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Independent Planning Commission

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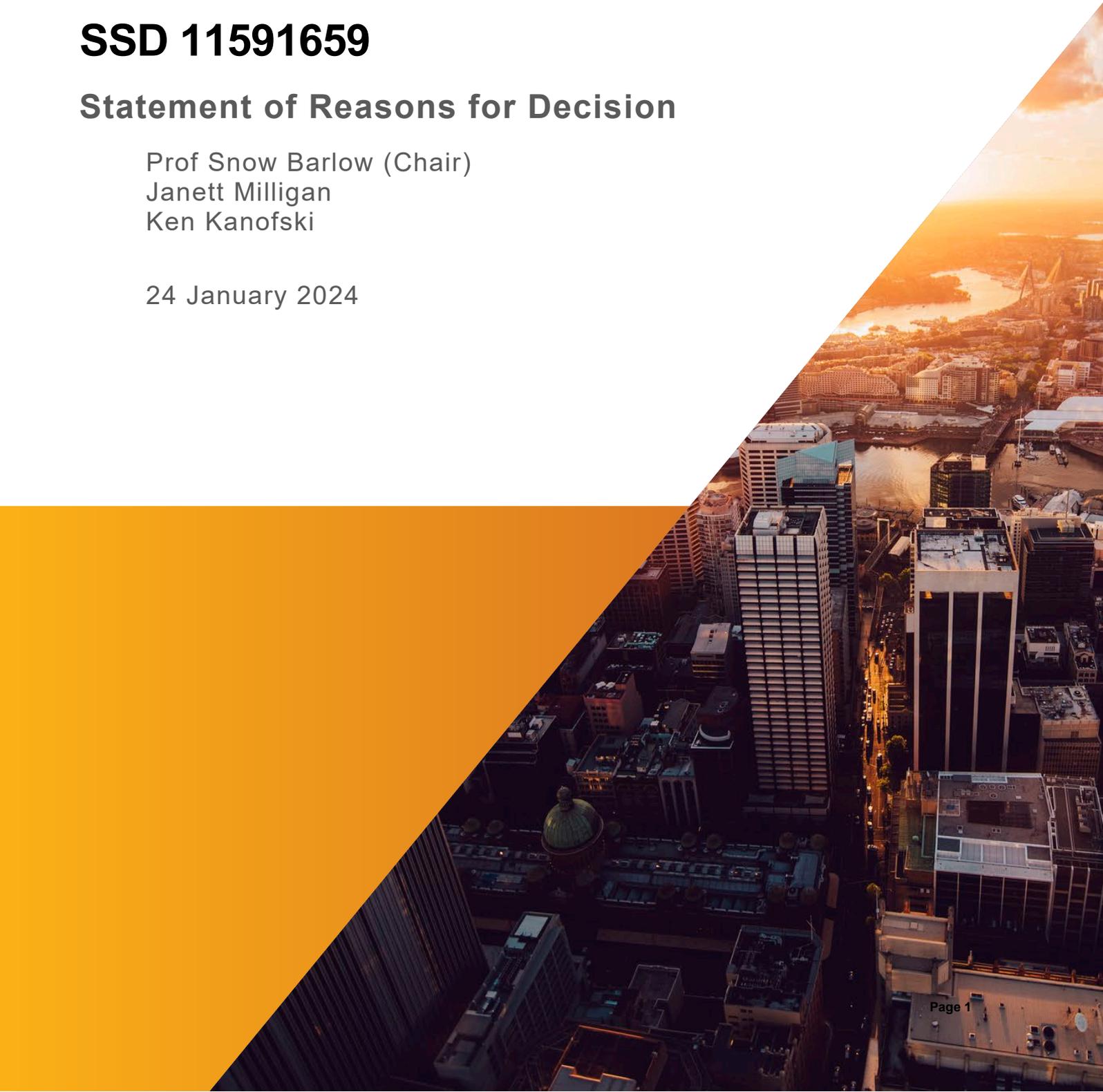
Deep Creek Quarry

SSD 11591659

Statement of Reasons for Decision

Prof Snow Barlow (Chair)
Janett Milligan
Ken Kanofski

24 January 2024



Executive Summary

Ironstone Developments Pty Ltd (Applicant) has sought consent for the development of a new hard rock quarry to extract, process and transport up to 500,000 tonnes per annum of hard rock material over a 30-year period (Project). The site (Site) is located between Limeburner's Creek and Allworth, approximately 10 km northeast of Clarence Town and 11 km northwest of Karuah, NSW in the MidCoast Council Local Government Area.

The Project would generate approximately 20 construction jobs and 10 jobs during operations.

The NSW Independent Planning Commission (Commission) is the consent authority for the Project because more than 50 unique public objections were made to the Department of Planning, Housing and Infrastructure (Department).

Commissioners Professor Snow Barlow (Chair), Janett Milligan and Ken Kanofski were appointed to constitute the Commission Panel in determining the Application. As part of its determination process, the Commission met with representatives of the Applicant, the Department and MidCoast Council. The Commission also undertook a site inspection.

The Commission conducted a Public Meeting on 13 December 2023 that was live streamed. The Commission also received written submissions on the Application.

Key issues which are the subject of findings in this Statement of Reasons for Decision relate to biodiversity, traffic and transport, noise, water resources and air quality. Social and economic impacts, greenhouse gas emissions, blasting, aboriginal cultural heritage, hazards and waste, visual amenity and rehabilitation and final landform were also considered. After careful consideration, the Commission has determined that consent should be granted to this State significant development application, subject to conditions.

The Commission finds that the Site is suitable for a hard rock quarry given its hard rock resources, topography, avoidance of major environmental constraints and access to the regional road network.

The Commission has imposed conditions which seek to prevent, minimise, mitigate and/or offset adverse impacts of the Project and to ensure appropriate ongoing monitoring and management of residual impacts. The Applicant will be required to prepare a number of comprehensive management plans and strategies and to report on mitigation and monitoring outcomes as well as demonstrate compliance with performance criteria on an ongoing basis.

The Commission is committed to ensuring this greenfield project successfully encourages community engagement through the provision of real time and attended monitoring, making monitoring data available to the community and a forum for the discussion of the Project's performance in a community consultative committee.

The conditions as imposed include several conditions imposed by the Commission to strengthen the environmental management of the development, including the requirement for progressive rehabilitation of the Site. Other conditions have been incorporated to respond to concerns raised by the community. These conditions include, but are not limited to, requirements for the Applicant to:

- ensure real time noise monitoring is included in the monitoring program to determine whether the Project is complying with noise limits and is published regularly on the Applicant's website;
- ensure air quality monitoring is conducted and published on the Applicant's website on at least a monthly basis;

- provide additional measures to mitigate the impact of heavy vehicle movements on the performance of The Bucketts Way and Pacific Highway intersection, including during peak holiday periods;
- ensure truck drivers adhere strictly to a code of conduct to minimise noise, pollution and queueing, including by not arriving early to the site;
- mitigate and offset biodiversity impacts of the development in the local area where possible, including the establishment of biodiversity stewardship sites;
- plant 900 koala feed trees on the Site along Deep Creek, ensuring that they are properly established and maintained and replaced if lost; and
- ensure the Applicant's website and contents are known to residents within the vicinity of the Site.

After consideration of the material, including additional information received from the Applicant, the Department and Council, and having considered the views of the community, the Commission has determined that development consent should be granted to the Application.

The Commission finds that the Project is consistent with the existing strategic planning framework as well as the relevant statutory considerations.

The Commission is also satisfied that the Project is in accordance with the Objects of the EP&A Act, all environmental, social, land use and safety impacts are acceptable subject to the conditions of consent imposed by the Commission, and accordingly the Project is in the public interest.

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
AHD	Australian Height Datum
AIP	NSW Aquifer Interference Policy
Applicant	Ironstone Developments Pty Ltd
Application	Deep Creek Quarry Project (SSD-11591659)
Approved Methods	Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (EPA, 2016)
AR para	Paragraph of the Department's Assessment Report
BAM	Biodiversity Assessment Method
BC Act	Biodiversity Conservation Act 2016
BCS of NSW DCCEEW	Biodiversity Conservation and Science Group of NSW Department of Climate Change, Energy, the Environment and Water
CCPF	NSW Climate Change Policy Framework
Commission	Independent Planning Commission of NSW
Council	MidCoast Council
NSW DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water
AG DCCEEW	Australian Government Department of Climate Change, Energy, the Environment and Water
Department	Department of Planning, Housing and Infrastructure
Department's AR	Department's Assessment Report, dated 21 November 2023
EIS	Environmental Impact Statement, dated 4 November 2021
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPI	Environmental Planning Instrument
EPL	Environmental Protection License
ESD	Ecologically Sustainable Development
GDE	Groundwater Dependent Ecosystem
GLLEP	Great Lakes Local Environmental Plan 2014
ICNG	Interim Construction Noise Guideline
LGA	Local Government Area
Mandatory Considerations	Relevant mandatory considerations, as provided in s 4.15(1) of the EP&A Act
Material	The material set out in section 3.1
Minister	NSW Minister for Planning and Public Spaces
NPfi	NSW Noise Policy for Industry
PCT	Plant Community Type
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
Project	Deep Creek Quarry
Regulations	Environmental Planning and Assessment Regulation 2000
Resources SEPP	State Environmental Planning Policy (Resources and Energy) 2021
RNP	NSW Road Noise Policy
RtS	Response to Submissions, dated 23 December 2022
SIA Guideline	Social Impact Assessment Guideline for State Significant Development
Site	The site as described in section 2.1 of this report
SSD	State Significant Development
TPA	Tonnes Per Annum
WM Act	Water Management Act 2000

1. Introduction

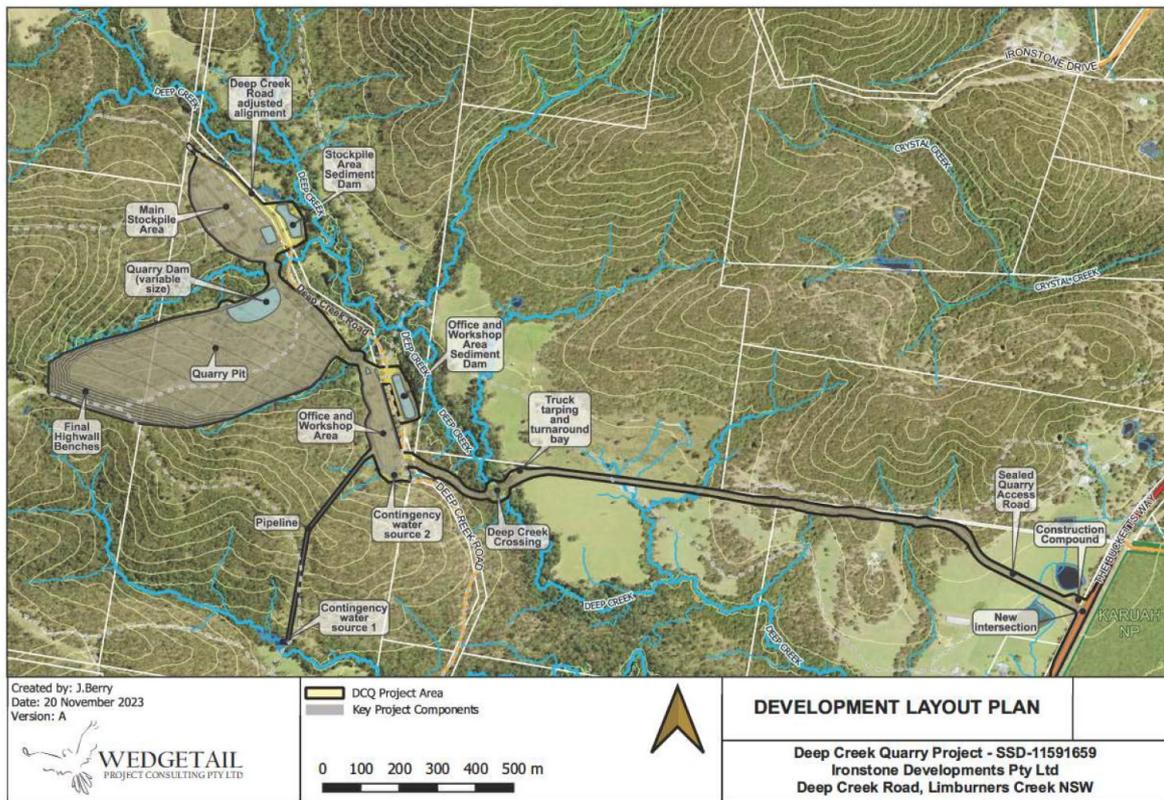
1. On 21 November 2023, the NSW Department of Planning, Housing and Infrastructure (**Department**) referred the State significant development (**SSD**) application SSD-11591659 (**Application**) from Ironstone Developments Pty Ltd (**Applicant**) to the NSW Independent Planning Commission (**Commission**) for determination.
2. The Applicant seeks approval under section 4.38 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) for the Deep Creek Quarry (the **Project**) located in the MidCoast Council (**Council**) Local Government Area (**LGA**).
3. The Application constitutes SSD under section 4.36 of the EP&A Act as the Project is an extractive industry development that would extract 500,000 tonnes of hard rock materials per year and meets the criteria specified in clause 7 of Schedule 1 to the *State Environmental Planning Policy (Planning Systems) 2021* (**Planning Systems SEPP**).
4. In accordance with section 4.5(a) of the EP&A Act and section 2.7 of the Planning Systems SEPP, the Commission is the consent authority as more than 50 unique public submissions have been made by way of objection.
5. Professor Mary O’Kane AC, Chair of the Commission, determined that Professor Snow Barlow (Chair), Janett Milligan and Ken Kanofski would constitute the Commission for the purpose of exercising its functions with respect to the Application.
6. 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 Application is in the public interest and is approvable, subject to its recommended conditions of consent.

2. The Application

2.1 Site and Locality

7. The ‘Site’ is defined as being within the Project area illustrated in Figure 1 below and is located on the boundary of the localities of Limeburner’s Creek and Allworth, approximately 10 km northeast of Clarence Town and 11 km northwest of Karuah, NSW (AR para 1).
8. The Site is zoned RU2 Rural Landscape under the Great Lakes Local Environmental Plan 2014 (**GLLEP**). The Project is in a rural setting, dominated by vegetated hills and drainage lines interspersed with open grasslands. Rural properties and associated dwellings, roads and trails also surround the Site. (AR para 5 and 17)

Figure 1 – Proposed Site Layout (Source: Department's AR)



2.2 The Project

9. The Applicant is seeking approval to develop a new hard rock quarry to extract, process and transport up to 500,000 tonnes per annum (**tpa**) of hard rock material over a 30-year period. A summary of the Project is provided in Table 1 below. A detailed description of the Project is provided in Appendix A of the Applicant’s Environmental Impact Statement (**EIS**), dated 4 November 2021.
10. Following construction, operations will be split into stages: stage 1 (years 1-5), stage 2 (years 5-11), stage 3 (years 11-21) and stage 4 (years 21-30).

Table 1 – Key components of the Project (Source: Department's AR)

Component	Proposed Project
Workforce	20 full time equivalent (FTE) jobs during construction 10 FTE jobs during operation
Quarry products	Hard rock aggregates
Production limit	500,000 tpa quarry products
Footprint	30 hectares (ha)
Depth of extraction	37 m Australian Height Datum (AHD)
Quarry method	Open cut extraction methods including excavation, drill, blast, load and haul

Processing	On site crushing, screening and stockpiling
Operating hours	<u>Construction and quarry operations</u> 7 am to 5 pm Monday to Friday, 8 am to 1 pm Saturday <u>Blasting</u> 9 am to 4 pm Monday to Friday <u>Loading and dispatch of trucks</u> 6 am to 6 pm Monday to Friday, 6 am to 1 pm Saturday
Site access	Dedicated quarry access road and intersection off the Bucketts Way
Product transport	25 laden truck movements per hour 110 laden truck movements per day
Rehabilitation and final landform	Rehabilitated to achieve a stable, safe, non-polluting landform able to support self-sustaining native vegetation and pasture for grazing

3. The Commission's Consideration

3.1 Material Considered by the Commission

11. In this determination, the Commission has considered the following material (**Material**):
- the Planning Secretary's Environmental Assessment Requirements issued by the Department, dated 19 February 2021;
 - the following information provided by the Applicant:
 - the EIS and its accompanying appendices dated 4 November 2021;
 - the Response to Submissions report (**RtS**) dated 23 December 2022 and its accompanying appendices;
 - 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 21 November 2023;
 - the Department's recommended conditions of consent, dated 21 November 2023;
 - comments and presentation material at meetings with the Department, Applicant, Council, and Public Meeting as referenced in Table 3 below;
 - the Applicant's response to the Commission, dated 19 December 2023;
 - the Department's response to the Commission, dated 20 December 2023;
 - Independent Advice on Diesel Particulate Emissions and Human Health provided by the Department and prepared by Environmental Risk Sciences Pty Ltd, dated 15 June 2023;
 - Council's response to the Commission, dated 21 December 2023;
 - all written submissions received by the Commission up until 5pm, 20 December 2023 and those accepted out of time; and
 - the Department's comment (dated 18 January 2024) on the feasibility and workability of proposed conditions.

3.2 Strategic Context

12. The *Hunter Regional Plan 2041* (**Regional Plan**) sets 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. The Regional Plan also aims to protect its diverse terrestrial and aquatic ecological systems, conserve its heritage values, and create thriving communities that enrich the quality of life and wellbeing of their residents (AR para 7).
13. In its December 2023 Infrastructure Market Capacity Report (**IMC 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 IMC Report also acknowledged that due to high transportation costs relative to the value of materials, quarry products must be sourced locally. This Project would provide capacity for the Hunter, Central Coast and Sydney markets, which drive demand for the product through government spending on public infrastructure and private investment in commercial, industrial, and residential development (AR para 13).
14. According to the Department, the hard rock resource comprises a mixture of rhyolite, trachyte, volcanic arenite and quartz trachyte. The primary target material for extraction is the rhyolite resource which is aimed at satisfying demand for high friction and reflective road aggregates (AR para 9 and 10). The Commission acknowledges that the Project is a good source of high-grade hard rock material.
15. The Commission also notes that there are several other existing and proposed hard rock quarries within 25km the Project, as set out in Table 3-1 of the Department's AR. For the purposes of this Statement of Reasons Report, the Commission has considered the cumulative impacts of quarrying within the region as they exist at the time of this determination.
16. The Commission finds that the Site is suitable for a hard rock quarry given the demand for its hard rock resources, topography, avoidance of major environmental constraints (as set out in section 5) and access to the regional road network.

3.3 Statutory Context

3.3.1 State significant development

17. As described in paragraph 3 above, the Application constitutes SSD under section 4.36 of the EP&A Act as the Project is an extractive industry development that would extract 500,000 tonnes of hard rock materials per year and meets the criteria specified in clause 7 of Schedule 1 of the Planning Systems SEPP.

3.3.2 Permissibility

18. The Site is zoned RU2 Rural Landscape under the GLLEP. The Project is a development for the purpose of 'extractive industries' under the GLLEP and is permissible with consent in the RU2 zone. Section 2.9 of the *State Environmental Planning Policy (Resources and Energy) 2021* (**Resources and Energy SEPP**) also states that "development for the purpose of extractive industry is permissible with development consent on land on which development for the purpose of agriculture may be carried out". The Commission considers that the Project is permissible with consent.

3.3.3 Commonwealth Matters

19. According to the Department, on 7 December 2020 a delegate of the Australian Government Department of Climate Change, Energy, the Environment and Water (**AG DCCEEW**) determined that the Project was a 'controlled action' under the *Environment Protection and Biodiversity Conservation Act 1999* (**EPBC Act**). The Commission notes that following the Commission's determination, the matter would be referred to AG DCCEEW for assessment in accordance with the relevant provisions of the EPBC Act.

3.3.4 Integrated and other NSW Approvals

20. Under section 4.41 of the EP&A Act, several other approvals are integrated into the SSD approval process, and therefore are not required to be separately obtained for the Project (AR para 29). The Commission has considered the Department's recommended conditions of consent relating to integrated and other approvals as part of its deliberation process.

3.3.5 Water licences

21. According to the Department, the Project is not expected to require any licensed surface water entitlement. The surface water demand for the Project is predicted to remain within the harvestable rights provisions for landholders set out in the *Water Management Act 2000* (**WM Act**) (AR para 33).

3.4 Mandatory Considerations

22. 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 2 – Mandatory Considerations

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

	The Commission agrees with the Department's assessment of EPIs set out in Appendix E of the AR. 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.
Planning agreement	The Commission has considered the Applicant's commitment to pay annual section 7.11 contributions to both MidCoast and Port Stephens Councils in accordance with each Council's relevant contributions plan for ongoing maintenance of The Bucketts Way. The contributions would amount to approximately \$11.1 million over the life of the Project.
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 development is permissible with consent; • adverse impacts on surrounding receivers have been minimised as far as practicable and would be further managed and mitigated by the imposed conditions of consent; • the use of the Site as an appropriately regulated hard rock quarry is an orderly and economic use and development of land; and • the Site is capable of being rehabilitated to a stable, safe and non-polluting final landform.
Objects of the EP&A Act	In this determination, the Commission has carefully considered the Objects of the EP&A Act. The Commission is satisfied that the Application has been assessed against the relevant EPIs and, subject to the conditions imposed, is consistent with the Objects of the EP&A Act for the reasons detailed in Section 5 of this Statement of Reasons.
Ecologically Sustainable Development	For the reasons detailed in Section 5 of this Statement of Reasons the Commission finds that the development 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 has given consideration to the principles of ESD in its assessment of each of the key issues, as set out in Section 5 below. The Commission finds that, on balance, the Application – subject to the imposed conditions of consent – is consistent with ESD principles, and that the Project would achieve an appropriate balance between relevant environmental, economic and social considerations. The likely benefits of the Project warrant the conclusion that an appropriately conditioned grant of consent is in the public interest.</p>

3.5 Additional Considerations

23. In determining the Application, the Commission has also considered:
- *Biodiversity Assessment Method (BAM)*;
 - *NSW Noise Policy for Industry (NPfi)*;
 - *Interim Construction Noise Guideline (ICNG)*;
 - *NSW Road Noise Policy (RNP)*;
 - *Voluntary Land Acquisition and Mitigation Policy (VLAMP)*;
 - *NSW Biodiversity Offsets Policy for Major Projects*;
 - *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (Approved Methods)*;
 - *Social Impact Assessment Guideline for State Significant Development (SIA Guideline)*; and
 - *Hunter Regional Plan 2041*.

3.6 The Commission's Meetings

24. As part of the determination process, the Commission met with various persons as set out in Table 3. All meeting and site inspection notes were made available on the Commission's website.

Table 3 – Commission's Meetings

Meeting	Date	Transcript/Notes Available on
Department	6 December 2023	12 December 2023
Applicant	6 December 2023	13 December 2023
Council	6 December 2023	12 December 2023
Site Inspection	12 December 2023	19 December 2023
Public Meeting	13 December 2023	18 December 2023

4. Community Participation & Public Submissions

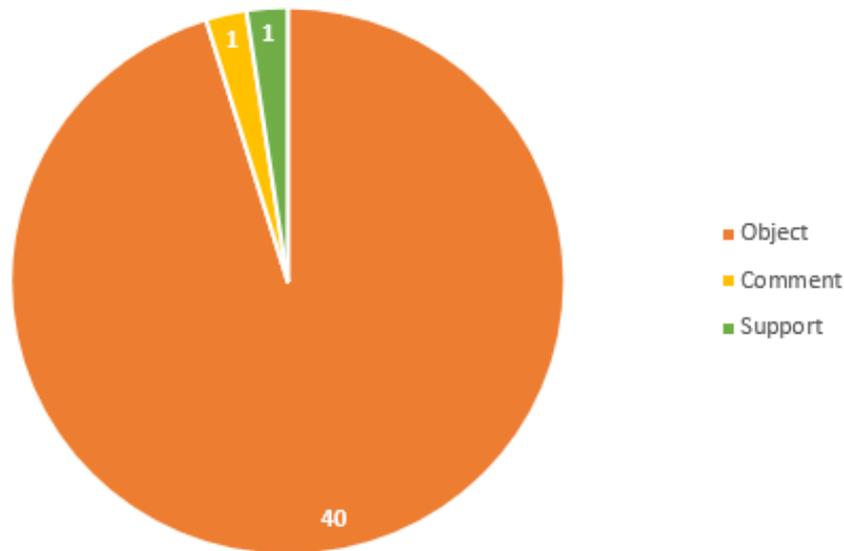
4.1 Public Meeting

25. The Commission conducted a Public Meeting on 13 December 2023. Registered speakers presented to the Commission Panel in-person or via telephone. The Public Meeting was streamed live on the Commission's website.
26. The Commission heard from the Department, the Applicant, various community group representatives and individual community members. In total, 12 speakers presented to the Commission during the Public Meeting.
27. Presentations made at the Public Meeting have been considered by the Commission.

4.2 Public Submissions

- 28. As part of the Commission’s consideration of the Project, all persons were offered the opportunity to make written submissions to the Commission until 5pm, 20 December 2023.
- 29. The Commission received a total of 42 written submissions on the Application. An overview of the written submissions received by the Commission is provided in Figure 2 below. The key issues raised in submissions are summarised in Section 4.2.1 below.
- 30. 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 2 - Submissions received by the Commission



4.2.1 Issues Analysis

- 31. Submissions to the Commission raised a number of 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 those submissions.

Biodiversity

- 32. Submissions objecting to the Project raised concerns regarding the loss of habitat for local flora and fauna, including several threatened species. Many submissions focussed on impact to koalas, identifying that the species is under pressure regionally and nationally.

33. Some submissions raised an issue with the retirement of species credits and ecosystem credits as a form of offsetting and stated that a more appropriate outcome would be through directly offsetting impacts to species and habitats as locally as possible.

Traffic Impacts

34. Submissions objecting to the Project raised concerns relating to traffic generation and associated impacts on local roads. Many submissions focussed on the quality and capacity of The Bucketts Way to support an increase in heavy vehicle traffic generated by the Project.
35. Submissions objecting to the Project also raised concerns relating to the performance and safety of the intersection of the Bucketts Way and the Pacific Highway. One submission objecting to the Project highlighted that wait times on The Bucketts Way at peak periods were already very long due to the performance of this intersection.

Noise

36. Noise impacts were raised by submitters opposed to the Project, which focussed on the increase to road noise likely to be experienced along the Bucketts Way as well as blasting and crushing noises from operation of the quarry.
37. One submitter stated that there was a risk of unladen trucks arriving earlier than necessary before the quarry opening time of 6:00am and waking up residents.

Water

38. Submissions raised concerns regarding the Project's impact on nearby surface water systems, including posing a threat to riparian ecosystems. One submitter raised the risk of potential impacts to the downstream oyster aquaculture industry caused by controlled and uncontrolled surface water discharges from the quarry.
39. One submitter stated that severe weather events exacerbated by climate change would place pressure on the local surface water system, causing overflows at the quarry site and affecting downstream environments.

Air Quality

40. Impacts to local air quality, specifically the consequential impacts on human health and property were raised in a number of submissions objecting to the Project. One submission mentioned that deposited dust levels could affect the quality of tank water and the efficiency of solar panels.
41. Some submissions opposed to the Project raised the impact of silica dust on human health, identifying that rhyolite is a silica rich mineral. One submitter queried whether the Project's air quality monitoring system would be monitoring airborne silica around impacted areas.

Social and Economic Impacts

42. Many submissions were received by the Commission that spoke of the potential social and economic impacts experienced by individuals, groups and businesses within the local community. Overall, these were perceived to be as a result of the potential environmental and amenity impacts created by the Project. Many of these impacts were perceived to be cumulative with other quarrying activities already operational and planned for in the area.
43. The Commission heard from speakers at the public meeting that stated the Applicant had not established social licence with the community. One submitter stated that communication from the Applicant was not enough to offset their concerns about the loss of the peaceful way of life in the rural residential area.

44. Some submissions opposed to the project stated that the economic benefits created by the Project were overstated. One submission questioned whether any operational jobs created by the Project would source workers from the locality.
45. One submitter in support of the Project stated that the supply of hard rock minerals through the proposed quarry is important for the civil construction industry. The submission stated that current shortfalls in supply were impacting the ability to deliver projects in the region.

5. Key Issues

46. The Commission observed in its review of submissions that impacts to biodiversity and traffic and transport were the two most frequently raised concerns regarding potential impacts posed by the Project. These were followed by noise, water and air quality impacts.

5.1 Biodiversity

Terrestrial biodiversity

47. The Project would directly impact terrestrial biodiversity through the clearing of 31.89 ha of land for the quarry pit, stockpile areas, offices, water pipeline, ancillary infrastructure, quarry access road and intersection upgrade. Of this, 29.15 ha consists of native vegetation within four plant community types (**PCTs**) with the remainder containing areas of non-native vegetation (AR para 63). The PCTs contain two species-credit threatened flora and habitat for three species-credit threatened fauna species that would require offsetting (AR para 65). The clearing of potential Koala habitat as part of the Project would require the retirement of 728 Koala species credits (AR para 72). Table 6-1 of the Department's AR sets out the extent of impacts from the Project on vegetation communities and the associated biodiversity credits required to offset these impacts in accordance with the BAM.

Aquatic ecology

48. Water discharges from the quarry's water management system have the potential to impact aquatic ecology within Deep Creek which flows through the Karuah National Park and into the Karuah River (AR para 74). No threatened aquatic species, populations or ecological communities listed under the *Fisheries Management Act 1999* or the EPBC Act were identified (AR para 76). The Project is predicted to require between three and five controlled discharges to tributaries of Deep Creek per year on average to maintain the proposed sediment basins at a capacity to capture runoff from storm events. It is predicted that there could be one to two uncontrolled discharges (during storm events) on average per year (AR para 77). The Department; Biodiversity, Conservation and Science Group of NSW Department of Climate Change, Energy, the Environment and Water (**BCS of NSW DCCEEW**); and the NSW Department of Climate Change, Energy, the Environment and Water (**NSW DCCEEW – Water Group**) accepted the Applicant's conclusion that there is minimal risk to ecological values downstream or effects on the users within the Karuah River and that the Project is unlikely to have an adverse effect on oyster aquaculture development or a priority oyster aquaculture area (AR para 78).

Biodiversity Matters of National Environmental Significance (MNES)

49. The Applicant's Biodiversity Development Assessment Report (**BDAR**), dated 9 September 2021 concluded that the Project has the potential to have residual significant adverse impacts on two species, including Black-eyed Susan (*Tetradlea juncea*) (listed as Vulnerable under the EPBC Act and BC Act) and the New Holland Mouse (*Pseudomys novaehollandiae*) (listed as Vulnerable under the EPBC Act). In relation to Black-eyed Susan, the Department concluded that *"while there is the potential for significant impact on this population, the project is unlikely to disrupt breeding cycles, lead to the fragmentation of an important population or further decrease the habitat in the study area through indirect impacts"* (AR para 93). The Applicant would retire species credits to offset the impacts on this population. In relation to the New Holland Mouse, the BDAR determined that the Project has *"potential to have a significant impact on this population, but it is unlikely that the loss of habitat would disrupt the breeding cycle, impact mobility, or decrease the availability or quality of habitat to the extent that the species is likely to decline"* (AR para 94). The Commission notes that the Applicant has committed to develop and implement a New Holland Mouse Relocation Plan in consultation with AG DCCEEW prior to disturbance of the identified habitat.

Biodiversity Offset Strategy

50. The Applicant has proposed a Biodiversity Offset Strategy (**BOS**) to offset residual biodiversity impacts of the Project (AR para 84). The Applicant has also committed to establishing a Biodiversity Stewardship Site which contains Black-eyed Susan populations and the New Holland Mouse Habitat. The Biodiversity Stewardship Site would be consistent with the NSW Biodiversity Offsets Scheme on land adjacent to the quarry (AR para 85). The Department accepted the Applicant's staged approach for the retirement of credit liabilities. According to the Department, BCS of NSW DCCEEW is also satisfied with the calculated offset liability and proposed offsetting approach (AR para 88).
51. The Commission acknowledges the public concern raised regarding the loss of habitat and impact on threatened species caused by the Project. The Commission agrees with the Department and is satisfied that the Project has been designed to avoid, mitigate and manage biodiversity impacts where practicable, detailed below.
52. The Commission has considered the impacts on biodiversity values and finds that they would be suitably mitigated, managed and/or offset under the proposed BOS and retirement of ecosystem and species credits in accordance with the BC Act and the EPBC Act. The Commission has therefore imposed condition B44 which requires the Applicant to prepare a Biodiversity Offset Strategy and retire the biodiversity offset credits prior to commencing vegetation clearing and locally as far as possible. The Commission has also imposed condition B45 in which the Applicant will be required to plant a minimum of 900 Koala feed trees in its landholding within or adjacent to land along the Deep Creek riparian corridor.
53. Page 89 of the Applicant's EIS states that although areas of native vegetation would be removed, movement corridors within the local area would be maintained, and that any changes to these areas of vegetation were unlikely to impact on connectivity for local fauna. The Commission received submissions relating to the need to maintain habitat connectivity for fauna as well as the importance in offsetting impacts as locally as possible. The Commission acknowledges the Applicant's commitment to establish an adjacent Biodiversity Stewardship Site and has formalised this requirement in conditions B46 and B47 imposed by the Commission. The Biodiversity Stewardship Site must be established and managed in accordance with the Biodiversity Offset Scheme of the BC Act.

54. The Commission has also imposed condition B48 which requires the Applicant to prepare a Biodiversity Management Plan (**BMP**) in consultation with BCS of NSW DCCEE. As part of the BMP the Applicant must include a New Holland Mouse Relocation Plan and a Black-eyed Susan Plan of Management. The Applicant must also undertake long term monitoring and management program of the local New Holland Mouse and Black-eyed Susan populations, including in the Biodiversity Stewardship Site.

5.2 Traffic

Proposed site access and intersection upgrade

55. The Applicant proposes a dedicated quarry access road to be constructed from The Bucketts Way to the quarry entrance. The access road would be a bitumen sealed two-lane road and would require a crossing of Deep Creek (AR para 108). A new T-intersection is proposed to be constructed at the junction of the quarry access road and The Bucketts Way. The Applicant's Traffic Impact Assessment (**TIA**) dated 20 September 2021 stated that this standard of rural intersection is warranted due to the high percentage of heavy vehicle traffic using the intersection. The TIA stated that this intersection would operate with uninterrupted flow conditions and no further intersection analysis is required. (TIA, pg. 17)
56. The Commission agrees with the Applicant's assessment above and has imposed condition B35 which requires the Applicant to construct the new quarry access road and upgrade the T-intersection at the junction of the new quarry access road and The Bucketts Way as described in the EIS. Condition A10 imposed by the Commission states that the Applicant must not transport quarry products from the Site until the requirements relating to condition B35 have been met.

Construction traffic

57. The TIA stated that construction traffic generated by the development is minor and would be less than 10 vehicle trips per hour with daily traffic movements unlikely to exceed 30 vehicle trips per day (TIA pg. 18). The TIA also stated that construction works would be short term and would not be expected to last for longer than 6 months (TIA, pg. 20). The Applicant would not use Deep Creek Road during either construction or operation. The Applicant proposes to use Forest Glen Road during construction. The Commission asked the Applicant to clarify the number, type and period in which vehicles would use Forest Glen Road during the construction period. The Applicant's response dated 19 December 2023 stated that six machines are proposed to be floated in via Forest Glen Road over 3-5 days at the commencement of construction, noting that this equipment would remain on site but may need to be taken off-site for servicing. The Applicant also noted that light vehicles and utility vehicles may use Forest Glen Road for a period of up to 60 working days.

58. The Commission acknowledges the concerns raised at the public meeting and in submissions regarding the construction impacts of the Project, in particular from the use of Forest Glen Road during construction. The Commission is satisfied that construction traffic impacts would be short term and would not result in significant impacts on the surrounding road network. The Commission finds that impacts from the use of Forest Glen Road during construction should be minimal and restricted. In its response to the Commission dated 19 December 2023, the Applicant advised the number and type of vehicles that would need to access Forest Glen Road. The Commission has imposed condition A14 which limits the use of the road to 8 heavy vehicles accessing the Site once off and 12 light vehicles accessing the site per day during construction prior to the operation of the quarry access road. These numbers are designed to meet the needs of the Applicant with additional movements for a reasonable level of flexibility.

Operational traffic

59. According to the TIA, traffic generated by the Project is expected to average 252 vehicle trips per day with a peak of 62 vehicle trips per hour (50 haulage trucks). The TIA concluded that the traffic generated by the Project would not adversely impact on the traffic volumes and levels of service experienced by motorists on the Pacific Highway and The Bucketts Way through to and beyond 2030. The TIA also concluded that modelling of the Pacific Highway and The Bucketts Way intersection indicated that it operates satisfactorily in the key AM and PM peak periods and would continue to do so through to and beyond 2030 with normal background traffic growth and with the additional traffic generated by the quarry. Modelling through to 2052 showed that this intersection would be failing with or without Project traffic during the PM peaks and upgrading works to the intersection may be required (TIA pg. 19).
60. The Commission acknowledges the community concern raised in public submissions relating to the impact on traffic the Project would have on The Bucketts Way at all times and particularly during peak holiday periods. The Commission is satisfied however, that the increase in heavy vehicles associated with the Project would not result in an unacceptable level of impact to road network capacity or intersection performance on the local or regional road network – if restricted to the peak volumes identified in the Department’s assessment. The Commission has therefore imposed condition A13 which limits total truck movements at the Site to a maximum of 250 per day and 50 per hour. The Applicant must also comply with the operation hours set by condition A15 imposed by the Commission. The Commission has also imposed a new condition A11 ensuring that the Applicant does not transport any quarry products from the Site until the completion of the Limeburners Creek Bridge replacement works identified in Council’s Delivery Program 2022-2026 / Operational Plan 2023-2024.
61. The Commission has also imposed condition B38, requiring the Applicant to specifically consider peak holiday periods in the preparation and implementation of its traffic management plan. The TMP must also detail measures to mitigate the impact of heavy vehicle movements on the performance of The Bucketts Way and Pacific Highway intersection.

Road safety

62. The TIA included a Road Safety Audit (RSA), dated 16 April 2022 (including further advice dated 16 June 2023). According to the RSA, The Bucketts Way and Pacific Highway intersection was considered to present “medium” safety risks. The Commission notes that TfNSW did not raise any issues or objection in relation to the ongoing safe operation of this intersection.

63. The Commission received public submissions relating to the safety of the intersection of The Bucketts Way and the Pacific Highway. Submitters raised concerns about the impact to safety generated by additional quarry traffic (specifically heavy vehicles) affecting motorists using the intersection.
64. The Commission acknowledges the concerns raised by submitters but agrees with the Department that the additional traffic associated with the Project, if appropriately managed under the imposed conditions of consent, would not present unacceptable safety risks to existing road users. The Commission has imposed condition B38 which states that the Applicant must prepare a Traffic Management Plan (**TMP**) in consultation with TfNSW, MidCoast Council and Port Stephens Council. As part of the TMP the Applicant must include measures to ensure compliance with traffic operating conditions, minimise the transmission of dust onto the surface of public roads and monitor driver behaviour. The TMP must also include a Driver's Code of Conduct which requires drivers to adhere to designated transport routes and implement safe driving practices. Condition B37 imposed by the Commission states that the Applicant must take all reasonable steps to minimise traffic safety issues and minimise disruption to local road users.

5.3 Noise

Operational noise

65. The Commission acknowledges the submissions which raised noise as a potential issue arising from the Project. The Commission notes that the operation of plant and equipment during extraction, processing, and truck loading and the proposed road haulage activities along the quarry access road have the potential for adverse noise impacts (AR para 204).
66. The Applicant's updated Noise and Vibration Impact Assessment (**NVIA**) dated 19 May 2023 assessed the operational noise impacts under worst case conditions, against a trigger level of 40 decibels (**dB(A)**) ($L_{Aeq}(15\text{ minute})$), which was set in accordance with the *Noise Policy for Industry 2017 (NPfl)* (AR para 212).
67. The Applicant's NVIA assessed the operational noise impacts under worst case conditions for Stages 1, 2 and 3 of the Project. In accordance with the 'Intrusiveness Criterion' noise limits specified in the NPfl, the project noise trigger level (**PNTL**) for all receivers was determined to be 40 dB(A) ($L_{Ae1(15\text{ minute})}$) (i.e., background noise level +5 dB(A)). The NVIA found that noise levels would be below the PNTL with the exception of:
- R25 which would experience 42dB(A) during all three operational stages; and
 - R32 which would experience 40dB(A) during Stage 3 with west-north-west winds (AR para 216).
68. The Commission notes that the NPfl categorises a 1 to 2dB noise exceedance above the trigger level as 'negligible' and that this exceedance "would not be discernible by the average listener and therefore not warrant receiver-based treatments or controls" (NPfl p. 31).
69. The Department and EPA consider that the NVIA has been prepared in accordance with the relevant government guidelines and policy, including the NPfl, VLAMP, ICNG and RNP (AR para 229). The Commission agrees with the Department and EPA and finds that the Project is unlikely to result in greater than 'negligible' noise impacts on affected sensitive receivers.

70. The Commission has imposed condition B1 which sets operational noise criteria for the Project. This condition states that the Applicant must take all reasonable steps to minimise all noise from construction, operational and road transport activities. The Commission supports the design mitigation and management measures proposed by the Applicant and has therefore imposed conditions B5 – B7 which require the Applicant to prepare and implement a Noise Management Plan (**NMP**) in which the Applicant must set out measures implemented to ensure best practice and compliance with the noise criteria and operation conditions. The Commission has imposed condition B5, requiring the Applicant to include real time noise monitoring alongside attended monitoring as part of their noise monitoring program.

Sleep disturbance and night-time noise

71. The Applicant proposes to carry out product dispatch activities from 6:00am Mondays to Saturdays, which is classified as part of the night-time noise period (before 7:00am) set by the NPfl. Product dispatch at this time would involve loading trucks and movement to and from The Bucketts Way (AR para 220).

72. The Department's AR notes that the proposed night-time activity between 6:00am – 7:00 am would not exceed the applicable sleep disturbance criterion over a maximum noise occurrence level (L_{Amax}) of 52dB(A) at any sensitive receiver. Additionally, the night-time activity would not exceed the applicable continuous trigger level of 35dB(A) ($L_{Aeq(15\text{ minute})}$) except at R30 which is located near the quarry access road intersection with The Bucketts Way, and which would experience a projected maximum of 36dB(A) (AR para 222). The Commission notes that this 1dB(A) exceedance at R30 represents a negligible impact as set out in paragraph 67.

73. The Commission finds that the night-time noise levels would not exceed the applicable sleep disturbance criterion and that the 1dB(A) ($L_{Aeq(15\text{ minute})}$) exceedance of the trigger level at R30 represents a negligible impact as defined by the NPfl (AR para 222). Condition B1 imposed by the Commission sets night-time operational noise criteria.

74. The Department's AR states that a maximum of 50 truck movements per hour would occur along the quarry access road, The Bucketts Way, and the Pacific Highway during operating hours. The closest dwelling is 18m from the road, and there are a total of 8 dwellings where the façade is less than 50m from The Bucketts Way between the quarry access road and the Pacific Highway (AR para 224). Modelling undertaken by the Applicant predicted that the additional trucks associated with the Project would result in a road traffic noise level of 43dB(A) ($L_{Aeq(1\text{-hour})}$) at the nearest dwelling. This projected level is below the road noise criterion for arterial roads such as The Bucketts Way of 55dB(A) as set out by RNP (AR para 225).

75. The Commission is satisfied that traffic noise produced by the Project would not exceed the road noise criteria set out by the RNP (AR para 225). One submission received by the Commission raised the potential issue of unladen trucks arriving unnecessarily early before operating hours and potentially waking up residents. As part of the noise operating conditions imposed by the Commission, the Applicant must minimise all noise from road transport activities, including heavy vehicles arriving to the Site. As set out in paragraph 63 above, the Commission has also imposed the requirement for the Applicant to prepare a Drivers' Code of Conduct as part of the TMP. The Applicant must include procedures to ensure that drivers implement safe and quiet driving practices, including restrictions on the use of compression braking. The Commission has imposed this condition to also require that the Drivers' Code of Conduct ensures drivers minimise noise, pollution and queueing by not arriving early to the Site.

Construction noise

76. The Department's AR states that construction noise generated by the Project would not exceed the relevant criterion of 45dB(A) as set by the Interim Construction Noise Guideline (**ICNG**). The worst-case noise levels at the worst affected dwellings (R30 and R32) are predicted to be between 39 – 41dB(A). The Commission notes the Applicant's proposed work practices to ensure noise levels are maintained below the criterion and consultation of construction scheduling with the residents of affected properties (AR para 219). The Commission finds that potential noise impacts would be in accordance with the ICNG and has therefore imposed condition B4 requiring the Applicant to take all reasonable steps to minimise noise from construction and condition B5 to prepare a noise management plan set out in paragraph 69.

5.4 Water Resources

Water balance

77. The Applicant's Surface Water Impact Assessment (**SWIA**) dated 15 September 2021 (including further advice dated 15 August 2023) predicted that as the quarrying activities progress, surface water inflows into the quarry pit would increase, resulting in surpluses to the site water balance across the life of the quarry. The Applicant has identified that 3 to 5 controlled discharge events from settling ponds would occur annually to manage the water excesses (AR para 148). The Commission notes that controlled discharge events would be subject to Environmental Protection Licence (**EPL**) conditions on water quality limits. The SWIA predicted that uncontrolled overflows were modelled to occur at an average of 1 to 2 times per year (AR para 149).
78. The Commission agrees with the Department and EPA and is satisfied that this water management system is consistent with the recommended design criteria set out in *Managing Urban Stormwater: Soils and Construction - Volume 2E* (AR para 150). The Commission has therefore imposed condition B30 which states that the Applicant must ensure that all surface water discharges from the Site comply with all relevant provisions of the *Protection of the Environment Operations Act 1997*, including any discharge limits (both volume and quality) set for the development in any EPL.
79. The Applicant's water balance modelling indicates that surface water take is up to 43.4 ML per year. The Department noted that this is within the maximum harvestable right for the Project and that a surface water access licence (**WAL**) would be required to cover any water take in excess of the residual maximum harvestable right (i.e. 49.4 ML). The Commission agrees with the Department and NSW DCCEEW – Water Group (formerly DPE Water) and is satisfied with the Applicant's surface water licensing predictions. The Commission notes that any shortfall in water would be sourced from an external water supply dam to the south of the quarry pit or would be imported. The Commission agrees with the Department that predicted water deficits are relatively minor and that there are measures available to manage any water supply shortfalls (AR para 152). The Commission has therefore imposed condition B24 which requires the Applicant to ensure it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply. Condition B25 imposed by the Commission requires the Applicant to report on water take from the Site each year.

80. Further to the above, the Commission has imposed condition B31 which requires the Applicant to prepare a comprehensive Water Management Plan (**WMP**) in consultation with the EPA and NSW DCCEEW – Water Group (formerly DPE Water). As part of the WMP, the Applicant is required to prepare a Site Water Balance which must include details of sources and security of water supply, water use and management, and off-site discharges and water transfers.

Surface water

81. The Commission notes that the Project has the potential to influence watercourse hydrology and stability in Deep Creek. The Applicant proposes to manage watercourse stability by designing sediment dams with stable spillways, implementing scour protection measures along the creek line, and managing sediment basin pumping procedures to maximise capacity during wet weather events and minimise the volume of discharges (AR para 156). The SWIA concluded that with the implementation of ongoing monitoring and management, the operation of the quarry is unlikely to adversely impact the downstream receiving environment, including Karuah National Park or the Port Stephens Marine Park. The EPA and NSW DCCEEW – Water Group (formerly DPE Water) accepted the Applicant's approach to water quality management and monitoring (AR para 164 and 165).
82. The Commission acknowledges the concerns raised in public submissions regarding the potential impact of the Project on downstream ecosystems and the oyster aquaculture industry. However, the Commission agrees with the Department that the modified stream flow due to the Project is unlikely to result in a material impact to the flow regime of Deep Creek and these impacts are therefore acceptable (AR para 158). The Commission agrees with the Department and is satisfied that potential impacts would be reduced to acceptable levels with the implementation of a comprehensive water management plan for construction and operational stages of the Project (AR para 168). The Commission has therefore imposed condition B31(c)(ii) which requires the Applicant to prepare a Surface Water Management Plan (SWMP) as part of the WMP. The SWMP must include a program to monitor and report on surface water flows and quality in watercourses and/or waterbodies that could potentially be impacted by the development – including but not limited to Deep Creek and the Karuah River.

Flooding

83. Submissions were received by the Commission raising the potential impact that severe weather events could have on downstream environments. The Commission acknowledges that the Project has the potential to influence flooding in Deep Creek due to the concentration of flows within the culvert crossing Deep Creek associated with the quarry access road (AR para 174). NSW DCCEEW – Water Group (formerly DPE Water) acknowledged that flooding impacts can be further mitigated by the Applicant through the detailed design stage. The Commission is satisfied that the increase in flow velocities and depths within Deep Creek during flood events would be localised and not impact on the extent of flood prone land in the wider catchment (AR para 177).

Groundwater

84. Groundwater seepage inflows are modelled to average 18.3 ML/year over the operation of the quarry and 17.9 ML/year following quarry closure. The Department's AR states that these seepage inflow rates are low, equating to an inflow of 0.3 mm/day over the area of the quarry, which is well below the average evaporation rate for the site (AR para 183). A maximum of 38m of groundwater drawdown is predicted at the western pit of the quarry, with 2m drawdown predicted to be experienced up to 300m north and southwest of the excavation footprint (AR para 184). The Commission agrees with the Department and finds that overall, groundwater inflow rates and drawdown are relatively minor assuming the quarry pit depth remains above the more porous sandstone, siltstone and claystone unit which lays below the rhyolite resource (AR para 188).
85. One Groundwater Dependent Ecosystem (**GDE**), the Tallowood Brush Box Sydney Bluegum (PCT 1567) was identified as covering approximately 1.8ha of the quarry impact area. Impacts to this GDE are proposed to be offset in accordance with the biodiversity offset strategy (AR para 189).
86. The Commission agrees with the Department and is satisfied that drawdown associated with the Project is unlikely to impact GDEs given the majority are located outside of the impact area and that there appears to be a limited shallow groundwater system in the vicinity of the Site. The Commission has therefore imposed condition B31(c)(iii), which requires the Applicant to develop a groundwater management plan (**GWMP**). As part of the GWMP the Applicant must include a program to monitor groundwater associated with GDEs. The Applicant must also monitor and report on the impacts of the development on groundwater dependent ecosystems as part of the BMP required by condition B48 imposed by the Commission. With these management and monitoring measures in place, the Commission finds that impacts to groundwater and GDEs are both low and manageable.

5.5 Air Quality

87. The Commission received submissions regarding the impact of air quality on human health as well as the impact of deposited dust on property and tank water. The key sources of emissions from the Project would be:
- Dust from drilling and blasting; loading and unloading of material; vehicles travelling on and off site; crushing and screening processes; and windblown dust from exposed areas and stockpiles; and
 - Fuel combustion-related emissions on and off site from quarry plant, equipment and product haulage trucks (AR table 6-5).
88. The Department's AR considered the air quality impact from the Project. It stated that emissions would comply with applicable NSW EPA particulate matter impact assessment criteria for Total Suspended Particulates (**TSP**), Particulate Matter <10 µm (**PM10**), Particulate Matter <2.5 µm (**PM2.5**) and deposited dust at all assessment locations. It also states that the Project is not predicted to increase the number of days above the 24-hour average (from PM10 and PM2.5) and that predicted levels for nitrogen dioxide are well below the relevant criteria (AR table 6-5).

89. The Department's AR states that there are no NSW criteria for respirable silica; however, the Victorian EPA defines an annual average criterion of $3\mu\text{g}/\text{m}^3$ (as PM_{2.5}) within the Protocol for Environmental Management for Mining and Extractive Industries (AR table 6-5). The Applicant indicated that assuming 80% of all PM_{2.5} created by the quarry was respirable silica, the highest annual average at a neighbouring non-associated residence would be $<0.08\mu\text{g}/\text{m}^3$. For R3 (non-associated but holding an agreement with the Applicant) this is predicted to be $0.32\mu\text{g}/\text{m}^3$. The Department's AR acknowledges that these are highly conservative figures and that the risk of impact from silica dust is low (AR Table 6-5).
90. The Department engaged Environmental Risks Sciences Pty Ltd (**ERS**) to provide independent air quality health advice relating to the concern raised by R30. ERS confirmed that there are human health hazards associated with exposure to diesel particulate matter and that the effects most relevant to hypersensitive individuals are acute effects (exposure over an hour) or chronic effects (long-term exposure). ERS found that the levels of diesel particulate matter at R30 would be low and below the relevant criteria, including consideration of hypersensitive individuals.
91. In its comment on the proposed conditions, dated 18 January 2023 the Department confirmed that as components of the PM_{2.5} criterion, respirable silica and diesel particulates would be subject to the recommended air quality criteria and would be detected by the proposed air quality monitoring program.
92. The Commission finds that projected air quality impacts would remain below applicable impact assessment criteria (AR table 6-5). The Commission has therefore imposed condition B19 setting air quality criteria and condition B21 requiring the Applicant to take all reasonable steps to minimise impacts to air quality. This includes mitigating impacts at the source as well as adaptive site management and planning to respond to monitored meteorological conditions which could worsen air quality impacts.

5.6 Other issues

5.6.1 Social and Economic Impact

93. Submissions to the Commission raised concerns about the effects that environmental and amenity impacts caused by the Project would have on individuals, groups and businesses within the community. The Department's AR acknowledges that many of the social impacts from the Project are related to traffic, air quality and noise. Specifically, the social impact assessment provided by the Applicant found the following social impact concerns related to the Project (AR Table 6-5):
- Negative impacts on the amenity and health of residents (noise, dust and vibration);
 - Change to the peaceful way of life, community character and cohesion;
 - Increase in local traffic impacts; and
 - Changes to the aesthetic and environmental values of the area.
94. The Commission notes the range of mitigation and management strategies committed to by the Applicant to address traffic, noise, blasting and air quality impacts. The Commission has imposed additional conditions to strengthen some of these management strategies.
95. The Commission has also imposed conditions of consent to ensure amenity impacts are appropriately monitored and that the monitoring results are regularly publicly reported to inform the community. This includes requirements for the Applicant to:

- conduct attended and real time noise monitoring and include a program for regular reporting on noise monitoring results on the Applicant's website (conditions B4 and B5);
 - conduct air quality monitoring no less than once per month (condition B21) and include reporting on monitoring results on a monthly basis on the Applicant's website (condition D1);
 - ensure heavy vehicles minimise noise, pollution and queueing, including by not arriving early to Site (condition B38); and
 - ensure existing residents in the vicinity of the Site are notified of the Applicant's website, and what is contained on it (condition D15).
96. Additionally, conditions B60 and B61 have been imposed by the Commission to require the Applicant to develop and implement a social impact management plan. The plan would require the establishment of a community consultative committee, development of a stakeholder engagement strategy and a monitoring program to review and report on the effectiveness of the measures in the social impact management plan.
97. The Commission understands that the quarry would produce additional economic activity in the area and that approximately 87.8% of jobs supported by the Project in NSW will be within the region (within 100km), as stated on page vii of the Applicant's EIS.

5.6.2 Greenhouse gas emissions

98. The Department's AR states that the Project would produce 1,766 tonnes per annum of Scope 1 CO₂ equivalent emissions and 4,146 tonnes per annum of Scope 3 CO₂ equivalent emissions. No Scope 2 emissions would be generated. Based on 2020 estimates, this would be predicted to make up 0.00035% of the annual emissions from Australia. The Commission acknowledges the mitigation measures proposed by the Applicant and finds that the greenhouse gas emissions produced by the Project would represent a negligible contribution to Australia's overall greenhouse gas emissions (AR table 6-5). The Commission has therefore imposed condition B21 requiring the Applicant to improve energy efficiency and minimise Scope 1 and 2 greenhouse gas emissions generated by the development.

5.6.3 Blasting

99. The Commission acknowledges submissions received opposing the Project which mention the impact of blasting noise and vibration on nearby residents and private property. The Department's AR states that blasting is proposed to be undertaken at the Project at a frequency of up to 25 blasts per year. The Applicant has committed to limiting blasts to between 9:00am to 4:00pm Monday to Friday. The Department's AR finds the proposed blasting would meet relevant ground vibration and airblast overpressure objectives at all sensitive receivers throughout the life of the Project. The Commission finds that the proposed blasting associated with the Project would pose a negligible risk of damage to private property or disturbance to fauna or associated habitat (AR table 6-5). The Commission has therefore imposed condition B8 setting out blasting criteria, conditions B10 and B11 establishing blasting frequency restrictions and conditions B12 – B16 setting out how the Applicant is required to manage and respond to any impacts on private property.

5.6.4 Aboriginal cultural heritage

100. The Aboriginal Cultural Heritage Impact Assessment (**ACHIA**) performed for the Applicant found four Aboriginal artefacts (flakes or broken flakes) during its investigation. The ACHIA however, ultimately considered the scientific significance of the study area to be low due to the low density and the absence of complex sites resulting from peripheral occupation. The Commission finds that any impacts to Aboriginal cultural heritage sites because of the Project would be minor and manageable (AR table 6-5). The Commission has therefore imposed conditions B41 to B43 to manage impacts including requiring the Applicant to avoid impact on identified Aboriginal objects and places and manage unexpected archaeological finds.

5.6.5 Hazards and waste

101. The Department's AR states that the Project would generate small quantities of waste during the construction and operation stages, including building materials, organic material from vegetation clearing, general office waste, sewage from on-site amenities and greases and oil. The Applicant stated that most waste from the site would be managed through Council collection services or appropriately licensed waste contractors. The Applicant also committed to implementing a bushfire management plan prior to the commencement of construction. The Commission finds that hazards and waste resulting from the Site can be appropriately managed (AR table 6-5) and has imposed condition B63 requiring the Applicant to appropriately manage waste and condition B67 ensuring that the Project is suitably equipped to respond to bushfires.

5.6.6 Visual amenity

102. The Department's AR states that the visual impacts of the Project would be limited to views of the quarry access road and intersection on The Bucketts Way. The quarry site itself would be shielded from view by the natural topography of the area and surrounding vegetation. The Commission finds that the visual impact from the Project would be negligible (AR table 6-5) and has imposed condition B62 requiring the Applicant to minimise potential visual impacts.

5.6.7 Rehabilitation and final landform

103. The Department's AR states that the Applicant has committed to progressive rehabilitation, which would include returning the Site to native vegetation and pastures as quarrying activities start to be completed. Quarry benches would be revegetated with native trees consistent with the surrounding area and the final landform would contain a free draining quarry floor consisting of open grassland and scattered woodland (AR table 6-5).
104. The Commission has imposed rehabilitation objectives in condition B51 to guide the rehabilitation process and the key features of the final landform. The Applicant must also prepare a rehabilitation management plan, as set out in condition B53 which is required to include a conceptual closure plan and detailed monitoring to guide the progressive rehabilitation of the Site. The Commission has also imposed conditions B55 – B59 setting out the requirement for the Applicant to lodge a bond to ensure adequate provision for the anticipated costs of rehabilitation until rehabilitation (including all completion criteria) has been completed to the satisfaction of the Planning Secretary.

5.6.8 Contributions

105. The Department's AR states that the Applicant has committed to pay annual section 7.11 contributions to both MidCoast Council and Port Stephens Council in accordance with each council's relevant contributions plan for ongoing maintenance of The Bucketts Way between the quarry access road and the Pacific Highway. The Applicant indicated that that this would be approximately \$11.1 million dollars over the quarry life. Neither Council objected to the proposed road maintenance contributions (AR para 131).
106. The Commission acknowledges the Applicant's proposed road maintenance contributions for The Bucketts Way and that neither council has objected to the proposed road maintenance contributions.

6. The Commission's Findings and Determination

107. 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.
108. The Commission has carefully considered the Material before it as set out in section 3.1 and has weighed the broader strategic and economic benefit of accessing the hard rock resource in the context of the impacts on the environment and local amenity of residents which were set out in section 5. Based on its consideration of the Material, the Commission finds that the Project should be approved subject to conditions of consent.
109. For the reasons set out in paragraph 108 above, the Commission has determined that the consent should be approved subject to conditions. These conditions are designed to:
- prevent, minimise, mitigate 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.
110. The reasons for the Decision are given in the Statement of Reasons for Decision dated 24 January 2024.



Snow Barlow (Chair)
Member of the Commission



Ken Kanofski
Member of the Commission



Janett Milligan
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