Application Number: 01558

Commencement Date: 05/12/2022

1. About the project

1.1 Project details

1.1.1 Project title *

Bullawah Wind Farm

1.1.2 Project industry type *

Energy Generation and Supply (renewable)

1.1.3 Project industry sub-type

Wind Farm

1.1.4 Estimated start date *

1/09/2025

1.1.4 Estimated end date *

1/09/2055

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

BayWa r.e. Projects Australia Pty Ltd (BayWa r.e.) propose to develop the Bullawah Wind Farm (the Proposed Action, the Project) to provide a reliable and affordable source of energy for the people of NSW and contribute to reducing greenhouse gas (GHG) emissions associated with energy generation. The Proposed Action is located approximately 28 km south east of Hay and in the Riverina region of south western NSW, within the Hay Shire, Murrumbidgee and Edward River Local Government Areas (LGAs). The Proposed Action will include the installation, operation, maintenance and decommissioning of 170 wind turbines, battery energy storage system (BESS) facilities, ancillary infrastructure and temporary facilities associated with construction of the Project. The key components of the Project include:

- ~170 (3 blade) wind turbines, with a maximum blade-tip height of 300 metres (m) above ground.
- Power infrastructure providing connection to Project EnergyConnect i.e. on-site substations/switchyards to connect the proposed wind turbines to the South-West REZ transmission line, that runs through the Project Area.
- Internal electrical reticulation network i.e. electrical connections between the proposed wind turbines and substation consisting of a combination of underground cables and overhead powerlines.
- Other associated permanent infrastructure including hardstands, new access tracks, upgrades to existing access tracks, access point/s from public roads, operation and maintenance buildings.
- A single grid-scale BESS (~500 MW, up to four-hour battery).
- Temporary and permanent meteorological monitoring masts.
- Temporary construction facilities including:
 - Construction compound/s and site office buildings and storage areas
 - On-site concrete batching plants for use during the construction phase
 - Laydown areas used for wind turbine installation and storage of wind turbine components.
- Targeted road network upgrades to facilitate delivery of wind turbine components to the Project Area as required
- · Provision for a temporary accommodation camp on site (if required).

Proposed infrastructure would be contained within the Project Area including the turbine blades, refer to the mapping data provided in response to Section 2.1, Location Details, "Project area" of this referral. The proposed layout will allow for micro-siting and will be subject to further detailed design as the environmental and social impact assessments progress.

To facilitate construction, a range of temporary buildings and facilities will be required including concrete batching plants, rock crushing facilities, site compound and office, stockpiles and materials storage compounds, temporary field laydown areas and temporary meteorological masts.

It is anticipated that works will commence within one year of obtaining all necessary approvals. The timing of construction will be driven by additional permits and authorisations, contractor selection, detailed design and procurement processes and a final investment decision. The construction phase of the Project is anticipated to be 24 months. The Project has an estimated operational life of 30 years after which it may be decommissioned or re-powered.

Major turbine components and other Project related materials will be delivered to one (or more) of the six (6) ports being considered by BayWa r.e. The ports currently being considered are Port of Newcastle and Port Kembla in NSW, Port of Melbourne, Port of Geelong (GeelongPort) and Port of Portland in Victoria and Port Adelaide in South Australia. Over-sized, over-mass (OSOM) vehicle transport to the Project Area will occur from the preferred port/s but is subject to a port and transport route assessment, that is to be prepared during future stages of the NSW development application process. Outcomes of the port and transport route assessment will be incorporated into a traffic and transport impact assessment. Amongst other things this will identify a proposed transport route from the preferred port to the Project Area as well as any road upgrades. The type and scale of road upgrades along a transport route, and including new intersections and intersection upgrades within the Project Area are yet to be determined. Road upgrades, and potential environmental and social impacts associated with their requirement, will be addressed during future stages of the NSW development application process.

The Project Area is approximately 30,603 hectares (ha). The assessment of impacts associated with the Proposed Action has focused on the 'Indicative Development Area (approximately 5,802.8 ha), as shown in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 1 / Figure 1.3, page 7. For the purposes of this referral, and to provide for a precautionary assessment, this broader development area mapping data has been provided in response Section 2.1, Location Details, "Disturbance Footprint" of this referral i.e. the precautionary Disturbance Footprint associated with this referral is approximately 5,802.8 ha.

It is noted that the 'Indicative Development Area' is a conservative area for early assessment purposes and the actual disturbance area will be significantly smaller, but is subject to further detailed assessments and design. Direct impacts associated with the Proposed Action would be contained to a refined impact area within the broader development area but the total extent of the area to be impacted has not yet been determined. This is because the design work for the Proposed Action is ongoing and will be finalised upon completion of additional detailed design work, other engineering inputs and further environmental and social surveys/studies. It is estimated that the actual disturbance area associated with the Proposed Action (following detailed assessments and design) will be in the order of approximately 1,012.6 ha.

The Proposed Action is expected to involve the following activities that may have a direct or indirect impact on the environment:

- Construction works to enable the installation, operation, maintenance and decommissioning of wind turbines, BESS facilities, ancillary infrastructure and establishment of any temporary facilities
- Upgrade and construction of access tracks between wind turbines, the BESS, substations/switchyards and other parts of the Project, where required
- · Cut and fill works to create level areas for crane hardstands and turbine laydown areas at each wind turbine location
- Installation of underground and overhead cabling
- · Delivery of wind turbines that may require targeted road network upgrades
- Clearance of vegetation associated with the abovementioned works within the Project Area and Disturbance Footprint as shown in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 1 / Figure 1.3, page 7
- Delivery of other materials, including but not limited to, concrete and gravel
- · Delivery of the battery modules, substations, transformers and associated BESS infrastructure
- Testing and commissioning activities
- Removal of construction equipment and rehabilitation of construction areas.

For the purposes of this referral, direct impacts may include removal of native vegetation, removal of threatened species and their habitat and fauna mortality. Indirect impacts may include reduced viability of adjacent habitat due to edge effects, reduced viability of adjacent habitat due to noise, dust, or light spill, transport of weeds and pathogens from the site to adjacent vegetation and changed fire regimes. Further information regarding potential direct and indirect impacts is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 4, page 42-45.

Preliminary wind energy analysis undertaken by BayWa r.e. along with consultation with community and other stakeholders, and then preliminary environmental studies, have guided the development of the indicative turbine layout for the Project (contained within the abovementioned indicative Development Area). This analysis, assessment and design will continue during the EIS phase. The Proposed Action will contribute to meeting Commonwealth and NSW Government objectives, in an environmentally sensitive and sustainable manner and will provide significant renewable energy generation capacity within an area planned for renewable energy development by the NSW Government, being the South-West Renewable Energy Zone (South-West REZ).

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

The Proposed Action requires approval under Part 4 of the *NSW Environmental Planning and Assessment Act* 1979 (EP&A Act). Being development for the purpose of electricity generation with a capital investment value of more than \$30 million, the Project is declared to be State Significant Development (SSD) under the provisions of the NSW State Environmental Planning Policy (Planning Systems) 2021.

A State Significant Development Application (SSDA) will be lodged with the NSW Department of Planning and Environment (DPE), along with an Environmental Impact Statement (EIS). A range of other NSW environmental legislation will also apply and will be considered in the assessment process. It is assumed that if the Proposed Action is deemed a controlled action, the Project would be subject to the Assessment Bilateral Agreement between the NSW and Commonwealth governments.

In addition to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), the Commonwealth Civil Aviation Regulations 1988 and Heavy Vehicle National Law will also apply to the Proposed Action.

Under the Civil Aviation Regulations 1988, a detailed assessment in accordance with the regulations and consultation with the relevant agencies will be undertaken as part of the preparation of the EIS.

Approvals would be required for the transport of wind turbines and associated infrastructure by OSOM vehicles under the Heavy Vehicle National Law.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

BayWa r.e. recognise that respectful, inclusive, and meaningful engagement is fundamental to the development of wind farm projects and has had prepared a Communications and Stakeholder Engagement Plan (CSEP) for the Proposed Action in line with the NSW Government's Engagement Guidelines. Attachment '22110_Bullawah Wind Farm_Communications and Engagement Plan_V03', Section 4.0, page 19-25 outlines the objectives, approach and indicative timeline for community engagement throughout the life of the Proposed Action, including from early stages of development through to detailed design, construction and operation.

Engagement with local landholders commenced in 2021 and has predominantly been undertaken by the Bullawah Wind Farm project team of two BayWa r.e. employees, supported by Umwelt. The key stakeholders identified for the Proposed Action within each stakeholder group include host landholders, neighbouring landholders, community within the social locality, State and Commonwealth Government agencies, local councils, community interest groups and community service groups, local businesses and service providers, and Aboriginal groups.

BayWa r.e. commenced stakeholder engagement as part of the initial design phase for the Proposed Action. Community engagement activities undertaken to-date include face-to-face meetings, community drop-in sessions, community surveys, newsletters and newspaper articles.

The engagement conducted to-date has identified several key community views, including impacts on surroundings (in particular the potential for the Proposed Action to impact on the habitat for the Plains Wanderer), changes to the visual landscape due to the presence of wind turbines, impacts relating to traffic and road conditions, impacts relating to changing land uses, and increased pressure on the rental market when the construction workforce are engaged. The key stakeholders also identified positive impacts of the Proposed Action, including the creation of jobs, training and procurement opportunities, the potential to attract people to move to the area in the long term, the potential to support local tourism, the provision of renewable energy and the sharing of Project benefits within the local community.

BayWa r.e. will continue to implement the CSEP through the assessment phase for the Proposed Action in accordance with the NSW Government - Planning Secretary's Environmental Assessment Requirements (SEARs). Key consultation mechanisms and activities will include one-on-one meetings and phone calls, email/letter updates and Project newsletters, maintenance of a Project website, community information sessions and community surveys.

The formal notification process for the Aboriginal Cultural Heritage Assessment will commence following submission of the Scoping Report to DPE, or receipt of the SEARs. Once commenced, detailed consultation will be undertaken with the Registered Aboriginal Parties (RAPs) for the Project.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint. Alternatively, email us at privacy@awe.gov.au.

Confirm that you have read and understand this Privacy Notice *

1.3.1.1 Is Referring party an organisation or business? *

Yes

| Referring party organisation details | | |
|--------------------------------------|------------------------------------|--|
| ABN/ACN | 18059519041 | |
| Organisation name | UMWELT (AUSTRALIA) PTY. LTD. | |
| Organisation address | 2284 NSW | |
| Referring party details | | |
| Name | Nathan Baker | |
| Job title | Principal Environmental Consultant | |
| Phone | 0477 713 478 | |
| Email | nbaker@umwelt.com.au | |
| Address | Level 11, 213 Miller Street | |

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

| Person proposing to take the action organisation details | | |
|--|--|--|
| ABN/ACN | 51606343757 | |
| Organisation name | BAYWA R.E. PROJECTS AUSTRALIA PTY LTD | |
| Organisation address | 3121 VIC | |
| | | |
| Person proposing to take the ac | ction details | |
| Name | Aidan O'Mahony | |
| Job title | Major Developments Leader NSW | |
| Phone | +61 487 171 736 | |
| Email | aidan.omahony@baywa-re.com | |
| Address | Level 2, 79-81 Coppin Street, Richmond, Victoria, 3121 | |

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

One previous referral was submitted by BayWa r.e in December 2022, which is the Kariboe Wind Farm Project EPBC 2022/09428. This referral is currently in the process of being reviewed by the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

BayWa r.e. has a satisfactory record of responsible environmental management. Based in 29 countries, BayWa r.e. has a large development portfolio of Wind, Solar and Energy Storage systems across the world. BayWa r.e. has successfully brought over 4.5GW of renewable energy online, while managing over 10GW of renewable energy assets. In Australia, BayWa r.e. has commissioned over 270MW of solar and wind projects and our project pipeline reports more than 4GW under development.

The projects in Australia which include Ferguson Wind Farm (10.8MW), Diapur Wind Farm (7.4MW) and Timboon Wind Farm (7.2MW), Karadoc (112MW) and Yatpool (106MW) Solar Farm in Vic and Hughendon Solar Farm (20MW) in QLD. These projects have been undertaken under Council and State approvals and has satisfactory implemented all the conditions of its previous Council and State Approvals. BayWa r.e. is committed to meaningful and transparent engagement with planning and environmental authorities with respect to its project.

BayWa r.e. has not been subject to any past or present proceedings Commonwealth, State or Territory Law for the protection of the environment or the conservation and sustainable use of natural resources.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

BayWa r.e. Projects Australia provides an extensive range of services from project development and implementation, to finance and the operation of large-scale solar and wind farms in Australia. Its experienced team, comprised of local and international staff delivering on Project development, Turnkey construction, Financing and Power Purchase Agreements and Operation services.

BayWa r.e. does not have a stand-alone environmental policy or planning framework as these matters are addressed regionally, and in Australia, to meet all relevant Commonwealth, State or Territory and Local environmental and planning related requirements applicable to each project. Overall, and in delivering the above-mentioned services in Australia, BayWa r.e. aims to comply with all laws, legislation and policy applicable to them. BayWa r.e. will comply with all Commonwealth and NSW laws, legislation and policy applicable to the Proposed Action, inclusive of any Local planning aspects. For a wind farm the following environmental matters are acknowledged by BayWa r.e. and would be assessed for the Proposed Action, as part of the preparation of the EIS: biodiversity (flora and fauna); heritage (Aboriginal Cultural and historical); water and soils; landscape character and visual, shadow flicker and blade glint; acoustics (noise and vibration); traffic and transport; telecommunications (electromagnetic interference, EMI); electric and magnetic fields (EMF); other hazards such as bushfire, blade throw and aviation; and social.

These BayWa r.e. commitments to the environment, and relevant planning related matters, align with BayWa r.e. broader sustainability values. BayWa r.e. recognizes that sustainability is a holistic endeavour and as an organisation aims to go 'beyond carbon' and address a wide range of sustainability aspects for society, economy and the environment. Further information about the BayWa r.e. sustainability commitments is available in Attachment 'Sustainability_Report_BayWa_re_2021_EN', Section 'Our Sustainability Framework 2025', pages 11-13.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

| Proposed designated proponent organisation details | | |
|--|--|--|
| ABN/ACN | 51606343757 | |
| Organisation name | BAYWA R.E. PROJECTS AUSTRALIA PTY LTD | |
| Organisation address | 3121 VIC | |
| | | |
| Proposed designated proponen | t details | |
| Name | Aidan O'Mahony | |
| Job title | Major Developments Leader NSW | |
| Phone | +61 487 171 736 | |
| Email | aidan.omahony@baywa-re.com | |
| Address | Level 2, 79-81 Coppin Street, Richmond, Victoria, 3121 | |

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

| ABN/ACN | 18059519041 |
|----------------------------|------------------------------------|
| Organisation name | UMWELT (AUSTRALIA) PTY. LTD. |
| Organisation address | 2284 NSW |
| Representative's name | Nathan Baker |
| Representative's job title | Principal Environmental Consultant |
| Phone | 0477 713 478 |
| Email | nbaker@umwelt.com.au |
| Address | Level 11, 213 Miller Street |

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

| ABN/ACN | 51606343757 |
|----------------------------|--|
| Organisation name | BAYWA R.E. PROJECTS AUSTRALIA PTY LTD |
| Organisation address | 3121 VIC |
| Representative's name | Aidan O'Mahony |
| Representative's job title | Major Developments Leader NSW |
| Phone | +61 487 171 736 |
| Email | aidan.omahony@baywa-re.com |
| Address | Level 2, 79-81 Coppin Street, Richmond, Victoria, 3121 |

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

Yes

1.4.10 Enter purchase order number *

PO0005

1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint



2.2 Footprint details

2.2.1 What is the address of the proposed action? *

4549 Jerilderie Road, Hay, NSW 2711

2.2.2 Where is the primary jurisdiction of the proposed action? *

New South Wales

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

Lands within the Project Area are privately owned Freehold land. The project has avoided Non-freehold land (Crown Land or reserves) but Project infrastructure may interact with some Crown Land easements and enclosures.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The Project Area is located approximately 88 km southwest of Griffith and 66 km northeast of Deniliquin, in the South-West REZ, within the Hay, Murrumbidgee and Edward River Local Government Areas (LGAs).

The Project Area is zoned as RU1 Primary Production within the Hay Local Environment Plan (LEP) 2011, the Murrumbidgee LEP 2013 and Conargo LEP 2013. The majority of land that surrounds the Project is also zoned RU1 Primary Production, however the Oolambeyan National Park (directly north and adjacent to the Project Boundary) is primarily zoned as E1 National Parks and Nature Reserves. Under Section 2.36(1) of the State Environmental Planning Policy (Transport and Infrastructure) 2021, the Proposed Action can be carried out with consent on prescribed rural zones, which includes RU1 – Primary Production. Therefore the Proposed Action would be permissible with consent under Part 4 of the EP&A Act.

The Project Area falls within the Murrumbidgee River Catchment and is located on an alluvial floodplain between the Murrumbidgee River (more than 20 km to the north) and the Billabong Creek (approximately 40 km to the south). The Project Area is dissected by several larger waterways namely Abercrombie and Eurolie Creeks in the north, and Coleambally Outfall Drain in the south. No flood prone land or flood management areas are identified within the Project Area. The Project Area comprises of grazed mixed native and exotic grassland, shrublands, ephemeral wetlands, and small areas of agricultural cropping. Remnant woodland has been retained as small patches scattered across the Project Area, with larger tracts of retained woodland and forest occurring along larger creeklines, rivers, and drainage channels/outfall drains. These patches of native vegetation provide habitat resources, as well as locally significant wildlife corridors for birds, microbats, reptiles and mammals within existing agricultural practices. Existing waterways also provide important linkages for wildlife movement in the landscape. Plant community types vary in condition and size across the Project Area and these would be further investigated and defined during the preparation of the EIS, however it is expected that most patches of native vegetation would have high conservation significance and represent a key constraint to the Proposed Action.

The Project Area is located mostly east of the Jerilderie Road, North Boundary Road and Willurah Road junction, either side of the Balranald to Darlington Point transmission line, and south of the Oolambeyan National Park. The Cobb Highway is situated ~20 km west of the Project Area (western most extent) and Conargo Road is ~8.5 km east of the Project Area (eastern most extent), while Jerilderie Road traverses the Project Area in a north to south direction until the intersection of North Boundary Road and Willurah Road. North Boundary Road crosses the middle section of Project Area in an east to west direction, whilst Willurah Road is adjacent to the western side of the southern extent of the Project Boundary, running parallel in a north to south direction. The Sturt Highway (which runs in an east to west direction, passing just south of Hay township) is located 20 km north of the Project. Access to the Project Area is proposed via the existing road network. Primary access will likely be via the Sturt Highway, and/or Cobb Highway and then Jerilderie Road. Secondary access is proposed for North Boundary Road. The preferred transport route of wind turbine components and other Project related materials will be confirmed via port and transport route assessment, to be prepared as part of the EIS. It is expected that upgrades to local roads (secondary access routes) will be required to allow access for heavy vehicles (where considered suitable) prior to any deliveries occurring as part of the construction phase of the Project. There may also be some minor works required along the primary transport route from the selected port to facilitate the path of OSOM vehicles. However, it is noted that several other renewable energy developments within the South-West

REZ may occur prior to the Project and routes used by those preceding projects utilised, with the required works being completed prior to this Project commencing. Access tracks will be constructed on site (i.e. within the Project Area) to provide access to the proposed wind turbine locations.

3.1.2 Describe any existing or proposed uses for the project area.

Agricultural land uses are prevalent within and surrounding the Project Area. There are no areas of mapped Biophysical Strategic Agricultural Land (BSAL) and there are no current mining and/or exploration licence applications within the Project Area. The Proposed Action will be compatible with the existing pastoral land use.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

The Project Area contains important habitat mapping for the Plains Wanderer under the Biodiversity Assessment Method (BAM), refer Attachment 'biodiversity-assessment-method-2020-200438', Section 5.1.3, page 20. Impacts to mapped important habitat for Plainswanderer may be considered Serious and Irreversible (SAII), which is a central component of the NSW Biodiversity Offsets Scheme. The closest national park, state park or nature reserve is the Oolambeyan National Park which is adjacent to part of the northeastern boundary of the Project Area.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The Project Area is relatively flat and homogeneous ranging from between 94 – 103 metres Australian Height Datum (AHD), with areas of topographical depressions.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

The land within the Project Area is largely cleared from historical agricultural activities.

Preliminary biodiversity surveys were undertaken in May 2022. The following sections summarise existing threatened flora and fauna identified, and likely to occur, within the Project Area.

<u>Flora</u>

The preliminary biodiversity surveys indicated that the Project Area is likely to contain two (2) Threatened Ecological Communities (TECs), including Weeping Myall Woodlands listed as an Endangered Ecological Community (EEC) under the EPBC Act, and Natural Grasslands of the Murray Valley Plains listed as a Critically Endangered Ecological Community (CEEC) under the EPBC Act. Further information regarding threatened ecological community mapping and assessment is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1, Section 3.2, Table 3.6 and Figure 3.3 (pages 15, 16-41, 32-34 and 41).

10 flora species listed as threatened under the EPBC Act have been identified as having a moderate to high likelihood of occurring in the Project Area, including:

- Mossgiel Daisy (Brachyscome papillosa)
- Calotis moorei
- Winged Peppercress (Lepidium monoplocoides)
- Chariot Wheels (Maireana cheelii)
- Turnip Copperburr (Sclerolaena napiformis)
- Eleocharis obicis
- Slender Darling Pea (Swainsona murrayana)
- Austrostipa wakoolica
- Red Darling Pea (Swainsonaplagiotropis)
- Menindee Nightshade (Solanum karsense)

Additional surveys will be undertaken to target and map EPBC Act listed threatened communities and threatened flora species. Further information regarding threatened flora is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1, Section 3.2, Table 3.7 and Figure 3.1 (pages 15, 16-41, 35 and 39).

<u>Fauna</u>

Two (2) amphibian species, seven (7) bird species, one (1) reptile species and one (1) fish species listed as threatened under the EPBC Act have been identified as having a moderate to high likelihood of occurring in the Project Area, including:

- Southern Bell Frog (Litoria raniformis)
- Sloane's Froglet (Crinia sloanei)
- Plains Wanderer (Pedionomus torquatus)
- White-throated Needletail (Hirundapus caudacutus)
- Australasian Bittern (Botaurus poiciloptilus)
- Australian Painted Snipe (Rostratula australis)
- Superb Parrot (Polytelis swainsonii)
- Painted Honeyeater (Grantiella picta)
- Grey Falcon (Falco hypoleucos)
- Grey Snake (Hemiaspis damelii)
- Flathead Galaxias (Galaxias rostratus)

Based on a review of existing information and field investigations, the Proposed Action may impact upon a number of migratory fauna species, including the Fork-tailed Swift (*Apus pacificus*), Sharp-tailed Sandpiper (*Calidris acuminata*), Latham's Snipe (*Gallinago hardwickii*) and White-throated Needletail (*Hirundapus caudacutus*).

Additional surveys will be undertaken to target and map EPBC Act listed threatened fauna species. Further information on threatened fauna is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1, Section 3.2, Table 3.8 and Figure 3.2 (pages 15, 16-41, 36 and 40).

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Twenty (20) plant community types (PCTs) have been mapped in the Project Area, including:

- PCT 7: River Red Gum Warrego Grass herbaceous riparian tall open forest wetland mainly in the Riverina Bioregion
- PCT 9: River Red Gum wallaby grass tall woodland wetland on the outer River Red Gum zone mainly in the Riverina Bioregion
- PCT 10: River Red Gum Black Box woodland wetland of the semi-arid (warm) climatic zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- PCT 11: River Red Gum Lignum very tall open forest or woodland wetland on floodplains of semi-arid (warm) climate zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- 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)

- PCT 15: Black Box open woodland wetland with chenopod understorey mainly on the outer floodplains in south-western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- PCT 17: Lignum shrubland wetland of the semi-arid (warm) plains (mainly Riverina Bioregion and Murray Darling Depression Bioregion)
- PCT 24: Canegrass swamp tall grassland wetland of drainage depressions: lakes and pans of the inland plains
- PCT 26: Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion
- PCT 28: White Cypress Pine open woodland of sand plains: prior streams and dunes mainly of the semi-arid (warm) climate zone
- PCT 44: Forb-rich Speargrass Windmill Grass White Top grassland of the Riverina Bioregion
- PCT 45: Plains Grass grassland on alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes Bioregion
- PCT 46: Curly Windmill Grass speargrass wallaby grass grassland on alluvial clay and loam on the Hay Plain, Riverina Bioregion
- PCT 70: White Cypress Pine woodland on sandy loams in central NSW wheatbelt
- PCT 153: Black Bluebush low open shrubland of the alluvial plains and sandplains of the arid and semi-arid zones
- PCT 160: Nitre Goosefoot shrubland wetland on clays of the inland floodplains
- PCT 164: Cotton Bush open shrubland of the semi-arid (warm) zone
- PCT 165: Derived corkscrew grass grassland/forbland on sandplains and plains in the semi-arid (warm) climate zone
- PCT 182: Cumbungi rushland wetland of shallow semi-permanent water bodies and inland watercourses
- PCT 216: Black Roly Poly low open shrubland of the Riverina Bioregion and Murray Darling Depression Bioregion

Refer to Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.2 and Table 3.5 (pages 16-41 and 31) for detail on the total extent of each PCT within the Project Area and biodiversity survey corridor.

PCT 26 has been assessed as conforming to the Weeping Myall Woodlands listed as an EEC under the EPBC Act. Similarly, PCT 44, PCT 45 and PCT 46 have been assessed as conforming to the Natural Grasslands of the Murray Valley Plains listed as a CEEC under the EPBC Act. Further survey and detailed analysis will be undertaken to refine the extent of these communities.

Further information regarding threatened ecological community mapping and assessment is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1, Section 3.2, Table 3.6 and Figure 3.3 (pages 15, 16-41, 32-34 and 41).

The land within the Project Area is mapped as Class 4 and 6 under the NSW Land and Soil Capability Assessment Scheme (LSC). The Project Area is not mapped as containing Biophysical Strategic Agricultural Land.

Soil landscape mapping is limited for the Project Area. A search of DPE eSPADE v2.2 information system was undertaken on 15 June 2022, which identified that there is currently no publicly available soil mapping data for the Project Area and surrounding environment. As a result, there are no geological sheets available for the Project that describes the geology and soil landscape. The Australia Government Geoscience Australia Portal indicates that the Project Area is situated in a landscape predominately comprised of Shepparton Formation. This geological formation is characterised by unconsolidated to poorly consolidated mottled variegated clay, silty clay with lenses of polymictic, coarse to fine sand and gravel. The Shepparton Formation is of late Neogene and forms extensive flat alluvial floodplains (Australian Stratigraphic Units Database (Stratigraphic Unit Details - Shepparton Formation), GeoScience Australia).

The Riverina IBRA Bioregion area generally comprises three overlapping alluvial fans centred on the eastern half of the Murray Basin. The Lachlan fan is predominately clay. The Murray fan is more confined and has more active anabranch channels where it is forced to flow around the obstacle of the Cadell fault near Echuca. At times of extreme flood flow, water from the different streams can cross the fan surfaces and enter channels of another system (NPWS, 2003). The river systems within the Riverina IBRA Bioregion consist mostly of sandy soils. The outer perimeter of floodplains are characterised by predominate saline heavy grey and brown clays. Red-brown and grey clays are present throughout the bioregion, which support grassland communities. The condition of soils will be further investigated as part of a soils, land capability and agricultural impact assessment that would be conducted during the preparation of the EIS.

Note: the PDF version of the The Bioregions of New South Wales - their biodiversity, conservation and history (NPWS, 2003) exceeds the size limit for uploading as an attachment. As the attached link for The Bioregions of New South Wales - their biodiversity, conservation and history (NPWS, 2003) exceeds the allowed character limit, please find the full link here:

https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Bioregions/bioregions-of-new-south-wales.pdf

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

There are no Commonwealth heritage places overseas that apply to the Project Area.

There are no heritage places or items within 30 km of the Project Area that are listed on World or National heritage registers. One Commonwealth listed place, the 'Hay Post Office', is located 29 km northwest of the Project Area.

There are no listed heritage items within 10 km of the Project Area that are listed on the Hay Local Environment Plan (LEP) 2011, Conargo LEP 2013, Murrumbidgee LEP 2013 or NSW State Heritage Inventory. There are several local heritage sites located in the broader area surrounding the Project Area, however none of these identified local heritage sites are anticipated to be impacted by the Proposed Action.

Despite no registered historic heritage items being located within the Project Area, it is likely that a Historic Heritage Assessment (HHA) would be conditioned within the SEARs to support the EIS.

Further information regarding heritage values is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1 (page 15).

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The Project Area falls within the Hay Local Aboriginal Land Council (LALC) and Griffith LALC areas. There are no known native title schedule, applications, determinations, or Indigenous Land Use Agreements over the Project Area. 115 Aboriginal Heritage Information Management System (AHIMS)

registered sites were identified within 10 km of the Project Area, 13 of which were identified within the Project Area. No Aboriginal places were identified within the Project Area.

Of these 13 AHIMS sites, four (4) sites were identified as containing artefacts and hearths, three (3) sites were identified as containing artefacts, two (2) sites were identified as containing hearths, two (2) sites were identified as containing artefacts and earth mounds, one (1) site was identified as containing a grinding groove, and one (1) site was identified as containing a water hole.

Given the known presence of Aboriginal sites within the Project Area, a detailed Aboriginal Cultural Heritage Assessment (ACHA) will be undertaken to assess potential impacts in accordance with the RAPs for the Proposed Action.

Further information regarding heritage values is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1 and Appendix B (pages 15 and 66-69).

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The Project Area falls within the Murrumbidgee River Catchment and is located on an alluvial floodplain between the Murrumbidgee River and the Billabong Creek.

The generally flat topography in and around the Project Area provides for a broad floodplain with numerous watercourses with streamflow contributions emanating from local catchment runoff and potential flood breakouts from the major river systems in flood events. The Project Area also has topographical depressions which are likely to accumulate surface water under local catchment flooding conditions.

No flood studies have been conducted at the Project Area and hence design flood level estimates are currently not available.

A Water Resources Impact Assessment (WRIA) will be undertaken as part of the EIS that will consider potential impacts on both surface water and groundwater resources and the catchment, including flooding, erosion and sediment control, water quality, water users, water sourcing, and licensing.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section Controlling provision

| EPBC Act section | Controlling provision | Impacted | Reviewed |
|------------------|--|----------|----------|
| S12 | World Heritage | No | Yes |
| S15B | National Heritage | No | Yes |
| S16 | Ramsar Wetland | No | Yes |
| S18 | Threatened Species and Ecological Communities | Yes | Yes |
| S20 | Migratory Species | Yes | Yes |
| S21 | Nuclear | No | Yes |
| S23 | Commonwealth Marine Area | No | Yes |
| S24B | Great Barrier Reef | No | Yes |
| S24D | Water resource in relation to large coal mining development or coal seam gas | No | Yes |
| S26 | Commonwealth Land | No | Yes |
| S27B | Commonwealth heritage places overseas | No | Yes |
| S28 | Commonwealth or Commonwealth Agency | No | Yes |

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no listed World Heritage properties within 30 km of the Project Area. As such, there will be no direct or indirect impacts on these properties as a result of the Proposed Action.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no listed National Heritage places within 30 km of the Project Area. As such, there will be no direct or indirect impacts on these places as a result of the Proposed Action.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

| An indirect impact is an | 'indirect consequence' | such as a downstream impact | or a facilitated third-party action |
|--------------------------|------------------------|-----------------------------|-------------------------------------|
|--------------------------|------------------------|-----------------------------|-------------------------------------|

| Direct impact | Indirect impact | Ramsar wetland |
|---------------|-----------------|----------------------------------|
| No | No | Barmah Forest |
| No | No | Fivebough and Tuckerbil Swamps |
| No | No | Gunbower Forest |
| No | No | Kerang Wetlands |
| No | No | NSW Central Murray State Forests |

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are five (5) Ramsar wetlands within 150 kilometres of the Project Area, with the closest site being the NSW Central Murray State Forests, located 68 kilometres southwest of the Project Area, followed by the Barmah Forest located 99 kilometres south of the Project Area and the Fivebough and Tuckerbil Swamps located 100 kilometres northeast of the Project Area. All three wetlands provide valuable habitat for water birds and migratory bird species, which in turn provides justification for the listing criteria as a Ramsar site. Further information regarding these wetlands can be found at the provided link for Australian Ramsar Wetlands - Department of Climate Change, Energy, the Environment and Water. Impacts to threatened and migratory bird species are addressed in Section 4.1.4 and 4.1.5 of this referral.

Direct or indirect impacts on these Ramsar wetlands are not anticipated due to their large distances from the Project Area. Appropriate sediment and erosion controls, as well as contamination control measures, will be implemented throughout the construction and operation of the Proposed Action, which will minimize any potential risks of impacts to drainage or water quality for these wetlands.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

| Direct impact | Indirect impact | Species |
|---------------|-----------------|---|
| No | Yes | Austrostipa wakoolica |
| No | Yes | Botaurus poiciloptilus |
| No | Yes | Brachyscome papillosa |
| No | No | Calidris ferruginea |
| No | Yes | Calotis moorei |
| No | Yes | Crinia sloanei |
| No | Yes | Eleocharis obicis |
| Yes | Yes | Falco hypoleucos |
| No | Yes | Galaxias rostratus |
| Yes | Yes | Grantiella picta |
| No | Yes | Hemiaspis damelii |
| Yes | Yes | Hirundapus caudacutus |
| No | No | Leipoa ocellata |
| No | Yes | Lepidium monoplocoides |
| No | Yes | Litoria raniformis |
| No | No | Maccullochella macquariensis |
| No | No | Maccullochella peelii |
| No | No | Macquaria australasica |
| No | Yes | Maireana cheelii |
| No | No | Numenius madagascariensis |
| No | No | Nyctophilus corbeni |
| Yes | Yes | Pedionomus torquatus |
| No | No | Pezoporus occidentalis |
| No | No | Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) |
| Yes | Yes | Polytelis swainsonii |
| No | Yes | Rostratula australis |
| No | Yes | Sclerolaena napiformis |
| No | Yes | Solanum karsense |
| Yes | Yes | Swainsona murrayana |
| No | Yes | Swainsona plagiotropis |

Ecological communities

| Direct impact | Indirect impact | Ecological community |
|------------------|--------------------|---|
| No | Yes | Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions |
| No | Yes | Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia |
| Yes | Yes | Natural Grasslands of the Murray Valley Plains |
| No | Yes | Plains mallee box woodlands of the Murray Darling Depression, Riverina and Naracoorte Coastal Plain Bioregions |
| Yes | Yes | Weeping Myall Woodlands |
| No | Yes | White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland |

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

When identifying the potential direct and indirect impacts to threatened species and ecological communities, a precautionary approach has been undertaken to include all potential impacts at this early stage of design. The presence and extent of these species and ecological communities and direct and indirect impacts will be further investigated during the EIS phase and detailed design. The Development Corridor will also be refined throughout these phases and total clearing area reduced where possible. The EIS will include appropriate mitigation measures to avoid, minimize or offset any impacts that are identified in the supporting Biodiversity Development Assessment Report (BDAR) and Bird and Bat Utilisation Surveys (BBUS).

Threatened Ecological Communities

The Proposed Action would likely involve the direct and indirect disturbance of areas of vegetation conforming to the Weeping Myall Woodlands listed as an EEC under the EPBC Act and the Natural Grasslands of the Murray Valley Plains listed as a CEEC under the EPBC Act. At these early stages of design development, it has been conservatively assumed that all vegetation within the survey corridor will be directly impacted through clearing works. As a Development Footprint has not yet been determined, actual impacts upon the affected EEC and CEEC are expected to be substantially less and will be further assessed upon the completion of additional detailed design work and subsequent refinement of the impact area. These impacts are discussed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 4.0 and Appendix C (pages 42-45 and 71-81).

Weeping Myall Woodlands EEC

Desktop assessments and preliminary ecological survey data shows that the Weeping Myall Woodlands has the potential to occur in an area up to approximately 473.58 ha within the Project Area, of which 17.60 ha falls within the survey corridor. Additionally, this EEC may be indirectly impacted through inadvertent impacts on adjacent native vegetation and dispersion of weeds.

Natural Grasslands of the Murray Valley Plains CEEC

Desktop assessments and preliminary ecological survey data shows that the Natural Grasslands of the Murray Valley Plains has the potential to occur in an area up to approximately 17,147.37 ha within the Project Area, of which 590.17 ha falls within the survey corridor. Additionally, this EEC may be indirectly impacted through inadvertent impacts on adjacent native vegetation and dispersion of weeds.

Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia EEC

No direct impacts are anticipated, as there are no recorded patches of this TEC within the Project Area or survey corridor. As such, no clearing of this TEC is expected. This TEC may be indirectly impacted through inadvertent impacts on adjacent native vegetation, edge effects and dispersion of weeds.

Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions EEC

No direct impacts are anticipated, as there are no recorded patches of this TEC within the Project Area or survey corridor. As such, no clearing of this TEC is expected. This TEC may be indirectly impacted through inadvertent impacts on adjacent native vegetation, edge effects and dispersion of weeds.

Plains mallee box woodlands of the Murray Darling Depression, Riverina and Naracoorte Coastal Plain Bioregions CEEC

No direct impacts are anticipated, as there are no recorded patches of this TEC within the Project Area or survey corridor. As such, no clearing of this TEC is expected. This TEC may be indirectly impacted through inadvertent impacts on adjacent native vegetation, edge effects and dispersion of weeds.

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

No direct impacts are anticipated, as there are no recorded patches of this TEC within the Project Area or survey corridor. As such, no clearing of this TEC is expected. This TEC may be indirectly impacted through inadvertent impacts on adjacent native vegetation, edge effects and dispersion of weeds.

Threatened Species

The Proposed Action would likely involve the direct and indirect impacts to several threatened species. These impacts are discussed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 4.0 and Appendix C (pages 42-45 and 71-81).

Pedionomus torquatus

The Proposed Action may involve the direct disturbance of areas of known habitat for the Plains Wanderer (*Pedionomus torquatus*) (through habitat clearing works) based on the MNES Significant Impact Assessments. Additionally, this species may also be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Swainsona murrayana

The Proposed Action may involve the direct disturbance of areas of known habitat for the Slender Darling Pea (*Swainsona murrayana*) (through habitat clearing works) based on the MNES Significant Impact Assessments. Additionally, this species may also be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to dust during construction, weed dispersal and changes to fire regimes.

Other flora species

Includes Brachyscome papillosa, Calotis moorei, Lepidium monoplocoides, Maireana cheelii, Sclerolaena napiformis, Eleocharis obicis, Austrostipa wakoolica, Swainsona plagiotropis and Solanum karsense.

These species may be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to dust during construction, weed dispersal and changes to fire regimes.

Other Fauna Species

Litoria raniformis

This species may be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

<u>Crinia sloanei</u>

This species may be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Hirundapus caudacutus

This species may have direct impacts from wind turbine strike. This species may also be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Botaurus poiciloptilus

This species may be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Rostratula australis

This species may be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Polytelis swainsonii

This species may have direct impacts from wind turbine strike. This species may also be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Grantiella picta

This species may have direct impacts from wind turbine strike. This species may also be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Falco hypoleucos

This species may have direct impacts from wind turbine strike. This species may also be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Hemiaspis damelii

This species may be indirectly impacted by the Proposed Action due to inadvertent disturbance to native vegetation/habitat, habitat edge effects, reduced habitat quality due to noise, dust and light spill during construction, reduced habitat quality due to noise during operation, weed dispersal and changes to fire regimes.

Galaxias rostratus

This species may be indirectly impacted by the Proposed Action due to inadvertent disturbance to habitat, changes in hydrology, erosion of stream banks, reduced habitat quality due to dust and light spill during construction and changes to fire regimes.

All other threatened fauna species listed in the table above have been assessed as having a low likelihood of occurrence within the Project Area. As such, it is not anticipated that these species will be directly or indirectly impacted by the construction or operation of the Proposed Action. Refer to Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.2 (pages 16-41) for the likelihood ratings for these species.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

At these early stages of design development, it has been conservatively assumed that all vegetation within the survey corridor will be directly impacted through clearing works. These impacts will be further investigated during the EIS phase and detailed design, where the Development Corridor will be refined and total clearing area reduced. The EIS will include appropriate mitigation measures to avoid, minimize or offset any impacts that are identified in the supporting BDAR.

The following threatened ecological communities and threatened species were identified as having potential significant impacts, including direct impacts as a result of the Proposed Action, as well as indirect impacts due to disturbances to habitat quality:

- Weeping Myall Woodlands
- Natural Grasslands of the Murray Valley Plains
- Pedionomus torquatus
- Swainsona murrayana

These threatened ecological communities and species have been identified on site during the ecological surveys undertaken to date, which confirmed their presence and utilization of the Project Area as a valuable habitat area. A

detailed assessment of the significance of impacts for these threatened ecological communities and threatened species was undertaken, which concluded that the Proposed Action is likely to have a significant impact on these threatened ecological communities and threatened species. This is due to the potential area of native vegetation to be cleared for the Proposed Action, which includes:

- Weeping Myall Woodlands 17.60 ha of EEC
 - The Proposed Action has the potential to clear 17.60 hectares of Weeping Myall Woodlands within the Project Area. This would reduce available habitat for the TEC and species that provide important ecosystem services. The Proposed Action would modify abiotic factors and have the potential to spread invasive flora species with the Project Area. Subsequently, the Proposed Action has been assessed as having a significant impact on Weeping Myall Woodlands.
- Natural Grasslands of the Murray Valley Plains 590.17 ha of CEEC
 - The Proposed Action has the potential to clear 590.17 hectares of Natural Grasslands of the Murray Valley Plains within the Project Area. This would reduce available habitat for the TEC and species that provide important ecosystem services. The Proposed Action have the potential to modify abiotic factors and has the potential to spread invasive flora species with the Project Area. Subsequently, the Proposed Action has been assessed as having a significant impact on Natural Grasslands of the Murray Valley Plains.
- Plains Wanderer (Pedionomus torquatus) habitat clearing as per important habitat map
 - Important habitat mapped areas have been avoided within the current design. This focusses on primary habitat mapping and
 potential impact to secondary habitat could occur (i.e. may not be avoided). This will be a key aspect of the EIS, with any
 avoidance or minimization strategies being implemented for the Proposed Action.
 - Potential habitat for this species is also associated with PCT 44 and PCT 46. There is 3,266 ha of these PCTs that may be directly impacted by the proposed action. This is based on baseline vegetation mapping (NSW State Vegetation Type Map (SVTM) – Riverina v1.1.0).
 - A population of Plains Wanderer has been observed by Umwelt in the Project Area. The Proposed Action has the potential to disrupt the breeding cycle of the Plains Wanderer and degrade its habitat through the clearing of habitat and introduction of invasive flora species. The Proposed Action has been assessed as having a significant impact on the Plains Wanderer.
- <u>Swainsona murrayana 689.96 ha of habitat</u>

 Two records of the Slender Darling Pea occur within the Project Area and have the potential to be directly impacted by the Proposed Action, as well as their habitat through native vegetation clearing. The Proposed Action has the potential to directly interfere with the priority recovery actions outlined in the Approved Conservation Advice for the Slender Darling Pea. The Proposed Action has been assessed as having a significant impact on the Slender Darling Pea.

Extensive ecological surveys will be undertaken to support the BDAR during the EIS phase, which may identify more threatened species or ecological communities at the site. These would be assessed to determine whether the Proposed Action would have any significant impacts. At this point in the project, only the two threatened ecological communities and two threatened species identified above have been recorded at the site and have been identified as being potentially significantly impacted by the Proposed Action.

Refer to Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Appendix C (pages 71-81).

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

The Proposed Action is likely to have a significant impact on Weeping Myall Woodland, Natural Grassland of the Murray Valley Plain, the Plains Wanderer and the Slender Darling Pea. It is therefore considered that the Proposed Action is likely to constitute a controlled action.

It is noted that the 'Indicative Development Area' is a conservative area for early assessment purposes and the proposed disturbance area will be significantly smaller, but is subject to further detailed assessments and design.

A detailed assessment of the significance of impacts for each community/species is provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Appendix C (pages 71-81).

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Avoidance or mitigation measuresundertaken by BayWa r.e. to date include:

- Relocation of Wind Turbine Generators (WTGs) (and associated ancillary infrastructure) to avoid native vegetation clearing and high integrity EECs, where possible.
- Avoidance of important habitatassociated with SAII species (primary habitat) within the Project Area. This was based on the outcomes of the biodiversity constraints assessment undertaken during the scoping phase for the Proposed Action, as well as subsequent design workshops led by Umwelt to assist BayWa r.e. to situate Project infrastructure away from sensitive areas.
- Reduction of the number of WTGs from 206 to 170 to reduce the Proposed Development Area

A range of mitigation measures are proposed to reduce any potential impacts on MNES, which are detailed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 5 (pages 46-48). Furthermore, a Biodiversity Management Plan (BMP) will be developed for the Proposed Action in accordance with the relevant NSW and Commonwealth legislation and/or policies. It is expected that the BMP will detail the following:

- · staged progressive clearance limits clearly demarcated to prevent unnecessary disturbance
- salvage of resources and habitat features (e.g. seed collection, topsoil, timber, and native mulch) and translocation to a reestablishment site
- placement of habitat features (e.g. hollow logs, tree hollows, fallen timber and rocks/boulders) for quarry rehabilitation
- · weed management
- · traffic control measures
- pathogen management
- · pest animal control
- · fencing and access control
- bushfire management
- erosion and sedimentation control
- providing appropriate environmental management measures as part of the operations to minimise the potential for indirect impacts including:
 - water management systems that seek to minimise the potential for damage to flora and fauna and their habitats from erosion, sedimentation, and unnatural flooding events
 - · noise control systems to minimise noise impacts

- · dust control measures to minimise dust impacts
- · lighting controls to minimise night time light impacts, and
- blasting controls to minimise blast overpressure and vibration impacts.
- employee education and training.

The Project layout will be subject to further refinement during the EIS and further design development to minimise impacts on biodiversity, as well as other factors affecting the environment and community. It will be revised as biodiversity information is received, constraints are identified, further technical studies and environmental assessments occur and further feedback from stakeholder and community engagement is received.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

The BDAR will need to include a Biodiversity Offset Strategy (BOS) which complies with relevant requirements under the NSW Biodiversity Offsets Scheme and the BC Act. A comprehensive BOS will be developed for the Proposed Action in accordance with relevant NSW legislation and/or policies, currently being assessed under the BAM in accordance with the BC Act. Accordingly, the offset strategy for the Proposed Action will be developed in consultation with DPE.

The NSW and Commonwealth governments agree that endorsement of the NSW Biodiversity Offset Scheme to avoid, minimise and offset biodiversity impacts on both NSW and Commonwealth listed entities provides for the best biodiversity and streamlining outcomes. The Commonwealth government supports the use of the BAM as the underpinning methodology for calculating biodiversity credit requirements.

To meet offsets required for Commonwealth listed entities for controlled actions under the NSW Biodiversity Offset Scheme, proponents retain the ability to:

- retire biodiversity credits based on the like-for-like provisions in the Biodiversity Conservation Regulation 2017 (NSW)
- fund biodiversity conservation actions that are listed in the Ancillary rules: Biodiversity conservation actions and directly benefit the threatened entity impacted
- pay into the Biodiversity Conservation Fund (BCF), noting it is the proponent's responsibility to notify the Biodiversity Conservation Trust (BCT) that their payment is for a controlled action.

The potential for purchasing credits from landowners selling appropriate credits on the market will investigated as part of the BOS during the EIS phase, including searches of the NSW Biodiversity Offset Scheme public registers, namely the credits supply register, which details of the number, type and location (in terms of their IBRA subregion) of credits available for purchase.

Under the NSW Biodiversity Offset Scheme, proponents may choose to pay into the BCF to meet their offset obligation. This option transfers the responsibility of finding an offset from the client to the BCT. The BCF Charge System was recently introduced to replace the BOPC and is now used to determine the cost of meeting biodiversity offset obligations for proponents who choose to pay into the BCF. Proponents, including those with approval under Part 5.1 of the EP&A Act, which includes a requirement to retire biodiversity credits or have submitted a REF to the determining authority, can request a quote from the BCT to make a payment into the BCF. This option will be considered during the EIS phase.

While not specifically required, it is anticipated that Government agencies will encourage the establishment of local, land-based offsets secured by a Biodiversity Stewardship Agreement (BSA) as the primary offsetting mechanism, rather than payment into the BCF and/or purchasing credits from the open market.

During the preparation of the EIS, offset options (including identifying and securing suitable land for the purpose of a BSA), will be considered. This is a lengthy and complex process, especially the sourcing and security of biodiversity offsets, and will be prioritised so that all offset options can be comprehensively addressed.

All direct impacts associated with the Proposed Action will be offset in accordance with the requirements of the NSW Biodiversity Assessment Method. The BOS is detailed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 5.3 (pages 47-48).

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

| Direct impact | Indirect impact | Species |
|---------------|-----------------|--------------------|
| No | No | Actitis hypoleucos |
| Yes | Yes | Apus pacificus |
| Yes | Yes | Calidris acuminata |

| Direct impact | Indirect impact | Species |
|---------------|-----------------|---------------------------|
| No | No | Calidris ferruginea |
| No | No | Calidris melanotos |
| Yes | Yes | Gallinago hardwickii |
| Yes | Yes | Hirundapus caudacutus |
| No | No | Motacilla flava |
| No | No | Myiagra cyanoleuca |
| No | No | Numenius madagascariensis |

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

When identifying the potential direct and indirect impacts to threatened species and ecological communities, a precautionary approach has been undertaken to include all potential impacts at this early stage of design. These impacts will be further investigated during the EIS phase and detailed design, where the Development Corridor will be refined and total clearing area reduced. The EIS will include appropriate mitigation measures to avoid, minimize or offset any impacts that are identified in the supporting BDAR and BBUS.

The Project Area is located within a region that has the potential to be used by the following species during their migration:

- Fork-tailed Swift (Apus pacificus)
- Sharp-tailed Sandpiper (Calidris acuminata)
- Latham's Snipe (Gallinago hardwickii)
- White-throated Needletail (Hirundapus caudacutus)

Apus pacificus

This species may have direct and indirect impacts from the Proposed Action due to impacts from wind turbine strike and impacts to habitat connectivity. These impacts are discussed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 4.0 (pages 42-45).

Calidris acuminata

This species may have direct impacts through clearing of 30.39 ha of habitat and wind turbine strike, as well as indirect impacts from the Proposed Action due to impacts to habitat connectivity or impacts to habitat quality (including waterbodies). These impacts are discussed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 4.0 (pages 42-45).

Gallinago hardwickii

This species may have direct impacts through clearing of 30.39 ha of habitat and wind turbine strike, as well as indirect impacts from the Proposed Action due to impacts to habitat connectivity or impacts to habitat quality (including waterbodies). These impacts are discussed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 4.0 (pages 42-45).

Hirundapus caudacutus

This species may have direct and indirect impacts from the Proposed Action due to impacts from wind turbine strike and impacts to habitat connectivity. These impacts are discussed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 4.0 (pages 42-45).

All other migratory species listed in the table above have been assessed as having a low likelihood of occurrence within the Project Area. As such, it is not anticipated that these species will be directly or indirectly impacted by the construction or operation of the Proposed Action. Refer to Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.2 (pages 16-41) for the likelihood ratings for these species.

Further details of the impact on migratory species are provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1, Section 3.2, Table 3.9 and Section 4.0 (pages 15, 16-41, 37 and 42-45).

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

The Proposed Action will potentially have a direct impact on the identified migratory species due to habitat clearing and wind turbine strike, as well as indirect impacts to habitat connectivity, impacts to water resources

and habitat loss. However, due to their habitat preferences and number of records within the

Project Area, none of the identified migratory species are considered likely to be significantly impacted by the Proposed Action.

Further details of the impact on migratory species are provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1, Section 3.2, Table 3.9 and Section 4.0 (pages 15, 16-41, 37 and 42-45).

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action. *

The Proposed Action will potentially have a direct impact on the identified migratory species due to habitat clearing and wind turbine strike, as well as indirect impacts to habitat connectivity, impacts to water resources and habitat loss. However, due to their habitat preferences and number of records within the Project Area, none of the identified migratory species are considered likely to be significantly impacted by the Proposed Action. As such, the Proposed Action is not a controlled action.

Further details of the impact on migratory species are provided in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 3.1, Section 3.2, Table 3.9 and Section 4.0 (pages 15, 16-41, 37 and 42-45).

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Avoidance or mitigation measures undertaken by BayWa r.e. to date include:

- Relocation of WTGs (and associated ancillary infrastructure) to avoidnative vegetation clearingand impacts to habitat. Avoidance of important habitat associated with SAII species (primary habitat) within the
- Project Area. This was based on the outcomes of the biodiversity constraints assessment undertakenduring the scoping phase for the • Proposed Action, as well as subsequent design workshops led by Umwelt to assist BayWa r.e. to situate Project infrastructure
- Reduction of the number of WTGs from 206 to 170 to reduce the Proposed Development Area

A range of mitigation measures are proposed to reduce any potential impacts on MNES, which are detailed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 5.0 (pages 46-48). Furthermore, a BMP will be developed for the Proposed Action in accordance with the relevant NSW and Commonwealth legislation and/or policies. It is expected that the BMP will detail the following:

- · staged progressive clearance limits clearly demarcated to prevent unnecessary disturbance to habitat
- salvage of resources and habitat features (e.g. seed collection, topsoil, timber, and native mulch) and translocation to a reestablishment site
- placement of habitat features (e.g. hollow logs, tree hollows, fallen timber and rocks/boulders) for quarry rehabilitation
- · weed management
- traffic control measures

away from sensitive areas.

• pathogen management

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these

measures. *

The BDAR will need to include a BOS which complies with relevant requirements under the NSW Biodiversity Offsets Scheme and the BC Act. A comprehensive BOS will be developed for the Proposed Action in accordance with relevant NSW legislation and/or policies, currently being assessed under the BAM in accordance with the BC Act. Accordingly, the offset strategy for the Proposed Action will be developed in consultation with DPE.

The NSW and Commonwealth governments agree that endorsement of the NSW Biodiversity Offset Scheme to avoid, minimise and offset biodiversity impacts on both NSW and Commonwealth listed entities provides for the best biodiversity and streamlining outcomes. The Commonwealth government supports the use of the BAM as the underpinning methodology for calculating biodiversity credit requirements.

To meet offsets required for Commonwealth listed entities for controlled actions under the NSW Biodiversity Offset Scheme, proponents retain the ability to:

- retire biodiversity credits based on the like-for-like provisions in the Biodiversity Conservation Regulation 2017 (NSW)
- fund biodiversity conservation actions that are listed in the Ancillary rules: Biodiversity conservation actions and directly benefit the threatened entity impacted
- pay into the BCF, noting it is the proponent's responsibility to notify the BCT that their payment is for a controlled action.

The potential for purchasing credits from landowners selling appropriate credits on the market will investigated as part of the BOS during the EIS phase, including searches of the NSW Biodiversity Offset Scheme public registers, namely the credits supply register, which details of the number, type and location (in terms of their IBRA subregion) of credits available for purchase.

Under the NSW Biodiversity Offset Scheme, proponents may choose to pay into the BCF to meet their offset obligation. This option transfers the responsibility of finding an offset from the client to the BCT. The BCF Charge System was recently introduced to replace the BOPC and is now used to determine the cost of meeting biodiversity offset obligations for proponents who choose to pay into the BCF. Proponents, including those with approval under Part 5.1 of the EP&A Act, which includes a requirement to retire biodiversity credits or have submitted a REF to the determining authority, can request a quote from the BCT to make a payment into the BCF. This option will be considered during the EIS phase.

While not specifically required, it is anticipated that Government agencies will encourage the establishment of local, land-based offsets secured by a BSA as the primary offsetting mechanism, rather than payment into the BCF and/or purchasing credits from the open market.

During the preparation of the EIS, offset options (including identifying and securing suitable land for the purpose of a BSA), will be considered. This is a lengthy and complex process, especially the sourcing and security of biodiversity offsets, and will be prioritised so that all offset options can be comprehensively addressed.

All direct impacts associated with the Proposed Action will be offset in accordance with the requirements of the NSW Biodiversity Assessment Method. The BOS is detailed in Attachment '22110_R12_BayWa_Bullawah Wind Farm_MNES Assessment_V03', Section 5.3 (pages 47-48).

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Proposed Action is not a nuclear action and will not involve any nuclear activities. As such, there will be no impact as a result of nuclear action.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Project Area is located over 400 km from the nearest coastline. As such, there will be no direct or indirect impacts on Commonwealth Marine Areas as a result of the Proposed Action.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Project Area is located over 1,300 km from the Great Barrier Reef. As such, there will be no direct or indirect impacts on the Great Barrier Reef as a result of the Proposed Action.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Proposed Action is not a coal seam gas or large coal mining development and will not involve any coal mining activities.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Project Area is not within Commonwealth Land. Additionally, there is no Commonwealth owned land within 10 km of the Project Area. As such, there will be no direct or indirect impacts on Commonwealth Land as a result of the Proposed Action.

4.1.11 Commonwealth heritage places overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Project Area is located over 400 km from the nearest coastline. As such, there will be no direct or indirect impacts on Commonwealth heritage places overseas as a result of the Proposed Action.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

• Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth heritage places overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

Three key alternative options have been considered to date by BayWa r.e. with the first being a 'do nothing' approach. This option does not meet BayWa r.e. commercial objectives to develop renewable energy projects in NSW. The other two options included the development of up to 170 wind turbines located in other areas of the Project Area.

The Project Area was selected due to a reliable wind resource, position within the South-West REZ, generally flat topography, generally positive feedback from key stakeholders during preliminary engagement, low population density and limited number of rural residential dwellings, proximity to the existing road network (and potential to avoid watercourses due to using the existing road network), and in consideration of environmental values (much of the site has been historically cleared).

The indicative layout for the Project Area, informed by discussions with Host landholders and neighbours, has been subject to several design iterations to incorporate feedback received during the scoping stage for the Proposed Action. Where landholders did not wish to be involved in the Project, these areas have been removed from the Project Area and a buffer distance applied.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

| #1. | Bullawah Wind Farm MNES Report, February 2023 | Document | A report prepared to address impacts to known/likely MNES from the Proposed Action. |
|-----|---|----------|--|
| | 2023 | | |

1.2.7 Public consultation regarding the project area

| #1. Communications and Document A report to outline the approach and strategy for community and stakeholder engagement for the Proposed Action Plan Plan | #1. | Communications and Stakeholder Engagement Plan | Document | A report to outline the approach and strategy for community and stakeholder engagement for the Proposed Action |
|--|-----|--|----------|--|
|--|-----|--|----------|--|

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

| #1. | BayWa r.e. Sustainability | Document | A report prepared to provide an understanding of the |
|-----|---------------------------|----------|---|
| | Report 2021 | | vision, ambition and specific sustainability strategy |
| | | | that BayWa r.e. are pursuing within the BayWa r.e. |
| | | | Group |

3.1.1 Current condition of the project area's environment

| #1. | Conargo Local Environmental Plan 2013 | Link (Webpage) | https://legislation.nsw.gov.au/view/html/inforce/current/epi- 2013-0462 |
|-----|---|----------------|--|
| #2. | Hay Local Environmental Plan 2011 | Link (Webpage) | https://legislation.nsw.gov.au/view/whole/html/inforce/current/ep 2011-0642 |
| #3. | Murrumbidgee Local Environmental Plan 2013 | Link (Webpage) | https://legislation.nsw.gov.au/view/html/inforce/current/epi- 2013-0471 |

3.1.3 Natural features, important or unique values that applies to the project area

| #1. | Biodiversity Assessment | Document | The BAM outlines how to assess changes in native |
|-----|-------------------------|----------|--|
| | Method | | vegetation, threatened species and their habitats. |

3.2.1 Flora and fauna within the affected area

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

3.2.2 Vegetation within the project area

| #1. | Bullawah Wind Farm MNES Report, February | Document | A report prepared to address impacts to known/likely MNES from the Proposed Action. |
|-----|---|----------|--|
| | 2023 | | |

| #3. eSPADE V2.2 Link (Webpage) https://www.environment.nsw.gov.au/eSpade2Webapp/ | #2. | Australian Stratigraphic Units Database (Stratigraphic Unit Details - Shepparton Formation) | Link (Webpage) | https://asud.ga.gov.au/search-stratigraphic- units/results/25474 |
|--|-----|--|----------------|---|
| | #3. | eSPADE V2.2 | Link (Webpage) | https://www.environment.nsw.gov.au/eSpade2Webapp/ |

3.3.1 Commonwealth heritage places overseas or other places that apply to the project area

| #1. | Bullawah Wind Farm MNES Report, February 2023 | Document | A report prepared to address impacts to known/likely MNES from the Proposed Action. |
|-----|---|----------------|--|
| #2. | Conargo Local Environmental Plan 2013 | Link (Webpage) | https://legislation.nsw.gov.au/view/html/inforce/current/epi- 2013-0462 |
| #3. | Hay Local Environmental Plan 2011 | Link (Webpage) | https://legislation.nsw.gov.au/view/whole/html/inforce/current/epi- 2011-0642 |
| #4. | Murrumbidgee Local Environmental Plan 2013 | Link (Webpage) | https://legislation.nsw.gov.au/view/html/inforce/current/epi- 2013-0471 |

3.3.2 Indigenous heritage values that apply to the project area

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

| #1. | Australian Ramsar | Link (Webpage) | https://www.dcceew.gov.au/water/wetlands/australian- |
|-----|-------------------|----------------|--|
| | Wetlands | | wetlands-database/australian-ramsar-wetlands |

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

| #1. | Bullawah Wind Farm MNES Report, February | Document | A report prepared to address impacts to known/likely MNES from the Proposed Action. |
|-----|---|----------|--|
| | 2023 | | |

4.1.4.8 (Threatened Species and Ecological Communities) Why you think your proposed action is a controlled action

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action
#1. Bullawab Wind Farm Document A report prepared to a

#1. Bullawah Wind Farm MNES Report, February A report prepared to address impacts to known/likely MNES from the Proposed Action. 4.1.4.11 (Threatened Species and Ecological Communities) Proposed offsets relevant to avoidance or mitigation measures

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.5.9 (Migratory Species) Why you do not think your proposed action is a controlled action

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

4.1.5.11 (Migratory Species) Proposed offsets relevant to avoidance or mitigation measures

| #1. | Bullawah Wind Farm | Document | A report prepared to address impacts to known/likely |
|-----|-----------------------|----------|--|
| | MNES Report, February | | MNES from the Proposed Action. |
| | 2023 | | |

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

| ABN/ACN | 18059519041 |
|----------------------------|------------------------------------|
| Organisation name | UMWELT (AUSTRALIA) PTY. LTD. |
| Organisation address | 2284 NSW |
| Representative's name | Nathan Baker |
| Representative's job title | Principal Environmental Consultant |

| Phone | 0477 713 478 |
|---------|-----------------------------|
| Email | nbaker@umwelt.com.au |
| Address | Level 11, 213 Miller Street |

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

By checking this box, I, **Nathan Baker of UMWELT (AUSTRALIA) PTY. LTD.**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

| ABN/ACN | 51606343757 |
|----------------------------|--|
| Organisation name | BAYWA R.E. PROJECTS AUSTRALIA PTY LTD |
| Organisation address | 3121 VIC |
| Representative's name | Aidan O'Mahony |
| Representative's job title | Major Developments Leader NSW |
| Phone | +61 487 171 736 |
| Email | aidan.omahony@baywa-re.com |
| Address | Level 2, 79-81 Coppin Street, Richmond, Victoria, 3121 |

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, Aidan O'Mahony of BAYWA R.E. PROJECTS AUSTRALIA PTY LTD, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, Aidan O'Mahony of BAYWA R.E. PROJECTS AUSTRALIA PTY LTD, the Proposed designated proponent,

consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

I would like to receive notifications and track the referral progress through the EPBC portal. *