Department of Planning, Housing and Infrastructure

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Liverpool Range Quarry

State Significant Development Assessment Report (SSD-68063715)

October 2025

Acknowledgement of Country

The Department of Planning, Housing and Infrastructure acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Preface

This assessment report provides a record of the Department of Planning, Housing and Infrastructure's (the Department) assessment and evaluation of the State significant development (SSD) application for the Liverpool Range Quarry, lodged by Australian Resource Development Group Pty Ltd. The proposed development is located at 'Tangaratta' Rotherwood Road, northwest of Cassilis within the Upper Hunter Shire local government area, NSW.

The report includes:

- an explanation of why the project is considered SSD and who the consent authority is;
- an assessment of the project against government policy and statutory requirements, including mandatory considerations;
- a demonstration of how matters raised by the community and other stakeholders have been considered;
- an explanation of any changes made to the project during the assessment process;
- an assessment of the likely environmental, social and economic impacts of the project;
- an evaluation which weighs up the likely impacts and benefits of the project, having regard to the proposed mitigations, offsets, community views and expert advice; and provides a view on whether the impacts are on balance, acceptable; and
- an opinion on whether the project is approvable or not, along with the reasons, to assist the Independent Planning Commission in making an informed decision about whether development consent for the project can be granted and any conditions that should be imposed.

Executive Summary

Australian Resources and Development Group Pty Ltd (the Applicant) proposes to develop a hard rock quarry and clay pit (the project) in the Upper Hunter Shire local government area (LGA), approximately 10 kilometres (km) northwest of Cassilis.

The project seeks approval to extract, process and transport up to 700,000 tonnes per annum of hard rock and clay material over 5 years, for the sole purpose of supplying construction materials to the approved Wind Farm project (SSD-6696).

Strategic Context

As the State moves away from its reliance on coal for power and transitions to renewables, there is an increased need for extractive industries to ensure that the renewable projects have the materials required for construction. The proposed project would allow the sourcing of construction material from within the Wind Farm's project boundary which has the benefit of substantially reducing the travel distance and scope 1 emissions relating to heavy vehicle haulage. The Department notes the Wind Farm would contribute to the State and Federal targets of net zero emissions by 2050, making it consistent with the Commonwealth Renewable Energy Target and the NSW *Climate Change Policy Framework (2016)* and *Net Zero Plan Stage 1: 2020–2030 (2020).*

Statutory Context

The project is classified as a State significant development under section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), given it is an extractive industry development proposing to extract over 500,000 tonnes of material per year.

The consent authority for the project is the NSW Independent Planning Commission, as more than 50 unique public submissions objecting to the project were received.

The project area is zoned RU1 Primary Production under the *Upper Hunter Local Environmental Plan 2013* (Upper Hunter LEP), and development for the purpose of extractive industry is permissible with consent in accordance with the Upper Hunter LEP.

Additionally, the project was determined to be a *controlled action* by a delegate of the Commonwealth Department of Climate Change, Energy, the Environment and Water on 30 August 2024 due to its potential impact on threatened species and communities and has been assessed in accordance with the Commonwealth and NSW Government Bilateral Agreement.

Engagement

The Department publicly exhibited the project from 22 October 2024 until 18 November 2024. A total of 83 public submissions were received during the exhibition period, including 72 from individuals and 11 from special interest groups.

The Department also received advice from nine government agencies and two local councils, Upper Hunter Shire Council and Warrumbungle Shire Council. In its assessment of the project, the Department has carefully considered the issues raised in agency and council advice and public submissions. The Department also visited the site on 26 March 2025.

Assessment

Traffic

All heavy vehicles laden with quarry materials travelling on public roads would form part of the Wind Farm's (SSD-6696) construction traffic and be managed by the Wind Farm's appointed contractor. Upon leaving the quarry's project area, heavy vehicles would be subject to the Wind Farm's development consent.

While an onsite quarry would not reduce the number of heavy vehicle movements required for construction of the Wind Farm project, it would reduce the travel distance of each one-way heavy vehicle movement by approximately 147 km. The Applicant has estimated that this would create a net reduction in heavy vehicle travel distance of approximately 17 million km over the life of the project.

The Department notes that the quarry project would shift the origin of heavy vehicle movements within the Wind Farm project boundary from Vinegaroy Road to Rotherwood Road. The Department has analysed the framework within the Wind Farm consent and has determined that the relevant upgrades to local roads and intersections would accommodate this shift. Furthermore, the Wind Farm consent requires road maintenance contributions totalling approximately $12.5 million.

The Department has undertaken a comprehensive assessment of the traffic impacts anticipated to occur from the quarry residual to those already approved under the Wind Farm consent. The Department considers that these impacts would be appropriately managed through the project's recommended conditions of consent, in conjunction with the Wind Farm's conditions of consent.

Biodiversity

The project would disturb 3.2 hectares (ha) of NSW Box Gum Woodland, a Critically Endangered Ecological Community (CEEC), and 15.8 ha of derived native grasslands, which does not conform with the CEEC. The project was found to be foraging habitat for one threatened species, the Barking owl (*Ninox connivens*).

The Department considers that the biodiversity impacts of the project have been minimised to the greatest extent practicable through site selection and project design, resulting in a relatively small disturbance footprint on predominately cleared and disturbed land. Further, all the biodiversity impacts would be mitigated through the implementation of biodiversity offset credits for both ecosystem and species credits, in accordance with the NSW Biodiversity Offset Scheme.

The Department has also recommended additional measures requiring the avoidance of mature trees through the project's detailed design process. Overall, the Department considers the impacts of the project on biodiversity are acceptable, subject to the recommended conditions. The Commonwealth has reviewed the relevant sections of this report and the draft conditions of consent and raised no concerns.

Amenity

The nearest non-project associated receiver is 3.1 km to the southwest. The technical assessments accompanying the development application have predicted impacts to be below the relevant guideline criteria for noise, air quality and blasting impacts. The Department has recommended conditions of consent that include stringent criteria, as well as the requirement to undertake routine monitoring against these criteria and to undertake proactive management measures to ensure the criteria are met.

Other Issues

The Department has assessed the remaining impacts of the project, such as, water quality, social impacts, Aboriginal Cultural Heritage, and rehabilitation. The Department considers that the Applicant's proposed mitigation measures along with the recommended conditions of consent would ensure these low-risk impacts are suitably managed and minimised.

Evaluation

The project is permissible with consent in accordance with the Upper Hunter LEP 2013. The project area is predominately cleared, with native vegetation consisting of sparse tree cover across the area. The area is currently used for grazing. The project is short term and would operate for up to 5 years. Also it has been designed to largely avoid and minimise impacts, including but not limited to, biodiversity, water resources, air quality, noise, and agricultural land.

The project is strategically located and would supply material exclusively to the approved Liverpool Range Wind Farm (SSD-6696). If approved, this would result in the net reduction of heavy vehicles travelling on the public road network by approximately 17 million km. The Department considers that this would represent a significant overall reduction to traffic related impacts from the Wind Farm.

The project is estimated to result in the following benefits: a contribution of $17 million annually in direct and $31 million annually in indirect economic outputs during its five-year operation period;

employment of six full time equivalent workers; and the payment of a contribution of $50,000 to Upper Hunter Shire Council to provide for improvements to the nearby town of Cassilis.

On balance, the Department considers that the project is in the public interest and can be undertaken without significant additional impacts to the environment or surrounding community. The Department considers that the project's benefits outweigh the residual impacts. Accordingly, the Department concludes that the project is approvable, subject to the recommended conditions of consent.

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1 Introduction

1. Australian Resources and Development Group Pty Ltd (the Applicant) proposes to establish a hard rock quarry known as Liverpool Range Quarry (the project), located within the Upper Hunter Shire local government area (LGA), approximately 10 kilometres (km) northwest of Cassilis and 200 km northwest of Newcastle (see **Figure 1**).

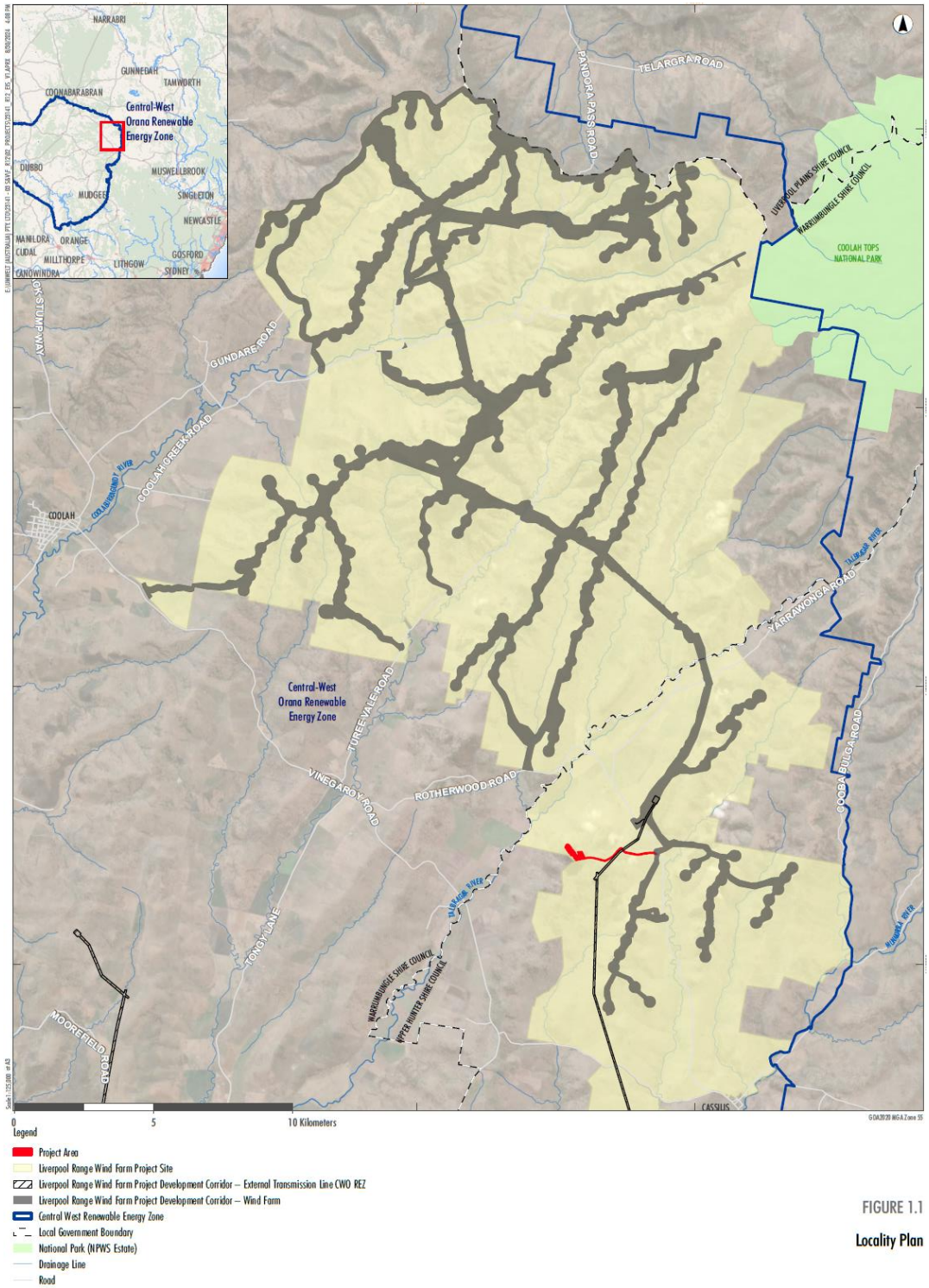

Figure 1 | Regional context – showing the approved Wind Farm and the quarry project area is shown in Red.

2 Project

2. On 9 October 2024, the Applicant submitted a State significant development (SSD) application and accompanying Environmental Impact Statement (EIS) for the project under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

3. The project seeks approval for extraction, processing and transport of up to 700,000 tonnes per annum (tpa) of quarry products for up to 5 years to supply the construction of the approved Liverpool Range Wind Farm project (SSD-6696) (the Wind Farm). This would be the projects sole customer.

4. The project proposes clearing and earthworks for site preparation, construction of an access road, installation of mobile processing plant and associated equipment, extraction and processing of the material and rehabilitation of the project area following quarry closure.

5. The key aspects of the project are provided in detail in Section 3 of the EIS (see **Appendix A**), and are summarised in **Table 1** and illustrated in **Figures 2** and **3** below.

Table 1 | Key aspects of the project

Aspect	Description
Project life	5 years
Production limit	700,000 tpa of quarry products
Resource estimate	2 million tonnes (Mt)
Project area	19.5 hectares (ha), comprised of a 5.1 ha extraction area, 5.4 ha road and 9 ha operational area
Depth of extraction	675 metres (m) Australian Height Datum (25 m below ground level)
Extraction method	Drill and blast (Main Pit), free dig (Borrow Pit)
Material processing	Processing on site using mobile crushing and screening plant
Product transport	Road transport of up to 700,000 tpa, in accordance with the Wind Farm project's (SSD-6696) approved transportation limits via Rotherwood Road and the Wind Farm approved construction haul routes.

Aspect	Description
Employment	Approximately six full-time employees (operational), and two to three part-time employees
EDC	Approximately $3.3 million
Hours of operation	**Construction and Operations:** 7am to 6pm Monday to Friday; 8am to 1pm Saturday; no work on Sunday or Public Holidays **Blasting:** 9am to 5pm Monday to Friday (approximately 6 to 12 blasts per year)
Rehabilitation and Final Landform	Rehabilitation would be undertaken progressively where appropriate in the context of site development. A conceptual final landform has been prepared for the project based on full extraction of the approximately 2 Mt of resources.

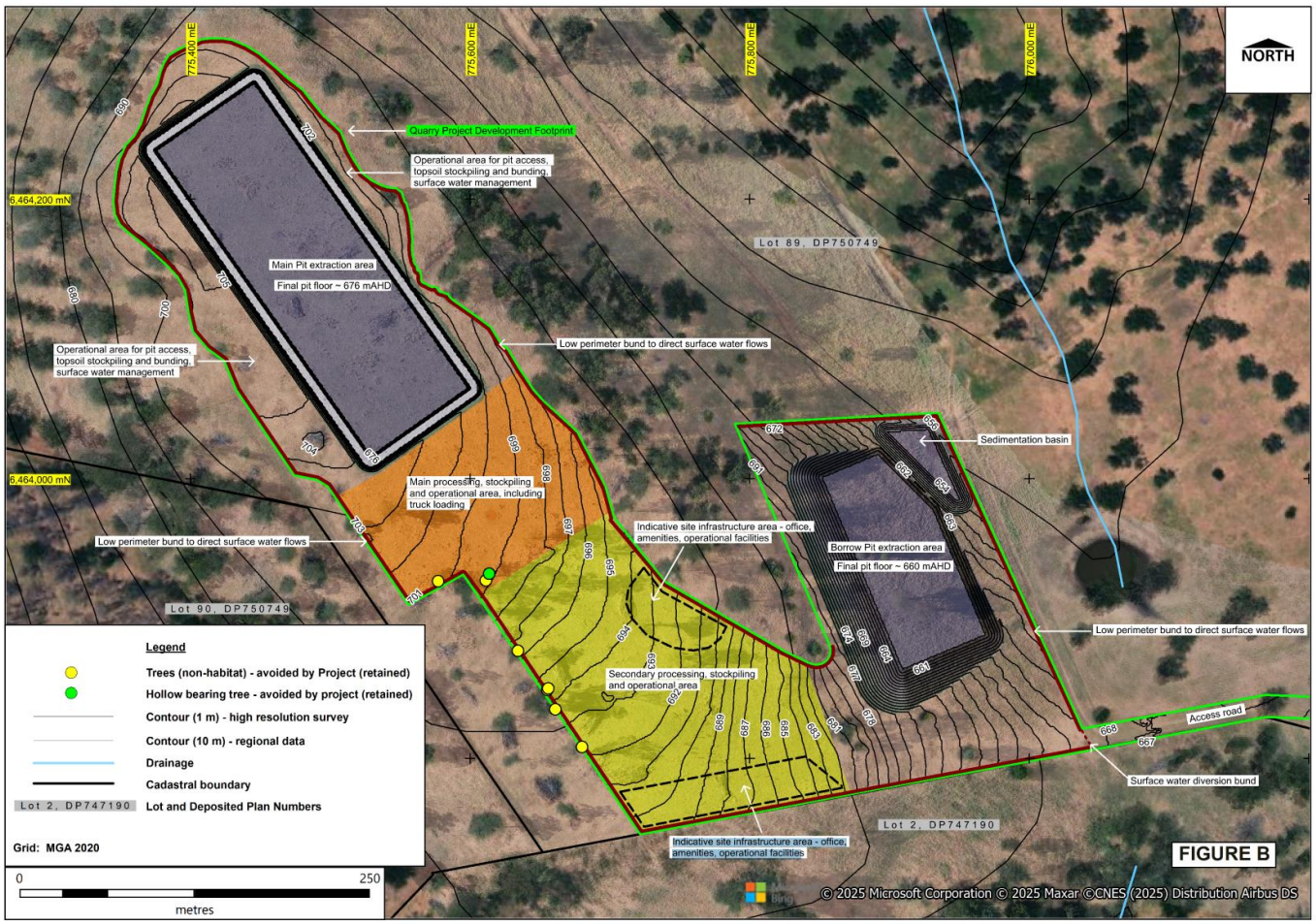

Figure 2: Proposed project layout.

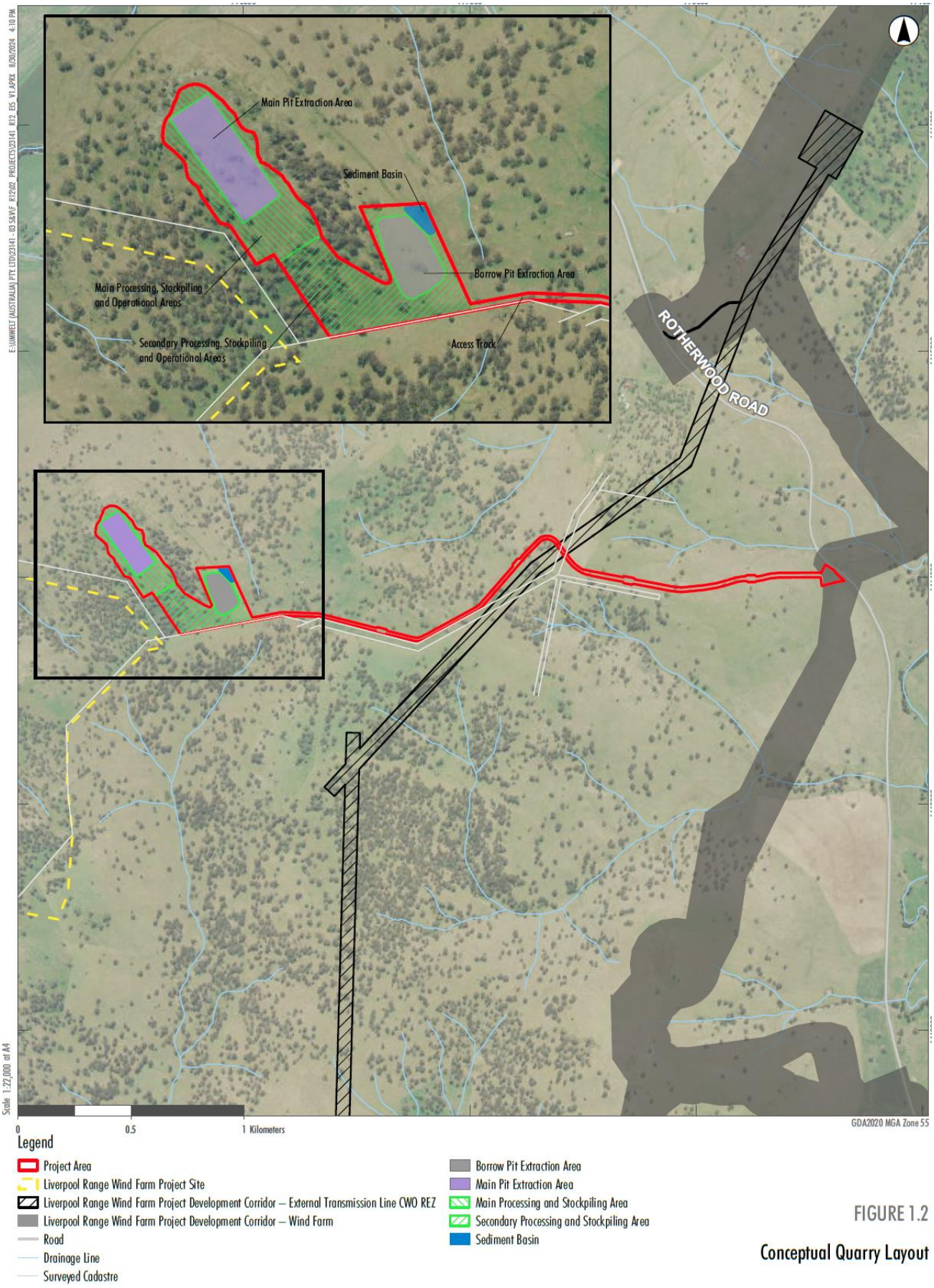

Figure 3 | Proposed layout and internal haul road

3 Strategic context

3.1 Project setting

6. The project area occupies part of a larger, privately owned agricultural property and is zoned RU1 Primary Production. The project area is currently used for grazing and is in a rural setting on an elevated rocky outcrop consisting of cleared land with sparse tree cover (see **Figure** Figure 4).

7. Surrounding the project is agricultural land used primarily for grazing with some cropping associated with the valley floors. There are five residential dwellings within 5 km of the project. Of these, four are associated to the project. One, approximately 3.1 km to the southwest is not.

8. The project is located within the Wind Farm project area, toward the southwestern boundary.

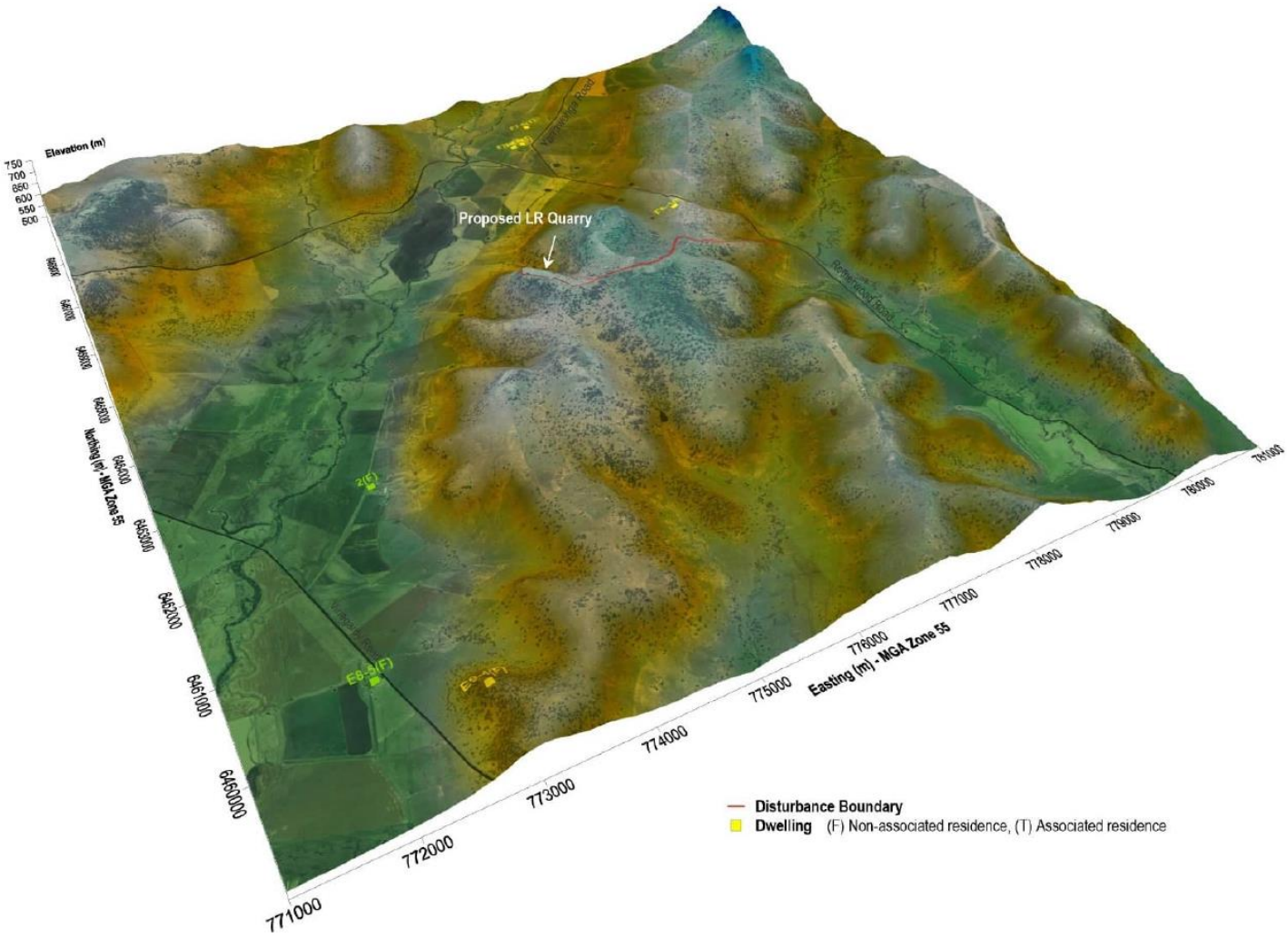

Figure 4 | Project setting

3.2 Resource and markets

9. The hard rock resource comprises a mixture of predominantly basalt and dolerite. Products from the quarry would include aggregates (main pit) and heavy clays (borrow pit). The aggregates would be used for general construction, concrete and coarse road-base, while the heavy clays would also be used in the road base as a binding agent. The project would supply this material to the Wind Farm for construction of access tracks, hardstand areas, turbine foundations and associated civil works.

3.3 Strategic Policy

10. The *Hunter Regional Plan 2041* (NSW Government, 2022) 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. It 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.

11. The *State Infrastructure Strategy 2022-2042: Staying ahead* (NSW Government, 2022), sets out Infrastructure NSW's independent advice to the NSW Government on the State's needs and strategic priorities for infrastructure over the mid to long term. The strategy recommends that infrastructure spending should target freight and energy infrastructure and provide for productive regional industries and connected regional communities.

12. The Department considers that the project is consistent with the plans, strategies and policies outlined above.

4 Statutory context

4.1 Permissibility and assessment pathway

13. Details of the legal pathway under which consent is sought, and the permissibility of the project are provided in Table 2 below.

Table 2 | Permissibility and assessment pathway

Consideration	Description
Assessment pathway	State significant development The project is an extractive industry development that would extract up to 700,000 tpa from a total resource of approximately 2 million tonnes. Accordingly, the project is declared to be SSD under section 4.36 of the EP&A Act as it satisfies the criteria under section 7 of Schedule 1 of the *State Environmental Planning Policy 2021* (Planning Systems SEPP), being an extractive industry project that extracts more than 500,000 tpa.
Consent authority	Independent Planning Commission The Independent Planning Commission is the declared consent authority under section 4.5(a) of the EP&A Act and section 2.7(1) of the Planning Systems SEPP, as more than 50 unique public submissions objecting to the project were received.
Permissibility	Permissible with consent The project area is zoned RU1 (Primary Production) under the *Upper Hunter Local Environmental Plan 2013* (Upper Hunter LEP). The project is defined as development for the purpose of "Extractive industries" under the Upper Hunter LEP, which is permitted with consent in zone RU1. Furthermore, section 2.9(3) of the *State Environmental Planning Policy (Resources and Energy) 2021* (Resources and Energy SEPP) provides that development for the purpose of an extractive industry is permissible with consent on land where development for the purposes of agriculture or industry is permissible. Therefore, the Department considers that the project is permissible with consent under the EP&A Act.

4.2 Integrated and other NSW approvals

14. Under Section 4.41 of the EP&A Act, several approvals are integrated into the SSD approval process and consequently are not required to be separately obtained for the project. These include:

- approvals relating to heritage required under the *National Parks and Wildlife Act 1974 and the Heritage Act 1977*; and
- certain water approvals under the *Water Management Act 2000;*

15. Under Section 4.42 of the EP&A Act, several other approvals (if required) cannot be refused and must be granted in terms substantially consistent with any consent granted for the project. These include:

- consents under the *Roads Act 1993* (Roads Act); and
- an Environment Protection Licence (EPL) under the *Protection of the Environment Operations Act 1997* (POEO Act).

16. The Department has consulted with the relevant government agencies responsible for these other approvals (**Section 5**) and considered their advice in its assessment of the project (**Section 6**).

4.3 Mandatory matters for consideration

4.3.1 Matters of consideration required by the EP&A Act

17. Section 4.15 of the EP&A Act sets out matters to be considered by a consent authority when determining a development application. The Department's consideration of these matters is shown in **Table 3**Error! Reference source not found. below.

Table 3 | Matters for consideration

Matter for consideration	Department's assessment
Applicable environmental planning instruments	Appendix B
Issues raised in submissions	**Section 5** – Engagement; and **Section 6** – Assessment
The likely environmental, social and economic impacts	**Section 6** – Assessment
Suitability of the site for the development	**Section 3** - Strategic Context; and **Section 6** – Assessment
EP&A Regulation	Appendix B
Public interest	**Section 5** - Engagement, **Section 6** – Assessment; and **Section 7** – Evaluation

4.3.2 Objects of the EP&A Act

18. In determining the application, the consent authority should consider whether the project is consistent with the relevant objects of the EP&A Act (s 1.3) including the principles of ecologically sustainable development. Consideration of those factors is described in **Appendix B**.

19. As a result of the analyses in **Appendix B**, the Department is satisfied that the development is consistent with the objectives of the EP&A Act and the principles of ecologically sustainable development.

4.4 Biodiversity assessment

20. The EIS was accompanied by a Biodiversity Development Assessment Report (BDAR) as required by Section 7.14 of the *Biodiversity Conservation Act 2016* (BC Act).

21. Section 7.14 of the BC Act requires the consent authority to take into consideration the likely impact of the proposed development on biodiversity values as assessed in the BDAR. It also enables the consent authority to grant a development consent, subject to the requirement to retire biodiversity credits in accordance with the biodiversity offsets scheme established under the BC Act.

22. The BDAR and the overall impact of the project on biodiversity values is assessed in **Section 6**.

4.5 Commonwealth matters

23. On 30 August 2024, a delegate of the Commonwealth Department of Climate Change, Energy, the Environment and Water (Commonwealth DECCEW) determined that the project was a *controlled action* under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), due to its potential impact on the critically endangered White Box–Yellow Box–Blakely's Red Gum Grassy Woodland and Derived Native Grassland (see Sections 18 & 18A of the EPBC Act).

24. 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, under section 45 of the EPBC Act.

25. On 4 September 2024, the Department issued Supplementary SEARs addressing matters of national environmental significance (MNES). The Department's assessment of impacts to MNES is provided in **Section 6** and **Appendix C**.

26. In accordance with the Bilateral Agreement, the Department has provided the Australian Government with the draft copy of this assessment report and the recommended conditions of consent and it raised no issues.

27. Following the Independent Planning Commission's determination of the project, if approved, the matter would be referred to the Commonwealth DCCEEW for determination under the EPBC Act in accordance with the relevant provisions of that Act.

5 Engagement

5.1 Department's engagement

28. The Department publicly exhibited the project from 22 October 2024 until 18 November 2024 and advertised the exhibition in *The Australian* on 22 October 2024 and the *Coolah District Diary* on 23 October 2024.

29. The Department notified surrounding landowners of the project, sought advice from key government agencies as well as the Upper Hunter Shire Council (Council) and Warrumbungle Shire Council (WSC), and conducted a site visit on 26 March 2025.

30. In undertaking these activities, the Department considers that its engagement process met the statutory obligations for community participation under the EP&A Act and EP&A Regulation.

5.2 Summary of submissions

5.2.1 Summary of public submissions

31. A total of 83 public submissions[1] were received during the exhibition period, including 72 submissions from individuals and 11 submissions from special interest groups (see **Appendix A**).

32. The Department notes that a small proportion of public submissions (2.4%) were received from the local area (i.e. within 5 km of the project) while approximately 19% were received from outside NSW.

33. A summary of the locality of submissions is provided in **Table 4**, and key issues raised in public submissions are outlined in **Sections 5.2.2** and **5.2.3**.

[1] Each petition or submission that contains the same or substantially the same text is counted as one submission in accordance with section 2.7(6) of the Planning System SEPP.

Table 4 | Summary of submissions

Submitter	Number of submissions	Position
Local (< 5 km)	2	Object
	0	Support
	0	Comment
Regional (5–100 km)	37	Object
	1	Support
	0	Comment
Broader NSW community (> 100 km within NSW)	23	Object
	3	Support
	1	Comment
Outside NSW	16	Object
	0	Support
	0	Comment
TOTAL	83	-

5.2.2 Public submissions in objection

34. Key issues raised in objecting submissions are summarised in Figure Figure 5.

35. Potential water impacts were the most frequently raised concern, appearing in approximately 42% of submissions. The next most frequently raised concern was traffic and transport impacts (36% of submissions) including impacts to Vinegaroy Rd and potential for accidents. Potential impacts to biodiversity were raised in approximately 32% of submissions, naming harm to threatened ecological communities and general ecosystem degradation. Soil and land capability concerns (31% of submissions) included soil contamination, erosion and permanent landscape alteration while social concerns (27% of submissions) included impacts to community safety and lifestyle.

36. The Department's assessment of key issues raised in public submissions is outlined in Section 6. A link to all public submissions in full is available in Appendix A.

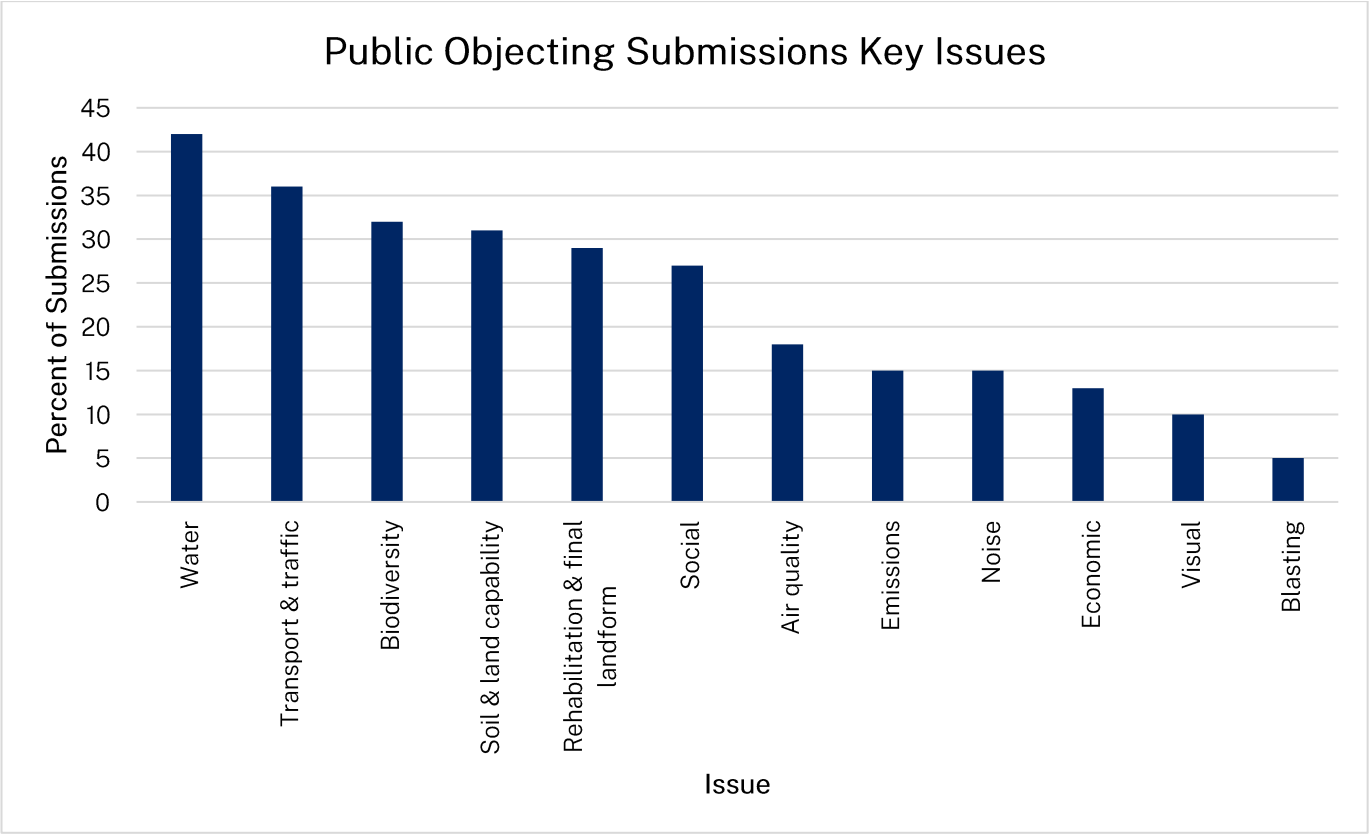

Figure 5 | Issues raised in public, objecting submissions

5.2.3 Public submissions in support

37. Public submissions in support of the project cited positive attributes including economic and employment benefits as well as advantages resulting from co-locating the quarry and Wind Farm project, including reductions in greenhouse gas (GHG) emissions, net road congestion benefits and increased road safety.

5.3 Summary of advice received from government agencies and council

38. The Department received advice on the EIS from nine government agencies, Upper Hunter Shire Council and Warrumbungle Shire Council. At the Department's request, the Applicant responded to this advice in its Submissions Report on 6 February 2025. The Department forwarded this report to the relevant government agencies and councils for further comment. Further advice was received from seven government agencies and both councils

39. Agency and council advice is summarised in **Table 5** and available in full via the link provided in **Appendix A**.

Table 5 | Summary of agency advice

Agency / Council	Advice
Upper Hunter Shire Council	Raised concerns regarding: • the adequacy of waste management plans and facilities; and • the impacts of project related traffic on road condition and the completeness of the Traffic Impact Assessment (TIA). Requested that the Applicant: • complete specific road upgrades to Rotherwood Road; and • enter into a planning agreement that includes contributions from the Applicant proportionate to the cost of project and that the quarry and Wind Farm contributions should be distinct. Following review of the draft conditions of consent Council raised no further concerns.
Warrumbungle Shire Council	Objected to the project and raised concerns including: • impacts of project related traffic on the condition and congestion of local roads and the suitability of the Traffic Impact Assessment (TIA); • the timing of road upgrades in relation to quarry construction; • potential long-term, irreversible impacts to threatened species and ecological communities; and • amenity, social and economic impacts. Requested that: • the project install a weighbridge to ensure that the amount of quarry product being transported is accurately recorded. The Department notes that the project is not within the Warrumbungle Shire Council LGA. However, heavy vehicles from the quarry would use council roads.
NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) – Water Group (Water Group)	Following review of the Submissions Report the Water Group noted their requirements had been adequately addressed and had no further comments.

Agency / Council	Advice
WaterNSW	Following review of the EIS, WaterNSW noted that the proposal is not located near any WaterNSW land, assets or infrastructure and provided no further comment.
Environment Protection Authority (EPA)	Following review of the EIS and response to submissions report EPA: • provided draft licence conditions for noise, air quality, water quality and waste management; and • raised concerning regarding traffic noise impacts, which are addressed in Section 6 below.
Transport for NSW (TfNSW)	Raised concerns and requested the Applicant provide further information regarding: • the timing of road upgrades in relation to the various phases of the quarry; • impacts to TfNSW assets on the state road network; and • the TIA, particularly in relation to the suitability of intersections, traffic volumes, vehicle types, haulage routes and safety mitigation measures. Following review of draft conditions of consent the residual issue related to the need for a Traffic Management Plan. The Department's assessment of traffic issues is provided in Section 6.
NSW DCCEEW Conservation Programs, Heritage, and Regulation Group (CPHR) formerly Biodiversity, Conservation and Science (BCS)	Following receipt of the BDAR addendum in June 2025 and review of draft conditions of consent, CPHR narrowed its concerns to four key issues: • redrafting both the original BDAR and Addendum BDAR provided within the Submissions Report into one document; • characterisation of the Vegetation 2 community within the BDAR; • consideration of Serious and Irreversible Impacts (SAII) to a listed entity; and • the impact area considered in the BDAR for a single threatened species. Each concern is assessed in Section 6 below.

Agency / Council	Advice
Department of Primary Industries and Regional Development, Agriculture and Biosecurity (DPIRD)	Following review of the Submissions Report, DPIRD advised that biosecurity management should be incorporated into the consent.
Crown Lands	Following review of the Submissions Report, Crown Lands advised that the proposal would likely require authorisation under the *Roads Act 1993* for works (s.138) and a licence to occupy [s.152A(2)(b)] as approximately 40 m of an unnamed Crown road would be bisected by a new all-weather sealed access road to service the proposed quarry.
NSW DCCEEW - Heritage NSW	Following review of the Submissions Report, Heritage NSW noted that the response addressed prior comments and had no further comments.
NSW Rural Fire Service (RFS)	Following review of the Submissions Report, RFS noted that the proposed bushfire management measures are adequate.

5.4 Requests for Submissions Report and further information

40. On 20 November 2024, the Department requested a response to community submissions and agency advice. The Applicant provided a Submissions Report on 6 February 2025.

41. On 10 and 27 February 2025, the Department requested further information on the Submissions Report, including a more detailed response to matters raised by CPHR and comments made by both local councils.

42. On 20 March and 9 May 2025, the Department requested further information on site layout, traffic and transport, final landform and rehabilitation, biodiversity and water.

43. Further information addressing the above matters was provided by the Applicant on 12 March, 19 March, 11 April, 4 June and 12 June 2025.

6 Assessment

44. The Department has considered the EIS, the issues raised in the submissions, the Applicant's submission report and supplementary information in its assessment of the development. The Department considers the key assessment issues are traffic management and biodiversity. A number of other issues have also been considered. These issues are considered to be relatively minor and are assessed in Table 6 under **Section 6.5**.

6.1 Traffic

45. Traffic and transport were a key issue raised in public submissions, with the majority of objecting submissions indicating concerns in relation to the perceived increase in heavy vehicles on local roads and damage to roads from project-related traffic. Many submissions also questioned the route selected for heavy vehicles through the local road network.

46. Upper Hunter Shire Council and TfNSW have confirmed that their initial traffic-related issues raised have been satisfactorily addressed by commitments made by the Applicant and proposed conditions of consent recommended by the Department.

47. Warrumbungle Shire Council maintained its objection to the project on the basis of traffic impacts not being reasonably mitigated, particularly in relation to the upgrade and ongoing maintenance of Rotherwood Road under the Wind Farm consent. It also requested specific requirements for road dilapidation surveys, the installation of a weighbridge and the preparation of a site-specific Traffic Management Plan. Regarding the weighbridge installation, given the short project life and that a significant proportion of the quarry material is being used in the construction of road upgrades, the need for a weighbridge to record truck loads is considered unreasonable given road maintenance contributions are not based upon heavy vehicle weights (see **Section 6.1.2** below). For the other issues, the Department has addressed each of these issues in detail below.

48. The Department notes that the proposed quarry is being developed solely to provide materials for the construction works (including road upgrades) associated with the Wind Farm development. As discussed below, the Department confirms that the haulage of products from the quarry to the Wind Farm was assessed as part of a recent modification of the Wind Farm development consent (SSD-6696 Mod 1). Therefore, the Department's assessment of traffic-related impacts from the project focuses on the shift in the origin of heavy vehicles, additional traffic movements associated with the project mobilisation and decommissioning stages, and vehicle movements associated with maintenance works and employees.

6.1.1 Traffic Impact Assessment

49. The EIS included a Traffic impact Assessment (TIA) prepared by Constructive Solutions Pty Ltd (CSPL) to assess the potential impacts of the project on the efficiency of the local and regional road networks. CSPL indicated that the TIA built on the modelling and findings of the traffic impact assessments[2] undertaken as part of the recently approved Wind Farm modification application, in particular the *Supplementary Traffic Impact Assessment and Response to Road Authority Submissions* (Supplementary TIA) (dated September 2023), which was also prepared by CSPL.
50. The TIA included the modelling and assessment of heavy vehicle traffic associated with the haulage of quarry product, as well as additional traffic movements associated with site-specific aspects of the project.

Assessment of quarry product haulage

51. CSPL confirmed that the modelling undertaken as part of the Supplementary TIA for the Wind Farm assessed two scenarios for the sourcing of quarry products for the construction phase of the Wind Farm, including sourcing materials from a local quarry off Rotherwood Road (Scenario 1) and/or from an existing external quarry outside the Wind Farm project boundary in the vicinity of Dubbo (Scenario 2). Scenario 1 modelled a maximum daily heavy vehicle movement rate of 160 one-way movements per day (including OSOM vehicles) during the peak construction period.
52. CSPL's traffic modelling undertaken as part of the project TIA refined the predicted heavy vehicle movements required to haul quarry products for use at the Wind Farm, indicating that the transport of up to 2 Mt of quarry products (up to 700,000 tpa) to the Wind Farm during the peak construction period would require 118 heavy vehicle (one way) movements per day (20 per hour) with an average of 80 at other times. Based on this modelling, CSPL confirmed that the predicted heavy vehicle traffic movement rates associated with delivery of quarry products are below those already assessed as part of the Wind Farm Mod 1 application.
53. The Applicant has also confirmed that the heavy vehicle transport routes from the haulage of quarry products remain the same as those assessed under the Wind Farm consent.
54. The Department accepts that the heavy vehicle haulage of quarry products from the project site to the Wind Farm are within the scope of those assessed and approved as part of the Wind Farm Modification 1 application and can therefore be excluded from the current quarry

[2] Including the *Traffic Impact Assessment for the Liverpool Range Wind Farm* (SSD 6696) MOD 1 application prepared by GTA Consultants dated 13 July 2022 and the *Supplementary Traffic Impact Assessment and Response to Road Authority Submissions* prepared by Constructive Solutions Pty Ltd and dated September 2023.

assessment. However, the Department considers that the heavy vehicle traffic rates should reflect the refined (and lower) rates predicted in the current application, and has therefore recommended a condition limiting laden heavy vehicle movements from the quarry site to a maximum of:

- 118 laden per day during the peak construction period for the Wind Farm;
- 80 laden per day for all other construction periods for the Wind Farm; and
- 20 heavy vehicle movements per hour.

55. The Department agrees with the Applicant that sourcing quarry materials for the Wind Farm from the proposed local quarry (in line with Scenario 1) presents several clear benefits when compared to sourcing materials from external further afield locations such as existing quarries in the Dubbo region (with a return haulage distance of approximately 300 km). In summary, benefits include:
    - a significantly reduced return haulage distance, resulting in a reduction in total haulage distance on the public road network of approximately 17 million km over the life of the quarry;
    - improved road safety through the reduced number of vehicle interactions and probability of road safety incidents;
    - significantly reduced heavy vehicle fleet size (5 vehicles compared to 32), given the increased number of trips each vehicle can complete each day; and
    - reduced environmental impacts (including GHG emissions and traffic noise) associated with reduced haulage distances and fleet size.
56. However, the Department acknowledges that sourcing quarry materials for the Wind Farm from the proposed local quarry would result in a redistribution of traffic along some roads and intersections compared to the Scenario 2 option where the required quarry materials would be sourced from other existing quarries located elsewhere across the broader region. In particular, CSPL indicated that this would result in:
    - an increase of approximately 60% in estimated construction traffic volumes along the generally low trafficked section of Rotherwood Road between the Vinegaroy Road intersection and the proposed quarry entrance; and
    - a shift in the heavy vehicle traffic flow at the Rotherwood Road / Vinegaroy Road intersection from vehicles turning right into Rotherwood Road from Vinegaroy Road to vehicles turning out of Rotherwood Road onto Vinegaroy Road.
57. As discussed below, the Department considers that the existing conditions of consent for the Wind Farm which require road and intersection upgrades along the heavy vehicle route are adequate to manage impacts associated with the proposed increase of traffic on the local road network (including Rotherwood Road). It is also noted that CSPL's intersection analysis has

confirmed that the existing required intersection upgrade at the Rotherwood Road / Vinegaroy Road [i.e. basic right-turn (BAR) and basic left turn (BAL)] remains sufficient for the shift in heavy vehicle movements at this intersection.

Assessment of additional quarry traffic

58. The TIA provides an assessment of the impacts of additional traffic movements associated with the project mobilisation and decommissioning stages, and vehicle movements associated with maintenance works and employees. Additional information in relation to mobilisation traffic was requested by TfNSW and WSC and was included in subsequent responses from the Applicant (refer to **Appendix A**).

59. The Department considers that the TIA contained in the EIS and the additional information provided is adequate to assess the residual impacts of additional traffic movements of the project.

6.1.2 Liverpool Range Wind Farm traffic and transport conditions

60. The Department notes that the mitigation and management of impacts associated with the transport of products from the quarry to the Wind Farm (including the increased volumes along Rotherwood Road) will be regulated under the strict traffic and transport conditions contained in the existing Wind Farm consolidated consent. Relevant to the existing project application, this includes requirements for:

- **Road and intersection upgrades** (condition 28, Schedule 3) – in accordance with the current *Austroads Guidelines, Australian Standards* (as amended by TfNSW supplements) and to the satisfaction of the relevant roads authority/manager for all roads/intersections along the heavy vehicle route associated with the construction of the Wind Farm (Appendix 6 of consent), prior to using the roads/intersections for any heavy vehicle traffic associated with the construction of the Wind Farm development;
- **Road maintenance** (condition 29, Schedule 3) - including the preparation of dilapidation surveys of heavy vehicle routes along local and regional roads and requirements to repair any development-related damage in a timely manner; and
- **Traffic Management Plan** (TMP) (condition 31, Schedule 3) – including the preparation of a TMP prior to the commencing of road upgrades to detail measures that would be implemented to minimise traffic safety impacts and disruptions to local road users during construction and include a drivers' code of conduct.

61. The Department acknowledges Warrumbungle Shire Council's objection and concerns that consent conditions relating to the upgrade of Rotherwood Road did not account for the

predicted increase in heavy vehicles along this road. However, points out that the existing road upgrade condition 28 requires this road to be upgraded to the *Austroads Guidelines, Australian Standards* prior to its use by Wind Farm related heavy vehicles, to the satisfaction of both Warrumbungle Shire Council and Upper Hunter Shie Council (as the relevant roads authorities). Further, condition 28 provides that if there is a dispute about the road upgrades, then the relevant roads authority may refer the matter to the Planning Secretary for resolution. The Department is therefore satisfied that existing conditions of approval within the Wind Farm consent are adequate to ensure Rotherwood Road is upgraded to an appropriate standard to cater for the predicted increase in heavy vehicle movements at this location.

62. The Department also considers that the existing condition 29 requiring dilapidation surveys and timely repairs to all roads along the heavy vehicle routes would satisfy Warrumbungle Shire Council's request that these measures apply to roads associated with the proposed quarry operations.

6.1.3 Additional quarry traffic predictions and impacts

63. The TIA and additional information responses from ARDG provided estimates for the additional traffic movements associated with the Project (beyond heavy vehicle traffic for quarry product haulage) including vehicles associated with mobilisation, maintenance, employees and demobilisation. The vehicle movement estimates are provided in Table 6.

Table 6 | Additional quarry-related vehicle movements

Project activity/stage	Movements (two-way)
Mobilisation / demobilisation of plant and equipment	60 light vehicles for each stage
	20-30 heavy vehicles for each stage
	2 OSOM for each stage
Maintenance	Minimal delivers (already accounted for in the heavy vehicle movements for product haulage)
Employees travelling to and from site	8-12 light vehicles per day

64. The transport route for the mobilisation / demobilisation vehicles would be via the Golden Highway, Vinegaroy Road and Rotherwood Road (Figure 6) and would be limited to the crushing and screening plant, mobile plant and site infrastructure (i.e. demountable office/crib room, self-bunded fuel storage, containers).

65. TfNSW were concerned with the timing of the proposed heavy and OSOM vehicle movements required for mobilisation to the quarry site prior to the upgrade of the Golden Highway / Vinegaroy Road intersection.

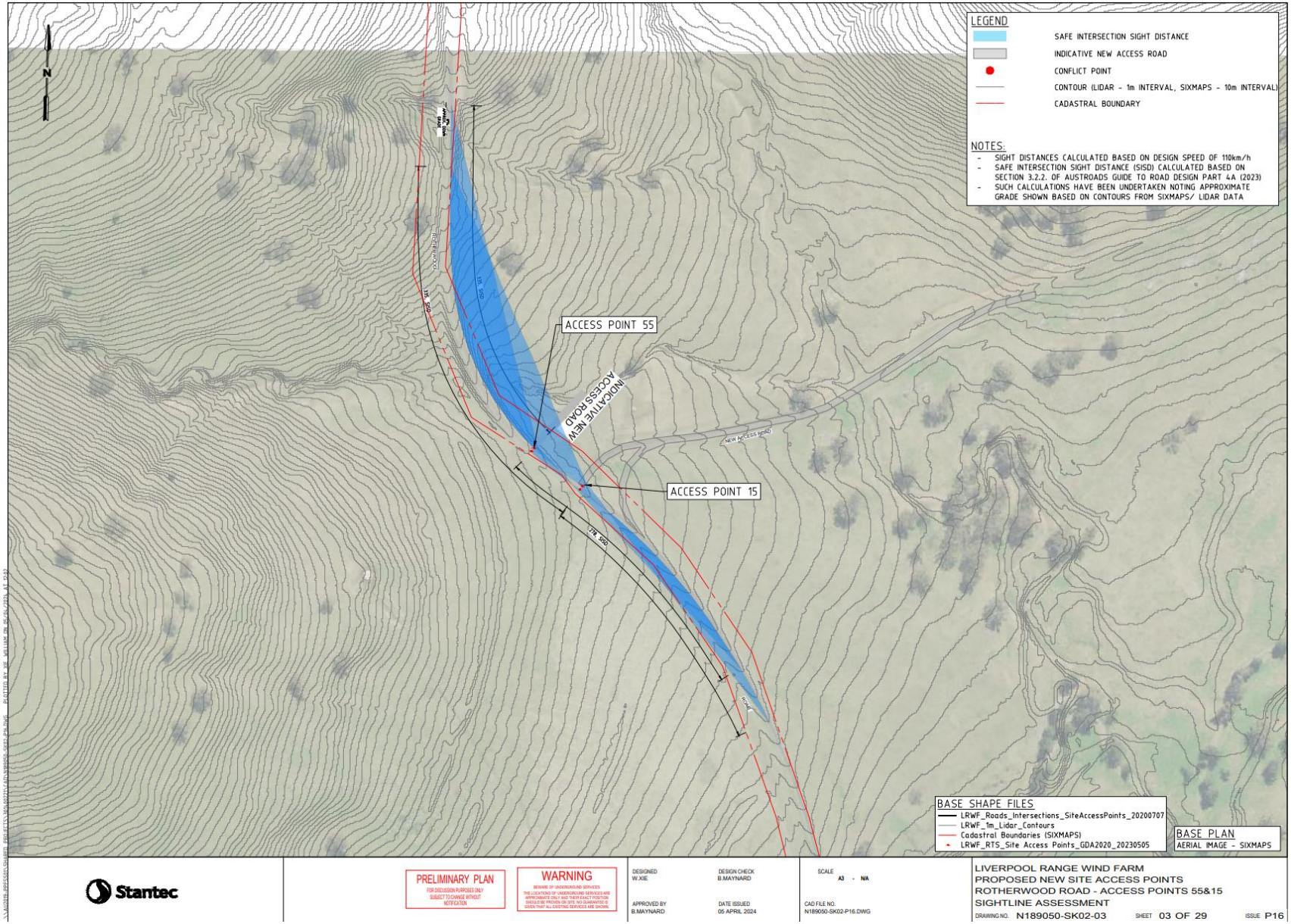

Figure 6: Site Access

66. In response, the Applicant prepared swept path diagrams and proposed the following mitigation with respect to mobilisation vehicles through the intersection:
    - escorting all OSOM vehicles through the intersection;
    - restriction of all vehicle movements to a maximum of one heavy vehicle and 7 light vehicles during the AM/PM peak hour;
    - limiting mobilisation to daylight hours;
    - notifying TfNSW at the commencement and completion of the use of the intersection for the mobilisation period; and
    - preparing a drivers' code of conduct directing drivers not to turn right if there is any traffic within sight.
67. TfNSW accepted these mitigation measures. The Department acknowledges that there are a low number of vehicle movements proposed during the mobilisation and demobilisation stages of the project and considers that the mitigation measures proposed by the Applicant are adequate to ensure that safety risks associated with heavy vehicle and OSOM vehicles movements are low and therefore acceptable. The Department has recommended conditions of consent which reflect the proposed mitigation measures.
68. CSPL indicated that the small number of light vehicle movements associated with employees travelling to and from the quarry can be readily catered for on the existing road network and would result in negligible additional traffic or transport related impacts. The Department agrees with this outcome.

Quarry entrance intersection

69. Access to the quarry is proposed via a new intersection off Rotherwood Road (**Figure 7**). The TIA included an intersection analysis to determine the turning treatments required to cater for the predicted traffic generation associated with the project, inclusive of background traffic (existing and future growth) along Rotherwood Road. Based on maximum peak hour vehicle movements for the quarry (and quarry product haulage to the Wind Farm) and current and future background traffic numbers, CSPL confirmed that a Rural Basic Right-turn / Rural Basic Left-turn (BAR / BAL) treatment is sufficient for the quarry entrance intersection.
70. Upper Hunter Shire Council accepted this analysis. The Department has recommended a condition of consent requiring the entrance intersection to be upgraded, in consultation with Upper Hunter Shire Council and in accordance with the EIS and latest Austroads Standards, prior to the transport of quarry products from the site.

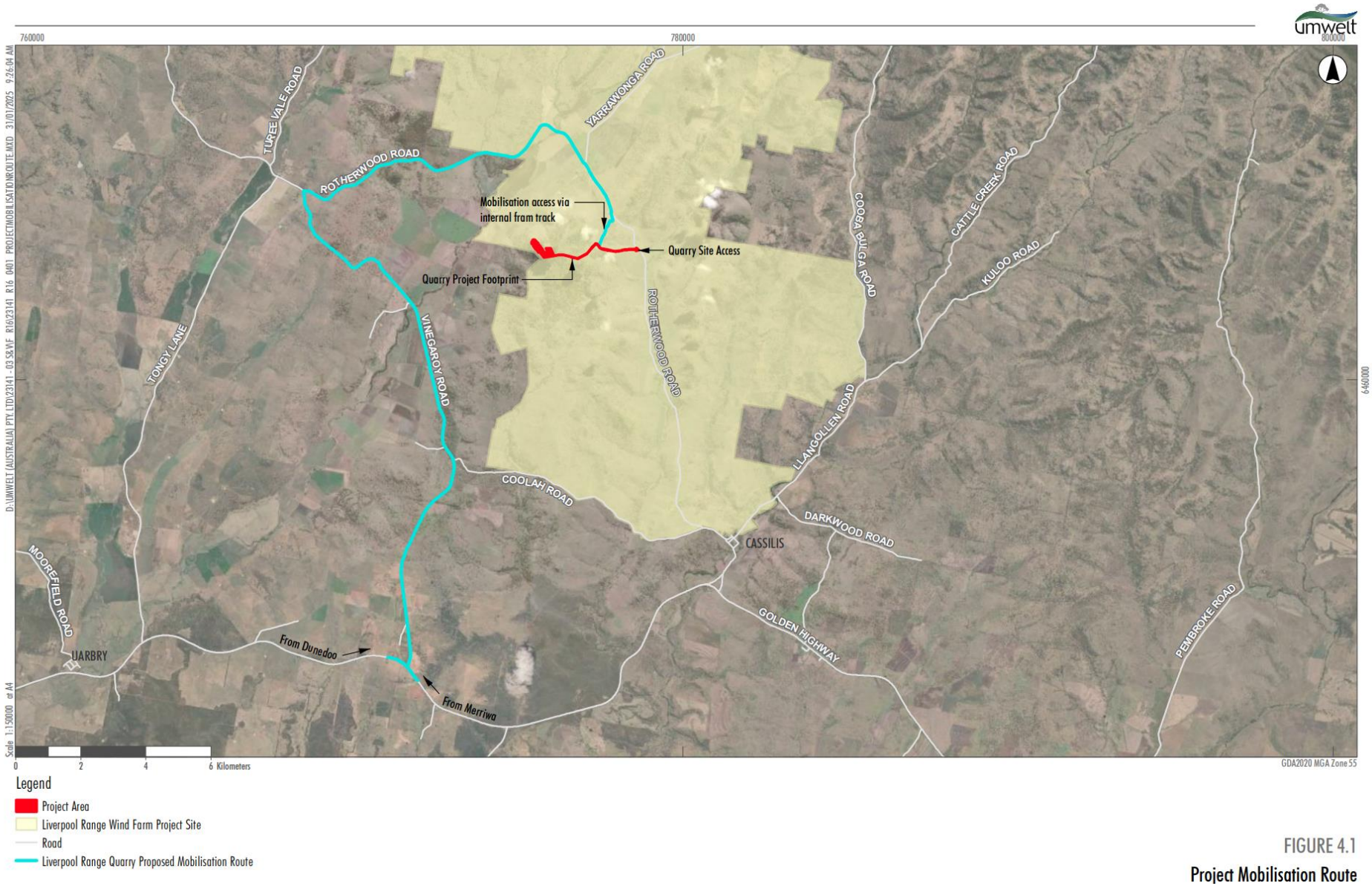

Figure 7: Project Mobilisation Route

6.1.4 Road maintenance contributions

71. Warrumbungle Shire Council requested that the Applicant enter into planning agreements with it and Upper Hunter Shire Council to require financial contributions towards future road upgrades and maintenance over the life of the quarry. Upper Hunter Shire Council accepted the Applicant's offer to enter into a draft planning agreement with a total contribution of $50,000 to be spent in the Cassilis area in consultation with the Cassilis District Development.

72. The Department notes that the vast majority of potential traffic impacts associated with the project are related to the transport of quarry products to the Wind Farm sites. The Wind Farm development consent requires the Applicant to enter into a voluntary planning agreement (VPA) with both councils, which requires substantial contributions for road upgrades and maintenance.

73. The VPA requires the payment of contributions during both the construction and operational phases of the Wind Farm, including $105 per megawatt (MW) per annum during the construction phase (starting with the commencement of public road upgrades) and $1,050 per MW per annum during the operational phase.

74. Given the Wind Farm would generate 1,332 MW, this would equate to a payment of $139,860 per annum during construction rising tenfold to $1,398,600 per annum during operation for the 30-year project life. This equates to a total payment of approximately $42 million shared between the two regional councils, of which 30% of the operational funding would be allocated to road maintenance funding (i.e. approximately $12.5 million).

75. On this basis, the Department does not consider a separate road-related VPA is warranted for the project. This position is considered to be further justified given:

    - approximately one third of the material being extracted from the quarry would be used to upgrade the local road network,
    - the short period that the heavy vehicles would be operating on the local road network to construct the Wind Farm (up to 5 years); and
    - the Wind Farm consent requires the Applicant to undertake dilapidation surveys and repair any road damage following the completion of construction to the satisfaction of the relevant road authority, meaning the road contributions approved under the Wind Farm consent are in addition to the requirement to repair and maintain the local roads during the construction period.

6.1.5 Summary

76. The Department acknowledges that construction traffic impacts are a key concern of the community.

77. The Department notes:

- that the overall number of heavy vehicle movements proposed to be used to haul quarry product from the quarry to the Wind Farm during construction would not change and have already been approved under the Wind Farm consent;
- that the overall distance heavy vehicles carrying quarry materials would substantially reduce when compared to sourcing material from further afield, therefore reducing impacts to the wider road network and improving road safety; and
- the existing Wind Farm consent contains a robust framework to:
    - upgrade the road network pavement and intersections;
    - pay contributions to council; and
    - undertake dilapidation surveys and repair the road network.

78. The Department has recommended conditions of consent to limit the number of heavy vehicles, upgrade the quarry entrance, prepare and adhere to a drivers' code of conduct as well as managing mobilisation to the quarry site. Subject to these conditions, the Department considers that the traffic and transport impacts of the project are manageable and acceptable.

6.2 Biodiversity

6.2.1 Introduction

79. Impacts to biodiversity were raised in 32% of objecting submissions with key concerns related to impacts to threatened ecological communities and general ecosystem degradation.

80. The EIS included a BDAR and Biodiversity Offset Strategy, which were prepared by Umwelt in accordance with the BAM under the BC Act. The BDAR described and assessed potential impacts to biodiversity from the project, including threatened biodiversity listed under the BC Act and MNES listed under the EPBC Act.

81. Following review of the EIS, CPHR and Warrumbungle Shire Council raised several issues regarding the assessment of biodiversity impacts and requested further information regarding the BDAR. An addendum to the BDAR was submitted as part of the Submissions Report. (see **Appendix A** and **Appendix E**).

82. The Department is satisfied that the BDAR, addendum to the BDAR and additional information provided by the Applicant are adequate for assessing the biodiversity impacts and offsetting requirements for the project.

6.2.2 Existing environment

83. The Department observed from its site visit that the project is on an exposed and largely cleared hillside with rock protruding from the ground. The EIS states that the project area has been subject to extensive grazing and has been largely cleared of treed vegetation with only grassland and scattered paddock trees remaining.

84. The EIS states that the soil profile is largely skeletal (0–0.2 m) sitting upon the target material which is a basalt flow (weathered and unweathered). In lower lying areas, such as the Burrow Pit, there are areas of heavy clay soils.

85. The Talbragar River is located approximately 1.3 km to the north-west. There are no karst landforms, caves, crevices, cliffs, rock formations or other geological features of significance occurring within the project area, nor does it contain any areas of outstanding biodiversity value, as identified under the BC Act.

86. The Department notes that other locations for the quarry were considered within the Wind farm development consent boundary, however these were dismissed due to being heavily vegetated and therefore likely to be more biodiversity rich than the proposed project area.

6.2.3 Assessment of biodiversity impacts

87. Direct biodiversity impacts from the project include loss of native vegetation and fauna habitats, and potential incremental decline in quality or extent of habitat during the five-years of construction and operation. Potential indirect impacts include heavy vehicle movements along the internal haulage road and edge effects on remanent vegetation.

88. The project would directly impact terrestrial ecology through the clearing of 19.5 ha of vegetation for the quarry pit, stockpile areas, ancillary infrastructure and access road.

89. However, the Department notes that 0.5 ha of the area to be cleared is Category 1 – exempt land under Part 5A of the *Local Land Services Act 2013*. This land extends west from Rotherwood Road and is bounded by an artificially constructed bund that extends to the adjacent property containing cropped land (see **Figure 8**). Consequently, it has been excluded from the biodiversity assessment in accordance with the BAM.

Ecological Communities

90. The BDAR found that there are two vegetation zones within the project area (See **Figure 8**):

    1. **Vegetation Zone 1** - the project would impact upon 3.2 ha of low condition PCT 483 - Grey Box x White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley. The BDAR states that based upon diagnostic species and vegetation integrity scores this vegetation community conforms with White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in Brigalow Belt South Bioregions Critically Endangered Ecological Community (CEEC). (PCT 483 NSW Box Gum Woodland (CEEC)).
    2. **Vegetation Zone 2** - 15.8 ha of poor condition Grey Box x White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley Derived Native Grassland. Box Gum Woodland – Derived Native Grassland (non-associated). The BDAR found due to low diagnostic species and vegetation integrity scores that this Vegetation Zone that it does not conform with White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland CEEC.

Figure 8 | PCTs and Vegetation Zones

91. PCT 483 NSW Box Gum Woodland CEEC (Vegetation Zone 1) is listed as an entity at risk of Severe and Irreversible Impacts (SAII) within CPHR's Threatened Biodiversity Data Collection platform for accredited assessors. The Department has carefully considered the potential SAII on this ecological community in detail in **Section 6.2.1**.

92. CHPR raised concerns regarding the classification of Vegetation Zone 2 and noted that this vegetation could potentially be Box Gum Woodland – Derived Native Grassland CEEC.

93. The Department notes that the BDAR and additional information provided, states that the surveys undertaken in accordance with the BAM only found a total of 11 of the 115 species across three plots which are listed as making up this community. One plot contained no species.

94. The Department considers that given the above, along with the areas current poor condition (low vegetation integrity score) and current zoning and land practices (grazing and access road) that Vegetation Zone 2 does not conform with the Box Gum Woodland – Derived Native Grassland (CEEC).

95. Based on outcomes of the BDAR, the addendum to the BDAR and additional information provided by the Applicant, the Department is satisfied that an accredited and qualified ecologist has undertaken appropriate field survey data collection in accordance with the BAM and with consideration of the TSSC Final Determination. Consequently, the Department agrees with the findings of the characterisation of Vegetation Zone 2.

Fauna Species

96. The BDAR originally assumed presence for both the Pink-tailed Legless Lizard (*Aprasia parapulchella*) and the Striped Legless Lizard (*Delma impar*). However, following further targeted surveys in accordance with the BAM, the addendum to the BDAR determined that both lizards were absent from the project area. Accordingly, the biodiversity credit obligations were removed for these two species.

97. The BDAR detected the presence of one threatened species, the Barking owl (*Ninox connivens*), via audible recording approximately 65 m west of the proposed quarry operations area. The Barking Owl is listed as vulnerable under the BC Act, and the loss of tree hollows can decrease the prey populations for the owl. Typically, in NSW monogamous pairs of Owls hunt over as much as 2000 ha.

98. Suitable habitat (two hollow bearing trees) for the Barking Owl was identified within the project area. However, no sign of use was observed, including whitewash, pellets or prey remains. Nevertheless, the BDAR states both hollow bearing trees would be avoided, retained and protected.

99. In regard to survey methodology for the Barking Owl, CPHR stated that the BDAR should consider all vegetation zones within 800 m of this species' detection. Further information provided by the Applicant noted that the species polygon in the BDAR was consistent with the species information published within the species profile of the Threatened Biodiversity Data Collection (TBDC), which is the platform that accredited assessors must reference when determining areas of impacts to species. In particular, the species polygon must be drawn to include all vegetation zones within 800 m from the location of a detected owl and containing a living or dead tree with a hollow >20cm diameter that occurs >4m above the ground.

100. The Department considers that the polygon used in the BDAR is suitable as per the guidance material, given that both criteria must be met and there are no trees with hollows greater than 20 cm in the project area.

101. The Department is satisfied that the BDAR, addendum to the BDAR and additional information provided by the Applicant are adequate to assess the potential impacts of the project on the Barking Owl.

102. The Department considers that the project is unlikely to significantly impact the Barking Owl due to the lack of abundant habitat within the project area, the retention of the two hollow bearing tress and the documented typical large habitat range (2000 ha) of this species. All these measures are considered appropriate for mitigation and management of the species. Residual impact will be offset (see Section 6.2.6).

103. The project area also contains potential habitat for four other potential threatened species. Two bird species; the Regent honeyeater (*Anthochaera Phrygia*) and Swift parrot (*Lathamus discolor*), however, these species were discounted as the project area did not contain key habitat and due to the large distance from known sightings. Bluegrass (*Dicanthium setosum*) and koala (*Phascolarctos cinereus*) were also discounted as neither species were observed within the project area during targeted surveys.

6.2.4 Serious and Irreversible Impacts (SAII)

104. The Department has closely considered CPHR's advice, that when the project is taken into account with the cumulative impacts with the (approved) Liverpool Range Windfarm '*supports the conclusion that this project contributes to a SAII*' for the Box Gum Woodland CEEC. The Department has given careful consideration to this matter as CPHR's advice differs from the outcomes of the BDAR, which clearly concluded that no SAII to Box Gum Woodland CEEC would occur as a result of the proposal.

105. An impact is regarded to be SAII if it is likely to contribute significantly to the risk of an ecological community or species becoming extinct based on four principles set out in Clause 6.7 of the *NSW Biodiversity Conservation Regulation 2017* (BC Regulation).

Department's consideration of SAII

106. To understand and compare the projects impacts against the relevant Principles, the geographical extent of the Box Gum Woodland CEEC must be understood. There are two NSW Government estimates available:

    a. Threatened Species Scientific Committee (TSSC 2006) and reproduced by Tozer and Simpson (2020) estimate that the pre-1750 area of the NSW Box Gum Woodland CEEC was 3,717,366 ha, which has been reduced to a current extent in 2020 of 250,729 ha in NSW. Based on that figure, recent assessments (including the BDAR for the Central West Orana REZ Transmission line) estimate that current extent would now be 234,694 ha when combined with estimated annual losses since then.

    b. The current State-wide Vegetation Type Map (SVTM) released in 2022, identified that in NSW between 1,267,603 ha and 1,639,571 ha of this vegetation community type is present.

107. The BDAR states that both estimates are likely to be an under representation as, the TSSC estimate does not include any derived native grassland communities and the SVTM excludes a number of associated derived native grasslands communities.

108. This disparity in the known geographic extent has been an ongoing issue with the consideration of SAII for the Box Gum Woodland CEEC. Relevantly Dr Col Driscoll recently provided information in relation to the Moolarben Coal Project (OC3), which is based on the recent NSW SVTM mapping. Dr Driscoll estimates that "there is approximately 1,788,703 ha of extant Box-Gum Woodland CEEC within the SVTM in woodland form". Dr Driscoll also estimated that there is approximately 5,315,040 ha in derived native grasslands form, which results in a total of 7,103,743 ha of Box Gum Woodland in NSW.

109. In a cumulative setting the:

- Wind Farm is approved to impact 231.4 ha of Box Gum Woodland CEEC in the woodland form (13.9 ha of moderate-good and 217.5 low condition woodland).
- external transmission line for the Liverpool Range Windfarm is approved to impact 69.1 ha of Box Gum Woodland CEEC in the woodland form (including 17.7 ha of moderate-good and 51.4 ha low condition woodland); and
- quarry project is proposed to impact 3.2 ha Box Gum Woodland CEEC in the woodland form (in low to moderate condition).

110. This equates to a total cumulative impact of 303.7 ha. Using Dr Driscoll's estimate, and the updated estimate from the 2006 Final Determination, the project's cumulative impact would represent an impact of 0.017% or 0.13% of the total remaining woodland area in NSW, respectively.

111. The Department considers that a cumulative impact in the 0.017%-0.13% range is very unlikely to cause a reduction in geographic range or substantial environmental degradation, consequently it would not contribute significantly to the risk of extinction of Box Gum Woodland CEEC. Moreover, the impacts of the Liverpool Range Windfarm have already been assessed and approved and found not to be SAII. It is therefore wrong for CPHR to provide an analysis as part of their advice for this proposal that draws a cumulative conclusion only. The clearing of 3.2 ha associated with this proposal could not be considered to have a SAII impact on Box Gum Woodland CEEC.

112. The Department notes, these cumulative impacts would be fully offset in accordance with the NSW Biodiversity Offset scheme and all projects contain avoidance measures as well as additional mitigation measures to reduce impacts upon Box Gum Woodland CEEC.

Consideration avoidance and additional measures

113. There are 42 identified trees within the project area. Of these, the Applicant would remove 17 (13 for the haulage road and 4 in the burrow pit) and 6 would be avoided (see **Figure 9**). For the remaining 19 trees, the Applicant seeks flexibility regarding potential impacts in order to achieve optimal placement of stockpiles, processing equipment and internal access roads.

114. The Department considers that stronger commitments are needed to protect intact trees within the Box Gum woodland CEEC. Accordingly, the Department has recommended conditions of consent requiring the Applicant avoid at least 50% (or 10) of these remaining 19 trees. This equates to 16 trees being totally avoided, 17 trees being removed and 9 trees being potentially avoided.

115. Given the entirety of the potential impact to the 3.2 ha of Box Gum Woodland CEEC (consisting of 42 trees) would offset through the NSW Biodiversity Offset Scheme, even though the total disturbance is much lower, the credit liability is very likely to exceed the credits generated by the likely physical impacts. Consequently, the Department considers that the biodiversity offset credits proposed along with the proposed rehabilitation of the project area (See Section 6.5) would provide additional mitigation measures when compared to the physical impact of the development.

Figure 9 | Tree presence and PCTs and Vegetation Zones

116. Regarding additional management measures that the Applicant has committed to, keeping felled trees as potential habitat for threatened fauna species, undertaking weed management and fencing to prevent livestock accessing disturbed areas.

117. The Department has also recommended conditions of consent to further mitigate and minimise impacts by formalising the above commitments as well as requiring the Applicant to minimise potential indirect impacts on threatened species, such as the Box Gum Woodland CEEC.

6.2.5 Avoidance, minimisation and management

118. The Department considers that biodiversity impacts have been adequately avoided by minimising disturbance where practicable. Other broader avoidance measures implemented by the Applicant for the entire project include:

- committing to undertaking final design of the proposed access road to include micro sighting to further avoid trees;
- locating the quarry pit and borrow pit within areas that have been historically cleared for agriculture;
- retaining all hollow bearing trees;

- agreeing to avoid trees within the development footprint where practicable, including a commitment to retain at least 50% trees that have been categorised as 'avoid where possible' within Vegetation Zone 1;
- species preclearance surveys to ensure fauna are not harmed during tree removal;
- feral pest and weed management measures;
- fencing of the project area to stop grazing of manage vegetation;
- erosion and sediment controls to prevent impacts to surrounding lands.

119. The Department has recommended conditions requiring the Applicant to implement these measures and detail how they would be met in an Environmental Management Strategy.

6.2.6 Offsetting

120. To offset the residual biodiversity impacts of the project, the Applicant proposed to implement a BOS, including the retirement of 413 ecosystem credits and 79 species credits (see Table 8).

121. The Department has recommended conditions of consent requiring the retirement of the credits in accordance with the BDAR and the NSW Biodiversity Offset Scheme.

Table 8 | Biodiversity Offset Obligation

Entity	Area of Impact (ha)	Impact Credits Generated
Vegetation Zone 1 - PCT 483 Grey Box x White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley – Woodland (conforms to NSW Box Gum Woodland CEEC)	3.2	113
Vegetation Zone 2 PCT 483 Grey Box x White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley – Derived Native Grassland (does not conform to a TEC)	15.8	300
Barking owl (Ninox connivens)	3.8	79

6.2.7 Biodiversity Matters of National Environmental Significance (MNES)

122. The project has been declared a 'controlled action' under the EPBC Act, due to potential direct and indirect impacts on the following ecological community and species:

- Endangered Ecological Community: White Box-Yellow Box-Blakeley's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community (Box Gum Woodland CEEC) is associated with PCT 483 Vegetation Zone 1 – Woodland
- Endangered Species: Koala (Phascolarctos cinereus, combined populations of Qld, NSW and the ACT);
- Vulnerable Species: Woodland birds:
    - painted honeyeater (*Grantiella picta*),
    - white-throated needletail (*Hirundapus caudacutus*), and
    - brown treecreeper (south-eastern) (Climacteris picumnus *victoriae*).
- Hollow dependant microbats: Corben's long-eared bat (*Nyctophilus corbeni*).
- Reptiles: pink-tailed worm-lizard (*Aprasia parapulchella*) and striped legless lizard (*Delmar impar*).

123. The Department's detailed consideration of the project's potential impacts upon MNES is in Appendix C.

124. In summary, the project would not impact upon any threatened species due to either not being present within the development footprint or due to no suitable habitat being available.

125. Regarding, the Box Gum Woodland CEEC the Commonwealth listing aligns with the NSW Government listing for PCT 483 – Box Gum Wood Land CEEC. Consequently, the Department considers the projects impacts have been suitably, avoided, offset and mitigated (including additional measures) as per the above SAII consideration. Accordingly, the impacts to this community are acceptable.

126. Consequently, the Department considers the projects impacts upon MNES listed species and ecological communities are acceptable subject to the recommended draft conditions of approval.

6.2.8 Summary

127. The project area has been selected to avoid and reduce as far as reasonable impacts upon biodiversity. The potential impacts to Boxgum Woodland CEEC are considered acceptable and would not constitute SAII as the cumulative impacts with both the Wind Farm and transmission line would potentially impact a total of at most 0.13% of the total woodland conforming area of the ecological community within NSW.

128. Further, the Department considers that biodiversity offset credits within the BDAR and recommended conditions of consent are conservative, as the BDAR has assumed total

disturbance throughout the project area. The actual impacts are likely to be lower as the operational final design would be refined to avoid vegetation, such as in the operational area.

129. Additionally, the conditions requiring the avoidance of 50% of mature trees marked for potential removal, this would avoid an additional 10 mature trees within Vegetation Zone 1. This brings the total avoided trees to a minimum of 16 out of 42, which would further reduce the impact on both CEEC and threatened species.

130. The recommended conditions of consent require biodiversity offsets to be retired in accordance with the BDAR and BC Act, and additional operational conditions requires the management of remanent vegetation.

131. The Department has recommended conditions of consent to manage remanent vegetation, reuse felled trees as habitat, undertake fauna pre-clearance surveys and undertake target revegetation using appropriate flora species.

132. Consequently, the Department considers the projects impacts are acceptable given they would be suitably managed, mitigated and offset.

6.3 Other issues

133. The Department has assessed other issues and considers they can be suitably managed through the implementation of reasonable and feasible mitigation measures. This assessment is summarised Table 9 below.

Table 9 | Assessment of other issues

Noise	• Noise impacts were raised in approximately 15% of public submissions. There are nine residences within 6 km of the project, four of which are associated with the project and five are private residences. The closest non-associated residence is approximately 3.1 km to the southwest of the project. • An Environmental Noise Assessment was completed by Sonus as part of the EIS for the project, it assessed three key noise categories: construction and decommissioning, operational and traffic. • The Department considers the operational phase of the project would be the most noise intensive given that processing activities during operations would be the primary noise source. • Noise modelling predicted that during operations, in the worst-case scenario (i.e. all noise sources operating simultaneously for a 15-minute period), the noise criteria would be potentially exceeded at one non-associated residence. To address this, the Applicant proposes to implement on-site shielding via the placement of shipping containers. This is predicted to reduce noise levels to below the criteria for all non-associated receivers. • Furthermore, once feasible, crushing activities would be relocated into the pit, which is predicted to further reduce noise emissions. Noise monitoring would be undertaken to ensure compliance at the nearest non-associated residence. • The Environmental Noise Assessment evaluated the project's traffic related noise impacts, predicting a 14 decibel increase at the closest receiver to Rotherwood Road. It is important to note that even when combined with existing noise, these predicted levels would remain below the relevant road noise criteria under the NSW Road Noise Policy.	• The Department has recommended conditions to ensure that noise generated by the project is minimised and does not exceed the relevant criteria at any non-associated residence.

	• The Department considers that with the proposed mitigation measures, noise generated by the project would be within the relevant criteria outlined in the Noise Policy for Industry and NSW Road Noise Policy and the recommended conditions of consent are suitable to ensure these criteria are met and noise impacts would be further minimised as feasible.	
Air quality	• Approximately 18% of public objecting submissions raised concerns relating to air quality impacts. An Air Quality and Greenhouse Gas Assessment by Airen Consulting was undertaken as part of the EIS for the project. • The Department notes the nearest non-associated receiver is 3.1 km to the southwest of the project. • Modelling predicted that particulate matter emissions (TSP, deposited dust, PM_{10} and $PM_{2.5}$) would not exceed any applicable EPA criteria at any sensitive receptor with estimated background levels included. • Modelling for post-blast fume emissions predicted that NO_2 concentrations would be within the applicable EPA criteria at all off-site sensitive receptors. This prediction was based on worst-case meteorological conditions, assuming a rated 3 fume event, with maximum background concentrations and blasting undertaken every day from 9 am to 5 pm. • Given the small timescale of the project, the distance of the nearest non-associated receiver and the air quality modelling results, the Department considers that the project would have minor impacts on air quality and these would be appropriately managed through the recommended conditions of consent.	• The Department has recommended conditions requiring the project to minimise all forms of air quality impacts, including blast-related dust and fume emissions, and ensure compliance with the EPA's criteria for particulate matter emissions at all non-associated residences. • The recommended conditions would also require the Applicant to operate an air quality management system informed by monitoring and meteorological forecasting.

Blasting	• Blasting and vibration issues were raised in approximately 5% of public submissions. A Blasting Impact Assessment (BIA) was completed by Enviro Strata Consulting as part of the EIS for the project.
	• The nearest non associated receiver is 3.1 km to the southwest and the nearest infrastructure component would be the proposed transmission line which is 1.2km to the east.
	• The BIA estimated the project would use a maximum instantaneous charge of 100 kilograms (kg) per hole. Blasting impacts were modelled for two scenarios:
	  ○ a charge mass of 100 kg; and
	  ○ a charge mass of 300 kg, representing 3 holes being fired simultaneously.
	• Modelling predicted that the maximum ground vibration of the two scenarios would be significantly below the relevant criteria for minimising disruption to residential receivers and damage to infrastructure both existing and proposed.
	• Similarly, modelling estimated that the maximum air blast overpressure from the two scenarios to be 106 decibel linear (dBL), well below the applicable limit of 115 dBL for 95% of blasts and 120 dBL for all blasts.
	• The BIA concluded that given the distance of the main pit from the nearest residence and infrastructure component, the risk of fly rock is negligible. Nevertheless, the BIA recommended mitigation measures to contain any potential fly rock to the lot where the project is proposed. The Applicant has committed to these measures, including to:
	  ○ implement a blast methodology to ensure blasting heaves material in an easterly direction, away from neighbouring properties;
		• The Department has recommended conditions requiring the project to:
		  ○ mandate blasting does not cause exceedances of the criteria at any private residences or at any infrastructure asset;
		  ○ limit the frequency of blasts to one blast per day and two blasts per fortnight during operation;
		  ○ monitor blasting to evaluate compliance with the criteria;
		  ○ ensure the safety of people and livestock from blasting impacts;
		  ○ protect public and private infrastructure from blasting impacts;
		  ○ minimise blast-related dust and fume emissions; and

	○ adopt conservative values for blast hole spacing, diameter, stemming and powder factor; and ○ construct of a 2 – 3 m high protective bund adjacent to the southern end of the main pit. • The BIA additionally concluded that blasting is not anticipated to have any significant impacts on domestic or native fauna, given the infrequency of blasting and the abovementioned modelling results. • Given the project's distance from the nearest residence and public infrastructure, along with the modelling results for vibration and air blast overpressure and the proposed mitigation measures, the Department considers that blasting impacts would be negligible.	○ allow applicable nearby landowners to request an independent inspection or investigation of their property.
Water	• Water impacts were the most frequently raised concern in public submissions (42% of submissions) relating to the protection of surface and groundwater quality. The EIS included a: ○ Surface Water Impact Assessment prepared by Engeny; and ○ geotechnical assessment undertaken by GHD, which sought to understand groundwater at the site. • The project would reduce the catchment area of six farm dams, with four expected to experience less than a 1% reduction in catchment area. Two other dams would experience larger reductions in catchment area of 6.2% and 26.3%. Both of these dams are on the property of the landowner of the quarry project area, who the Applicant has an agreement with regarding the potential impacts of the project. The Department therefore considers	• The Department has recommended conditions to ensure the project has sufficient water supply, compensates any landowners whose water supply is affected and implements a water management system informed by a monitoring program, reporting, and review.

	that the project would have a negligible impact on the catchment area of farm dams unrelated to the project. • Erosion and sediment controls would be established prior to initial earthworks and would remain throughout quarry construction to limit runoff reporting from the project area. During operation, a water management system including a sediment dam, drains and bunds would be implemented to divert clean water away from the project area and contain sedimentary water on-site. No discharge of water captured on site during operations is proposed. All captured water is proposed to be reused on site. • Operational water requirements for the project would be provided via water captured onsite and by an existing licenced bore, located 280 m from the project area and currently used for irrigation. • The geotechnical assessment estimated groundwater level at the project area to be 651 m AHD or approximately 24 m below the proposed maximum depth of extraction. On-site drilling within the extraction areas supported this finding, with no groundwater encountered during drilling to 10 m below the proposed maximum depth of extraction. The Department therefore considers the project unlikely to intercept groundwater. • Consequently, given the above the Department considers that potential surface and groundwater impacts of the project would be minor and could be appropriately managed through the recommended conditions of consent.	
Social	• Some 27% of objecting public submissions raised social impact concerns, a large portion of these were related to traffic impacts. • A Social Impact Assessment (SIA) prepared by Umwelt was completed as part of the EIS for the project. The SIA identified:	• The Department has recommended a range of conditions to manage the various social impacts of the project.

	○ through community engagement that the community had key concerns of water, noise, air quality and traffic impacts; ○ almost all social impacts of the project would be of short duration given the five-year project life; and ○ the project would result in employment and procurement opportunities for the local community and local businesses. • Regarding the communities' concerns raised in the SIA, the Department has considered each of these issues in **Section 6**. The Department's assessment concluded that commitments from the Applicant, the Wind Fam Applicant and the Department's recommended conditions would suitably mitigate these impacts and that project is unlikely to significantly impact the health, wellbeing or way of life of nearby residents. • The Department notes that social impacts resulting from construction and operation of the Wind Farm have been considered and addressed under the development consent for that project • The Department considers that the estimated heavy vehicle travel distance reduction of 17 million km by co-locating the quarry and Wind Farm project would improve the well-being through significantly reduced impacts to road safety, amenity, way of life and health. Further there would be an estimated reduction of 17,185 tonnes of CO_2-e, outlined in the GHG emissions section below. • The Department notes that the Applicant has agreed with Upper Hunter Council to contribute $50,000 to community enhancement within Cassilis and has committed to form a community consultative committee. Additionally, the development consent for the Wind Farm requires significant contributions, amounting to approximately $42 million,	These conditions are discussed in **Section 6**. • The Department's recommended conditions, would require the Applicant to enter into a planning agreement with Council, including a community enhancement contribution of $50,000. • The conditions would also require the Applicant to establish a Community Consultative Committee.

	split on a per turbine basis between Upper Hunter Shire Council and Warrumbungle Shire Council. • Consequently, given the above the Department considers that the potential social impacts of the project have been suitably assessed and addressed through the SIA and conditions of consent.	
Aboriginal Cultural Heritage	• An Aboriginal Cultural Heritage Assessment (ACHA) was prepared by Umwelt as part of the EIS for the project. Additionally, the Department notes that extensive heritage assessments, which included the quarry and surrounding area, were undertaken as part of the Wind Farm project application and subsequent Modification 1. • As part of the ACHA, an archaeological field survey was undertaken on 27 September 2023 by Umwelt and eight Registered Aboriginal Parties (RAPs). The survey found no tree scars or other modifications and identified no Aboriginal objects, sites, or areas of potential archaeological deposit. The ACHA determined that no known Aboriginal cultural heritage objects or sites would be impacted by the project. • The Department considers that due to the distance of the project from perennial water sources, limited depth of topsoil and level of existing disturbance, there is low potential for unknown Aboriginal cultural heritage sites to be present within the quarry area. In light of this, and the abovementioned field survey results, the Department is satisfied that the recommended conditions of consent are appropriate to manage impacts on potential undiscovered heritage items.	• The Department has recommended conditions to ensure: ○ the protection of known Aboriginal objects and places; ○ all workers receive suitable training/inductions prior to carrying out activities that may impact Aboriginal objects or places; ○ an unexpected finds protocol is developed in consultation with RAPs and in accordance with the applicable Heritage NSW guidelines and

		implemented for the duration of the project.
Rehabilitation, final landform and soil and land capability	• Concerns regarding the project's rehabilitation and final landform were raised in 29% of public submissions, many of which questioned whether the project area would become a repository for the Wind Farm waste materials following quarry closure. • The Wind Farm consent does not allow this, and the quarry Applicant does not seek this ask part of this development. Further the proposed rehabilitation of the project is to achieve a safe and stable landform that is appropriate for ongoing rural use. Additionally, the Department notes there is a 25-year gap between the closure of the quarry and the Wind Farm. • In the proposed final landform, the void of the main pit would remain while the borrow pit would be reshaped into a farm dam and the surrounding disturbed areas revegetated. Safety berms would be constructed along the perimeter of the main pit void and fencing installed at the request of the landowner. All infrastructure not required by the landowner for agricultural activities would be removed post closure. • The project area has a thin topsoil layer (0–0.2 m), with rock scattered throughout and areas of clay. The Department considers that the project area is representative of low-quality grazing land and has limited capacity for agricultural productivity generally. Furthermore, the extraction pits are limited to 5.1 ha, while the remaining 14.4 ha would be remediated and returned to grazing land after the 5-year quarry life. • The Department considers that the proposed final landform would be safe and stable and is appropriate given the small disturbance areas and it has been created in consultation with, and agreed upon by the landowner.	• The Department has recommended conditions: ○ to ensure progressive rehabilitation of the project area, preparation and implementation of a Rehabilitation Management Plan and to calculate and lodge a bond that reflects the cost of rehabilitating all proposed disturbance areas, to be released upon the completion of rehabilitation; and ○ requiring the Applicant to control weeds, feral pests and to ensure the appropriate management of waste, dangerous goods and erosion and sediment control.

	• The Department's recommended conditions of consent would ensure the proposed final landform is implemented and would require the Applicant to lodge and appropriate bond with the Department as a guarantee. Subject to the proposed draft conditions the Department considers that the proposed final landform would be consistent with the ongoing rural zoning of the area.	

GHG emissions	• Concerns over GHG emissions generated by the project were raised in approximately 15% of public objecting submissions.
	• The GHG impacts of the project were assessed as part of the Air Quality and Greenhouse Gas Assessment by Airen Consulting. It estimated the annual scope 1 emissions of the project to be 2,198 tonnes of CO_2-e annually. This would represent approximately 0.002% of NSW annual emissions and would be primarily generated by on-site fuel usage.
	• The Applicant proposes mitigation measures for on-site fuel usage including:
	  ○ planning and design of operations to minimise fuel usage and maximise energy efficiency;
	  ○ appropriate maintenance of plant and equipment to minimise fuel consumption and associated emissions; and
	  ○ staff training for strategies to minimise fuel usage and maximise energy efficiency.
	• The Department notes that the project would result in a significant reduction in GHG emissions through co-locating the quarry within the Wind Farm, thereby decreasing the required travel distance of heavy vehicles. Based on an estimate of 270 km saved per heavy vehicle trip, the Applicant has projected a reduction in GHG emissions of approximately 17,185 tonnes of CO_2-e.
		• The Department has recommended conditions requiring the project to improve energy efficiency and minimise the Scope 1 and 2 GHG emissions it generates.

	• The Department considers the GHG emissions of the project would be minor and notes these would be significantly outweighed by the net reduction of GHG emissions the project would create by reducing the heavy vehicle travel distance for the Wind Farm.	

Economic	• An Economic Impact Assessment (EIA) was completed by Gillespie Economics as part of the EIS for the project.
	• The EIA predicted that the project would result in the following benefits:
	  ○ a contribution of $17 million annually in direct and $31 million annually in indirect economic outputs during its five-year operation period; and
	  ○ employment of six full time equivalent workers.
	• The Department considers that supplying the Wind Farm from an on-site, project-specific quarry would provide greater economic benefits to the local community compared to sourcing from an existing external quarry and that the economic benefits of the project outweigh its impacts.
		• The Department's recommended conditions would minimise the economic impacts of the project by managing related impacts that influence economic outcomes, such as traffic or amenity impacts.

7 Evaluation

134. The Department has assessed the development application, EIS and Submissions Report, along with community submissions and agency advice, Upper Hunter Shire Council and Warrumbungle Shire Council advice. The Department has also considered the objectives and relevant clauses under section 4.15 of the EP&A Act.

135. The Department acknowledges the high level of public interest in the Project. This is understandable given the nature of hard rock quarries generally, which typically generate amenity and traffic impacts as the hard rock is extracted, processed and transported.

136. The community submissions identified that the protection of water resources, minimisation of traffic impacts, and appropriate rehabilitation of the site were key concerns, along with the protection of amenity.

137. The project has been designed to largely avoid and minimise impacts including but not limited to those on water resources, traffic, biodiversity, air quality, noise, and land use. The Department considers that any residual impacts would be minor and could be managed through the recommended conditions.

138. The project is permissible with consent in accordance with the zoning of RU1 (Primary Production) under the Upper Hunter LEP 2013. The project area, currently used for grazing, is predominately cleared, with native vegetation consisting of sparse tree cover across the area.

139. Furthermore, as the project's traffic is a major component of the construction traffic of the Wind Farm (SSD-6696), its impacts are subject to the limits and mitigation measures detailed in the Wind Farm development consent. In addition to managing traffic impacts, the Wind Farm consent requires a total contribution of approximately $42 million, shared between the two regional councils and divided on a per turbine basis.

140. In addition, by co-locating the quarry within the Wind Farm, the net reduction in heavy vehicle travel distance on the public road network is estimated to be approximately 17 million km. The Department considers that this would represent a significant overall reduction to traffic related impacts from the Wind Farm to the overall traffic network.

141. The Department considers that the biodiversity impacts of the project have been minimised to the greatest extent practicable through site selection and project design, resulting in a relatively small disturbance footprint with 3.2 ha being CEEC woodland, 15.8 ha being grassland and 0.5 ha being cropping land. The Department considers that residual biodiversity impacts are acceptable when weighed against the overall benefits of the project and would be appropriately managed and offset through the recommended conditions.

142. The Department has undertaken a detailed assessment of the project, including consideration of issues raised by the community, nine government agencies and two councils during consultation. In the Department's view, these matters have been adequately addressed through changes to the project and the recommended conditions of consent (see 0).

143. Accordingly, on balance the Department concludes that the benefits of the project outweigh its residual costs, that the project is approvable, subject to conditions.

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Energy, Resource and Industry Assessments

Glossary

Abbreviation	Definition
AHD	Australian height datum
CPHR of NSW DCCEEW	Biodiversity Conservation and Science group of the NSW Department of Climate Change, Energy, the Environment and Water
Council	Upper Hunter Shire Council
Crown Lands	Crown Lands division of the Department of Planning, Housing and Infrastructure
Department	Department of Planning, Housing and Infrastructure
EIS	Environmental impact statement
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental planning instrument
EPL	Environment protection licence
ESD	Ecologically sustainable development
Heritage	Heritage NSW, within the NSW Department of Climate Change, Energy, the Environment and Water
LEP	Local Environmental Plan
Minister	Minister for Planning

Abbreviation	Definition
POEO Act	*Protection of the Environment Operations Act 1997*
SEPP	State Environmental Planning Policy
SEARs	Planning Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning, Housing and Infrastructure
SEPP	State environmental planning policy
SSD	State significant development
TfNSW	Transport for NSW
Water Group	Water Group within the NSW Department of Climate Change, Energy the Environment and Water (formerly DPE Water, within the Department of Planning and Infrastructure)
WSC	Warrumbungle Shire Council

Appendices

Appendix A – List of referenced documents

Exhibition Notice: Refer to the 'Notice of Exhibition' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

EIS: Refer to the 'EIS' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

EIS TIA: Refer to 'Appendix 11 - Traffic Assessment' in the 'EIS' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

RTS TIA: Refer to 'Appendix 3 - Traffic Impact Assessment' in the 'Response to Submissions' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

Submissions: Refer to the 'Submissions' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

Submissions Report: Refer to the 'Response to Submissions' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

Agency Advice: Refer to the 'Agency Advice' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

Table A1 | Response to Submissions

Document name	RFI ID	RFI Type	Response Document Name
20_11_2024 Request RTS Letter	-	-	• 06_02_2025 Liverpool Range Quarry Submissions Report • 06_02_2025 Submissions Report A.1 - submissions register • 06_02_2025 Submissions Report A.3 - Traffic Impact Assessment
10_02_2025 DPHI RFI – CPHR comments	RFI-79935456	Major	• 12_03_2025 Addendum BDAR • 13_06_2025 Addendum BDAR
27_02_2025 DPHI RFI – agencies & council comments	RFI-80457216	Major	• 19_03_2025 Response to RFI re TfNSW comments. • 19_03_2025 Response to RFI re UHSC comments • 19_03_2025 Response to RFI re WSC comments

Table A2 | Additional information

Document name	RFI ID	RFI Type	Additional Information Provided
20_03_2025 DPHI RFI – five matters	RFI-81237206	Major	11_04_2025 Response to RFI – five matters
• 26_05_2025 CPHR Advice on RTS • 25_05_2025 DPHI RFI re draft conditions & CPHR comments	RFI-84875711	Major	13_06_2025 Response to RFI re CPHR comments
26_06_2025 DPHI RFI re draft conditions & BDAR	RFI-86794213	Major	03_07_2025 Response to RFI re BDAR
-	-	Minor	04_06_2025 Response to RFI re traffic

Document name	RFI ID	RFI Type	Additional Information Provided
18_07_2025 CPHR Advice	-	Minor	25_07_2025 Response to RFI re CPHR comments
14_08_2025 CPHR MNES consideration	-	Minor	18_08_2025 Response to RFI re CPHR comments

Appendix B – Statutory considerations

Objects of the EP&A Act

A summary of the Department's consideration of the relevant objects (found in section 1.3 of the EP&A Act) are provided in Table B1 below.

Table B1 | Objects of the EP&A Act and how they have been considered

Object	Consideration
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The Department considers that supply of the Wind Farm project from an onsite, project specific quarry, would result in a net benefit to the environment and the social and economic welfare of the community when compared to supplying the Wind Farm from an existing quarry.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The Department's assessment (Section 6) has sought to integrate all significant environmental, social and economic considerations. The Department considers that through the recommended conditions (0) the project can be carried out in a manner consistent with the principles of ecologically sustainable development.
(c) to promote the orderly and economic use and development of land,	The project area is 19.5 ha, located on disturbed agricultural land previously used for grazing. Given the temporary nature of the project and the rehabilitation proposed, the Department considers the project to represent an orderly and economic use and development of the land.
(d) to promote the delivery and maintenance of affordable housing,	Not applicable.

Object	Consideration
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The Department has assessed the biodiversity and environmental impacts of the project (Section 76 & Section 6.3) and considers that the project avoids and minimises, to the greatest extent practicable, environmental impacts including on threatened species, communities and key habitats. The Department has recommended conditions to ensure that the residual biodiversity impacts of the project would be appropriately managed and offset (0).
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	The Department has assessed the likely impacts of the project on Aboriginal cultural heritage and historic heritage and considers any potential impacts would be negligible.
(g) to promote good design and amenity of the built environment,	The project is in a rural setting and would not adversely impact good design or the amenity of the built environment.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	Not Applicable.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The Department has led a whole-of-government assessment of the project in consultation with other NSW Government agencies and two local councils. This consultation process is discussed in Section 5.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The Department publicly exhibited the project including the development application and accompanying documents, conducted a site visit and requested that the Applicant provide a report in response to community submissions(Appendix A). The Department has carefully considered issues raised by the community in its assessment of the project (Section 6).

EP&A Regulation

The EP&A Regulation requires the Applicant to have regard to the *State Significant* Development *Guidelines* when preparing their application. The department considers that the Applicant has prepared the environmental impact statement with adequate regard to the guidelines.

Environmental Planning Instruments (EPIs)

Under section 4.15 of the EP&A Act, the consent authority is required to consider the provisions of the relevant EPIs, including any exhibited draft EPIs and development control plans.

The Department notes that in its EIS, the Applicant has undertaken its own consideration of the project against the applicable provisions of relevant EPIs, including applicable State Environmental Planning Policies (SEPPs).

SEPP (Resources and Energy) 2021 (Resources and Energy SEPP)

Part 2.3 of the Resources and Energy SEPP lists a number of matters that a consent authority must consider before determining an application for consent for development for the purposes of an extractive industry. The Department has considered these matters in its assessment of the project and has included a summary of these considerations in Table B2.

Table B2 | Mandatory matters for consideration under Part 2.3 of the Resources and Energy SEPP

Clause	Matters for Consideration	Consideration
2.17	Compatibility of proposed mine, petroleum or extractive industry with other land uses.	The Department has carefully considered the merits of the project, having regard to existing and approved land uses in the vicinity of the project area. The Department has also considered what it understands to be the preferred uses of land in the area, having regard to relevant EPIs and strategic plans. The Department is of the view that, subject to the recommended conditions of consent, the project can be carried out in a manner that is compatible with the surrounding agricultural and rural land uses.
2.19	Compatibility of proposed development with mining, petroleum production or extractive industry	The project would not conflict with mining, petroleum production or extractive industry in the locality.

Clause	Matters for Consideration	Consideration
2.20	Natural resource management and environmental management	The Department considers that the environmental benefits of an onsite quarry for the Wind Farm project outweigh the impacts of the quarry. Furthermore, the Department has recommended conditions to ensure that the project is undertaken in an environmentally responsible manner. These include conditions to avoid or minimise, to the greatest extent practicable, impacts on biodiversity, air quality, soil and water resources.
2.21	Resource recovery	The Department has considered resource recovery with respect to the projects identified hard rock resource. The Department is satisfied that that the project proposes an efficient recovery of the resource, therefore no specific conditions are considered necessary.
2.22	Transport	The Department consulted with TfNSW, Upper Hunter Shire Council and Warrumbungle Shire Council during the assessment of the project. The Department considers that: • the recommended conditions would appropriately manage traffic impacts; • the existing Wind Fam road maintenance contributions are appropriate; and • the project would result in a net increase in road safety and amenity impacts as compared to sourcing the Wind Farm from an existing quarry located further away.
2.23	Rehabilitation	The Department has recommended conditions to ensure that the project area is rehabilitated progressively, that is, as soon as reasonably practicable following disturbance and that the final landform is safe, stable and non-polluting.

SEPP (Biodiversity and Conservation) 2021

SEPP (Biodiversity and Conservation) 2021 aims to conserve and manage Koala habitat to reverse the current trend of Koala population decline.

The Upper Hunter Shire LGA is listed within Schedule 2 of the SEPP (Biodiversity and Conservation) 2021, meaning it is applicable to the project.

The Biodiversity Development Assessment Report found no koalas were observed in the development footprint during surveys undertaken and deemed the project would not likely significantly impact the koala.

The Department's recommended conditions of consent would further reduce any potential risk.

SEPP (Resilience and Hazards) 2021

Chapter 3 of this SEPP regulates the development of 'hazardous and offensive' industry. The Applicant notes that the project area has been used for grazing and that there are no known areas of contamination or identified contamination risks based on past land uses.

The Department considers that the hazards and risks associated with the project have been assessed in a manner consistent with the requirements of Chapter 3 of this SEPP and can be appropriately managed under the recommended conditions.

Chapter 4 of this SEPP regulates the remediation of contaminated land. The Department considers that the project area does not have a significant risk of contamination given its historical and current land uses, and that the development has been assessed in a manner consistent with the requirements of Chapter 4 of this SEPP.

SEPP (Transport and Infrastructure) 2021

This SEPP requires the consent authority to notify relevant public authorities about development that may affect public infrastructure or land. The Department notified TfNSW, Upper Hunter Shire Council and Warrumbungle Shire Council.

The Department carefully considered the advice from these authorities, particularly in relation to the projects proposed traffic generation on the road network, in its assessment of this application.

The Applicant has consulted Energy Co throughout the project design and EIS preparation, including realignment of the access road to avoid components of the transmission line that is within the project area.

The Department also consulted Energy Co in June 2025 regarding the Central West Orana Renewable Energy Zone Transmission line and no comments were received.

Appendix C – Assessment of Matters of National Environmental Significance

The project was declared to be a 'controlled action' under the Commonwealth EPBC Act due to its potential impacts on listed threatened species and communities. In its determination, the DCCEEW 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 provides the following additional information for the Commonwealth Minister to consider when deciding whether or not to approve the project under the EPBC Act.

The Department's assessment has been prepared based on the information contained in:

- the EIS, including the BDAR prepared by Umwelt (see **Appendix A**);
- the Submissions Report, including the Addendum BDAR (see **Appendix A**);
- environmental assessment requirements issued by DCCEEW;
- advice provided by CPHR, including its assessment of impacts on MNES (see **Appendix A**); and
- additional information provided by the Applicant during the assessment process (see **0**).

This Appendix is supplementary to, and should be read in conjunction with, **Section 6** of the Department's Assessment Report.

C1 - Potential impacts to EPBC Act listed threatened species and communities

In its referral decision the Commonwealth determined that the project is a controlled action in that the proposed action would potentially have a have a significant impact on the critically endangered White Box–Yellow Box–Blakely's Red Gum Grassy Woodland and Derived Native Grassland.

The BDAR and supplementary information, including a MNES Report, considered the impacts of the project on this community, including the completion of a significant impact assessment in accordance with the *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance*.

Significant impact assessments were also undertaken for the following EPBC Act-listed threatened fauna species:

- the koala (*Phascolarctos cinereus*);
- two reptiles, the pink-tailed worm-lizard (*Aprasia parapulchella*) and the striped legless lizard (*Delmar impar*).
- two woodland and forest birds, the painted honey eater (*Grantiella picta)* and the brown treecreeper (south-eastern) (*Climacteris picumnus victoriae)*;
- migratory bird species, the white-throated needletail (*Hirundapus caudacutus)*; and
- the Corben's long-eared bat (*Nyctophilus corbeni*).

Threatened Ecological Communities (TEC)

White Box–Yellow Box–Blakely's Red Gum Grassy Woodland and Derived Native Grassland

The BDAR predicted that 3.2 ha of White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland would be impacted by the project, representing a decline of approximately 0.001% to the area of occupancy in NSW.

There are 42 identified trees within the project area. Of these the Applicant would remove 17 (13 for the haulage road and 4 in the burrow pit) and 6 would be avoided (see **Figure 9**). For the remaining 19 trees, the applicant has committed to avoid impacts to these where reasonable and feasible.

In addition to the required offset obligation (see **Section 6**), the Department has also recommended further avoidance and minimisation of impacts on this community through recommended conditions of consent, which require:

- riparian corridors are maintained;
- remnant vegetation and fauna habitat on the site are managed;
- targeted revegetation using appropriate flora species;
- salvage of habitat resources within the approved project area, including tree hollows;
- minimisation of impacts on fauna, including, undertaking pre-clearance surveys, management of injured fauna; and relocation of fauna displaced during vegetation clearing; and
- control of weeds and feral pests.

Given the above, the Department considers that a predicted decline of 0.001% of this community to be insignificant in the broader State context.

The Department has also undertaken an assessment of cumulative impacts to this community, considering the project, along with the Wind farm project and the Central West REZ transmission line. Cumulatively, the three projects would result in an impact of 303.7 ha.

The cumulative impact represents between 0.017% or 0.13% of the geographic extent of the mapped community. The projects representation when considering the cumulative impact is very minor and is highly unlikely to contribute to the risk of extinction of this community. The Department notes the impacts from the Wind farm and transmission line are fully offset through the NSW Biodiversity Offset Scheme, and both approvals require further avoidance and mitigation measures. The Department has recommended the same approach for the project.

Overall, the Department considers that the projects impact as well as the cumulative impact would not contribute significantly to the risk of extinction of this community. The impacts have also been suitably avoided, minimised and offset through the recommended conditions of consent and approved conditions for the other two projects.

Threatened Fauna Species

Koala - endangered

Targeted field surveys were conducted in accordance with the Koala Biodiversity Assessment Method Survey Guide (DPE 2022). No Koala individuals or scat were recorded during targeted surveys undertaken in March 2024 and February 2025. The species was also not recorded in targeted surveys undertaken in the Wind Farm area in 2012, 2013, 2015, 2016, 2020, 2021 and 2023.

The project would impact 3.2 ha of potential koala habitat and represents a threatening process from increased traffic. Of note, under this project heavy vehicle movements would be regulated under the Wind Farm approval. The projects offsite heavy vehicle movements and the potential impacts of these movements (including vehicle strike) were assessed and approved under the Wind Farm approval. Given that the heavy vehicle movements are already approved under the Wind Farm consent, the Department considers that this project poses no additional risk to the koala beyond what is already approved. It should also be noted that the projects traffic impacts would only occur over a five-year period during construction of the Wind Farm.

While the Department considers potential impacts from the project on the koala to be highly unlikely, to provide certainty, it has recommended conditions consistent with those in the Wind Farm approval to manage any potential traffic impacts, including:

- avoidance of a minimum of 16 of the 42 trees within the project area;
- minimisation of impacts on fauna, including, undertaking pre-clearance surveys,
- management of injured fauna; and
- relocation of fauna displaced during vegetation clearing.

Pink-tailed worm-lizard and striped legless lizard – vulnerable

No pink-tailed worm-lizards or striped legless lizards were recorded during targeted surveys undertaken as part of the Addendum BDAR. Each species was surveyed in accordance with the NSW BAM reptile survey guideline. The Department considers that given the lack of presence during targeted surveys and the recommended conditions requiring minimisation of impacts on fauna, including, undertaking pre-clearance surveys and management of injured fauna, the project is unlikely to significantly impact both species either directly or indirectly. The Department notes the Commonwealth removed the requirement for a recovery plan for both species in March 2022.

Painted honeyeater - vulnerable

The project would clear 3.2 ha of potential foraging and breeding habitat for the painted honeyeater. The painted honeyeater is associated with PCT 483; however, it has not been recorded within the project area. The closest recording is approximately 18.5 km south of the project. Furthermore, the

primary breeding and feeding habitat of the painted honeyeater is mistletoe rich woodlands. No mistletoes were recorded within the project area during plot-based vegetation surveys undertaken in accordance with the BAM. The Department has considered the projects potential impacts on this species and considers that the potential foraging and breeding habitat to be cleared for the project is unlikely to be critical to the survival of this species, and that the project is unlikely to significantly impact the species directly or indirectly.

Brown treecreeper (south-eastern) - vulnerable

The project contains potential breeding and foraging habitat for the brown treecreeper. The species breeds in hollow bearing trees, and it is noted that all hollow bearing trees located within the project area would be retained. Of the 3.2 ha of potential foraging and breeding habitat the project would clear there would be no direct impact on potential breeding habitat (i.e. no hollow bearing trees would be cleared).

It is also noted that the brown treecreeper is not associated with PCT 483 and has not been recorded within the project area, with the nearest recording being approximately 7 km south of the project area. The Department considers that the habitat that would be cleared for the project is unlikely to be critical to the survival of these species, and that the project is unlikely to significantly impact the species directly or indirectly.

White-throated needletail - vulnerable

The white-throated needletail breeds in Central and Eastern Asia, migrating to Australia and New Guinea for the non-breeding season. Australia therefore provides non-breeding habitat, with the project located within mapped core non-breeding habitat. Given the small amount of clearance associated with the project (3.2 ha), it is unlikely that the project would modify, destroy, remove, isolate, or decrease the availability or quality of habitat for the white-throated needletail to an extent that would likely cause species decline. It is also noted that the species feeds largely on insects while airborne and that the clearing associated with the project is unlikely to significantly impact this foraging method.

Corben's long-eared bat – vulnerable

The project contains potential roosting and foraging habitat for the Corben's long-eared bat. The species roosts in hollow bearing trees, and all hollow bearing trees located within the project area would be retained. Therefore, the habitat that the project would impact is potential foraging habitat for the species but not potential roosting habitat.

The Department notes that the species is not associated with PCT 483 and has not been recorded within the project area. The closest and most recent recording was in 2012, approximately 9 km north of the quarry within the Wind Farm project area.

Given the lack of presence during targeted surveys and that all hollow bearing trees would be retained, the Department considers that the project is unlikely to modify this species habitat to an extent that would increase the risk of further decline for this species. Nevertheless, the Department has recommended conditions of consent that would suitably mitigate impacts on potential foraging habitat by avoiding at least 16 of the 42 trees onsite and reusing felled trees as habitat.

C2 - Demonstration of 'Avoid, Mitigate, Offset' for MNES

Avoidance and mitigation measures

The Department considers that the Applicant has made adequate effort to avoid and mitigate impacts to biodiversity through site selection and modifications to project design, including:

- working within limitations associated with the Central-West Orana Renewable Energy Zone transmission line and land tenure;
- committing to undertaking final design of the proposed access road to include micro sighting to further avoid trees;
- locating the quarry pit and borrow pit within areas that have been historically cleared for agriculture;
- retaining all hollow bearing trees;
- agreeing to avoid trees within the development footprint where practicable, including a commitment to retain at least 50% trees that have been categorised as 'avoid where possible' within Vegetation Zone 1;
- species preclearance surveys;
- feral pest and weed management;
- fencing of the project area to stop grazing;
- erosion and sediment controls.

The Department notes that as with any extractive materials project, the Applicant is also constrained by where the resource itself is located.

Offsetting significant residual adverse impacts

The Department's recommended conditions require the Applicant to develop a Biodiversity Offset Strategy to account for the residual impacts of the project which cannot be addressed through the proposed avoidance and mitigation measures. The offset liabilities for impacts to MNES are shown in Table C1.

Table C1 | Biodiversity credit requirements for MNES

EPBC Act-listed Community / Species	Area of Impact (ha)	Credits Required
Ecological Community		
Derived native grassland: Grey Box x White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley	15.8	300
Low condition: Grey Box x White Box grassy open woodland on basalt hills in the Merriwa region, upper Hunter Valley	3.2	113

C3 - Requirements for Decisions About Threatened Species and Endangered Ecological Communities

In accordance with Section 139 of the EPBC Act, in deciding whether or not to approve, for the purposes of either Section 18 or Section 18A of the EPBC Act, the taking of an action and what conditions to attach to such an approval, the Commonwealth Minister must not act inconsistently with certain international environmental obligations, or Commonwealth Recovery Plans or Threat Abatement Plans. The Commonwealth Minister must also have regard to relevant approved Conservation Advice.

Australia's international obligations

Australia's obligations under the Convention on Biological Diversity (Biodiversity Convention) include the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

The recommendations of this report are not inconsistent with the Biodiversity Convention, which promotes environmental impact assessment (as has been undertaken for this proposal) to avoid and minimise adverse impacts on biological diversity. The Department's recommended conditions require avoidance, mitigation and management measures for listed threatened species and communities and all information related to the proposed action is required to be publicly available to ensure equitable sharing of information and improved knowledge relating to biodiversity.

Australia's obligations under the Convention on Conservation of Nature in the South Pacific (the Apia Convention) include encouraging the creation of protected areas which together with existing protected areas will safeguard representative samples of the natural ecosystems occurring therein

(particular attention being given to endangered species), as well as superlative scenery, striking geological formations and regions. Additional obligations include using best endeavours to protect fauna and flora (special attention being given to migratory species) so as to safeguard them from unwise exploitation and other threats that may lead to their extinction. The Apia Convention was suspended on 13 September 2006. Nonetheless, Australia's obligations under the Convention have been taken into consideration. The recommended approval is not inconsistent with the Convention which generally aims to promote the conservation of biodiversity.

The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) is an international agreement between governments which seeks to ensure that international trade in specimens of wild animals and plants does not threaten their survival. The recommended approval is not inconsistent with CITES as the proposed action does not involve international trade in specimens of wild animals and plants.

Recovery Plans and Approved Conservation Advices

The Department has undertaken a detailed and comprehensive assessment of the potential impacts of the Project on listed threatened species and communities under the BC Act and the EPBC Act. The Department has taken into consideration approved Commonwealth Conservation Advice and Recovery Plans for the species and communities which may be impacted by the Project, including:

- National Recovery Plan for White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland;
- National Recovery Plan and Approved Conservation Advice for the Koala *Phascolarctos cinereus*;
- National Recovery Plan for the Painted Honeyeater (Grantiella picta);
- Approved Conservation Advice on the White-throated Needletail *(Hirundapus caudacutus*);
- draft National Recovery Plan for the South-eastern long-eared bat (*Nyctophilus corbeni*);
- Conservation Advice for *Climacteris picumnus victoriae* (brown treecreeper (south-eastern).
- *Conservation Advice Aprasia parapulchella* Pink-tailed worm-lizard*; and*
- *Conservation Advice Delma impar* Striped legless lizard.

As discussed above, the project is not predicted to significantly impact any of these threatened species and communities. The Department has recommended that mitigation and recovery measures are implemented via the conditions of consent to align with those set out in relevant conservation advice for the EPBC-listed species impacted by the Project.

Additionally, the Applicant would be required to retire credits to offset the loss of MNES, which would result in funding conservation actions for these communities. On this basis, the Department considers

the project would not be inconsistent with the Approved Conservation Advice and Recovery Plans for the relevant MNES.

Threat Abatement Plans

The Species Profile and Threats Database lists relevant Threat Abatement Plans for each listed MNES ecological community and each species. The threats can be categorised as impacts by feral pests, introduce diseases, competition by aggressive native species and human activities (firewood or rock collections).

The Department notes that while the project would impact upon the Box gum Woodland CEEC none of the MNES individual species have been found within the referral area. Nevertheless, the Department has considered relevant advice in each Threat Abatement Plan and has recommended a condition of consent requiring the Applicant to consider the actions identified in relevant threat abatement plans as well as requiring the control of weeds and feral pests. Additionally, the project area would be inaccessible to the general public.

C4 - Additional EPBC Act considerations

Table C2 contains a range of further mandatory considerations to be taken into account and factors to have regard to under the provisions of the EPBC Act.

Table C2 | Additional Consideration for the Commonwealth Minister under the EPBC Act

EPBC Act-section	Matters for Consideration	Conclusion
Mandatory considerations		
136(1)(b)	Social and economic matters are discussed in Section 6.6 and Section 7.	The Department considers that the proposed development would result in a range of benefits for the regional economy and would allow for supply of hard rock to a nearby approved Wind Farm project, thereby reducing the total travel distance on the public road network by 17,000,000 km over the Wind Farm construction period, improving overall road safety and reducing scope 1 emissions for the construction of the Wind Farm.
Factors to be taken into account		

EPBC Act-section	Matters for Consideration	Conclusion
136(2)(a)	Principles of ecologically sustainable development (ESD), including the precautionary principle, have been taken into account, in particular in: • long and short-term economic, environmental, social and equity considerations relevant to this decision; • conditions that restrict environmental impacts, impose monitoring and adaptive management requirements and reduce uncertainty concerning the potential impacts of the Project; • conditions requiring the Project to be operated in a sustainable way that protects the environment for future generations and conserves MNES; • advice provided within this report which reflects the importance of conserving biological diversity and ecological integrity in relation to the controlling provisions for this Project; and • mitigation measures to be implemented which reflect improved valuation, pricing and incentive mechanisms that promote a financial cost to the applicant to mitigate the environmental impacts of the Project.	The Department considers that, subject to the recommended conditions of consent, the Project could be undertaken in a manner that is consistent with the principles of ESD.
136(2)(e)	Other information on the relevant impacts of the action	The Department considers that all information relevant to the impacts of the Project has been taken into account
Factors to have regard to		
176(5)	Bioregional plans	The project is located in the Brigalow Belt Southl IBRA Bioregion and the Liverpool Subregion The project would result in the clearing of some vegetation in these bioregions; however, it would involve an offset that would contribute to funding and in-perpetuity managed conservation areas in the bioregions. The project is highly unlikely to significantly impact the water resources in these bioregions.
Consideration on deciding conditions		

EPBC Act-section	Matters for Consideration	Conclusion
134(4)	Must consider: • information provided by the person proposing to undertake the action or by the designated applicant of the action; and • desirability of ensuring as far as practicable that the condition is a cost- effective means for the Commonwealth and the person taking the action to achieve the object of the condition.	Documents provided by the Applicant are provided at **Appendix A**. The Department considers that the recommended conditions of consent in **Appendix D** are a practicable and cost-effective means to achieve their purposes These conditions have been prepared following careful considerations of all material provided by Ironstone and following consultation with relevant government agencies.

C5 - Conclusions on controlling provisions

Threatened species and communities (sections 18 and 18A of the EPBC Act)

The assessment identifies that the project would not result in significant impacts to any of the MNES vegetation communities or listed species. The Department considers that the impacts of the proposed action on these MNES would be acceptable, subject to the avoidance, mitigation, offsetting and management measures described in the Applicant's environmental assessment documents and the requirements of the Department's recommended conditions of consent (see **Appendix D**).

C6 - Other protected matters

DCCEEW has determined that other matters regulated under the EPBC Act are not controlling provisions with respect to the proposed action. These include listed World Heritage places, National Heritage places, migratory species, the Commonwealth marine environment, Commonwealth land, Commonwealth actions, nuclear actions, the Great Barrier Reef Marine Park and Commonwealth Heritage places located overseas.

C7 - Conclusions

The assessment identifies that the project would not result in significant impacts to any of the MNES vegetation communities or listed species. Nevertheless, the Department considers that the recommended conditions would provide suitable protection for all MNES listed under the EPBC Act that may be impacted by the project. The Department notes that, if approved by the Commission, the Project would be referred by the Department to the Commonwealth Minister for the Environment and Water for determination under the EPBC Act.

Appendix D – Recommended instrument of consent

Refer to the 'Recommendation' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry

Appendix E – Additional information

Refer to the 'Additional Information' folder under the 'Assessment' tab on the Department's website at:

https://www.planningportal.nsw.gov.au/major-projects/projects/liverpool-range-quarry