Department of Planning, Housing and Infrastructure

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Pottinger Wind Farm

State Significant Development Assessment Report (SSD 59235464)

May 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 Pottinger Wind Farm (the project) located approximately 60 kilometres (km) south of Hay in Booroorban, lodged by Pottinger Renewables Pty Ltd (the Applicant). This assessment 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, and community views;
- 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 (the 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

This report details the Department's assessment of the State significant development application SSD 59235464 for the Pottinger Wind Farm and will be provided to the Commission for their consideration when deciding whether to grant consent to the SSD.

Pottinger Renewables Pty Ltd (the Applicant), a joint venture between AGL Energy and Someva Renewables, proposes to develop a 1,300 megawatt (MW) wind farm, located approximately 60 kilometres (km) south of Hay near the locality of Booroorban within the Riverina Murray region of NSW and in the declared South West Renewable Energy Zone (SW REZ) (the project). The project is within the Hay Shire and Edward River local government areas (LGA).

The project involves the development of up to 247 turbines with a maximum tip height of 280 metres (m) high, a 500 MW battery energy storage system (BESS), connection to the Project EnergyConnect transmission line (currently under construction) and other ancillary infrastructure.

The project would be constructed across two locations:

- south of Hay: where the wind farm would be constructed, including associated infrastructure and road upgrades within the Hay Shire and Edward River LGAs (project site); and
- near Broken Hill: where a road bypass and other road upgrades near Broken Hill would be constructed (Broken Hill road upgrades).

The project has a capital investment value of approximately $2 billion and is expected to generate 900 construction jobs and up to 40 operational jobs. If approved, construction of the project would take about 55 months and is proposed to commence in 2026.

Over the next decade, three of the four remaining coal fired generators in NSW are scheduled to retire, removing around 8.3 gigawatts of dispatchable electricity generation from the system. The NSW Government's *Electricity Infrastructure Roadmap* (the Roadmap) provides a plan to coordinate investment in new generation and supports the delivery of 12 gigawatts of new renewable electricity generation and 2 gigawatts of long-duration storage in NSW by 2030. The project has also been granted access to Project EnergyConnect in the SW REZ by EnergyCo.

The project is classified as State significant development (SSD) under the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Independent Planning Commission is the consent authority for the project as the project has received more than 50 unique public submissions by way of objection. The application is permissible with consent.

The Department exhibited the environmental impact statement (EIS) from 7 June 2024 until 4 July 2024 and received 158 unique public submissions (83 objections and 75 in support). No objections came from people residing within 15 km of the project site, with the majority of objections (77 submissions or 93%) coming from people living over 50 kilometres away. Key concerns raised related to impacts to biodiversity and agricultural land.

The Department received advice from 20 government agencies and two host councils, Hay Shire Council and Edward River Council, none of which objected to the project.

The Department engaged with local councils and relevant government agencies on key issues and they each recommended the implementation of appropriate mitigation and management measures and conditions. The Department also visited the project site.

The key assessment considerations are energy transition, biodiversity, traffic and visual impacts. The Department has also undertaken a comprehensive assessment of the full range of other potential impacts and recommended a range of detailed conditions, developed in conjunction with agencies and councils, to ensure all potential impacts are effectively minimised, managed or offset.

The project would have the capacity to generate 1,300 MW of renewable energy, sufficient to power around 593,000 homes per year. The project would save up to about 2,277,000 tonnes of greenhouse gas emissions per year and would make a material contribution towards the State meeting its net zero targets and the renewable energy objectives of the Roadmap.

The project site is within the SW REZ, which has good wind resource potential, and the existing and proposed electricity network that traverses the project site has available network capacity. The project site is also located on land where wind development is permissible with consent.

The project site disturbance footprint includes approximately 1,022 ha of native vegetation, of which approximately 85% or 863.5 ha is shrubland or grassland (non-threatened), 2% or 24 ha is woodland (in moderate to good condition), and 3% or 35 ha is derived native grassland. The Broken Hill road upgrades disturbance footprint includes clearing 4.56 ha of native vegetation, including planted native vegetation. The project has been designed and refined to avoid the higher quality native vegetation and habitat, including further minimising the areas of impact to mapped important habitat for plains-wanderer, and potential habitat for threatened flora and fauna species. The Department considers that the vegetation clearing impacts of the project would not be significant, subject to a range of mitigation and adaptive management measures and by offsetting the residual biodiversity impacts proposed in the recommended conditions developed in consultation with CPHR.

The project has the potential to result in impacts to bats and avifauna. The Department has recommended a condition requiring adaptive management in a Bird and Bat Adaptive Management Plan (BBAMP) including detailed monitoring and a trigger action response plan to minimise potential impacts of the project; and the implementation of measures to reduce the mortality of those species or populations.

There are two non-associated receivers located within 5.5 km of the nearest proposed turbine (within the blue line of the Visual Assessment Bulletin). These dwellings benefit from distance and screening from existing mature vegetation between viewpoints and the project site. The visual performance objectives set out in the Wind Energy Guideline and associated Visual Assessment Bulletin are achieved at all receivers. The Department is satisfied that the project would not fundamentally change the broader landscape characteristics of the area or result in any significant visual impacts on the surrounding non-associated residences.

The potential traffic and transport impacts would be largely restricted to the construction period and would be managed by undertaking suitable road upgrades prior to commencing construction, regular road maintenance,

and the implementation of a Transport Strategy and a Traffic Management Plan, including standard traffic control measures and a driver's code of conduct.

The Department has also recommended conditions requiring the Applicant to carry out dilapidation surveys of the local transport roads before construction, and after decommissioning the project, and repair, or pay the full cost associated with repairing any damage to the road network caused by any project-related traffic.

The Department considers the project would not result in any significant impacts on the local community or the environment, is located on a suitable site for a wind farm development, and any residual impacts can be managed through the implementation of the recommended conditions.

The project would result in benefits to the State of NSW and is therefore in the public interest and is approvable.

Contents

1 Introduction

1. Pottinger Renewables Pty Ltd (the Applicant) proposes to develop a State significant development (SSD) wind farm in the declared South West Renewable Energy Zone (SW REZ) (the project), approximately 60 kilometres (km) south of Hay in the locality of Booroorban, within the Hay Shire and Edward River local government areas (LGAs). The project would be constructed across two locations:

   - South of Hay: where the wind farm would be constructed, including associated infrastructure and road upgrades within the Hay Shire and Edward River LGAs (project site) (see **Figure 1**).
   - Near Broken Hill: where a road bypass and other road upgrades near Broken Hill would be constructed (Broken Hill road upgrades) (see **Section 6.4**).

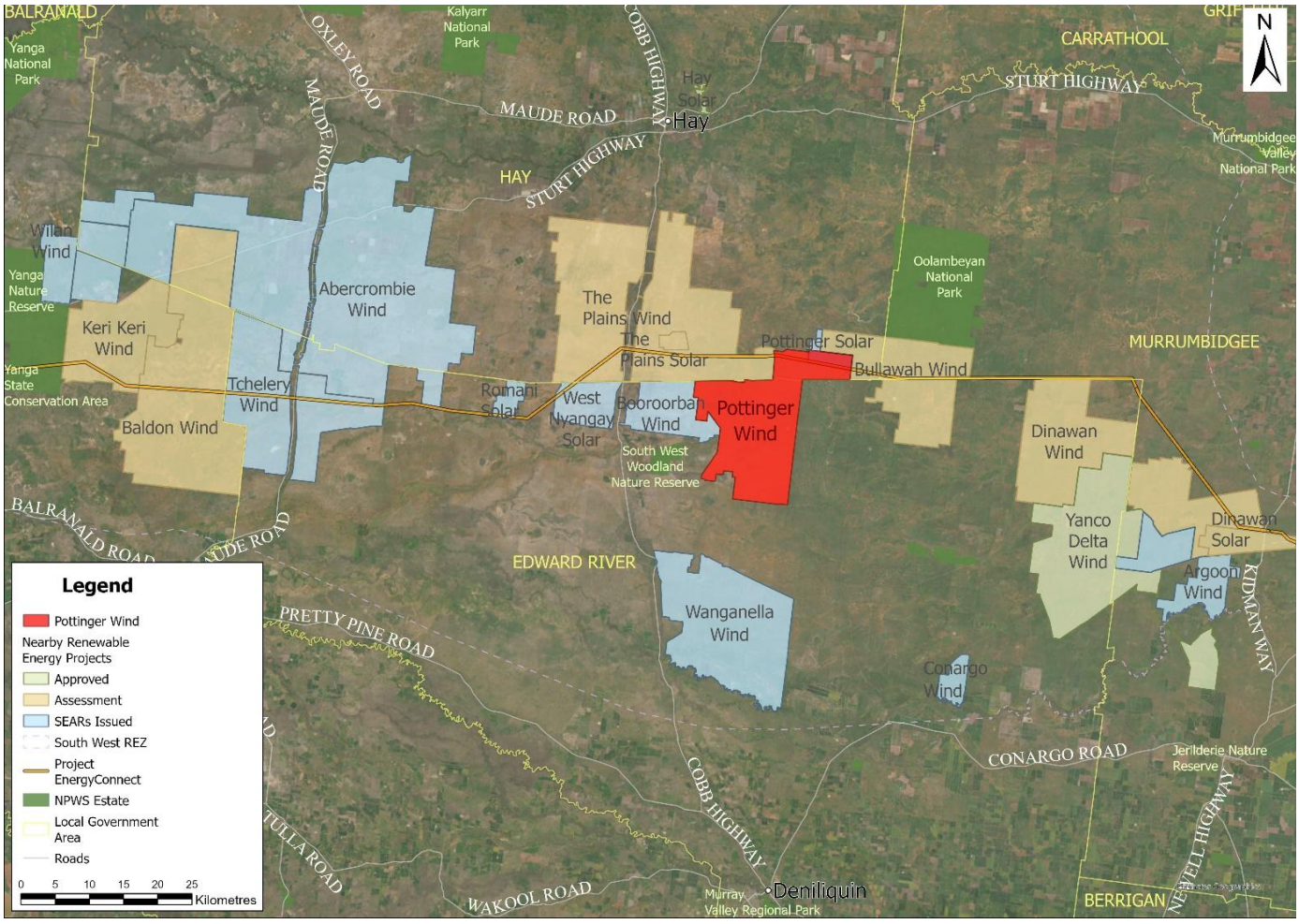


Figure 1 | Regional context map

2 Project

2. The Applicant is proposing to develop a wind farm with up to 247 turbines, with a maximum tip height of 280 metres (m). The project would have a nameplate capacity of 1,300 MW, generating up to 3,350 megawatt hours (MWh) of electricity annually.

3. The project also includes a battery energy storage system (BESS) with a capacity of up to 500 MW (2,000 MWh) and up to six substations. The wind farm would connect to the Project EnergyConnect Transmission Line via a switchyard and collector station.

4. The project would be constructed and operated within a development corridor which includes 300 m radius around all wind turbine locations, 50 m buffer for underground and 100 m for overhead powerlines, 50 m buffer for access tracks, and 5 m buffer around ancillary infrastructure. This development corridor would allow for micro siting of wind turbines and other project infrastructure (see **Section 6.3**).

5. The key components of the project are summarised in **Table 1** and shown in **Figure 2**, and described in the Environmental Impact Statement (EIS) (see **Appendix A**), Submissions Report (see **Appendix C**) and additional information provided during the Department's assessment of the project (see **Appendix D**).

Table 1 | Key components of the project

Aspect	Description
Project summary	• Up to 247 turbines and associated infrastructure (1,300 MW capacity) • Centralised energy storage facility with a capacity of up to 500 MW (2,000 MWh)
Project area	• Project site: 26,000 ha • Broken Hill road upgrades: 10.92 ha • Development corridor: 8,703 ha • Disturbance footprint: 1,080 ha: – Project site disturbance footprint: 1069 ha – Broken Hill road upgrades disturbance footprint: 10.92 ha
Wind turbine dimensions	• Maximum tip height of 280 m • Turbine hub height of 180 m • Maximum blade length of 100 m
Ancillary infrastructure	• Connection to the Project EnergyConnect transmission line within the project site • Up to six 33/330 kV substations (five for wind and one for BESS) and 13 transformers • One switching station to connect to Project EnergyConnect • 545 – 600 km of overhead and underground cabling to connect to substations • One operation and maintenance facility, including control room, site offices, staff amenities • Temporary facilities, including construction compounds, site office, gravel / borrow pits, concrete batching plants, mobile rock crushing facilities, stockpile and laydown areas • Up to 343 km of new internal tracks and four site access points • Up to 10 permanent and / or 10 temporary meteorological masts (up to 180 m in height)

Aspect	Description
Road works	• Upgrades to intersections, local roads near the project site • Construction of a new bypass near Broken Hill and other minor road upgrades near Broken Hill (collectively the Broken Hill road upgrades) • Waterway crossings within the project site
Construction	• Up to 55 months construction period with a peak construction period of 28 months (between months 16 and 44) • Hours to be limited to Monday to Friday 7am to 6 pm, and Saturday 8 am to 1 pm
Operation	• Approximately 30 years. However, the project may involve infrastructure upgrades that could extend its operation
Access routes	• Access to the project site is via the Cobb Highway from West Burrabogie Road (site entrance A), Jerilderie Road (site entrance B), Wargam Road (site entrance C) and East-West Road (site entrance D) • Heavy vehicles requiring escort would travel from the Port of Adelaide via Broken Hill, following the Barrier Highway, Crystal Street, Sturt Street, and the Cobb Highway • Other heavy vehicles may access the site using Kidman Way, Four Corners Road, North Boundary Road, and Either Jerilderie Road or Willura Road and East-West Road
Decommissioning and rehabilitation	• The project includes decommissioning at the end of the project life, which would involve removing all above ground infrastructure
Employment	• Up to 900 construction jobs and 50 FTE operation jobs (of which 40 will be on-site jobs)
Estimated development cost	• $2.152 billion
VPA	• Hay Shire Council - annual contribution of up to $535,500 (excl. GST and indexed to CPI) (dependent on the final size of the project) paid over the operational life of development to be administered via a Community Enhancement Fund by the Applicant in partnership with Council • Edward River Council - annual contribution of up to $535,500 (excl. GST and indexed to CPI) (dependent on the final size of the project) paid over the operational life of development to be administered via a Community Enhancement Fund by the Applicant in partnership with Council

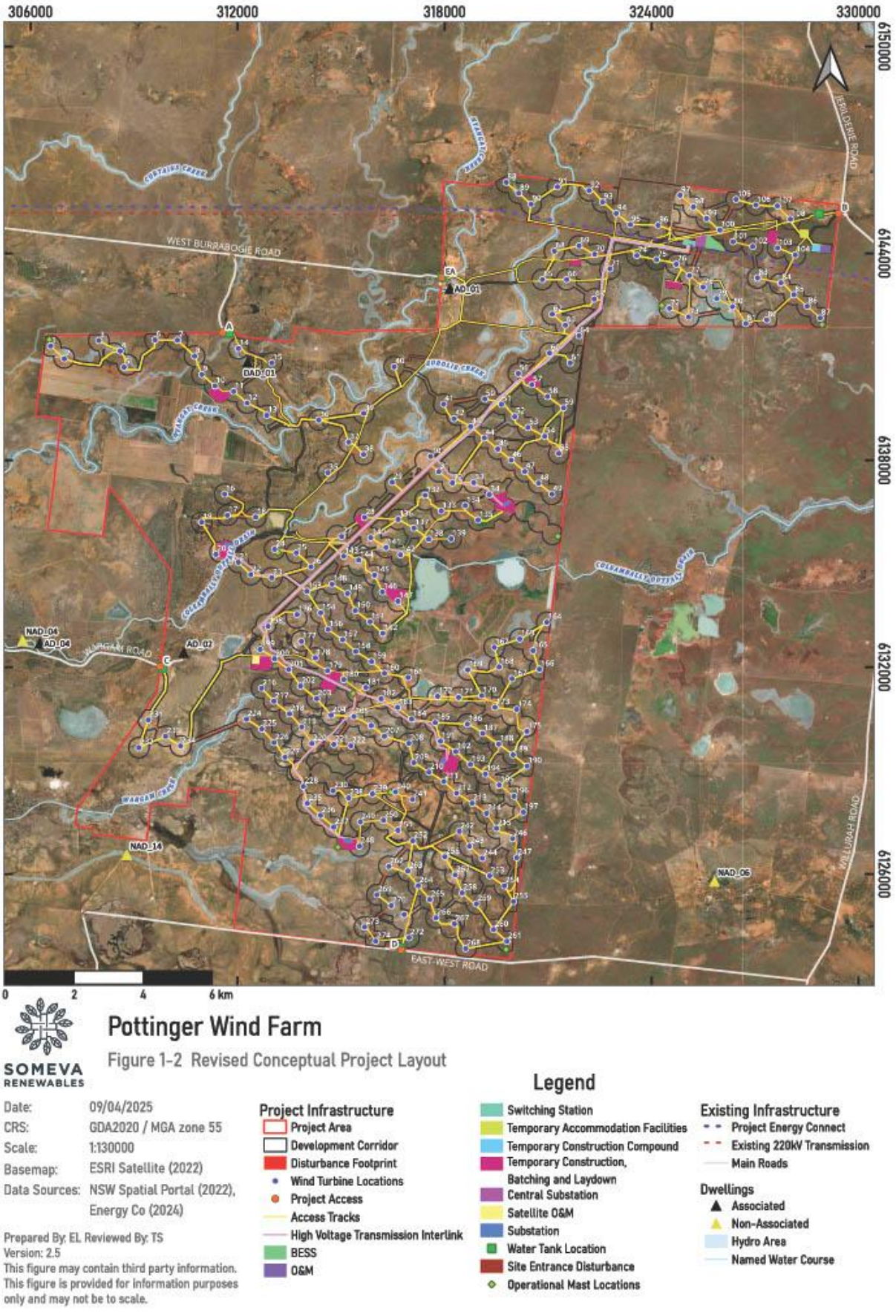


Figure 2 | Site layout

3 Strategic context

3.1 Project site and surrounds

6. The project site is located in the South West REZ, an area identified as strategically advantageous with strong renewable energy resource potential, proximity to the existing and currently under construction high voltage transmission including Project EnergyConnect (SSI-9172452), and consideration of potential interactions with existing land uses, including agricultural lands and biodiversity conservation.

7. The region is dominated by agricultural land uses (broadacre farming, including cropping and livestock grazing). The project site has been subject to extensive historical land clearing for agricultural purposes and is currently used for sheep grazing, with smaller areas of cropping. There is no mapped Biophysical Strategic Land (BSAL) within the project site.

8. The area surrounding the project site is sparsely populated, with limited neighbours located on large land holdings. There is one non-associated receiver located within 3.75 km (the black line) of a proposed turbine location and is currently unoccupied. Potential amenity impacts on nearby residences are discussed in **Section 6**.

9. The largest population centres nearby are Hay located 60 km to the north, and Deniliquin located about 75 km to the south of the project site, with an approximate population of 2,400 and 7,900 respectively.

10. The topography of the project site is relatively flat, with an elevation ranging from 87 m and 100 m Australian Height Datum (AHD).

11. The project site is in the Murrumbidgee Catchment and part of the broader Murray Darling Basin. The Murrumbidgee River is approximately 40 km north of the project site. The connectivity between the Murrumbidgee River and the project site is via numerous anabranches and flood runners, such as Gum Creek (25 km of the project site). Gum Creek joins Nyangay Creek and Eurolie Creek (seasonal creek), which run through the project site and are dry for most of the year and then join an irrigation channel in the south of the project site (Coleambally Outfall Drain). Wargam Creek also begins within the project site and flows toward the South West Woodland Nature Reserve. Werkenergal Swamp is located in the middle of the project site, adjacent to the Coleambally Outfall Drain.

12. There are ten State significant renewable energy projects within 25 km of the project site, including three adjacent proposed wind farms. These projects are listed **Table 2** and shown in **Figure 1**.

Table 2 | Nearby renewable energy projects

Project	Capacity	Status	Distance from project
Project EnergyConnect (NSW – Eastern Section) transmission line		Construction	Intersects the project site
Pottinger Solar Farm	300 MW	Proposed	North-eastern side of the project site
Bullawah Wind Farm	804 MW	Proposed	Adjacent east
The Plains Wind Farm	1,350 MW	Proposed	Adjacent north-west
Booroorban Wind Farm	400 MW	Proposed	Adjacent west
Hay Solar Farm	110 MW	Approved	15 km north

Project	Capacity	Status	Distance from project
West Nyangay Solar Farm	800 MW	Proposed	22 km west
Romani Solar Farm	250 MW	Proposed	25 km west
Dinawan Wind Farm	1,200 MW	Proposed	25 km east

3.2 Energy context

13. In 2023, NSW derived approximately 36% of its electricity generation from renewable sources. The rest was derived from fossil fuels, including approximately 61% from coal and 3% from gas. NSW is one of the nation's leaders in large-scale wind with 17 major operational projects and four under construction.

14. The project site is located in the declared SW REZ and would connect directly into the approved Project EnergyConnect transmission line via the onsite switching station providing access to the electrical grid at a location with available network capacity.

15. The Commonwealth and State energy context is described in **Table 3**.

Table 3 | Energy context

Policy/Year	Comments
Australia's Long Term Emissions Reduction Plan (2021) and Nationally Determined Contribution (2022)	Sets a pathway to net zero emissions by 2050 and affirms Australia's commitment to meeting its revised 2030 target (43% below 2005 levels).
Climate Change (Net Zero Future) Act 2023	Legislates a whole-of-government climate action to deliver net zero by 2050.
Australian Energy Market Operator's 2024 Integrated System Plan (ISP)	Notes that: • without coal, investment is needed to meet significantly increased electricity demand requiring a nine-fold increase in large-scale variable renewable energy generation (wind and solar); and • a mix of solar and wind is needed, and they offer complementary daily and seasonal profiles.
NSW: *Climate Change Policy Framework (2016);* *Transmission Infrastructure Strategy (2018);* *Electricity Strategy (2019);* *Electricity Infrastructure Roadmap (2020), Net Zero Plan Stage 1: 2020 – 2030 (2020) and Implementation update (2022);* *Riverina Murray Regional Plan 2041 (2023).*	Relevant aspects of these policy documents include: • aim to achieve net zero emissions in NSW by 2050 and reduce emissions by 50% below 2005 levels by 2030; • note that all coal fired power plants in NSW are scheduled for closure within the next twenty years; • identifies Renewable Energy Zones (REZ) across NSW, including in the SW REZ, aimed at encouraging investment in electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW; • notes the need to expand transmission infrastructure into REZs to open new parts of the grid for renewable energy projects; • unlock regional investment and new energy generation infrastructure; and • support well located renewable energy projects and the consequent transition away from fossil fuels.

16. The project's alignment with existing Commonwealth and State policies and strategies are considered in **Section 6.2**.

3.3 NSW Wind Energy Framework

17. In December 2016, the Department released the NSW Wind Energy Framework (the Framework). The Framework seeks to provide greater clarity, consistency and transparency for industry and the community regarding assessment and decision-making on wind energy projects.

18. The Framework provides a merit-based approach to the assessment of wind energy projects, which is focused on the issues unique to wind energy, particularly visual and noise impacts. The key documents comprising the Framework include *Wind Energy Guideline*, *Visual Assessment Bulletin*; and *Noise Assessment Bulletin*.

19. The Department's assessment of the project against the requirements of the Framework are detailed in **Section 6.**

20. The Department is also implementing a new Energy Policy Framework to help achieve the transition to renewable energy, reduce emissions and secure an affordable supply of electricity for the people of NSW. The Framework includes a new Wind Energy Guideline, which includes updates to the existing *Wind Energy Guideline*. However, the new Energy Policy Framework does not apply to the assessment of this project as the EIS was lodged prior to its finalisation in November 2024.

21. While the new Energy Policy Framework does not strictly apply to this project, the Department has considered the approach prescribed in the *Wind Energy Visual Technical Supplement (2024)* in regard to visual magnitude in its assessment of the project against the visual performance objectives set out in the existing *Wind Energy: Visual Assessment Bulletin* from the 2016 Guideline.

4 Statutory context

4.1 State significant development

22. The project is classified as State significant development under section 4.36 of the EP&A Act. This is because it triggers the criteria in section 20 of Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP), as it is development for the purpose of electricity generating works with an estimated development cost of more than $30 million.

23. Under section 4.5(a) of the EP&A Act and section 2.7 of the Planning Systems SEPP, the Independent Planning Commission (the Commission) is the consent authority for the development as the project has received more than 50 unique public submissions by way of objection.

4.2 Permissibility

24. The project site is located on land zoned RU1 – Primary Production under the *Hay Local Environmental Plan 2011* (Hay LEP) and the *Conargo Local Environmental Plan 2013*[1].

25. The RU1 zone includes various land uses that are both permitted with and without consent. Under the Hay LEP 2011 and the Conargo LEP 2013 electricity generating works are not expressly listed as permitted with or without consent, and is therefore a prohibited land use.

26. However, electricity generating works are permissible with consent on any land in a prescribed non-residential zone, including land zoned RU1, under section 2.36 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP). Consequently, the project is permissible with development consent.

4.3 Integrated and other approvals

27. Under section 4.41 of the EP&A Act, several other approvals are integrated into the SSD approval process, and consequently are not required to be separately obtained for the project.

28. Under section 4.42 of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the project (e.g. approvals for any works under the *Roads Act 1993*).

29. As the project traverses Crown land, authority to use Crown land is required separately under the *Crown Land Management Act 2016* prior to its use.

30. The Department has consulted with the relevant government agencies responsible for these integrated approvals in its assessment of the project (see **Section 5**), considered their advice in its assessment of the merits of the project and included suitable conditions in the recommended conditions of consent to address these matters (see **Appendix E**).

4.4 Mandatory matters for consideration

31. Section 4.15 of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. These matters are summarised as:

- the provisions of environmental planning instruments (including draft instruments), development control plans, planning agreements and the EP&A Regulations;
- the environmental, social and economic impacts of the development;
- the suitability of the site;
- public submissions and advice from government agencies; and

[1] *Conargo Local Environmental Plan 2013* was the relevant plan at the time the Applicant lodged the application and has been considered throughout this assessment however, it is noted that on 4 April 2025 the *Conargo Local Environmental Plan 2013* was renamed the *Edward River Local Environmental Plan 2013*.

- the public interest, including the objects in the EP&A Act and the encouragement of ecologically sustainable development (ESD).

32. The Department has considered these matters in its assessment of the project, as well as the Applicant's consideration of environmental planning instruments in its EIS. Detailed consideration of the relevant provisions of the environmental planning instruments is provided in **Appendix F**, and the Department concluded the project is consistent with the relevant provisions.

4.5 Biodiversity Conservation Act 2016

4.5.1 Biodiversity Development Assessment Report

33. Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all SSD applications to be accompanied by a biodiversity development assessment report (BDAR) unless it is determined that the project is not likely to have any significant impact on biodiversity values (as identified in the BC Act and in the Biodiversity Conservation Regulation 2017 (BC Regulation). The final BDAR (see **Appendix A**) and overall impact of the project on biodiversity values is assessed in **Section 6.3**.

4.5.2 Concurrence

34. From the 7th March 2025, concurrence from the NSW Minister for the Environment will be required in accordance with section 7.14 of the *Biodiversity Conservation Act 2016* (BC Act) for State significant projects where a consent authority decides to grant development consent with a condition other than to retire the number and class of biodiversity offset credits detailed in the final BDAR.

35. The Department has recommended conditions that require the retirement of the number and class of biodiversity offset credits detailed in the final BDAR but allowing the Applicant to reduce the total biodiversity credit liability post approval. It is intended that this may be achieved through the following:

- further avoidance of impacts to biodiversity values as a result of detailed design works and micro siting wind turbines and ancillary infrastructure; and
- undertaking additional ecological surveys for species that were assumed present.

36. This approach to conditions is intended to provide an incentive to the Applicant to reduce the biodiversity impact of the project reflecting the avoid, minimise and offset hierarchy set out as the purpose of the BC Act.

37. This approach to conditions will require concurrence from the NSW Minister for the Environment should the Commission decide to grant development consent with this approach to conditions.

4.6 Commonwealth matters

38. On 6 March 2024, a delegate of the Commonwealth Minister for the Australian Government Department of Climate Change, Energy, the Environment and Water (AG DCCEEW) determined the project (EPBC 2023/09679) to be a 'controlled action' in accordance with section 75 of the *Environment Protection and Biodiversity Act 1999* (EPBC Act) due to likely significant impacts to listed threatened species and communities (section 18 and 18A) and listed migratory species (section 20 and 20A).

39. The Department's assessment of the potential impacts of the project on controlling provisions under the EPBC Act relating to biodiversity is provided in **Section 6.3.7**. Further information on the matter that the Commonwealth Minister must consider under the EPBC Act is provided in **Appendix H.**

40. The Department consulted with the AG DCCEEW in accordance with the bilateral agreement and provided draft copies of this assessment report and the recommended conditions of approval to the AG DCCEEW for comment. Advice provided by AG DCCEEW on potential impacts to listed threatened species and communities and listed migratory species has been incorporated into this assessment report.

5 Engagement

41. The Department publicly exhibited the EIS from 7 June 2024 until 4 July 2024 (28 days) on the Department's website.

42. The exhibition was advertised in the *Deniliquin Pastoral Times, Hay Riverine Grazier* and *the Australian*, and the Department wrote directly to landowners up to 8 km from the project site, notifying them of the project and exhibition dates. The Department visited the project site and surrounds on 26 November 2024.

43. The Department also consulted with relevant councils and government agencies during its detailed assessment of the project. The Department notified and sought comment from EnergyCo, Transgrid and Transport for New South Wales (TfNSW) in accordance with the Transport and Infrastructure SEPP, as discussed further in **Section 5.3**.

5.1 Summary of Public Submissions

44. During the exhibition of the application, the Department received 161 public submissions of which 158 were unique (83 objecting to the project and 75 in support). A summary of the proximity of unique submissions is provided in **Table 4** below and a link to all submissions in full is provided in **Appendix B.**

45. While a slight majority (about 52%) of submissions objected to the project, most objections (77 submissions or 93%) came from people living further than 50 km from the project site including 21 (25%) from interstate. No objections came from people residing within 15 km of the project site (see **Table 4**).

46. Conversely, all submissions from people living within 15 km of the project site were in support of the project, and the majority of people (9 people or 60%) living within 15 to 50 km of the project site expressed support.

Table 4 | Summary of submitter distance

Submitter Distance	Objection	Support	Comment	Total
< 5km	0	7	0	7
5 - 15 km	0	0	0	0
15 - 50 km	6	9	0	16
> 50 km	56	25	0	81
Interstate	21	34	0	55
Total	83	75	0	158

5.1.1 Submissions in objections

47. The most common matters raised in submissions objecting to the project included:

- biodiversity impacts, including impacts to plains-wanderer and its habitat;
- impacts to agricultural land and the farming community;
- waste management, and concerns about contamination from construction or operational activities;
- energy security, including concerns about the efficiency and reliability of renewable energy;
- a general statement not supporting renewable energy;
- socio-economic factors involving property devaluation, lack of employment, health and energy costs;
- hazards/ bushfire risk, increased risk of bushfires in the area;
- the cost and responsibility of decommissioning and rehabilitation;
- visual impacts on surrounding landscape; and
- construction and operational noise.

48. Other issues raised in submissions included traffic and transport during construction, the adequacy of consultation undertaken, and project location. The key matters raised in public submissions are summarised in **Figure 3**.

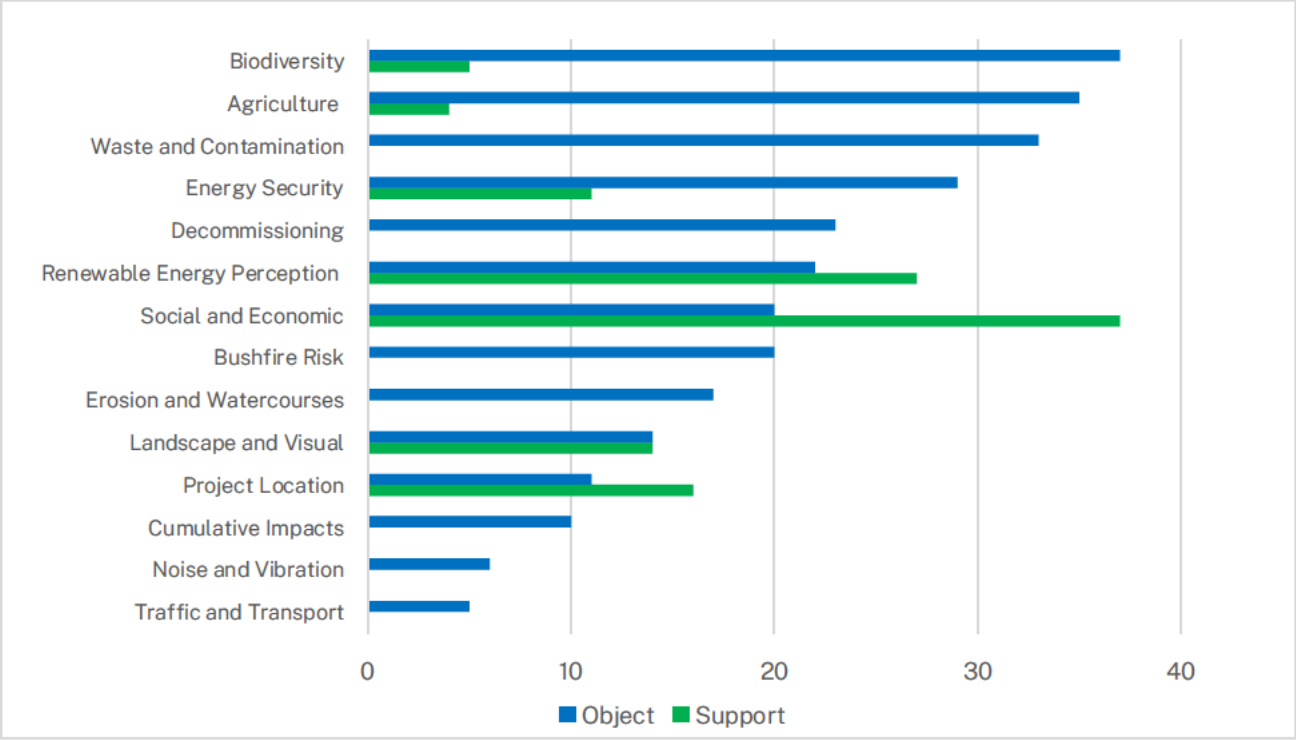


Figure 3 | Key issues raised in public submissions

5.1.2 Submissions in support and comments

49. Submissions in support noted various benefits of the project, including alignment with the State's objectives and contributions towards the renewable energy transition and a sustainable future; site selection, including the strategic siting of the project to minimise biodiversity impacts and away from

residences and the Cobb Highway; the economic benefits of the project to the local community, including financial support to farmers, diversification of income streams providing resilience during drought conditions; creation of jobs and community engagement undertaken by the Applicant.

50. In addition, nine private businesses also support the project, as it would stimulate the local economy through the benefit sharing program and advance the transition to renewable energy in Australia.

5.1.3 Special interest groups

51. Nine submissions (eight objections and one support) were received from special interest groups. The key issues raised in their submissions are summarised in **Table 5**. The Department has carefully considered the submissions provided by the community, as described throughout **Section 6** of this report. It is noted that at least three of these special interest groups are located in other regions of NSW some distance from the SW REZ.

Table 5 | Summary of matters raised in special interest group submissions

Position	Groups	Key Issues
Object (8)	• Save Our Surroundings (SOS) Murrumbidgee; • Save Our Surroundings (SOS) Riverina; • Save Our Surroundings (SOS); • Yass Landscape Guardians Inc.; • National Rational Energy Network Inc.; • CWO REZist Inc.; • Uarbry Tongy Lane Alliance Inc; • Rainforest Reserves Australia.	• Impacts to endangered flora and fauna, impacts to agriculture, potential fire hazards, decommissioning and site rehabilitation, waste and contamination, exacerbating environmental degradation, inefficient use of resources. • Cumulative impacts in the community, energy security, social impact of industrialising the environment, visual impact on landscape.
Support (1)	HiWay	• Long term benefits for future generations

5.2 Summary of council submissions

52. The Department received a submission from Hay Shire Council (host council) and comments from Edward River Council (host council) and Broken Hill City Council. A summary and overview of the key comments is provided in **Table 6**. A full copy of Council submissions is available in **Appendix B.**

Table 6 | Summary of issues raised by council

Council	Submission summary
Hay Shire Council (host Council)	Initial concerns regarding traffic and transport impacts from heavy vehicle movements on local roads, waste management, decommissioning, water supply and wastewater reuse, consultation with relevant agencies.
Edward River Council (host Council)	Requested appropriate mitigation measures to protect biodiversity values, and comments regarding impacts to local road infrastructure, accommodation and resources, bushfire risk management and waste management.

Council	Submission summary
Broken Hill City Council (road upgrades)	Provided comments related to the traffic route crossing their LGA requesting clarifications regarding the nature of the proposed bypass and noting that the pavement at the intersection of Menindee Road and Crystal Street would require strengthening.

5.3 Summary of agency advice

53. During exhibition of the EIS, the Department received advice from 20 government agencies. A summary of the agency advice is provided in **Table 7**. A link to the full copies of the advice is provided in **Appendix B**.

Table 7 | Summary of agency submissions

Agency	Key matters raised
TfNSW	• Requested additional information and assessment for construction traffic impacts, including over dimensional vehicle deliveries, strategic concept designs and swept paths for the key intersection upgrades and proposed methodology of opposing traffic management on the Barrier and Cobb Highways where the total width of the road is narrower than the widest vehicles proposed for this project.
Conservation Programs, Heritage & Regulation Group (CPHR) within the NSW Department of Climate Change, Energy, the Environment and Water	• Requested additional information and provided recommendations regarding avoidance of impacts to plains-wanderer mapped habitat, revision of flora species polygons, and fauna survey method, prescribed impacts, and additional detail in proposed mitigation measures.
National Parks and Wildlife Service (NPWS)	• Recommended mitigation measures to reduce potential noise impacts to the South West Woodland Nature Reserve during construction; and • Identified that any works in the Nature Reserve that may be required to facilitate OSOM access via Wargam Road would be subject to a separate approval under the *National Parks and Wildlife Act 1974*. It is noted that no works are proposed within the Nature Reserve.
Environment Protection Authority (EPA)	• Provided recommendations regarding out of hours work and noise requirements for construction and operation.
DCCEEW Water	• Security and supply of water, aquifer interference and activities on waterfront land.
Civil Aviation Safety Authority (CASA)	• Recommended night lighting of turbines to avoid aircraft collisions.
Airservices Australia (ASA)	• Identified that the height of turbines would impact overhead air-routes H247 and W762 by exceeding the lowest safe altitudes and advised that the Applicant would need to lodge an application to amend these air-routes to accommodate the project. • Identified impacts to airspace procedures at Hay aerodrome and further consultation with aerodrome operators is required.
Australian Government Department of Defence	• Requests the provision of 'as constructed' details of tall structures to ASA.

Agency	Key matters raised
Heritage NSW	• Requested test excavation and salvage methodology and an unexpected finds protocol to be prepared pre approval, noting that test excavations were not undertaken at the request of Registered Aboriginal Parties (RAPs); and • Requested additional assessment to ensure adequate coverage of the transport route upgrades.
DPIRD Fisheries	• Recommendations regarding the design and management of watercourse crossings.
Fire & Resue NSW	• Recommendations requiring the implementation of a Fire Safety Study and Emergency Response Plan.
Transgrid	• Recommendations regarding cumulative impacts, protection of transmission line infrastructure and minimum setback distances to the transmission line easement.

54. EnergyCo, Crown Lands, DPIRD Agriculture, DPIRD Resources, NSW Rural Fire Service, NSW Telecommunications Authority, Murray Darling Basin Authority and WaterNSW raised no concerns or provided no comment.

5.4 Response to submissions

55. Following the public exhibition period, the Department requested the Applicant to respond to the issues raised in submissions and the advice received from government agencies in a submissions report (see **Appendix D**).

56. The Department published the submissions report on the NSW planning portal and forwarded the submissions report to relevant government agencies and local councils for comment.

6 Assessment

6.1 Overview

58. The Department has undertaken a comprehensive assessment of the merits of the development. This report provides a detailed discussion of the key issues, namely energy transition, biodiversity, traffic and transport and visual (see **Sections 6.2** to **6.5**).

59. The Department acknowledges that being located within the SW REZ, the project has the potential to contribute to some cumulative impacts in the region. The Department has considered cumulative impacts throughout its assessment of each of the potential impacts associated with the project, and has also included a summary of its assessment of these matters in **Section 6.6.**

60. The Department notes that the project has been sited and designed to minimise potential impacts, including locating turbines and associated infrastructure to avoid threatened native vegetation, and very few non-associated residences in proximity to the project site, thus amenity impacts from the project are relatively low.

6.2 Energy transition

61. The project aligns with a range of national and state policies, which identify the need to diversify the energy generation mix and reduce the carbon emissions intensity of the grid while providing energy security and reliability (see **Section 3.2**)

62. The Australian Energy Market Operator's 2024 *Integrated System Plan* (ISP) for the National Electricity Market (NEM) notes that up to 90% of the NEM's coal-fired power stations are projected to retire before 2035, and the entire fleet of approximately 21 GW before 2040. With the closure of Munmorah Power Station in 2012, Wallerawang Power Station in 2014 and Liddell Power Station in April 2023, and a number of planned closures of coal-fired power stations in the State in the next decade (such as the Eraring, Vales Point and Bayswater power stations), additional utility-scale generation is required to replace the loss of coal-fired generation in the State.

63. The ISP also forecasts that there will be a demand for 83 GW of utility-scale wind and solar in the NEM by 2034-35, and 127 GW by 2049-50. It highlights the importance of the resource diversity that will be opened up by the State's REZ network, providing an even mix of wind and solar across the State, noting that wind and solar have complementary daily and seasonal profiles. The project would therefore contribute to replacing the loss of coal-fired generation in the State as well as providing diversification of the generation profile.

64. The project would have the capacity to generate up to 1,300 MW of renewable energy, which is sufficient to power about 593,000 homes per year, and would save up to 2,277,000 tonnes of greenhouse gas emissions annually. This would assist NSW in achieving the emissions reduction targets legislated by the *Climate Change (Net Zero Future) Act 2023*, and is consistent with the *NSW Climate Change Policy Framework* and the *Net Zero Plan Stage 1: 2020 – 2030* objective of achieving net zero emissions by 2050.

65. The inclusion of a 500 MW / 2,000 MWh BESS would enable the project to store energy for dispatch to the grid when the wind isn't blowing and/or during periods of peak demand, increasing grid stability and energy security.

66. The project is located in the SW REZ, a region which has strong renewable energy resource potential, proximity to the existing and new electricity network, compatibility with existing land uses, including agricultural lands and biodiversity conservation. EnergyCo has identified the project has been granted access to the electrical grid via the approved Project EnergyConnect Transmission project (currently under construction) and is on land where wind development is permissible with consent under the Transport and Infrastructure SEPP.

67. EnergyCo have granted access for the Pottinger Wind Farm (with battery) for a maximum of 832.1 MW. The Applicant may choose to stage the project to meet the current access granted. The Applicant has also advised that additional capacity proposed allows it to:

- optimise the layout and turbine choice;
- absorb project losses by installing more than the proposed access capacity;
- maximise the use of the energy storage; and
- potentially connect to other transmission lines on site (not part of this application).

68. EnergyCo has confirmed that it supports the project given it has been successful in being granted access.

69. In light of the above, the Department considers the project is in the public interest as it would play an important role in:

- increasing renewable energy generation and capacity;
- firming the grid by including 500 MW / 2,000 MWh of energy storage; and
- contributing to the transition to a cleaner energy system as coal fired generators retire.

6.3 Biodiversity

70. The project site is around 26,000 hectares (ha), with native vegetation covering most of it (approximately 23,300 ha or 90%) and consisting of wooded areas, wetlands and grazed grasslands and shrublands with areas of riparian woodland associated with creek lines. The disturbance footprint would be approximately 1,069 ha with approximately 1,022 ha of native vegetation to be cleared. Vegetation on the project site has been subject to long-term grazing and pasture clearing, and generally contains native grass and shrub layers. Sparse woodland vegetation is present throughout the project site and has been subject to historical clearing and is generally poor ecological condition.

71. The Broken Hill road upgrades cover an area of approximately 10.92 ha. The disturbance footprint would cover the whole 10.92 ha for road and intersection upgrades with 4.56 ha of native vegetation to be cleared. This site has planted vegetation and has been subject to previous disturbance.

72. Clearing of native vegetation would cause direct and indirect impacts to threatened flora and fauna species and communities, while operation of the wind turbines has the potential to impact flight paths of birds and bats from changes in air pressure (barotrauma) or collision with turbines (bird and bat strike).

73. Approximately 37% of submissions objecting to the project raised concerns about impacts on biodiversity, in particular the endangered plains-wanderer, clearing of native vegetation, including threatened ecological communities (TECs), impacts on habitat connectivity and blade strikes to birds and bats.

74. NSW DCCEEW CPHR initially raised concerns on the application of the Biodiversity Assessment Methodology (BAM) in the preparation of the project's BDAR, in particular, targeted threatened species surveys, and requirements for bird and bat utilisation surveys (BBUS) and the avoidance of impacts to species subject to serious and irreversible impacts (SAII).

75. In order to address these concerns along with comments raised in public submissions, the Applicant provided additional information during the Department's assessment and revised its BDAR.

76. It is noted that the final BDAR dated 11 March 2025 includes an explanatory note that supersedes and updates any duplicated or conflicting information presented in the subsequent sections of the BDAR. NSW DCCEEW CPHR reviewed and accepted this approach.

77. Overall, the Department considers that the concerns raised by NSW DCCEEW CPHR have been resolved, either through provision of additional information, including revisions to the project layout to further minimise the impacts, or development of consent conditions, and that the BDAR adequately assesses the potential biodiversity impacts of the project in accordance with the BAM.

6.3.1 Avoidance and minimisation

78. The Applicant has focused on avoidance of impacts through site selection and avoidance of higher quality native vegetation and threatened ecological communities and habitat during the preliminary design process for the project.

79. In particular, this work has focused largely on avoiding and minimising impacts to areas of mapped plains-wanderer habitat, areas of mapped TEC, including Myall Woodlands, Sandhill Pine Woodland and *Acacia melvillei* Shrubland, and potential habitat for threatened flora and fauna species.

80. With respect to impacts on TECs mapped in the project site, predicted clearing of these communities would be limited to 11.94 ha, including:

- Myall Woodland: 0.38 ha of 15.47 ha mapped in the project site;
- Sandhill Pine Woodland: 11.54 ha of 1,002.64 ha mapped in the project site;
- *Acacia melvillei* Shrubland: 0.02 ha of 0.19 ha mapped in the project site.

81. The Applicant has aimed to avoid and/or minimise impacts on biodiversity values by:

- locating and micro siting turbines and associated infrastructure to avoid areas of high conservation value native vegetation;
- maximising the separation distance between turbines / rotor swept area and tree canopies;
- using the existing network of access tracks within the project site;
- excluding riparian zones associated with higher order streams from the development area (noting that some stream crossings for access are still required), ephemeral wetlands and the two freshwater lakes;

- committing to undertake pre-clearance surveys and tree-felling supervision to minimise potential impacts on native fauna species (including threatened species), including during the clearing of hollow bearing trees;
- committing to develop a Biodiversity Management Plan (BMP) and a Bird and Bat Adaptive Management Plan (BBAMP); and
- committing to providing an additional offset (above and beyond the requirements of the BAM) for impacts to plains-wanderer to achieve a nature positive outcome.

82. Following exhibition of the EIS (and the BDAR), NSW DCCEEW CPHR requested further information to demonstrate how the proposal avoids and minimises biodiversity impacts to SAII entities, including areas of mapped important habitat for the plains-wanderer.

83. Subsequently the Applicant reviewed the proposed layout and identified further opportunities to avoid and minimise impacts to plains-wanderer habitat, including mapped important habitat as identified by the NSW Biodiversity Values Map. This resulted in a further reduction in impact area from 5.16 ha to 2.67 ha of mapped important habitat, as defined in the NSW Biodiversity Values Map, and 33.8 ha to 10.16 ha for areas identified as providing suitable habitat for plains-wanderer.

84. The extent of micro siting allowance for the project (a 300 m development corridor around wind turbines) has been demonstrated to be reasonable as the Applicant has assessed the entire development corridor as part of the prepared BDAR and identified the importance of the development corridor to facilitate future micro siting of wind turbines and project infrastructure and further avoidance of impacts to biodiversity values.

85. Overall, the Department considers that the Applicant has demonstrated reasonable and feasible avoidance of biodiversity impacts, specifically in relation to areas of mapped important habitat for the plains-wanderer and habitat for other flora and fauna impacted by the project.

6.3.2 Native vegetation

86. The project site disturbance footprint is 1,069 ha and an additional 10.92 ha is required to be cleared to facilitate the Broken Hill road upgrades. The majority of the project site disturbance footprint is native vegetation, including 1,022 ha or approximately 95% of the project site disturbance footprint. A further 4.56 ha of native vegetation is required to be cleared for the road upgrades.

87. Of the 1,022 ha of native vegetation within the project site disturbance footprint, 533 ha (or 52%) is non-threatened Cotton Bush shrubland vegetation, approximately 28 ha (or 2%) is woodland in moderate to good condition, 93 ha (or 9%) is woodland in low condition, with DNG representing 35 ha (3%) and the rest is other non-TEC shrubland and grassland.

88. The 4.56 ha of native vegetation expected to be impacted by the Broken Hill road upgrades is wholly composed of non-threatened shrubland and includes 0.33 ha (7%) planted native vegetation.

89. In relation to clearing of TECs listed under the BC Act and / or EPBC Act, the project would impact approximately 11.94 ha (limited to the project site), comprised of:

- 0.38 ha of Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions (Myall Woodland) listed as EEC under the BC Act and EPBC Act;
- 11.54 ha of Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions (Sandhill Pine Woodland) listed as EEC under the BC Act; and
- 0.02 ha of *Acacia melvillei* Shrubland in the Riverina and Murray-Darling Depression bioregions (*Acacia melvillei* shrubland) listed as EEC under the BC Act.

90. **Table 8** provides a summary of the project impacts on native vegetation, and the relevant ecosystem credit liability under the NSW Biodiversity Offset Scheme.

Table 8 | Ecosystem credit requirements

Plant Community Type	Condition	Conservation Significance		Impact Area (ha)	Credit Liability
		BC Act	EPBC Act		
Project site (Riverina IBRA bioregion and the Murrumbidgee IBRA subregion)					
PCT 10 River Red Gum - Black Box woodland wetland of the semi-arid (warm) climatic zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	Low	-	-	0.17	1
PCT 13 Black Box - Lignum woodland wetland of the inner floodplains in the semi-arid (warm) climate zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	High	-	-	18.50	480
	Low			75.90	1,168
	DNG			9.90	122
PCT 16 Black Box grassy open woodland wetland of rarely flooded depressions in South Western NSW, Riverina Bioregion and Murray Darling Depression Bioregion	Moderate	-	-	2.16	39
	Low			11.77	168
	DNG			11.25	0
PCT 17 Lignum shrubland wetland of the semi-arid (warm) plains (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	High	-	-	6.07	163
PCT 23 Yarran tall open shrubland of the sandplains and plains of the semi-arid (warm) and arid climate zones	High	EEC	-	0.02	1
PCT 26 Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion	Moderate	EEC	EEC	0.38	6
	DNG	-	-	10.44*	80
PCT 28 White Cypress Pine open woodland of sand plains, prior streams and dunes mainly of the semi-arid (warm) climate zone	Moderate/High	EEC	-	3.01	85
	Low			5.59	108
	DNG			2.94	34
PCT 44 Forb-rich Speargrass - Windmill Grass - White Top grassland of the Riverina Bioregion	High	-	-	105.68	3,679

Plant Community Type	Condition	Conservation Significance		Impact Area (ha)	Credit Liability
		BC Act	EPBC Act		
PCT 45 Plains Grass grassland on alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes Bioregion	High	-	-	14.41	402
PCT 46 Curly Windmill Grass - speargrass - wallaby grass grassland on alluvial clay and loam on the Hay Plain, Riverina Bioregion	High	-	-	99.74	1,937
PCT 157 Bladder Saltbush shrubland on alluvial plains in the semi-arid (warm) zone including Riverina Bioregion	High	-	-	6.15	180
PCT 159 Old Man Saltbush shrubland mainly of the semi-arid (warm) climate zone (South Western NSW)	Planted	-	-	0.14	5
PCT 160 Nitre Goosefoot shrubland wetland on clays of the inland floodplains	High	-	-	68.75	1,666
	Moderate/High			19.68	395
	Moderate			2.84	29
PCT 163 Dillon Bush (Nitre Bush) shrubland of the semi-arid and arid zones	High	-	-	13.87	328
PCT 164 Cotton Bush open shrubland of the semi-arid (warm) zone	High	-	-	518.38	11,802
	Low			13.97	194
Broken Hill road upgrades (Broken Hill Complex IBRA bioregion and Barrier Range IBRA subregion)					
PCT 123 Mulga - Dead Finish on stony hills mainly of the Channel Country Bioregion and Broken Hill Complex Bioregion	High	-	-	0.41	5
PCT 155 Bluebush shrubland on stony rises and downs in the arid and semi-arid zones	Moderate High	-	-	0.06	1
	Moderate			3.12	38

Plant Community Type	Condition	Conservation Significance		Impact Area (ha)	Credit Liability
		BC Act	EPBC Act		
PCT 158 Old Man Saltbush - mixed chenopod shrubland of the semi-arid hot (persistently dry) and arid climate zones (north-western NSW)	High	-	-	0.2	4
	Planted			0.33	5
PCT 163 Dillon Bush (Nitre Bush) shrubland of the semi-arid and arid zones	High	-	-	0.44	5
Subtotal for project site				**1,021.71**	**23,072**
Subtotal Broken Hill road upgrades				**4.56**	**58**
Development Total				**1,026.27**	**23,130**

*The condition score for the derived native grassland component of this PCT does not meet the NSW BC Act or Commonwealth EPBC Act listing criteria for this ecological community

6.3.3 Threatened flora

91. The project has the potential to impact flora species listed under the BC Act and EPBC Act through direct loss from vegetation clearing, and from indirect impacts.

92. Twenty-four candidate flora species were identified as potentially occurring on the project site and at the Broken Hill road upgrades and were subject of targeted surveys. Of the 24 candidate species, four threatened species listed as vulnerable under the BC Act (chariot wheels, mossgiel daisy, silky swainson-pea, and slender darling pea) were identified during field surveys and two species, the Austral pillwort and *Atriplex infrequens* (both endangered), were assumed to be present.

93. **Table 9** provides a summary of the species credits required to be offset for the project, including for impact to threatened flora.

6.3.4 Threatened fauna

Ecosystem Credit Species

94. Vegetation clearing within the project site would result in the loss of habitat for 35 threatened species identified or predicted to occur as ecosystem credit species. Potential breeding habitat for the pink cockatoo was also mapped.

95. Vegetation clearing for the Broken Hill Road upgrades would result in the loss of habitat for 29 threatened species identified or predicted to occur as ecosystem credit species.

96. Potential impacts on these species would be offset via the ecosystem credit requirements detailed in **Table 8**. Impacts to breeding habitat for the pink cockatoo would be offset through species credits as detailed in **Table 9**.

Species Credit Species

97. Of the 12 candidate threatened fauna species considered to have potential habitat within the project site, and therefore subject to targeted surveys, three species, the pink cockatoo (vulnerable), the plains-wanderer and the southern bell frog (both endangered), were recorded. One species, grey snake (endangered), has been assumed to be present.

98. As the Applicant was not able to undertake the required surveys to inform the likely presence or absence of the grey snake, its presence was assumed. The Department has included conditions requiring the likely impacts to be offset in accordance with the NSW Biodiversity Offset Scheme with the option of completing surveys post approval in accordance with the BAM to confirm or otherwise its presence.

99. Eight candidate threatened fauna species considered to have potential habitat at the Broken Hill road upgrades and were subject to targeted surveys and none were recorded. At this stage, the Applicant has assumed the presence of four of these candidate species, the crowned gecko and Stimson's python (both listed as vulnerable under the BC Act) and Barrier Range dragon and the eastern fat-tailed gecko (both listed as endangered under the BC Act).

100. **Table 9** provides a summary of the species credits required to be offset for the project.

Table 9 | Species credit requirements

Species	Conservation significance		SAII Entity	Impact on habitat (ha)	Credit liability
	BC Act	EPBC Act			
Project site (Riverina IBRA bioregion and the Murrumbidgee IBRA subregion)					
Austral Pillwort (*Pilularia novaehollandiae*)	Endangered	-	-	8.23*	317
Chariot Wheels (*Maireana cheelii*)	Vulnerable	Vulnerable	-	55.87	2,520
Mossgiel Daisy (*Brachyscome papillosa*)	Vulnerable	Vulnerable	-	161.63	7,068
Silky Swainson-pea (*Swainsona sericea*)	Vulnerable	-	-	8.74	326
Slender Darling Pea (*Swainsona murrayana*)	Vulnerable	Vulnerable	-	206.86	9,303
Pink Cockatoo (*Lophochroa leadbeateri*)	Vulnerable	Endangered	-	18.46 (breeding)	345
Southern Bell Frog (*Litoria raniformis*)	Endangered	Vulnerable	-	5.85	204
Plains-wanderer (*Pedionomus torquatus*)	Endangered	Critically Endangered	Yes	2.67 ha (mapped important habitat)	170
Grey Snake (*Hemiaspis damelii*)	Endangered	Endangered	-	319.33*	11,507
Broken Hill road upgrades (Broken Hill Complex IBRA bioregion and Barrier Range IBRA subregion)					
Atriplex infrequens	Vulnerable	Vulnerable	-	0.98*	22
Barrier Range Dragon (*Ctenophorus mirrityana*)	Endangered	-	-	3.59*	72
Crowned Gecko (*Lucasium stenodactylum*)	Vulnerable	-	-	0.41*	10
Eastern Fat-tailed Gecko (*Diplodactylus platyurus*)	Endangered	-	-	0.95*	22
Stimson's Python (*Antaresia stimsoni*)	Vulnerable	-	-	0.95*	22
Subtotal for project site				**787.64**	**31,760**
Subtotal for Broken Hill road upgrades				**6.88**	**148**
Total				**794.52**	**31,908**

* Assumed presence

6.3.5 Prescribed impacts

101. The project has the potential to result in impacts to birds and bats through changes in air pressure (barotrauma) or collision with turbines (bird and bat strike).

102. The assessment of these impacts is dealt with in a different way to other biodiversity impacts. They are considered a 'prescribed impact', as opposed to a 'direct impact' (like clearing and habitat loss) or an 'indirect impact' (such as impacts of predation, and weed invasion, edge effects in adjacent habitat).

103. Prescribed impacts are impacts on biodiversity values which are not related to, or are in addition to, native vegetation clearing and habitat loss. There is no policy on how to calculate or quantitatively assess prescribed impacts relating to barotrauma or bird and bat strike, and there is no requirement to provide biodiversity offset credits.

104. In that context, the approach that has been adopted for these impacts for all wind farms in NSW is a combination of a risk assessment followed by post-determination adaptive management. This adaptive management approach involves stringent requirements for baseline monitoring, ongoing monitoring of any impacts during operation, and triggers for adaptive management measures to avoid or minimise impacts.

105. The area surrounding the project site is known to have a moderate species diversity and density of birds and microbats. The revised BDAR includes a strike risk assessment for the bird and bat species most at risk of blade strike and barotrauma. The assessment considered conservation status and flight character.

106. Following exhibition of the EIS, NSW DCCEEW CPHR requested further information relating to bird and bat utilisation and the turbine-based risk assessment. The Applicant updated its risk assessment in the revised BDAR and proposed further mitigation measures.

107. The Applicant's risk assessment initially identified three turbines (WTG 16, WTG 17 and WTG 18) with a probable likelihood for a "very high" risk of strike. A further 31 turbines have been assessed as having an unlikely to probable likelihood (an event is expected to occur in most circumstances (>95%)) for a high risk of strike, mostly due to their proximity to woodland and wetland habitats.

108. As described in the risk assessment, the "very high" risk turbines have an assessed strike likelihood rating of "probable" due to both woodland habitat (including pink cockatoo habitat) and stick nests being located less than 200 metres from blade tip. No turbines are proposed within 200 metres of the wetland.

109. Of the 25 bird species and eight bat species considered in the strike assessment, a moderate risk of blade strike is anticipated for three species of birds, including pink cockatoo (*Lophochroa leadbeateri* – vulnerable under the BC Act and endangered under the EPBC Act), the black kite (*Milvus migrans* – not listed) and black falcon (*Falco subniger* – vulnerable under the BC Act) and a high risk of turbine strike for two species nankeen kestrel *(Falco cenchroides*) and wedge-tailed eagle (*Aquila audax*) (both not listed). The remaining 20 bird species and all eight bat species were assessed as low risk of turbine strike.

110. NSW DCCEEW CPHR raised residual concerns regarding potential bird and bat strike. In particular NSW DCCEEW CPHR advised that:

- risk ratings for WTG19, WTG20 and WTG21 should be reviewed and a single turbine cluster for turbines WTG16-WTG21 established for triggering management actions under the BBAMP;
- further consideration should be provided for the reduction in habitat quality and viability due to edge effects and indirect impacts; and

- the draft BBAMP provided did not set out effective triggers for action and was limited to monitoring incidences of blade strike.

111. The Applicant provided a revised consideration of prescribed and indirect impacts, including:

- an updated risk assessment for WTG19, WTG20 and WTG21, resulting in one group of six turbines having a "very high" overall risk rating with a further 28 turbines having a "high" risk rating of either blade strike or barotrauma impacts;
- increased details of the list of mitigation measures to be included in the BBAMP and commitment to develop appropriate triggering mechanisms for tiered management responses; and
- additional management actions, including active vegetation planting and management to reduce the effect of indirect impacts and edge effects during the construction and operation of the project.

112. The Department notes that the risk assessment incorporates a number of conservative assumptions in calculating the relative risk associated with both blade strike and barrier effects for bird and bat species. The risk assessment was based on a draft policy, developed by NSW DCCEEW in 2023 that has not been finalised, albeit with some adaptations. The Department considers that the proposed mitigation measures and recommended conditions would effectively reduce and manage these prescribed impacts.

113. The smart curtailment strategy has been detailed in the draft BBAMP and developed based on the collection of baseline data on variables including microbat activity, wind speed, time, month, temperature and weather conditions. The efficacy of the curtailment strategy would be confirmed through regular monitoring. Broadly, the curtailment strategy would involve:

- restricting free-wheeling of all turbines (spinning before energy generation) below a predetermined cut-in wind speed prior to commencement of energy generation;
- curtailment of moderate risk turbines below the cut-in speed of 7.9 m/s; and
- curtailment of turbines based on acoustic monitoring.

114. In consultation with NSW DCCEEW CPHR, the Department has recommended conditions:

- to allow for mirco-siting of 300 m which allows the Applicant to micro-site turbines to reduce the potential strike impacts subject to the requirements of other conditions;
- requiring the revised location of the blade tip of a wind turbine is at least 50 metres from the canopy of existing native vegetation; or where the proposed location of the blade tip of a wind turbine is already within 50 metres of the canopy of existing native vegetation, the revised location is not any closer to the existing native vegetation;
- requiring the revised location of a wind turbine is at least 500 metres away from an existing location of White-bellied Sea-eagle active nest;
- requiring a comprehensive regime of adaptive management to address the risk of bird and bat strike, including:
  - the collection of relevant baseline data on threatened and 'at risk' bird and bat species and populations in the locality that could be affected by the project;

- a detailed description of the measures that would be implemented on site for minimising bird and bat strike during operation of the project;
- an adaptive management program that would be implemented if the development is having an adverse impact on a particular threatened or 'at risk' bird and/or bat species or populations, inclusive of appropriate triggers;
- a detailed program to monitor and report on the effectiveness of these measures any bird and bat strikes on site;
- submitting monitoring data to NSW DCCEEW CPHR and the Planning Secretary.

115. Further to this, the Applicant has also committed that if the detailed design of the project results in fewer than the number of approved wind turbine generators being built, the removal of very high-risk turbines would be prioritised. This was supported by NSW DCCEEW CPHR.

116. The Department considers that the recommended conditions, including the requirement to develop and implement an adaptive management plan in consultation with NSW DCCEEW CPHR and the AG DCCEEW, would be effective in managing the risk of bird and bat strike.

6.3.6 Serious and irreversible impacts

117. Under clause 6.7 of the BC Regulation, an impact is to be regarded as serious and irreversible if it is "*likely to contribute significantly to the risk of extinction of a threatened species or ecological community*" on the basis of four principles.

118. The project would have potential impacts on one species at risk of SAII, the plains-wanderer. The plains-wanderer has been identified as a species at risk of SAII based on Principle 1 (in a rapid rate of decline). For the plains-wanderer, it is important to focus on the impacts of the project on the rate of decline and population size as the relevant principles.

119. The Department notes that population size for the plains-wanderer is known to be small (approximately 700 individuals) and as set out in the listing advice for the species, has been subject to a rapid decline (Significant (>90%) decline of monitored population over 14-year period).

120. NSW DCCEEW CPHR has reviewed the revised BDAR and Technical Note and has not advised that the proposed extent and nature of impacts are likely to result in a SAII to the plains-wanderer but requested additional avoidance of impacts to the endangered plains-wanderer should be demonstrated.

121. In NSW, mapped important habitat for the plains-wanderer is prioritised for conservation and offset requirements. The Applicant provided further reduction in impact area from 5.16 ha to 2.67 ha mapped important habitat and 33.8 ha to 10.16 ha for habitat mapped for the project. Approximately 918 ha of Mapped Important Areas occurs within the project site, and the project would impact on less than 0.6 % of mapped important habitat. When the habitat mapped for the project is considered, the total area of suitable plains-wanderer habitat could be considered to be approximately 1,195 ha, and approximately 10.16 ha would be impacted. Using either method of considering habitat, this equates to only a small fraction (<1% or up to 1%) of the potential habitat available within the project site. Given the sedentary

nature of the species, and overall low population numbers, impacts to up to 1% of suitable habitat is considered likely to adversely affect habitat critical to the survival of a species.

122. Further to this, the Applicant has also committed that if the detailed design of the project results in fewer than the number of approved wind turbine generators being built, avoidance or minimisation of impacts to plains-wanderer important mapped areas would be prioritised.

123. The Applicant has identified the opportunity to conserve an additional 13 ha of plains-wanderer habitat, including no less than 3 ha of existing mapped important area, in the vicinity of the development footprint to improve conservation outcomes for this species. This site would be conserved and managed as a "non-credit generating" area under a Biodiversity Stewardship Agreement (BSA) over and above the offset requirement. The Department has incorporated this measure into the recommended conditions for the BMP. NSW DCCEEW CPHR reviewed the recommended conditions and accepted them.

124. The Department has carefully considered the five assessment provisions in sections 9.1.1 and 9.1.2 of the BAM 2020, and the *Guidance to assist a decision-maker to determine a serious and irreversible impact* (NSW DPIE – EES, 2019).

125. The Department considers that the project's impacts would not contribute significantly to the risk of extinction, and would not constitute SAII, noting there is also an area of habitat to be conserved over and above the offset requirements for the species.

6.3.7 Significance of impacts on Commonwealth listed species and ecological communities

126. The Applicant identified and addressed all threatened species and communities and listed migratory species included in the Commonwealth Referral Decision (2023/09679) (Referral Decision).

127. Assessments of significance were undertaken for threatened species and communities and migratory that were recorded during field surveys or were considered to have a moderate or higher potential to occur on both the project site and at the Broken Hill road upgrades. This included one TEC, 13 threatened species and three migratory species identified as potentially being significantly impacted by the development and operation of the project.

128. The Applicant concluded there may be a significant impact on the plains-wanderer (endangered) and the chariot wheel (vulnerable). The Applicant concluded that impacts to species either assumed or recorded to be present would have any residual impacts adequately offset through meeting any biodiversity offset obligation established under the NSW Biodiversity Offset Scheme.

129. NSW DCCEEW CPHR reviewed the ecological assessment and advised that it provides an appropriate assessment of listed threatened species and ecological communities and migratory species.

130. The Department considered Commonwealth matters in consultation with NSW DCCEEW CPHR and AG DCCEEW, including consideration of the Applicant's assessments of significance and the relevant approved conservation advice, recovery plans and threat abatement plans (TAPs). A summary of the assessment is provided in **Appendix H**.

6.3.8 Biodiversity offsets

131. The project would generate a credit liability of 23,130 ecosystem credits and 31,908 species credits requiring offset under the *NSW Biodiversity Offsets Policy for Major Projects*.

132. Both the Department and NSW DCCEEW CPHR are satisfied that the offset credit requirements have been correctly calculated. The Applicant would offset the residual biodiversity impacts of the project in accordance with the NSW Biodiversity Offset Scheme, which includes the following options:

- acquiring or retiring 'biodiversity credits' within the meaning of the BC Act;
- making payments into an offset fund that has been developed by the NSW Government; or
- funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the offset scheme.

133. Although the final breakdown of how the credit liability would be met is still under development, at this stage the Applicant has committed to establishing Biodiversity Stewardship Sites to prioritise securing offsets required for the project within the local area. Any offsets that cannot be secured through the establishment of local offsets would then be acquitted through either by purchase of matching credits from the market or payment to the Biodiversity Conservation Fund. In accordance with the bilateral agreement, variation rules would not be applied to MNES entities, and all credits would be retired on a like-for-like basis.

134. The Department has recommended conditions requiring the Applicant to retire the required biodiversity offset credits (as referenced in the revised BDAR) in accordance with the *NSW Biodiversity Offsets Policy for Major Projects* prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset.

135. The Department notes that with further avoidance measures and ecological surveys during detailed design, the number and class of credits required to be offset could be reduced. The credits would be re-calculated when the final layout design of the project and number of turbines is known and additional ecological surveys are completed to confirm the final number and class of biodiversity credits required to be offset. This approach provides an incentive to the Applicant to avoid and minimise impacts on biodiversity values through the detailed design process to limit the offset liability for the project. The Department has recommended a condition setting out the requirements and process for recalculation of the biodiversity offset credits.

136. Consistent with statutory amendments to section 7.14 of the BC Act, concurrence will need to be sought from the NSW Minister for the Environment (NSW Environment Minister) to allow the recommended conditions for post-approval changes to credit obligations as outlined above.

137. Subject to the recommended conditions, the Department and NSW DCCEEW CPHR are satisfied that the project could be undertaken in a manner that maintains the biodiversity values of the locality over the medium to long term.

6.3.9 Recommended conditions

138. The Department has recommended conditions requiring the Applicant to:

- minimise the clearing of native vegetation and key fauna habitat, including hollow bearing trees, within the development footprint and protect native vegetation and key fauna habitat outside the approved disturbance area in accordance with limits in the recommended conditions;
- prepare and implement the BMP which includes a description of the measure to:
  - minimise the impacts of the development on threatened flora and fauna species within the disturbance footprint;
  - consult with NSW DCCEEW CPHR to secure an additional 13 ha of plains-wanderer habitat;
  - rehabilitate and revegetate temporary disturbance areas and maximise the salvage of resources within the approved disturbance area for beneficial reuse (such as fauna habitat enhancement) during the rehabilitation and revegetation of the site;
  - control weeds and feral pests; and
  - provide a detailed program to monitor and report on the effectiveness of these measures.
- prepare and implement a BBAMP in consultation with NSW DCCEEW CPHR and the AG DCCEEW; and
- retire the applicable biodiversity offset credits in accordance with the *NSW Biodiversity Offsets Policy for Major Projects* prior to carrying out any development that could directly or indirectly impact biodiversity values requiring offsets.

6.3.10 Conclusion

139. The Department considers that an adequate effort has been made to avoid and minimise biodiversity impacts as far as practicable through project design. This has been achieved through measures such as locating infrastructure within areas of non-threatened native vegetation, adopting buffers for important habitat features and avoiding threatened species habitat, including mapped important plains-wanderer habitat and substantial areas of Myall Woodlands and Sandhill Pine Woodland. The Applicant has committed to adopt further avoidance wherever practicable as part of the detailed design process.

140. The Department considers that the recommended condition for a BMP and BBAMP would further minimise the impacts on vegetation and fauna, including the collision risk to avifauna.

141. Overall, the Department considers that the biodiversity impacts of the project are acceptable, subject to the implementation of the recommended conditions and offsetting the residual biodiversity impacts of the project.

6.4 Traffic and transport

142. The construction of the project would involve the delivery of large plant, equipment and materials to the project site including by high-risk heavy vehicles requiring escort and heavy vehicles requiring escort (also

known as oversized and over-mass (OSOM)) which have the potential to impact the local and regional road network.

143. As part of the EIS, the Applicant prepared a Traffic Impact Assessment (TIA) and a Route Study for oversized and over-mass (OSOM) vehicles from Port of Adelaide to the project site and revised these studies in the Submissions Report.

144. The TIA assumptions were based on a maximum blade length of 100 m, the largest turbine tower section being 6.31 m wide and 6.63 m high, and the heaviest project component to be transported being a transformer at 160 tonnes. This would require a worst case vehicle weight of up to 256.5 tonnes, and the combined length of the vehicle, trailer and blade being approximately 110 m long.

145. Advice from TfNSW and submissions from Hay Shire, Edward River and Broken Hill City Councils and the public raised concerns regarding the increase in heavy vehicle movements and associated impacts on the state and local road network. Concerns were also raised regarding the required road and intersection upgrades to facilitate OSOM and heavy vehicle movements, the suitability of the proposed transport route, and cumulative traffic and transport impacts with other renewable energy projects.

6.4.1 Project site access and transport route

146. Wind turbine components, including OSOM vehicles, would be transported to the project site from Port of Adelaide as shown in **Figure 4**. These vehicles would cross the NSW border at Cockburn and travel east along the Barrier Highway, through Broken Hill and Wilcannia, before continuing south onto the Cobb Highway through Hay, where they would access the project site using site entrances A to D. Other project related vehicles would also access the project site using site entrances A to D from the Cobb Highway or from Kidman Way and Four Corners Road.

147. Vehicles would access the project site via the following site entrances (as shown in **Figure 5**):

- Site entrance A off West Burrabogie Road;
- Site entrance B off Jerilderie Road;
- Site entrance C off Wargam Road;
- Site entrance D off East-West Road via Warwillah Road; or
- An emergency access on West Burrabogie Road (EA), which would only be used if required for emergency purposes.

148. An OSOM route study demonstrates that access to the project site by OSOM vehicles is feasible, with upgrades to key intersections and roads, use of existing rest stops, a new rest stops and construction of passing bays along the Barrier Highway and the Cobb Highway to allow any following and/or oncoming traffic to safely pass the OSOM vehicles. This also includes upgrades around Broken Hill (see **Figure 4**).

149. The route survey was based on worst case vehicle dimensions and component weights and assumed that new rest stops and passing bays could be constructed within the Barrier Highway and Cobb Highway road reserves, with no impact to biodiversity or heritage. These assumptions would be reviewed and confirmed once final equipment and vehicle specifications are identified. The Department has recommended a condition requiring a Transport Strategy to be developed in consultation with TfNSW and relevant

Councils, which would include strategic designs, management measures and appropriate delay times to any following and/or oncoming traffic.

150. Other large project equipment that does not require OSOM deliveries could be transported to the project site from the Port of Geelong predominantly using B-Double vehicles travelling along the Cobb Highway through Deniliquin. No road upgrades would be required along this heavy vehicle route (other than upgrades in the vicinity of the project site entry points.

151. **Table 10** describes the use of the site entrances by OSOM and heavy vehicles.

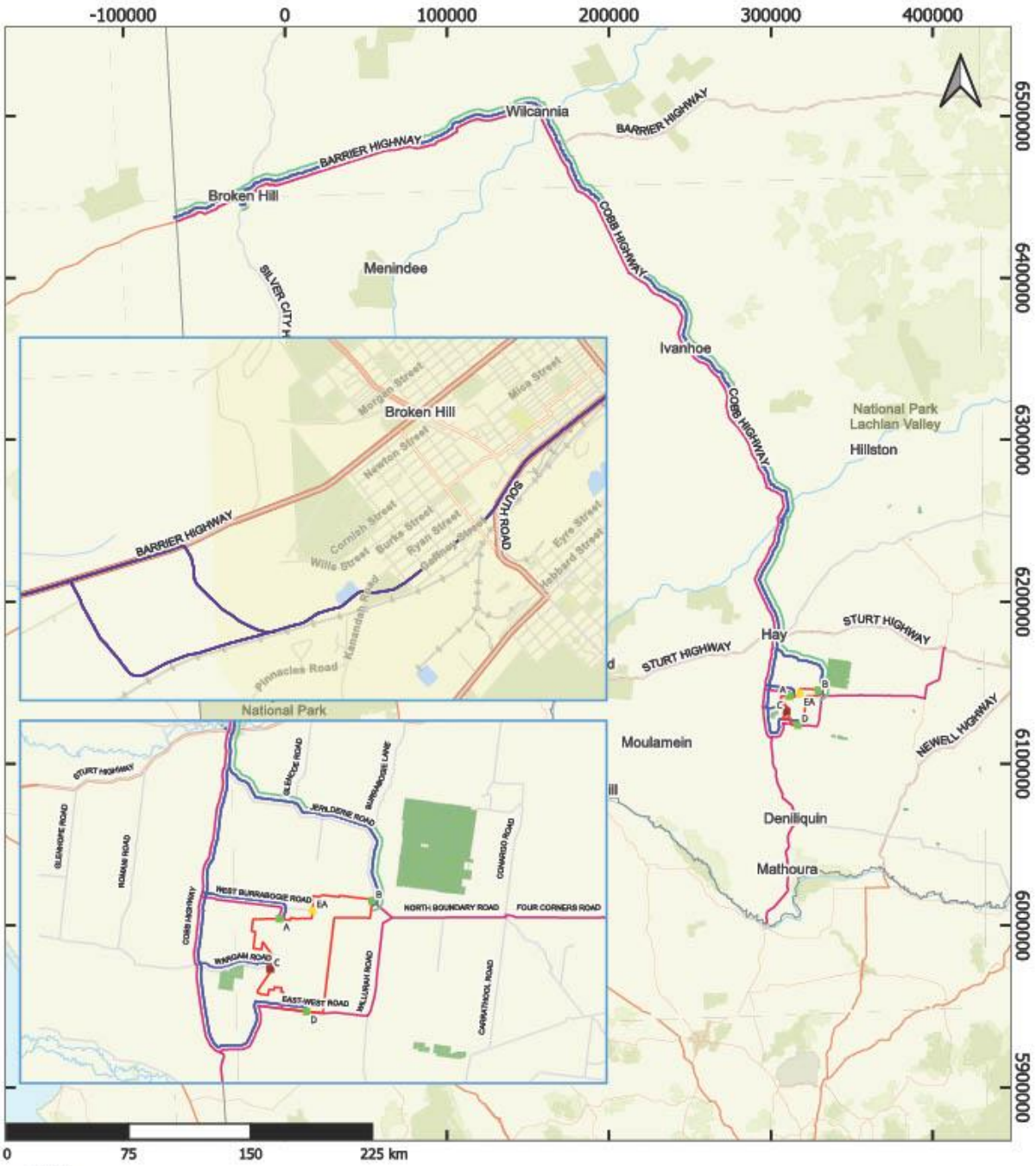
Table 10 | Use of site entrances by OSOM and heavy vehicles

Site entrance	Use by OSOM	Use by heavy vehicles
Site entrance A (off West Burrabogie Road)	Following upgrades to the intersection of Cobb Highway and West Burrabogie Road	Up to 26 m in length
Site entrance B (off Jerilderie Road)	Following upgrades to the intersection of Cobb Highway and Jerilderie Road	Up to 19 m in length[1]
Site entrance C (off Wargam Road)	Following upgrades to the intersection of Cobb Highway and Wargam Road	Not permitted
Site entrance D (off East-West Road via Warwillah Road	Following upgrades to the intersection of Cobb Highway and Warwillah Road	Up to 26 m in length

Note [1]: Non-OSOM vehicles accessing Site Entrance B would use left turn only from the Cobb Highway to Jerilderie Road

152. Vehicles travelling from the east via Four Corners Road and North Boundary Road would enter the project site via entrances B and D. Vehicles travelling from Kidman Way would only be permitted to turn right onto Four Corners Road, as per the existing intersection arrangement.

153. Within the project site boundary, vehicles would access proposed infrastructure using approximately 204 km of internal access tracks.



Pottinger Wind Farm

Proposed Transport Routes

SOMEVA RENEWABLES

Date:	30/04/2025
CRS:	GDA2020 / MGA zone 55
Scale:	1:3200000
Basemap:	ESRI Basemap (2022)
Data Sources:	NSW Spatial Portal (2024)

Prepared By: EL Reviewed By: JN
Version: 3.0
This figure may contain third party information.
This figure is provided for information purposes only and may not be to scale.

Legend

- Project Area
- Site Entrances
  - All Vehicles
  - Escorted Heavy Vehicles
  - Emergency Access
- Roads
- Transport Routes
  - Heavy Vehicles Requiring Escort
  - Heavy Vehicles up to 19m
  - Heavy Vehicles up to 26m
  - Broken Hill Bypass

Figure 4 | Transport route for wind turbine components (OSOM)

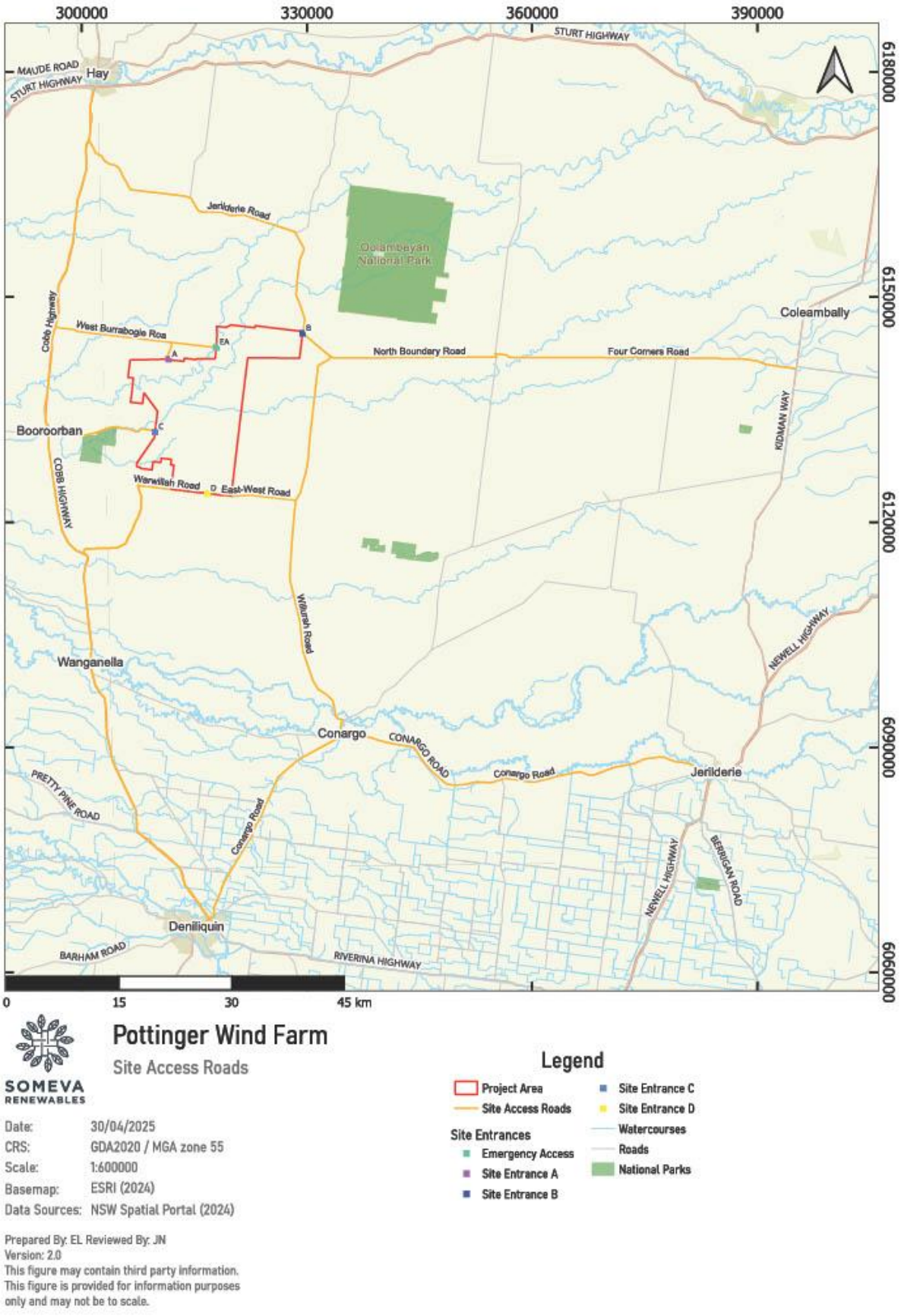


Figure 5 | Local traffic context and site access

6.4.2 Traffic volumes

155. Construction would occur over approximately 55 months, with a peak construction period of 28 months. During peak construction, the project would generate up to 1,210 light vehicles and 750 heavy vehicles per day.

156. The project would also generate a total of up to 3,458 OSOM vehicles that would deliver turbine components, with an average of 4 to 5 deliveries per day. Pilot guiding vehicles and police management would be required, in accordance with a Traffic Management Plan that would be prepared in consultation with Transport for NSW and relevant rail authorities.

157. During operation, traffic generation would be minimal, with up to 67 vehicles per day accessing the project site. Traffic generated during decommissioning is anticipated to be similar to traffic generation during the construction period.

6.4.3 Road impacts

158. Construction of the project would have a negligible impact on the intersection performance of the local and regional road network, with the exception of a minor impact to the intersection of the Cobb Highway and Jerilderie Road during morning peak hour.

159. The project considered cumulative impacts with other wind farms in the SW REZ. The assessment included The Plains Wind Farm and Yanco Delta Wind Farm projects which would generate the highest levels of additional traffic along the Cobb Highway and Kidman Way. All intersections on the Cobb Highway with local roads in the vicinity of the project would continue to operate at a level of service A (LOS A), with the exception of the right turn from the Cobb Highway (south approach) onto Jerilderie Road which is anticipated to operate at LOS B during the morning peak hour, however the delay would be minimal. These impacts would be temporary, limited to construction stage only and remain within acceptable operating standards.

160. Edward River and Hay Shire Councils did not raise specific concerns regarding impacts to the local and regional road network, but noted that further consultation would be required as part of the Traffic Management Plan. The Department has recommended a condition requiring the Applicant to consult with TfNSW, NPWS and Councils during the preparation of the plan.

6.4.4 Road upgrades and maintenance

161. The Applicant proposes to undertake a number of road and intersection upgrades within NSW to accommodate construction traffic, including:

- The Broken Hill road upgrades:
  - Construction of a new temporary gravel bypass track (approximately 5.5 km) from Barrier Highway to Gaffney Street; and
  - Construction of a new temporary gravel track, via one of two options:
  - Private land near the intersection of Crystal Street and Sturt Street (approximately 131 m); or

- Private land near the intersection of Chettle Street and Barrier Highway (approximately 147 m);

- Relocation and/or removal of signs, tree trimming and hardstand at a roundabout on the Cobb Highway;
- Upgrade to the intersection of the Cobb Highway and West Burrabogie Road to add a channelised right turn lane on the Cobb Highway, and widen the existing left turn lane from West Burrabogie Road to the Cobb Highway;
- Upgrade to the intersection of West Burrabogie Road and a private track north of site entrance A;
- Upgrade to the intersection of the Cobb Highway and Jerilderie Road to add a left turn lane from the Cobb Highway onto Jerilderie Road, and widen the existing left turn lane from Jerilderie Road to the Cobb Highway;
- Upgrade to the intersection of the Cobb Highway and Warwillah Road to add a channelised right turn lane from the Cobb Highway onto Warwilla Road, relocate the existing northbound through lane on the Cobb Highway, and widen the existing southbound lane on the Cobb Highway;
- Upgrade to the intersection of the Cobb Highway and Wargam Road to add a channelised right turn lane from the Cobb Highway, widen the existing northbound and southbound through lanes on the Cobb Highway, and further widen the entrance to Wargam Road and north of Symons Crescent;
- Minor upgrades at site entrances within Hay and Edward River LGAs, including additional hardstand, fencing realignment and tree removal.

162. Rest stops would be used to ensure that drivers delivering turbine components can safely take rest breaks. The Applicant has identified 12 rest stops in NSW, three of which would be used by project-related OSOM vehicles with other locations proposed as a backup.

163. Rest stops would be confirmed during detailed design to determine whether any additional hardstand areas would be required for project-related vehicles to safely enter and exit. The Applicant's OSOM Route Study concluded that no bridge / culvert upgrades would be required. However, the Applicant has committed to undertake a review of the bridges and culverts assessment during the detailed design. The outcome of this review would be documented in the Transport Strategy.

164. TfNSW raised concerns regarding the scope of the proposed upgrades. In particular, TfNSW raised concerns regarding the:

- provision of swept paths for OSOM movements, including concerns about shoulder widening being required for project-related OSOM vehicles to safely pass other vehicles;
- impacts to bridges and culverts along the OSOM route;
- potential pinch points within Broken Hill; and
- suitability of rest areas for the longest vehicles proposed, and potential need to seal the proposed rest areas.

165. The Applicant provided a pinch point analysis which included swept paths for the widest and longest vehicles proposed at key intersections along the route, and provided further information about swept paths in response to requests for information from the Department and TfNSW.

166. In consultation with TfNSW, the Department has recommended conditions requiring the Applicant to undertake all necessary road upgrades to the satisfaction of the roads authority, to undertake dilapidation surveys of relevant local roads and repair any damage resulting from construction traffic, and to prepare a Transport Strategy and a Traffic Management Plan for the development.

6.4.5 Rail crossings

167. There are two rail crossings along the transport route for wind turbine components as follows:

- the Cobb Highway at Ivanhoe; and
- Lachlan Street (the Cobb Highway) at Hay.

168. The Applicant consulted with the Australian Rail Track Corporation (ARTC). Based on the advice received from ARTC, the Applicant identified that OSOM traffic is not expected to have a major impact on the operation or safety of the railway level crossings.

6.4.6 Cumulative impacts within REZ

169. The Applicant has proposed a route through Broken Hill that has some required upgrades and the Department has recommended conditions including a Transport Strategy, that would also include consultation with TfNSW, Energy Corporation, local Councils and other renewable projects in the SW REZ.

170. NSW Government may also coordinate an approach for the high-risk OSOM vehicles for the SW REZ as a whole. This approach is in the early stages of investigation.

6.4.7 Recommended conditions

171. The Department has recommended conditions requiring the Applicant to:

- undertake all necessary road upgrades to the satisfaction of the relevant road authority;
- undertake dilapidation surveys of the relevant local roads along the transport routes prior to construction, upgrade and decommissioning, within one month of completion of the constructions, upgrade and decommissioning and repairing any damage resulting from construction traffic;
- prepare a Transport Strategy in consultation with TfNSW and relevant Councils that demonstrates that high-risk OSOM vehicles can be accommodated on the road network and have identified relevant approvals pathways and timing of the approvals and upgrades, and includes:
  - bridge and culvert assessments;
  - strategic designs for rest stop areas and pullover bays in NSW; and
  - a protocol to manage impacts to opposing and following traffic;
- prepare a Traffic Management Plan in consultation with the relevant roads authority that includes provisions for:
  - temporary traffic controls;
  - notifying the local community about development-related traffic impacts;

- minimising potential for conflicts with rail services, stock movements, school bus routes and other road users;
- responding to any emergency repair or maintenance requirements during construction and/or decommissioning;
- a traffic management system for managing over-dimensional vehicles; and
- a drivers code of conduct that addresses fatigue management and includes procedures to ensure that drivers adhere to the designated haulage routes and speed limits and implement safe driving practices.

6.4.8 Conclusion

172. With road upgrades, regular road maintenance, and the implementation of a Traffic Strategy and Traffic Management Plan, the Department considers that the project would not have unacceptable impacts on the capacity, efficiency or safety of the road network, subject to the implementation of the recommended conditions. TfNSW reviewed and supports the recommended conditions.

6.5 Visual

173. Approximately 17% of public submissions objecting to the project raised concerns about visual impacts, particularly regarding the size and scale of the wind farm, views of the project from tourism routes along the Cobb Highway and the cumulative impacts with other wind farms in the REZ. It should be noted that no objections were received from receivers located within 15 km of the project.

174. The Applicant commissioned a Landscape and Visual Impact Assessment (LVIA) in accordance with the Visual Assessment Bulletin (Visual Bulletin) as part of its EIS. The Department visited the project site and its surroundings to assess and better understand visual impacts.

6.5.1 Avoidance and mitigation

175. The Visual Bulletin lists different visual impact mitigation options for consideration, including physical turbine alterations (re-siting, re-sizing and re-colouring), landscaping alterations such as vegetation screening, and landowner agreements for significantly affected landowners.

176. The Department notes that there are very few non-associated residences in proximity to the project site, and acknowledges efforts from the Applicant to resolve issues through project design and neighbour agreements. This has significantly reduced the potential for visual impacts such that there is only one non-associated receiver within the black line setback distance described in the Visual Bulletin.

177. The Applicant proposes to address the residual impacts by:

- using turbines with a matte white, non-reflective finish, consisting of three blades with uniformity of colour and design;
- security lighting from the operational wind farm and associated infrastructure would be minimised to decrease the contrast between the wind farm and the night-time landscape of the area;

- avoiding unnecessary lighting, signage and logos; and
- installing aviation night lighting on 95 turbines only and committing to partial shielding where it does not compromise the operational effectiveness of night lighting.

6.5.2 Impact assessment approach

178. The Department assessed the visual impacts of the project against the Visual Bulletin's visual performance objectives. These depend on the visual influence zone (VIZ) of a receiver which is a combination of viewer sensitivity, visibility distance and scenic quality class, and comprises three zones: high (VIZ1), moderate (VIZ2) and low (VIZ3).

- **Visual Magnitude** – black (3.75 km) and blue (5.5 km) distance thresholds based on turbines 280 m tall indicate where turbines may significantly impact a receiver. In summary, the Visual Bulletin recommends for residences in:
  - VIZ1 within the blue line: avoid turbines or provide detailed justification for turbines;
  - VIZ2 within the black line: manage impacts as far as practicable and justify residual impacts, describing mitigation measures for turbines;
  - VIZ2 between the blue and black line: consider screening; and
  - VIZ3 within the black line: consider screening.
- **Multiple Wind Turbine Effects** – considers the cumulative landscape and visual impacts. The performance objectives for each receiver are dependent on viewer sensitivity level (rather than VIZ). For level 1 (high sensitivity) receivers, turbines within 8 km should avoid being visible in more than one 60 degree sector, and for level 2 (moderate sensitivity) receivers, avoid more than two 60 degree sectors.
- **Landscape Scenic Integrity** – considers how the project would alter the current landscape character and scenic quality of the visual catchment. For VIZ1 receivers, turbines should be very small or faint, or of a colour contrast that would not compete with major elements of the existing visual catchment. For VIZ2 receivers, wind turbines may be visually apparent and could become a major element, but not dominate the landscape. For VIZ3, turbines may be visually apparent or significantly modify the visual catchment.
- **Key Feature Disruption** – describes how likely turbines are to disrupt the central line of sight and/or the central focal viewing fields surrounding identified key features of a landscape. For VIZ1, turbines should not remove, visually alter or disrupt an identified key landscape feature. For VIZ2, these impacts should be minimised. No objective applies to VIZ3.
- **Shadow Flicker and Blade Glint** – for each VIZ, shadow flicker to be limited to 30 hours per year and turbines finished with a low reflectivity surface treatment to minimise blade glint.
- **Aviation Hazard Lighting** – where required, aviation hazard lighting must meet the requirements of Australian Standard AS 4282 - 1997 and any prescribed or notified CASA requirement. Shielding of all Aviation Hazard Lighting within 2 km of a residence and avoid strobe lighting.

6.5.3 Impact assessment

179. There are very few non-associated residences in the vicinity of the project, with only two non-associated receivers located within 5.5 km (the blue line) of the nearest proposed turbine and one of these is within 3.75 km (the black line) (see **Figure 6**). The Applicant conducted detailed dwelling assessments and provided photomontages or wireframes for these residences.

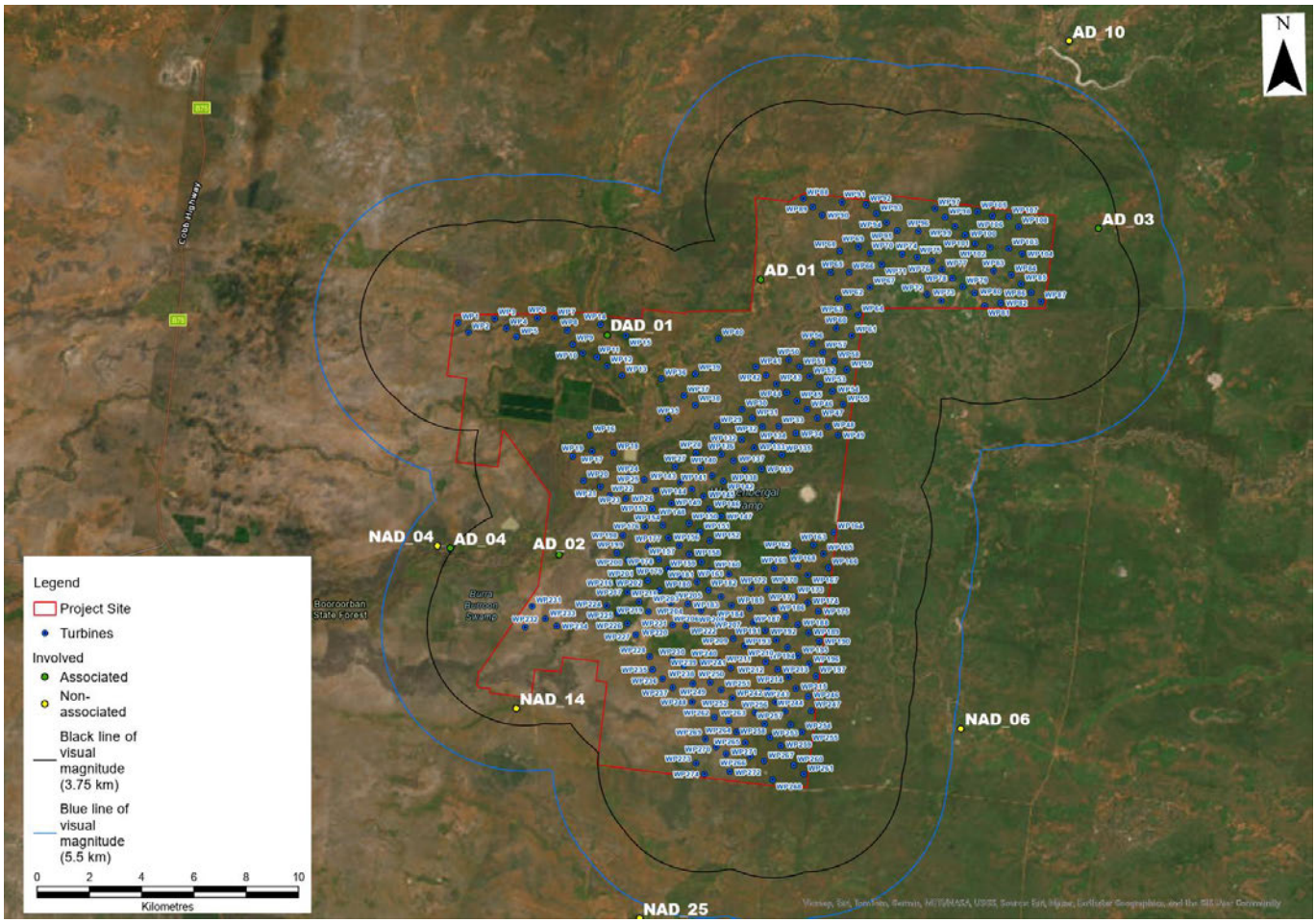


Figure 6 | Non-associated residences within the blue line

180. The Applicant identified one non-associated residence (NAD_14) within the black line. The LVIA stated that NAD_14 is an unoccupied derelict dwelling. The Department has conservatively considered visual impacts to this dwelling. At this residence, there are three turbines located within the black line, with the closest turbine located 3.12 km away (turbine 232). There are an additional five turbines located between 3.75 and 5.5 km (the black and blue line). The Department considers that visual impacts to this residence would be acceptable with the provision of supplementary screening, at the request of the landowner. The Department has recommended conditions to this effect.

181. The LVIA identified one non-associated residence (NAD_04) between the black and blue line. At this residence, there are three turbines between the black and the blue line. Given the extent of mature existing vegetation at this residence, the Department considers that visual impacts at this residence would be minimal.

182. The Department considers that the project would meet all visual performance objectives in the Visual Bulletin at all non-associated residences within the blue line. The Department is satisfied that the project is suitable for the project site and would not result in any significant visual impacts on the surrounding non-associated residences.

Cumulative impacts

183. There are three wind farm projects located adjacent to the project site: Bullawah Wind Farm to the north-east, The Plains Wind Farm to the north-west and Booroorban (Saltbush) Wind Farm to the west (collectively referred to as the nearby projects). The development applications for the Plains Wind Farm and Bullawah Wind Farm are currently under assessment, while Booroorban (Saltbush) Wind Farm project is currently preparing the EIS.

184. There are no residences located within 8 km of the project and Bullawah Wind Farm or the Plains Wind Farm, noting AD_10 (formerly NAD_26) is associated with Bullawah Wind Farm and has signed a neighbour agreement during the Department's assessment accepting the impacts of this project. There is the potential to view these projects along Jerilderie Road and West Burrabogie Road, which are both low use local roads. The LVIA identified that these roads have low visual sensitivity, and no visual performance objectives apply.

185. The Department has not yet received an EIS for the Booroorban Wind Farm. As the Applicant lodged the development application for this project prior to Booroorban Wind Farm, the applicant of the latter project would be required to include a cumulative impacts assessment with the EIS having regard to existing and approved energy projects located in proximity to their projects, in accordance with the Visual Bulletin and the SSD Guidelines.

Key public viewpoints

186. The Applicant identified and assessed the visual impacts of the project from 20 public viewpoints at varying distances surrounding the project in accordance with the visual performance objectives in the Visual Bulletin. These included key locations including Oolambeyan Homestead Picnic Area, 16 Mile Gums Rest Area and adjacent to the South West Woodland Nature Reserve. All viewpoints were classified as VIZ3 receivers.

187. Three viewpoints are located within the black line (one on Jerilderie Road and two others on Wargam Road) and another four are located between the black and blue lines. These public viewpoints are located on public roads. The LVIA identified that there would be limited traffic at these locations, views would be of short duration and would not have a significant impact.

188. Four viewpoints are located along the Cobb Highway, a major road that provides a connection between the towns of Balranald, Hay, Wagga Wagga and Deniliquin. Views from the Cobb Highway would benefit from distance, with the closest turbine 10 km away.

189. The Department considers that the visual performance objectives would be achieved at all public viewpoint locations.

Ancillary infrastructure

190. The project's ancillary infrastructure includes a BESS, substations and transformers, switchyard and collector station connecting to the 330 kV Project EnergyConnect transmission line, meteorological masts, internal access roads, construction and operational compounds, and construction-related temporary batching plants, laydown areas and accommodation facilities. The Applicant has sited this infrastructure to minimise visibility from existing residences and publicly accessible viewpoints.

191. The Department undertook an assessment of the visual impacts associated with the project's ancillary infrastructure, and considers the project's ancillary infrastructure is unlikely to have a significant visual impact. This is because there are existing transmission lines and agricultural infrastructure in the area and the ancillary infrastructure is located away from non-associated receivers. Existing vegetation also provides screening.

192. Notwithstanding, the Department has recommended conditions requiring the Applicant to ensure the visual appearance of all ancillary infrastructure (including paint colours, specifications and screening) blends in as far as possible with the surrounding landscape.

Shadow flicker and blade glint

193. The project has the potential for shadow flicker and blade glint. The Visual Bulletin's objective for shadow flicker is no more than 30 hours per year. The Applicant's LVIA included a Shadow Flicker and Blade Glint Assessment, which concluded that the proposed layout would achieve the recommended limit of 30 hours per year at all non-associated receivers.

194. Notwithstanding, the Department has recommended conditions requiring the Applicant to ensure that shadow flicker from turbines does not exceed 30 hours per annum at any non-associated residence.

195. Blade glint is addressed through the Applicant's commitment to using subtle colours and low-reflectivity surface treatment on turbines.

Aviation hazard lighting

196. Under the *National Airports Safeguarding Framework, Guideline D Managing the Risk to Aviation Safety of Wind Turbine Installations (Wind Farms) / Wind Monitoring Towers, National Airports Safeguarding Advisory Group, 2012* (NASF Guidelines), the Civil Aviation Safety Authority (CASA) is required to be notified if a proposed wind turbine or wind monitoring tower is higher than 150 m or infringes on the Obstacle Limitation Surfaces (OLS) of an aerodrome. CASA may determine, and subsequently advise an applicant and relevant planning authorities, whether it considers obstacle lighting is required for the project.

197. If such lighting is required, the NASF Guidelines recommend that to minimise visual impacts "*obstacle lights may be partially shielded, provided it does not compromise their operational effectiveness. Where obstacle lighting is provided, lights should operate at night, and at times of reduced visibility. All obstacle lights on a wind farm should be turned on simultaneously and off simultaneously*."

198. The Applicant's Aviation Impact Assessment (AIA) study concluded that no obstacle night lighting would be required for the project to maintain an acceptable level of safety to aircrafts. However, CASA recommended that the wind farm is obstacle lit with steady medium-low intensity red lighting in accordance with the NASF Guidelines. CASA also advised the installation of lower intensity lighting (200 candela was appropriate considering the location of the project. In response, the Applicant prepared an Aviation Lighting Plan proposing to light 95 of the 247 turbines incorporating CASA's recommendations. CASA has reviewed and supported the lighting plan.

199. The Department has recommended conditions requiring the Applicant to install aviation hazard lighting in accordance with CASA recommendations and in a manner that minimises any adverse visual impacts.

6.5.4 Recommended conditions

200. To minimise and manage the residual visual and lighting impacts as far as practicable the Department has recommended conditions requiring the Applicant to:

- provide visual impact mitigation measures, such as landscaping and/or vegetation screening, to non-associated residences within 5.5 km of any approved turbine, upon receiving a written request from the owners of these residences;
- implement all reasonable and feasible measures to minimise the impacts of the visual appearance of the development;
- paint turbines off-white/grey and finish the blades with a treatment that minimises potential for any glare or reflection;
- implement all reasonable and feasible measures to minimise the off-site lighting impacts of the development; and
- ensure that shadow flicker associated with turbines does not exceed 30 hours per annum at any non-associated residence.

6.5.5 Conclusion

201. The Department is satisfied that the project would not result in significant visual impacts on surrounding non-associated residences. The project is suitable for the project site, would meet the visual performance objectives in the Visual Bulletin and would not materially alter the landscape.

6.6 Other issues

202. The Department's consideration of other issues is summarised in **Table 11** below.

Table 11 | Assessment of other issues

Issue	Recommended conditions
Noise and vibration	
• Very few submissions raised concerns about potential noise impacts from the project, noting the project is generally isolated from residential receivers, with the nearest non-associated receiver over 3 km away from the project site. • The project is located in a rural environment where background noise levels are 35 dB(A) or less. **Construction noise and vibration** • The Applicant's Noise Impact Assessment (NIA) initially predicted that during construction (specifically during works associated with earthworks) one non-associated receiver (NAD_14) would exceed the 45 dB(A) noise management level (NML) as per the EPA's *Interim Construction Noise Guideline*. Following the removal of the proposed on-site quarry as part of the Submissions Report, the Applicant confirmed that no non-associated receivers would experience exceedances of the NML. • The NIA identifies that the out-of-hours standard construction hours operation of the on-site workforce accommodation camp would not exceed the NML at any non-associated receiver. • The NIA identifies no exceedances of the 60 dB(A) NML for passive recreation areas during construction, with the highest predicted noise level of 37 dB(A) for the South West Woodland Nature Reserve located 4.7 km from the nearest turbine. • The Department accepts that the proposed construction activities are unlikely to result in significant adverse impacts during daytime hours and recommends a condition restricting the works to standard construction hours (i.e. 7 am to 6 pm Monday to Friday, and 8 am to 1 pm Saturday) with no work on Sundays or NSW public holidays. However, the Department acknowledges that there may be some instances where construction activities may be required to be undertaken outside of these hours (such as emergency works or other works that are inaudible at any non-associated dwelling) and has recommended conditions allowing these activities to be undertaken with these pre-conditions. • The distances required to achieve the construction vibration criteria provided in *Assessing Vibration: A Technical Guideline* (DECC, 2006) are in the order of 20 m from the project, with vibration from construction activities unlikely to be detectable to humans at a distance of 100 m. Given the separation distances between construction activities and the nearest non-associated receiver is greater than 500 m from the project site, relevant criteria provided in the guideline would be complied with.	• Restrict construction to standard construction hours (i.e. 7 am to 6 pm Monday to Friday, and 8 am to 1 pm Saturday). • Construction outside of standard construction hours subject to approval from the Planning Secretary on a case-by-case or activity specific basis. • Limit blasting on site to between 9 am and 5 pm Monday to Friday and between 9 am to 1 pm on Saturday, in accordance with the blasting guidelines. • Verify through noise monitoring that the noise generated by the operation of the wind farm does not exceed 35 dB(A) or the existing background noise level ($LA_{90\ (10\text{-}minute)}$) plus 5 dB(A) for each integer wind speed.

Issue	Recommended conditions
• Blasting may be required to excavate bedrock for turbine foundations. Given the large separation distances between any potential blasting activity and the nearest dwelling, the NIA identifies that any blasting impacts would be managed by the Applicant to comply with the *Technical Basis for Guidelines to Minimise Annoyance due to Blasting Overpressure and Ground Vibration* (ANZECC, 1990). Blasting has the potential to reduce construction duration and overall noise impacts where conducted in a limited manner. As such, the Department has recommended conditions for controlled blasting, including strict criteria for airblast overpressure and allowable exceedances for all blasting carried out for the project, and requiring the Applicant to comply with blasting limits at all receivers. **Construction traffic noise** • Noise impacts associated with the general increase in daily traffic along the proposed access routes would be directly related to the proximity of a receiver to an access route. • Construction traffic noise impacts were assessed in accordance with the *NSW Road Noise Policy 2011* (RNP). No non-associated receivers would experience exceedances of the relevant noise criteria. • To ensure construction traffic noise impacts are managed appropriately, the Department has recommended conditions requiring the Applicant to restrict construction activities to the daytime and implement best management practice to minimise road traffic noise as part of a Traffic Management Plan for the project. **Operational noise** • Operational noise levels were assessed in accordance with the requirements of the Department's *Wind Energy: Noise Assessment Bulletin (2016)* (the Noise Bulletin). Consistent with the Noise Bulletin, the NIA calculated environmental noise criteria for operation of the turbines, based on different wind speeds. In summary, the criterion for each wind speed is the greater of 35 dB(A), or the background noise level plus 5 dB(A). • The Applicant's NIA predicts that noise impacts associated with the project, including consideration of low-frequency noise, would comply with operational noise criteria for all non-associated receivers. • The Department notes that operational noise modelling in the NIA was based on the operation of 7.2 MW turbines and acknowledges the EPA's request for revised noise modelling to be undertaken once a turbine model has been chosen. • The Department has recommended strict conditions to ensure that the noise generated by the operation of the project does not exceed relevant noise criteria, regardless of the final turbine chosen.	

Issue	Recommended conditions
• The Department is confident that noise impacts associated with the project can be appropriately managed subject to the implementation of recommended conditions.	
Heritage	
Aboriginal Heritage • The Applicant prepared an Aboriginal Cultural Heritage Assessment Report (ACHAR) to assess the impacts of the project on Aboriginal Heritage. The ACHAR identified three previously registered Aboriginal heritage items located within the project site, consisting of artefacts, hearth and a Culturally Modified Tree (CMT). • There are 117 Aboriginal heritage items located within the project site development corridor (including the proposed road upgrades near the project site). There are no Aboriginal heritage items within the Broken Hill road upgrades disturbance footprint. • To address comments from Heritage NSW on the EIS, the Applicant undertook an assessment of impacts on Aboriginal heritage associated with road upgrades required for the project, and provided a revised ACHAR including an updated Aboriginal Heritage Information Management System (AHIMS) search. The AHIMS search identified two new PADs within the project site, one of which would be subject to direct impacts. • The Department acknowledges that archaeological test or salvage excavations were not undertaken by the Applicant at the request of Registered Aboriginal Parties (RAPs). Heritage NSW accepted this approach but requested a draft test methodology to be developed in consultation with RAPs which the Applicant has since prepared. Heritage NSW reviewed the draft methodology and confirmed that it addressed all their comments. • During the detailed design, the Applicant has committed to the mitigation hierarchy of avoid, minimise and mitigate (i.e. avoid or minimise as much as possible through project redesign) and complete archaeological test excavations of Potential Archaeological Deposits (PADs) that are subject to remaining unavoidable impacts. • The Applicant has committed to undertake test excavations in accordance with the *Test Excavation Methodology* and an *Unexpected Heritage Finds Protocol,* developed in consultation with Heritage NSW, prior to carrying out any works. A revised list of Aboriginal heritage items that would be protected, and items that would be salvaged and relocated would be provided. • To strengthen these commitments, the Department has recommended conditions requiring the Applicant to prepare an addendum ACHAR prior to commencing works that could directly or indirectly impact these PADs.	• Ensure the development does not cause any direct or indirect impacts on any items located outside the development corridor, or any items identified during test excavations that are of high significance, and any items outside the disturbance area. • Undertake test excavations in accordance with the *Test Excavation Methodology*. • Prepare an Addendum ACHAR in consultation with the RAPs and Heritage NSW for test excavations of PADs identified for impact. • Implement all reasonable and feasible measures to avoid and minimise harm to Aboriginal heritage items located within the development corridor. • Salvage and relocate Aboriginal items to suitable alternative locations in consultation with Aboriginal stakeholders. • Prepare and implement a Heritage Management Plan, in consultation with Aboriginal stakeholders and Heritage NSW.

Issue	Recommended conditions
• The Department has recommended conditions requiring the Applicant to protect sites and PADs located outside the project footprint, to avoid or minimise impacts on all sites and PADs during detailed design, and avoid impacts to heritage items identified during test excavations that are of high significance. The Applicant would also be required to prepare and implement a Heritage Management Plan in consultation with RAPs and Heritage NSW. • The Department and Heritage NSW considers that subject to recommended conditions, the project would not significantly impact the Aboriginal cultural heritage values of the locality. **Non-Aboriginal Heritage** • There are no Commonwealth or World listed heritage places, nor State listed or locally listed heritage places or items within or close to the project site. • The City of Broken Hill LGA is listed on the National Heritage List (Place ID: 105861). The Broken Hill road upgrades would sit within the curtilage of this listing, however the assessment identified that the identified National heritage values of the City of Broken Hill would not be lost, degraded or damaged or notably altered, modified, obscured or diminished by the Broken Hill road upgrades. • The Broken Hill road upgrades will also intersect with a locally listed heritage item (Place ID 310-341). Broken Hill Council have confirmed that the transport route would not have an adverse impacts on this item. • The Heritage Council was consulted regarding the project but raised no concerns. Relevant councils also raised no concerns regarding impacts to locally listed heritage items. • As such, the Department considers impacts on non-Aboriginal heritage values from the project is unlikely and would be adequately managed by the implementation of recommended conditions.	
Land use compatibility	
• Submitters raised concerns about the project being on agricultural land and associated impacts to food security. • The project site and surrounds are dominated by agricultural land uses, primarily sheep grazing with some cropping. • No Biophysical Strategic Agricultural Land (BSAL) is mapped within the project site or surrounding area. • The project site is comprised of Class 3 (2.4%) (high capability), Class 4 (2.9%) (moderate capability), Class 5 (57.2%) (moderate–low capability), Class 6 (18.6%) (low capability), and Class 7 (18.9%) (very low capability) land. • The Applicant would seek to minimise disturbance to areas of high and moderate capability land as far as practicable.	• Require the rehabilitation of the project site to a standard that makes it available for agricultural production following decommissioning.

Issue	Recommended conditions
• The development and operation of a wind farm can co-exist with grazing activities. Upon project decommissioning, the land would be rehabilitated. As such, the project would not compromise or significantly diminish the availability of land for primary production purposes within the project site or surrounding LGAs. • While the project would temporarily reduce the available land for agricultural uses during construction, the long-term use of the land for agricultural purposes would not be compromised during the operation of the Project. Additionally, the Department notes that the project would provide an additional source of income for the landowners of the associated properties, whose land would be impacted. • As such, the Department considers that agricultural and wind farm activities are compatible land uses and can co-exist in the locality. This has been demonstrated at several operating wind farms in NSW.	
Soil and water	
Water supply • Around 623 ML of water is required for construction, over a period of approximately 38 months. This includes water for dust suppression, concrete production, vehicle and equipment washdown, and amenities. Additionally, 24 ML of potable water per year would be required over the construction period. • Water demands during operation would be limited to amenities usage and are expected to be minimal, with water required for vehicle washdown, equipment and plant, vegetation management, site amenities and fire protection. • The Applicant proposes to obtain the water required for construction and operation from multiple sources, including: – existing irrigation and groundwater from licenced bores, under agreement with host landowner; – extraction from the Coleambally Irrigation Co-operative Limited (CICL) Scheme; – harvested runoff from farm dams; – reuse of treated wastewater from the site office and temporary accommodation facilities (water would be treated at an onsite wastewater treatment system) for non-potable uses; – potable water would be carted from town supply. • The Applicant may also utilise other water sources licensed under the *Water Management Act 2000*, including groundwater purchased from associated or adjacent landowners, water purchased from Council, and by purchasing and transporting water to the project site by tanker. • The Applicant proposes an onsite wastewater treatment system to collect and treat wastewater from site offices and temporary accommodation facilities for re-use on site to fulfill non-potable construction, operation and	• Ensure the development has adequate water supply for the project and that it obtains any necessary licences under the *Water Act 1912* or *Water Management Act 2000.* • Ensure treated wastewater used during construction and operation complies with the ANZECC and ARMCANZ (2000) guidelines for irrigation water quality and the requirements of the Public Health Act 2010. • Ensure all works are undertaken in accordance with *Guidelines for Controlled Activities on Waterfront Land* (NRAR, 2018) and *Policy and Guidelines for Fish Habitat Conservation and Management* (2013). • Ensure that the revised location of a wind turbine is at least 40 metres away from Strahler stream order watercourses; or

Issue	Recommended conditions
decommissioning demands. EPA did not raise concerns about the proposed re-use of treated wastewater, and the Applicant would be required to obtain approval from Council under section 68 of the *Local Government Act 1993* prior to re-use. • The Applicant confirmed that it is unlikely that the project would intercept an aquifer given the depth to the groundwater table is between 18 to 25 metres, exceeding the depth of project infrastructure (up to 5 m). • The Department, NSW DCCEEW Water Group (Water Group), and WaterNSW are satisfied that the project's water use is unlikely to have any significant impact on water supply and demand in the region, subject to the Applicant obtaining relevant approvals and licences, and adhering to the requirements of relevant water sharing plans. **Erosion and sedimentation** • The project site is characterised by a flat topography and as a result the risk of erosion from high velocity surface water flows is considered low. • The Applicant has committed to preparing an Erosion and Sediment Control Plan prior to the commencement of construction to ensure erosion control measures (including construction works timing restrictions and enhanced measures) would be implemented in accordance with the relevant requirements in the *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual (i.e. the 'Blue Book'). • The Department considers that any erosion and sedimentation risks associated with the project can be effectively managed by complying with the relevant requirements in the Blue Book. **Waterfront land** • Initially, the Water Group had concerns about wind turbines and associated infrastructure located on waterfront land. • The Applicant has committed to micro-site infrastructure where possible to avoid impacts to waterfront land. The • The Department has recommended conditions requiring the Applicant to ensure that all works on waterfront land and within watercourses comply with the relevant policies and guidelines. • The Department considers that subject to the recommended conditions being implemented, the potential impacts of the project on watercourses would be appropriately managed.	where the proposed location of a wind turbine is already within 40 metres of a Strahler stream order watercourse, the revised location is not any closer to the Strahler stream order watercourse. • Minimise any soil and sediment generation to ensure the project is constructed and maintained to avoid causing erosion on site. • Ensure all works are designed, and maintained in such way that it does not materially alter the flood storage capacity, flows or characteristics in the development area. • Ensure that the development does not materially alter the flood storage capacity, flows or characteristics in the development area or off-site and is designed, constructed and maintained to reduce impacts on surface water, localised flooding and groundwater at the site. • Emergency Plan to detail response measures and emergency exit routes in the case of flood to ensure site safety.

Flooding

- The project site is situated within the Murrumbidgee River floodplain, approximately 40 km south of the Murrumbidgee River. The Nyangay Creek and the Coleambally Outfall Drain (both are 9th order Strahler streams), Eurolie Creek (4th order Strahler stream) and Wargam Creek (3rd order Strahler stream) are within the project site. These watercourses are prone to significant overland flows, and as such, the project site is subject to flooding.
- The flood hazard category varies throughout the project site, with the main drainage channels recording a hazard level of up to H5 (i.e. unsafe for vehicles and people, all building types considered vulnerable to failure) and the remaining areas recording either a hazard level of H2 (unsafe for small vehicles) or H3 (unsafe for vehicles, children and the elderly).
- Detailed flood modelling was included within the EIS, with modelling based on the 5% and 1% Annual Exceedance Probability (AEP) and the Extreme (probable maximum flood or PMF) events. The average flood depths across the project site are up to 0.3 m during a 1% AEP event, with a peak flood depth of 4.5 m within ponded areas in an 1% AEP event.
- The modelling predicted that during construction some of the temporary construction compounds, batching and laydown areas would experience a flood depth of up to 0.9 m during a 1% AEP event.
- During the operation, most turbines would be impacted by flooding in an 1% AEP event. However, turbines are resistant to flooding at the tower base up to several metres in depth, and as a result flooding would not result in material impacts to turbines.
- The BESS, main substation and switching station are located within the 5% AEP, 1% AEP and PMF flood extents. The Applicant has committed to elevating these items above the PMF flood level during detailed design.
- Several access tracks are located within the 5% AEP, 1% AEP and PMF flood extents. Appropriate erosion and sediment controls, including scour protection, would be implemented by the Applicant during the detailed design of access tracks to minimise potential washouts during flood events.
- The Applicant identified that the location of the temporary workforce accommodation camp is subject to flooding, with a peak flood depth of 0.02 m in a 1% AEP event and 0.04 m in a PMF event. The Department's recommended conditions requires the preparation and implementation of an evacuation plan for the accommodation camp in consultation with RFS and the NSW State Emergency Service.
- The Applicant has committed to a range of measures to be incorporated into the detailed design to mitigate potential flooding impacts, including minimising the extent of project infrastructure within the 1% AEP flood extent, designing the project to manage flood impacts, and elevating flood sensitive ancillary infrastructure above the PMF level.

Issue	Recommended conditions
• The flooding assessment concluded that whilst construction and operation of the project may cause some disturbance to minor flow and drainage paths, any increases in flooding associated with project infrastructure would be minor and would not present significant erosion or inundation risks. • The Applicant has committed to the preparation and implementation of an Emergency Response Plan to manage flooding risks associated with the project. • The Department has recommended conditions requiring the Applicant to design and operate the development with consideration of the flood impacts. Additionally, the Applicant is required to prepare an Emergency Plan. • The Department, local Council and NSW DCCEEW CPHR are satisfied that with the implementation of proposed management measures, the project would have minimal impacts on flooding and local hydrology.	
Hazards and Risks	
Bushfire safety • Some submitters raised concerns about the impacts of the project on bush fire management. • The project site is mapped as bushfire prone land by the RFS. The Applicant has committed to establish a 10 m Asset Protection Zones around each wind turbine, wind monitoring masts, compound for the operation and maintenance facilities, including substations, in compliance with relevant guidelines. • The Applicant has committed to compliance with the *RFS's Planning for Bushfire Protection 2019* and the preparation of an Emergency Management Plan to manage fire risks. The Applicant has also committed to a number of mitigation measures and strategies, including the provision of on-site water supply for firefighting purposes, and appropriate bush fire emergency and evacuation plans. • The Department is satisfied that the bushfire risks can be suitably controlled through the implementation of standard fire management plans and procedures. **Electric and magnetic fields (EMF)** • Most operational infrastructure (including turbines, substations, BESS, transmission lines and interconnecting cables) are sources of electric and magnetic fields (EMF). Maximum EMF values would occur immediately below overhead power lines, and at ground level immediately above underground cables. • The EIS includes an assessment of the EMF levels for operational infrastructure against public exposure guidelines. The results show that the project would comply with the *International Commission on Non-Ioniizing Radiation*	• Prior to commencement construction prepare a Fire Safety Study that meets the requirements of Fire & Rescue NSW as required by the Department's Hazardous Industry Planning Advisory Paper No. 2 'Fire Safety Study' guideline. • Ensure the development is suitably equipped to response to fires on the project site, including the provision of 20,000 litre water supply tanks adjacent to each of the four site access points and one 45,000 litre water supply tank at each construction office/maintenance compound for firefighting purposes. • Prepare and implement an Emergency Response Plan. • Ensure that the design, construction and operation of the development is managed to

Issue	Recommended conditions
Protection (ICNIRP) guidelines for electric, magnetic and electromagnetic fields and indicates that the levels of EMF would be significantly lower than the current internationally acceptable level for human health. • The Department notes that EMF reduces rapidly with distance from its source. Radiation from the transmission power lines becomes indistinguishable from background radiation within 50 m of a high voltage power line and within 5 – 10 m of a substation. • Given that the setback distances between project components that could generate EMF and any residential dwellings are considered to be significant (in excess of 1 km), the Department is satisfied the project is unlikely to have any significant EMF related impacts. **Contamination** • The Applicant considered the risk of contamination for the project site. The EIS identified that the project site is characterised by agricultural land uses including sheep and cattle grazing, and some irrigated cropped areas. • The EIS states that no evidence of contamination, including fertiliser application was recorded in the project site during the site inspection. The EIS also identified that herbicides have been used at the project site for weed control, however their use is minimal and on an as needs basis. • The Applicant conducted a search of the EPA's Contaminated Lands Register and list of sites notified to the EPA under section 60 of the *Contaminated Land Management Act 1997* (CLM Act), which did not return any information on reported contamination for the project site. • During construction, there is a risk for soil to become contaminated through accidental chemical or fuel spills, leaks from construction plant and equipment and from inappropriate storage of hazardous materials. The ground disturbance would be limited to locations for temporary construction facilities and permanent operational infrastructure. Noting the minimal level of ground disturbance required for the project the Applicant identified that the risk of exposing contaminated land during construction of the project is low. All areas impacted during construction would be sealed or rehabilitated and landscaped to prevent soil erosion. • The Applicant has also committed to implementing an Unexpected Finds Procedure to manage the risk of unknown contamination being encountered during construction. • Accordingly, the Department considers that the contamination risk at the project site is acceptable, and can be appropriately managed with the implementation of the standard mitigation measures.	comply with the applicable EMF limits in the International Commission on *Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to time-varying electric and magnetic fields (1Hz – 100kHz)* (ICNIRP, 2010).

Issue	Recommended conditions
Blade throw • The Applicant's risk assessment concluded that the risk of blade being thrown from a turbine and reaching a maximum distance of 250 m is 10^{-6} (1 in 1,000,000). This means the risk to a person being at a fixed location 250 m from the nearest turbine continuously for a whole year being hit and killed by a blade or blade fragment is in the order of less than 1 in 1,000,000. • As there are no dwellings or other sensitive receivers within 500 m of a proposed turbine location. The proposed locations for the BESS, substation, operations and maintenance facility, and the temporary workers accommodation facility exceed the separation distance of 250 m, and the risk of blade throw impacting these locations is low. • The Applicant's risk assessment identifies the risk of blade throw to passing cars is very low, with the nearest local road 180 m from a proposed turbine location. • Given the distance of the turbines from occupied dwellings and roads, the Department is satisfied that the project is unlikely to pose significant blade throw risk to the community.	
Social and economic	
• The Applicant prepared a Social Impact Assessment (SIA) as part of the EIS, which identified a range of potential social impacts, both positive and negative. These include: – economic benefits for the surrounding community; – increased demand for local goods and services; – reduced availability of accommodation and housing; and – reduced landscape character, amenity, health and wellbeing impacts. • While some submitters raised concerns about socio-economic impacts, other submitters were supportive of the socio-economic benefits to the local community. • The project would generate direct and indirect benefits to the local community including: – up to 900 construction jobs and 50 ongoing FTE operational jobs; – expenditure in the local economy by workers who would reside in the area; and – the procurement of goods and services by the Applicant and associated constructors. • The Applicant has committed to benefit sharing to the community via the following mechanisms: – community benefits of $893 per MW generation capacity installed with a 50% split between each Council, per year for the duration of the project and;	• Enter into a VPA with each relevant Council prior to commencing construction. • Prepare an Accommodation Camp Management Plan and an Accommodation and Employment Strategy for the project in consultation with Council.

Issue	Recommended conditions
– an additional $158 per MW has been agreed to be allocated to a dedicated First Nations Fund. • The VPA that has been agreed upon with Hay Shire Council and Edward River Council would be paid into a separate Community Enhancement Fund for each Council, to be administered by the Applicant in partnership with the relevant Council. The VPA equates to an annual contribution of up to $535,500 (excl. GST and indexed to CPI) (dependent on the final size of the project) to Edward River Council and Hay Shire Council, totalling $1,070,000 annually, over the operational life of development. • The Applicant is proposing to establish an on-site workforce accommodation camp to accommodate up to 430 workers to manage potential impacts to housing and short-term accommodation availability in the region. The facility would be designed and maintained in accordance with an Accommodation Camp Management Plan, and the Department has recommended a condition to this effect. • The Applicant would also be required to prepare and implement an Accommodation Camp Management Plan including the provision of health and medical services. • The Applicant would also be required to prepare and implement an Accommodation and Employment Strategy to investigate options for prioritising the employment of local workers for the construction and operation of the project. • The Department considers that landscape character, amenity, health and wellbeing impacts could be appropriately managed with the implementation of the Applicant's commitments and the Department's recommended conditions. • Accordingly, the Department considers that the social and economic benefits of the project outweigh the negative social and economic impacts. As such, the project is in the public interest.	
Aviation safety	
• The project site is located 56 km south of Hay Aerodrome. • The Applicant undertook an assessment of aviation impacts. The assessment concluded the project would not have any adverse or significant impacts to air safety, subject to the implementation of mitigation measures and administrative controls. • Airservices Australia advised that the maximum height of turbines would affect the lowest safe altitude (LSALT) for air routes H247 and W762, and the 25 nm Minimum Sector Altitude (MSA) instrument procedure at Hay Aerodrome. The Department has recommended a condition requiring the Applicant to consult with Airservices Australia and request an amendment to the identified air routes at least seven months prior to the commencement of construction. Airservices reviewed the conditions and confirmed that the conditions are sufficient.	• Notify the relevant aviation authorities and local airstrip operators of the final location and specifications of the wind turbines and any wind monitoring masts. • Install aviation hazard lighting in accordance with CASA's requirements. • Minimise the off-site lighting impacts of the project.

Issue	Recommended conditions
• Initially, the Applicant's Aviation Impact Assessment (AIA) concluded that obstacle night lighting to wind turbines is not required to maintain an acceptable level of safety to aircrafts. However, CASA advised • that the project is considered to be a hazard to aviation safety and did not agree with recommendations of the AIA. CASA recommended that the wind farm is obstacle lit in accordance with the NASF Guidelines. This requirement has been included by the Department in the recommended conditions. • In response to CASA's concerns, the Applicant developed an Aviation Obstacle Lighting Plan in accordance with the NASF Guidelines. CASA reviewed and agreed with the recommendations of the Aviation Obstacle Lighting Plan to only light 95 turbines (nearly 40%). • Prior to construction of any wind turbines or meteorological monitoring masts, the Applicant has also committed to consultation with CASA, Airservices Australia and relevant aerodrome operators to communicate the final turbine coordinates and heights. • The NSW Rural Fire Service did not raise any concerns about the project. As a result, aerial firefighting is not anticipated to be impacted by the project. • The Department, CASA, the Department of Defence, and Airservices Australia considers that any hazards from the turbines would be appropriately managed as long as the development is carried out in accordance with the NASF Guidelines.	• Consult with aviation authorities, local aerodrome owners/operators regarding changes to the LSALT resulting from the development. • Consult with Airservices Australia to secure a commercial agreement for the amendment of air routes H247 and W762, and the Hay aerodrome 25 nm MSA instrument procedure.
Radiocommunication	
• Electromagnetic signals transmitted for telecommunication systems (such as radio, televisions, mobile phones and mobile/fixed radio transmitters) function most efficiently where a clear line of sight exists between the transmitting and receiving locations. Wind farms and other infrastructure have the potential to cause interference with this line of sight. • The Applicant undertook an assessment of electromagnetic interference and identified two point-to-point links passing over the project. The assessment concluded that there would be no material impact on existing telecommunication services. • The Telco authority reviewed the project and did not raise any concerns. As such, the Department is satisfied that the project is not likely to have significant impacts on radiocommunications.	• If the project disrupts any radiocommunications services, the Applicant must make good any disruption to these services as soon as possible, but no later than one month following the disruption of the service, unless the relevant service provider or user or Planning Secretary agrees otherwise.

Issue	Recommended conditions
Subdivision	
• The Applicant requires subdivision of potentially two new lots located on Lot 42 DP591554, to enable ownership of the switching station and BESS to be transferred to the network operator. • The subdivision would create two new lots approximately 40 ha and 18 ha, the smaller of which would not meet the minimum lot size for land use zoned RU1-Primary Production and are therefore prohibited under a strict reading of the Hay LEP and Conargo LEP. • Notwithstanding, development consent for the project as a whole can be granted despite the subdivision of the application being prohibited by the LEP (under section 4.38(3) of the EP&A Act). • The Department considers that the subdivision be approved as part of the project as the subdivisions: – are necessary for the ongoing operation of the wind farm as they are required for the transfer of the substation to the network operator; – would not result in the addition of any dwelling entitlements on the subdivided land; – are consistent with the key objectives of the RU1 zone as it would encourage diversity in primary industry enterprises and minimise conflict between land uses; – are necessary for the operation of the wind farm as they are required to register the leases with the Office of the Registrar-General; and – would be administrative in nature and does not result in any additional environmental impacts. • The Department is satisfied that the proposed subdivisions are in the public interest, as they would allow the wind farm to be development and consequently provide net benefits to the National Electricity Market that can be realised in a timely manner.	• Subdivide the proposed lots in accordance with requirements of the EP&A Act, EP&A Regulation, *Conveyancing Act 1919* (NSW) and the NSW Land Registration Services or its successor).
Waste	
• The project would not generate significant volumes of waste during construction. This waste would predominantly be classified as general waste, sanitary and liquid waste from site compounds and the temporary workforce accommodation and hazardous wastes such as oils, hydraulic fluids and other wastes associated with construction plant and equipment. The Applicant is committed to segregate, manage, reuse, recycle and safely dispose of all wastes at appropriately licenced facilities. • During the operation of the project there would be negligible amounts of waste, except for repair and maintenance activities.	• Condition requiring waste be dealt with in accordance with the following hierarchy of: – avoid or reduce where possible; – re-use, recycle and recover; – treat or dispose of to a licenced facility.

Issue	Recommended conditions
• Submissions from Edward River Council and Hay Shire Council raised concerns regarding waste management. • The Department has imposed a condition requiring the Applicant to reduce waste, recycle where possible, and to dispose of unrecyclable waste at a licenced facility. • Noting the above, the Department considers that the waste generated by the project could be appropriately managed.	
Air Quality	
• The Applicant has committed to a number of mitigation measures to manage potential air quality impacts, including dust suppression and controls and limiting construction during windy weather conditions. • Noting the above, and that any potential air quality impacts would be limited in duration, the Department considers that the project would not significantly impact the air quality in the locality.	• Ensure off-site dust, fume and blast emissions are minimised. • Ensure surface disturbance is minimised.
Decommissioning and rehabilitation	
• The Department has developed standard conditions for wind farms to cover this stage of the project life cycle, including clear decommissioning triggers and rehabilitation objectives. • Additionally, the Department has provided guidance on how host landowner agreements should consider refurbishment, decommissioning and rehabilitation in the NSW Wind Energy Framework's Negotiated Agreement Advice Sheet. • With the implementation of these measures, the Department considers that project infrastructure would be suitably decommissioned, either at the end of the project life or if the project is not operating for more than a year, and the project site would be appropriately rehabilitated to a standard that would allow the ongoing productive use of the land.	• Decommission and rehabilitate the accommodation camp within 12 months of commencing operation. • Decommission wind turbines (and associated infrastructure) within 18 months of the cessation of operations. • Minimise the total disturbance area exposed at any time, and progressively rehabilitate disturbed areas. • Comply with rehabilitation objectives, including removing redundant above-ground infrastructure, restoring rural land capability and vegetation, ensuring public safety and ensuring disturbance area is maintained in a safe, stable and non-polluting condition.

Issue	Recommended conditions
Cumulative	
• Submitters raised concerns regarding cumulative impacts of the project particularly as it is within the SW REZ. • The EIS includes a cumulative impact assessment for the project, which provided an assessment of potential impacts of the project alongside potential impacts of other proposed projects in the region. • The EIS identified the potential for construction of the project to coincide with construction of several other projects at various stages in the planning system, including Pottinger Solar Farm (adjacent), Bullawah Wind Farm (adjacent), The Plains Solar Farm (adjacent), the Plains Wind Farm (adjacent), Dinawan Wind Farm and Dinawan Solar Farm (25 km from the project site). • There is potential for cumulative amenity impacts associated with noise, traffic, air quality and visual impacts during construction. Cumulative impacts during construction would be temporary and vary depending on the extent of activity occurring at each project concurrently. Each project would implement mitigation measures to minimise their potential impacts. • The Applicant has committed to co-ordinating construction activities with other projects where possible to minimise cumulative amenity impacts at the nearest non-associated sensitive receivers. • The Applicant proposes a temporary workers accommodation camp within the project site to facilitate the project and would therefore not compete with surrounding projects for accommodation. • The Department also notes that three other wind farm projects and one solar project were successful in gaining the rights to connect to Project EnergyConnect. Energy Corporation notes that, at this stage, there is no additional capacity available on the South West REZ transmission network, meaning that there will be limitations to other new projects connecting in the short term. However, should there be other future successful projects or projects connecting to the existing network, then the number of additional projects constructing at the same time is unlikely to be significant. • The Department acknowledges that the project has the potential to contribute to cumulative impact associated with the development of multiple projects. The Department also considers that the majority of these impacts would occur as part of the construction phase and be temporary in nature. These impacts can suitably be addressed though the implementation of committed mitigation measures and recommended conditions.	• No specific conditions required.

7 Evaluation

203. The Department has assessed the development application, EIS, Submissions Report and additional information and has carefully considered:

- submissions received from members of the community;
- comments provided by Council; and
- advice received from State and local Government agencies.

204. The Department has also considered the objectives of the EP&A Act, including the ESD principles, and relevant considerations under section 4.15(1) of the EP&A Act. The Department has given consideration to The Applicant's evaluation of the project's merits against applicable statutory and strategic planning requirements.

205. The project is located in the South West REZ, an area identified as strategically advantageous with strong renewable energy resource potential, proximity to the existing and currently under construction high voltage transmission including Project EnergyConnect, and consideration of potential interactions with existing land uses, including agricultural lands and biodiversity conservation.

206. The project is permissible with consent in accordance with the Transport and Infrastructure SEPP and is located on land which has been subject to historical land clearing for agricultural purposes.

207. The project has been designed to largely avoid key constraints, including higher quality native vegetation and threatened species habitat (particularly mapped plains-wanderer habitat), visual amenity, traffic impacts and impacts to Aboriginal cultural heritage sites. Any residual impacts would be relatively minor and can be managed through the recommended conditions of consent.

208. The project would not significantly impact threatened species and/or ecological communities of the locality. The Department considers that any residual biodiversity impacts can be managed and/or mitigated by imposing appropriate conditions and retiring the required biodiversity offset credits.

209. The project would meet the visual performance objectives of the Visual Bulletin and there would be no significant visual impacts from the project. The Department acknowledges that the project is sited away from non-associated residences and scenic road corridors, with only two non-associated residences within 5.5 km of the project.

210. In relation to traffic impacts, the Department considers that, with the implementation of a Transport Strategy, the proposed transport routes could be appropriately upgraded to facilitate the transportation of large turbine components to the site.

211. To address the residual impacts of the project, the Department has recommended a range of detailed conditions, developed in conjunction with agencies and Council, to ensure these impacts are effectively minimised, managed and/or offset. The Applicant has reviewed the conditions and does not object to them.

212. The Department considered the submissions made through the exhibition of the project and the issues raised by the community and agencies during consultation. These matters have been addressed through changes to the project and the recommended conditions of consent.

213. Importantly, the project would assist in transitioning the electricity sector from coal and gas-fired power stations to low emissions sources and is consistent with the goals of the *NSW's Climate Change Policy Framework and the Net Zero Plan Stage 1: 2020 – 2030*. It would have a generating capacity of 1,300 MW of clean electricity, which is enough to power approximately 593,000 homes.

214. The inclusion of a BESS would enable the project to store energy for dispatch to the grid when the wind isn't blowing and/or during periods of peak demand, increasing grid stability and energy security.

215. The project would also provide flow-on benefits to the local community, including up to 900 construction jobs, 50 operational jobs and a financial contribution of $893 per MW (up to $1,070,000 (adjusted to CPI and depending on the final installed capacity)) over the operational life of the development in contributions to local councils for benefit sharing to the community, in addition . There would be benefits to the State through an injection of $2 billion in capital investment into the NSW economy.

216. Overall, the Department considers that the project achieves an appropriate balance between maximising the efficiency of the wind resource development and minimising the potential impacts on surrounding land uses and the environment.

217. On balance, the Department considers that the project is in the public interest and is approvable, subject to the recommended conditions of consent (see **Appendix E**).

218. This assessment report is hereby presented to the Independent Planning Commission for determination.

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Glossary

Abbreviation	Definition
AG DCCEEW	Australian Government Department of Climate Change, Energy, the Environment and Water
AHD	Australian height datum
NSW DCCEEW CPHR	Conservation Programs, Heritage & Regulation Group (CPHR) within the NSW Department of Climate Change, Energy, the Environment and Water
CIV	Capital investment value
Commission	Independent Planning Commission
Council	Hay Shire and Edward River local government areas
Crown Lands	Crown Lands division of the Department of Planning, Housing and Infrastructure
CSSI	Critical State significant infrastructure
Department	Department of Planning, Housing and Infrastructure
DPI	Department of Primary Industries within the Department of Regional NSW
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

Abbreviation	Definition
FRNSW	Fire and Rescue NSW
Heritage	Heritage NSW, within the NSW Department of Climate Change, Energy, the Environment and Water
LEP	Local environmental plan
MEG	Mining, Exploration and Geoscience within the Department of Regional NSW
Minister	Minister for Planning
NPWS	National Parks & Wildlife Service within the NSW Department of Climate Change, Energy, the Environment and Water
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
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
SSI	State significant infrastructure
TfNSW	Transport for NSW
WTG	Wind Turbine Generator

Appendices

Appendix A – Environmental Impact Statement

Appendix B – Submissions and government agency advice

Appendix C – Submissions Report

Appendix D – Additional information

Appendix E – Recommended Development Consent

Appendices A to E available at:

https://www.planningportal.nsw.gov.au/major-projects/projects/pottinger-wind-farm

Appendix F – Statutory considerations

Objects of the EP&A Act

In line with the requirements of section 4.15 of the EP&A Act, the Department's assessment of the project has given detailed consideration to a number of statutory requirements. These include:

- The objects found in section 1.3 of the EP&A Act; and
- The matters listed under section 4.14 (1) of the EP&A Act, including applicable environmental planning instruments and regulations.

The Department has considered all these matters in its assessment of the project and has provided a summary of this assessment in **Table F-1** below.

Table F-1 | Objects of the EP&A Act and how they have been considered

Summary
Objects of the EP&A Act
The objects of most relevance to the Consent Authority's decision on whether to approve the project are found in sections 1.3(a), (b), (c), (e) and (f) of the EP&A Act.
The Department considers the project encourages the proper development of natural resources (Object 1.3(a) and the promotion of orderly and economic use of land (Object 1.3(c)), particularly as the project: • is a permissible land use on the subject land; • is located in a logical location for efficient wind farm development; • is able to be managed such that the impacts of the project could be adequately minimised, managed or at least compensated for, to an acceptable standard;

- would contribute to a more diverse local industry, thereby supporting the local economy and community;
- would not fragment or alienate resource lands, in the LGA; and
- is consistent with the goals of NSW's *Climate Change Policy Framework* and *Net Zero Plan Stage 1: 2020 – 2030* and *Implementation update* (2022) would assist in meeting Australia's renewable energy targets whilst reducing greenhouse gas emissions.

The Department has considered the encouragement of ESD (Object 1.3(b)) in its assessment of the project. This assessment integrates all significant socioeconomic and environmental considerations and seeks to avoid any potential serious or irreversible environmental damage, based on an assessment of risk-weighted consequences.

In addition, the Department considers that appropriately designed SSD wind development, in itself, is consistent with many of the principles of ESD. The Applicant has also considered the project against the principles of ESD. Following its consideration, the Department considers that the project can be carried out in a manner that is consistent with the principles of ESD.

Consideration of environmental protection (Object 1.3(e)) is provided in **Section 6** of this report. The Department considers that the project is able to be undertaken in a manner that would at least maintain the biodiversity values of the locality over the medium to long term and would not significantly impact threatened species and ecological communities of the locality. The Department is also satisfied that any residual biodiversity impacts can be managed and/or mitigated by imposing appropriate conditions and retiring the required biodiversity offset credits.

Consideration of the sustainable management of built and cultural heritage (Object 1.3(f)) is provided in **Section 6** of this report. Following its consideration, the Department considers the project would not significantly impact the built or cultural heritage of the locality, and any residual impacts can be managed and/or mitigated by imposing appropriate conditions.

State significant development

Under section 4.36 of the EP&A Act, the project is considered State significant development.

Under section 4.5(a) of the EP&A Act and Clause 1(b) of section 2.7 of the Planning Systems SEPP, the Independent Planning Commission is the consent authority for the development as the project received more than 50 unique public submissions by way of objection.

Environmental Planning Instruments (EPIs)

The Hay Local Environmental Plan 2011 and the Conargo Local Environmental Plan 2013 apply and are discussed in **Section 4.2** of this report, particularly regarding permissibility and land use zoning. Electricity generating works are permitted with consent under section 2.36 of the (*State Environmental Planning Policy (Transport and Infrastructure) 2021,* within the relevant land use zoning.

The project is not categorised as potentially hazardous or potentially offensive development under the *State Environmental Planning Policy (Resilience and Hazards) 2021* (Hazards SEPP). The project site is not listed as a contaminated site in the NSW EPA Contaminated Land Records or the list of NSW contaminated sites. The Department considers the project site would be suitable for the proposed development.

The Department has also reviewed the proposal against the Transport and Infrastructure SEPP, and considers the project is permissible under the SEPP. In accordance with the Transport and Infrastructure SEPP, the Department has given written notice of the project to EnergyCo as the electricity supply authorities and TfNSW.

The Department has considered the provisions of *State Environmental Planning Policy (Primary Production) 2021*. Of relevance to the project, the SEPP aims to facilitate the orderly economic use and development of lands from primary production to reduce land use conflict and sterilisation of rural land and to identify State significant agricultural land. The Department has

considered all of these matters in **Section 6.6** of this report and concluded that the project is generally consistent with the broader and specific land use planning objectives for the project site and the region under the relevant planning instruments and strategies.

Edward River Council LGA is listed in Schedule 2 of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021*. The Applicant's BDAR found no evidence of Koala, and the Department has considered biodiversity in **Section 6.3** of this report.

Appendix G – Consideration of Community Views

The Department exhibited the EIS for the project from 7 June 2024 until 4 July 2024 (28 days) and received 161 public submissions, of which 158 were unique (83 objecting to the project and 75 in support). The Department also consulted with government agencies and relevant councils throughout the assessment process.

The key issues raised by the community (including in public submissions) and considered in the Department's Assessment Report include biodiversity, agriculture, waste and contamination, and socio-economic impacts. Submissions in support of the project noted various benefits of the project, including alignment with the State's objectives and contributions towards the renewable energy transition and a sustainable future; site selection, including the strategic siting of the project to minimise biodiversity impacts and the location of the project being situated away from residences and the Cobb Highway. A summary of how the Department considered these matters is presented in **Table G-1** below. Other issues are addressed in detail throughout this Assessment Report.

Table G-1 | Consideration of community views

Issue	Consideration
Biodiversity • Bird and Bat Strike • Direct clearing of vegetation • Clearing of Threatened Ecological communities (TECs)	**Impact Assessment** • Concerns about biodiversity impacts were raised in 37 public submissions objecting to the project and 5 times in submissions supporting the project. • The development footprint includes 1026.27 ha of native vegetation, approximately 24.05 ha (2% of the development footprint) is woodland (in moderate to good condition) with DNG representing 34.53 ha (3% of the development footprint). • The project has been designed and refined to avoid and minimise biodiversity impacts to areas of higher conservation value. The Department considers that the vegetation clearing impacts of the project would not be unacceptable, subject to a range of mitigation and adaptive management measures and by offsetting the residual biodiversity impacts. • The final assessment concluded that only 6 turbines pose a very high risk, 28 turbines pose a high risk, and the remaining turbines pose a medium or lower risk of avifauna strike. • In consultation with NSW DCCEEW CPHR, the Department has recommended conditions requiring a comprehensive regime of adaptive management to address the risk of bird and bat strike.

Issue	Consideration
	• A Bird and Bat Adaptive Management Plan (BBAMP) would be developed in consultation with NSW DCCEEW CPHR. Given this, the Department is satisfied that the project's impacts to avifauna can be appropriately managed. **Recommended conditions** • Minimise the clearing of native vegetation and key fauna habitat, including hollow bearing trees, within the development footprint and protect native vegetation and key fauna habitat outside the approved disturbance area in accordance with limits in the recommended conditions. • Prepare and implement the Biodiversity Management Plan which includes a description of the measures to: – minimise the potential indirect impacts on threatened flora and fauna species, migratory species and 'at risk' species; – secure land comprising 13 ha of important plains-wanderer habitat and implement measures to enhance and protect, in perpetuity, this vegetation; – rehabilitate and revegetate temporary disturbance areas and maximise the salvage of resources within the approved disturbance area for beneficial reuse (such as fauna habitat enhancement) during the rehabilitation and revegetation of the project site and Broken Hill road upgrade site; – control weeds and feral pests; – detail the program to monitor and report on the effectiveness of these measures. • Prepare and implement a Bird and Bat Adaptive Management Plan in consultation with NSW DCCEEW CPHR and the AG DCCEEW. • Retire the applicable biodiversity offset credits in accordance with the NSW Offsets Policy prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset.
Agriculture • Impacts to agricultural land • Impacts to farming communities	**Impact assessment** • Concerns about agricultural impacts were raised in 35 public submissions objecting to the project and in 4 submissions supporting the project. • The project site and surrounds are dominated by agricultural land uses, primarily sheep grazing with some cropping. • No Biophysical Strategic Agricultural Land (BSAL) is mapped within the project site or surrounding area. • The project site is comprised of Class 3 (2.4%) (high capability), Class 4 (2.9%) (moderate capability), Class 5 (57.2%) (moderate–low capability), Class 6 (18.6%) (low capability), and Class 7 (18.9%) (very low capability) land. The Applicant would seek to minimise disturbance to areas of high and moderate capability land as far as practicable. • While the project would temporarily reduce the available land for agricultural uses during construction, the long-term use of the land for agricultural purposes would not be compromised during the operation of the Project. Additionally, the

Issue	Consideration
	Department notes that the project would provide an additional source of income for the landowners of the associated properties, whose land would be impacted. • Wind harvesting is a passive land use that can co-exist with grazing activities, which can continue concurrently throughout the project lifespan. As such, the Department considers that the project would not compromise or significantly diminish the availability of land for primary production purposes within the project site or surrounding LGAs. **Recommended conditions** • Rehabilitate the project site to a standard that makes it available for agricultural production following decommissioning.
Waste and contamination • Waste management • Contamination from construction or operational activities	Impact assessment • Concerns about waste and contamination were raised in 33 public submissions objecting to the project. • The project would not generate significant volumes of waste during construction. The Applicant is committed to segregate, manage, reuse, recycle and safely dispose of all wastes. • During the operation of the project there would be negligible amounts of waste, except for repair and maintenance activities. • During construction, there is a risk for soil to become contaminated through accidental chemical or fuel spills, leaks from construction plant and equipment and from inappropriate storage of hazardous materials. The ground disturbance would be limited to locations for temporary construction facilities and permanent operational infrastructure. Noting the minimal level of ground disturbance required for the project the Applicant identified that the risk of exposing contaminated land during construction of the project is low. All areas impacted during construction would be sealed or rehabilitated and landscaped to prevent soil erosion. **Recommended conditions** • Waste must be dealt with in accordance with the following hierarchy: – avoid or reduce where possible; – re-use, recycle and recover; – treat or dispose of to a licenced facility.

Issue	Consideration
Socio-economic • Community division • Support for Australian owned company • Economic diversification and benefits	**Impact assessment** • Concerns about socio-economic impacts were raised in 37 public submissions objecting to the project and in 20 submissions supporting the project. • The project's construction phase would generate up to 900 construction jobs and 50 operational jobs (of which 40 would be on-site). • The Applicant has committed to enter a Voluntary Planning Agreement (VPA) with Hay Shire Council and Edward River Council. The total contribution payable is $893 per MW generation capacity installed per year for the duration of the project. • The VPA would support the provision and maintenance of local infrastructure and community groups. • The project would power approximately 593,000 homes per year. **Recommended conditions** • Prepare an Accommodation and Employment Strategy for the project in consultation with relevant councils, with consideration to prioritising the employment of local workers; and • Enter into a VPA with each relevant Council prior to commencing construction.
Visual impacts • Impacts on the surrounding landscape • Location of the project relevant to residences and the Cobb Highway	**Impact Assessment** • Concerns about visual impacts were raised in 14 public submissions objecting to the project and 14 submissions in support of the project. • The Department considers that visual performance objectives in the Visual Bulletin would be achieved at all receivers, noting there are only two receivers within 5.5 km of a proposed turbine. Views towards the project from these receivers are at least partially screened by existing mature vegetation and would benefit from distance. The Department considers that residual impacts could be sufficiently mitigated through visual impact mitigation measures (such as visual screening) upon request by the landowner. • The Department is satisfied that the project would not fundamentally change the broader landscape characteristics of the area. The project has been sited to minimise visual impacts to scenic road corridors. Views towards the project from the Cobb Highway would benefit from distance, with the closest turbine 10 km away. **Recommended conditions** • Implement landscaping and/or vegetation screening upon receiving a request from any non-associated landowners within 5.5 km of any approved turbine; • Implement all reasonable and feasible measures to minimise the visual impacts of the development; • Paint turbines off-white/grey and finishing blades with a treatment that minimises potential for any glare or reflection; • Minimise the off-site lighting impacts of the development; and • Ensure that shadow flicker from turbines does not exceed 30 hours per annum at any non-associated dwelling.

Appendix H – Assessment of Matters of National Environmental Significance

In accordance with the Bilateral Agreement between the Australian Government and NSW Government, the Department provides the following additional information required by the Commonwealth Minister, in deciding whether to approve a proposed action (i.e. the project) under the EPBC Act.

The Department's assessment has been prepared based on the assessment contained in the Pottinger Wind Farm Environmental Impact Statement (EIS), Response to Submissions Report, Amendment Reports, Biodiversity Development Assessment Report (BDAR), EPBC Act Matters of National Environmental Significance Assessment and additional information provided during the assessment process, public submissions, and advice provided by NSW DCCEEW CPHR, other NSW government agencies and the Commonwealth Department of Climate Change, Energy, Environment and Water (DCCEEW).

This appendix is supplementary to, and should be read in conjunction with, the assessment included in **Section 6.3** of this assessment report, and includes consideration of impacts to listed threatened species and communities and listed migratory species, and mitigation and offsetting measures for Matters of National Environmental Significance (MNES).

Controlled Action Decision – EPBC 2023/09679

On 6 March 2024, the Pottinger Wind Farm was determined to be a Controlled Action by the Australian Government (AG) DCCEEW for the controlling provision of listed threatened species and communities and listed migratory species. The Commonwealth Referral Decision (EPBC 2023/09679) (Referral Decision) was based on likely significant impacts to:

- Weeping Myall Woodlands Ecological Community – endangered
- curlew sandpiper (*Calidris ferruginea*) – critically endangered / migratory
- plains-wanderer (*Pedionomus torquatus*) – critically endangered

In relation to migratory and non-migratory species, the AG DCCEEW Referral Decision was based on likely significant impacts to:

- common sandpiper (*Actitis hypoleucos*) – migratory
- glossy ibis (*Plegadis falcinellus*) - migratory
- Australasian bittern (Botaurus poiciloptilus) – endangered
- Australian painted snipe (*Rostratula austrlis*) – endangered
- blue-winged parrot (*Neophema chrysostoma*) – vulnerable
- diamond firetail (*Stagonopleura guttata*) – vulnerable
- flathead galaxias (*Galaxias rostratus*) - critically endangered
- grey falcon (*Falco hypoleucos*) - vulnerable
- grey snake (*Hemiaspis damelii*)- endangered
- eastern Major Mitchell's cockatoo (*Lophochroa leadbeateri leadbeateri*) – endangered

- mossgiel daisy (*Brachyscome papilosa*) - vulnerable
- painted honeyeater (*Grantiella picta*) – vulnerable
- pink-tailed worm-lizard (*Aprasia parapulchella*)- vulnerable
- slender darling-pea (*Swainsona murrayana*) - vulnerable
- Sloane's froglet (*Crinia sloanei*) – endangered
- spot-tailed quoll (*Dasyurus maculatus maculatus*) - endangered
- southern whiteface (*Aphelocephala leucopsis*) – vulnerable
- superb parrot (*Polytelis swainsonii*) - vulnerable
- southern bell frog (*Litoria raniformis*) - vulnerable
- winged pepper-cress (*Lepidium monoplocoides*) – endangered.
- latham's snipe (*Gallinago hardwickii*) – migratory
- curlew sandpiper (*Calidris ferruginea*) – critically endangered / migratory

All entities identified above as requiring an assessment were considered in the Applicant's EIS (in particular the EPBC Act Matters of National Environmental Significance Report) as outlined in the following sections.

Impacts on EPBC Act Listed Threatened Species and Communities

Section 6.3 of this report describes the biodiversity assessment undertaken for the project and the resulting BDAR.

All entities that were identified as requiring an assessment of significance were assessed. **Table H-1** provides a summary of the likelihood of occurrence for each of the species identified above by the Commonwealth DCCEEW as requiring consideration.

Table H-1 | Likelihood of occurrence of MNES identified in AG DCCEEW SEARs

Entity	Conservation Status	Likelihood of Occurrence	Comments
Threatened Ecological Communities			
Weeping Myall Woodlands Ecological Community	E	Present	Direct removal of 0.38 ha of TEC and potential indirect impacts to 13.42 hectares of retained TEC. Negligible consequence at the local, state and national scale due to the small and localised scale of the impact to a small portion of the total patch of TEC.
Threatened Fauna Species			
Thick-billed Grasswren (North West NSW) (Amytornis modestus obscurior)	CE	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. No direct impacts anticipated. Significant residual impact considered unlikely. Offsets not required.

Entity	Conservation Status	Likelihood of Occurrence	Comments
Curlew Sandpiper (Calidris ferruginea)	CE / M	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Sharp-tailed Sandpiper (Calidris acuminata)	V /M	Recorded	Direct impact to approximately 121 ha of ephemeral wetland habitat that provides habitat when inundated. Negligible indirect impact associated with potential collision and barrier effect risk. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Plains-wanderer (Pedionomus torquatus)	CE	Recorded	Recorded once during surveys. Mapped important habitat occurs within the project site. Removal of approximately 10.16 ha of potential habitat mapped within the subject land. Impacts to species habitat would be offset via ecosystem credits as outlined in **Section 6.3.4** of this report.
Australasian Bittern (Botaurus poiciloptilus)	E	Low to Moderate	Not recorded during surveys. Low to moderate likelihood of occurrence based on habitat assessment. Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide forage and refuge habitat when inundated. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Australian Painted Snipe (Rostratula australis)	E	Low to Moderate	Not recorded during surveys. Low to moderate likelihood of occurrence based on habitat assessment. Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide forage and refuge habitat when inundated. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Blue-winged Parrot (Neophema chrysostoma)	V	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Diamond Firetail (Stagonopleura guttata)	V	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.

Entity	Conservation Status	Likelihood of Occurrence	Comments
Flathead Galaxias (Galaxias rostratus)	CE	Low	Modelled potential habitat present, however highly unlikely based on presumed local extinction and restriction of distribution to the Upper Murray River catchment. Localised and short-term impact to instream habitats at locations of exiting creek crossings. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Silver Perch (Bidyanus bidyanus)	CE	Low	Modelled potential habitat present. Species not considered likely to use mapped habitat for breeding, and overall low likelihood of presence. Localised and short-term impact to instream habitats at locations of exiting creek crossings. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Grey Falcon (Falco hypoleucos)	V	Low	Not recorded during surveys. Low likelihood of occurrence based on rarity of the species. 1000 ha (or 4%) of potential habitat within the subject land. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Grey Snake (Hemiaspis damelii)	E	Assumed	Not recorded during incidental surveys. Low to moderate likelihood of occurrence based on rarity of the species. Direct impacts to approximately 319.33 ha (4%) of the species' habitat within the subject land. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Latham's Snipe (Gallinago hardwickii)	Mi/ V	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide habitat when inundated. Negligible indirect impact associated with potential collision and barrier effect risk. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Painted Honeyeater (Grantiella picta)	V	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Pink Cockatoo (Lophochroa leadbeateri leadbeateri)	EN	Recorded	Removal of 18.72 ha of potential nesting habitat and 155 ha of 4000 ha (or 3.9%) of foraging habitat within 5 km of recorded birds. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.

Entity	Conservation Status	Likelihood of Occurrence	Comments
Pink-tailed Worm-lizard (Aprasia parapulchella)	V	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Sloane's Froglet (Crinia sloanei)	E	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. Significant residual impact considered unlikely. Offsets not required.
Spot-tailed Quoll (Dasyurus maculatus maculatus)	E	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Southern Whiteface (Aphelocephala leucopsis) – vulnerable	V	Recorded	Removal of 4 % of open woodland, shrublands and grasslands mapped in DNG, Moderate or higher condition states within the subject land. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Superb Parrot (Polytelis swainsonii)	V	Recorded	Not recorded during targeted or utilisation surveys with no breeding activity or habitat observed. Recorded incidentally outside of breeding period. Low likelihood of site utilisation occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Southern Bell Frog (Litoria raniformis)	V	Recorded	Recorded in the project footprint. Removal of approximately 6.42 ha of known and potential habitat. Limited impacts associated with changes to hydrology and no and no requirements to realign streams. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Corben's Long-eared Bat (Nyctophilus corbeni)	V	Recorded	Precautionarily considered recorded via call detection (as part of a species complex). This species cannot be positively identified via call detection alone. Approximately 24.8 ha of suitable woodland habitat, equating to approximately 1 % of similar habitat with the subject land. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Purple-wood Wattle (Acacia carneorum)	V	Low	No direct impacts anticipated with potential indirect impacts to assumed retained habitat. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.

Entity	Conservation Status	Likelihood of Occurrence	Comments
Atriplex infrequens	V	Assumed	Assumed presence based upon inability to survey for species. Significant residual impact considered unlikely. Offsets not required.
Mossgiel Daisy (Brachyscome papilosa)	V	Recorded	Removal of approximately 8100 individuals (56% of individuals recorded) and 157.1 ha (or 0.8% of potential habitat) of habitat within the subject land. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Chariot Wheels (Maireana cheeli)	V	Recorded	Removal of approximately 1600 individuals (40 % of individuals recorded) and 51.2 ha (or 0.4 % of potential habitat) of habitat within the subject land. The Applicant has concluded that a significant residual impact is possible based on potential long-term decrease in the size of an important population. Offsets for residual significant impacts required
Slender Darling-pea (Swainsona murrayana)	V	Recorded	Direct impact to approximately 6700 individuals (40 % of individuals recorded) and 205.5 ha (1.3 % of potential habitat) of mapped habitat. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Winged Pepper-cress (Lepidium monoplocoides)	E	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Migratory Species			
Common Sandpiper (Actitis hypoleucos)	M	Low	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.
Caspian Tern (Hydroprogne caspia)	M	Recorded	Recorded during surveys, two individuals near a large irrigation dam Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide habitat when inundated. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.

Entity	Conservation Status	Likelihood of Occurrence	Comments
Glossy Ibis (Plegadis falcinellus)	M	Moderate	Not recorded during surveys. Low likelihood of occurrence based on habitat assessment. Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide habitat when inundated. Negligible indirect impact associated with potential collision and barrier effect risk. The Applicant has concluded that a significant residual impact is unlikely and that offsets are not required.

Impacts on threatened ecological communities

As described in **Section 6.3.1** of this report, the Applicant has generally focused on avoidance of impacts through site selection and avoidance of higher quality native vegetation and habitat during the preliminary design process for the action. This work has focussed largely on avoiding impacts to areas of Myall Woodlands EEC.

Notwithstanding, the action would result in the clearance of approximately 0.38 ha of Myall Woodlands EEC.

As a result, the assessments of significance contained within the MNES Assessment concluded that the action was unlikely to have a significant impact on this community.

the Applicant would offset the residual biodiversity impacts of the action in accordance with the requirements of NSW Biodiversity Offset Scheme. The Department considers that impacts to this community would be appropriately offset via the ecosystem credit requirements detailed in **Section 6.3** of this report.

Impacts on threatened flora species

Assessments of significance were undertaken for threatened flora species that were recorded during field surveys or were identified as having a moderate or higher potential to occur within the action area.

The assessments of significance for these species determined that the project is unlikely to have a significant impact on any threatened fauna species with the exception of the chariot wheels (51.2 ha of potential habitat impacted).

The Department considers that impacts on these species would be appropriately offset via the species and ecosystem credit requirements detailed in **Section 6.3** of this report. The Department has recommended conditions and additional measures to avoid or minimise impacts on threatened flora species as detailed in **Section 6.3** of this report.

Impacts on threatened fauna species

Assessments of significance were undertaken for threatened fauna species that were recorded during field surveys or were identified as having a moderate or higher potential to occur within the action area.

The assessments of significance for these species determined that the project is unlikely to have a significant impact on any threatened fauna species with the exception of the Plains-wanderer (10.16 ha of potential habitat impacted).

The Department considers that impacts on these species would be appropriately offset via the species and ecosystem credit requirements detailed in **Section 6.3** of this report. The Department has recommended conditions and additional measures to avoid or minimise impacts on threatened fauna species as detailed in **Section 6.3** of this report.

Impacts on migratory species

Other than the Caspian tern and the sharp-tailed sandpiper, no EPBC Act listed migratory species were recorded during field surveys. The glossy ibis was considered to have a moderate likelihood of occurrence based upon the habitat assessment.

The Applicant's assessments of significance concluded that while some migratory birds may use the action area, the project site does not support breeding habitat for these species and therefore, the action would not have a significant impact on these species. The Department agrees with the outcome of the Applicant's assessment.

Conservation Advice

In its MNES assessment, The Applicant has appropriately referred to the Conservation Advice for Weeping Myall Woodlands Woodland in relation to the relevant recovery and threat abatement actions for this community.

Conservation Advice for Corben's long-eared bat, grey falcon, Latham's snipe, mossgiel daisy, sharp-tailed sandpiper, slender darling-pea, southern whiteface, Australasian bittern, grey snake, pink cockatoo, flathead galaxias, and silver perch are also appropriately referred to throughout the MNES assessment to inform habitat requirements for each species.

The Department notes the key threats to species and communities include landscape fragmentation, introduction of weeds, competition for land, habitat degradation (particularly by rabbits, foxes, and feral pigs), climate change, disease transmission (particularly by feral pigs), biological effects associated with invasive species and predations (particularly by feral cats and foxes).

The Department's recommended conditions require the proponent to prepare and implement a Biodiversity Management Plan detailing how these risks would be minimised and managed, including measures to:

- avoid the disturbance of native vegetation or fauna habitat located outside the development footprint;
- implement clearing and operational management protocols;
- minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development;
- avoid and minimise impacts on potential SAII entities and provide minimisation measures to mitigate harm to plains-wanderer;
- minimising the impacts to fauna on site and implementing fauna management protocols;
- measures to rehabilitate and restore temporary disturbance areas and maximise the salvage of resources within the approved disturbance area for beneficial reuse (such as fauna habitat enhancement) during the rehabilitation and restoration of the project area;

- prepare and implement an incidental threatened species finds protocol to avoid and/or minimise and/or offset options to be implemented if additional threatened species are discovered on the site; and
- control weeds and pests.

The Applicant would be required to prepare the Biodiversity Management Plan in consultation with NSW DCCEEW CPHR, and ensure the plan is prepared by a suitably qualified and experienced biodiversity expert.

In addition, the Applicant is required to ensure impacts on species and communities are avoided and minimised, where practicable during detailed design, and offset the residual biodiversity impacts of the project in accordance with the NSW Biodiversity Offset Scheme.

Recovery Plans

Recovery plans for the relevant species and communities are referenced in throughout the MNES assessment. Recovery Plans have generally been referenced to inform the identification of areas of important habitat for the above species.

Threat Abatement Plans

The relevant Threat Abatement Plans that apply to the action include:

- Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigs (Sus scrofa) (Australian Government Department of the Environment and Energy, 2017);
- Threat abatement plan for predation by feral cats (Australian Government Department of the Environment, 2015);
- Threat abatement plan for predation by the European red fox (Australian Government Department of the Environment, Water, Heritage and the Arts, 2008); and
- Threat abatement plan for competition and land degradation by rabbits (Australian Government Department of the Environment and Energy, 2016).

The Department has included measures for the control of feral animals and pathogens under the recommended Biodiversity Management Plan for the project. With these measures in place, the Department considers that the action can be carried out in a manner which is compatible with the relevant Threat Abatement Plans.

Subject to the recommended conditions, the Department considers that the action can be carried out in a manner that is consistent with the relevant conservation advice, recovery plans and threat abatement plans.

Table H-2 provides a detailed review of whether the assessment documentation (i.e. the EIS, Submissions Report and BDAR) includes all relevant required information.

Table H-2 | NSW DCCEEW CPHR project advice to DPIE on EPBC Act listed threatened species and communities

N.B. this advice was drafted in December 2024 as BCS which is now Regional Delivery in Conservation Programs, Heritage and Regulation. As the document was drafted when still BCS, we have retained BCS naming in this appendix.

Requirement	Information	Reference /BAM/ BLA[1]
Background & Description of Action	Does the EIS/BDAR[2]• • ☒clearly show how operational and construction footprints including clearing boundaries, structures to be built and elements of the action are situated with regard to MNES • ☒depict stages and timing of the action that may impact on MNES • ☒provide a map(s) of the subject land boundary showing the final proposal/disturbance footprint with respect to location of MNES, including GIS shape files Include references to where this detail is provided.	BAM Chapters 3, 4, 5 and 8 RFI 3
	Provide advice on the adequacy of the background and action description with respect to MNES and identify any recommended additional information requirements: The project was reviewed by BCS for compliance with the BAM, including the proponent's use of the credit calculator (the Calculator) to produce a BDAR. BCS had ongoing consultation with the BAM assessors during the preparation of the BDAR and RTS phase. BCS review of the project EIS and the BDAR concluded that the BAM assessment adequately addressed some issues raised for MNES at the Response to Submissions (RtS) phase. However, the following matter regarding MNES remain unresolved: • Additional and appropriate measures (A&AM) have been proposed for Plains-wanderer (*Pedionomus torquatus*) in the form of a conservation agreement to protect Plains-wanderer habitat. However, the exact location and specific details have not been provided. BCS has requested additional information to determine the suitability of the A&AM proposed.	
Landscape Context of the MNES	**Provide advice on the adequacy of the landscape context information and identify any additional information requirements:** Details on landscape context have been provided in accordance with BAM requirements, and the landscape assessment meets the requirements of Stage 1 (s3 and 4.1) of the BAM for both the transport route and the wind farm site. The proposal at the wind	BAM Section 3.1 BLA clause 7.4 Revised BDAR s.2

	farm site covers one IBRA bioregion being the Riverina and is within the Murrumbidgee subregion. Impacts associated with the transport route which occurs near Broken Hill are within the Broken Hill Complex bioregion and the Barrier Range subregion.	
EPBC Act Listed Threatened Species & Communities	Verify that the EIS/BDAR includes relevant information on the identification of all EPBC Act listed threatened species and communities on the site or in the vicinity[3] via • ☒field based survey effort • ☒published peer reviewed literature • ☐local data • ☒supporting databases (such as the NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, Commonwealth Species Profile and Threats Database search results) Verify that the EIS/BDAR includes appropriate mapping of all EPBC Act listed threatened species and communities in accordance with the relevant Commonwealth Listing Advice. The EIS/BDAR should include important populations and critical habitat as defined in Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans.	BAM Chapters 4 and 5 Revised BDAR s.12
	Provide advice on the adequacy of the identification methods and mapping information / any additional information requirements: EPBC Act listed threatened and migratory species and communities that occur on the subject land, or in the vicinity, have been identified in the BDAR and the EIS, including some that are ecosystem credit species. While Table 127 of the Revised BDAR outlines the MNES entities that would be impacted, some ecosystem and species credit MNES species are missing from this table but are included in the BAM-C credit reports. BCS have accounted for the omissions in the BDAR and included all impacted species in Table 2 of this document. The assessment of species and communities excluded because they do not occur on or near the site is supported by robust analysis and justification. There are no other MNES species or communities missing from the assessment. The Grey Snake (*Hemiaspis damelii*) was added to the BAM-C in October 2024 and therefore no surveys were completed. The species has been assumed present because no surveys have been completed. However, the proponent has proposed to complete surveys after project determination.	

	Confirm that all EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity, have been identified in the BDAR/EIS including those that are ecosystem credit species. If any species and communities identified in the referral documentation (provided by DAWE) have been ruled out because they don't occur on or near the site, verify that there is robust analysis and justification for why these species can be ruled out. Provide advice on whether there are any other MNES species or communities that are missing from the assessment based on BCS knowledge and experience.	Revised BDAR Section 12 and Appendix 6. RFI3 Table 13 and 14
	Advise whether there is appropriate justification and supporting evidence for the addition and/or exclusion of any EPBC Act listed threatened species and/or communities from the list (if applicable): A significant impact assessment *has not* been provided for the following MNES entities listed in the Controlled Action determination because they were not recorded on site during BUS or targeted surveys: • Blue-winged Parrot (*Neophema chrysostoma*) • Diamond Firetail (*Stagonopleura guttata*) • Painted Honeyeater (*Grantiella picta*) • Superb Parrot (*Polytelis swainsonii*) • Winged Peppercress (*Lepidium monoplocoides*) Although not recorded on site, the fauna species listed above, all have ecosystem credits generated through associated PCTs as habitat surrogates in the BAM-C (see Table 2). A number of MNES entities were not included in the Controlled Action determination but were noted in the BDAR for further assessment. The entities added include: • *Atriplex infrequens* (assumed present) • Caspian Tern (*Hydroprogne caspia*) (Migratory - recorded on site) • Chariot Wheels (*Maireana cheelii*) (recorded on site) • Corben's Long-eared Bat (*Nyctophilus corbeni*) (precautionarily considered recorded) • Purple-wood Wattle (*Acacia carneorum*) (not recorded within subject land – Barrier Range) • Sharp-tailed Sandpiper (*Calidris acuminata*) (Migratory - recorded on site) • Thick-billed Grasswren (*Amytornis modestus*) (not recorded within subject land – Barrier Range) It is important to note that all of the above listed MNES species not included in the controlled action determination, aside from Chariot Wheels (*Maireana cheelii*) and *Atriplex infrequens* were not included in the BAM-C, therefore no credit obligation under the	

	BC Act has been provided. However, the three other entities recorded on site (Caspian Tern, Corben's Long-eared Bat, and Sharp-tailed Sandpiper) were assessed under the EPBC Act significant criteria in Appendix 6 of the revised BDAR which concluded the project would not have a significant impact on the species. Purple-wood Wattle (*Acacia carneorum*) and Thick-billed Grasswren (*Amytornis modestus*) were not recorded on site during targeted surveys within the transport route near Broken Hill.	
Avoidance, Minimisation, Mitigation & **Management**	Verify that the EIS/BDAR demonstrates all feasible alternatives and efforts to avoid and minimise impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including an analysis of alternative: • ☒designs and engineering solutions • ☐modes or technologies • ☒routes and locations of facilities • ☒sites within the subject site • ☒Verify that the EIS/BDAR identifies any other site constraints in determining the location and design of the proposal (such as bushfire protection requirements, flood planning levels, servicing constraints, etc) Verify that the EIS/BDAR provides feasible measures to mitigate and/or manage impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including: • ☒techniques, timing, frequency and responsibility- • ☐identify measures for which there is risk of failure • ☐evaluate the risk and consequence of any residual impacts • ☒any adaptive management strategy proposed to monitor and respond to impacts	BAM Chapters 6, 7 and 8 BLA clause 7.1
	Provide advice on whether all feasible impact avoidance, minimisation, mitigation and management measures have been considered and are adequately justified: A broad biodiversity constraints assessment was completed in the initial stages of project planning to map very high and high constraint biodiversity values. This included very high constraint areas for Plains-wanderer and minimising impacts to known populations of Chariot Wheels (*Maireana cheelii*) and Mossgiel Daisy (*Brachyscome papillosa*). The proponent has worked to reduce overall impacts to native vegetation, though opportunities are minimal in the local setting where most vegetation is native. They have completed an iterative process of avoidance of Plains-wanderer important mapped habitat and other areas of suitable Plains-wanderer Biosis mapped habitat from on ground surveys. Thirteen turbines and associated access tracks were relocated to avoid Plains-wanderer important mapped habitat. The area of impacts to important	Revised BDAR Table 101 to 103 and s12.1.4 BDAR Section 7, Table 116 and RFI3 Table 7.

	mapped habitat has been reduced from 5.16 hectares at the exhibited EIS to 2.67 hectares in RFI3. Impacts to Biosis mapped Plains-wanderer habitat has reduced from 33.8 hectares at the exhibited EIS to 10.67 hectares in RFI3. Table 116 of the BDAR and Table 7 of RFI3 provides information on mitigation measures for general measures and some species-specific measures. There is limited modes and technologies or design and engineering solutions that are relevant or specific to MNES. <u>Additional and Appropriate Measures for Plains-wanderer</u> Additional and Appropriate Measures (A&AM) have been proposed for Plains-wanderer. The BDAR and RFIs do not include sufficient detail to determine whether the A&AM are appropriate. Additional information has been requested to determine the following: • The mechanism for securing A&AM • Details of specific measures and proposed location of A&AM offsets to determine if they are appropriate. • How management of the A&AM would be identified and measured.	
Impact Assessment	Verify that the EIS/BDAR· • ☒identifies the residual adverse impacts likely to occur to each EPBC Act listed threatened species and/or community after the proposed avoidance and mitigation measures are taken into account • ☒provides adequate Justification and evidence for the predicted level of impact, with reference to the: • Commonwealth's Significant Impact Guideline *https./lwww.environment.gov.au/systemlfiles/resources/42f84df4-720b-4dcf-b262- 48679a3aba58/fileslnes-guidelines_1.pdf* • DPIE Guidance to Assist a Decision-Maker to Determine a Serious and Irreversible Impact (SAII): *(httpsllwww.environment gov.au/system/files/resources/42184df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf*	BAM Chapters 8 and 9 BLA clauses 6.2(b)(i)-(ii) and 7.1
Requirement	**Information**	**Reference /BAM/ BLA[1]**
	Complete the following information for each EPBC Act listed threatened species and/or community (add/remove rows as necessary): • EPBC Act listed threatened species and/or community • nature and consequences of impacts (i.e direct and indirect) • duration of impact (e.g. construction, operation, life of project) • quantum of impact • consequences of impacts on the species, the population and/ or extent of the community at local, state and national scales	Revised BDAR Section 8, Tables 126 and 127 RFI 3 Table 13

	Confirm the level of predicted impact (cross appropriate): ☒ high risk of impact (requiring offsets)[#] or SAII ☐ Low risk of impact (not requiring offsets) [#]For purposes of EPBC approval, as a minimum, significant adverse residual impacts **must** be offset (significant impact can be evaluated with reference to the significance impact guidelines) **Provide advice on whether adequate justification and evidence is provided for species and communities that have been identified as being at low risk of impact.** Application of the MNES Significant Impact guidelines has determined that Project has potential significant impacts on: • Plains-wanderer (*Pedionomus torquatus*) • Chariot Wheels (*Maireana cheelii*) Impacts to Plains-wanderer and Chariot Wheels would be offset through species credits (see Table 2). A&AM measures are proposed to mitigate potential SAII impacts to Plains-wanderer. No other additional offsets are proposed for potential significant impacts to Chariot Wheels. Table 126 of the revised BDAR provides a detailed summary of MNES with potential for impact within the subject land. Table 13 of RFI 3 provides a summary of impact assessments for MNES potentially impacted by the project, including the nature and consequences of impacts (i.e. direct and indirect), duration of impact (e.g. construction, operation, life of project), quantum of impact, and consequences of impacts on the species, the population and/ or extent of the community at local, state and national scales. The quantum of impacts to individual species (ecosystem and species credit species) are documented in Table 2 below.	

Offsets	Verify that the EIS/BDAR: • ☒identifies any MNES that haven't been offset using the BAM • ☒identifies how impacts requiring offsets correlate to MNES impacts • ☒identifies the plant community types (PCTs) requiring offset and the number and type of ecosystem credits required for impacts to MNES • ☒identifies threatened species requiring offset and the number of species credits required for impacts to MNES • ☒correctly uses the BAM (and BAM calculator) to identify the number and class of biodiversity credits that need to be offset to achieve a standard of 'no net loss' of biodiversity • ☐identifies if ecological rehabilitation and/or biodiversity conservation actions are proposed for offsetting • ☒if known, identifies any other offsetting approach proposed, such as land-based offsets, retiring credits by payment into the Biodiversity Conservation Fund and/or through supplementary measures[#] [#] In accordance the BAM there is no longer a requirement to define the offsetting approach at EIS stage. **Complete the Impacts and Offsets Summary table below (Table 2)**	BAM Chapter 10 BLA clauses 7.1 and 7.2 Revised BDAR s.12.1.8 and s.13 RFI 3, Tables 5 and 13
	Provide advice on the adequacy of the proposed offsets in meeting the requirements of the BAM: In accordance with the BAM there is no longer a requirement to define the offsetting approach at EIS stage. Section 13 of the BDAR outlines the approach to offsetting. The Applicant has commenced investigations into the establishment of local Biodiversity Stewardship Sites as the primary means to secure the required biodiversity offsets. Where offsets are unable to be secured via the establishment of Biodiversity Stewardship Sites, the Applicant would look to the open credit market and the Biodiversity Conservation Fund to source any residual requirements. RFI Table 5 provides some detail around the approach to secure A&AM offsets for impacts to Plains-wanderer. BCS has requested additional detail be provided for proposed A&AM prior to project determination. RFI Table 13 states that 'Offsets for residual significant impacts required' for Plains-wanderer and Chariot Wheels (*Maireana cheelii*) but does not detail how this would occur.	
Other Considerations	Verify if any relevant Commonwealth guidelines and policy statements are applicable to the action and listed threatened species and/or community, including but not limited to: • International environmental obligations • Recovery Plans • Approved Conservation Advice • Threat Abatement Plans	BLA clauses 6.2(b)(iv), 7.2(c), 7.3 and 7.4

	The *relevant Commonwealth guidelines and policy statements for each species and community are available at: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl*	
	For each EPBC Act listed threatened species and/or community, provide advice on whether the assessment has been adequately informed by applicable Commonwealth guidelines and/or policy statements. For example, the interaction between the proposed action and important populations or critical habitat identified in policy documents and/or the interaction between the proposed action and threatening processes or recommended conservation actions outlined in Commonwealth policies and plans. Appendix 6 (Significant Impact Criteria assessments) of the BDAR includes reference to Commonwealth guidelines and policy statements as well as discussion of populations and important populations (depending on the species listing status). These assessments are made with reference to recovery plans and other relevant documents where they are available. BCS considers that the MNES assessment has been partially informed by Commonwealth guidelines and policy statements. <u>International environmental obligations</u> The proponent does not specifically discuss impacts to MNES in relation to Australia's international obligations. However, the proposal site does not impact on any Ramsar wetlands. <u>Recovery plans</u> Recovery plans for the following entities are referenced in Appendix 6 of the BDAR: • Chariot Wheels (*Maireana cheelii*) • Corben's Long-eared Bat (*Nyctophilus corbeni*) • Grey Falcon (*Falco hypoleucos*) • Australasian Bittern (*Botaurus poiciloptilus*) • Australian Painted Snipe (*Rostratula austrlis*) • Plains-wanderer (*Pedionomus torquatus*). <u>Conservation Advice</u> Conservation Plans for the following entities are referenced in Appendix 6 of the BDAR: • Latham's Snipe (*Gallinago hardwickii*) • Mossgiel Daisy (*Brachyscome papillosa*) • Sharp-tailed Sandpiper (*Calidris acuminata*) • Slender Darling-pea (*Swainsona murrayana*) • Grey Snake (*Hemiaspis damelii*) • Pink Cockatoo (*Lophochroa leadbeateri leadbeateri*)	

	• Weeping Myall Woodlands Ecological Community Threat Abatement Plans (TAPs) TAPs for the following entities are referenced in Appendix 6 of the BDAR: • Slender Darling-pea (*Swainsona murrayana*) • Weeping Myall Woodlands Ecological Community.	
Recommended Conditions	**Provide advice on any recommended conditions and reasons for imposing the conditions:** **EPBC Approval 1** BCS recommends an EPBC condition that minimises the impacts of the action on protected matters by not clearing more than the amounts (ha) and credits specified in Tables 1 – 4 of RFI 3 dated 13/02/2025. **EPBC Approval 2** BCS recommend that any NSW conditions relating to additional and appropriate measures for Plains-wanderer be prepared in consultation with the Commonwealth DCCEEW because the Project will have potential significant impacts on this species. **EPBC Approval 3** BCS recommend that Commonwealth DCCEEW consider additional offsets for impacts to *Mariena cheelii* because the Project will have potential significant impacts on this species, and no additional measures have been proposed.	BLA clause 6.2(c)(iii)

[1] Bilateral agreement (BLA) made under section 45 of the EPBC Act, including Amending Agreement No. 1 (2020)

[2] Or revisions of the BDAR and associated documentation made as a result of previous reviews or project changes post-exhibition.

[3] On land to which impacts may extend.

Table 2: MNES impact and offset summary

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
Threatened ecological communities					
Weeping Myall Woodlands Ecological Community	PCT 26 – high and moderate only	0.38	6 ecosystem credits	Ecosystem credits for TECs will be secured via a combination of Biodiversity Stewardship Agreements (BSA) from six potential properties and purchase of credits from the open market with payment to the Biodiversity Offset Fund as a last resort.	S3.2.4 and s13.1 of BDAR. RFI3 Table 14, Table 1 and finalised credit report in RFI3 dated 13/02/2025.
Threatened species					
A Saltbush (*Atriplex infrequens*)	PCTs 158 and 163	0.97 ha (assumed present) in transport route.	22 species credits consisting of: • PCT 158 – 12 species credits • PCT 163 – 10 species credits.	Ecosystem and species credits will be secured via a combination of BSAs from six potential properties and purchase of credits from the open market with payment to the Biodiversity Offset Fund as a last resort.	RFI3 Table 3 and finalised credit report in RFI3 dated 13/02/2025
Australasian Bittern (*Botaurus poiciloptilus*), Australian Painted Snipe (*Rostratula australis*)	PCTs 10, 13, 17 and 160	201.81 ha	4024 ecosystem credits consisting of: • PCT 10 - 1 ecosystem credit, • PCT 13 - 1,770 ecosystem credits • PCT 17 – 163 ecosystem credits • PCT 160 - 2,090 ecosystem credits		RFI3 Table 1 and finalised credit report in RFI3 dated 13/02/2025
Blue-winged Parrot (*Neophema chrysostoma*)	PCTs 13, 17, 26, 28, 159, 164, 44, 45, 46, 157, 16 and 163 (wind farm site)	899.1 ha at the wind farm site. 0.85 ha	20,773 ecosystem credits consisting of: • PCT 13 - 1,770 ecosystem credits, • PCT 17 – 163 ecosystem credits, • PCT 26 - 86 ecosystem credits,		RFI3 Table 1 (as ecosystem credit species) and finalised

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
	PCTs 123 and 163	(transport route).	• PCT 28 - 227 ecosystem credits, • PCT 44 - 3,679 ecosystem credits, • PCT 45 - 402 ecosystem credits, • PCT 46 - 1,937 ecosystem credits, • PCT 157 - 180 ecosystem credits, • PCT 159 - 5 ecosystem credits, • PCT 163 - 328 ecosystem credits, • PCT 164 - 11,996 ecosystem credits. 10 ecosystem credits in the transport route consisting of: • PCT 123 – 5 ecosystem credits, • PCT 163 – 5 ecosystem credits.		credit report in RFI3 dated 13/02/2025
Chariot Wheels (*Maireana cheelii*)	PCTs 44, 46, 160 and 164	55.96 ha (assumed present and recorded)	2,520 species credits consisting of: • PCT 44 – 620 species credits, • PCT 46 – 362 species credits, • PCT 160 – 32 species credits, • PCT 164 – 1506 species credits.		RFI 3 Table 3 and finalised credit report in RFI3 dated 13/02/2025.
Diamond Firetail (*Stagonopleura guttata*)	PCTs 10, 13, 16, 23, 26, 28, 44, 45 and 46	365.86 ha	8,310 ecosystem credits consisting of: • PCT 10 – 1 ecosystem credit, • PCT 13 - 1,770 ecosystem credits, • PCT 16 – 207 ecosystem credits, • PCT 23 – 1 ecosystem credit, • PCT 26 – 86 ecosystem credits, • PCT 28 – 227 ecosystem credits, • PCT 44 - 3,679 ecosystem credits, • PCT 45 – 402 ecosystem credits, • PCT 46 - 1,937 ecosystem credits.		RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025
Dusky Hopping Mouse (*Notomys fuscus*)	PCTs 155 and 163 (transport route)	3.64 ha (transport route)	43 ecosystem credits in the transport route consisting of: • PCT 155 – 38 ecosystem credits, • PCT 163 – 5 ecosystem credits.		

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
Grey Falcon (*Falco hypoleucos*)	PCTs 10, 13, 16, 17, 23, 26, 28 44, 45, 46, 157, 159, 160, 163 and 164 (wind farm site). PCTs 123, 155 158 and 163 (transport route).	1015.72 ha (wind farm site). 4.58 ha (transport route).	23,072 ecosystem credits at the wind farm site consisting of: • PCT 10 – 1 ecosystem credit, • PCT 13 - 1,770 ecosystem credits, • PCT 16 – 207 ecosystem credits, • PCT 17 – 163 ecosystem credits, • PCT 23 – 1 ecosystem credit, • PCT 26 – 86 ecosystem credits, • PCT 28 – 227 ecosystem credits, • PCT 44 - 3,679 ecosystem credits, • PCT 45 – 402 ecosystem credits, • PCT 46 - 1,937 ecosystem credits, • PCT 157 – 180 ecosystem credits, • PCT 159 – 5 ecosystem credits, • PCT 163 – 328 ecosystem credits, • PCT 164 – 11,996 ecosystem credits. 57 ecosystem credits in the transport route consisting of: • PCT 123 – 5 ecosystem credits, • PCT 155 – 38 ecosystem credits, • PCT 158 – 9 ecosystem credits, • PCT 163 – 5 ecosystem credits.		RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025
Grey Snake (*Hemiaspis damelii*)	PCT 10, 13, 16, 17, 46, 160	319.47 ha (assumed present)	11,507 species credits consisting of: • PCT 10 – 2 species credits, • PCT 13 – 2830 species credits, • PCT 16 – 408 species credits, • PCT 17 – 260 species credits, • PCT 46 – 3828 species credits, • PCT 160 – 4179 species credits.		RFI3 Table 3 and finalised credit report in RFI3 dated 13/02/2025
Painted Honeyeater (*Grantiella picta*)	PCTs 10, 13, 16, 23, 26 and 28.	152.03 ha	2,292 ecosystem credits consisting of: • PCT 10 1 ecosystem credit • PCT 13 1,770 ecosystem credits,		Revised BDAR Table 126 outlines the

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
			• PCT 16 207 ecosystem credits, • PCT 23 1 ecosystem credit, • PCT 26 86 ecosystem credits, • PCT 28 227 ecosystem credits.		habitat PCTs. RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025.
Pink Cockatoo (*Lophochroa leadbeateri*)	PCTs 10, 13, 16, 23, 26, 28, 45, 159 and 163. PCTs 123, 155 158 and 163 (transport route)	180.43 ha of foraging habitat and 18.44 ha of breeding habitat. 4.58 ha (transport route – foraging only)	3372 credits at the wind farm site consisting of both ecosystem and species credits: • PCT 10 – 1 ecosystem credit, • PCT 13 – 1770 ecosystem credits and 42 species credits, • PCT 16 – 207 ecosystem credits and 284 species credits, • PCT 23 – 1 ecosystem credits • PCT 26 – 86 ecosystem credits • PCT 28 – 227 ecosystem credits and 19 species credits, • PCT 45 – 402 ecosystem credits, • PCT 159 – 5 ecosystem credits, • PCT 163 – 328 ecosystem credits. 57 ecosystem credits in the transport route consisting of: • PCT 123 – 5 ecosystem credits, • PCT 155 – 38 ecosystem credits, • PCT 158 – 9 ecosystem credits, • PCT 163 – 5 ecosystem credits.		RFI3 Table 1 (as ecosystem credit species) and Table 3 (species credits) and finalised credit report in RFI3 dated 13/02/2025
Plains-wanderer (*Pedionomus torquatus*)	PCTs 44 and 46	202.07 ha, including: 2.67 ha of	5,786 credits consisting of: • 170 species credits in important mapped habitat. • 5,616 of ecosystem credits in: o PCT 44 – 3679 ecosystem credits	An additional 13 hectares of offsets for the Plains-wanderer is proposed as Additional and	RFI3 Table 1 (as ecosystem credit species) and Table 3

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
		Important Mapped Habitat, and 199.4 ha of foraging habitat.	○ PCT 46 – 1937 ecosystem credits	Appropriate Measures (A&AM) to minimise SAII impacts. The location and offset mechanism for these A&AM are yet to be identified. BCS recommends further information regarding A&AM as per BCS response to DPHI to RFI3 dated 17 February 2025. Ecosystem and species credits will be secured via a combination of BSAs from six potential properties and purchase of credits from the open market with payment to the Biodiversity Offset Fund as a last resort.	(species credits) and finalised credit report in RFI3 dated 13/02/2025
Mossgiel Daisy (*Brachyscome papillosa*)	PCTs 13, 16, 44, 45, 46, 157, 160, 163, and 164	161.6 ha (assumed present and recorded)	7,068 species credits consisting of: • PCT 13 – 477 species credits • PCT 16 - 1 species credit • PCT17 – 69 species credits • PCT 26 – 1 species credit • PCT 44 – 816 species credits • PCT 46 – 136 species credits • PCT 160 – 1002 species credits • PCT 163 – 17 species credits • PCT 164 – 4549 species credits • PCT 163 – 239 species credits	Ecosystem and species credits will be secured via a combination of BSAs from six potential properties and purchase of credits from the open market with payment to the Biodiversity Offset Fund as a last resort.	RFI3 Table 3 and finalised credit report in RFI3 dated 13/02/2025

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
Regent Parrot (*Polytelis anthopeplus monarchoides*)	PCTs 10, 13, 16 (foraging only)	129.65 ha	1,978 ecosystem credits consisting of: • PCT 10 - 1 ecosystem credit • PCT 13 - 1,770 ecosystem credits • PCT 16 - 207 ecosystem credits.		RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025.
Slender Darling-pea (*Swainsona murrayana*)	PCTs 16, 23, 26, 44, 45, 46, 157, 163, and 164	206.8 ha (assumed present and recorded)	9,303 species credits consisting of: • PCT 16 - 17 species credits • PCT 26 – 2 species credits • PCT 44 – 642 species credits • PCT 46 – 647 species credits • PCT 157 – 47 species credits • PCT 160 – 96 species credits • PCT 164 – 7610 species credits • PCT 163 – 239 species credits.		RFI 3 Table 3 and finalised credit report in RFI3 dated 13/02/2025.
South-eastern Hooded Robin (*Melanodryas cucullata cucullata)*	PCTs 10, 13, 16, 23, 26, 28	152.03 ha	2,292 ecosystem credits consisting of: • PCT 10 - 1 ecosystem credit • PCT 13 - 1,770 ecosystem credits, • PCT 16 – 207 ecosystem credits, • PCT 23 – 1 ecosystem credit, • PCT 26 – 86 ecosystem credits, • PCT 28 – 227 ecosystem credits.		RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025
Southern Whiteface (*Aphelocephala leucopsis*)	PCTs 10, 13, 16, 17, 23, 26, 28 44, 45, 46, 157, 159, 160, 163 and 164 (wind farm site) PCTs 123, 155 158 and 163 (transport route)	1015.72 ha (wind farm site) 4.58 ha (transport route)	23,072 ecosystem credits at the wind farm site consisting of: • PCT 10 – 1 ecosystem credit, • PCT 13 - 1,770 ecosystem credits, • PCT 16 – 207 ecosystem credits, • PCT 17 – 163 ecosystem credits, • PCT 23 – 1 ecosystem credit, • PCT 26 – 86 ecosystem credits,		RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
			• PCT 28 – 227 ecosystem credits, • PCT 44 - 3,679 ecosystem credits, • PCT 45 – 402 ecosystem credits, • PCT 46 - 1,937 ecosystem credits, • PCT 157 – 180 ecosystem credits, • PCT 159 – 5 ecosystem credits, • PCT 163 – 328 ecosystem credits, • PCT 164 – 11,996 ecosystem credits. 57 ecosystem credits in the transport route consisting of: • PCT 123 – 5 ecosystem credits, • PCT 155 – 38 ecosystem credits, • PCT 158 – 9 ecosystem credits, • PCT 163 – 5 ecosystem credits.		
Superb Parrot *(Polytelis swainsonii)*	PCTs 10, 13, 23, 26, 28, 45, 46 (foraging only)	234.96 ha	8,103 ecosystem credits consisting of: • PCT 10 - 1 ecosystem credit, • PCT 13 - 1,770 ecosystem credits, • PCT 23 - 1 ecosystem credit, • PCT 26 - 86 ecosystem credits, • PCT 28 - 227 ecosystem credits, • PCT 45 - 4,081 ecosystem credits, • PCT 46 - 1,937 ecosystem credits.		RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025
Southern Bell Frog *(Litoria raniformis)*	PCTs 13 and 17	5.85	204 species credits consisting of: • PCT 13 – 186 species credits, • PCT 17 – 18 species credits.		RFI 3 Table 3 and Table 1. Finalised credit report in RFI3 dated 13/02/2025.
Swift Parrot (*Lathamus discolor*)	PCTs 10, 13, 16, 26 (foraging only)	140.54 ha	2,064 ecosystem credits consisting of: • PCT 10 – 1 ecosystem credit, • PCT 13 – 1770 ecosystem credits, • PCT 16 – 207 ecosystem credits,		RFI3 Table 1 (as ecosystem credit species) and finalised

Threatened species/ Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
			• PCT 26 – 86 ecosystem credits		credit report in RFI3 dated 13/02/2025.
White-throated Needletail (*Hirundapus caudacutus*)	PCTs 10, 13, 16, 17, 26, 44, 46, 157, 159, 160	443.54 ha	10,118 ecosystem credits consisting of: • PCT 10 – 1 ecosystem credit, • PCT 13 - 1,770 ecosystem credits, • PCT 16 – 207 ecosystem credits, • PCT 17 – 163 ecosystem credits, • PCT 26 – 86 ecosystem credits, • PCT 44 - 3,679 ecosystem credits, • PCT 46 - 1,937 ecosystem credits, • PCT 157 – 180 ecosystem credits, • PCT 159 – 5 ecosystem credits, • PCT 160 - 2,090 ecosystem credits.		RFI3 Table 1 (as ecosystem credit species) and finalised credit report in RFI3 dated 13/02/2025

TABLE 3: MNES impacted and only listed under the EPBC Act

Threatened Species / Community listed under EPBC Act	PCTs associated with the species / ecological community	Area of Impact (ha)	Credits required	Reference (EIS, BDAR)	Significance
Caspian Tern (*Hydroprogne caspia*)	N/A. Two individuals recorded near a large irrigation storage dam	Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide habitat when inundated.	None	BDAR Table 127 and Appendix 6	Not significant
Common Sandpiper (*Actitis hypoleucos*)	N/A	None	None	BDAR Table 127 and Appendix 6	Not significant

Threatened Species / Community listed under EPBC Act	PCTs associated with the species / ecological community	Area of Impact (ha)	Credits required	Reference (EIS, BDAR)	Significance
Curlew Sandpiper (*Calidris ferruginea*)	N/A	None	None	BDAR Table 127 and Appendix 6	Not significant
Glossy ibis (*Plegadis falcinellus*)	N/A	Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide habitat when inundated.	None	BDAR Table 127 and Appendix 6	Not significant
Latham's Snipe (*Gallinago hardwickii*)	N/A	Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide habitat when inundated.	None	BDAR Table 127 and Appendix 6	Not significant
Sharp-tailed sandpiper (*Calidris acuminata*)	N/A. 23 individuals recorded on one occasion at site BUS 19.	Direct impact to approximately 121 ha of ephemeral wetland habitat that may provide habitat when inundated.	None	BDAR Table 127 and Appendix 6	Not significant