – Mandatory Considerations

Mandatory Considerations	Commission's Comments
Relevant EPIs	<p>The Department's AR identifies relevant Environmental Planning Instruments (EPIs) for consideration. The key EPIs (in their present, consolidated form) include:</p> <ul style="list-style-type: none"> • SEPP Planning Systems; • SEPP Resources and Energy; • <i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i> (SEPP Transport and Infrastructure); • <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> (SEPP Resilience and Hazards); • <i>State Environmental Planning Policy (Biodiversity and Conservation) 2021</i> (SEPP Biodiversity and Conservation); and • <i>Port Stephens Local Environmental Plan 2013</i> (LEP)

	The Commission agrees with the Department's assessment of EPIs set out in its AR and subsequent information provided to the Commission. The Commission therefore adopts the Department's assessment.
Relevant DCPs	Section 2.10 of the Planning Systems SEPP states that development control plans do not apply to SSD. The Commission does not consider any development control plans to be relevant to the determination of the Application.
Any planning agreement or draft planning agreement	Not applicable to the proposal.
Likely Impacts of the Development	The likely impacts of the Application have been considered in Section 5 of this Statement of Reasons.
Suitability of the Site for Development	<p>The Commission has considered the suitability of the Site and finds that the Site is suitable for the following reasons:</p> <ul style="list-style-type: none"> • the proposed land use is permissible with consent; • potential adverse impacts and land use conflicts with sensitive receivers and other land uses within the locality have been minimised as far as practicable and can be further managed and mitigated via conditions of development consent; • the use of the Site as an appropriately regulated hard rock quarry is an orderly and economic use of the land; and • the Site is capable of being rehabilitated to a stable, safe and non-polluting landform.
Ecologically Sustainable Development	The Commission finds that the Project is consistent with ESD principles and would achieve an acceptable balance between environmental, economic and social considerations.
The Public Interest	<p>The Commission has considered whether the grant of consent to the Application is in the public interest. In doing so, the Commission has weighed the predicted benefits of the Application against its predicted negative impacts.</p> <p>The Commission's consideration of the public interest has also been informed by consideration of the principles of ESD.</p> <p>The Commission finds that, on balance, the likely benefits of the Project warrant the conclusion that an appropriately conditioned approval is in the public interest.</p>

3.5 Additional Considerations

31. In determining the Application, the Commission has also considered:

- NSW Noise Policy for Industry (**NPfI**);
- Interim Construction Noise Guideline (**ICNG**);
- NSW Road Noise Policy;
- NSW Aquifer Interference Policy (**AIP**);
- NSW Biodiversity Offsets Policy for Major Projects;
- Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016) (**Approved Methods**); and
- Social Impact Assessment Guideline for State Significant Projects (NSW Government, 2021) (**SIA Guideline**).

3.6 The Commission's Meetings

32. As part of the determination process, the Commission met with various persons as set out in Table 4. All meeting and site inspection notes were made available on the Commission's website.

Table 4 – Commission's Meetings

Meeting	Date	Transcript/Notes Available on
Applicant	5 November 2024	11 November 2024
Council	5 November 2024	11 November 2024
Site Inspection	13 November 2024	21 November 2024
Public Meeting/Hearing	14 November 2024	18 November 2024
Transport for NSW and Department	20 November 2024	25 November 2024

4. Community Participation & Public Submissions

4.1 Public Meeting

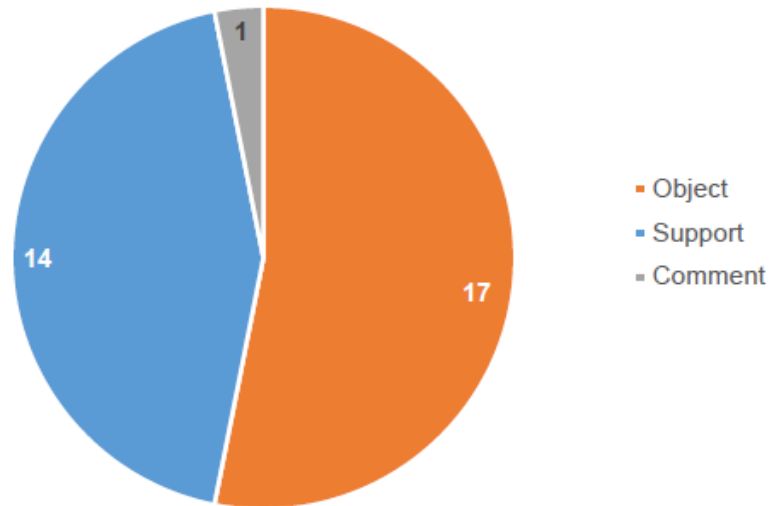
33. The Commission conducted a Public Meeting on 14 November 2024. The Public Meeting was held in-person at Seaham School of Arts and Scout Hall, Seaham, with registered speakers presenting to the Commission Panel in-person and/or via telephone. The Public Meeting was streamed live on the Commission's website.
34. The Commission heard from the Department, the Applicant, various community group representatives and individual community members. In total, 17 speakers presented to the Commission during the Public Meeting.
35. Presentations made at the Public Meeting have been considered by the Commission as submissions and are referenced in Section 4.2 below.

4.2 Public Submissions

36. As part of the Commission's consideration of the Project, all persons were also offered the opportunity to make written submissions to the Commission until 5pm, Thursday 21 November 2024. Section 4.2.2 of this report sets out the matters raised in the submissions made to, and considered by, the Commission. Consideration has been given to these submissions in the Commission's assessment of the Project as set out in the Key Issues section of this report (see Section 5 below).
37. The Commission received a total of 32 written submissions on the Application. Submissions received through its website comprised:
- 14 submissions in support;
 - 17 objections; and
 - One (1) comment.

38. For the reasons set out in this Statement of Reasons, the Commission considers that the matters raised in submissions do not preclude the grant of development consent and that the matters can be satisfactorily addressed by the conditions of consent imposed by the Commission.

Figure 3 – Submissions received by the Commission



4.2.1 Geographic Distribution

39. Fewer than half of the submissions received were from the immediate locality and the Port Stephens LGA, however a number of submissions were received from nearby Greater Newcastle, Hunter Valley and Mid North Coast. The remainder of submissions were received from the Greater Sydney, Far North Coast, Central Coast and Central West regions of NSW.

4.2.2 Key Issues Raised

40. Submissions to the Commission raised several key issues which are outlined below. The Commission notes that the submissions referred to below are not an exhaustive report of the submissions considered by the Commission, they are reflective and illustrative of what the Commission regards as the key issues that emerge from the submissions.

Traffic

41. Several objections received by the Commission raised traffic/road safety, traffic generation in the locality and cumulative traffic impacts as key issues of concern. Compliance with the Applicant’s proposed haulage route was the key issue raised by the community at the Project’s Public Meeting.
42. One submission suggested that all proposed road and intersection upgrades should be completed prior to any Project approval being issued. Other submissions supported the proposal due to its location resulting in trucks having direct access to the Pacific Highway, thereby minimising impacts on residents, rural communities and local roads.

Biodiversity

43. Submissions objected to the Project raising concerns that it would have an adverse impact on biodiversity matters, such as loss of vegetation and habitat for native fauna, including endangered and threaten species and habitat connectivity. Several submissions specifically raised issues with the potential for impacts on koalas and microbats (and their habitat). Biodiversity was a key issue raised at the Public Meeting.

Air quality

44. Air quality impacts in the locality were a key theme of many objections. In particular the potential for dust-related health risks was raised, including impacts from silica dust. The need for the Applicant to provide air quality monitoring devices was raised in a submission.

Water resources

45. Some submissions raised concerns that the Project would impact water quality within local catchments, including the Grahamstown Dam water catchment, adversely impact ground water and cause contamination to potable water supply tanks at nearby residential land uses. The issue of potable water supply tanks was also raised at the Public Meeting.

Noise impacts

46. Submissions objecting to the Project raised concerns with noise impacts within the locality associated with heavy vehicles and quarry activities such as blasting and the loading of material. Vibration impacts to buildings was also raised as a concern.

Other issues

47. Submissions received by the Commission raised several other issues, including heritage (Aboriginal cultural and historic heritage), economic and cumulative impacts associated with a number of quarries operating or proposed in the locality.

5. Key Issues

5.1 Traffic

48. Road network safety, traffic generation and traffic impacts generally within the vicinity of the Site and the surrounding area were key issues raised in objections to the Commission, and at the Project's Public Meeting. How compliance with the Applicant's proposed haulage route would be enforced was also a concern heard by the Commission. Consequential noise impacts associated with traffic generation are considered below in Section 5.5.
49. The Applicant submitted a Traffic Impact Assessment (**TIA**) and a Signalised/unsignalised Intersection Design and Research Aid (**SIDRA**) model with its EIS to assess potential impacts of the Project on the efficiency and safety of the local and regional road networks. The Applicant updated the TIA in response to community and agency feedback via the response to submissions and amendment report process. A further amendment to the TIA was prepared which addressed the cumulative impacts of the Project together with the neighbouring Eagleton and expanded Seaham Quarries (AR para 152-153).
50. The Commission notes there are four (4) main elements associated with the Project's traffic management, road network safety and potential traffic related impacts:

- traffic generation;
- haulage transport route;
- site access from Italia Road and intersection with Seaham Quarry; and
- upgrade of the Pacific Highway and Italia Road intersection.

5.1.1 Traffic generation

51. It is an inevitable outcome of the Project that there will be an increase in traffic volumes on the local road network within the vicinity of the Site. The Commission acknowledges the community concern about potential traffic-related impacts from additional vehicles generated by the Project.
52. The Project would result in traffic movements to and from the Site of up to (AR para 160):
- 364 vehicle trips per day (**vtpd**), including 334 haulage truck and 15 light vehicle (employees, service and visitor vehicles) trips; and
 - 75 vehicle trips per hour (**vtph**) during peak times, including 60 heavy vehicles and 15 light vehicles.

Road Network Capacity

53. The TIA has modelled potential impacts using SIDRA modelling which has also considered traffic from the recently approved Eagleton Quarry and existing Seaham Quarry which showed that a satisfactory level of service would continue to be experienced on the Pacific Highway. Modelling also demonstrated that there would be an improved and satisfactory performance at the upgraded Italia Road and Pacific Highway intersection (AR paras 163-164). As discussed in Section 5.1.4 below, TfNSW supports the proposed intersection upgrade works and proposed left in, left out restrictions for heavy vehicles and haulage trucks at the Italia Road/Pacific Highway intersection.
54. The TIA has also identified that additional vehicle movements at the Tarean Road Interchange resulting from the development are also able to be accommodated (AR para 166).
55. The Department considers the increased number of heavy vehicles associated with the Project is unlikely to result in an unacceptable impact to the safety and efficiency of the local and regional road network, provided the Italia Road/Pacific Highway intersection upgrade is constructed prior to the commencement of quarry product transportation (AR para 167).

Road Safety

56. Several objections from the community and speakers at the Project's Public Meeting raised road safety as a key concern.
57. The EIS confirms that the proposed upgrade of the Italia Road and Pacific Highway intersection (see Section 5.1.4 below) would significantly reduce the safety risks at this location by providing for safer merging with traffic on the Pacific Highway, eliminating the need for heavy vehicles to cross oncoming traffic on the Pacific Highway, and providing increased stopping distance for all vehicles exiting the Pacific Highway onto Italia Road (AR para 169).

58. As discussed in Section 5.1.3 below, the proposed Site access location and associated Italia Road intersection works are satisfactory. The Applicant's Transport Impact Assessment (**TIA**), prepared by GHD, outlines proposed measures to manage traffic impacts at the site entrance to/from Italia Road. The access point would be stop-controlled, with statutory line-marking, signage, and truck warning signs, and vegetation cleared to ensure safe sight distances in line with Austroads standards. The TIA concludes that the proposed access treatment is adequate for traffic generated by the Project given current Italia Road usage (TIA p.16).
59. GHD also noted that Italia Road and the Pacific Highway lack bicycle lanes and pedestrian/shared paths. While school bus services operate along Italia Road, the TIA predicts no impact on these services due to low existing traffic volumes and requirements for quarry trucks to yield to eastbound buses and other traffic (AR para 171).

Commission's findings

60. The Commission acknowledges that the proposed development will result in an increase in traffic within the locality. It has been satisfactorily demonstrated, however, that the Project will not create significant traffic impacts, with the road network being able to accommodate the traffic predicted to be generated (subject to proposed intersection upgrades).
61. Cumulative traffic impacts within the locality resulting from the Site being in the vicinity of the existing Seaham Quarry and recently approved Eagleton Quarry have been factored into the Project's traffic impact analysis. An addendum to the TIA was prepared to consider the traffic impacts associated with a potential future scenario where the Project and the neighbouring Eagleton Quarry and Seaham Quarry were developed. TfNSW, in its stakeholder meeting with the Commission, also acknowledged potential cumulative impacts within the locality, advising it is developing a strategy for existing at-grade intersections along the Pacific Highway between Raymond Terrace and Karuah (i.e. inclusive of Italia Road).
62. The Applicant's traffic mitigation and management measures include (AR para 174):
- upgrade of the Italia Road and Pacific Highway intersection to include acceleration and deceleration lanes and bridge widening works;
 - a requirement that all quarry-related heavy vehicles travelling from the Site south along the Pacific Highway utilise the Tarean Road Interchange to perform a U-turn;
 - providing a Channelised Right Turn (CHR) treatment intersection upgrade on Italia Road at the Site access, to enable safe right turns into the Site; and
 - paying annual contributions to Council for ongoing maintenance of local roads over the life of the quarry.
63. Conditions imposed by the Commission to further mitigate potential traffic impacts include (but are not limited to):
- requiring all proposed road works to be completed prior to the commencement of quarry material transportation;
 - the preparation of a TMP to be approved by the Planning Secretary; and
 - restricting the number of vehicle movements to and from the Site (Condition A9).
64. Overall, the Department considers that the traffic and transport impacts of the Project are acceptable subject to conditions of consent (AR para 182). The Commission agrees with the Department's assessment. As detailed through Section 5.1 of this report, Council and TfNSW as relevant road authorities are also satisfied with the proposal.

5.1.2 Haulage transport Route

65. The Applicant has proposed and committed to ensuring that heavy vehicles and haulage trucks do not turn right onto the Pacific Highway from Italia Road. Quarry vehicles making deliveries to the south of Italia Road are proposed to make a U-turn at the Tarean Road Interchange (approximately 11 km to the north) and head south along the Pacific Highway (Figure 4).

Figure 4 – Southbound Materials Haulage Route (Source: AR, Figure 6-10)



66. Several community members at the Project's Public Meeting raised concern over how compliance with this proposed haulage route would be enforced. Council and TfNSW also raised this as a concern via submissions and the Commission's stakeholder meeting process.

Commission's findings

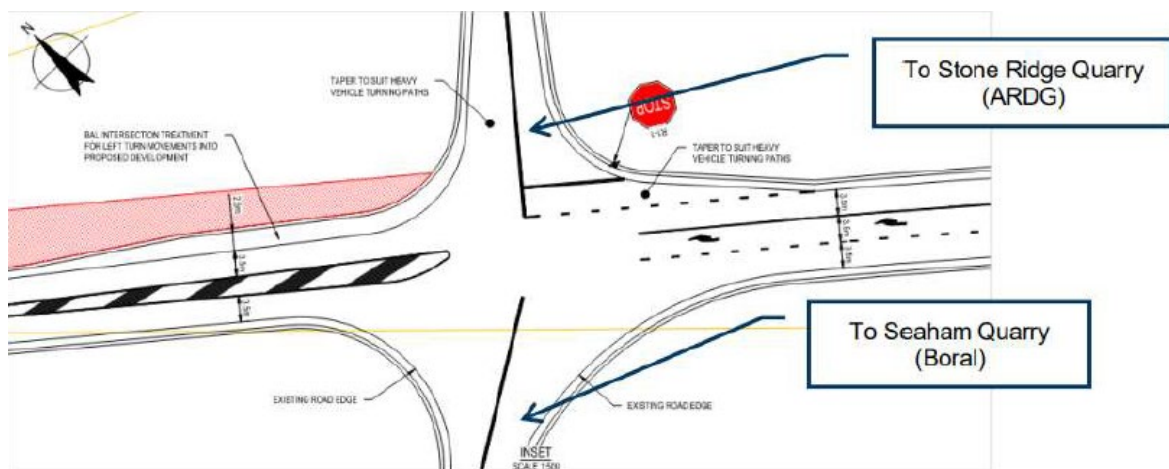
67. Both Council and TfNSW suggested that global positioning system (**GPS**) tracking technology should be utilised by the Applicant to demonstrate compliance with its proposed haulage route. The Commission agrees that a compliance mechanism for the proposed haulage route is a critical component of any subsequent quarrying operations to ensure road network efficiency and safety and demonstrate that the Applicant and its operators are complying with the proposed haulage route. Without this, the Commission would not approve the Application.
68. Accordingly, the Commission has imposed the following conditions of consent:
- Condition A10 specifies that all heavy vehicles and haulage trucks associated with the development utilise the Tarean Road interchange to perform a U-turn when transporting materials southbound;
 - Conditions B38 and B39 require the preparation of a Traffic Management Plan (**TMP**) which must be approved by the Planning Secretary and include:
 - details of the Project's Transport routes, including GPS tracking of all heavy vehicles and haulage trucks for monitoring compliance and how this will be installed; and
 - a Drivers' code of conduct that includes procedures to ensure drivers adhere to designated transport routes and travel times, including GPS tracking;
 - Condition B40 which requires the Applicant to implement the TMP and ensure GPS data is collected and made available to Council, TfNSW and the Planning Secretary upon request.

69. Subject to compliance with the above requirements, the Commission is satisfied that the Project's quarry material transport route is acceptable.

5.1.3 Site access from Italia Road and intersection with Seaham Quarry

70. The Project's proposed Site access is from Italia Road, opposite Seaham Quarry's existing vehicular access point to the south-east of the Site. The proposed vehicular access to the Site uses an existing State Forest trail known as 'Hamburger Trail' with an upgrade proposed to the intersection with Italia Road (Figure 5).

Figure 5 – Proposed intersection works on Italia Road



71. The Department's assessment notes that the information provided on the design of the Italia Road and Hamburger Trail intersection upgrade confirms that it provides appropriate sight distances which are compliant with relevant Australian standards (AR para 170). The AR (para 181) further provides that Council is satisfied with the Project's traffic and transport outcomes.

Commission's findings

72. During the Commission's stakeholder meeting with Council, a question was taken on notice by Council regarding the Project's access point from Italia Road. Council provided the Commission with a written response on 14 November 2024. Council reiterated its comments to the Department dated 2 August 2023, which advised the proposed Site access point should be relocated on biodiversity grounds (biodiversity impacts are addressed below in Section 5.2).
73. The Commission received further correspondence from the Applicant on 5 December 2024 in response to Council's comments of 14 November 2024. The Applicant detailed its consultation with Council on the Project, which included providing traffic and transport information to Council to address Council's correspondence to the Department on the proposed development.
74. The Commission notes that in a letter to the Applicant dated 16 November 2023, Council acknowledged the proposed access location opposite the Seaham Quarry access and that the two (2) accessways would form a cross-intersection with Italia Road. Council advised "no objection in principle is raised from a traffic management perspective". The Applicant advised the Commission that its amended Project was finalised in response and incorporated into its submissions report sent to the Department in March 2024. The Commission acknowledges that the TIA addendum dated 24 January 2024 includes a detailed assessment of the proposed intersection.

75. Council's comments to the Department on the Applicant's submissions report dated 2 May 2024, do not raise any issues with the proposed access point and intersection works from a traffic and transport perspective.
76. In light of the Applicant's TIA (as amended with addendum), the Department's assessment and acknowledging that Council has not raised a concern with the proposed intersection upgrade from a traffic management perspective, the Commission finds the proposed site access point and intersection works to be acceptable. As discussed further below in Section 5.2, the Commission is also satisfied that the proposed access point is acceptable on biodiversity grounds.
77. The Commission has imposed condition B36(b) to reinforce that the intersection of Hamburger Trail and Italia Road is to be upgraded in accordance with the EIS and the latest Austroads standards. This includes ensuring heavy vehicles and haulage trucks leaving the Site turn left only onto Italia Road and only enter the Site by turning right only from Italia Road. This ensures heavy vehicles do not travel west along Italia Road, further mitigating any potential traffic impacts on the local road network and community.

5.1.4 Upgrade of the Pacific Highway and Italia Road Intersection

78. The Applicant proposes that the haulage of quarry products will not take place until an upgrade of the intersection of Italia Road and Pacific Highway has occurred (AR para 155). The proposed upgrade was approved by the Hunter and Central Coast Planning Panel on 5 December 2024 via a separate development application (DA 16-2023-477-1) to Council.
79. The intersection upgrade entails (AR para 155):
- construction of a dedicated left-turn northbound acceleration lane from Italia Road onto the Pacific Highway;
 - widening the existing bridge over the Balickera Canal (to accommodate the northbound acceleration lane); and
 - lengthening the northbound deceleration lane into Italia Road off the Pacific Highway
80. During the Department's assessment, TfNSW and Council requested that no quarry product be transported from the Site until the intersection upgrade is constructed and restricts heavy vehicles to left in and left out access to the Pacific Highway (AR para 156).

Commission's findings

81. During stakeholder meetings the Commission heard from TfNSW who provided an overview of existing traffic conditions at the Pacific Highway and Italia Road intersection. TfNSW expressed significant safety concerns for a right-turn movement onto the Pacific Highway from Italia Road, highlighting several past traffic incidents at the intersection. The Commission notes that although a grade-separated right-turn would be desirable for the intersection, TfNSW advises it is not the only solution.
82. TfNSW advised the Commission that the traffic study associated with DA 16-2023-477 showed the intersection's future level of service (**LOS**) with a right-turn from Italia Road was unacceptable. With the right turn removed, the LOS was within acceptable limits.

83. The Commission considers that the proposed intersection upgrade works are essential to the safety and efficiency of the road network and that these must be completed prior to transportation of any materials from the Site to ensure a safer road network outcome. This includes restricting left in and left out access only to and from Italia Road respectively for all heavy vehicles and haulage trucks associated with the development. The Commission has accordingly imposed condition A10. Condition A10 also specifies the haulage route for the proposed development, as discussed above in Section 5.1.2. Without these critical road upgrades and restrictions, the Commission would not approve the Application.
84. Condition B36(a) imposed by the Commission prevents any quarry products from being transported from the Site until such time as the intersection is upgraded to the satisfaction of TfNSW, which is the relevant roads authority.

5.1.5 Findings

85. The Commission finds that the Project's traffic impacts are manageable with strict conditions in place. The Commission's grant of development consent relied, among other factors, the relevant commitments and requirements to:
- Upgrade the Pacific Highway and Italia Road intersection to the satisfaction of TfNSW;
 - Upgrade the Hamburger Trail and Italia Road intersection to the latest Austroads standards, as detailed in the EIS. This includes ensuring haulage trucks turn left only onto Italia Road when exiting the Site and right only from Italia Road when entering; and
 - Use GPS tracking to monitor compliance with the designated transport routes.
86. With these measures in place, the Commission considers the Project's traffic generation, site access and egress, transport routes, and required intersection upgrades are acceptable, subject to the imposed conditions.

5.2 Biodiversity

87. As an existing forestry location, the Project Site is heavily vegetated with a mix of mature and regenerated native forest. The Project has a disturbance footprint of 68.02 ha and biodiversity impacts from the Project would predominantly arise through traffic and the clearing of native vegetation (AR paras 52-53).
88. A Biodiversity Development Assessment Report (**BDAR**) and Biodiversity Offset Strategy (**BOS**) were prepared by the Applicant in accordance with the Biodiversity Assessment Method (**BAM**) under the *Biodiversity Conservation Act 2016* (**BC Act**). The BDAR describes and assesses potential impacts to biodiversity from the Project, including threatened biodiversity listed under the BC Act and MNES listed under the EPBC Act.
89. A revised BDAR was prepared to address comments from Council and the Biodiversity Conservation and Science Group within NSW DCCEEW (**BCS**) received by the Department during the assessment process. Additional information to address further issues raised by BCS following lodgement of the revised BDAR was also provided by the Applicant. The Department has noted its satisfaction with the revised BDAR and additional information as being adequate for assessing the biodiversity impacts and offsetting requirements for the Project (AR paras 49-50)

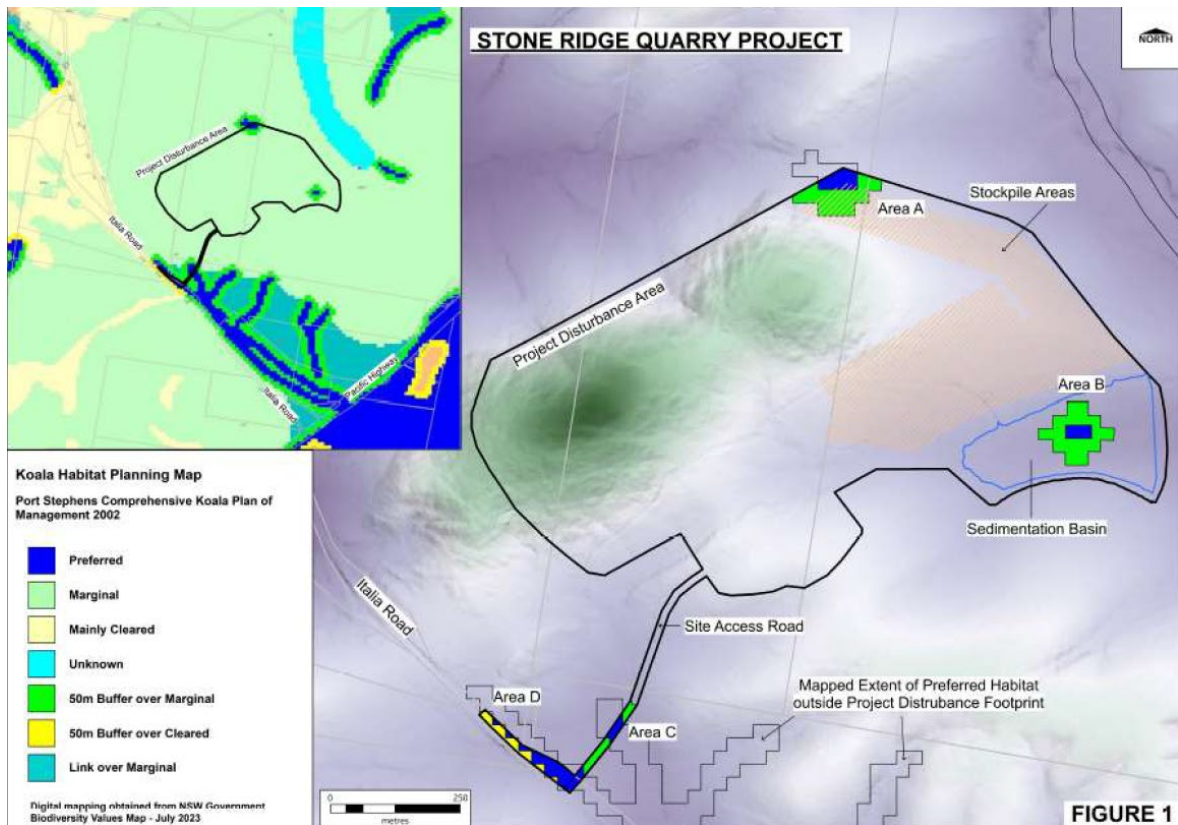
90. The BDAR indicated that the proposed clearing would directly impact habitat for 18 threatened fauna species listed under the BC Act and/or the EPBC Act. Three (3) of these species (Squirrel Glider, Brush-tailed Phascogale, and Koala) require offsetting via the retirement of species credits. Impacts to the habitat of the remaining species would be offset via the retirement of ecosystem credits (AR paras 54-55).
91. During threatened species surveys, a microbat call was recorded. The call was identified as one (1) of four (4) possible bats species, one (1) of which (the Eastern Cave Bat), is listed as 'Vulnerable' under the BC Act. Taking a precautionary approach, BCS assumed the call was from the Eastern Cave Bat and as such, foraging habitat for the species is assumed to be present within the Project disturbance footprint. Accordingly, species credits (3,778 species credits) for this species have also been included within the biodiversity offsetting obligations for the Project (AR paras 55-56).
92. As the bat species presence was not able to be confirmed during surveys, the Department's recommended conditions permit the Applicant to undertake additional surveys for the species prior to the commencement of vegetation clearing. Based on the results of those surveys, the Applicant may adjust the species credit offsetting obligations accordingly in consultation with BCS and to the satisfaction of the Planning Secretary.
93. The proposed vegetation clearing would also impact four Plant Community Types (**PCTs**), two of which (PCT 762 and PCT 1618) constitute threatened ecological communities (**TEC**). All four PCTs provide habitat for threatened species and generate ecosystem-credits that would require offsetting.
94. To offset the residual biodiversity impacts of the Project, the Applicant proposes to implement a staged BOS, including the retirement of (AR para 77):
- 1,902 ecosystem credits for four native plant community types; and
 - 7,557 species credits for three threatened fauna species (plus an additional 3,778 species credits for the Eastern Cave Bat in a precautionary approach as discussed above).
95. The Applicant also committed to further investigating the retirement of biodiversity credits through the establishment of a Biodiversity Stewardship Site within the Wallaroo State Forest. The Applicant indicates that where credits are not generated and retired within the Wallaroo State Forest they would be purchased from the market, or a payment would be made to the Biodiversity Conservation Fund. The like-for-like credit rules would be followed for nationally listed threatened species and communities which require credits.

5.2.1 Koalas

96. Impacts to koalas and koala habitat were key concerns for many speakers at the Project's Public Meeting and in several written submissions.
97. The Commission notes that the Applicant's revised BDAR indicated that the Project would lead to a long-term decrease of approximately 68.02 ha of koala habitat. However, the Project is unlikely to fragment an existing koala population into two (2) or more populations or disrupt the breeding cycle of an important population of this species (AR para 87).
98. The Department's AR (para 58) notes that four (4) Koalas were observed on the Site during surveys, consequently the Department requested additional assessment of koala impacts against the performance criteria for developments in Council's Comprehensive Koala Plan of Management (**CKPoM**) (2002).
99. The mapped categories of koala habitat (as outlined in the CKPoM) within the Project disturbance footprint are as follows (AR para 60) (Figure 6):

- Preferred Koala Habitat – 0.788 ha (1.16 % of disturbance footprint);
- 50 m Buffer over Marginal Habitat – 1.704 ha (2.50 % of disturbance area);
- 50 m Buffer over Cleared – 0.197 ha (0.29 % of disturbance area); and
- Marginal Habitat – 65.401 ha (96.05 % of disturbance area).

Figure 6 - Project disturbance footprint and koala habitat mapping from CKPoM (Source: AR, Figure 6-1)



100. The koala habitat loss from the Project would be minor in the context of the forest vegetation adjoining the Project area that is also likely to contain suitable koala feed tree species, particularly to the south and east. Vegetated corridors to the north and south of the Project area would be maintained to allow movement of this species to adjoining habitat to the northeast (AR para 61).

Whilst the entire Project disturbance footprint contains koala habitat, the majority (approximately 96%) is mapped as Marginal Koala Habitat' under the CKPoM. Marginal Koala Habitat is essentially all forested areas which are neither Preferred nor Supplementary Koala Habitat as per the CKPoM. The removal of 2.69 ha of Preferred koala habitat (as mapped under the CKPoM) is unlikely to represent a significant reduction in important available habitat for this species in the locality (AR para 61).

101. The Applicant has committed to mitigating and managing impacts on koalas through (AR para 62):

- implementing clearing protocols including pre-clearing fauna surveys, fauna translocation protocol and vegetation clearing protocol;
- management and control measures for weeds and vertebrate pests;
- measures to ensure the salvage, storage and redistribution of habitat features within the rehabilitation areas; and

- offsetting impacts to koala habitat in accordance with the NSW biodiversity offsetting requirements which are based on a no-net-loss principle and like-for-like offsetting requirements.
102. Considering the minor habitat loss (2.69 ha of Preferred Koala habitat, including buffers) in the context of the large areas of surrounding habitat, and the proposed koala impact mitigation, management and offsetting measures, the Department finds that the project would not be inconsistent with the performance criteria in the CKPoM (AR para 63).

5.2.2 Groundwater dependent ecosystems (GDEs)

103. The Department's AR (para 64) provides that groundwater dependent ecosystems (**GDEs**) are ecosystems which require access to groundwater to meet all or some of their water requirements. No high-priority GDEs have been identified within the predicted radius of groundwater drawdown from the Project.
104. The BDAR and a ground water impact assessment submitted with the EIS concluded that the presence of the high probability GDEs within the Project area is likely due to shallow groundwater in the overlying alluvial/colluvial material, which is recharged from creeks and rainfall, rather than the deeper, fractured rock aquifer. These assessments also found that the Project is unlikely to have an impact on aquatic GDEs or the baseflow of streams in the drawdown zone, as the groundwater elevation is already below the creeks in the area (AR paras 65-66).
105. The Commission notes that after additional information was provided by the Applicant, the NSW Department of Climate Change, Energy, the Environment and Water – Water Group (**Water Group**) recommended conditions of consent, which include ongoing monitoring of groundwater drawdown, and development of a GDE monitoring and management plan (AR para 67).

5.2.3 Bats in Balickera Tunnel

106. Balickera Tunnel extends over a length of approximately 1.22 km and is positioned parallel to the proposed extraction area (generally parallel to Italia Road to the south-east of the Site) and within approximately 300 m at its nearest point. The BDAR identified that the tunnel provides important habitat for threatened microbat species. BCS requested further assessment of potential impacts to roosting microbats within the tunnel from proposed blasting activities. The Applicant provided further detailed assessment which concluded that risks to roosting microbats were low due to (AR para 68):
- the orientation and lower reduced level (**RL**) of the tunnel;
 - the entries to the tunnel are well shielded from any direct overpressure impacts from the Project;
 - the orientation of the tunnel effectively precludes fly rock and blast fume from entering the tunnel;
 - there being no risk of strata movement or detachment of small rock debris within the tunnel at the estimated vibration levels;
 - the tunnel presenting a dynamic and noisy environment, and the bats living in the tunnel have already experienced exposure to noise and vibration due to the movement of water through the tunnel, blasting at the adjacent Seaham Quarry, traffic on Italia Road and tunnel remediation works undertaken by Hunter Water during 2021 and 2022; and

- blasting being managed to ensure vibration within the tunnel does not exceed 10 mm/s which, based on the findings of a comparative study undertaken in a mine in Western Australia, is appropriate for mitigating adverse impacts to roosting microbats.

107. Further to the above, the Applicant has also committed to developing and implementing an adaptive management plan that would include monitoring of vibration levels and bat movements within the tunnel during blasting and procedures for ongoing monitoring and adaptive management to mitigate any potential impacts (AR para 69).

5.2.4 Serious and irreversible impacts (SAII)

108. An impact is to be regarded as serious and irreversible if it is likely to contribute significantly to the risk of a threatened species or ecological community becoming extinct. No SAI entities, as defined under clause 6.7 of the *Biodiversity Conservation Regulation 2017*, were confirmed during the biodiversity surveys undertaken for the BDAR (AR para 70).

109. Breeding habitat for the Eastern Cave Bat, Little Bent-winged Bat and the Eastern Bentwinged Bat is a potential SAI entity. Both species of the Bent-winged Bats are known to roost in the Balickera Tunnel, however females are reported as absent during summer indicating that the tunnel is not used as breeding habitat. The tunnel has also not been reported as providing roosting or breeding habitat for the Eastern Cave Bat. The BDAR concluded, and the Department agrees, that the risks to roosting microbats from the Project is low, noting it is unlikely that the tunnel is used for breeding habitat (AR para 71).

5.2.5 Avoidance, minimisation and mitigation

110. The Department's AR (para 73) considers that biodiversity impacts have been adequately avoided by minimising disturbance where practicable. Through refinement of the Project design, the Applicant has reduced the clearing of native vegetation by 11.01 ha when compared with the disturbance footprint originally proposed in the EIS. The Applicant has implemented a number of avoidance measures and commitment to mitigating biodiversity impacts. A condition requiring the Applicant to prepare and implement a Biodiversity Management Plan (condition B50) that incorporates these mitigation measures, as well as other contemporary biodiversity management practices has been recommended by the Department (AR para 76).

5.2.6 Biodiversity Matters of National Environmental Significance (MNES)

111. As discussed at Section 3.3.4, the Project has been declared a 'controlled action' under the EPBC Act due to potentially significant impacts on several MNES entities, including one (1) endangered ecological community (**EEC**) and seven (7) fauna species listed under the EPBC Act. In accordance with the Commonwealth-NSW Bilateral Agreement relating to environmental assessment, the Department has assessed the Project's impacts on these species (AR paras 83-85).

112. The Department has also undertaken a detailed consideration of the assessments of significance for all other EPBC-listed species potentially impacted, BCS's advice, relevant approved conservation advice, recovery plans and threat abatement plans (**TAPs**). The Department notes that it accepts that there is unlikely to be a significant impact on the other EPBC-listed entities (AR para 85).

113. The impacts to all impacted MNES entities would be offset using ecosystem credits required for PCTs associated with each species, and additional species credits for the koala, in accordance with the requirements of the BAM.

114. Further regarding impacts to the koala (being a key matter raised in objections), the Applicant's revised BDAR concludes that the Project is likely to have a significant impact on the koala at both the local and State levels. The Applicant has committed to offset the impacts to the koala through the retirement of 2519 species credits, following like-for-like offsetting rules and in accordance with the BAM. The revised BDAR considered that indirect impacts to koala, such as a decline in quality and extent in adjacent habitat to the Project area due to weeds and pest species, are unlikely due to the Applicant's proposed mitigation measures (AR Appendix D).
115. The Department accepts that the Project is likely to have a significant impact on the koala in accordance with the criteria provided in the EPBC Act Significant Impact Guidelines. The Department is of the view that indirect impacts to the koala can be controlled by the Applicant's proposed mitigation measures and that the residual impacts to the koala would be adequately offset through the retirement of species credits. On this basis, the Department considers the Project's impacts on the koala are acceptable (AR Appendix D).
116. The Department has accepted the proposed offsetting approach, providing all credits associated with vegetation removal are retired prior to disturbance, in a staged manner as proposed, and 'like-for-like' direct offsets are delivered for impacts to MNES.
117. The Commission notes that the Department's recommended conditions require implementation of the Applicant's BOS, and include a note that offsets for MNES must meet Commonwealth offset requirements. The Department has also recommended the preparation of a Biodiversity Management Plan (condition B50) to be prepared in conjunction with BCS, Council and FCNSW which incorporates the Applicant's proposed biodiversity mitigation measures. On this basis, the Department considers the Project's impacts on these MNES entities are acceptable (AR paras 91-92).

5.2.7 Findings

118. The Commission acknowledges that the Project will have an impact on the biodiversity values of the Site. This is an unavoidable outcome of a development application of this nature.
119. The Commission is satisfied that Project has been designed to avoid, mitigate and manage biodiversity impacts where practicable and has carefully considered the residual biodiversity impacts. The Commission finds that potential biodiversity impacts would be suitability mitigated, managed and/or offset under the proposed BOS.
120. Further, the Commission finds that Project's impacts on MNES entities are acceptable, also noting relevant referrals and consultation has occurred with BCS and the Water Group throughout the assessment process. As discussed in Section 3.3.4, the Project would be referred to the Commonwealth DCCEEW for determination under the EPBC Act.
121. As discussed in Section 5.1.3, after the Commission's stakeholder meeting with Council, the Commission received a written response on 14 November 2024 addressing two (2) questions which Council took on notice. In this correspondence Council advised the Commission that it acknowledges "*the Applicant has provided a satisfactory ecological survey methodology for the Department and Commission to make an informed assessment of the projects substantial ecological impacts*". Council also reiterated its comments to the Department on the Application from 2 August 2023, being that the proposed access point should be relocated on biodiversity grounds.
122. The Commission notes that the proposed access road traverses vegetation classified as PCT762, a TEC which provides habitat for threatened species and is mapped as containing preferred koala habitat (as outlined in the CKPoM) as set out in Figure 6 above.

123. With a view to understanding any potential for fragmentation of PCT762 and associated biodiversity impacts, the Commission also sought a response from the Applicant to questions/information requests taken on notice during a stakeholder meeting. This included asking the Applicant to provide:
- PCT and vegetation zone mapping that includes land outside and adjoining the Site;
 - Assessment of the potential for PCT762 to become fragmented considering the Project's proposed vehicular access disturbance area and PCT762 locations surrounding the Site, in particular to the west of the proposed access point; and
 - A biosecurity risk assessment associated with the Project's proposed vehicular access.
124. The Applicant's response, dated 15 November 2024, provided the following (summarised) information to the Commission:
- PCT762 conforms to the EPBC Act listed *Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions EEC*, which also includes PCT1618;
 - the Project will impact approximately 1.21 ha of this EEC (0.33 ha PCT762 and 0.88 ha PCT1618);
 - PCT762 is impacted by the proposed access road whereas PCT1618 is impacted by the Project's proposed sediment basin;
 - the proposed access road corridor follows the approximate route of the existing unformed Hamburger Trail; and
 - the area of PCT 762 mapped within and surrounding the Project disturbance footprint is approximately 4.54 ha; the proposed access road would result in a reduction of the mapped area of PCT762 of approximately 7%.
125. The Commission recognises there will be minor fragmentation of PCT762, and that the corresponding PCT4042 is located further south of the Site. However, on balance the minor amount of vegetation removal (7% of the PCT762 mapped area), the use of the existing trail alignment (where possible) for the access road and the Commission's imposition of conditions of development consent requiring the Applicant to prepare a comprehensive Biodiversity Management Plan (condition B50), results in the Project being unlikely to significantly reduce the quality or integrity of the retained areas of PCT762.
126. Combined with the Commission's imposed conditions, including the required retirement of biodiversity credits (conditions B46 and B47), a further species verification survey for the Eastern Cave Bat (condition B48), the maintenance of riparian corridors (condition B49) and the preparation of the aforementioned Biodiversity Management Plan, the Commission finds, on balance, the Project's biodiversity impacts to be acceptable.

5.3 Air Quality

5.3.1 Air Quality and Greenhouse Gas Assessment

127. The Air Quality and Greenhouse Gas Assessment (**AQGHGA**), prepared for the Application, identified the primary emission sources associated with the Project as follows:
- **Dust emissions** - Generated from activities including land clearing, construction of haul roads and Site infrastructure, excavation of water management areas, drilling and blasting, material handling (loading/unloading), crushing and screening processes, stockpile operations, and windblown dust from exposed areas and stockpiles.

- **Fuel combustion emissions** - Produced on-Site and off-Site from quarry equipment, plant operations, and product haulage trucks (AR para 189).
128. The AQGHGA also highlighted the potential for cumulative emissions arising from the Project in combination with emissions from nearby quarries, including Seaham Quarry, Brandy Hill Quarry, and the recently approved Eagleton Quarry (AR para 190).
129. The Department and the EPA agree that the AQGHGA and supplementary information were prepared in accordance with relevant guidelines and provide an adequate assessment of the Project's air quality and greenhouse gas impacts. The Department also considers that, with the implementation of a reactive real-time monitoring system at the Site, air quality impacts can be effectively mitigated and managed (AR paras 186, 212).
130. The Department accepts that the Project's modelled dust emissions are expected to comply with the NSW EPA particulate matter impact assessment criteria for incremental, cumulative, and combined cumulative emissions at the vast majority of receptor locations. The EPA did not raise concerns regarding air quality impacts on sensitive receptors and recommended conditions for ongoing air quality management and monitoring (AR paras 186, 193).
131. Consistent with the EPA's recommendations, the Department has proposed conditions requiring mitigation measures to align with best management practices and achieve emission controls equal to or exceeding the efficiencies outlined in the AQGHGA (AR para 207).

5.3.2 Human health

132. As noted in Section 4.2.2 of this report, air quality concerns, particularly the potential health risks associated with dust and respirable crystalline silica, were raised in objections.
133. The Department states that while NSW does not have specific criteria for respirable silica at residential receptors, the Victorian EPA defines an annual average criterion of $3 \mu\text{g}/\text{m}^3$ for assessing human health impacts of respirable crystalline silica (as $\text{PM}_{2.5}$). This criterion is outlined in the *Protocol for Environmental Management for Mining and Extractive Industries (2007)*, an incorporated document of the Victorian State Environment Protection Policy (Air Quality Management) 2001 (AR para 196).
134. The air quality modelling for the Project predicts that the highest annual average $\text{PM}_{2.5}$ concentration from the Project would be $<0.1 \mu\text{g}/\text{m}^3$ at the nearest dwelling and $0.8 \mu\text{g}/\text{m}^3$ at the property boundary. The Department states that these levels are significantly below the Victorian EPA criterion. Based on this assessment, the Department considers the risks of adverse health impacts from respirable silica to surrounding residents to be low and acceptable (AR para 197).

Commission's findings

135. The Commission agrees with the EPA's recommendation to benchmark mitigation measures against best management practices to achieve emission controls equal to or greater than those outlined in the AQGHGA. Recognising that air quality concerns were a key issue raised in public submissions, the Commission has imposed strict conditions to manage air quality impacts.
136. The Commission has imposed a condition that requires the Applicant to ensure that particulate matter emissions, including PM_{10} , $\text{PM}_{2.5}$, and total suspended particulate (**TSP**) matter, comply with the air quality criteria outlined in Table 4 of the consent conditions at all residences on privately-owned land, unless a written agreement with the landowner permits exceedances, and the Department has been notified.

137. To address cumulative impacts from the Project and nearby quarries, the Commission has imposed a condition to require the Applicant to implement a comprehensive reactive management system, including real-time monitoring to detect elevated dust levels. This system will enable quarry personnel to adjust activities or implement additional mitigation measures proactively, including relocating, modifying, or ceasing operations to maintain compliance with air quality criteria.
138. The Applicant would also be required to:
- Engage a suitably qualified expert to conduct air quality monitoring in accordance with the *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* (EPA, 2022);
 - Regularly review meteorological and air quality data and modify operations as necessary to ensure compliance;
 - Develop a protocol to identify, report, and address air quality exceedances, incidents, or non-compliances, with timely notification to the Department and relevant stakeholders; and
 - Coordinate with nearby quarries to minimise impacts from blasting activities on local amenity.
139. With these measures in place, the Commission considers that the Project's air quality impacts can be effectively managed and mitigated.

5.4 Water Resources and Quality

5.4.1 Surface water

140. As noted in Section 4.2.2 of this report, submissions raised concerns regarding potential waterway pollution, impacts on water quality within the Grahamstown Dam catchment, and contamination of potable water supply tanks at nearby residences.
141. The Department states at AR para 101 that:
- The Project is located within the catchments of the Williams River (including the Caswells Creek tributary), Nine Mile Creek, and Grahamstown Dam (AR para 101).
 - Surface water use in the region is regulated under the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources (2009).
 - There are no licensed surface water users on Nine Mile Creek between the Project area and Grahamstown Dam, and Hunter Water is the sole licensed water user within the Williams River catchment downstream of the Project area.
142. The Department notes that although there is no statutory requirement for the Project to achieve a Neutral or Beneficial Effect (**NorBE**) on water quality, Hunter Water requested the Applicant demonstrate that the Project could meet this standard, given its location within a drinking water catchment (AR para 98).
143. In response to agency feedback and amendments to the Project, a revised Surface Water Impact Assessment (**SWIA**) was prepared by Engeny Australia Pty Ltd (**Engeny**). The Department notes that key stakeholders, including Hunter Water, the Water Group, EPA, and Council, raised no specific concerns regarding the revised SWIA (AR para 100).

Water quality impacts

144. In its advice to the Department, Hunter Water required the Project's water management system to demonstrate compliance with the *Protecting Our Drinking Water Catchments* (Hunter Water, 2017) guideline to achieve a NorBE on water quality, particularly regarding discharges affecting the Grahamstown Dam drinking water supply (AR para 113).

145. To demonstrate compliance, Engeny conducted an analysis comparing pre- and post-development pollutant loads (kg/ha/year) of phosphorus, nitrogen, and total suspended solids (**TSS**) within the catchment. The analysis indicated that average pollutant export rates would decrease by 10–78% under post-development conditions, demonstrating the ability for the proposed water management system to achieve a NorBE on water quality (AR para 114).
146. Hunter Water endorsed this analysis and recommended full implementation of the proposed water management system. The EPA also provided draft conditions to ensure the system is designed, constructed, and operated in accordance with the *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004; DECC, 2008) guidelines (the "Blue Book") and the NSW Water Quality Objectives (AR para 115).
147. The Department notes that Hunter Water, EPA and the Water Group have accepted the proposed surface water monitoring, mitigation and management measures described in para 144 of the AR.

Hydrology and watercourse stability impacts

148. The AR notes that Engeny's analysis indicates that the Project would reduce total catchment runoff by approximately 23.5 ML/year on average, primarily due to the reduced catchment area as a consequence of quarry operations (AR para 116). The Department expects this reduction to have negligible impacts on flow volumes in Nine Mile Creek, Caswells Creek, the Williams River, and Grahamstown Dam.
149. The Department considers the reduction in catchment yields for Grahamstown Dam to be minor, with further decreases anticipated during wet years due to controlled discharges from the Site. As the Project area accounts for only 0.44% of the Grahamstown Dam catchment (approximately 11,500 ha), its impact on runoff volumes within the drinking water catchment is deemed negligible. The Department notes that Hunter Water raised no concerns regarding the potential reduction in runoff volumes reporting to Grahamstown Dam (AR para 117).

Commission's findings

150. The Commission recognises the importance of maintaining an effective water management system within the drinking water catchment and has imposed conditions in the Water Management Plan to align with recommendations from Hunter Water and the EPA. The Plan must include:
- Baseline data on surface water flows, quality, and conditions in affected areas, including Nine Mile Creek and Grahamstown Dam;
 - Details of predicted off-site discharges, treatment options, and measures to mitigate water quality and geomorphological impacts;
 - Impact assessment criteria, performance measures, and a comprehensive description of the water management system, including controls, storages, and runoff management;
 - A monitoring program to evaluate discharges, stream conditions, and system performance; and
 - A protocol for investigating and reporting any exceedances of impact criteria.
151. The Commission agrees with the Department's assessment that the Project's potential impact on catchment yields for Grahamstown Dam is minor and can be effectively mitigated through strict conditions to minimise impacts on runoff volumes within the catchment. The Applicant is required to ensure that:

- all surface water discharges from the Site comply with all relevant provisions of the POEO Act, including any discharge limits (both volume and quality) set for the development in any EPL; and
 - the on-site water management system is designed, constructed and implemented to achieve a NorBE on discharged water quality, prevent discharges during rainfall events up to a 1-in-500-year, 24-hour storm during operations, and comply with Managing Urban Stormwater Volume 1 (Landcom, 2004) and Managing Urban Stormwater: Soils and Construction Volume 2E (DECC, 2008).
152. The Commission acknowledges the concerns raised in submissions regarding the risk of contamination of potable water supply tanks at nearby residences. The Commission notes that air quality modelling for the Project suggests impacts to nearby dwellings would be low, as discussed in Section 5.3 above.
153. To mitigate any potential risks associated with contamination of potable water supply tanks at nearby residences, the Commission has imposed conditions to ensure the Applicant undertakes baseline potable water supply testing on water tanks located at nearby sensitive receivers prior to the commencement of construction. Testing must be carried out by a qualified, independent professional, with results provided to both landowners and the Planning Secretary. The Commission notes that if landowner consent is not granted, the Applicant must document their efforts to obtain consent and submit this evidence to the Planning Secretary.
154. The Commission notes that if water quality testing indicates a decline due to the development, the Applicant must:
- Provide a compensatory water supply to affected landowners, in consultation with NSW DCCEE – Water Group and to the satisfaction of the Planning Secretary;
 - Ensure the alternative water supply matches the lost supply in quality and volume, with interim solutions provided as soon as practicable unless otherwise agreed with the landowner; and
 - Refer disputes over water loss attribution or compensation measures to the Planning Secretary for resolution if no agreement is reached with the landowner.
155. If a long-term alternative water supply cannot be provided, the Commission notes that the Applicant must offer compensation, subject to the Planning Secretary's approval.

5.4.2 Groundwater

156. The Department states that revised Groundwater Impact Assessment (**GIA**), prepared by GHD in May 2023, was developed in accordance with the *Groundwater Assessment Toolbox for Major Projects in NSW* (DPE, 2022) and the requirements of the *NSW Aquifer Interference Policy* (AIP) (NOW, 2012) (AR para 125).
157. As outlined in Section 4.2.2 of this report, some submissions expressed concerns about the potential adverse impacts of the Project on groundwater resources.
158. The Department states at AR para 127 that groundwater in the vicinity of the Project is regulated under the *Water Sharing Plan for the North Coast Fractured and Porous Rock Groundwater Sources* (**New England Fold Belt Coast Groundwater Source**). The New England Fold Belt Coast Groundwater Source is a fractured aquifer system where groundwater is primarily contained within and moves through fractures in the rock caused by folding and faulting. Groundwater yields within this source are generally low, with the local flow system occurring in both unconfined and confined fractured rock aquifers within the Eagleton Volcanics. The AIP classifies this groundwater source as "less productive" (AR para 127).

Predicted drawdown

159. The proposed quarry design involves the extraction of rock to a depth of -2 m AHD, which would lead to groundwater above this elevation seeping into the excavation area. According to the Applicant's GIA, groundwater inflows to the quarry pit are predicted to range from 8.7 ML/year to 14.3 ML/year, resulting in drawdown within the connected groundwater source (AR para 131).
160. The predicted radius of this drawdown, based on the quarry extraction, is 468 m, and this distance was used to assess the impact on existing groundwater users. Maximum modelled drawdown is estimated to be 3.47 m at 200 m from the extraction centre, reducing to zero at 400 m after 30 years. No drawdown is expected at any landholder bores (AR para 131).
161. The drawdown due to the proposed production bore, located approximately 300 m north-west of the extraction area, is predicted not to exceed one meter at distances beyond 600 m from that bore. Given that the nearest water supply bores are more than one kilometre to the north-west, the Department considers it is unlikely that the production bore will cause a water table decline of more than two meters at any water supply work. The Department notes the Project complies with the NSW Aquifer Interference Policy (**AIP**) Level 1 Minimal Impact Considerations regarding impacts on landholder bores (AR para 132).

Impact on groundwater quality

162. The Department agrees with the GIA's conclusion that the Project is unlikely to cause significant changes to groundwater quality or its beneficial use (AR para 137). The GIA predicts that increased groundwater recharge during the post-closure phase may lead to localised improvements in groundwater quality. The Department states the Project complies with the Level 1 Minimal Impact Considerations for groundwater quality under the AIP (AR para 137).
163. The Department notes that Hunter Water, EPA and the Water Group have accepted the proposed groundwater monitoring, mitigation and management measures described in para 144 of the AR.

Groundwater licensing

164. Groundwater take associated with the Project, including passive inflows and direct extraction from the quarry pit, will require a water access license (WAL) under the *Water Management Act 2000* (**WM Act**). The Applicant will require 39 ML/year of licensed groundwater entitlement during the early stages of the Project. The Department and Water Group agree that there is sufficient market capacity to meet the groundwater licensing requirements (AR paras 141-142).

Commission's findings

165. The Commission agrees with the Department, Hunter Water, and the EPA regarding the Project's predicted groundwater drawdown and its impact on groundwater quality and capacity.
166. Recognising the importance of an effective water management system for mitigating groundwater impacts, the Commission has imposed conditions requiring the Applicant's Water Management Plan to align with recommendations from Hunter Water and the EPA. The Plan must include:
- Baseline data on groundwater levels, quality, and resources, including bores, water supplies, and ecosystems;

- A groundwater management system with performance criteria and trigger levels;
 - A bore replacement strategy for removed bores;
 - Monitoring and validation of groundwater impacts, including periodic model updates; and
 - Protocols for investigating exceedances, notifying stakeholders, and obtaining licences for unforeseen inflows.
167. The Commission has also imposed conditions requiring the Applicant to annually report on all water extracted from the Project and secure all necessary water licences under the WM Act.

5.5 Noise Impacts

168. Noise impacts, in particular road noise impacts, were raised by several members of the community in objections to the Commission. The Department noted the greatest potential sources of noise from the Project are (AR para 213):
- operation of plant and equipment during extraction, processing and truck loading; and
 - road haulage, particularly during the early morning shoulder period (i.e. 6am - 7am).
169. The EIS included a Noise and Vibration Impact Assessment (**NVIA**) which assessed the construction, operational and traffic noise impacts associated with the Project. An addendum to the NVIA was also prepared to consider the amended Project and lodged as part of the amendment and submissions report process. The Department and EPA agree that the NVIA and additional information has been prepared in accordance with the relevant guidelines and is adequate to assess the noise and vibration impacts of the Project (AR paras 215-216).

Construction noise

170. Construction noise levels are predicted to comply with the daytime noise management levels at all sensitive receivers. It is also noted that the predicted construction noise impacts under the worst case would also meet the operational Project Noise Trigger Levels (**PNTLs**) at all sensitive receivers (AR para 230).

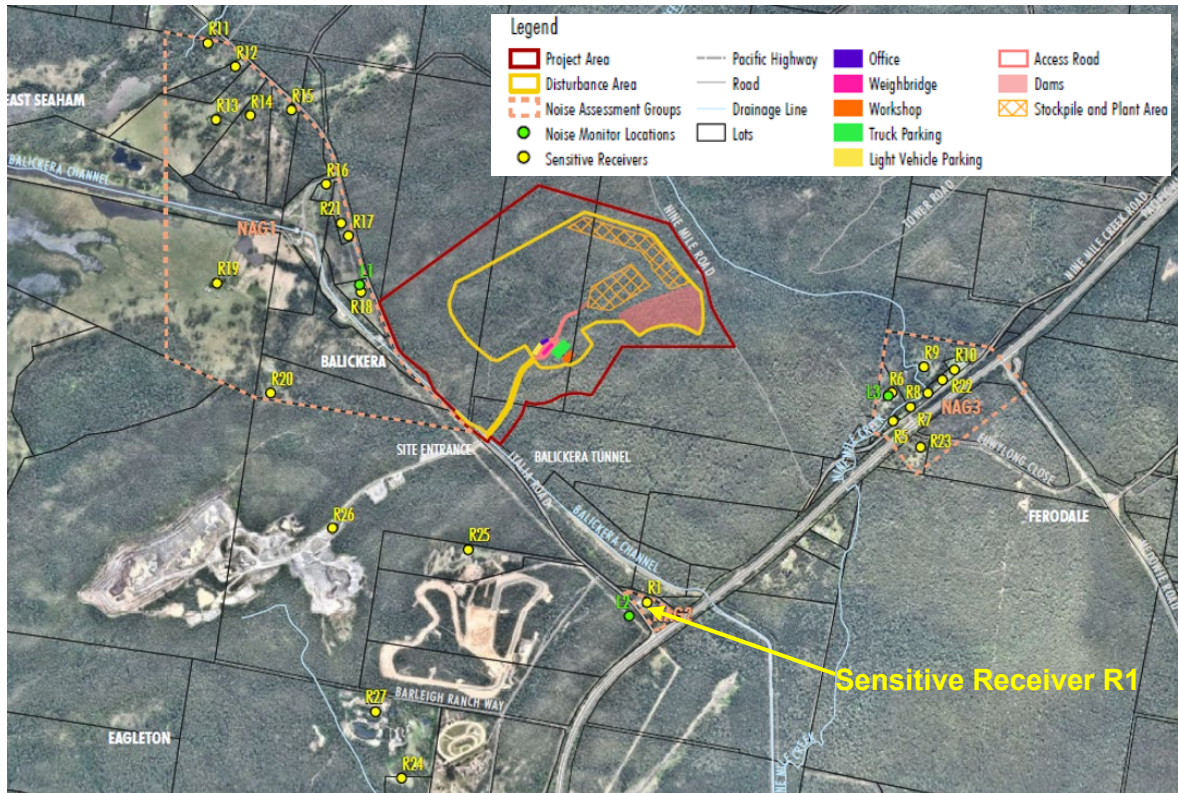
Operational noise

171. Four (4) operational scenarios were modelling for operational noise (AR para 222):
- Stage 0 (pre-operations and site preparation/earthworks);
 - Stage 1 (initial processing of quarry materials);
 - Stage 5 (mid-life of operations); and
 - Stage 9 (end of life of operations).
172. Noise modelling predicted noise levels from worst-case quarry operations would be below the relevant PNTL at all sensitive receivers during all four (4) stages. Predicted noise levels indicated that no residence or privately-owned land would be subject to voluntary mitigation or land acquisition rights in accordance with the NSW Government's Voluntary Land Acquisition and Mitigation Policy (**VLAMP**). The Department and EPA accept that the proposed quarrying operations would not cause detrimental noise impacts at any receptor locations (AR paras 223-225).

Road noise

- 173. As discussed in Section 5.1, heavy vehicles and haulage trucks accessing and exiting the Site will travel to and from the Pacific Highway along Italia Road. The potentially most impacted sensitive receiver from road noise is Receiver 1 (Figure 7) located 50 m from the carriageway of Italia Road and 155m from the Pacific Highway (AR para 227).

Figure 7 – Sensitive receivers (Source: Extract of Appendix 3 of Department’s recommended conditions of consent – markups by Commission)



- 174. Due to the impact of existing road noise from the Pacific Highway, which is already equal to the Daytime Road Noise Policy (**RNP**) criterion and above the Morning shoulder and Nighttime noise criteria, construction and operation of the Project is not expected to increase the existing road noise levels experienced at sensitive receiver R1 (AR para 228).
- 175. The Commission notes that EPA recommended further consideration of how low traffic flows were addressed in the Applicant’s road noise modelling. The Department subsequently consulted with the EPA’s technical specialist and the Department’s noise specialist and considered that predictions were well below the criteria and use of an alternative modelling approach was unlikely to increase the predicted noise (AR para 229).

Cumulative noise

176. The NPfl states that the cumulative Project amenity noise limits should not be exceeded. The Project amenity noise limits are higher than the adopted PNTLs. Since the predicted operational noise levels are below the PNTLs, they are also below the adopted Project amenity noise limits. As such, cumulative noise levels would be acceptable and no further consideration of cumulative noise is required under the provisions of the NPfl. The Department has accepted this outcome (AR para 226)

Commission's findings

177. The Department has recommended several specific noise-related conditions which require the Applicant to adopt best practice noise management and to take all reasonable steps to manage construction, operational and road noise. Conditions imposed by the Commission also require the Applicant to (AR paras 231-232):
- ensure compliance with operation noise criteria (condition B1 and Appendix 5);
 - undertake noise monitoring at least quarterly during operations to determine compliance with the applicable noise criteria (conditions B2, B4, and Appendix 5);
 - regularly assess the noise monitoring data, and modify or stop operations on the Site to ensure noise compliance (B4 and Appendix 5); and
 - establish suitable protocols for receiving and handling community complaints and investigating any potential exceedances (B4 and Appendix 5).
178. The Commission is satisfied that potential noise impacts arising from the Project are acceptable and will not exacerbate the existing levels of amenity within the locality, subject to compliance with the conditions imposed by the Commission.
179. In addition to the conditions recommend above, the Commission has imposed condition A11 which sets operating hours for the Project. Regarding the permissible hours for loading and dispatch of product trucks, the Commission has restricted the permissible operating hours to 7am to 10pm Monday to Friday, in lieu of commencing at 6am as proposed in the EIS.
180. The Commission finds it appropriate to restrict loading and dispatch of product trucks to 7am as this is consistent with the quarrying operation start time of 7am. This later start will further assist with potential noise impacts on sensitive receivers located on Italia Road between the Site access and the Pacific Highway.

5.6 Other Issues

5.6.1 Aboriginal Cultural Heritage

181. The Applicant's Aboriginal Cultural Heritage Assessment Report (**ACHAR**) (as revised to address comments made by Heritage NSW) was prepared in consultation with 13 Registered Aboriginal Parties (**RAPs**). The ACHAR confirmed that no Aboriginal objects or areas of archaeological potential were identified during the survey, and the entirety of the Project area is considered to be of low archaeological potential (AR Table 6-8).
182. Heritage NSW supports the Applicant's heritage management commitments, and the Department has determined that no impacts to Aboriginal cultural heritage sites are expected with any unexpected finds able to be appropriately managed (AR Table 6-8).
183. The Commission agrees with the Department's assessment and has imposed conditions B41 to B44 for the protection of Aboriginal Heritage, including unexpected find procedures and protocols that the Applicant must adhere to.

5.6.2 Historic heritage

184. The Commission notes the Department's assessment of historic heritage and that the site does not contain any items of heritage significance (registered or unregistered). An item of local heritage significance (as listed within Schedule 5 of the LEP) known as 'Balickera House' is located outside of the Site. The Applicant's blasting impact assessment (**BIA**) provides that predicated vibration and overpressure levels would be unlikely to adversely affect the structure or its heritage values (AR Table 6-8).
185. The Commission received a submission and heard from the owners of 'Balickera House' during the Project's Public Meeting; the owners raised their concerns of adverse impacts on 'Balickera House' as a result of the proposed development, including its structural integrity. In consideration of this issue, the Commission has imposed conditions B9 to B13 which require the Applicant to advise the owners of 'Balickera House' (and other private landowners), that they may request a property inspection to establish baseline conditions of any buildings and structures on their property.
186. The imposed conditions also make provision for private landowners to request a property inspection as a result of written claims (to the satisfaction of the Planning Secretary), that buildings or structures on their land have been damaged as a result of blasting on the Site.
187. Whilst the Commission agrees with the Department's assessment of historic heritage, the conditions imposed by the Commission provide a methodology to monitor and respond to any potential impacts arising. This includes condition B45 which requires the Applicant to adhere to an unexpected finds protocol in relation to any unexpected archaeological deposits or relics discovered on the Site.

5.6.3 Blasting

188. Further to the discussion in Section 5.6.2 above, the BIA predicted the airblast overpressure and ground vibration levels at the Project's nearest sensitive receivers, using four (4) different maximum instantaneous charge (**MIC**) scenarios. An addendum to the assessment was also provided as part of the Applicant's Amendment Report. The EPA did not raise any issues in relation to the blasting and vibration assessment. The Applicant has committed to adhering to blasting times and preparing and implementing a Blast Management Plan (**BMP**). The BMP is to include vibration monitoring protocols, Pre-Blast Assessment Protocols, a Road Closure Management Plan, a Resident Notification System and liaison with adjacent quarries to prevent concurrent blasting (AR Table 6-8).
189. Blasting is proposed to be undertaken at a frequency of up to 2 blasts per fortnight. The Commission has imposed condition B14(a)(i) reinforcing that the Applicant must take all reasonable steps to consult and coordinate with nearby quarries within the locality to ensure blasting activities are conducted in a coordinated manner. The Commission's imposed conditions also:
- require compliance with blasting overpressure and vibration limits (conditions B5 and B6);
 - specify that the Applicant may only carry out a maximum of 2 blasts per day (not more than 4 per week) during construction and a maximum of 1 blast per day and 2 blasts in every fourteen days during quarrying operations (conditions B7 and B8);
 - require community notification of blasting (condition B14)
 - ensure the safety of people and livestock (condition B14)
 - minimise blast-related dust and fume emissions (condition B14); and

- allow nearby landowners to request an independent review of impacts at their property, should they consider the Project to be exceeding the relevant blasting, noise, or air quality criteria (conditions C3-C5).

190. Overall, the Project's blasting impacts are found to be acceptable by the Commission. Subject to compliance with the conditions imposed, the Commission is satisfied that potential overpressure, vibration and fly rock impacts are suitably managed and can be further mitigated by imposed conditions.

5.6.4 Economic impacts

191. Several submissions argued that the proposed development would be detrimental to land/property values within the locality.

192. The Department's AR (Table 6-8) states that property values are not a consideration for assessment under the EP&A Act. The Commission further notes that the NSW Land and Environment Court has ruled in the past on numerous occasions that the impact of a proposed development on individual property values is not a relevant consideration pursuant to the EP&A Act, unless the proposed development would have significant and widespread economic impacts on the locality. The Commission agrees with the Department in its consideration of this matter and does not consider that the development would have significant adverse and widespread economic impacts on the locality.

193. Several submissions by way of support for the proposed development commented on the Project's potential economic benefits. Such benefits include providing additional direct and indirect employment opportunities within the Hunter region (both during construction and operation), and providing resources that will contribute to supporting the local construction industry.

194. The Department's AR details that the Project would provide for 10 full time equivalent (FTE) jobs, five (5) part time jobs and 35 indirect transport-related jobs at full production. As also outlined previously at Section 3.2.2 of this statement, there is a clear demand for a hard rock resource in NSW to meet population growth and consequent housing and infrastructure demand.

195. The Commission finds that the proposed development would have a positive economic impact within the locality and more broadly across the Hunter, Greater Sydney and NSW through employment opportunities and provision of resources to support building and infrastructure demands (such as housing, road, rail and electricity infrastructure) across NSW.

5.6.5 Cumulative impacts

196. The Commission acknowledges the community's concerns about the Project's potential cumulative impacts. As discussed through the key issues above, the Department has assessed the cumulative impacts of the proposed development, including biodiversity, traffic, air quality and noise impacts. Specifically:

- **Biodiversity** – whilst the Project would fragment a small patch of the *subtropical eucalypt floodplain forest and woodland of the NSW North Coast and South East Qld bioregions* EEC, it was not considered likely to provide habitat critical to survival of that community, and the loss of this habitat would contribute a minor adverse cumulative impact at a regional and national level, which is considered unlikely to be significant. Potential cumulative impacts to the Koala and Grey Headed Flying Fox have also been considered. The impacts of the proposed development on these species have been found by the Department and Commission to be acceptable, subject to avoidance, mitigation, offsetting and management measures, and the requirements of recommended conditions of consent. Residual impacts to both species would be adequately offset through the retirement of ecosystem credits (AR Appendix D).
 - **Traffic** – An addendum to the TIA was prepared by the Applicant to consider the traffic impacts associated with a potential future scenario where the Project and the neighbouring Eagleton Quarry and Seaham Quarry were developed. Potential cumulative traffic and transport impacts arising from the proposal can be mitigated and managed via conditions of development consent;
 - Such conditions include preventing product being hauled from the Site until such time as relevant intersection upgrades are completed, restricting heavy vehicle and haulage trucks to specific routes and installing GPS systems in relevant vehicles for ongoing monitoring of compliance;
 - **Air quality** – the AQGHGA for the Project assessed the operational incremental and cumulative air quality impacts of the Project based on maximum annual production rates, identifying the potential combined cumulative emissions from neighbouring quarries (Seaham Quarry, Brandy Hill Quarry) and the recently approved Eagleton Quarry. The EPA did not raise any specific concerns in relation to the modelled air quality impacts on sensitive receptors (AR paras 184, 190 and 193);
 - **Noise** – as discussed in Section 5.5, the NPfI states that the cumulative Project amenity noise limits should not be exceeded. The Project amenity noise limits are higher than the adopted PNTLs. Since the predicted operational noise levels are below the PNTLs, they are also below the adopted Project amenity noise limits. As such, cumulative noise levels would be acceptable, no further consideration of cumulative noise is required under the provisions of the NPfI. The Department has accepted this outcome (AR para 226), and the Commission agrees this is acceptable;
 - Further, the Commission has imposed conditions of development consent which restrict heavy vehicles utilising the local road network west of the Site. The loading and dispatch of product trucks has also been restricted to commence at 7am which will also assist in the mitigation of potential vehicle noise impacts to sensitive receivers.
197. Cumulative impacts were discussed during the Project's Public Meeting, where the Department reiterated its assessment of the potential cumulative impacts arising from the Project. The Commission is satisfied that the potential cumulative impacts of the proposed development have been adequately identified and assessed. Any residual cumulative impacts can be further mitigated and/or managed via the Commission's imposed conditions of consent.

5.6.6 Other assessment issues

198. The Commission agrees with the Department's assessment of all other issues not identified above (social, hazards and waste, greenhouse gas emissions, visual amenity and final landform and rehabilitation) at Section 6.6 and Table 6-8 of the Department's AR. Subject to the Commission's imposed conditions of consent relevant to each of these issues, the Commission is satisfied that the Project's impacts are minimal and capable of being appropriately monitored and managed.

6. The Commission's Findings and Determination

199. The views of the community were expressed through public submissions and comments received (as part of exhibition and as part of the Commission's determination process), as well as in oral presentations to the Commission at the Public Meeting. The Commission carefully considered all of these views as part of making its decision.
200. The Commission has carefully considered the Material before it as set out in Section 3.1 of this report. Based on its consideration of the Material, the Commission finds that the Project should be approved subject to conditions of consent, for the following reasons:
- the proposal is a permitted land use on the Site and is consistent with the relevant provisions of applicable environmental planning instruments;
 - the Project is generally consistent with the relevant established strategic planning framework;
 - the Site has been found to be suitable for the proposed development as potential adverse impacts and land use conflicts with sensitive receivers and other land uses within the locality have been minimised as far as practicable, and can be further managed and mitigated via conditions of development consent;
 - the use of the Site as an appropriately regulated hard rock quarry is an orderly and economic use of the land;
 - the Project will provide a hard rock resource for the local, regional and broader NSW construction industry which provides direct and indirect economic benefits across the State by providing materials to support infrastructure and housing demands;
 - the Project will result in positive social and economic impacts through providing local employment opportunities;
 - the Site is capable of being rehabilitated to a stable, safe and non-polluting landform at the end of its life;
 - visual impacts arising from the Project are low as the Project will not be visually prominent within the locality;
 - the Project will not adversely affect Aboriginal and/or historic cultural heritage;
 - social impacts arising have been adequately mitigated by the Applicant and will be further mitigated via the Commission's imposed conditions of consent;
 - serious and irreversible impacts on biodiversity are unlikely;
 - through imposed conditions of consent, traffic and transport impacts within the locality will be mitigated, with no heavy vehicles or haulage trucks permitted to use local roads west of the Site and no transportation of quarry product until the intersection upgrade to the Italia Road/Pacific Highway intersection is complete;
 - the Project will not impact adversely on water resources; and
 - the Project is not considered to be prejudicial to the public interest.
201. For the reasons set out in paragraph 200 above, the Commission has determined that the Project should be approved subject to conditions. These conditions are designed to:

- prevent, minimise and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the development.

202. The reasons for the Decision are given in the Statement of Reasons for Decision dated 16 December 2024.



Janett Milligan (Chair)
Member of the Commission

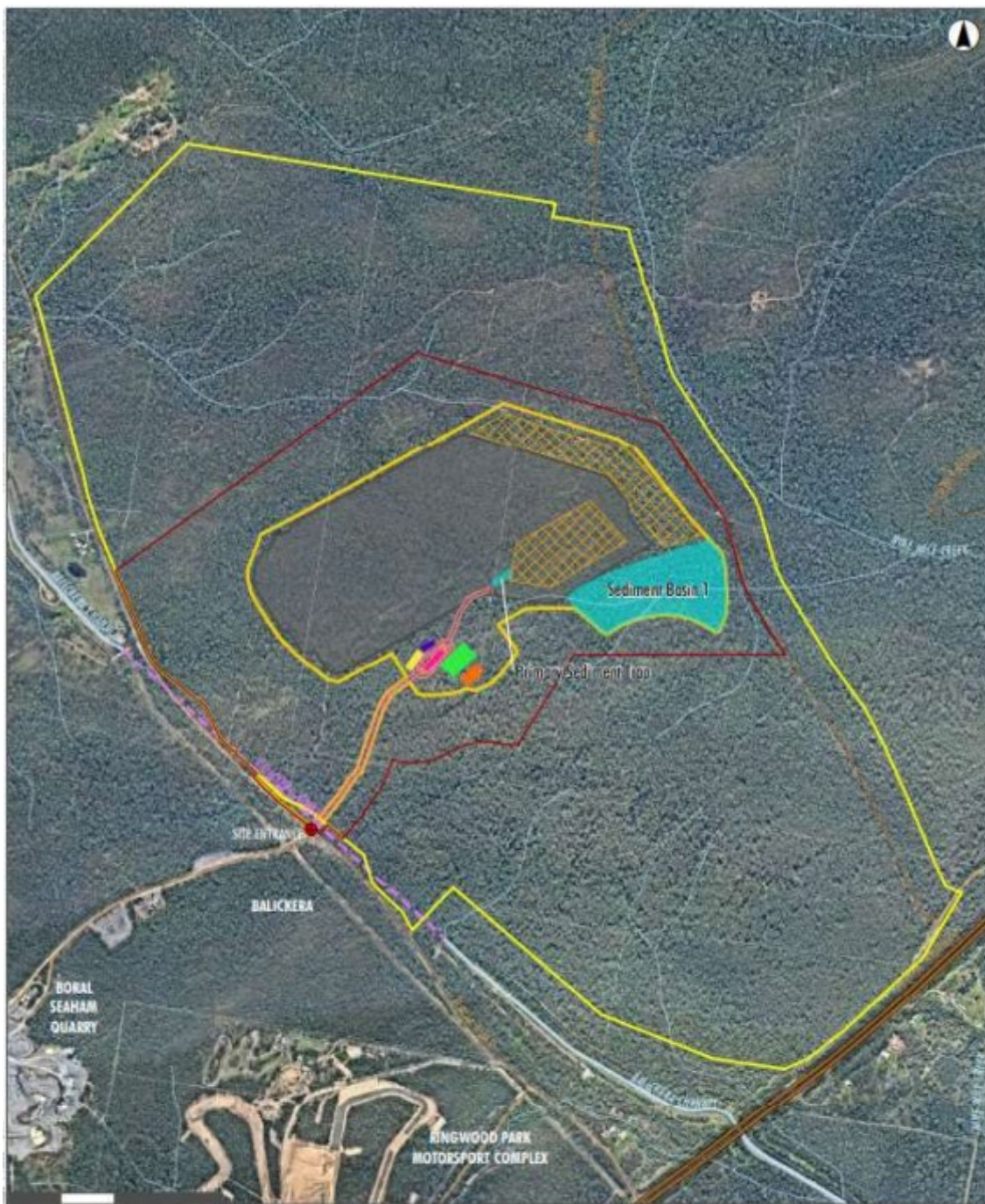


Richard Pearson
Member of the Commission



Terry Bailey
Member of the Commission

Appendix A - Layout Plan



- Legend
- Project Area
 - Proposed Disturbance Area
 - Licence Area
 - Pacific Highway
 - Road
 - Balickera Tunnel
 - Drainage Line
 - Lot Boundaries
 - Pit Outlines (Stage 9)
 - Office
 - Weighbridge
 - Access Road
 - Workshop
 - Truck Parking
 - Light Vehicle Parking
 - Stockpile and Plant Area
 - Dams

FIGURE 3.1
Amended Conceptual Quarry Layout



New South Wales Government
Independent Planning Commission

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