Devlins Bridge Wind Farm Scoping Report

Devlins Bridge Wind Farm HoldCo Pty Ltd
Stromlo Energy

Devlins Bridge Wind Farm

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Project name:	Devlins Bridge Wind Farm		
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Acronyms and definitions

Acronym	Definition
ABN	Australian Business Number
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACMA	Australian Communications and Media Authority
AHIMS	Aboriginal Heritage Information Management System
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
BCS	Biodiversity, Conservation and Science
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations
CIA	Cumulative Impact Assessment
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DECC	Department of Environment and Climate Change
DECCW	Department of Environment, Climate Change and Water
DPE	Department of Planning and Environment
DPHI	Department of Planning, Housing and Infrastructure
DPI	Department of Primary Industries
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EMF	Electromagnetic Field
EP&A Act	Environmental Planning and Assessment Act 1979
EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EPI	Environmental Planning Instrument
EPL	Environment Protection License
GDE	Groundwater Dependent Ecosystem
GW	Gigawatts
ICNIRP	International Commission on Non-Ionizing Radiation Protection
ISP	Integrated System Plan
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
LSC	Land and Soil Capability
LVIA	Landscape and Visual Impact Assessment
MNES	Matters of National Environmental Significance
MWTT	Multiple Wind Turbine Tool
NEM	National Electricity Market
NEPC	National Environment Protection Council
NPW Act	*National Parks and Wildlife Act 1974*
NSW	New South Wales

Acronym	Definition
OEH	Office of Environment and Heritage
OSOM	Over Size Over Mass
PCT	Plant Community Type
POEO Act	*Protection of the Environment Operations Act 1997*
PVIA	Preliminary Visual Impact Assessment
RFS	Rural Fire Service
SEED	Sharing and Enabling Environmental Data
SEPP	State Environmental Planning Policy
SHR	State Heritage Register
SIA	Social Impact Assessment
SSD	State Significant Development
TEC	Threatened Ecological Community
TTIA	Transport and Traffic Impact Assessment
ZVI	Zone of Visual Influence

Key terms

Term	Definition
Agreement for lease	An agreement for lease provides the applicant with rights to lease some or all of a landowner's property for the purposes of construction and operation of a renewable energy project.
Applicant	Devlins Bridge Wind Farm Holdco Pty Ltd
Associated dwelling	An associated dwelling for the purpose of this report is any dwelling where the landowner has entered into an agreement with the Applicant to host infrastructure, or a neighbouring landowner that has entered into an impact agreement accepting noise and visual impacts.
Disturbance footprint	The area that would be directly impacted by the construction and operation of the Project
Development corridor	The Disturbance footprint with a buffer to allow for micro-siting
Host landowner	A landowner that is/has entering an Agreement for Lease to provide the applicant with rights to lease some or all of a landowner's property for the purposes of construction and operation of the Project
Neighbour agreement	An agreement between the applicant and a neighbouring landowner to manage impacts to adjacent/nearby land (sometimes referred to as "impact agreements") and any exceedances of relevant assessment criteria (such as noise criteria).
Neighbouring landowner	A person that owns land adjacent/nearby to the Project area
Non-associated dwelling	A dwelling in which the private receiver has not entered into a private agreement with the applicant
Project area	The boundary of all lots that are hosting the Project

1. Introduction

1.1 Project overview

Devlins Bridge Wind Farm Holdco Pty Ltd (referred to as the Applicant hereafter) proposes to develop the Devlins Bridge Wind Farm (the Project). The Project involves the construction, operation and maintenance and decommissioning of a new wind farm with approximately 94 wind turbines with a blade tip height of approximately 290 metres (m) and associated electrical infrastructure. The proposed generating capacity of the Project is approximately 680 megawatts (MW).

The Project is proposed to connect to the National Electricity Market (NEM) via a cut-in to the existing Transgrid 330 kilovolt (kV) Darlington Point to Wagga Wagga transmission line located on the southern and western boundaries of the Project area.

The Project area (defined as the boundary of all lots that are hosting the Project) is located immediately south of the Sturt Highway, approximately 22 kilometres (km) west of the Narrandera township within the Narrandera Local Government Area (LGA) in south-western New South Wales (NSW), part of Wiradjuri Country. The surrounding regional centres include Griffith, Leeton and Narrandera. A map showing the Project area in the regional context is provided in **Figure 1-1**. The Project is not located within a Renewable Energy Zone.

The indicative layout for the Project is shown in **Figure 1-2**, to be further refined in response to ongoing stakeholder and community consultation and the findings from technical environmental assessments. The Project area includes 61 land parcels (refer to **Appendix A**) owned by 12 host landowners (refer to **Section 6.10**).

The indicative layout of the Project has considered initial technical, environmental and social considerations. It incorporates early feedback from the community and host landowners gathered during community engagement activities. The Applicant has prepared a Community and Stakeholder Engagement Plan for the Project, engagement activities will continue through the planning and approvals process and into the construction and operations phases of the Project.

The Project is considered State Significant Development (SSD) under section 2.6(1)(b) and Schedule 1, section 20 of the State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP), and so requires assessment in accordance with Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The consent authority for the Project is the Independent Planning Commission or the Minister for Planning and Public Spaces under Division 4.7 of the EP&A Act.

A referral to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) for assessment and approval of controlled actions under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) has been submitted. It is expected that the Project would be assessed under the NSW Bilateral Agreement with the Commonwealth. The Biodiversity Offset Scheme (BOS) is an accredited process under the bilateral agreement, meaning it meets the standards and requirements set by both the NSW government and the EPBC Act to ensure that biodiversity impacts are adequately assessed, managed and offset. Further details are provided in **Chapter 4.**

1.1.1 Project objectives

The Project will contribute to meeting Commonwealth and NSW government renewable energy targets through the development of a feasible wind energy facility. The objectives of the Project are to:

- Be open and transparent with the local community about the Project impacts during all stages of the wind farm.
- Establish and maintain a strong network of positive and sustained opportunities within the local community which contributes to economic and social growth in the Narrandera LGA and the broader region.
- Support local communities, businesses and government in the transition from coal fired power generation to renewable sources of energy.

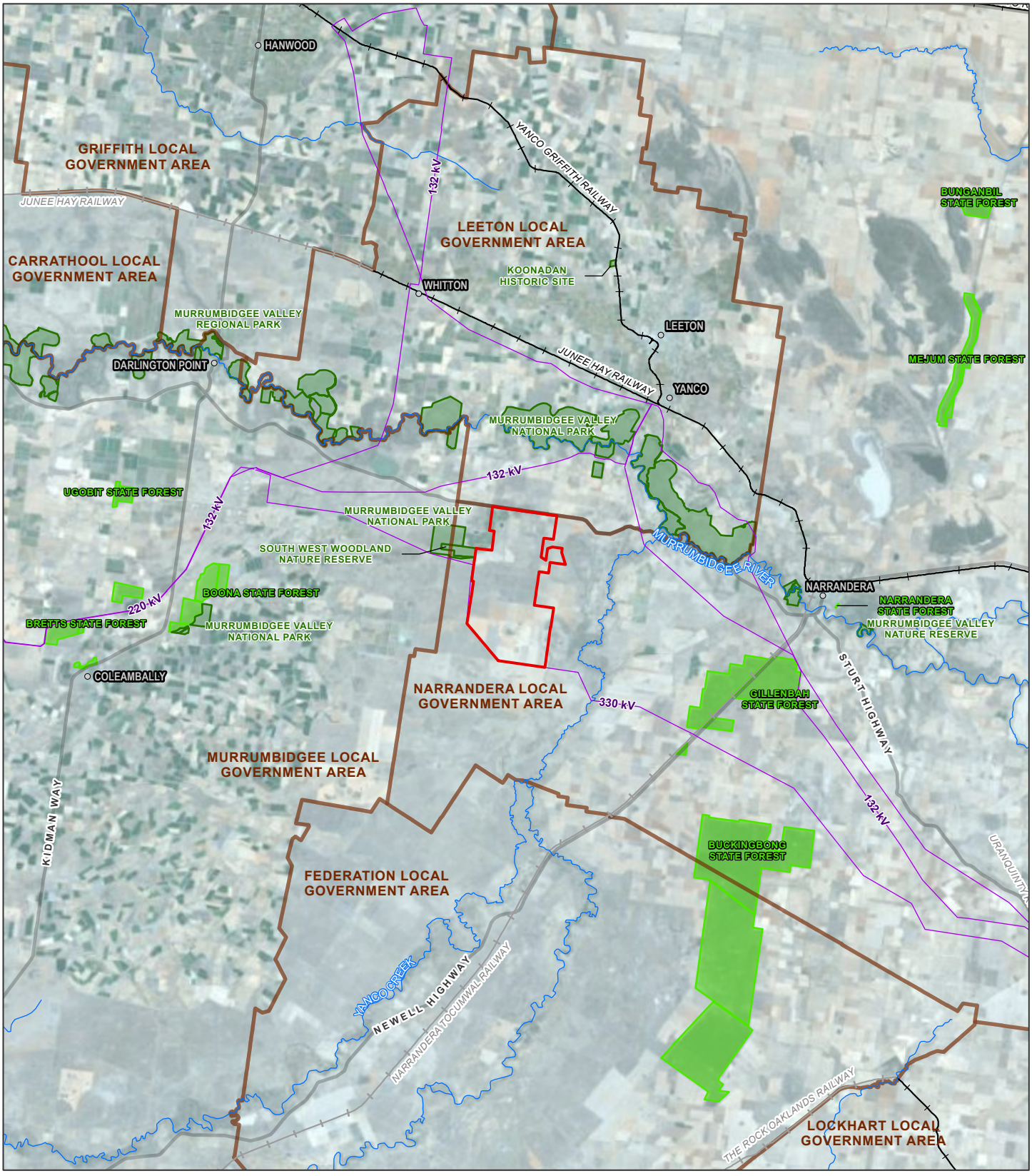
- Contribute approximately 680 MW of additional renewable energy generation capacity in NSW to support the security, stability and resilience of the NEM.
- Maximise utilisation and value of the NEM's existing transmission network, diversifying, and in complement to the region's historical reliance on solar generation.
- Provide diversification of income for host and neighbour landowners through provision of a guaranteed revenue stream for the life of the Project.
- Increase financial resilience of NSW farming communities to climate change and specifically, the exposure of host non-irrigated farming enterprise to climate variability.
- Avoid, minimise and mitigate adverse impacts on the environment and community during construction and operation.
- Create a legacy of meaningful, lasting benefits, including delivering a Community Benefit Program.

1.2 Strategies to avoid or minimise impacts

The Project area was selected as it presents multiple benefits over alternative options, including avoidance and minimisation of impacts. Alternatives considered for the Project are discussed in **Section 3.6**.

Preliminary wind turbine placement has been planned in consultation with both host landowners and near neighbours of the Project. The Project design responds to this consultation process to avoid proximity to neighbouring dwellings and allow appropriate setbacks to be maintained. The preliminary Project design has adopted the following buffers to minimise potential impacts:

- No wind turbines within 2000 m of a non-associated dwelling (nearest non-associated dwelling is about 2,600 m from a wind turbine, and only four non-associated dwellings are within 5,000 m).
- No wind turbines within 6,000 m of the Murrumbidgee River, with consideration of the ecology and habitat values of this waterway.
- No wind turbines within 2,500 m of Yanco Creek, with consideration of the ecology and habitat values of this waterway.
- With consideration of the South West Woodland Nature Reserve and the Banandra Precinct of the Murrumbidgee Valley National Park, the Project has avoided placing wind turbines within 1,500 m of park and reserve boundaries.



LEGEND

- Project area
- Township
- Transmission line
- Road
- Watercourse
- Major railways operational status
  - Operational
  - Disused or dismantled
- National park
- State forest
- Local government area

N

A4 1:450,000

GDA 1994 MGA Zone 55

0 5 10

Kilometres

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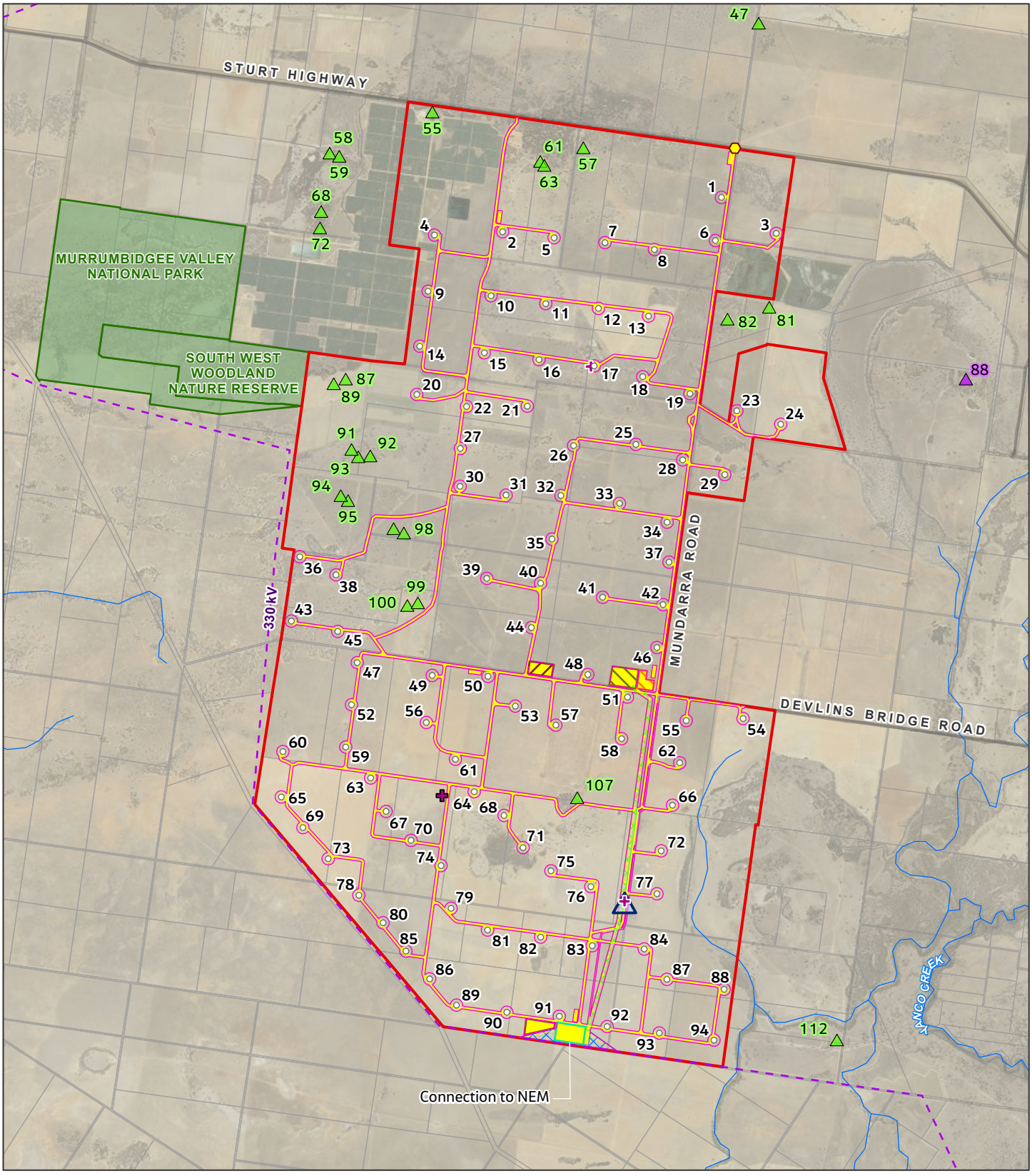
Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 1-1: Regional context



LEGEND

- Project area
- Disturbance footprint
- Development corridor
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Associated
- Non-associated
- Batching plant
- Construction compound
- Collector station
- Terminal station (connection point)
- Terminal station compound
- Cut in easement
- Overhead transmission
- Cadastre
- National park
- Watercourse
- Road
- Existing 330kv Darlington Point to Wagga Wagga Transmission Line

N

A4 1:75,000

GDA 1994 MGA Zone 55

0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 1-2: Indicative Project layout

The key strategies that have been implemented during the scoping phase to avoid or minimise potential impacts include:

- Avoidance of irrigated land use for hosting Project infrastructure where possible – to avoid impacts on agricultural land use.
- Consultation led design program in support of existing farm management – to minimise impacts on agricultural land use.
- Placement of proposed infrastructure adjacent to existing transmission - to avoid the need for additional transmission build out and associated potential impacts.
- Early consultation – to enable community-raised issues to inform the Project development.
- Broad consultation including with surrounding LGA's and Traditional Owner Groups, providing visibility of the Project across the host region allowing early input into the Project design and development.

Key strategies that are to be adopted during the Project Environmental Impact Statement (EIS) preparation and detailed design, through to construction and operation to further avoid or minimise any potential impacts include:

- **Adaptive design:** Project design able to respond to site assessment regarding access tracks, underground cable routes and wind turbine locations to avoid or minimise native vegetation clearing, potential impacts on fauna (bird and bat particularly) and potential heritage impacts where possible.
- **Consultative design**: Collaborative response to siting of Project elements within the Project area in consultation with potentially affected landowners to avoid and minimise negative community impacts and to reduce potential effects on sensitive receivers.
- **Informed design:** Considering the need and sizing of asset protection zones and other forms of bushfire protection to reduce potential impact on native vegetation, wildlife and the community.

1.3 Related development

Related development refers to any existing or approved development that would be incorporated into the Project, or development by the Applicant that is required for the Project but would be subject to a separate approval process.

Currently there are no existing or approved developments that would need to be incorporated into the assessment of the Project. The Applicant intends to install up to four temporary meteorological masts within the Project, subject to obtaining the required development approvals.

1.4 Applicant

The Applicant for the Project is Devlins Bridge Wind Farm Holdco Pty Ltd a wholly owned subsidiary of Stromlo Energy, a 100% Australian and employee owned and operated renewable energy developer, specialising in large scale wind farms.

Stromlo Energy was founded in 2023 by a team of industry leaders who, in combination, have delivered over AUD $6 billion of renewable energy development now operating across Australia. In addition to the proposed Project, Stromlo Energy is developing a pipeline of projects that could contribute up to 4 gigawatts (GW) in NSW and South Australia.

Stromlo Energy has a strong community focus and is committed to developing projects that deliver meaningful benefits to the communities it operates in.

Stromlo Energy's key commitments to stakeholders and community are:

- We will be open and transparent about project impacts.
- We will engage early and often.
- We will work with communities to develop meaningful benefits packages.

The details of the Applicant are provided in **Table 1-1.**

Table 1-1. Applicant details

Item	Details
Applicant	Devlins Bridge Wind farm Holdco Pty Ltd
Postal address	11/15 London Circuit, Canberra ACT 2601
ABN	85 62 449 204

1.5 Purpose and structure of this report

This Scoping Report has been prepared as part of the SSD approvals pathway. It is intended to demonstrate the preliminary assessments and consultation carried out to date and assist in the identification of the matters the Applicant will assess in the EIS. This report supports the application for SEARs which will guide the preparation of an EIS for lodgement. The EIS will support the development application to be submitted to the NSW Department of Planning, Housing and Infrastructure for approval by the NSW Minister for Planning and Public Spaces or the Independent Planning Commission under Division 4.7, Part 4 of the EP&A Act.

The report has been prepared in accordance with the State Significant Development Guidelines – Preparing A Scoping Report (SSD Scoping Report Guidelines) (DPE, 2022b). Consideration has been given to the requirements of the NSW Wind Energy Guideline for State Significant Wind Energy Development (Wind Energy Guideline) (NSW Government, 2016).

The report is structured as follows:

- Chapter 1 – Introduction
- Chapter 2 – Strategic context
- Chapter 3 – Project
- Chapter 4 – Statutory context
- Chapter 5 – Engagement
- Chapter 6 – Proposed assessment of impacts
- Chapter 7 – References
- Appendix A – Site information (Address and lot details)
- Appendix B – Scoping summary table
- Appendix C – Community Consultation Summary
- Appendix D – Preliminary Visual Assessment
- Appendix E – Preliminary Noise Assessment
- Appendix F – Preliminary Biodiversity Assessment
- Appendix G – Preliminary Social Assessment.

2. Strategic context

2.1 Project need/benefit

The NSW Government has identified a need to facilitate the delivery of new generation to replace the remaining four NSW coal-fired power stations, as a group representing over 8 GW of generation. Three of these coal assets, approximately 83% of NSW coal-fired capacity, are scheduled to close within the next 10 years (Eraring 2027, Bayswater 2033, Vales Point B 2033), with Mount Piper, the final retirement scheduled by 2040 (Australian Energy Market Operator, 2022, NSW Government, 2021). The development of replacement generation is necessary to maintain a reliable, secure and affordable supply of electricity, while providing for substantial local, social and economic investment in NSW. Development of renewable energy infrastructure in this context would contribute to a NEM offering affordable energy, a secure and reliable network, in addition to lower carbon emissions as compared to the use of gas or other thermal generation technologies.

The Project will bolster generation capacity, enhancing the NEM's shift towards greater renewable energy integration. The Project supports the strategic phase-out of coal-fired generation in NSW, aligning with State and Federal energy transition goals. In doing so, the Project, once built, will contribute to lowered emissions and increasing local economic development. Furthermore, by supplying additional generation capacity, the Project will effectively address the potential generation shortfall ensuing from the retirement of existing coal power plants.

The use of wind power as the generation type for the Project has been driven by the following factors:

- **Wind availability during high demand**: Wind energy is available across the afternoon and night, when electricity demand peaks. Wind generation also serves as a complement to other forms of renewable energy, such as solar photovoltaics for this reason.
- **Low carbon dioxide emissions**: Wind turbines typically report the lowest CO_2 emissions per unit of energy produced, among renewable energy sources. The CO_2 footprint for both wind is generally low, especially when compared to fossil fuels.
- **Technological advances**: Ongoing advancements in wind turbine technology are increasing efficiency, reducing costs, and enabling wind turbines to capture wind energy at lower wind speeds. This enhances both the viability and reliability of wind power.
- **Land use**: Wind turbines are compatible with the existing land uses within the Project area. Wind farm hosts typically continue farming operations unimpeded by the co-location of wind turbines (slightly reduced farm area is offset by improved farm access and productivity).
- **Cost-effectiveness**: Onshore wind energy is recognised as one of the most proven and cost-effective renewable technologies available today. Project costs have been decreasing over multiple decades and are projected to continue to drop, making it an economically attractive option for large-scale energy generation.
- **Environmental benefits**: Beyond low CO_2 emissions, wind power has minimal impacts on water resources and air quality in comparison to non-renewable resources. Properly sited wind farms have a relatively low impact on biodiversity and efforts to minimise and mitigate potential impacts through site and technology design can further enhance the environmental compatibility of wind development.

In particular, the Project would generate investment in the Riverina Murray region, as well as for the Narrandera LGA community, as the Project would provide a wide range of business opportunities and direct contribution to a community benefit fund during the Project lifecycle. In the NEM over the longer term, the Project would contribute to lower electricity prices for consumers and businesses.

2.2 Strategic policy context

The strategic plans and policies relevant to the Project are described in **Table 2-1**.

Table 2-1. Relevant plans, policies or strategies

Plan, policy or strategy	Description	Relevance to the Project
National context		
The Paris Agreement and *Climate Change Act 2022* (Cth)	The Paris Agreement is a legally binding international treaty on climate change adopted by 196 parties in 2015. As a signatory to the agreement, the Australian Government has committed to 43% emissions reduction target by 2030 as an enhanced Nationally Determined Contribution under the Paris Agreement. Australia has also legislated the 2030 emissions reduction target and a target of net zero by 2050 under the Climate Change Act 2022.	The Project will contribute to meeting Australia's commitments under the Paris Agreement by increasing renewable energy penetration in the grid and reducing the NEM's greenhouse gas emissions. The Project would also support the Australian net zero by 2050 target.
2024 Integrated System Plan (ISP)	The 2024 ISP engaged with over 2,100 stakeholders in preparation of an integrated roadmap for the development of the NEM over the next 20 years. The ISP underlines a significant shift towards renewable energy and the importance of wind energy alongside other technology to meet future electricity demands and achieve net-zero emissions targets. The most likely Step Change scenario forecasts the need for over 171 GW of additional renewable energy by 2050 to meet demands, with almost two thirds of this generation coming from wind energy.	Australian Energy Market Operator forecast electricity demand across the NEM will approximately double by 2050. The Project will contribute to supporting the 2024 ISP's forecasted electrical demand, and provide consumers with reliable, secure and affordable electricity through investment in wind energy.
NSW context		
Climate Change (Net Zero Future) Act 2023	The *NSW Climate Change (Net Zero Future) Act 2023* legislates NSW's targets to reduce greenhouse gas emissions by 50 per cent by 2030 and 70 per cent by 2035 to achieve net zero greenhouse gas emissions by 2050. The Act identifies NSW's approach to addressing climate change as a whole of government approach with the objective for NSW to be more resilient to a changing climate.	The Project will contribute to emissions reductions required under the Act.
NSW Electricity Strategy 2019	The NSW Electricity Strategy is the NSW Government's plan for a reliable, affordable, and sustainable electricity future that supports a growing economy. The strategy supports approximately $8 billion of private investment in the NSW electricity system over a 10-year period, including $5.6 billion in regional NSW.	The Project is consistent with the strategy as it would provide renewable energy generation capacity which would lead to downward pressure on electricity prices and make it more affordable for consumers and businesses.

Plan, policy or strategy	Description	Relevance to the Project
Net Zero Plan Stage 1: 2020-2030	The Net Zero Plan is the foundation for NSW state action on climate change and goal to reach net zero emissions by 2050. It outlines the NSW Government's plan to grow the economy, create jobs and reduce emissions over the next decade.	The Project contributes to Priority 1 of the Plan: "Drive uptake of proven emissions reduction technologies that grow the economy, create new jobs or reduce the cost of living."
NSW Electricity Infrastructure Investment Roadmap 2020	The Electricity Infrastructure Roadmap is the NSW Government's 20-year plan to transform the grid into one that is cheap, clean and reliable. The roadmap recognises that it is crucial that coal-fired power stations are replaced with new energy infrastructure. It is expected that the roadmap will deliver $32 billion in private sector investment by 2030.	The Project will support the roadmap through the provision of cheap and clean renewable energy. The Project would also create construction and operational jobs for local and regional communities.
Regional and local context		
Riverina Murray Regional Plan 2041	The Regional Plan provides the 20-year strategic framework for the region and guides land use planning priorities and decision making, with the key objectives including: ▪ Protect, connect and enhance biodiversity throughout the region ▪ Plan for integrated and resilient utility infrastructure ▪ Support the transition to net zero by 2050	The Project will contribute to the objectives of the Regional Plan, in particular through investment in renewable energy generation.
Narrandera Shire Community Strategic Plan 2034	The Community Strategic Plan contains the aspirations of the community as a whole and represents Council's strategic planning to drive the overarching community vision. Key aspirations listed include: ▪ To value, care for and protect our natural environment ▪ Create strong conditions for investment and job creation through quality infrastructure and proactive business support ▪ Maximise greater re-use of resources to increase sustainability within our community	The Project will contribute to the objectives of the Community Strategic Plan, through detailed biodiversity assessments to minimise potential impacts on the natural environment, to drive investment in the energy industry by creating local jobs and business demand, and through further design and planning to investigate ways to maximise resource reuse during construction and operation.
Western Riverina Regional Economic Development Strategy (REDS) 2018-2022 and 2023 Update	Narrandera Shire Council is a member of the Western Riverina region, where the Regional Economic Development Strategy has been developed to facilitate economic growth and opportunities across the region in support of the 20-Year Economic Vision for Regional NSW. A key infrastructure priority is to increase the capacity, reliability and affordability of energy supply in the Western Riverina.	The Project will contribute to the overall economic vision for the region by providing an important platform for investment, training, development, and job growth, by increasing the regions experience, expertise and exposure to delivery of renewable energy projects.

2.3 Site and surrounds

The Project area is located on land zoned as RU1 – Primary Production under the Narrandera Local Environmental Plan 2013 (Narrandera LEP). The Project area is located on rural land primarily used for agricultural purposes such as dry-land cropping (non-irrigated), grazing and horticulture.

The Project area is located within the Narrandera LGA and is a similar distance from both Leeton and Narrandera townships. Narrandera is located approximately 22 km east, with 3,783 residents at the 2021 Census. The township is at the intersection of the Newell Highway and the Sturt Highway and is also connected by the Junee-Griffith Railway freight line to other nearby townships such as Yanco. Leeton is located approximately 17 km north-east of the Project area, with 11,452 residents at the 2021 Census.

The Wiradjuri people are the first inhabitants of the Narrandera area and European settlement began in the 1830s. The region has rich agricultural history and relied on the Murrumbidgee River for irrigation farming.

There are 26 associated dwellings, and a further 39 non-associated dwellings within 8 km of any proposed turbine location. No wind turbines are proposed within 2,000 m of any non-associated dwellings.

The Project area is generally bordered by the Sturt Highway to the north, Mundarra Road to the east and Transgrid's existing 330 kV Darlington Point to Wagga Wagga transmission line to the south and west. At this preliminary stage of design, the Project area would be accessed from the Sturt Highway and would involve construction of additional internal access tracks for the movement of vehicles for equipment and plant. The Project is not located within currently proposed Renewable Energy Zones in NSW, and it is anticipated that the Project would connect to the grid via existing transmission lines. The wind resources across the Project area are shown in .

Murrumbidgee Valley National Park and the South-West Woodland Nature Reserve collectively comprise an area of National Park and Wildlife Service estate immediately west of the Project area (refer to **Figure 1-2**). This area is commonly known as the Banandra precinct as a legacy of prior occupation of the area by Banandra state forestry estate.

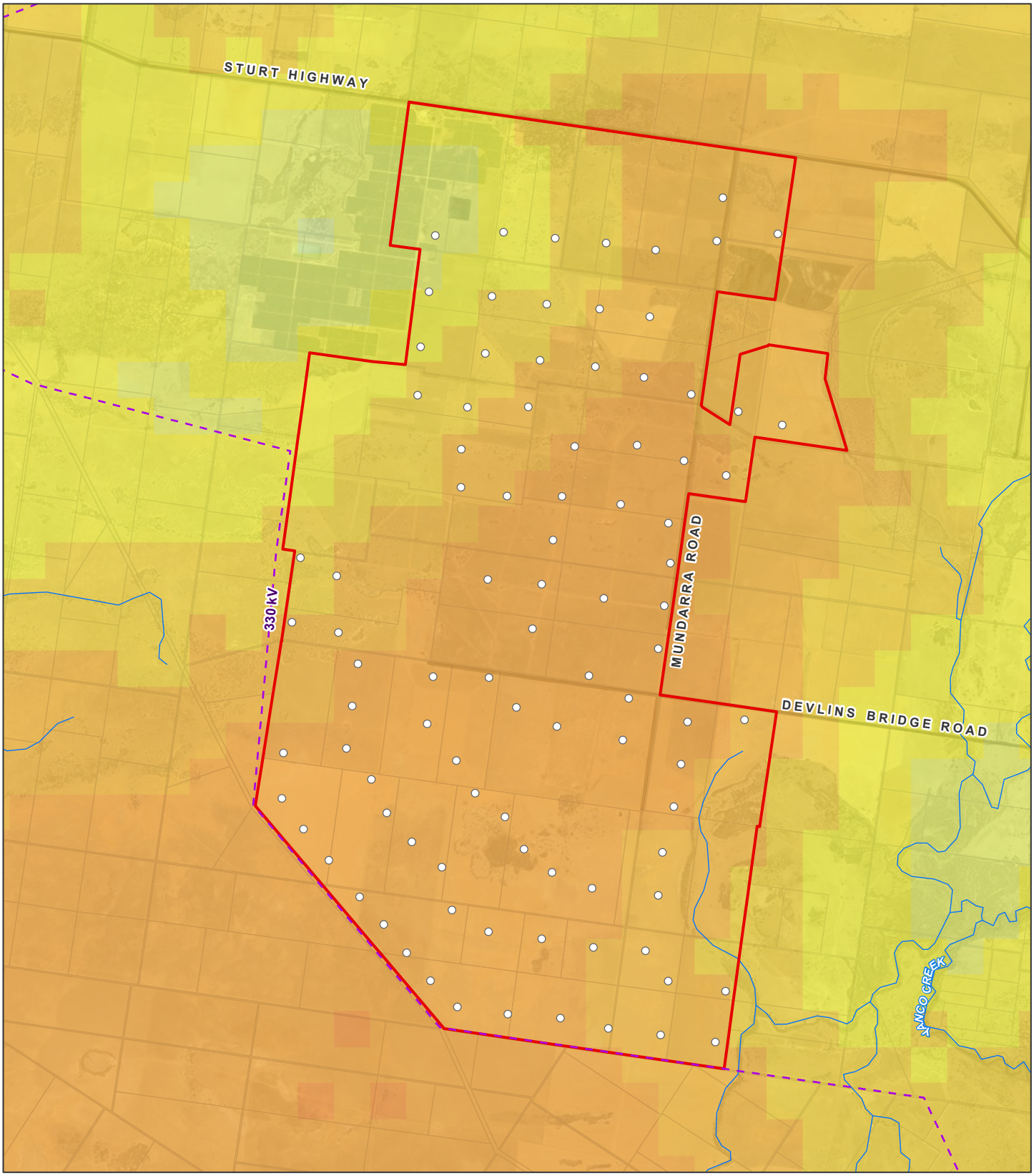
Yanco Creek and the Murrumbidgee River are the nearest major waterways to the Project area. Yanco Creek branches from the Murrumbidgee River just below Narrandera and flows south-west across the Riverina Plain, with its main channel located approximately 3 km to the east of the Project area boundary. The Murrumbidgee River runs through Narrandera and flows west towards Darlington Point and eventually joins the Murray River at Balranald. The river is bound by a red gum corridor and bushland, part of which form the Murrumbidgee Valley National Park, approximately 5.5 km north of the Project area.

An operational poultry farm (broiler chicken) is owned by ProTen and located within the Project area, along a portion of the Project's western boundary. The poultry farm contains five compounds (comprised of 16 sheds each) where broiler chickens are grown for human consumption. Further north of the ProTen poultry farm and adjacent to the western boundary of the Project area, there is an operational almond farm/orchard 'Belvedere', owned by Select Harvests. The proposed Yarrabee Solar Farm owned by Origin Energy is directly adjacent to the Project area to the south (refer to **Figure 1-2)**, the solar farm development was approved in 2018 and construction has not commenced.

2.4 Other agreements

The Applicant's Community Benefit Program includes a Neighbour Benefit Package where all neighbours with a dwelling within 3.5 km of a wind turbine is eligible to join the program. The Applicant has commenced discussions regarding agreements under the program with these landowners. It is expected that this process will be finalised prior to the submission of the EIS.

The Applicant will negotiate voluntary planning agreements with Narrandera Shire Council and has met with Council officers to understand Council's expectations under such an agreement. The Project would additionally make annual contributions to a community benefit fund that would be spent on community projects in the region throughout the operational life of the Project.



LEGEND

- Project area
- Wind turbine location

Wind speed at 100m Above Ground Level (metres per second)

High: 10.2

Low: 2.4

- Cadastre
- Watercourse
- Road
- Existing 330kv Darlington Point to Wagga Wagga Transmission Line

N

A4 1:75,000

GDA 1994 MGA Zone 55

0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 2-1: Wind resource

3. Project

3.1 Project description

The Project would generally involve the construction, operation and decommissioning of the Devlins Bridge Wind Farm, with an operating capacity of approximately 680 MW. The Project indicative layout is shown in **Figure 1-2** and includes:

- Approximately 94 wind turbines, each consisting of:
  - Per unit generating capacity of approximately 7.2 MW.
  - A three-blade rotor and nacelle mounted onto a tower, with an approximate tip height of 290 metres.
  - A crane hardstand area.
  - A turbine laydown area.
- Electrical infrastructure, including:
  - A primary terminal station, connecting directly into the existing Darlington Point to Wagga Wagga 330kV transmission line.
  - A collector substation and associated overhead lines (up to 330 kV).
  - Underground reticulation network to transmit the electricity generated by the wind turbines to the collector or terminal station.
  - Cut in to the existing 330 kV Transgrid transmission line, which runs along the southern and western boundary of the Project area.
- Permanent ancillary infrastructure, including:
  - Upgrades to local roads and crossings where required for the delivery, installation and maintenance of wind turbine components and associated materials and structures.
  - Site access via the Sturt Highway.
  - An operation and maintenance facility, including site offices and car park.
  - Up to four permanent meteorological masts, located close to a wind turbine location, with a maximum height of 190 metres.
  - Internal access tracks to, from and in between wind turbines and other project infrastructure.
  - A biosecurity vehicle wash down facility.
- Temporary construction facilities including:
  - A central construction compound supporting multiple laydown areas.
  - Possible temporary onsite workers accommodation facilities.
  - Stockpile areas and onsite water bores.
  - Approximately two concrete batch plants.
  - Sand borrow pits (if feasible).
  - Up to four temporary meteorological masts, located close to a wind turbine location, with a maximum height of 190 metres (existing at the commencement of construction).

3.2 Project components

The indicative layout for the Project is based on preliminary environmental assessments completed across the Project area in 2023/2024. Further refinement of the indicative layout would continue throughout the EIS preparation, as potential cultural, environmental, social, engineering and amenity impacts are identified through detailed technical assessments as well as landholder, community and stakeholder consultation.

3.2.1 Project area and site access

The Project area comprises 61 land parcels owned by 12 landowners and is approximately 7,260 hectares. The Development corridor is approximately 638 hectares; The Development corridor is the estimated Disturbance Footprint (the area that would be directly impacted by the construction and operation of the Project; approximately 300 hectares) with a buffer applied. The purpose of the Development corridor is to maintain flexibility for the detailed design of the project while enabling the environmental assessment process to proceed. The proposed Development corridor represents about 9% of the Project area based on the current indicative layout. The Development corridor is subject to further revision and refinement as the Project progresses.

Temporary construction compounds or laydown areas may be required during Project construction and are envisaged to be contained within the Disturbance footprint. The Applicant has Agreements for Lease in place permitting a range of construction activities, including establishment and decommissioning of temporary facilities. The location and indicative areas would be determined during further Project planning and design and assessed as part of the EIS. The Project operation and maintenance facility would be included in the Disturbance footprint and would include office or control rooms and parking suitable for vehicles and equipment required to operate and maintain the Project.

Access to the Project area during construction and operation is proposed via Sturt Highway and Mundarra Road, as shown in **Figure 1-2**. It is anticipated that wind turbines would be delivered at the nominated importation port (Newcastle, Geelong and Adelaide are all under assessment) and then transported to site via the existing road network. The transport requirements for the Project are further discussed in **Section 6.6**.

3.2.2 Wind turbines

The Project, as designed, comprises approximately 94 three-bladed wind turbines of approximately 290 m in height. Each wind turbine is expected to have a rated generation capacity of approximately 7.2 MW. This allows for a conservative assessment of a ‘worst case’ impact scenario, allowing the Project design to be further refined and make use of any wind turbine technological developments between the time of this assessment and the commencement of construction. The final number of wind turbines and total generation capacity is subject to change and will be dependent on the outcomes of the environmental assessments, Project planning, engineering design and a procurement tender process, in consultation with stakeholders.

Each wind turbine includes a crane hardstand area and turbine laydown area. The hardstand would be used for the assembly, erection, maintenance, repowering and/or decommissioning of a wind turbine. The turbine laydown area would be used during construction for component laydown and equipment assembly, among other wind turbine construction activities including cut and fill. Temporary hardstand areas surplus to operational requirements would be rehabilitated after construction, in consultation with each landowner, to minimise the operational impacts of the Project.

3.2.3 Electrical and ancillary infrastructure

Electrical and ancillary infrastructure refers to all permanent wind farm infrastructure (except the wind turbines) and includes:

- Underground medium voltage (MV) electrical reticulation and communication cabling connecting the wind turbines to the onsite collector station and/or terminal station.
- One MV or high voltage (HV) electrical collector station including transformers, insulators, switchyard and other ancillary equipment.
- Overhead HV transmission line connecting a central collector and southern terminal station.
- One 330 kV electrical terminal station including insulators, switchyard and other ancillary equipment.
- Connection tie into the existing 330 kV Wagga to Darlington Point overhead transmission line
- Operations and maintenance facility.
- Permanent meteorological masts to provide performance monitoring of the wind turbines.
- Internal access tracks in between wind turbines.

- Public and private road and crossing upgrades where required to facilitate the delivery of wind turbine components and other infrastructure.

3.2.4 Temporary facilities

Temporary facilities required during construction include:

- Site construction compound, laydown areas and facilities such as site offices, car parking and amenities.
- Mobile concrete batching plant/s to supply concrete for wind turbine foundations and substation.
- Potential rock crushing facilities to produce rock aggregate suitable for concrete batching.
- Water supply for use in concrete batching and other construction activities.
- Facility for receival, storage and handling of fuels, oils and other hazardous materials that would be used during construction and operation.
- Temporary material stockpiles and/or borrow pit/s.
- Temporary biosecurity wash down facilities.

The location of temporary facilities will be refined and assessed as part of the EIS. One temporary facility area is intended to be converted into the operation and maintenance facility. The remaining facilities will be rehabilitated once they are no longer required, in accordance with proposed mitigation measures that will be prepared as part of the EIS.

3.3 Construction

The construction of the Project is expected to involve the following activities:

- Installation and maintenance of environmental controls.
- Clearance of vegetation.
- Delivery of plant and equipment
- Upgrade and construction of access tracks between wind turbines, in connection to the substations and other parts of the Project, where required.
- Establishment of temporary facilities
- Delivery of materials including road base, demountable buildings, fencing, steel, cabling, sand, cement and gravel.
- Earthworks to facilitate construction of access tracks and wind turbine foundations.
- Cut and fill to create level areas and establishment of a crane hardstand and turbine laydown areas at each wind turbine.
- Construction of ancillary facilities.
- Construction of concrete turbine foundations
- Delivery and installation of the wind turbines.
- Delivery and installation of substations, transformers and associated electrical infrastructure.
- Installation of underground and overhead cabling.
- Testing and commissioning activities.
- Removal of construction equipment and rehabilitation of construction areas.

The construction methodology for the Project will be developed in more detail during the preparation of the EIS, with the Project developed as a continuous single stage development activity.

The following work may also be required:

- Road network upgrades, including minor intersection widening to accommodate delivery of materials and wind turbine components.
- Establishment of asset protection zones or other design solutions for bushfire protection.

The construction of the Project is expected to commence as soon as practicable following Project approval, any secondary approvals, contractor selection, detailed design, procurement process and a final investment decision. At this stage, construction is anticipated to begin in 2027, with an expected duration of 24 months across a single stage. This period will include commissioning activities for the Project.

During construction, an estimated 350 full time equivalent employees would be required, with most of the construction workforce expected to be housed locally. A housing strategy will be developed for the Project during the EIS.

The Project, if approved, will involve the recruitment and training of a construction workforce and ongoing operations and maintenance workforce. Development and construction of the Project will also provide localised upskilling and training in the region in relation to the operation of wind farms. Further, major contractors would be asked to demonstrate their commitment to use State and local workforces and create indigenous and equal opportunity employment in the delivery of the Project.

3.4 Operations

Once operational, the Project would operate on a 24 hour and 365 days per year basis. The Project would be monitored by both on-site staff and through remote monitoring. The operational workforce is anticipated to consist of 16 to 24 ongoing jobs.

Project maintenance activities include maintenance of landscaping and asset protection zones, access tracks and inspection, and testing and replacement of components on a rolling basis.

The Project is intended to have an operational life of 35 years and, depending on the selected technology, components may be replaced and or upgraded during operation to extend this timeframe.

3.5 Decommissioning and rehabilitation

Following the end of economic life, the Project will either be decommissioned or refurbished with upgrades to power generation infrastructure. If decommissioned, the Project area will be rehabilitated to its pre-construction conditions. The Applicant will prepare a decommissioning and rehabilitation plan to be provided as part of the EIS, in consultation with relevant stakeholders and landowners.

3.6 Alternatives considered

The following alternatives were considered by the Applicant to meet Project objectives:

- Option 1: No Development
  - No consideration for a wind energy development connecting into the existing 330 kV Darlington Point to Wagga Wagga transmission line.
- Option 2: Tubbo Station
  - Up to 100 wind turbines located to the west of the proposed Project area (Darlington Point side), connecting into the existing 330 kV Darlington Point to Wagga Wagga transmission line.
- Option 3: Tarrabah Station
  - Up to 100 wind turbines located to the south of the proposed Project area (Murrundah side), connecting into the existing 330 kV Darlington Point to Wagga Wagga transmission line.
- Option 4: Yarrabee Park Station
  - Up to 100 wind turbines located to the south of the proposed Project area (Yarrabee Park side), connecting into the existing 330 kV Darlington Point to Wagga Wagga transmission line.
- Option 5: The Project

- Up to 94 wind turbines located within the Project area.

Option 1 (No development) does not meet NSW needs for generation capacity (refer to **Section 2.1**) or the Applicant's strategic and commercial objectives to deliver 4 GW of wind in NSW by 2030. As such, this option was not considered further.

The remaining four options all provided:

- Comparable wind resource and access to this wind resource consistently across the Project areas.
- Proximity to existing electricity transmission infrastructure.
- Alignment with strategic plans for the wider region.

While all remaining options would meet NSW's need for additional generation capacity, options 2, 3 and 4 were found to be less suitable for the following reasons:

- Option 2 did not meet environmental requirements - increased impact to large extents of probable high value ecology and cultural heritage areas, including Black Box open woodland wetland, White top grassland of the Riverina Bioregion and Plains Wanderer habitat.
- Option 3 did not provide suitable/appropriate land use, adding complexity with the property being certified organic. It was acknowledged that the required co-location/integration works would require a range of bespoke approaches, potentially delaying development progress.
- Option 4 presented competing land use, presenting complexity with an approved solar farm development – Yarrabee Solar Farm.

Option 5 (the Project) was selected as the preferred option due to:

- Majority of the Project area being historically cleared for non-irrigation agricultural use, presenting homogenous agricultural land within and surrounding the Project area.
- The Project being compatible with existing pastoral land uses, with minimal impact to current farming activities anticipated during both construction and operation of the Project.
- Proximity to the existing transmission network, and ability to offer a shared connection asset to adjacent developments, such as Yarrabee Solar farm.
- Proximity to the existing public road network and access to multiple existing internal access tracks.

The Project was selected over alternative options and configurations given an ability to demonstrate avoided or minimised impacts. In evaluating these impacts, consideration was given to the following criteria:

- **Population density:** The Project exhibits a low population density, with homogenous agricultural land use within and surrounding the Project. As a result, the number of potential non-associated impacted residential dwellings has been minimised. (avoided impacts via low residential proximity/exposure).
- **Non-irrigated land use:** The Project is complementary to and compatible with existing pastoral land uses. Minimal impact to current agricultural activities is expected during both construction and operation given both a collaborative design process and the applicants experience in supporting ongoing farm management practice, as evidenced during construction of similarly sized projects (avoided impacts with no loss of irrigated farmland).
- **Existing transmission:** The Project is positioned adjacent to existing electricity transmission infrastructure along the southern and western Project area boundary. This avoids the need for additional transmission build out (avoided impacts with no new external transmission requirement).
- **Informed Project design:** Wind turbine placement has been planned in consultation with both host landowners and neighbouring landowners of the Project. The Project design responds to this consultation process to avoid proximity to non-associated dwellings and allow appropriate setbacks to be maintained (avoided impacts with consultations informing project design early).
- Benefit sharing: The Project area allows for financial benefit to be shared more equitably among host landowners and neighbours to the project.
- **Early consultation:** Extensive consultation across local communities, including neighbouring landowners has received overwhelmingly positive feedback, and enabled community-raised concerns to inform the Project development (minimised impacts via consultative design interaction).

- **Broad consultation**: Repeat consultation inclusive with surrounding LGA's and Traditional Owner Groups provided both visibility and accountability to the Project development broadly across the host region (minimised impacts via consultative design interaction).
- **Correct location:** The Project location holds many advantages, including direct access from a national highway (avoided transport impacts) and favourable construction given the flat, uniform Project area topology (minimised construction duration and impact).

The indicative layout documented in this Scoping Report (shown in **Figure 1-2**), informed by discussions with host landowners, neighbours and the broader community, has been subject to several design iterations to incorporate feedback received during this stage of the Project. Where neighbouring landowners did not wish to be involved in the Project, a buffer distance was applied to ensure appropriate setbacks.

The indicative layout will be subject to further refinement during the EIS and further design development to minimise impacts on the environment and community. This will be informed by the further technical studies and the continued community and stakeholder consultation.

4. Statutory context

4.1 NSW Statutory requirements for the Project

The EP&A Act and the *Environmental Planning and Assessment Regulation 2000* (the EP&A Regulation) provide the framework for land use planning and development control in NSW. The EP&A Act and Regulation are supported by a number of Environmental Planning Instruments (EPIs), which include State Environmental Planning Policies (SEPPs) and LEPs.

A summary of the statutory requirements for the Project are presented in **Table 4-1**.

Table 4-1. Summary of Statutory requirements

Category	Requirement
Permissibility	The Project meets the definition of 'electricity generating works' under the Standard Instrument – Principal Local Environmental Plan (2006 EPI 155a) (Standard Instrument), being a building or place used for the purpose of 'making or generating electricity'. The Project would be located in land zoned RU1 – Primary Production where electricity generating works are prohibited under the Narrandera LEP. However, section 2.36(1) of the State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) provides that 'development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural, industrial or special use zone'. Land which is zoned RU1 – Primary Production is prescribed rural zone for the purposes of Section 2.36(1) of the Transport and Infrastructure SEPP. This SEPP prevails to the extent of any inconsistency over any LEP and therefore the Project would be permissible with consent under Part 4 of the EP&A Act.
Power to grant consent	Part 4 of the EP&A Act establishes the framework for assessing development that is permissible with consent. The Project is SSD under section 2.6(1) in conjunction with Schedule 1, section 20 of the Planning Systems SEPP. The conditions to be met to be specified SSD under the Planning Systems SEPP section 2.6(1) are: (a) not permissible without development consent under Part 4 EP&A Act (see section 2.36(1)(b) Transport and Infrastructure SEPP); and (b) specified in Schedule 1 or 2 of the Planning Systems SEPP (see Schedule 1, section 20 – must be electricity generating works and capital investment value of more than $30 million). The Project is defined as electricity generating work and has an estimated development cost over $30 million (estimated to exceed $1 billion). Therefore, the Project is proceeding with an application for planning approval as an SSD. As SSD, the Project would be assessed under Part 4, Division 4.7 of the EP&A Act. Under section 4.5(a) of the EP&A Act, the consent authority for the Project is the Independent Planning Commission or the Minister for Planning and Public Spaces. Section 4.38 of the EP&A Act provides that the consent authority is to determine a development application in respect of SSD by either granting consent to the application with such modifications of the proposed

Category	Requirement
	development or on such conditions as the consent authority may determine, or by refusing consent to the application.
Other approvals	
Approvals that may be required were it not for Section 4.41 of the EP&A Act	An Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act) would likely be required were it not for the Project being SSD. Refer to **Table 4-3** for further consideration.
Approvals that must be applied consistently	An environment protection licence (EPL) under Chapter 3 of the *Protection of the Environment Operations Act 1997* (POEO Act) for scheduled activity and associated scheduled development works associated with electricity works (wind farm). A consent under section 138 of the *Roads Act 1993* for works in, on or under a public road. Refer to **Table 4-4** for further consideration.
Pre-conditions to exercising the power to grant approval	A development application for SSD is to be accompanied by an EIS prepared by or on behalf of the applicant in the form prescribed by the regulations. Section 190 of the EP&A Regulation specifies the form required of the EIS that is required to accompany an application for SSD. Section 191 of the EP&A Regulations identifies that the EIS must comply with the environmental assessment requirements. Section 192 of the EP&A Regulations specifies mandatory content of an EIS.
	Under section 4.6(1) of the State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience and Hazards SEPP), the consent authority must be satisfied that the land is suitable in its current state - or will be suitable, after remediation - for the purpose for which the development is proposed to be carried out. The Project area is not considered contaminated. Consideration of the contamination status of the Project area will be provided in the EIS.
	Under section 7.9 of the *Biodiversity Conservation Act 2016* (BC Act) an application for SSD is to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values. A BDAR will be provided as part of the EIS.
Mandatory considerations	Section 4.40 of the EP&A Act specifies that section 4.15 of the EP&A Act applies, subject to Division 4.7, to the determination of the development application for SSD. Section 4.15 specifies that in determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application.

Category	Requirement
The provisions of any EPI in force	Relevant environmental planning instruments are identified as: ▪ Planning Systems SEPP ▪ Transport and Infrastructure SEPP ▪ Resilience and Hazards SEPP ▪ State Environmental Planning Policy (Biodiversity and Conservation) 2021 (Biodiversity and Conservation SEPP) ▪ Narrandera Local Environmental Plan 2013 (Narrandera LEP) The application of relevant EPIs is summarised in **Table 4-6**.
Any proposed EPIs	No proposed EPIs are identified as applying to the site.
Any development control plan	Under section 2.10 of the Planning Systems SEPP, development control plans (whether made before or after the commencement of that Policy) do not apply to SSD.
Any planning agreement entered into, or draft planning agreements proposed	No planning agreements have been entered into at this time. The Applicant will negotiate a voluntary planning agreement with Narrandera Shire Council.
The regulations to the extent that they are prescribed for the purposes of Section 4.15	Under section 61 of the EP&A Regulation, for SSD located within 200 km of Siding Springs Observatory, the consent authority is required to consider the Dark Sky Planning Guideline, Protecting the observing conditions at Siding Springs Observatory (DPE, 2023). The Project is located over 400 km from Siding Springs Observatory. No other prescribed purposes are considered relevant to the Project.
The likely impacts of the development	Preliminary consideration of likely environmental impacts of the development are described in **Chapter 6** and will be assessed in further detail in the EIS.
The suitability of the site	The suitability of the site will be further considered in the EIS.
Any submissions made in accordance with the EP&A Act and Regulation	A response to submissions report would be prepared following exhibition of the EIS.
The public interest.	With reference to the strategic context of the Project and outcomes of consultation to date as summarised in **Chapter 5**, the Project could be considered in the public interest subject to detailed impact assessment, and mitigation if significant impacts.

4.1.1 Relevant provisions of the EP&A Act

The relevant provisions of the EP&A Act are identified in **Table 4-2**.

Table 4-2. EP&A Act mandatory considerations

Statutory reference	Consideration
Section 4.12 Application	Under section 4.12(8) of the EP&A Act, the application is to be accompanied by an EIS that meets the requirements of Schedule 2 of the EP&A Regulation and any other relevant legislative requirements that relate to the EIS. This Scoping Report has been prepared to obtain the SEARs which would facilitate the preparation of an EIS. Following the receipt of the SEARs, The Applicant would prepare and publicly exhibit the EIS in accordance with the SEARs and relevant requirements under Part 4 of the EP&A Act and the EP&A Regulation.
Section 4.36 Development that is SSD	The Project is declared SSD through the application of section 2.6(1) in conjunction with Schedule 1, section 20 of the Planning Systems SEPP, being for the purpose of electricity generating works, and having an estimated development cost exceeding $30 million.
Section 4.37 Staged SSD	The Project application does not seek consent for a staged development.
Section 4.38 Consent for SSD	The Independent Planning Commission or the Minister for Planning and Public Spaces is the consent authority for SSD under Division 4.7 of the EP&A Act. The consent authority may determine the SSD application by either granting conditional consent or refusing consent.
Section 4.39 Regulations – SSD	The relevant regulations establish the form and content requirements for the EIS and the requirements for the consultation process, which would be provided in detail in the EIS.
Section 4.40 Evaluation	The application is to be determined under section 4.15 of the EP&A Act.

Section 4.41 of the EP&A Act identifies authorisations under other legislation that are not required for SSD. Consideration of their application to the Project were it not SSD is provided below in **Table 4-3**.

Table 4-3. Relevant approvals not required under Section 4.41 of the EP&A Act

Approval	Consideration
A permit under section 201, 205 or 219 of the *Fisheries Management Act 1994* (FM Act)	The Project is not expected to involve dredging or reclamation work or work in waterways under section 201 of the FM Act. The Project also would not impact on marine vegetation or cause blockage in fish passage in relation to section 205 or 219 respectively of the FM Act. No permits under the relevant FM Act sections would otherwise be required were the Project not SSD.
An approval under Part 4, or an excavation permit under section 139 of the *Heritage Act 1977*	There are no listed heritage items identified within the Project area. No impacts to the heritage items or value in the vicinity of the Project are expected as a result of the Project (refer to **Section 6.6**). No approval under Part 4 or excavation permit under section 139 of the *Heritage Act 1977* would otherwise be required were the Project not SSD.

Approval	Consideration
An Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act)	Seven listed Aboriginal heritage items were identified within the Project area. As a result, a detailed assessment in the form of an Aboriginal Cultural Heritage Assessment Report (ACHAR) would be completed during the preparation of the EIS to identify potential impacts to any known Aboriginal objects (refer to **Section 6.4**). An approval under section 90 of the NPW Act would otherwise be required were the Project not SSD.
A bush fire safety authority under section 100B of the *Rural Fires Act 1997*	The Project area would not be located within identified bushfire prone land. Potential risks associated with bushfires would be assessed further in the EIS (refer to **Section 6.11**). Authority under section 100B of the *Rural Fires Act 1997* would not otherwise be required were the project not SSD.
A water use approval (section 89), a water management work approval (section 90) or an activity approval (other than an aquifer interference approval) under section 91 of the *Water Management Act 2000* (WM Act).	The Project would not require a water use approval under section 89 of the WM Act. The Project would not involve any water management work under section 90 of the WM Act. The Project is not expected to involve work being carried out on waterfront land, or aquifer interference activity. No approvals under the *Water Management Act 2000* would be required were the Project not SSD.

Section 4.42 of the EP&A Act identifies approvals that must be applied consistently to a Project if it is necessary for carrying out SSD that has been approved. In these instances, an authorisation of the following approvals cannot be refused. Environmental approvals required under Section 4.42 of the EP&A act are outlined in **Table 4-4**.

Table 4-4. Relevant approvals required under Section 4.42 of the EP&A Act

Approval	Consideration
An aquaculture permit under section 144 of the FM Act	The Project does not involve aquaculture development and no aquaculture permit is required.
An approval under section 22 of the *Coal Mine Subsidence Compensation Act 2017*	The Project area is not located within a mine subsidence district and associated approvals are not required.
A mining lease under the *Mining Act 1992*	The Project area is not covered by a mining licence or lease. Since the Project would only involve sub-surface infrastructure with a limited area of disturbance, potential impacts on existing or future mining activities are not anticipated. A mining lease is not required.
A production lease under the *Petroleum (Onshore) Act 1991*	The Project does not involve petroleum production and no production lease is required.
An environment protection licence (EPL) under Chapter 3 of the POEO Act (for any of the purposes referred to in section 43 of that Act)	The Project constitutes a scheduled activity under Schedule 1, clause 17 of the POEO Act. An EPL would be sought for the Project.
A consent under section 138 of the *Roads Act 1993*	The Project involves works on roads currently owned and managed by Narrandera Shire Council. Approval from Council would be required.
A licence under the *Pipelines Act 1967*	No pipelines or associated licences would be required for the Project.

4.1.2 Other NSW environmental legislation

Based on the scope of the Project the legislation that may be applicable is identified in **Table 4-5**. The applicability would be confirmed in the EIS.

Table 4-5. Relevant NSW legislation requirements

Legislation	Consideration
Contaminated Land Management Act 1997	This Act outlines the circumstances in which notification of the NSW Environment Protection Authority (EPA) is required in relation to the contamination of land. This may become relevant during construction and/or operation of the Project and will be discussed in greater detail in the EIS.
BC Act	This Act aims to conserve threatened species, populations and ecological communities through ensuring appropriate assessment, management and regulation of actions that may damage critical or other habitat for a listed threatened species, or may otherwise significantly affect a threatened species, population or ecological community. The EIS for the Project will include an assessment of biodiversity impacts (refer to **Section 6.3**) in accordance with the BC Act and the biodiversity assessment method.
Biosecurity Act 2015	Under this Act, all plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Section 22 requires that any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable. This Act may be applicable if listed weeds are identified within the Project area.
Crown Land Management Act 2016	This Act provides for the administration and management of Crown lands in NSW. Crown land may not be occupied, used, sold, leased, licensed, dedicated, reserved or otherwise dealt with unless authorised by the Act. There are some areas of Crown land in the form of unmade roads within the Project area and should any work be proposed in these areas, approval would be sought from Department of Planning Housing and Industry (DPHI) – Crown Lands.
Heritage Act 1977	Section 146 of this Act specifies that if a relic is discovered or located, the Heritage Council must be notified 'of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware of the location of the relic'. There are no listed heritage items within the Project area. The EIS for the Project will include an assessment of potential heritage impacts on heritage items in the vicinity of the Project area (refer to **Section 6.6**).
Native Title (New South Wales) Act 1994	This Act provides for native title on land and water resources in NSW and aims to make consistent with the standards set by the Commonwealth *Native Title Act 1993*. The Project does not affect land subject to a native title claim or determination, or land to which an Indigenous Land Use Agreement applies.
NPW Act	This Act provides for the management and conservation of land declared as national parks and conservation areas, as well as regulating the management of Aboriginal objects and places. The Project area does not include within land reserved under the NPW Act or National Parks and Wildlife Service-owned or managed lands. The EIS for the

Legislation	Consideration
	Project will include an assessment of potential impacts to identified Aboriginal objects and places (refer to **Section 6.4**).
POEO Act	An EPL is required for scheduled activities or development work listed by the Act. Schedule 1 lists activities that require a licence and clause 17 of this Schedule applies to 'electricity works (wind farms)'. A new EPL would be sought to authorise the new scheduled activity associated with the Project. The POEO Act has a number of regulations relating to matters of pollution, waste, air quality and noise. If relevant, these specific sections would be considered as part of the impact assessments within the EIS.
Roads Act 1993	Under section 138 of this Act, a person must not (a) erect a structure or carry out a work in, on or over a public road, or (b) dig up or disturb the surface of a public road, or (c) remove or interfere with a structure, work or tree on a public road, or (d) pump water into a public road from any land adjoining the road, or (e) connect a road (whether public or private) to a classified road, otherwise than with the consent of the appropriate roads authority. The Project includes upgrades to public roads. As such, an approval will be required from Transport for NSW and Narrandera Shire Council.
Electricity Supply Act 1995 and Electricity Network Assets (Authorised Transactions) Act 2015	Under these Acts, the transmission and distribution lines connecting a wind energy generating facility to the grid can be considered as a separate development from the generating facility given both the linear nature of transmission lines and the fact that they are usually owned and operated by an electricity transmission operator or distributor. If not and if they are sufficiently related to the wind energy generating facility, they should form part of the associated SSD and be governed by Part 4 of the EP&A Act. Required transmission infrastructure would be confirmed during the EIS following further stakeholder consultation.
Waste Avoidance and Resource Recovery Act 2001	This Act encourages the most efficient use of resources in order to reduce environmental harm. Waste and resource impacts associated with the Project will be considered as part of the EIS.

4.1.3 NSW environmental planning instruments

Relevant SEPPs and LEP to the Project have been considered in **Table 4-6**.

Table 4-6. EPIs and consideration of relevance

EPI	Consideration
Planning Systems SEPP	The Project is classified as SSD under section 2.6(1) in conjunction with Schedule 1, section 20 of the Planning Systems SEPP. Under section 2.7 of the Planning Systems SEPP, the Independent Planning Commission is declared, under section 4.5(a) of the EP&A Act, to be the consent authority under circumstances which include Council or at least 50 other parties objecting to the application or where the application is made by a person who has disclosed a reportable political donation. Under section 2.10, development control plans (whether made before or after the commencement of this Policy) do not apply to SSD.
Transport and Infrastructure SEPP	The aim of the Transport and Infrastructure SEPP is to facilitate effective delivery of infrastructure projects across NSW. The Project area is zoned RU1 Primary Production under the Narrandera LEP. This land use zone is also defined as a prescribed rural zone for the purpose of electricity generating works and under

EPI	Consideration
	section 2.36(1) of the Transport and Infrastructure SEPP, the Project is permissible with consent. Under section 2.119, a consent authority must consider development with frontage to classified roads. The Project would have a frontage to Sturt Highway which is a classified road and further traffic and safety assessments will be carried out as part of the EIS. Traffic and transport is discussed further in **Section 6.6**.
Resilience and Hazards SEPP	The Resilience and Hazards SEPP provides a state-wide approach to the remediation of contaminated land for the purpose of minimising risk of harm to health of humans and the environment. In accordance with section 4.6 (1) of the Resilience and Hazards SEPP, a consent authority must consider potential contamination and proposed use. Potential contamination will be further considered as part of the EIS to inform design of the Project.
Biodiversity and Conservation SEPP	The Biodiversity and Conservation SEPP consolidates State Environmental Planning Policy (Koala Habitat Protection) 2020 and State Environmental Planning Policy (Koala Habitat Protection) 2021. The Narrandera LGA is listed as an LGA to which the SEPP applies under Schedule 2 of the Biodiversity and Conservation SEPP. As such, the environmental assessment needs to consider impacts to koala habitat as part of the EIS. Koala habitats are considered in **Section 6.3**.
Narrandera LEP	The Project area is located within the Narrandera LGA and development within this LGA is regulated by the Narrandera LEP. The Project area is zoned RU1 Primary Production. The EIS will consider: ▪ The relevant objectives and land uses for RU1 zone ▪ Clause 5.10 Heritage conservation ▪ Clause 5.11 Bush fire hazard reduction ▪ Clause 5.15 Defence communications facility ▪ Clause 5.21 Flood planning ▪ Clause 6.1 Earthworks ▪ Clause 6.3 Stormwater management ▪ Clause 6.4 Terrestrial biodiversity ▪ Clause 6.5 Groundwater vulnerability ▪ Clause 6.11 Airspace operations.

4.2 Commonwealth environmental legislation

4.2.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act provides the legal framework to protect and manage Matters of National Environmental Significance (MNES), while also considering cultural values and society's economic and social needs. MNES protected by the EPBC Act includes threatened species and ecological communities, migratory species (protected under international agreements), and national heritage places (among others).

Any actions that would, or are likely to, have a significant impact on MNES require referral to, and approval from, the Commonwealth Minister for the Environment and Water.

MNES have been identified as potentially occurring on or near the Project area, including listed threatened species or endangered communities. A referral has been made to the Commonwealth DCCEEW on 05 June 2024 to determine if the Project is likely to have the potential to significantly impact on a MNES. If so, the development would become a 'controlled action' and would be assessed under the NSW Bilateral Agreement with the Commonwealth.

4.2.2 Native Title Act 1993 (Cth)

The *Native Title Act 1993* (Cth) recognises the rights and interests of Indigenous people to land and aims to provide for the recognition and protection of common law native title rights.

A search of the National Native Title Tribunal database on 14 May 2024 found that there are no Native Title claims currently registered in the Project area.

4.2.3 Civil Aviation Safety Regulations 1988

Part 139 of the Civil Aviation Safety Regulations 1998 (CASR) regulates obstacles within the vicinity of certified aerodromes. Proponents or owners of structures greater than 110 m above ground level are required by the CASR to inform the Civil Aviation Safety Authority (CASA). CASA would then undertake assessment of the impact of the structure on the operation of aircraft operations.

Any wind turbine (where the height is defined to be the maximum height reached by the tip of the turbine blades), wind monitoring mast or other tall structure that penetrates an Obstacle Limitation Surface of an aerodrome would also be dealt with in accordance with the provisions of Part 139 of CASR.

A detailed assessment in accordance with the regulations and consultation with the relevant agencies such as the CASA will be undertaken as part of the EIS (refer to **Chapter 5**).

5. Community and Stakeholder Engagement

The Applicant is committed to ongoing, transparent and meaningful consultation with the local community and stakeholders throughout the development, construction and operation of the Project. It is recognised that early consultation is key to building social licence, The Applicant seeks to build a lasting relationship with the local community and relevant stakeholders throughout the life of the project and to leave a lasting benefit.

Using the principles of the Undertaking Engagement Guidelines for SSD Projects, The Applicant's community engagement activities provide opportunities for stakeholders to participate from inception of the Project, ensure that the engagement is proportionate to the impact, is tailored to the community and is transparent about what elements of the Project the community can influence. This allows feedback from the community to be incorporated into the project throughout the development process and that the benefits from the Project, fit the needs of the community.

Consultation commenced in the early stages of the Project, with more than ten engagement activities, representing over 200 face to face engagements undertaken since 2023.

At the same time The Applicant commenced community benefit fund contributions through local sponsorships and grants. These activities will continue and increase during the EIS, construction and operational phases of the Project.

There is broad support from the community for the Project. The community has been welcoming of the early benefits being provided including sponsorships and grants.

5.1 Stakeholder identification

Table 5-1 lists the key stakeholders relevant to the Project, including those who may be directly or indirectly affected by the Project or who may hold interests in the outcomes of the Project.

Table 5-1. Identified stakeholders

Stakeholder group	Identified stakeholders	
Host Landowners	▪ Landowners who are or potentially can host wind turbines and/or project infrastructure.	
Neighbouring Landowners	▪ Landowners with a dwelling within 8.5km of a proposed wind turbine	
Community	▪ Landowners ▪ Local community members ▪ Local sporting organisations, schools, religious organisations, clubs ▪ Local media	
Aboriginal stakeholders	▪ Narrandera Local Aboriginal Land Council (LALC) ▪ Leeton and District LALC ▪ Griffith LALC ▪ Registered Aboriginal Parties (RAPs) ▪ Office of the Registrar – Aboriginal Land Rights Act 1983 ▪ Native Title Services Corporation Limited ▪ National Native Title Tribunal ▪ Narrandera Aboriginal Elders Liaison Group	
Industry and business groups	▪ Transgrid ▪ NSW Irrigators Council ▪ Regional Development Australia ▪ Rotary Clubs of Leeton and Narrandera ▪ Landcare NSW ▪ Country Women's Association NSW	▪ Rice Growers Association ▪ Murrumbidgee Groundwater Incorporated ▪ Murrumbidgee Private Irrigators ▪ Yanco Creek and Tributaries Advisory Council

Stakeholder group	Identified stakeholders	
Government agencies or representatives	▪ State and Federal politicians ▪ Narrandera Shire Council ▪ Leeton Shire Council ▪ Murrumbidgee Council ▪ DPHI – Crown Lands ▪ NSW DCCEEW – Water, Heritage NSW, Biodiversity Conservation & Science ▪ NSW National Parks and Wildlife Service ▪ NSW EPA ▪ EnergyCo ▪ NSW Department of Primary Industries (DPI) Agriculture, Fisheries ▪ Department of Regional NSW – Local Land Services ▪ Murray Darling Basin Authority	▪ Air Services Australia ▪ Australian Communications and Media Authority ▪ Australian Signals Directorate ▪ CASA ▪ Commonwealth DCCEEW ▪ Commonwealth Department of Defence ▪ Fire and Rescue NSW ▪ NSW Rural Fire Service (RFS) ▪ Transport for NSW ▪ Victorian Department of Transport ▪ Ports Victoria ▪ NSW Ports ▪ ESCOSA
Infrastructure	▪ Transgrid ▪ NSW Government Telco Authority	▪ Optus ▪ Telstra ▪ Vodafone

5.2 Engagement undertaken

The Applicant commenced community and stakeholder consultation for the Project in 2023. In line with *Undertaking Engagement Guidelines for State Significant Projects* (DPHI, 2024), the Applicant has engaged early to inform Project design and development, identify concerns or impacts requiring further assessment, gain feedback from the community on the Project, proposed benefits and areas of concern.

The Project details that are relevant to the current status of Project development have been shared with the community and stakeholders. This included:

- Mapping that displayed the Project area,
- Location of the site access off the Sturt Hwy, and nomination of the sites primary access route,
- Information on the number of proposed wind turbines, turbine size and their generating capacity, the requirement for electrical infrastructure,
- Preliminary visualisations of views of proposed turbines using augmented reality software on a tablet,
- Turbine noise level simulations using calibrated wind farm auralisation software and headphones,
- Project timeline detailing major development milestones.

Feedback from the community has been positive, including broad support for the Project and the benefits it will bring to the region through employment, local investment and the Community Benefit Program. No complaints have been received from the community in regard to the Project.

The Applicant has engaged with local Councils and other key agencies to provide briefings on the Project. Community consultation and engagement activities to date are summarised in **Table 5-2.**

Table 5-2. Summary of consultation and engagement activities

Activity	Stakeholders	Description	Consultation undertaken
Establishment of Project website and email address	▪ Host and neighbouring landowners ▪ Community ▪ Aboriginal Stakeholders ▪ Industry and Business Groups ▪ Government Agencies or Representatives	A dedicated project website that sets out: ▪ Project description ▪ Information for community and stakeholders ▪ Project updates ▪ Frequently asked questions ▪ Contact us ▪ Project Feedback ▪ Privacy policy and complaints process	The Project website and email address was established in December 2023. www.devlinsbridgewindfarm.com.au contact@devlinsbridgewindfarm.com.au The mailing list associated with the Project website currently has 32 subscribers.
Project briefings	Government Agencies	Formal briefings to government agencies to formally introduce the project and provide ongoing updates on progress	Narrandera Shire Council: ▪ September 2023 - Project introduction and commencement of VPA discussions. ▪ December 2023. Project Briefing and update live streamed as a public event by Narrandera Shire Council. Office of Regional Economic Development: ▪ January 2024 – Project briefing DPHI: ▪ February 2024 – Pre-Scoping meeting BCS: ▪ February 2024 – Project introduction and Bird and Bat Utilisation Surveys (BBUS) methodology meeting ▪ August 2024 – Project update Commonwealth DCCEEW: ▪ April 2024 – Project briefing and EPBC Pre-Referral meeting National Parks and Wildlife Service: ▪ March 2024 – Provided Project information pack Member for Cootamundra: ▪ October 2023 – Project briefing

Activity	Stakeholders	Description	Consultation undertaken
Project briefings	Aboriginal Stakeholders	Formal briefings to indigenous stakeholders and stakeholder to formally introduce the project and provide ongoing updates on progress	Southern West Yiradyuri Clans Lands, Water and Sky Country Aboriginal Corporation: ▪ April 2024 – Project Briefing Registered Aboriginal Parties: ▪ June 2024 – Project briefing and survey methodology presentation Aboriginal Elders Liaison Group: ▪ June 2024 – Project Briefing
One on one engagement	Host Landowners Neighbouring Landowners	Engagement with hosts and neighbours through face to face, online and phone meetings.	The host landowners form a project control group, meetings are held quarterly to provide project updates and details of upcoming activities. Meetings have been held with all neighbouring landowners within 3.5km of the Project. Meetings with neighbouring landowners from 3.5km to 8.5 km have commenced. Host and adjacent neighbour (up to 3.5 km) landowners have been provided with the preliminary indicative turbine layouts.
Operational wind farm site tour	Host landowners and Neighbours	Tours of operational and in construction wind farms to give hosts and neighbours experience of wind farm operations including noise, infrastructure footprint and visual impacts.	All host landowners and neighbours within 3.5 km of the Project were invited to tour wind farm projects with the Applicant. Visits commenced in July 2023. Twelve parties have participated, across six wind farm tours, visiting Crockwell II Wind Farm, Collector Wind Farm, Gunning Wind Farm, and Golden Plains Wind Farm.
Media	▪ Host and neighbouring landowners ▪ Community ▪ Aboriginal Stakeholders ▪ Industry and Business Groups ▪ Government Agencies or Representatives	To introduce the project to the broader community and other stakeholders.	Articles providing information on the project have been run in: ▪ Renew Economy ▪ The Irrigator ▪ The Daily Advertiser ▪ ABC News Radio ▪ Spirit FM Radio
Community drop-in sessions / community open day	▪ Host and neighbouring landowners ▪ Community ▪ Aboriginal Stakeholders	In person sessions in different formats to allow stakeholders to speak to a Project representative, ask questions, review project materials and provide feedback.	Three in person community information sessions were hosted by the Applicant between December 2023 and August 2024: ▪ 14 December 2023 – Community drop in session at Narrandera Ex Servicemen's Club

Activity	Stakeholders	Description	Consultation undertaken
	▪ Industry and Business Groups		▪ December 2023 – Community drop-in session at Yanco Weir RFS depot. ▪ August 2024 – Community drop-in session at Yanco Powerhouse Museum
Information booths and stalls	▪ Host and neighbouring landowners ▪ Community ▪ Aboriginal Stakeholders ▪ Industry and Business Groups	▪ Informal information sessions set up at community events to provide opportunity for community to meet the Project team and receive information. ▪ Building a relationship and presence within the community.	Information booths were set up at four community events, including: ▪ Narrandera Christmas Carols and Market ▪ Leeton Farmers Market, True View Augmented Reality (AR) visualisations of wind farm components was used to help community members visualise the change that can result from the Project. ▪ CWA International Food Festival, Event sponsor and information stall. ▪ Narrungdera NAIDOC celebrations with project information provided,
Information night	Yanco Weir RFS members	An RFS information night was held at the Yanco Weir RFS depot on 3 April 2024.	Information was presented to discuss response of aerial and ground crews to fire within an operational wind farm. Recent case studies were presented involving aircraft use in proximity to wind turbines including Buangor Bush Fire Response.
Project Newsletter	Any stakeholder that has requested newsletter updates	Periodic newsletter providing project updates, upcoming events and general information	Three newsletters have been sent to the Project mailing list.
Cultural awareness training	Aboriginal stakeholders	To build a relationship with local Aboriginal Stakeholders, gain an understanding of the traditional values and cultural significance of the area the Project is proposed in.	Eight members of the Applicant's team, including all company directors, attended a cultural awareness training and site tour of local cultural sites near the Project area. The training was held at Yanco Agricultural College and delivered by the Wiradjuri elders on 4 April 2024.
Sponsorship programs	Local community groups Aboriginal stakeholders	An early sponsorship program has commenced providing funding financial support to community groups, events and initiatives.	Since 2023 financial support has been provided for six community programs and initiatives, including: ▪ Narrandera Christmas Carols, Lions Club of Narrandera, December 2023. ▪ Battle of 'Bidgee Sporting Festival, A and S Family Medical Practice, February 2024. ▪ Spirit FM Community Radio, March 2024. ▪ Narrandera Lizards U16 jersey sponsor, 2024 season.

Activity	Stakeholders	Description	Consultation undertaken
			▪ CWA Narrandera International Food Fair, June 2024. ▪ Narrandera Sandhills cultural signage, NAIDOC week 2024.

5.2.1 Engagement feedback and Community Views

As discussed in the Social Impact Scoping Report in **Appendix G** the key topics raised during community consultation are:

- Potential impacts on dry lake and existing bird life.
- Ideas for the community benefit fund
- Accommodation shortages in the region
- Local Aboriginal Engagement and participation
- Regional labour force experience in the renewable sector
- Ecology surveys.

A community survey was available at the drop in sessions and events for attendees to complete, the key themes emerging from surveys include:

- Respondents value regional agriculture, community and family connections, natural landscapes, and cultural heritage.
- Noted potential benefits for the region include economic opportunities through jobs, local community investment and diversification of landholder income.
- Primary areas of concern include effects on flora and fauna, as well as impacts on farmland and visual amenity.

A summary of feedback including issues, opportunities and concerns are summarised in **Table 5-3**, with the responses provided to each. A consultation record is provided in **Appendix C** for all engagement undertaken to date.

Table 5-3. Summary of feedback and Project's response

Theme	Focus of feedback	Project's response to feedback
Consultation process	▪ Narrandera Shire Council is supportive of the Project and has offered a range of assistance in progressing the Project, including listing and promotion of community information sessions and community benefit funding rounds. ▪ Council has been open to discussions on a Voluntary Planning Agreement for the Project.	▪ The Applicant is grateful for the Council support of the process and will continue to engage for guidance and assistance on the best ways to reach the community. ▪ The Applicant will continue discussions with Council on the Voluntary Planning Agreement.
Community benefits	▪ Stakeholders have expressed interest in the community benefit fund and other benefits associated with the Project. ▪ Some early feedback has been provided on potential inputs to the Community Benefit Program. ▪ Stakeholders have expressed support and interest in the early sponsorship program	▪ In addition to the early grants and sponsorships already underway, the Applicant is in the early stages of developing a larger community benefit-sharing framework for the Project and will work closely with stakeholders and the community to understand the local context and explore unique opportunities to share the Project's benefits and deliver positive local impacts to the community. ▪ Eleven applications for funding have been received by the Applicant since the commencement of the program in 2023. Of these eleven applications, so far, funding has been provided to six programs.
Community concerns	▪ Potential amenity impacts such as noise and visual.	▪ Throughout the consultation process with the community, the Applicant has been

Theme	Focus of feedback	Project's response to feedback
	▪ Potential risk of fires from the wind farm. ▪ Opportunities to reduce risk of fire from lightning strikes. ▪ Appropriate management of water and bushfire response. ▪ Potential impacts on Dry Lake and birds/wildlife. ▪ The need to build local skills and capability to support wind energy development. ▪ Limited availability of local accommodation.	documenting and responding to community concerns and will use this input in further design development and technical assessments to reduce impact to neighbours, the local community and the environment. ▪ The Applicant assured the community that the ongoing environmental impact assessment process will adequately study their concerns and suggest the most appropriate measures to avoid, minimise or mitigate any potential impacts. ▪ The Applicant will continue to engage with local community members and stakeholders to inform how best to support the community with skills and job creation. ▪ An accommodation strategy will be prepared for the Project to consider ways to minimise impacts to already limited local accommodation.

5.3 Aboriginal consultation

Aboriginal community consultation has commenced in accordance with the guidelines as set out in the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010). Aboriginal consultation has been led by The Applicant's Indigenous and Community Engagement Manager, based locally in Narrandera, and supported by Everick Archaeology and Cultural Heritage Australia.

To identify, notify and register Aboriginal parties who may hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places in the area of the Project, the following consultation procedure was undertaken:

- Correspondence was sent to the following stakeholders between February and March 2024:
  - ORALRA
  - Griffith LALC
  - Leeton and District LALC
  - Narrandera LALC
  - The National Native Title Tribunal
  - NTS Corp
  - The Murray Darling Basin Authority
  - Heritage NSW
  - Narrandera Shire Council
  - Narrandera Aboriginal Elders Liaison Group
- Advertisements were placed in The Argus and The Irrigator local newspapers on 29 February and 1 March 2024 respectively.

This resulted in the identification of 21 Registered Aboriginal Parties (RAPs).

In-person briefing sessions with the RAPs carried out to date have discussed the following:

- The Project details and possible Project impacts

- Cultural concerns, perspectives and assessment requirements of the RAPs
- The assessment methodology including cultural heritage inputs and assessment activities
- Timelines and milestones for the completion of assessment activities and delivery of reports
- To clearly define agreed roles, renumeration, functions and responsibilities.

The draft Aboriginal Cultural Heritage Assessment Report (ACHAR) methodology was distributed to the RAPs on 10th June 2024, with a 28-day period for review and comment. By the end of the review period comment had been provided by multiple stakeholder groups (individual comments were often consolidated by affiliate indigenous association/corporation where appropriate). Groups represented across the methodology consultation include Bidya Marra Consultancy, Griffith LALC, Leeton & District LALC, Miyagan Culture and Heritage, Narrandera LALC, and Southern West Yiradyuri Clans, Land, Water and Sky Country Aboriginal Corporation. The comments were used to adjust the methodology where required.

In addition to the consultation undertaken for the ACHAR, the Applicant is engaging regularly with Local Aboriginal Land Councils to provide updates on the Project. The Applicant is preparing an Indigenous Participation Plan for the Project and will seek input on the design of the plan from the local Indigenous community.

5.4 Future consultation

The Applicant will continue community and stakeholder engagement activities throughout the Project EIS preparation and submission and if approved, the construction and operation phases. Future activities will continue to be conducted in accordance with the relevant community consultation guidelines and to provide community members and stakeholders with access to meaningful involvement and timely information. As Project development advances, the relevant information will be included in our consultation materials and published via the Project website. This will include proposed turbine layout, as well as indicative locations of other associated infrastructure, such as location and scope of any road upgrades which may be required.

The planned stages of community and stakeholder consultation will build on relationships established through early engagement activities and complement formal consultation required under relevant guidelines and the SEARs. The activities listed in **Table 5-4** will continue to occur during the preparation of the EIS and future stages of the Project.

The Applicant will make regular updates to the Project website and materials and stakeholders will be able to engage with the Applicant through the engagement activities as well as through the Project website and email address. The locally based Community and Indigenous Engagement Manager will be available to meet stakeholders if required.

Table 5-4. Future consultation and engagement activities

Stakeholder group	Engagement activities
Host Landowners and Project Neighbours	▪ In person or online meetings ▪ Community Information sessions ▪ Project website updates ▪ Newsletters, letters and factsheets ▪ Media adverts and posts
Community members and groups	▪ In person or online meetings ▪ Community Information sessions ▪ Project website updates ▪ Newsletters, letters and factsheets ▪ Media adverts and posts
Aboriginal stakeholders	▪ In person or online meetings ▪ Community Information sessions ▪ Project website updates ▪ Newsletters, letters and factsheets ▪ Media adverts and posts

Stakeholder group	Engagement activities
Industry and business groups	▪ Stakeholder Presentations and briefings ▪ Community Information sessions ▪ Stakeholder meetings ▪ Media adverts and posts
Government agencies or representatives	▪ Stakeholder Presentations and briefings ▪ Community Information sessions ▪ Stakeholder meetings
Infrastructure owners	▪ In person or online meetings ▪ Stakeholder meetings ▪ Stakeholder Presentations and briefings

6. Proposed assessment of impacts

This section outlines the matters that require further assessment in the EIS and the level of assessment that would be undertaken for each matter. It includes, where relevant, a summary of preliminary assessment findings, proposed assessment approach and any engagement required.

6.1 Overview

The assessment of the potential impacts of the Project were scoped using the categories provided in Appendix B of the State Significant Development Guidelines – Preparing A Scoping Report (SSD Scoping Report Guidelines) (DPE, 2022b). They were then divided into specific matters for which a preliminary environmental assessment was undertaken to identify potential matters associated with the construction, operation and decommissioning of the Project requiring further assessment in the EIS. This assessment has involved:

- Review of recent SEARS issued for wind farms in NSW.
- Consideration of the construction, operational and decommissioning stages of development.
- Desktop review of relevant databases, historic aerial photography, and available background data.
- Preliminary assessments undertaken for:
  - Visual impacts.
  - Noise and vibration.
  - Biodiversity – including ecological field surveys.
  - Traffic and transport.
  - Socio-economic impact.
- Review of the SSD Scoping Report Guidelines.
- Outcomes of stakeholder and community consultation to date.

Each matter and its proposed level of assessment (detailed or standard) is identified in **Table 6-1**. The matters are grouped into the level of assessment categories outlined in the SSD Scoping Report Guidelines (DPE, 2022b).

Table 6-1. Proposed level of assessment

Level of assessment	Definition	Assessment matters
Detailed	The Project may result in significant impacts on the matter, including cumulative impacts. The assessment of the impacts of the Project on the matter will require detailed studies and investigations to be carried out by technical specialists.	▪ Landscape and visual ▪ Noise and vibration ▪ Biodiversity ▪ Aboriginal heritage ▪ Traffic and transport ▪ Social and economic
Standard	The Project is unlikely to result in significant impacts on the matter, including cumulative impacts. While the assessment of the impacts of the Project on the matter will involve technical specialists, these impacts are likely to be well understood, relatively easy to predict using standard methods and capable of being mitigated to comply with relevant standards or performance measures.	▪ Historical heritage ▪ Water resources ▪ Land resources ▪ Hazards and risk ▪ Waste ▪ Air quality

Level of assessment	Definition	Assessment matters
Requiring no further assessment	The Project will have no impact on the matter, or the impacts of the Project on the matter will be so small that they are not worth considering further.	▪ Greenhouse gas ▪ Odour ▪ Coastal hazards and dams

Preliminary consideration of the existing environment, preliminary assessment findings where relevant, potential impact mechanisms and proposed assessment and consultation for these matters, are provided in **Section 6.2** to **Section 6.13.** The scoping summary table is provided in **Appendix B**.

6.2 Landscape and visual amenity

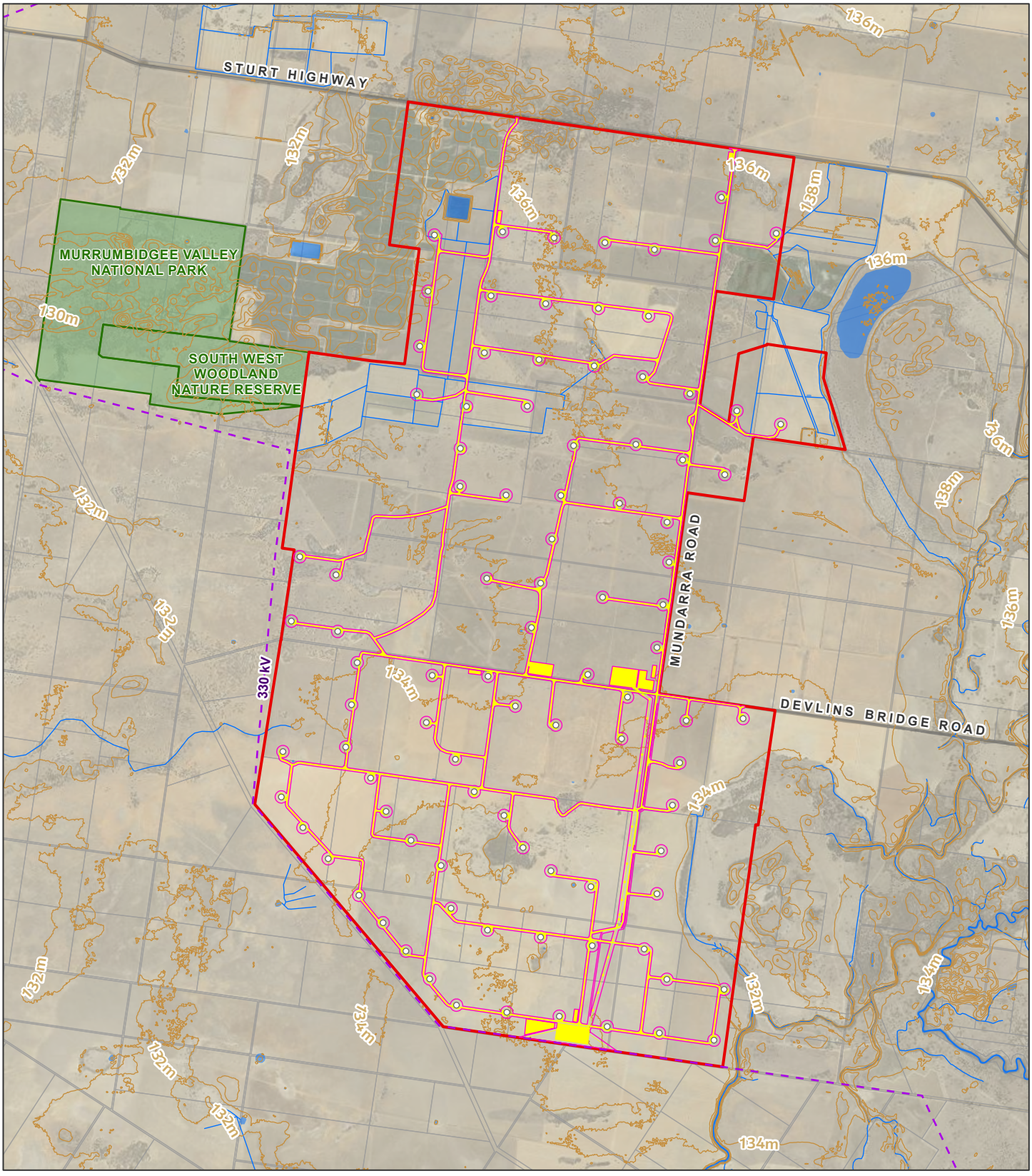
This section summarises the preliminary visual impact assessment (PVIA) prepared by Moir Landscape Architecture (refer to **Appendix D**). The methodology adopted is as prescribed by the Wind Energy: Visual Assessment Bulletin for State Significant Wind Energy Development (NSW Government, 2016c) (the Visual Bulletin). The PVIA Study area is defined as up to 8,000 m from the nearest wind.

6.2.1 Existing environment

Key landscape features

The key landscape features within the PVIA Study area are as follows:

- Geology and landform – The topography of the PVIA Study area is generally flat (refer to **Figure 6-1**). The region is characterised by Quaternary alluvial sediments and features shallow depressions up to two metres deep, leading to the formation of dry lakes and multiple swamps or flood plains. The landscape also includes isolated low rises shaped by aeolian (wind-driven) processes, contributing to its predominantly flat terrain dotted with dry distributary channels and floodplains.
- Vegetation character – The vegetation in the PVIA Study area is adapted to arid conditions, supporting scattered stands of Belah trees, Saltbush, and Speargrass communities. The region is largely dominated by varieties of Saltbush and Cottonbush, with only sparse tree communities present. This results in open landscapes that facilitate higher wind speeds due to the lack of tall canopy species. Mid-canopy species like Lignum and Nitre Goosefoot are also present and provide grazing for emus. The low-stature vegetation overall allows for easier grazing for livestock. Additionally, the Banandra precinct of the Murrumbidgee Valley National Park adjacent to the Project area provides scattered canopy.
- Waterways – The primary hydrological feature is the Murrumbidgee River, which flows west towards the Murray River. Additional significant water bodies include the Coleambally Canal, Yanco Creek, Back Creek, and Dry Lake. The landscape features lakes and shallow depressions surrounded by low scrubby vegetation such as Saltbush and Canegrass, which can retain water and are commonly used for livestock grazing. Denser vegetation defines watercourses, with remnants scattered throughout. Moreover, the region contains swamps and pans dominated by Dillon Bush, Canegrass, and Nitre Goosefoot spread across extensive plains.
- Roads and highways – The Project borders the Sturt Highway to the north, which serves as an important road corridor, connecting Balranald, Hay, Darlington Point, Narrandera and Wagga Wagga. Minor road connections are provided by Devlins Bridge Road, Cuddle Road and Mundarra Road.
- Nature reserves and national parks – The Murrumbidgee Valley National Park is situated along the Murrumbidgee River and includes fragmented parcels of land that extend from Narrandera to the Yarradda Campgrounds to the west. Publicly accessible areas of the Murrumbidgee Valley National Park are located approximately five kilometres north of the Project area, with the non-publicly accessible Banandra precinct bordering the Project area to the west. The park is characterised by widespread River Red Gum (*Eucalyptus camaldulensis*) and dominant shrub species such as Saltbush (*Atriplex nummularia*).
- Campgrounds and points of interest – No key public viewpoints or campgrounds are located within the Study area. Nearby public facilities which are close to the PVIA Study area include:
    - Jurambula Beach Campground (also known as Maccas Beach) – features a wide sandy riverbank and dense River Red Gums, suitable for fishing and kayaking, approximately 9 km north west of Project area.
    - Sandy Beach Campground – situated in the Murrumbidgee Valley National Park offers 17 unpowered camp sites near the river, set among River Red Gums and open lawns, approximately 15 km east of Project area.
    - Gogeldrie Weir Campground – known for its well-maintained turf and shade trees, is next to the Gogeldrie Riverside Park, which is popular with locals and tourists, approximately 8.5 km north of Project area.
    - Yanco Weir – consists of two separate weir structures, Yanco Weir South Wall and Yanco Weir North Wall, which are separated by a small island, approximately 10 km east of Project area.



LEGEND

- Project area
- Disturbance footprint
- Development corridor
- Wind turbine location
- Contours 2m (AHD)
- Cadastre
- National park
- Waterbody
- Watercourse
- Road
- Existing 330kv Darlington Point to Wagga Wagga Transmission Line

N

A4 1:75,000

GDA 1994 MGA Zone 55

0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-1: Topography

Dwelling locations

A total of 26 associated dwellings and 39 non-associated dwellings have been identified within the PVIA Study area.

Community consultation results

Key landscape features and scenic qualities of the Project locality identified during community consultation included: Yanco Creek, Murrumbidgee River, Sandhills (north of Sturt Highway) and Fivebough Swamp in Leeton.

Preliminary Landscape character units

As part of the PVIA, five (5) Landscape Character Units (LCUs) have been identified within the Study Area (refer to **Table 6-2**). The LCUs and Scenic Quality Ratings will be refined in the EIS phase to reflect inputs provided by the community during ongoing consultation, and ongoing development of the Project.

Table 6-2. Overview of LCUs

LCU	Name	General character	Rating
LCU01	Riverina Red Gum Forest	Comprises of dense woodlands of River Red Gum that spread along the Banks of the Murrumbidgee River and extend outwards adjoining agricultural lands.	High
LCU02	Flat Pastures & Grassy Plains	Vast open land parcels with minimum tree coverage and vast extents of Saltbushes, Speargrass, and Forbs.	Low
LCU03	Open Riverina Woodland Wetland	A mix of dense and scattered woodland prone to inundation and primarily located around creeks and low-lying areas. The dominant tree species is the River Red Gum, accompanied by water-tolerant grass and shrub species.	Moderate
LCU04	Gillenbah State Forest	Medium to dense pine forest consisting of Cypress Pine and a mix of Box species. The understory is sparsely vegetated with Wallaby and Spear grasses.	Low
LCU05	Grassy Woodland	Mix of scattered native tree species with small areas of dense interlocking canopy. Area is juxtaposed by open expanses populated by native grasses.	Moderate

6.2.2 Preliminary assessment findings

6.2.2.1 Preliminary assessment tools

The purpose of the Preliminary Assessment Tools in the PVIA is to identify sensitive receivers for further assessment in the EIS. The preliminary assessment tools involve analysis of two key visual parameters:

- Visual Magnitude
- Multiple Wind Turbine Tool (MWTT).

6.2.2.2 Visual magnitude

The Visual Magnitude threshold is based on the height of the proposed wind turbines to the tip of the blade and the distance from dwellings or key public viewpoints. The proposed wind turbines are based on a maximum tip height of 290 m. The Visual Bulletin defines two thresholds: the ‘black line’ intersects at a distance of 3,900 m and the ‘blue line’ intersects at 5,700 m as shown on **Figure 6-2**.

The preliminary visual magnitude assessment identified the following results for non-associated dwellings within the relevant thresholds:

- Three non-associated dwellings are located within the black line of visual magnitude (3,900 m from the nearest turbine)
- Eight non-associated dwellings are located between the black and blue lines of visual magnitude (between 3,900 m – 5,700 m from the nearest turbine)
- 28 non-associated dwellings have been identified between the blue line and the PVIA Study area boundary (between 5,700 m – 8,000 m from the nearest turbine).

In accordance with the Visual Bulletin, associated dwellings do not require further assessment.

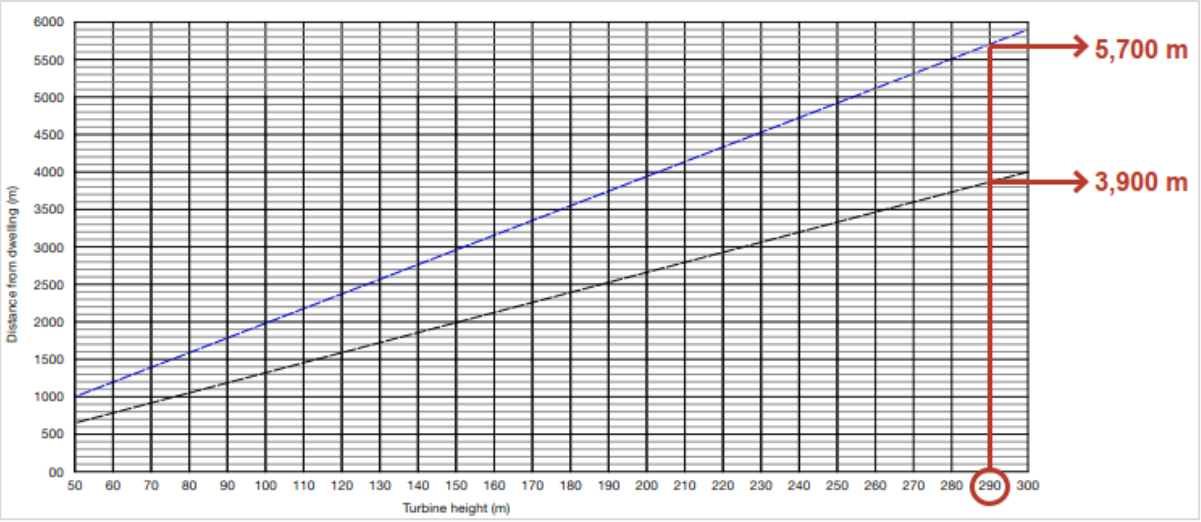


Figure 6-2. Visual magnitude thresholds for visual assessment

Source: Visual Bulletin (DPE, 2016)

6.2.2.3 Multiple Wind Turbine Tool

The MWTT provides a preliminary indication of potential cumulative impacts that may arise from the Project. To establish the extent of non-associated dwellings or key public viewpoints that may be impacted by the Project, the Applicant must map any proposed, approved or existing wind turbines into six sectors (60-degree sectors). This includes the Project and any existing or approved wind turbines within 8,000 m of each dwelling or key public viewpoint.

The MWTT identified the following results for non-associated dwellings within the PVIA Study area:

- Two non-associated dwellings within the black line (3,900 m of the Project) had two 60-degree sectors.
- One non-associated dwelling between within the blue and black lines (3,900 m – 5,700 m of the Project) had two 60-degree sectors.
- All remaining non-associated dwellings within 8,000 m of the nearest Project wind turbines have up to one 60-degree sectors. This is deemed an acceptable level in accordance with the Visual Bulletin and no further assessment is required.

Existing screening factors (including vegetation and structures) may reduce visibility of the wind turbines. This will be assessed further in the EIS.

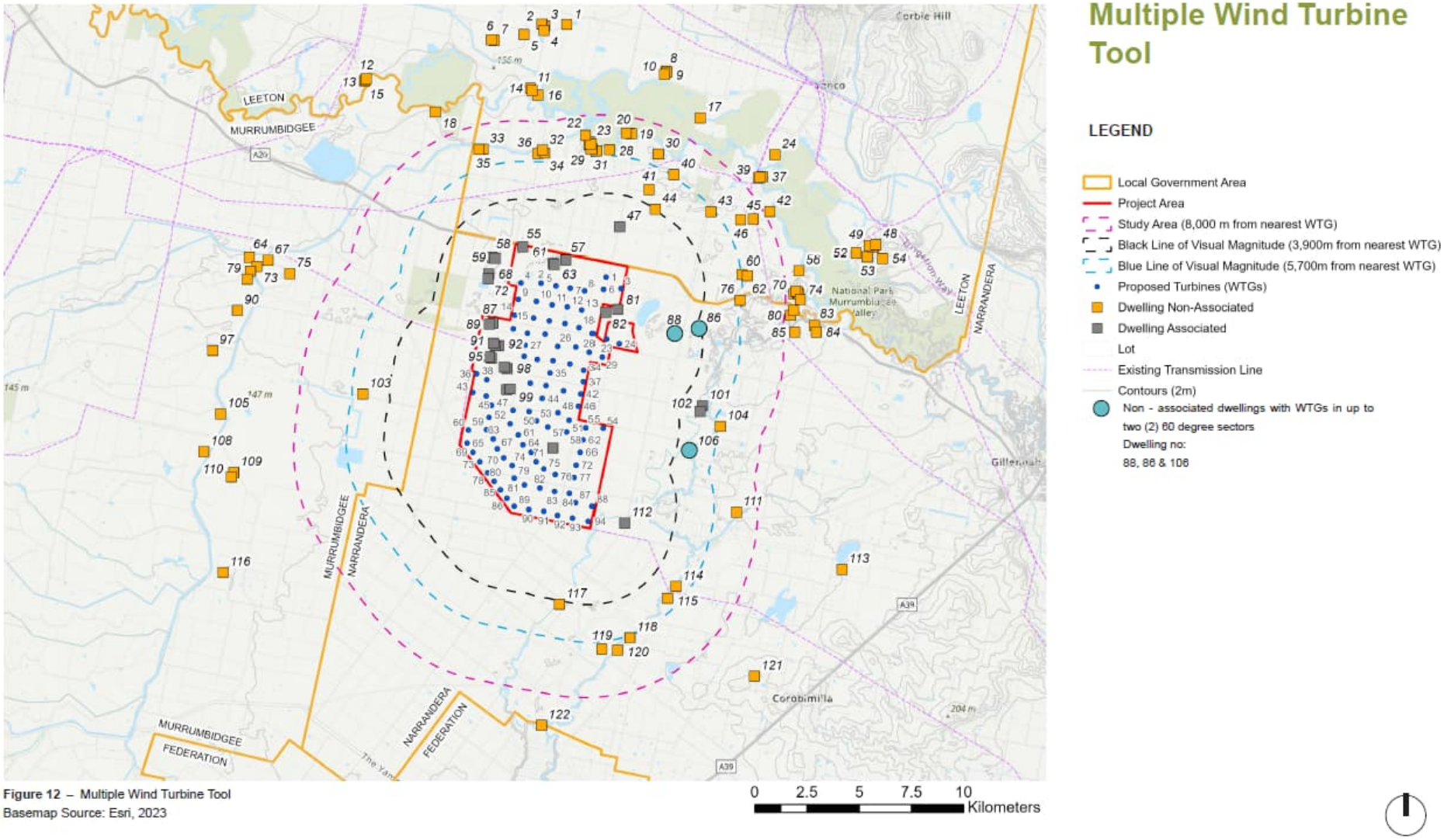


Figure 12 – Multiple Wind Turbine Tool
Basemap Source: Esri, 2023

Figure 6-3. Preliminary visual magnitude threshold and MWTT results

Source: Moir Landscape Architecture (2024)

6.2.2.4 Preliminary Zone of Visual Influence

A Zone of Visual Influence (ZVI) diagram has been prepared for the Project to illustrate the theoretical visibility of the proposed wind turbines. The ZVI usually presents a bare ground scenario - i.e. a landscape without intervening elements, including but not limited to screening, structures or vegetation. The ZVI has been determined using digital topographic information and 3D modelling software Windpro.

Based on the preliminary ZVI diagram prepared for the Project (refer to Section 7 of **Appendix D**):

- Due to the relatively flat topography, most of the wind turbines associated with the Project are likely to be visible from most areas within the PVIA Study area.
- Views to most wind turbines are likely to be available from all dwellings within 8,000 m of the Project.

Further assessment from these areas identified in the ZVI will be undertaken as part of EIS.

The PVIA and preliminary ZVI is based on a worst-case scenario where the assessment does not consider existing vegetation or structures. Ground truthing during field work will confirm the potential visibility from non-associated dwelling and key public viewpoints.

6.2.2.5 Public viewpoints

A total of 17 public viewpoints have been selected to illustrate the different landscape character typologies within the PVIA Study area and are generally taken from key publicly accessible viewing locations. Details of the assessment are provided in Appendix B of **Appendix D**.

6.2.3 Proposed assessment approach

A Landscape and Visual Impact Assessment (LVIA) will be prepared as part of the EIS in accordance with the Visual Bulletin. The LVIA will include:

- Preparation of a detailed visual baseline study.
- Community consultation carried out on aspects of the visual baseline study and describe mitigation and management options in the EIS.
- Ground-truthing of all non-associated dwellings identified as a sensitive receiver requiring further assessment to determine the potential visual impact of each sensitive receiver and provide mitigation methods to reduce potential visual impacts.
- Establish Zones of Visual Influence from viewpoints using inputs from the visual baseline study. The LVIA will require further assessment from areas identified as having potential visibility in the ZVI provided and graphic representations of the Project in the form of wireframes and photomontages.
- An assessment of cumulative visual impacts associated with other approved and proposed renewable energy projects in the surrounding locality.
- Identification of reasonable and feasible mitigation and management measures.

Potential mitigation measures to reduce visual impacts may include:

- Entering into negotiated agreements with impacted landowners
- Removal or repositioning of wind turbine/s within the Project area.
- Screening and/or supplementary planting.
- Night lighting of ancillary infrastructure being limited to low-level lighting for security, nighttime maintenance and emergency purposes.
- Consideration of wind turbine and Project infrastructure colour and design during the procurement process to minimise visibility and contrast.

6.3 Noise and vibration

A preliminary assessment of operational noise for the proposed Project has been conducted in accordance with the NSW Department of Planning and Environment1 *NSW Wind Energy: Noise Assessment Bulletin* (NSW Noise Assessment Bulletin) dated December 2016.

This section summarises the preliminary noise assessment (refer to detailed methodology and findings in **Appendix E**).

As the turbine model for the Project has not yet been selected, noise assessment has been carried out based on a candidate turbine model, with a generation capacity of 7.2 MW being representative of the size and type of turbine being considered for the Project.

6.3.1 Existing environment

The Project area is in a location that is rural in nature with predominantly agricultural land uses and activities. Background noise at sensitive receivers nearby is likely to be low and characterised by agricultural equipment and machinery, vehicle movements and natural sounds such as livestock, birds and insects.

There are 87 receivers identified within 10 km from the nearest proposed wind turbine. This includes 26 associated receivers and 61 non-associated receivers. The nearest associated receiver is about 1 km from a wind turbine (receiver ID 98), and the nearest non-associated receiver is about 2.6 km from a wind turbine (receiver ID 88).

The terrain elevation across the Project area ranges from approximately 132 m to 148 m above sea level, providing a relatively low and consistent elevation. This is important to note as the terrain profile impacts how noise is propagated.

6.3.2 Preliminary assessment findings

The Noise Bulletin provides a base criterion of 35 decibels A-weighted Equivalent Continuous Sound Level (dB L_{Aeq}) for non-associated receivers. The base criterion of 35 dB L_{Aeq} may be increased at associated residences in accordance with the Noise Bulletin, and a reference level of 45 dB L_{Aeq} is presented as a base criterion for associated receivers of the Project.

The preliminary assessment was carried out with reference to the adopted base criterion, however background noise monitoring to be conducted as part of the EIS phase may result in an increase in the criteria above these levels.

The preliminary assessment indicates that the predicted noise levels for the Project's wind turbines would be below the base noise level of 35 dB L_{Aeq} at all assessed non-associated receivers. There are four non-associated receivers with predicted noise levels above 30 dB L_{Aeq}, as shown in **Table 6-3**.

For associated receivers, the predicted noise levels would be below the reference level of 45 dB L_{Aeq} at all receiver locations. The predicted noise contour map showing wind turbine noise propagation is provided in **Figure 6-4**.

Table 6-3. Predicted noise levels at receivers above 30 dB L_{Aeq}

Receiver	Predicted noise level (dB L_{Aeq})	Distance to the nearest turbine (m)	Below the base criterion
Non-associated			
86	30.7	3,930	Yes
88	33.3	2,660	Yes
106	30.4	4,297	Yes
117	30.4	4,173	Yes
Associated			
47	32.6	2,495	Yes
55	36.1	1,733	Yes
57	39.4	1,341	Yes
58	35.0	1,867	Yes
59	35.5	1,736	Yes
61	40.4	1,109	Yes
63	40.7	1,046	Yes
68	36.5	1,623	Yes
72	36.9	1,607	Yes
81	41.2	1,037	Yes
82	42.7	1,110	Yes
87	40.8	1,033	Yes
89	40.0	1,182	Yes
91	40.9	1,194	Yes
92	41.8	1,079	Yes
93	41.2	1,195	Yes
94	41.4	1,051	Yes
95	41.7	1,056	Yes
96	42.7	1,106	Yes
98	42.9	1,027	Yes
99	43.9	1,032	Yes
100	44.0	1,055	Yes
101	30.4	4,886	Yes
102	30.5	4,724	Yes
107	44.9	1,035	Yes
112	36.0	1,720	Yes

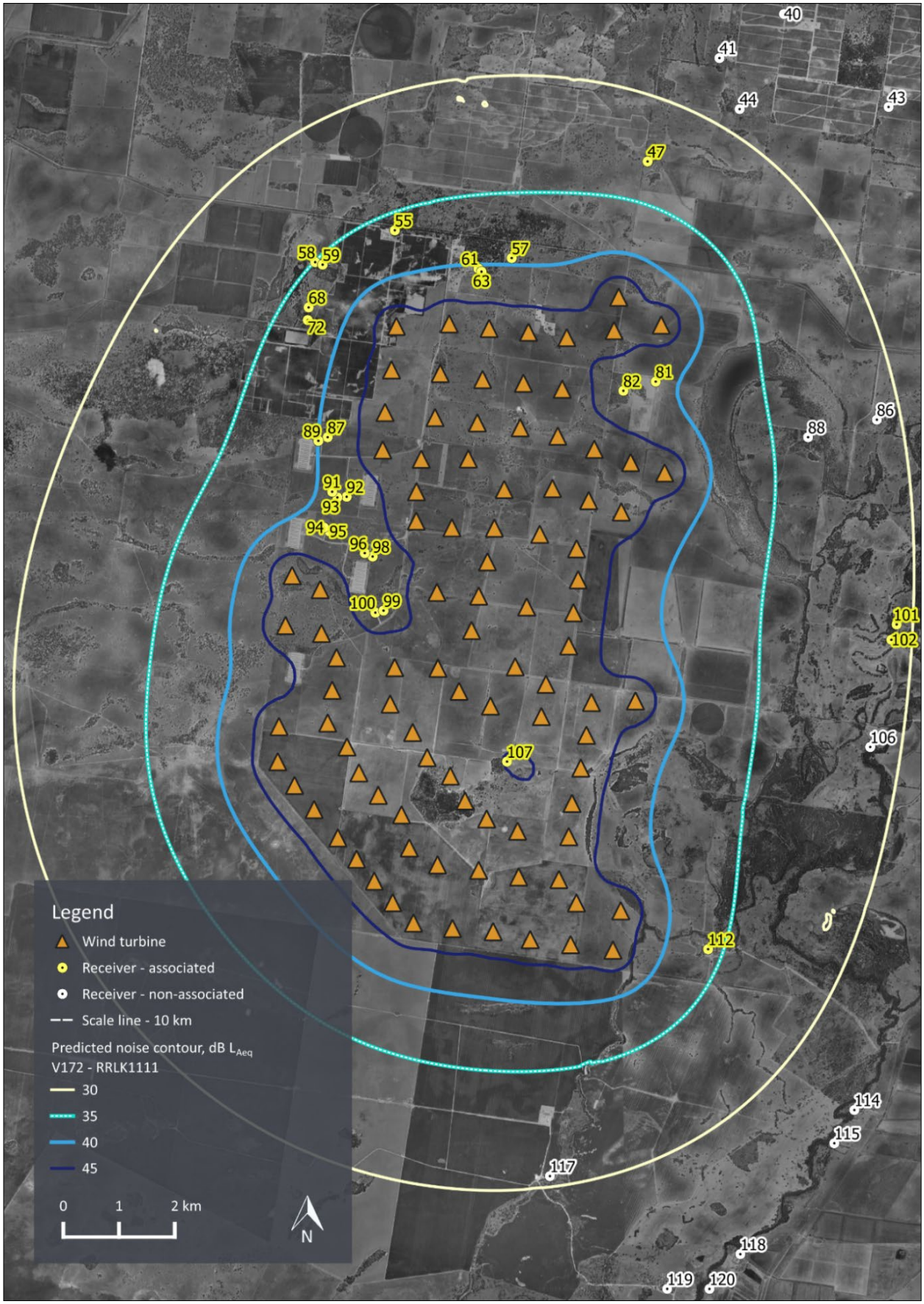


Figure 6-4. Sensitive receivers and predicted noise contours relevant to the Project

Source: Marshall Day (2024)

6.3.3 Potential impacts

Noise impacts from the Project during construction would include noise generated by preparatory earthworks, delivery and assembly of infrastructure, construction of the Project components and operation of light and heavy vehicles.

Operational noise impacts would include the operation of the wind turbines and on-site collector substations. The location of noise-generating infrastructure within the Project area would be further determined to minimise noise impacts on nearby receivers where feasible.

6.3.4 Proposed assessment approach

A Noise and Vibration Impact Assessment will be prepared as part of the EIS to investigate the potential noise and vibration impacts of the Project in accordance with the Noise Bulletin. The Noise and Vibration Impact Assessment will include:

- Establishing the relevant level of background noise.
- Carrying out predictive noise modelling of the Project's construction and operational activities.
- Assessment of the road traffic noise during construction and operational activities.
- Assessment of any vibration impacts at sensitive receivers.
- Identification of reasonable and feasible mitigation and management measures.

Potential mitigation measures to reduce noise impacts may include:

- Fixed construction noise sources such as concrete batching plant, generators and compressors being located at the maximum practicable distance to the nearest non-associated dwellings, where practicable.
- Investigating alternative construction processes where feasible and reasonable to reduce noise.
- Implement a Construction Environmental Management Plan, including regular updates to the local community.
- Entering into negotiated agreements with impacted landholders and Council.
- Removal of wind turbines from the Project or repositioning of wind turbines.

6.4 Biodiversity

This section summarises the preliminary biodiversity assessment prepared by Biosis (refer to **Appendix F**).

The methodology for the preliminary assessment included the following:

- Desktop assessment including database searches and literature review.
- Preliminary land category assessment.
- Field surveys carried out in December 2023 by Jacobs and in February-May 2024 by Biosis, including early mapping and validation of vegetation, and the first two seasonal BBUS.
- Analysis of likely impacts including matters under both the EPBC Act and the BC Act.
- Biodiversity values constraints mapping and modelling across the Project area.
- Consultation with BCS regarding BBUS survey methods.

6.4.1 Existing environment

Vegetation communities in the Project area and locality include native and non-native vegetation. Non-native vegetation is associated with dryland cropping and modified grazing land which occupies approximately 1,600 ha of the Project area. Native grasslands (derived or natural) cover approximately 3,000 ha of the Project area and are of varying conditions determined by the time since clearing or cropping has occurred, and current grazing practices. Most of these areas may be 'derived' grasslands of woodland Plant Community Types (PCT), such as PCT 26 Weeping Myall Open Woodland, and PCT 74 Yellow Box – River Red Gum tall grassy riverine woodland in locations where trees and shrubs were historically cleared. The delineation between natural and derived grasslands will be confirmed through further detailed studies as part of preparing the project BDAR.

There are several grassy ecosystems present in the Project area. Grassy woodlands and grasslands provide habitat for various birds, reptiles, ground-dwelling and arboreal mammals. Multiple hollow-bearing trees and small stick nests were observed across grassy woodland communities by Jacobs (2024a). Most of the open grassy woodlands are dominated by *Acacia pendula* (PCT 26).

The Project area does not support significant waterways or creeks, however there are aquatic habitats present, including a Strahler Order 2 stream in the south-east corner, as well as farm dams, ephemeral creeks and minor drainage lines. The Project area also supports several seasonally inundated depressional wetlands, with Black Box and River Red Gum trees, which would fill during heavy local rainfall and can support waterbirds, frogs and semi-aquatic fauna. The Banandra Precinct of the Murrumbidgee Valley National Park, adjacent to the west of the Project area, also contains records of threatened woodland birds and supports native vegetation communities. However this precinct currently does not host active conservation or management works and is currently utilised for grazing cattle under a grazing licence.

6.4.2 Preliminary assessment findings

6.4.2.1 Vegetation communities

The preliminary assessment identified 12 potential PCTs to occur within and surrounding the Project area. Vegetation condition ranged from low condition in areas of ongoing disturbance from agricultural activities to high condition in areas less subject to historical pressures such as clearing and grazing. Approximately eight Threatened Ecological Communities (TECs) have been assessed as likely to be present in the Project area, as shown in **Table 6-4** and **Figure 6-5**. **Table 6-4** identifies the PCTs and associated TECs under the EPBC Act or the BC Act, and whether they are subject to potential serious and irreversible impact (SAII) under the Biodiversity Assessment Method. The assessment for the likelihood for TECs to occur are detailed in Appendix 1 of **Appendix F**.

Table 6-4. Summary of PCTs and associated TECs in Project area

PCT	Associated TECs*		SAII
	EPBC Act	BC Act	
10: River Red Gum - Black Box woodland wetland of the semi-arid (warm) climatic zone	N/A	N/A	N/A
13: Black box-lignum woodland of the inner floodplains in the semi-arid zone	N/A	N/A	N/A
16: Black Box grassy open woodland wetland of rarely flooded depressions in south western NSW	N/A	N/A	N/A
19: Cypress Pine woodland of source-bordering dunes mainly on the Murray and Murrumbidgee River floodplains	N/A	EEC - Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions.	N/A
26: Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion	EEC - Weeping Myall Woodlands.	EEC - Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions.	N/A
28: White Cypress Pine open woodland of sand plains, prior streams and dunes mainly of the semi-arid (warm) climate zone	N/A	EEC - Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions. EEC - *Acacia melvillei* Shrubland in the Riverina and Murray-Darling Depression bioregions (unlikely).	N/A
44: Forb-rich Speargrass - Windmill Grass - White Top grassland of the Riverina Bioregion	CEEC - Natural Grasslands of the Murray Valley Plains (potential).	N/A	N/A
45: Plains Grass grassland on alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes Bioregion	CEEC - Natural Grasslands of the Murray Valley Plains (potential).	N/A	N/A
46: Curly Windmill Grass - Speargrass - wallaby grass grassland on alluvial clay and loam on the Hay Plain, Riverina Bioregion	CEEC - Natural Grasslands of the Murray Valley Plains (potential).	N/A	N/A

PCT	Associated TECs*		SAII
	EPBC Act	BC Act	
74: Yellow Box – River Red Gum tall grassy riverine woodland of NSW South Western Slopes Bioregion and Riverina Bioregion	CEEC - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland.	CEEC - White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions.	Yes
75: Yellow Box – White Cypress Pine grassy woodland on deep sandy-loam alluvial soils of the eastern Riverina Bioregion and western NSW South Western Slopes Bioregion	CEEC - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland.	CEEC - White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions. EEC - Sandhill Pine Woodland in the Riverina, Murray-Darling Depression and NSW South Western Slopes bioregions.	Yes
80: Western Grey Box – White Cypress Pine tall woodland on loam soil on alluvial plains of NSW South Western Slopes Bioregion and Riverina Bioregion	EEC - Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia.	EEC - Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions.	N/A
Modified land (non-PCT)	N/A	N/A	N/A

**CEEC – Critically Endangered Ecological Community; EEC – Endangered Ecological Community*

Source: Biosis (2024)

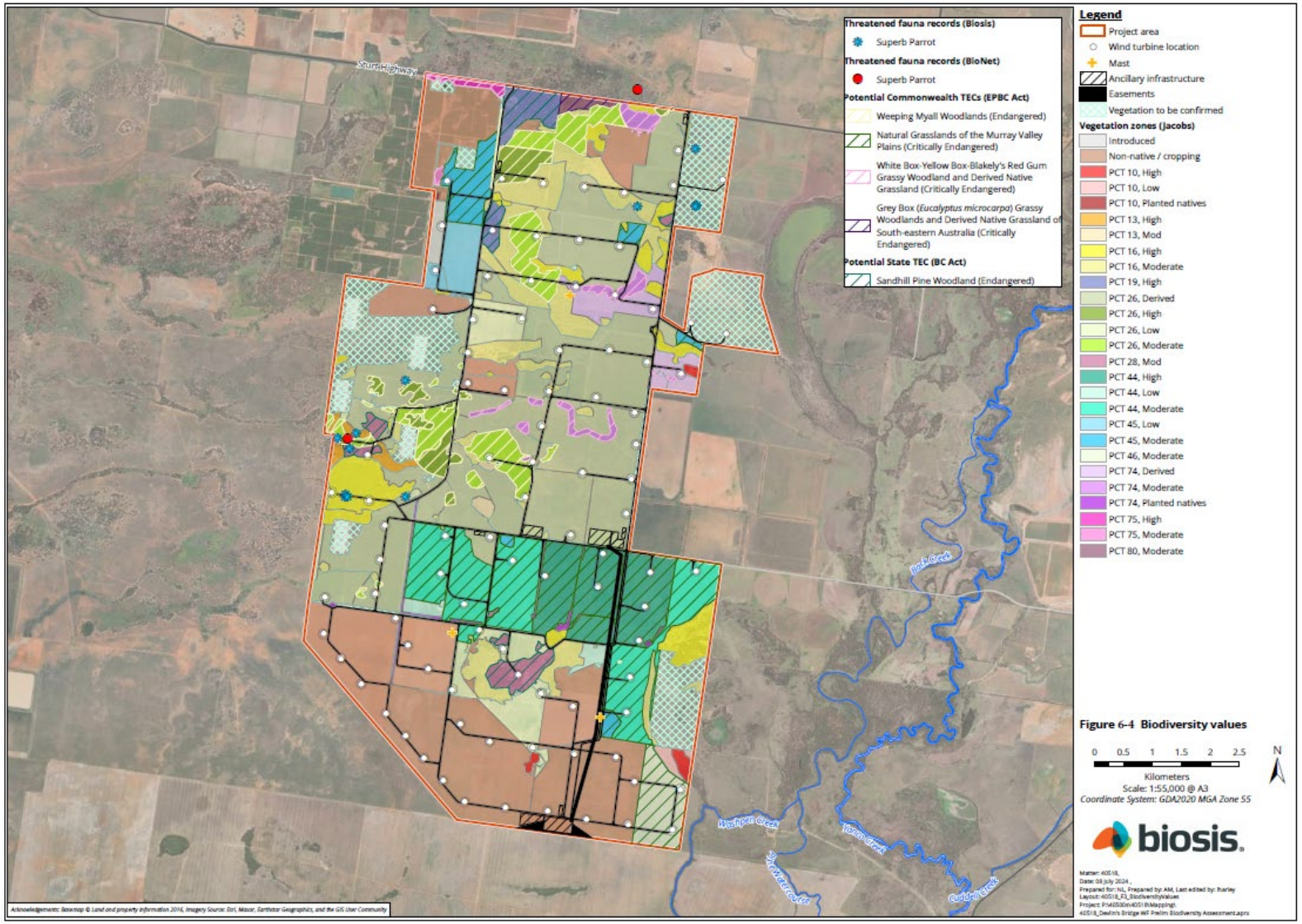


Figure 6-5. Biodiversity values

Source: Biosis (2024)

6.4.2.2 Threatened species

Based on the PCTs confirmed present, a total of 39 candidate threatened species credit species are assessed to potentially occur within the Project area as provided in **Table 6-5** (Likelihood of occurrence 17 low, 15 medium, 7 high). The results of a desktop search of the BioNet Atlas for threatened species records within 10 km (flora) and 25 km (fauna) are shown in **Figure 6-5.**

Table 6-5. Preliminary list of candidate species credit species

No	Scientific name	Common Name	Preliminary likelihood of occurrence
Flora			
1	*Austrostipa metatoris*	A Spear-grass	Low
2	*Austrostipa wakoolica*	A Spear-grass	Medium
3	*Brachyscome muelleroides*	Claypan Daisy	Medium
4	*Brachyscome papillosa*	Mossgiel Daisy	Low
5	*Caladenia arenaria*	Sand-hill Spider Orchid	Medium
6	*Convolvulus tedmoorei*	Bindweed	Medium
7	*Cullen parvum*	Small Scurf-pea	Medium
8	*Diuris* sp. *(*Oaklands, D.L. Jones 5380*)*	Oaklands Diuris	Low
9	*Diuris tricolor*	Pine Donkey Orchid	Low
10	*Eucalyptus leucoxylon* subsp. *pruinosa*	Yellow Gum	Low
11	*Lepidium aschersonii*	Spiny Peppercress	Medium
12	*Lepidium monoplocoides*	Winged Peppercress	Medium
13	*Leptorhynchos orientalis*	Lanky Buttons	Low
14	*Maireana cheelii*	Chariot Wheels	Low
15	*Pilularia novae-hollandiae*	Austral Pillwort	Low
16	*Sclerolaena napiformis*	Turnip Copperburr	Low
17	*Solanum karsense*	Menindee Nightshade	Medium
18	*Swainsona murrayana*	Slender Darling Pea	Medium
19	*Swainsona plagiotropis*	Red Darling Pea	Low
20	*Swainsona sericea*	Silky Swainson-pea	High
Fauna			
1	*Anthochaera phrygia*	Regent Honeyeater	Low
2	*Ardeotis australis*	Australian Bustard	Low
3	*Burhinus grallarius*	Bush Stone-curlew	Medium
4	*Callocephalon fimbriatum*	Gang-gang Cockatoo	Medium
5	*Calyptorhynchus lathami lathami*	South-eastern Glossy Black-Cockatoo	Low
6	*Crinia sloanei*	Sloane's Froglet	Medium
7	*Haliaeetus leucogaster*	White-bellied Sea-Eagle	High
8	*Hieraaetus morphnoides*	Little Eagle	High
9	*Lathamus discolor*	Swift Parrot	Low
10	*Litoria raniformis*	Southern Bell Frog	High

No	Scientific name	Common Name	Preliminary likelihood of occurrence
11	*Lophochroa leadbeateri*	Major Mitchell's Cockatoo	Medium
12	*Lophoictinia isura*	Square-tailed Kite	High
13	*Myotis macropus*	Southern Myotis	Medium
14	*Ninox connivens*	Barking Owl	Low
15	*Pedionomus torquatus*	Plains-wanderer	High
16	*Phascolarctos cinereus*	Koala	Medium
17	*Polytelis anthopeplus monarchoides*	Regent Parrot (eastern subspecies)	Low
18	*Polytelis swainsonii*	Superb Parrot	High
19	*Tyto novaehollandiae*	Masked Owl	Low

6.4.2.3 Serious and Irreversible impact species

Serious and Irreversible impacts (SAII) are defined by the BC Act as an impact that a consent authority considers likely to significantly increase the extinction risk of a threatened species or ecological community. The SAII species and communities that have the potential to occur within the Project area include:

- Claypan Daisy
- Sand-hill Spider Orchid
- Plains Wanderer – Plains Wanderer habitat is mapped within the Project area, but not within the Development corridor (refer to **Appendix F**)
- White Box Yellow Box Blakely's Red Gum Woodland.

The potential for SAIIs will be further investigated as part of the preparation of a BDAR.

6.4.2.4 Species with potential collision risk

Species that can be impacted by collision with wind turbines include raptors, flocking birds, migrating or nomadic waterbirds, and resident or colonial roosting bats. Based on a preliminary collision risk assessment, the high risk species (not limited to threatened and migratory species within the Project area) include the following birds and bats:

- Fork-tailed Swift (*Apus pacificus*)
- Dusky Woodswallow (*Artamus cyanopterus cyanopterus*)
- Spotted Harrier (*Circus assimilisn*)
- Black Falcon (*Falco subniger*)
- Latham's Snipe (*Gallinago hardwickii*)
- Brolga (*Grus rubicunda*)
- White-bellied Sea-Eagle (*Haliaeetus leucogaster*)
- Little Eagle (*Hieraaetus morphnoides*)
- Square-tailed Kite (*Lophoictinia isura*)
- Superb Parrot (*Polytelis swainsonii*)
- Yellow-bellied Sheathtail-bat (*Saccolaimus flaviventris*)
- Inland Forest Bat (*Vespadelus baverstocki*)

Detailed likelihood of occurrence assessment and collision risks are provided in Appendix 2 of **Appendix F.**

6.4.2.5 Matters of National Environmental Significance

No National Heritage Places, Ramsar Wetlands and Commonwealth Marine areas have been identified within the Project area or the 10 km buffer.

Protected species and communities were identified using the Protected Matters Search Tool (PMST) of the Project area with a 10 km buffer that was carried out in May 2024 and the findings of the preliminary field investigations by Jacobs and Biosis. A Likelihood of occurrence assessment was then undertaken to identify relevant MNES that have a medium to high likelihood to occur within the Project area:

- Five Commonwealth listed TECs.
- Nine EPBC Act listed threatened flora species.
- 32 EPBC Act listed threatened fauna species.
- Nine listed migratory species.

MNES listed above, along with any other MNES recorded or predicted as likely to occur will require consideration as part of ongoing ecological assessments. A referral of the Project to Commonwealth DCCEEW has been submitted and will provide a determination as to whether the Project is considered a controlled action under the EPBC Act, and subject to further assessment in the EIS.

6.4.3 Potential impacts

The construction of the Project is anticipated to impact biodiversity values, including native vegetation and habitats for threatened species. High-risk areas include treed wetland habitats, woodland PCTs, and TECs. Estimated direct impacts are presented in Table 6 of **Appendix E** and present a conservative estimate based on the indicative Development corridor. To mitigate these impacts, the Project design would avoid these where feasible. Lower-risk areas, such as current cropping land and historically cleared areas (e.g. derived vegetation communities), would be prioritised for infrastructure placement. Mitigation strategies, including setback buffers, maintaining flyways, and appropriate siting, would help to minimise impacts on bird and bat species and ensure compliance with EPBC Act and BC Act.

During the operational phase, the primary impact would be associated with the risk of wind turbine collisions with bird and bat species, particularly in areas with high activity near woodland and treed wetland PCTs. Regular monitoring and adaptive management strategies, such as maintaining flyways, maintaining exclusion zones and buffers around high-risk habitats and TECs would help to minimise these impacts. Continuous monitoring and adjustments to management strategies would be required to mitigate any unforeseen impacts and maintain habitat quality for threatened species.

6.4.4 Proposed assessment approach

The results of preliminary and future field surveys will be used to continue to guide the design for the Project.

A BDAR will be prepared as part of the EIS in accordance with the Biodiversity Assessment Method, which will include:

- Refined PCT/vegetation condition mapping.
- Collection of floristic plot data.
- Refined mapping and confirmation of extent of all TECs present.
- Targeted surveys for candidate flora and fauna species.
- Full seasonal bird and bat utilisation surveys.
- Assessment of all direct, indirect and prescribed impacts.
- Inclusion of mitigation measures and management actions for residual impacts.
- Offset planning for unavoidable residual impacts.

Given the potential for impacts on threatened bird and bat species, a BBUS and monitoring program will be required. BCS has advised a 24-month monitoring dataset is required with multiple surveys per season. Relevant BCS guidance documents include:

- Draft Turbine Risk Assessment and Avoidance Guideline.
- Suggested BBUS Method.
- Draft Bird and Bat Adaptive Management Plan Framework 2023.

Bird and bat utilisation surveys commenced in February 2024 with the collection of the initial summer and autumn seasonal data that will be required to inform the biodiversity impacts assessment and preparation of the Bird and Bat Adaptive Management Plan.

Relevant Commonwealth DCCEEW guidance for onshore wind farm would also be taken into account when assessing impacts as part of the BDAR.

The BOS and EPBC Act Environmental Offsets Policy (Commonwealth of Australia 2012) will apply to the assessment, generating an offset requirement for the Project. Establishment of Biodiversity Stewardship Sites, in combination with purchasing credits from the Biodiversity Conservation Trust (BCT), may be the most appropriate offset strategy for the Project and for achieving local biodiversity outcomes. The Project offset strategy will be confirmed during the EIS process.

6.5 Aboriginal heritage

6.5.1 Existing environment

The Project area is located on Wiradjuri Country. The Wiradjuri nation is geographically the largest Aboriginal group in NSW. The Local Aboriginal Land Councils nearest to the Project include the Leeton and District LALC, and Narrandera LALC.

An extensive search of the AHIMS database (completed on 31 October 2023) identified seven listed Aboriginal sites within the Project area (refer to **Figure 6-6**). The majority of the sites were recorded as Modified Tree (Carved or Scarred) and there is one sited recorded as a Hearth. The Aboriginal sites are scattered across the central western portion of the Project area at the location of the ProTen poultry farm and there is one Modified Tree also located along the northern boundary of the Project area.

There are no Native Title claims or determinations relevant to the Project area.

It is noted that previously recorded Aboriginal sites may not necessarily represent all of the sites that exists in an area. On private property, identification and recording of Aboriginal sites is less likely to occur but does not mean that they are not present.

Consultation for the ACHAR has commenced, the ACHAR methodology has been agreed with RAPs and survey activities are underway. These activities will inform the impact assessment during the EIS.

6.5.2 Potential impacts

ACHAR surveys have identified some areas of Aboriginal heritage within the Project area and consultation with RAPs will continue with regard to avoiding impacts to these areas as the ACHAR is developed.

Construction of the Project has the potential to disturb surface and in-situ subsurface Aboriginal sites, including previously undiscovered sites. The construction work or activities that could potentially disturb Aboriginal sites include earthworks, access road construction or upgrades, wind turbine foundation construction, associated building construction, services installation, repetitive vehicular movement, and landscaping.

Aboriginal heritage would not be directly impacted during operation of the Project, as ground disturbance/ excavation would be restricted to the construction phase of the Project.

6.5.3 Proposed assessment approach

An ACHAR will be prepared as part of the EIS and will be undertaken in accordance with the following:

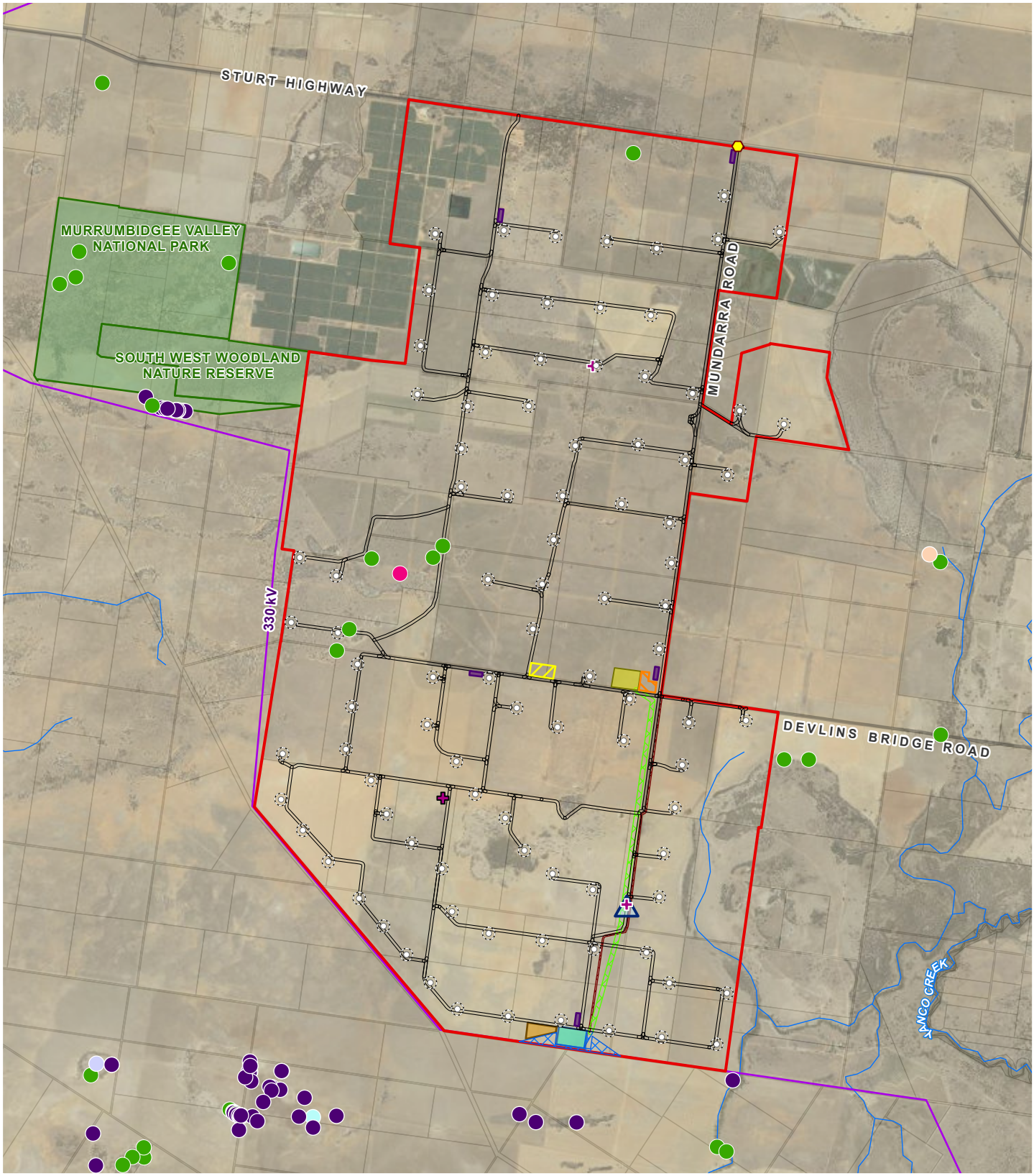
- Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010a)
- Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010b)
- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011).

As described in **Section 5.3**, Aboriginal consultation has commenced and will continue throughout the EIS preparation. The ACHAR will include:

- Assessment of the Aboriginal archaeological potential within the Project area
- Identification of Aboriginal sites within, and in the vicinity of the Project area in accordance with the methods outlined in the Code of Practice
- Identification of the potential for the Project to disturb Archaeological objects, and, where this is the case, determine:
  - Assessment of significance in consultation with the RAPs
  - The extent and significance of impact to these resources
  - Recommendations for measures to avoid, manage or mitigate harm to identified Aboriginal objects

- Field inspection with members of the local Aboriginal community to identify and record any Aboriginal objects or places both within and external to the site, specifically within areas proposed to be impacted by the Project
- Archaeological test excavation of areas of archaeological potential identified during desktop and field assessment, undertaken in partnership with the RAPs (where required)
- Identification of appropriate measures to avoid, minimise and/or mitigate potential impacts to Aboriginal heritage.

Where possible, Project design/layout will be amended to avoid high significance Aboriginal objects and places prior to finalising the layout for the EIS.



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- Watercourse
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement

Indicative AHIMS site location

- Aboriginal resource and gathering
- Artefact
- Earth mound
- Earth mound and potential archaeological deposit
- Hearth
- Modified tree (carved or scarred)

N

A4 1:75,000

GDA 1994 MGA Zone 55

0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-6: AHIMS sites within and surrounding the Project area

6.6 Traffic and transport

6.6.1 Existing environment

Access to and from the Project area would be via Sturt Highway onto Mundarra Road (refer to **Figure 1-2**). Sturt Highway is a State road. Mundarra Road is an unsealed local road that provides access to the Project area from the east.

Public transport is limited near the Project, as there are no rail or local public bus services. Regional coach services do not operate on Sturt Highway or Newell Highway.

Narrandera Railway Station is served by a twice weekly passenger train between Sydney and Griffith. A road coach service also operates between Wagga Wagga and Griffith via Narrandera. These services do not intercept the Project area.

The nearest airport to the Project area is Narrandera-Leeton Airport, located about 19 km east of the Project area. The airport is serviced by Rex Airlines and Qantas Link with daily return services to Sydney.

There are no formal pedestrian or cycling facilities provided in the vicinity of the Project area.

6.6.2 Potential impacts

Construction of the Project would require the use of heavy vehicles to deliver construction plant, equipment and materials, as well as the removal of waste, which would introduce additional traffic to local roads. Over size, over mass (OSOM) vehicles would be required to transport oversized components to the Project area. Additional light vehicle movements associated with the construction workforce are also anticipated. Construction parking would be provided within the Project area.

The major components for the Project are anticipated to be delivered from various countries to the importation port (Adelaide, Geelong or Newcastle are currently being considered) and then transported by road to the Project area. The preliminary transport route options assessed include one route for blades transport and one route for towers and larger components, both from the Port of Geelong.

It is expected that upgrades to local roads would 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 Port to facilitate the path of OSOM vehicles.

Access tracks would be constructed within the Project area to provide access to the proposed wind turbine locations. Existing access tracks within the Project area would also be upgraded (where appropriate) to facilitate delivery of the wind turbine components and other heavy-duty equipment. All access tracks would be maintained by the wind farm operator during the construction and operational phase of the Project.

Additional approvals would be required for the transport of wind turbines and associated infrastructure by OSOM vehicles, under National Heavy Vehicle Law. These requirements will be assessed via a route analysis study as part of the EIS.

Operational traffic generated by the Project would be limited to vehicles associated with maintenance, which is not expected to result in noticeable impacts on the local road network.

6.6.3 Proposed assessment approach

A Traffic and Transport Impact Assessment will be prepared for the EIS to identify and assess potential impacts of the Project on road network performance during construction of the Project. The assessment will include:

- Review of any previous traffic impact assessments conducted in the surrounding area.
- Preparation of construction, operational and decommissioning traffic impact assessments.
- Detailed haulage route analysis for OSOM components delivered from ports to Project area, including swept path analysis, traffic flows and required augmentations.
- Consultation with relevant stakeholders including councils and TfNSW, as well as port authorities.

- Assessment of the likely Project-alone and cumulative traffic impacts during the construction and operational phases of the Project (including intersection performance, capacity and safety).
- Identification of reasonable and feasible mitigation and management measures.

Potential mitigation measures to reduce traffic impacts may include:

- Preparation of a Construction Traffic Management Plan that would outline the controls required during the construction phase and would be prepared in consultation with relevant roads authorities.
- Undertaking any necessary road upgrade works ahead of time to facilitate access to the site and along the proposed transport route.
- Undertake consultation with relevant Councils regarding an infrastructure or maintenance agreement to cover any required mitigation works to manage the expected pavement impacts of the Project on Council managed roads.

6.7 Socio-economic impact

This section summarises the preliminary social impact assessment prepared by SLR Consulting (refer to **Appendix G**). The methodology adopted is as prescribed by the Social Impact Assessment Guidelines for State Significant Development (SIA Guidelines) (DPE, 2023).

6.7.1 Existing environment

6.7.1.1 Social locality

The social locality for the Project is shown in **Figure 6-7** and is defined by examining the nature of the Project, the spatial characteristics of nearby communities and how positive and negative impacts may be reasonably perceived or experienced by different people across different geographical areas.

The social locality comprises different Australian Bureau of Statistics Statistical Geography Areas and is stratified across different geographical levels to allow for detailed comparative analysis. These levels are:

- **Local study area**: Euroley Suburb and Locality
  - The suburb that the Project area is in
  - The suburb and locality represents residents who are most likely to experience direct social impacts associated with the Project
- **Host LGA and community**: the Narrandera LGA
  - The host LGA, which incorporates the town of Narrandera and nearest community to the Project
  - The LGA may experience a range of direct and indirect social impacts associated with the Project
- **Regional study area**: Griffith-Murrumbidgee (West) Statistical Area (SA) 3
  - The SA3 incorporates the Griffith, Leeton and Narrandera LGAs, as well as sections of the Carrathool, Murrumbidgee and Federation LGAs
  - The SA3 most closely aligns with the geographical extent of communities within 1-hour drive from the Project site and would represent the source of the local labour market.

The key social and demographic indicators for the social locality includes:

- A higher median age in Narrandera LGA compared to NSW, suggesting an older population, most likely concentrated in the town of Narrandera. A significantly higher proportion of the population in Narrandera LGA who identify as Aboriginal and/or Torres Strait Islander (13.0%, NSW: 3.4%)
- A low level of households that rent in the local study area (23.0%) and the LGA (24.0%, NSW: 32.5%); and conversely higher levels of home ownership in the LGA (70.0%, NSW: 64.0%). The most common household type in the Local study area is couples with children (60.0%, 44.7%); the most common type in the LGA is lone person households (32.0%, NSW: 25.0%). All levels of social locality demonstrate low levels of household mobility, and high levels of English proficiency, suggesting generally established and culturally homogenous communities
- All levels of social locality have lower rates of university-level qualifications than the state average (29.0%), ranging from (21.0% in the local study area to 11.0% in the LGA); conversely, trade qualifications are more prevalent across all levels and above the state average (Local: 25.0% to LGA 22.0%, NSW: 18.9%)
- There is a low level of labour force participation at the LGA level (54.1%), compared to the region (62.0%) and NSW (59.2%). Correspondingly, there is a high proportion of low-income households in the LGA (24.1%, NSW: 15.3%)
- There is a high prevalence of people with long term health conditions in the LGA (36.1%)
- The Local study area is at the 78th Index of Relative Socio-economic Advantage and Disadvantage percentile, indicating a high level of socio-economic advantage; the LGA is at the 15th percentile, suggesting broad social disadvantage. The disparity between the two suggests some inequalities within the LGA.

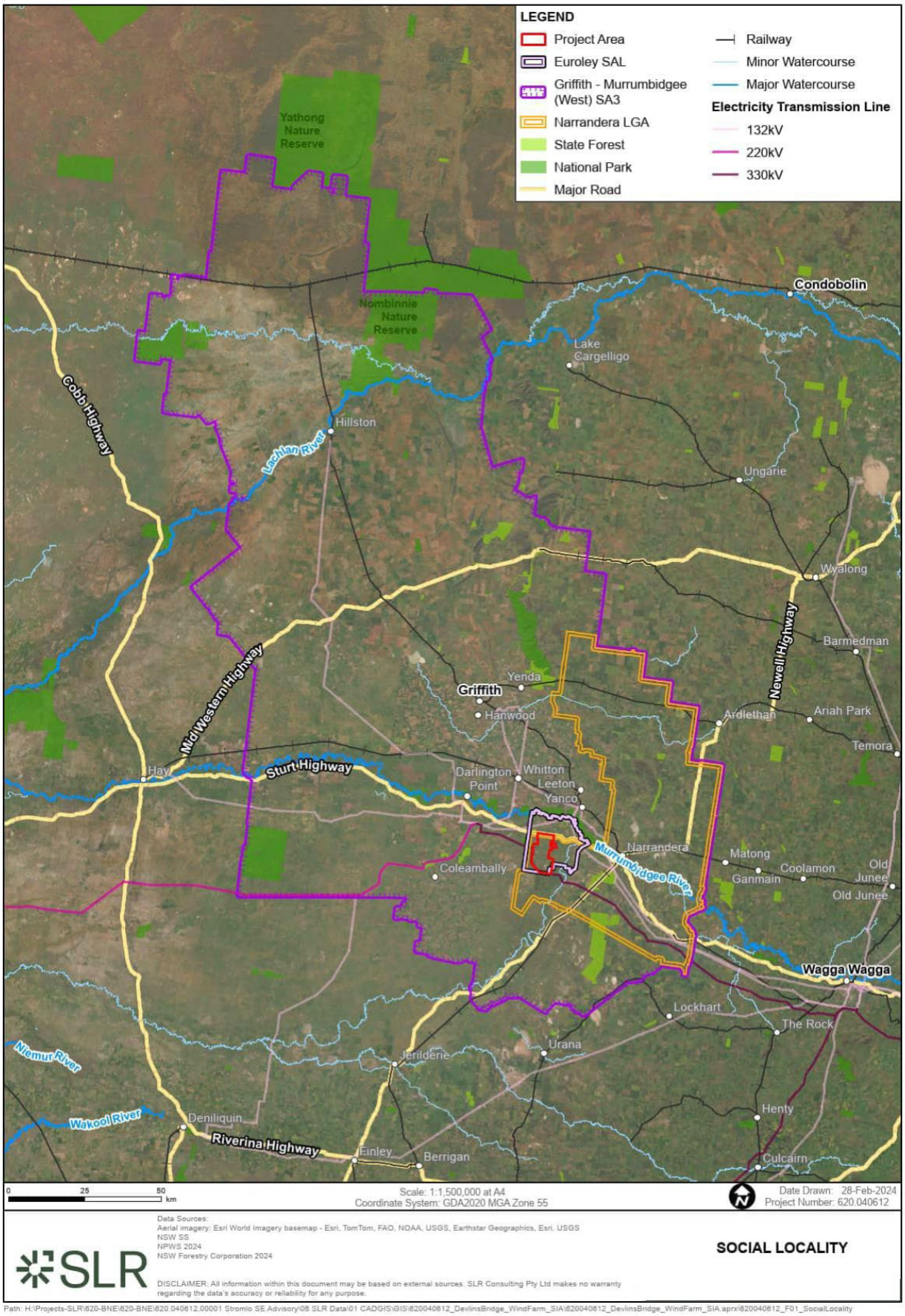


Figure 6-7. Project social locality

Source: SLR Consulting (2024)

6.7.2 Potential impacts

Consultation with community members and key stakeholders have been carried out by The Applicant since late 2023, with key activities and findings summarised in **Chapter 5**.

Based on preliminary scoping of potential social impact and benefits, a SIA scoping worksheet has been provided in Appendix A of **Appendix G** and summarised in **Table 6-6.**

Table 6-6. Preliminary scoping of social impacts

Social impact category	Potential social impact	Project phase	Positive or negative
Surroundings	The Project contributes to broader national decarbonisation efforts and aligns with policy directives across all levels of government.	Operation	Positive
	Project activities and infrastructure result in visual changes and affect rural character and environmental values.	Construction and operation	Negative
	Potential permanent impacts to land use and environmental values associated with decommissioning.	Decommission	Positive
Health and wellbeing	Amenity impacts associated with construction activities and haulage affect mental and physical health outcomes for proximal residents, including those along transport corridors.	Construction	Negative
	Increased community concerns about safety and health risks associated with energy infrastructure.	Operation	Negative
	Haulage and project related transport increases pressure on regional and local road networks and the risk of decreased road safety outcomes.	Construction	Negative
Livelihoods	Project expenditures and resourcing requirements benefit local employment, skill development, and local business viability.	Construction	Positive
	Landholder and neighbour payments result in economic benefits and income diversification for property owners.	Operation	Positive
	New energy infrastructure results in the devaluation of affected and surrounding landholdings.	Operation	Negative
Community	An influx of non-resident project workers results in changes in community dynamics and established norms.	Construction	Negative
	Increased competition for workers and resources affects local community cohesion.	Construction	Negative
	Implementation of a community benefit fund increases community resilience.	Construction and operation	Positive
	The flow of project benefits raises issues of distributional equity and the reach of benefits to marginalised and disconnected communities.	Construction and operation	Negative
Decision-making systems	Proactive and early consultative processes supports broad community support and approval for The Project.	Pre-construction	Positive
	Early and inclusive involvement in project planning results in enhanced project outcomes for Aboriginal people.	Pre-construction	Positive

Social impact category	Potential social impact	Project phase	Positive or negative
Culture	Changes to landscapes and land affect Aboriginal cultural heritage and connection to Country.	Construction and operation	Negative
Access	Project-associated migration places additional strain on housing, affecting those vulnerable and exposed to already strained housing markets.	Construction	Negative
	Project-associated migration diverts short-term accommodation away from tourists and seasonal workers, impeding usual regional economic function.	Construction	Negative
	Project-associated migration places additional demands on and pressures to maintain access to services and facilities.	Construction	Negative
	Project contributions to regional social and physical infrastructure improves long term access to services and facilities.	Construction	Positive

6.7.3 Proposed assessment approach

A socio-economic impact assessment (SEIA) will be prepared to investigate the potential social and economic impacts of the Project in accordance with the SIA Guidelines. The SEIA will include:

- A detailed update of the baseline social profile to ensure that any further baseline data relevant to the impacts identified is obtained.
- Further consultation for the SIA including primary and secondary SIA data collection.
- A detailed assessment and evaluation of social impacts against existing baseline conditions.
- Identification of reasonable and feasible mitigation and management measures.

6.8 Historical heritage

6.8.1 Existing environment

A search of relevant heritage registers and databases on 31 October 2023 identified that there are no heritage items listed on the National or World Heritage List within 10 km of the Project area. Dry Lake is an Indicative Place listed under the Register of the National Estate (non-statutory archive) and is located on the north eastern boundary of the Project area, consisting of a shallow lake filled by floods from the Murrumbidgee River (refer to **Figure 6-8**).

The listed heritage items that were identified within 10 km of the Project (measured to the nearest wind turbine) are shown on **Figure 6-8** and include:

- Tubbo Station located off Main Canal Road about 2.1 km to the west (Murrumbidgee LEP ID #I2).
- Gogeldrie Weir about 8.2 km to the north (SHR #00961) (Leeton LEP #I3).
- Yanco Agricultural High School about 9.1 km to the north east (SHR #02021) (Leeton LEP #I107) (Department of Education s170).
- Yanco Weir and Site located off Sturt Highway about 9.8 km to the east (SHR #00969) (Narrandera LEP #I2) (WaterNSW s170).
- McCaughey's Irrigation Works, BlueGate Dam and Cudgel Escape, located off Sturt Highway about 10 km to the east (Leeton LEP #I1). This listing has been updated as 'not a heritage item' in the State Heritage Register assessment of significance, as the item is no longer in existence.

6.8.2 Potential impacts

Due to the distance between the Project and the listed historical heritage items, it is not anticipated that the Project would have any impacts upon historical heritage. Assessment of this matter will be provided qualitatively within body of the EIS.

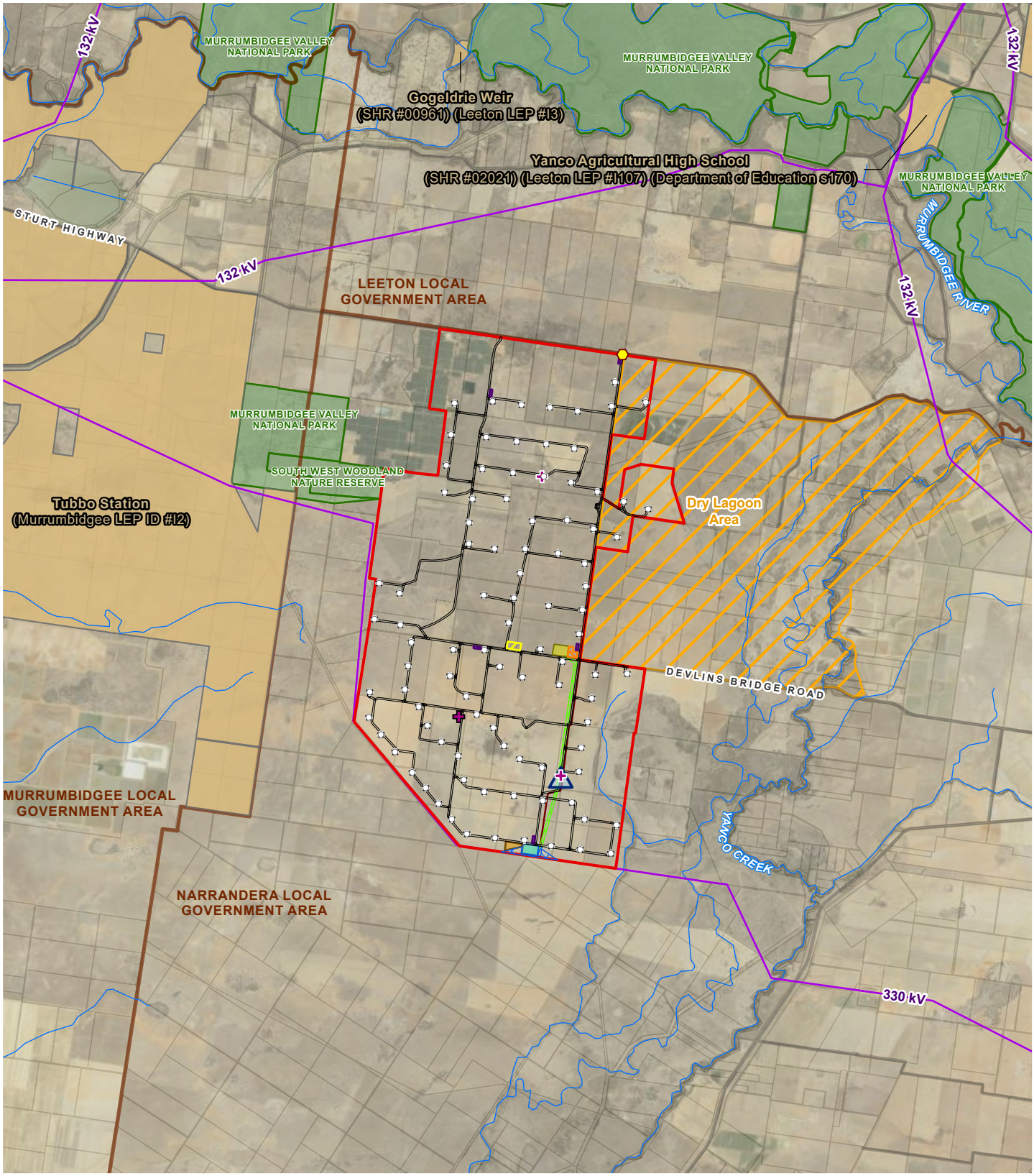
Given the region's long history of settlement, pastoral and agricultural activity, it is possible that unlisted historical heritage items exist within the Project area.

6.8.3 Proposed assessment approach

A Historical Heritage Impact Assessment (HHIA) will be prepared as part of the EIS to identify and confirm historic heritage items in the vicinity of the Project area, assess their values and significance, and assess the potential impacts of the Project. The HHIA will include:

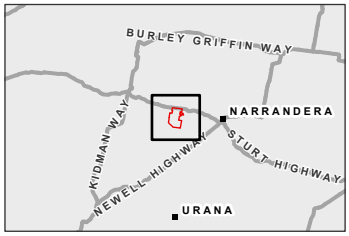
- A desktop assessment to identify potential historical heritage items within or near the Project area and guide the scope and focus of site investigations (this may include, but may not be limited to, a literature review, archival research, review of imagery and historical maps and survey plans, consultation with local historical societies and identification of historical themes from the Australian Historic Themes Framework relevant to the Project area).
- Detailed site investigations to ground-truth the outcomes of the desktop assessment, inform significance assessments and impact assessment for the Project.
- Post-fieldwork reporting including assessment of archaeological potential and assessment of significance for any potential unlisted heritage items in the Project area.
- Impact assessment of the Project on any identified significant heritage items.
- Identification of appropriate measures to avoid, minimise and/or mitigate potential impacts to historical heritage.

If potential archaeological relics are identified during the site investigation, an assessment of their archaeological significance will be completed in order to determine if the site meets the statutory threshold for consideration as a relic. If assessed to be an archaeological relic, section 146 of the *Heritage Act 1977* requires that the Heritage Council of NSW be notified providing details of the location and any other information required.



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- Watercourse
- Railway
- Major railways operational status
- Operational
- Disused or dismantled
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Register of the National Estate
- Historical heritage items
- Historical heritage items
- Local government area



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Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-8: Historic heritage items near the Project area

6.9 Water resources

6.9.1 Existing environment

6.9.1.1 Hydrology

The Project area is located within the Murrumbidgee River catchment. The Project area is located on predominantly flat land. The prominent hydrological features associated with the Project area include an unnamed stream, while other waterways located within the vicinity of the Project area include Washpen Creek, Murrumbidgee River, Coleambally Canal, Dry Lake Lagoon, Back Creek, Woolshed Creek and Spillers Creek.

There are some man-made water features within the Project area, including farm dams and drainage channels concentrated at the site of the poultry farm (refer to **Figure 6-9)**. There is also a larger reservoir at the Belvedere almond farm located adjacent to the Project area's western boundary.

6.9.1.2 Groundwater

The entire Project area is mapped as Groundwater Vulnerability – Environmentally Sensitive Land under the Narrandera LEP. As such, the Project must give consideration to section 6.5 of the Narrandera LEP prior to the issue of the development consent. This relates to ensuring that the Project maintains the hydrological functions of key groundwater systems and protects vulnerable groundwater sources from depletion and contamination.

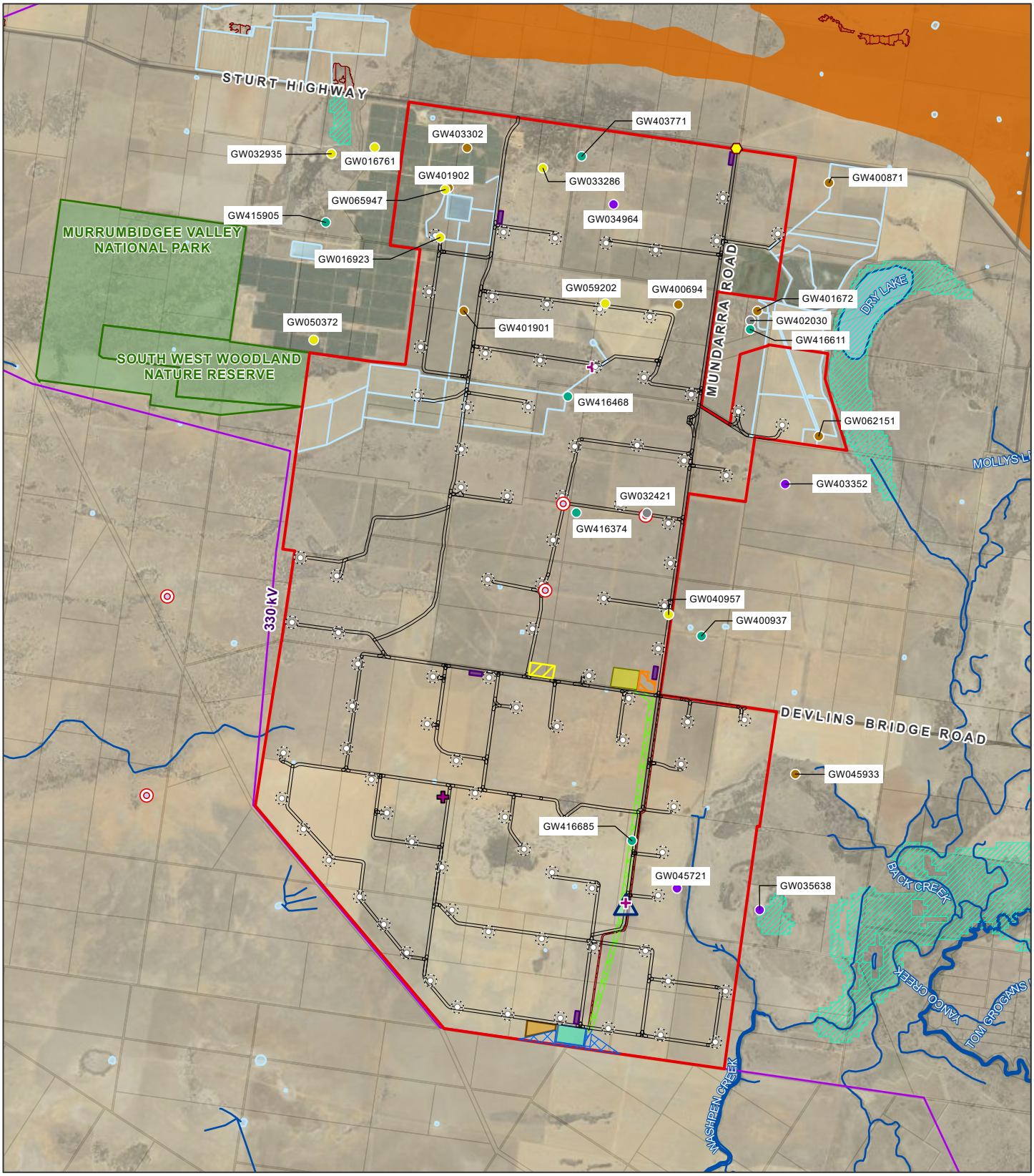
The relevant ground water management area and water sharing plan for the Project is the Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2020, which covers the groundwater management area of Murrumbidgee Alluvial: Lower Murrumbidgee Shallow and Murrumbidgee Alluvial: Lower Murrumbidgee Deep.

A search of the Australian Groundwater Explorer identified 16 registered boreholes within the Project area. Four of these are in close proximity to proposed infrastructure (GW416685, GW040957, GW032421 and GW059202), as shown in **Figure 6-9.**

A search of the Atlas of Groundwater Dependent Ecosystems (GDEs) (Bureau of Meteorology, 2023b) identified very small portions of the Project area as terrestrial GDEs. The terrestrial GDEs are associated with the *River Red Gum – Black Box woodland wetland of the semi-arid (warm) climatic zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)*. There are no aquatic GDEs mapped within the Project area. The nearest aquatic GDE is located at Dry Lake, which is a wetland approximately 1.5 km east of the Project area.

6.9.1.3 Flooding

A review of the ePlanning Spatial Viewer (DPE, 2023j) indicates that the Project area is not located within a Flood Planning Area. The extent of the Leeton LEP Flood Planning Area associated with the Murrumbidgee River floodplain is located 900 m north of the Project area, at its nearest point.



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement
- Tank point

Groundwater bores location and purpose

- Irrigation
- Monitoring
- Stock and Domestic
- Unknown
- Water Supply

- Hydroline
- Irrigation channel
- Terrestrial groundwater dependent ecosystems
- EPI Wetlands
- Waterbody
- Farm dam
- Flood prone land

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Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-9: Water resources near the Project area

6.9.2 Potential impacts

The potential impacts from the Project can be categorised as changes to surface water quantity, surface water quality, groundwater, and flood passage. These potential impacts will be most prevalent during construction with a reduced potential for impact during operations.

6.9.2.1 Surface water

Potential surface water quality impacts during construction of the Project include:

- Soil erosion – construction would result in the exposure of the natural ground surface and subsurface through the removal of vegetation, and minor earthworks within the Project area that may increase the potential for soil erosion to occur
- Pollution of stormwater runoff – construction of the Project has the potential to impact surface water quality through the pollution of stormwater runoff with sediments, existing contaminants, if present, fuel and other hazardous materials from the Project area.

The potential impacts on water quality are expected to be limited, given the nature and scale of the construction work. Appropriate standard environmental management measures will be implemented and would be expected to sufficiently manage any impacts. For example, water and soil controls will be employed to minimise soil erosion and discharge of sediment and other pollutants during construction.

The key receivers for these impacts are surface water streams, licenced users, aquatic fauna, riparian vegetation, downstream users and the community.

6.9.2.2 Water usage

Water would be required for construction purposes (e.g. dust suppression measures) and would be able to be sourced sufficiently by external water suppliers, or ground water bores under contract to the Project. It is anticipated that the Project would not require additional water from the nearby waterways.

There would be negligible water use post construction of the Project.

6.9.2.3 Groundwater

There is potential for degradation of groundwater quality through infiltration processes or construction intersecting aquifers. For groundwater quantity and water availability, potential impacts include altered water availability due to construction water requirements, alteration of overland flow paths and reduction in environment health from groundwater drawdown. The key receivers for these impacts are groundwater aquifers, licenced users and the community.

6.9.2.4 Flooding

In general, impacts to flooding may occur as a result of obstruction of flood flows by structures and filled areas or by loss of floodplain storage due to filling of the floodplain. Impacts may include increases in flood levels, depths, flow velocities and flood hazard.

Given the proposed wind turbine spacing it is not expected that there would be observable flooding impacts due to the wind turbine array as a whole. Where wind turbines are situated in close proximity to the watercourses, these may result in localised impacts to flooding and flood flows. There may also be localised scour around the wind turbines due to interaction with flood flows. It is assumed the wind turbine foundations would be constructed to, or slightly above, existing ground level.

Filling may be required for substations, access tracks and other ancillary facilities to achieve a required degree of flood immunity. Details of these are to be confirmed. The spatial extent and location of these filled areas dictate the magnitude and extent of flood impacts.

The nature and scale of Project components are not anticipated to affect the hydrology of the local or regional catchments. There would be minimal paved areas and some hardstand areas, but these are not expected to have an impact on broader catchment infiltration and runoff processes.

6.9.3 Proposed assessment approach

A water resources impact assessment will be prepared for the EIS to identify and assess potential surface water and groundwater risks associated with the Project. The assessment will include:

- Flooding and hydrology assessment:
  - Analysis of existing flood behaviour through a review of existing available data and development of flood modelling.
  - Analysis of post development flood behaviour and proposing measures to minimise potential flood impacts.
- Surface water and groundwater assessment:
  - Collation and review of documentation and information on the Project area relevant to surface water and groundwater source.
  - Determination of existing water quality of applicable waterways using available water quality data.
  - Identification of sensitive receiving environments within the Project area (waterways and groundwater systems adjacent to the Project and downstream).
  - Based on available data and Project activities, a qualitative assessment of potential impacts to surface water quality and groundwater during the construction and operational phases of the Project will be undertaken.
  - A high level assessment of water demands will be undertaken for construction and operational phases. A site water balance will be undertaken to determine whether an adequate and secure water supply is available for the Project.
  - Identification of reasonable and feasible mitigation and management measures.

6.10 Land resources

6.10.1 Existing environment

6.10.1.1 Land zone and land use

The Project area is zoned RU1 – Primary Production under the Narrandera LEP. Land use within and near the Project area are shown in **Figure 6-10,** with the primary land use being for agricultural purposes such as poultry farming, cropping (non-irrigated), grazing and horticulture.

The Project area is located on private properties owned by 12 host landowners. The land ownership for the properties within the Project area are shown in **Figure 6-11**. The Applicant has secured eight Agreements for Lease and is in advanced negotiations on the remaining balance of covering access for development, construction, operation and maintenance of the Project.

There are no mining or exploration titles within the Project area, and there are no areas with subsidence risk within or near the Project area.

There are no travelling stock routes within the Project area. However, there are Crown land parcels in the form of unmade roads, along some of the existing farm access tracks, including across the centre and along the eastern boundary of the Project area (refer to **Figure 6-12**). Some sections of Crown land also hold a Crown Enclosure Permit[1]. One small section of an access track near the Murrumbidgee Valley National Park is also mapped as Crown Licence land. A Crown Land licence is an authority granted by NSW DPI under the *Crown Land Management Act 2016*, which by law, gives permission to occupy and use Crown land for a specified purpose/s. There are no areas mapped as Crown Reserves or Crown Leases within the Project area, and the nearest Crown Reserve is part of the Murrumbidgee Valley National Park which is adjacent to the Project area western boundary. Unrelated to the Project, multiple applications for Crown land closure within the Project area are understood to be under assessment, some lodged as early as 2008.

6.10.1.2 Geology and soils

Based on the Narrandera 1:250,000 Geological Map, the underlying geological formation of the Project area is Qrs Quaternary flood plains of black and red clayey silt, sand and gravel. Based on MinView NSW surface geology data, the Project area contains predominantly alluvial floodplain deposits with more clayey fine grained sand and silt to the east, associated with the riparian zones along Yanco Creek. Near the northern portion of the Project area there are also aeolian sand plains present.

A search of SEED Australian Soil Classification Soil Type map of NSW indicates that the Project area consists of predominantly Chromosols and Vertosols, with Rudosols also present along the northern portion of the Project area.

6.10.1.3 Land and soil capability

Land and Soil Capability (LSC) refers to the physical capacity of land to sustain a range of land uses and management practices, including agriculture. The Project area is predominantly mapped as LSC Class-4 (moderate to severe limitations), as well as smaller areas of Class-3 (moderate limitations), Class-6 (very severe limitations) along the northern boundary of the Project area, and Class-5 (severe limitations) on the eastern boundary (refer to **Figure 6-12**). Class-4 land generally has moderate capability, with moderate to severe limitations for land uses such as cropping, high-intensity grazing and horticulture (DPIE, 2023).

A review of Biophysical Strategic Agricultural Land (BSAL) mapping indicated that there are no areas of Biophysical Strategic Agricultural Land mapped within or near the Project area.

A review of the Australian Soil Resource Information System Acid Sulfate Soils risk mapping identified the Project area as having low probability of acid sulfate soils occurrence. A search of eSPADE indicates that the land salinity and overall salinity hazard across the Project area is generally very low.

[1] An enclosure permit is an authorisation issued by the NSW DPHI to an owner of an adjoining property and allows the Crown road to be used for the grazing of stock or fenced into the owner's private land.

6.10.1.4 Contamination

A search of the NSW Environmental Protection Authority (EPA) Contaminated Land Record of Notices, List of NSW Contaminated sites notified to the EPA, and EPA POEO Act public register in April 2024 did not identify any registered contaminated sites within the Narrandera LGA or Euroley suburb. Contamination risks across the Project is considered low.

6.10.2 Potential impacts

Land use conflicts occur when one land user is perceived to infringe upon the rights, values or amenity of another (DPI, 2011). The process of identifying potential land use conflict is generally to identify potential risks by considering land use changes that may affect existing land uses in the area. As the Project area is located on host landowners' properties, land use and property impacts are considered low. Wind farm infrastructure is compatible with the existing land use and the construction of access tracks can improve farm access.

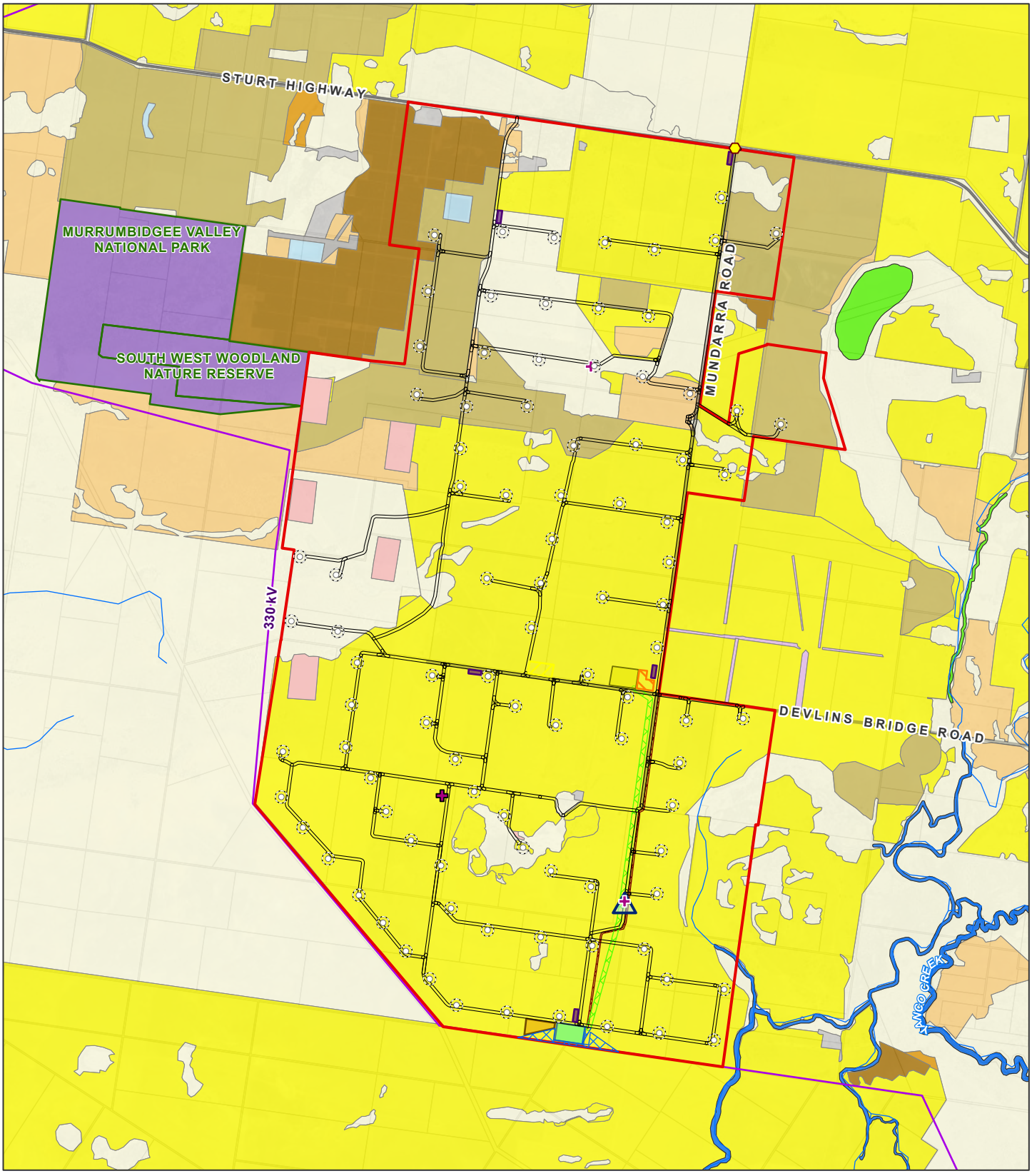
Upon cessation of any lease arrangement, easement, or other agreement, infrastructure would be decommissioned, and land would be returned to its pre-existing condition in consultation with the landowners and use would be returned to the landowner.

6.10.3 Proposed assessment approach

A review of land use impacts and potential conflicts will be prepared as part of the EIS and will document database and desktop searches. The review will include:

- Land titles information, site plans and information gained from discussions with relevant landowners, the community, local Councils and regulatory authorities.
- Site history including zoning, previous and present land use, building approvals and chronological list of site uses.
- Assessment of potential Project impacts on soil quality and confirm the LSC of the Project area, as well as potential impacts on agricultural resources, enterprises and industries.
- Preparation of a Land Use Conflict Risk Assessment, including identification of reasonable and feasible mitigation and management measures.

Consultation with Crown Lands regarding any infrastructure on Crown land parcels within the Project will be undertaken if required. Consultation with host landowners and neighbouring landowners will continue as described in **Chapter 5**.



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- Watercourse
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement

Land use 2017

- 1.1.0 Nature conservation
- 1.2.0 Managed resource protection
- 2.1.0 Grazing native vegetation
- 3.2.0 Grazing modified pastures
- 3.3.0 Cropping
- 4.2.0 Grazing irrigated modified pastures
- 4.3.0 Irrigated cropping
- 4.4.0 Irrigated perennial horticulture
- 5.2.0 Intensive animal production
- 5.4.0 Residential and farm infrastructure
- 5.7.0 Transport and communication
- 6.2.0 Reservoir/dam
- 6.3.0 River
- 6.5.0 Marsh/wetland

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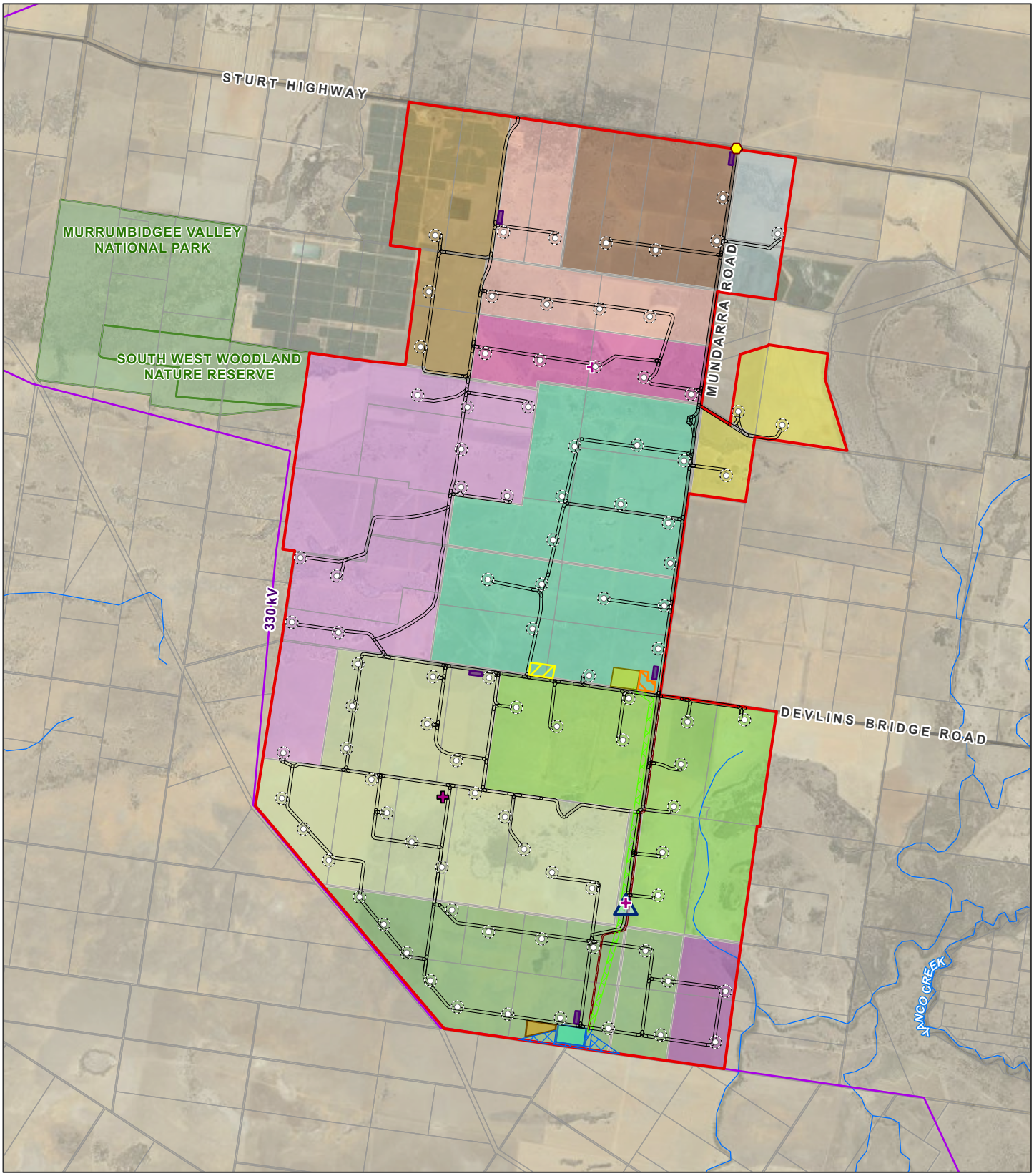
Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-10: Land use near the Project area



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- Watercourse
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement

Land ownership

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J
- K
- L
- M

N

A4 1:75,000

GDA 1994 MGA Zone 55

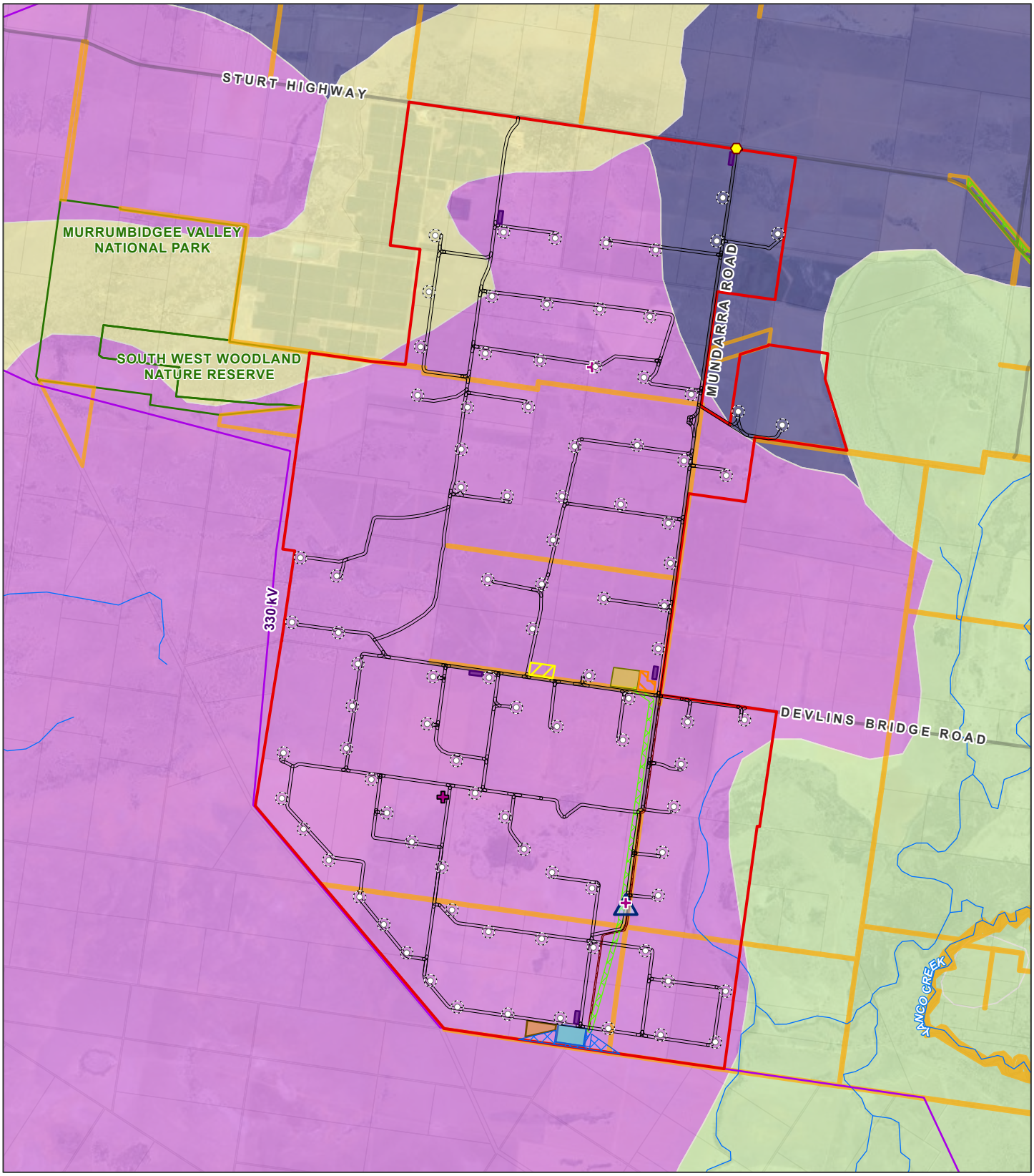
0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-11: Land ownership



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- Watercourse
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement
- Travelling stock reserve
- Crown land

Land and soil capability

- Moderate limitations
- Moderate to severe limitations
- Severe limitations
- Very severe limitations

N

A4 1:75,000

GDA 1994 MGA Zone 55

0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-12: Land resources near the Project area

6.11 Hazards and risks

The potential impacts and the proposed approach to assessing potential hazards and risks associated with the Project are provided in **Table 6-7**. This includes aviation, telecommunications, EMF and health, shadow flicker and bushfire risks.

Table 6-7. Consideration of hazards and risks

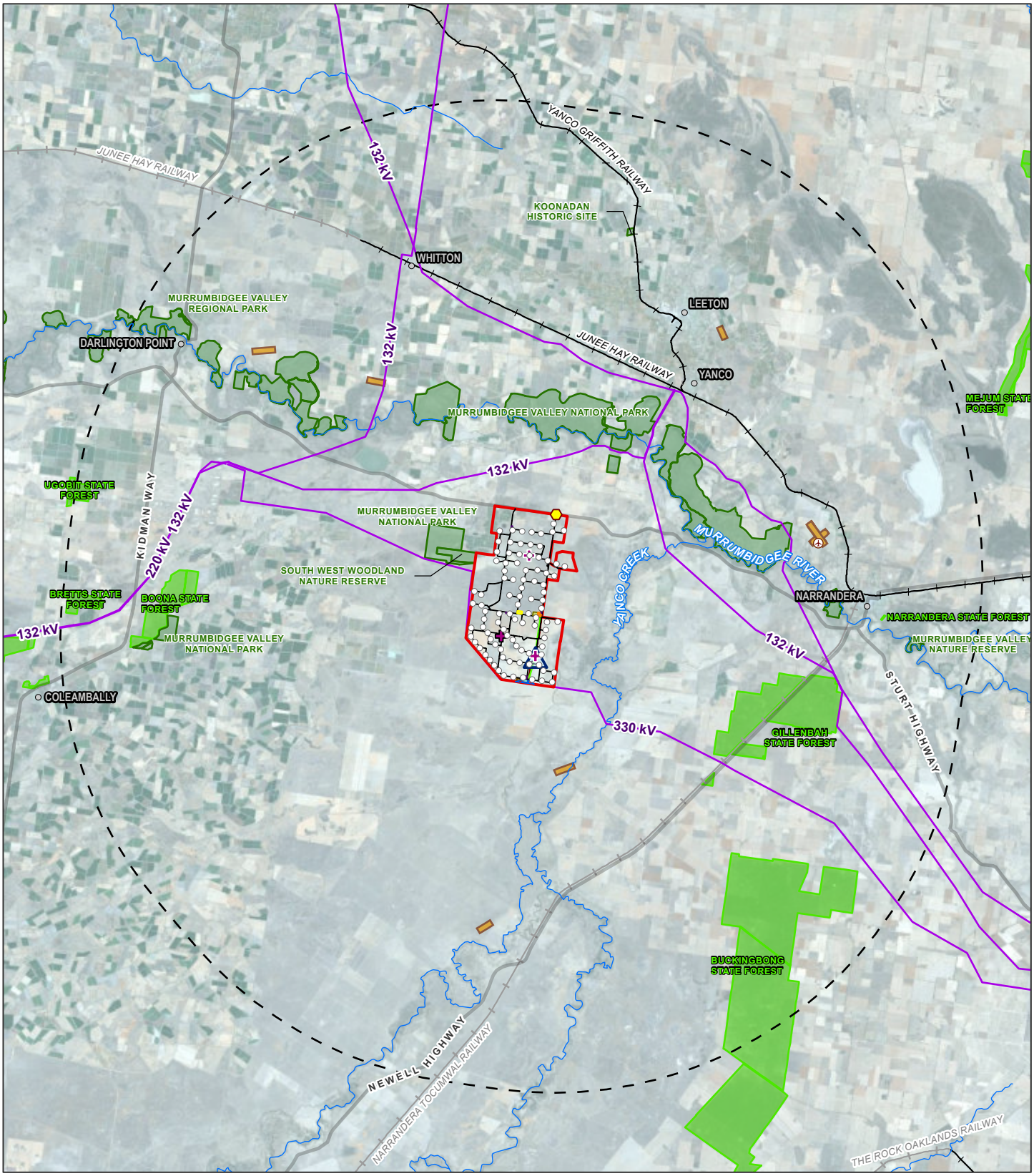
Issue	Existing environment	Potential impacts	Proposed assessment approach
Aviation	▪ There is one operational runway (likely rural landing ground) within 10 km of the Project area, adjacent to Yanco Creek about 6.4 km south-east (refer to **Figure 6-13**). ▪ The nearest airport to the Project area is Narrandera-Leeton Airport, located about 19 km east of the Project area. The airport is serviced by Rex Airlines and Qantas Link with daily return services to Sydney. ▪ There is a national park directly adjacent to the Project area and within 2.3 km of the nearest proposed turbine (refer to **Figure 6-13**). ▪ National Parks and Wildlife Services and RFS may use planes and/or helicopters to undertake pest and weed control and firefighting activities.	Potential risks posed to aircraft from the proposed wind farm that require consideration include: ▪ Physical obstruction – this is most notable for aircraft that are nearest to the ground such as those during take-off. ▪ Interference with safe flight – the presence of excessively tall structures may present a hazard. ▪ Reduction of areas available for pilots to use in the event of forced landing, such as engine failure after take-off. ▪ Impact on use of emergency helicopter access. ▪ Additional wind turbulence – the effect of wind turbine-induced turbulence may affect aircraft that are smaller or lighter. ▪ Electrical transmissions interfering with technical equipment – the electromagnetic field generated by the transmission line and wind farm may cause interference with technical equipment. ▪ Impact on nearby farmers that use aerial spraying to manage their agricultural businesses.	The Project will consider the potential for the interaction of the proposed wind turbines with air services. Wind turbine height and placement will consider potential safety hazards for aircraft through intrusion of the airspace and the potential effects on the associated navigation instruments. An Aeronautical Impact Assessment (AIA) will be prepared for the EIS to: ▪ Assess the likely impact of the Project wind turbines on safety and regularity of flight operations, including aerial agricultural applications, aerial firefighting, aerial emergency services, and any relevant Royal Australian Airforce activities. ▪ Identify existing aviation activity in the locality of the Project area, identify potential impacts to aviation safety based on the final proposed layout and recommend mitigation measures to address those impacts. ▪ Assess the potential aviation risks and impacts with consideration of requirements in the Civil Aviation Regulation 1988, CASR, and National Airports Safeguarding Framework Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation (DITRDC, 2012) and any other relevant guides and standards. Consultation will continue with landowners and neighbours, as well as agency stakeholders such as NSW Rural Fire Service, Airservices Australia and Commonwealth Department of Defence, to understand their aerial operations

Issue	Existing environment	Potential impacts	Proposed assessment approach
			(e.g. aerial spraying and aviation services) in the vicinity of the Project area.
Telecommunications	A search of the Australian Communication and Media Authority (ACMA) database carried out in May 2024 identified 57 site markers with at least 1 assignment within 20 km of the Project area. There are two private licenced sites within the Project area, with additional sites also mapped in **Figure 6-14:** ▪ Mobile Spectrum Licensing Site Sturt Highway (ID 9913480) ▪ Belvedere Farm Sturt Highway Narrandera (ID 306364). The Project area is located 5.7 km from the Defence Communication Facility Buffer zone in Narrandera, which is listed under the Narrandera LEP and aims to preserve the optimum operational capability of the defence receiver station established by the Commonwealth Department of Defence (refer to **Figure 6-14**).	Electromagnetic signals (or radio waves) are transmitted throughout the country as part of telecommunication systems by a wide range of operators. Telecommunication services include television, radio broadcast, radio communications, mobile phone services and aircraft navigation services. Large structures such as wind turbines that are located within or close to the telecommunication signal path may interfere with services and users. Electromagnetic emissions from generators and other machinery also have the potential to affect signals; however, with modern wind turbines and strict international regulations for manufacturers, there are now minimal electromagnetic emissions from wind turbines (Clean Energy Council, 2018).	A qualitative telecommunications and electromagnetic interference assessment will be prepared as a chapter in the EIS to assess potential electromagnetic interference impacts to existing services. The assessment will include: ▪ Querying the ACMA Register of Radiocommunications Licences database and relevant literature to identify existing telecommunications systems within the region. ▪ Analysing each communication link or transmitter to determine potential impacts and interference effects that may be caused by the Project. ▪ Developing mitigation measures for any identified Project interference effects. ▪ Where required, recommending suitable options to avoid potential disruptions to telecommunication services, which may include the installation and maintenance of alternative sites. Organisations with relevant telecommunication sites or links near the Project will be contacted if further information on existing telecommunication services and systems are required.
Electromagnetic fields (EMF) and human health	EMFs are invisible, physical fields that surround electrical charges and exert forces on all charged particles and objects in the field. The electric charge supplied to or generated by electrical and electronic equipment produces EMFs at a 50 hertz	Power frequency EMFs induce internal electric fields and currents in a human body, which at high field strengths (well above 100 microtesla (μT)) can cause nerve and muscle stimulation and changes in nerve cell excitability in the central nervous system. The effects of EMF on	A qualitative EMF and human health assessment will be included as a chapter in the EIS. This will include recommending measure to avoid, minimise and mitigate any potential impacts. This could include:

Issue	Existing environment	Potential impacts	Proposed assessment approach
	(Hz) power frequency and harmonics thereof. Transmission lines, substations, electrical wiring, household appliances and electrical equipment all produce power frequency EMFs. The electrical components found within the wind turbines also produce power frequency EMFs.	the human body depend on the intensity of the fields during which exposure occurs. Power frequency EMFs can also interfere with active implantable medical devices such as pacemakers and other electromagnetically sensitive equipment (termed 'sensitive receivers'). The International Commission on Non-Ionizing Radiation Protection (ICNIRP) provides guidelines that define safe exposure limits with regards to power frequency EMFs. The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is the regulatory agency under the national Commonwealth government of Australia that is tasked with protecting Australian citizens from both ionizing and non-ionizing radiation. ARPANSA has endorsed the Guidelines for Limiting Exposure to Time-varying Electric, Magnetic and Electromagnetic Fields (ICNIRP, 2010) as international best practice.	▪ Applying an adequate distance between the source and sensitive receivers. ▪ Burying cables and placing cables together to cancel the emitted fields. ▪ Implementation of appropriate fencing and placement of the substation within the landscape.
Shadow flicker	There are 17 dwellings between 850 m to 1.5 km of a proposed wind turbine. There are no proposed wind turbines within 850 m of a dwelling. Each of these dwellings is associated with the Project.	Shadow flicker is a moving shadow cast by the blades of a wind turbine from the sun which can cause a nuisance to surrounding landowners in within 1.5 km of a wind turbine and in rare cases can cause health impacts such as photosensitive epilepsy or motion sickness.	A quantitative assessment of shadow flicker impacts on nearby dwellings will be prepared and included as a chapter in the EIS. The assessment will include: ▪ Undertaking a 'modelled' shadow flicker assessment, considering a worst-case scenario of no cloud cover and wind turbine rotors always facing the sun, to assess the wind farm's shadow flicker impact on nearby dwellings ▪ Should shadow flicker limits be exceeded at any relevant dwellings (those where the relevant landowner has not entered into an agreement to waive any such maximum

Issue	Existing environment	Potential impacts	Proposed assessment approach
			shadow flicker requirement), a 'measured' shadow flicker assessment will be undertaken for those specific dwellings, considering measured wind and cloud cover data ▪ Recommending potential mitigation measures in the event that 'measured' shadow flicker limits are exceeded at any nearby dwellings.
Blade throw	A minimum buffer radius of 850 m has been applied to all wind turbine and dwelling locations. Blade throw is generally considered to be low risk during the operation of the Project, which would use technology that has been proven to be safe and reliable.	Blade throw refers to an incident in which a structural failure occurring in the blade of a wind turbine during operation results in parts of the blade detaching and being thrown into the surrounding area. Such incidents may involve the entire blade, or a portion being detached. It is also possible for a structural failure to occur without causing parts of the blade to detach, or for the blade portion to fall close to the base of the turbine while the rotor is not in motion. Occurrence of blade throw is rare and modern wind turbines are designed in accordance with international standards (IEC 61400) which significantly reduces the risk of blade throw incidents.	A blade throw risk assessment will be prepared as part of the EIS and will include: ▪ Assessment of the likelihood of occurrence for a blade throw event. ▪ Assessment of the theoretical distance for a blade throw event. ▪ Review of distances between wind turbines and nearby dwellings ▪ Review of historical blade throw occurrences in Australian and/or international wind farms. ▪ Identification of reasonable and feasible mitigation and management measures.
Bushfire risk	A search of the ePlanning Spatial Viewer and NSW Rural Fire Service (RFS) mapping tool identified that the Project area is not located within bushfire prone land. However, there is land adjacent to the Project area along the northern boundary mapped as Category 2 Vegetation, which presents low bushfire risk	The Project has the potential to be exposed to bushfire risk from grasslands and nearby areas of dense vegetation. It also carries the risk of a potential fire starting within the Project area. Bushfire protection measures such as asset protection zones, fire breaks and access tracks will be recommended to control these risks and may contribute to bushfire resilience in the broader landscape.	A bushfire risk assessment will be prepared for the EIS to investigate bushfire hazard, risks and the potential impacts of the Project related to such risks. The assessment will include: ▪ A review of relevant legislation, regulations, standards and guidance to identify applicable requirements for the bushfire assessment and appropriate bushfire risk protection measures. ▪ A desktop analysis of bushfire risk factors including fire weather conditions,

Issue	Existing environment	Potential impacts	Proposed assessment approach
			topography, vegetation, access, fire history, ignition sources and failure modes that might lead to fire ignitions during the Project's construction and operation. ▪ Bushfire protection measures will be developed for construction and operational phases of the Project. These will be based on published guidance and consultation with the RFS and other relevant authorities. Emergency management arrangements will be developed for construction of the Project and its subsequent operation. These will be discussed with RFS and other relevant authorities. Emergency management arrangements will address applicable safety management requirements for ground and aerial firefighting.



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Township
- Transmission line
- Road
- Watercourse

Major railways operational status

- Operational
- Disused or dismantled
- National park
- State forest
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement
- Airport
- Runway
- 30km buffer

N

A4 1:400,000

GDA 1994 MGA Zone 55

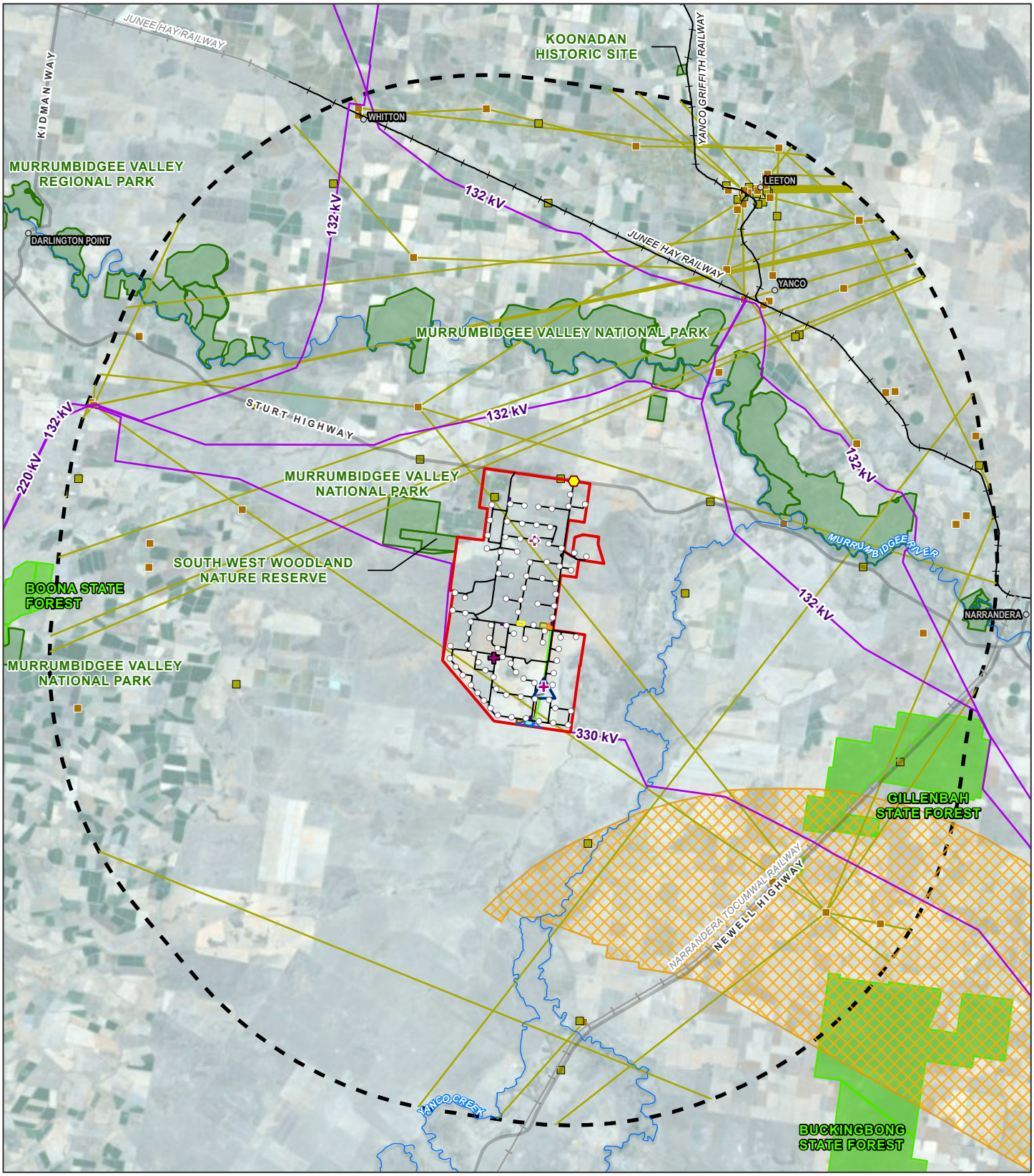
0 5 10

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-13: Airports and landing strips near the Project area



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Township
- Transmission line
- Road
- Watercourse

Major railways operational status

- Operational
- Disused or dismantled
- National park
- State forest
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement

ACMA site marker

- Having at least one assignment
- Having no assignment
- Linked assignments (point to point links)
- Defence communication facility buffer map
- 20km buffer

N

A4 1:275,000

GDA 1994 MGA Zone 55

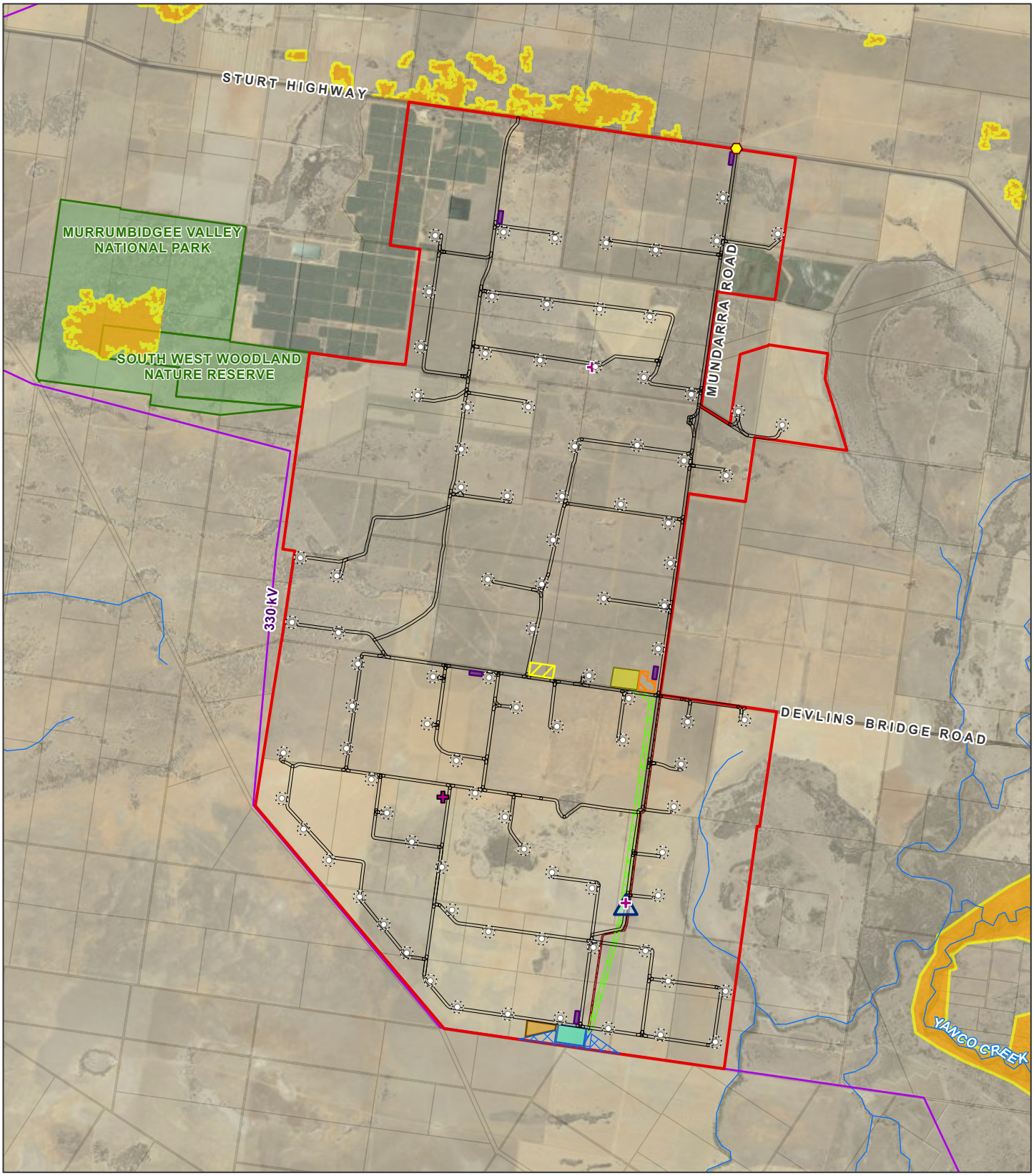
0 5 10

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-14: ACMA sites and Defence communication buffer near the Project area



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- Watercourse
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement

Bushfire prone land
- Vegetation Category 2
- Vegetation Buffer

N

A4 1:75,000

GDA 1994 MGA Zone 55

0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-15: Bushfire prone land

6.12 Waste

The key resources required for the Project other than the wind turbine would include:

- Sand for cable trenches.
- Aggregate and concrete for foundations and general building construction.
- Road base for pavements.
- Steel for turbine foundation reinforcement.
- Water for dust suppression, construction and as potable water for workers.

6.12.1 Potential impacts

The majority of waste generation by the Project would occur during construction and decommissioning phases. Priority would be given to reusing materials on site or recycling if reusing is not possible.

The anticipated waste streams would include:

- Surplus soil and excavated material.
- Green waste from vegetation removal.
- Construction debris and waste, including steel and concrete.
- Electrical components.
- Sewage and other construction worker wastes.
- Packing materials associated with Project component deliveries such as pallets, packing timber, crates, cartons, plastics and wrapping materials.
- Potential spills and waste produced from construction equipment and machinery, including liquid wastes from cleaning and maintenance.

Wind turbines generally have a lifespan of approximately 35 years. After this time, they may be refurbished or decommissioned. Decommissioning or refurbishment may occur earlier if necessary. According to NSW Government policy, wind farm operators or owners are responsible for this process, not the host landowners.

If decommissioned, all above-ground structures will be removed and the site would be restored to its previous use as much as possible, in consultation with the landowners. Disposal and recycling would follow current waste management laws and practices at the time of decommissioning.

Alternatively, the Project may be upgraded with new equipment and if this proceeds, relevant stakeholders will be consulted, and all required environmental approvals would be obtained in line with current legislation. Any infrastructure that would be replaced as part of the upgrade will be disposed of or recycled in line with waste management laws and practices that are current at the time.

6.12.2 Proposed assessment approach

The suitability of the local landfills and resource recovery centres will be investigated further as part of the EIS to confirm their capacity and their ability to handle waste during construction and decommissioning. The nearest waste facility to the Project is the Leeton Landfill and Recycling Centre, about 30 km driving distance north-east of Project area.

The EIS will identify, quantify and classify the likely waste streams to be generated during construction, operation and decommission phases of the Project. All waste produced by the Project will be classified, handled and managed in accordance with the Waste Classification Guidelines – Part 1 Classifying Waste (NSW EPA, 2014) and Resource Recovery Orders and Exemptions issued by EPA.

6.13 Air quality

6.13.1 Existing environment

The Project area is in a semi-rural area with some industrial agricultural uses. The overall regional air quality is expected to be of a reasonably high quality and would be typically influenced by road traffic emissions and existing unsealed roads generating dust in dry conditions.

6.13.2 Potential impacts

Air quality issues can arise when emissions from an industry or activity lead to a deterioration in the ambient air quality. During construction, the air quality risk would be from:

- Dust – resulting in impacts at surrounding sensitive receivers that may be generated from
  - materials excavation, handling, transport and placement,
  - from wind erosion of stored materials and exposed surfaces,
  - from rock crushing and concrete batching.
- Exhaust emissions – from the combustion of fossil fuels in construction plant and equipment represent another air quality risk during construction
  - The primary pollutants associated with plant exhaust emissions include carbon monoxide (CO), oxides of nitrogen (NO_x) including nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), volatile organic compounds (VOCs) and sulfur dioxide (SO_2) (depending on fuel sulfur content).
- Odours and airborne hazards – may also arise should there be any potentially contaminated materials encountered during construction.

Significant air quality impacts are unlikely to eventuate or be of concern to stakeholders, provided appropriate measures are applied during construction.

It is unlikely that the Project would generate cumulative air quality impacts with the existing industrial agricultural uses within the Project area, or the Yarrabee Solar Farm proposed south of the Project area.

It is expected that there would be negligible air quality impacts during operational phase of the Project.

6.13.3 Proposed assessment approach

An assessment of potential impacts to air quality will be prepared as part of the EIS which will include identification of reasonable and feasible mitigation and management measures. Air quality and dust management will be assessed in accordance with relevant guidelines and policies including:

- NSW EPA Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2022)
- National Environment Protection (Ambient Air Quality) Measure (NEPC, 2016).

6.14 Cumulative impacts

Cumulative impacts are a result of incremental, sustained and combined effects of human action and natural variations over time and can be both positive and negative. They can be compounded when the potential impacts of a project are combined with past, current, planned, or reasonably anticipated future impacts (DPE, 2022a). Cumulative effects can result in a greater extent, magnitude or duration of impacts and may also arise where multiple or consecutive construction for development impact the same receivers.

The Project would be assessed in accordance with the Cumulative Impact Assessment Guidelines for State Significant Projects (CIA Guidelines) (DPE, 2022a) and the EIS would consider relevant future projects that have the potential to have cumulative effects with the Project's construction, operation or decommissioning. Relevant future projects include:

- Changes to existing projects.
- Approved projects but have not commenced construction or operation.
- Projects under assessment.
- Related development to the Project.

The Project is not located in a renewable energy zone, however, proposed and approved renewable energy and other infrastructure SSD or State Significant Infrastructure projects within a 50 km buffer distance have been described in **Table 6-8** and are shown in **Figure 6-16**. It is expected that no relevant future projects would have concurrent construction periods with the Project and therefore potential cumulative impacts are considered to be limited for the operational phase to be Yarrabee Solar Farm only. Cumulative impacts will be assessed in detail in the EIS in accordance with the CIA Guidelines.

Table 6-8. Relevant future projects for cumulative impact assessment

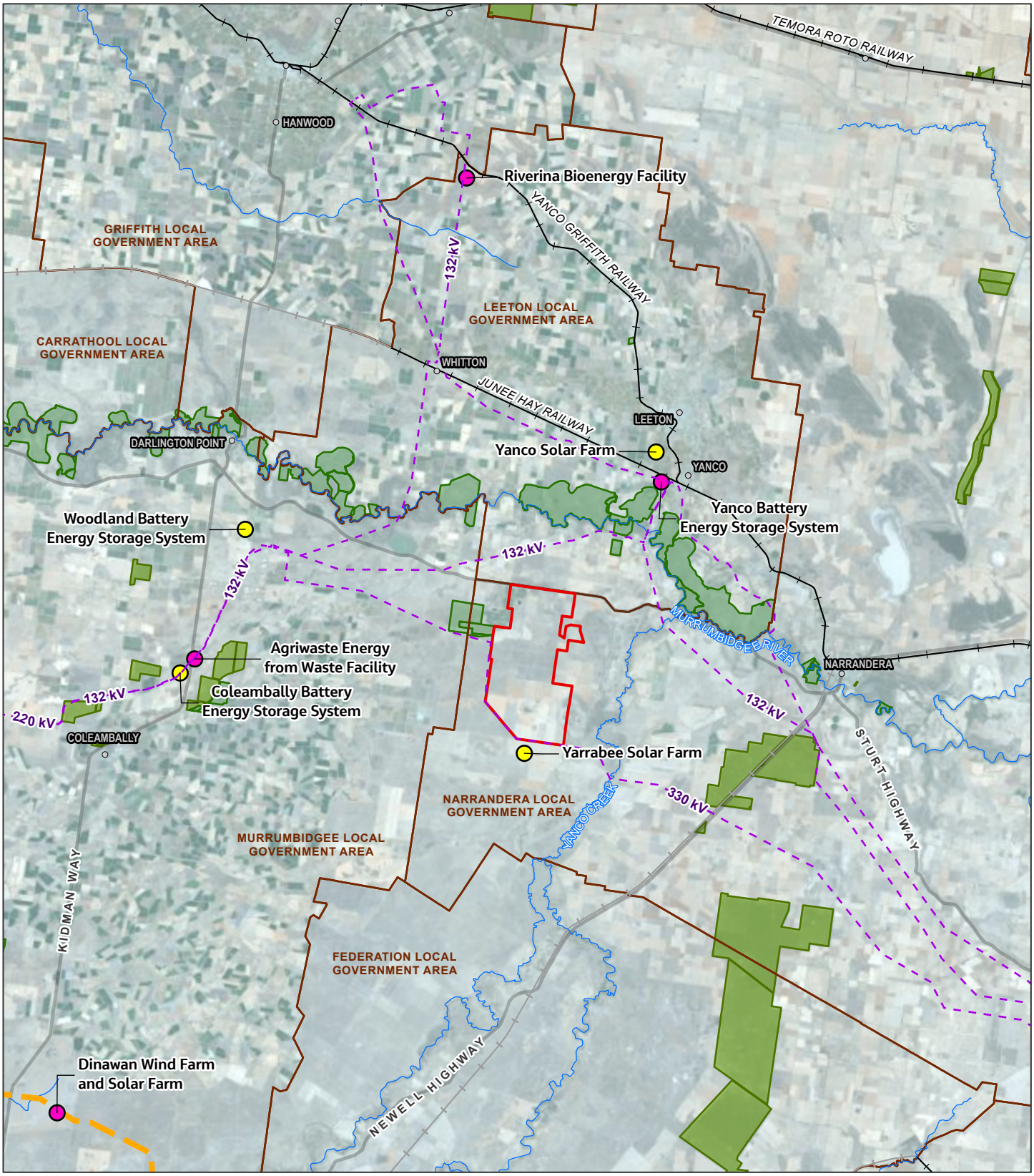
Project	Status	Distance to Project	Potential construction start date	Potential for cumulative impacts
Yarrabee Solar Farm	Approved 2018	Adjacent to Project area southern boundary	2025, awaiting final investment decision.	▪ Biodiversity and heritage impacts ▪ Operational visual and noise impacts ▪ Operational socio-economic impacts
Yanco BESS	EIS preparation	12 km north east	2025	Minimal potential biodiversity, traffic and socio-economic impacts
Yanco Solar Farm	Approved 2020	12 km north east	2025	Minimal potential biodiversity, traffic and socio-economic impacts
Woodland BESS	Approved 2024	20 km north west	2025	Minimal potential biodiversity, traffic and socio-economic impacts
Agriwaste Energy from Waste Facility	EIS preparation	24 km north west	Dependent on funding	Potential Minimal potential biodiversity, traffic and socio-economic impacts depending on construction timeframe
Coleambally BESS	Approved 2023	25 km west	2024	Minimal potential biodiversity, traffic and socio-economic impacts
Riverina Bioenergy Facility	EIS preparation	34 km north	2027	Minimal potential traffic and socio-economic impacts

Project	Status	Distance to Project	Potential construction start date	Potential for cumulative impacts
EnergyConnect NSW Eastern Section	Approved 2022	50 km south west	2024	Minimal potential traffic and socio-economic impacts
Dinawan Wind Farm and Solar Farm	EIS preparation	50 km south west	2026	Minimal potential traffic and socio-economic impacts

6.15 Summary of key constraints

The key constraints of the Project that are known at this stage are shown on **Figure 6-17**. The constraints are based on the following:

- Landowner exclusion zones – dwelling set backs, farm infrastructure.
- Buffers and set backs to non-associated dwellings.
- Strategies to avoid or minimise impacts as discussed in **Section 1.3.**
- Environmental matters as discussed in the sections above.



LEGEND

- Project area
- Nearby projects
  - Indicative Energy Connect
- Planning status
  - Approved
  - In planning
- Local government area
- National park
- State forest
- Township
- Watercourse
- Road
- Existing Transmission Line
- Major railways operational status
  - Operational
  - Disused or dismantled

N

A4 1:450,000

GDA 1994 MGA Zone 55

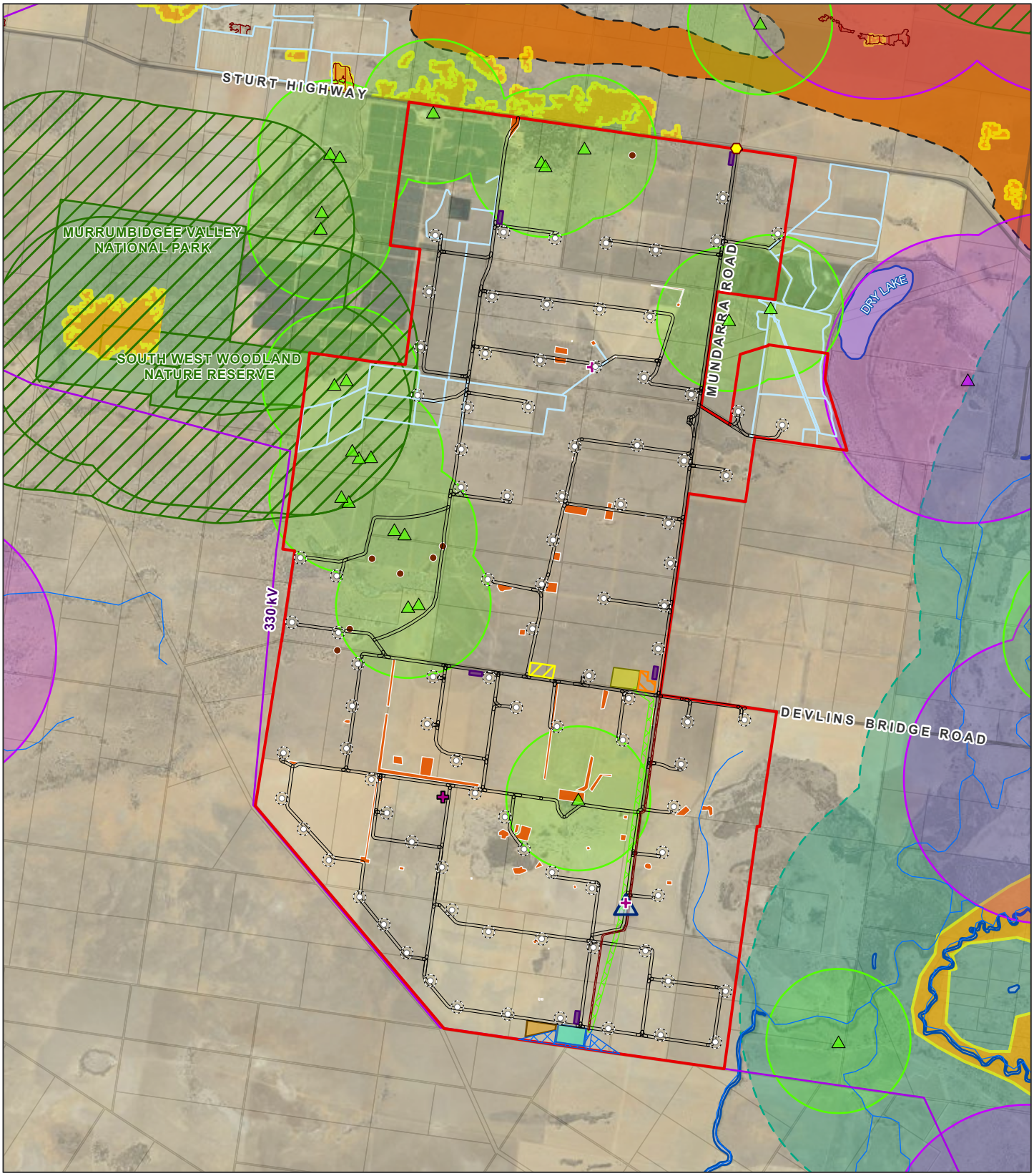
0 5 10

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); DPHI (2024)
Imagery Source: Vicmap, Esri, TomTom, Garmin, FAO, NOAA, USGS

Figure 6-16: Nearby Renewable Energy Projects



LEGEND

- Project area
- Site access
- Wind turbine location
- Existing mast
- Proposed mast
- Existing sodar
- Transmission line
- Road
- National park
- Cadastre
- Batching plant
- Construction compound
- Staging area
- Collector station
- Terminal station
- Terminal station compound
- Access easement
- Terminal station easement
- Terminal station access easement
- Overhead transmission easement
- Rotor easement
- Associated sensitive reciever
- Non-associated sensitive reciever
- Associated receiver constraint buffer (1km)
- Non-associated receiver constraint buffer (2km)
- Landowner exclusion area
- Aboriginal site constraint buffer (50m)
- National park constraint buffer (1.5km)
- Bushfire prone land
  - Vegetation Category 2
  - Vegetation Buffer
- Watercourse
- Irrigation channel
- Terrestrial groundwater dependent ecosystems
- Waterbody
- Flood prone land
- Yanco creek constraint buffer (2.5km)

N

A4 1:75,000

GDA 1994 MGA Zone 55

0 1 2

Kilometres

Jacobs

Data Sources: Geosciences Australia (2006); JACOBS (2024); Stromlo (2024); NSW DCCEEW (2024); TransGrid (2024); Imagery Source: NSW DCCEEW (2024)

Figure 6-17: Summary of key constraints

7. References

Biosis, 2024. Devlins Bridge Wind Farm Preliminary Biodiversity Assessment.

Clean Energy Council, 2018. Best Practice Guidelines for Implementation of Wind Energy Projects in Australia

DECCW, 2010a. Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010

DECCW, 2010b. Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW

Department of Premier and Cabinet, 2018. Western Riverina Regional Economic Development Strategy 2018-2022

Department of Regional NSW, 2023. Western Riverina Regional Economic Development Strategy 2023 Update

DPE, 2022a. Cumulative Impact Assessment Guidelines for State Significant Projects

DPE, 2022b. State Significant Development Guidelines – Preparing a Scoping Report

DPHI, 2024. Undertaking Engagement Guidelines for State Significant Projects

ICNIRP, 2010. Guidelines for Limiting Exposure to Time-varying Electric, Magnetic and Electromagnetic Fields

Marshall Day, 2024. Devlins Bridge Wind Farm Preliminary Noise Assessment.

Moir Landscape Architecture, 2024. Devlins Bridge Wind Farm Preliminary Visual Impact Assessment

NEPC, 2016. National Environment Protection (Ambient Air Quality) Measure

NSW EPA, 2014. Waste Classification Guidelines – Part 1 Classifying Waste

NSW EPA, 2022. NSW EPA Approved Methods for the Modelling and Assessment of Air Pollutants in NSW

NSW Government, 2016a. NSW Wind Energy Guideline for State Significant Wind Energy Development

NSW Government, 2016b. Wind Energy: Noise Assessment Bulletin For State Significant Wind Energy Development

NSW Government, 2016c. Wind Energy: Visual Assessment Bulletin For State Significant Wind Energy Development

NSW Government, 2020a. NSW Net Zero Plan Stage 1: 2020-2030

NSW Government, 2021. Electricity Infrastructure Roadmap

OEH, 2011. Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW

SLR Consulting, 2024. Social Impact Scoping Report Devlins Bridge Wind Farm.

Appendix A. Site information (Site Address and lot details)

Project address: Plains West, 12249 Sturt Highway Euroley 2700

	Lot Plan	DP
1	Lot37 DP750876	37/750876
2	Lot38 DP750876	38/750876
3	Lot44 DP750906	44/750906
4	Lot3 DP113312	3/113312
5	Lot52 DP750876	52/750876
6	Lot35 DP750876	35/750876
7	Lot34 DP750876	34/750876
8	Lot39 DP750876	39/750876
9	Lot36 DP750876	36/750876
10	Lot22 DP750906	22/750906
11	Lot40 DP750906	40/750906
12	Lot63 DP750898	63/750898
13	Lot76 DP750898	76/750898
14	Lot14 DP750898	14/750898
15	Lot10 DP750898	10/750898
16	Lot5 DP750898	5/750898
17	Lot13 DP750898	13/750898
18	Lot9 DP750898	9/750898
19	Lot15 DP750898	15/750898
20	Lot6 DP750898	6/750898
21	Lot11 DP1049654	11/1049654
22	Lot4 DP113312	4/113312

	Lot Plan	DP
23	Lot2 DP750898	2/750898
24	Lot2 DP531417	2/531417
25	Lot12 DP750898	12/750898
26	Lot11 DP750898	11/750898
27	Lot61 DP750906	61/750906
28	Lot63 DP750906	63/750906
29	Lot62 DP750906	62/750906
30	Lot29 DP750898	29/750898
31	Lot18 DP750898	18/750898
32	Lot21 DP750898	21/750898
33	Lot30 DP750898	30/750898
34	Lot17 DP750898	17/750898
35	Lot20 DP750898	20/750898
36	Lot28 DP750898	28/750898
37	Lot19 DP750898	19/750898
38	Lot23 DP750898	23/750898
39	Lot27 DP750898	27/750898
40	Lot25 DP750898	25/750898
41	Lot75 DP750898	75/750898
42	Lot16 DP750898	16/750898
43	Lot22 DP750898	22/750898
44	Lot24 DP750898	24/750898
45	Lot26 DP750898	26/750898
46	Lot7 DP750898	7/750898
47	Lot56 DP750898	56/750898

	Lot Plan	DP
48	Lot3 DP750898	3/750898
49	Lot55 DP750898	55/750898
50	Lot4 DP1221813	4/1221813
51	Lot3 DP1221813	3/1221813
52	Lot1 DP750898	1/750898
53	Lot4 DP750898	4/750898
54	Lot1 DP1224128	1/1224128
55	Lot40 DP750876	40/750876
56	Lot53 DP750898	53/750898
57	Lot41 DP750876	41/750876
58	Lot1 DP1135153	1/1135153
59	Lot52 DP750898	52/750898
60	Lot1 DP1221813	1/1221813
61	Lot2 DP1221813	2/1221813

Appendix B. Scoping summary table

Table B-1. Scoping summary table

Matter and assessment level	Cumulative	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Landscape and visual amenity - detailed	Y	Specific	▪ Wind Energy: Visual Assessment Bulletin for State Significant Wind Energy Development (NSW Government, 2016c)	**Section 6.2**
Noise and vibration - detailed	Y	General	▪ Wind Energy: Noise Assessment Bulletin for State Significant Wind Energy Development (DPE, 2016b) ▪ NSW Noise Policy for Industry (EPA, 2017) ▪ Interim Construction Noise Guideline (DECC, 2009) ▪ NSW Road Noise Policy (DECCW, 2011) ▪ Assessing Vibration: A Technical Guideline (DECC, 2006)	**Section 6.3**
Biodiversity - detailed	Y	General	▪ NSW Biodiversity Assessment Method ▪ NSW Biodiversity Offset Scheme ▪ Policy and Guidelines for Fish Habitat Conservation and Management (DPI, 2013) ▪ Commonwealth EPBC 1.1 Significant Impact Guidelines – Matters of National Environmental Significance (Commonwealth of Australia, 2013)	**Section 6.3**
Aboriginal heritage - detailed	N	Specific	▪ Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010a) ▪ Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010b) ▪ Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011).	**Section 6.4**
Traffic and transport - detailed	Y	Specific	▪ Guide to Traffic Generating Developments (RTA, 2002) ▪ Guide to Traffic Management' (Austroads, 2020) ▪ Guide to Road Design' (Austroads, 2021)	**Section 6.6**
Socio-economic impacts - detailed	N	Specific	▪ Social Impact Assessment Guidelines for State Significant Development (DPE, 2023) and technical supplement ▪ Undertaking Engagement Guidelines for State Significant Projects (DPHI, 2024)	**Section 6.7**
Historical heritage - standard	N	General	▪ Assessing heritage significance – a NSW Heritage Manual update' (NSW Heritage Manual – Assessing Heritage Significance' (DPIE, 2022) ▪ Historical Archaeology Code of Practice' (Heritage Council, 2006)	**Section 6.8**

Matter and assessment level	Cumulative	Engagement	Relevant government plans, policies and guidelines	Scoping report reference
Water resources - standard	N	General	▪ Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008) ▪ NSW Government's Floodplain Development Manual (2005).	**Section 6.9**
Land resources - standard	N	General	▪ Land Use Conflict Risk Assessment Guide (DPI, 2011) ▪ The Land And Soil Capability Assessment Scheme (OEH, 2012) ▪ Managing Urban Stormwater: Soils and Construction (Landcom, 2004)	**Section 6.10**
Hazards and risk (aviation, telecommunication, EMF, shadow flicker, blade throw, bushfire) - standard	N	General	▪ National Airports Safeguarding Framework Guideline D: Managing the Risk of Wind Turbine Farms as Physical Obstacles to Air Navigation (DITRDC, 2012) ▪ Civil Aviation Regulation 1988 ▪ Civil Aviation Safety Regulations 1998 ▪ Guidelines for Limiting Exposure to Time-varying Electric, Magnetic and Electromagnetic Fields (ICNIRP, 2010) ▪ Planning for Bushfire Protection (RFS, 2019) ▪ Relevant international studies and standards for design of wind turbine components and blade throw	**Section 6.11**
Waste - standard	N		▪ Waste Classification Guidelines – Part 1 Classifying Waste (NSW EPA, 2014)	**Section 6.12**
Air quality -standard	N	General	▪ NSW EPA Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (NSW EPA, 2022) ▪ National Environment Protection (Ambient Air Quality) Measure (NEPC, 2016)	**Section 6.13**

Appendix C. Community consultation summary

Devlins Bridge Wind Farm

Consultation Report

Author: James Hamilton

Revision Date: 28/08/2024

STROMLO ENERGY

Contents

Executive Summary

Eleven community events were conducted in Narrandera, Leeton and Euroley, NSW across December, 2023 to August 2024 including:

- Project briefing presented to Narrandera Shire Council, Dec 13th, 11:45am – 12:45pm
- A community open day hosted at the Narrandera Ex servicemen's Club, 14 Dec, 10am-6pm.
- Project neighbour operational wind farm tour (Crockwell II wind farm) Dec 15th.
- A community drop-in session hosted at the Yanco Weir RFS depot, 17 Dec, 11am – 2pm.
- A project information booth manned at the Narrandera December market and Christmas Carols, 17 Dec, 4pm-8pm.
- Cultural Awareness Training, Yanco Agricultural College, April 4th, 9am to 3pm 2024
- Rural fire service information night at the Yanco Weir RFS depot, 3rd April, 6pm to 9pm.
- Leeton farmers market information stall, April 6th, 2024, 8:00am to 12:00pm
- CWA International Food Festival stall, June 8th, 2024, 10:00am to 4pm
- Narrungdera NAIDOC celebrations and Narrandera Sandhills cultural signage, July 12th, 9am to 8pm
- Yanco Power House Museum Community Information session, August 27th, 3pm to 6pm

Across community events over 200 face to face interactions were recorded. Attendees were given access to printed project information, in support of information accessed via the project website, www.devlinsbridgewindfarm.com.au. Engagement included a complement of Local Aboriginal Land Council representatives, Narrandera Shire Council representatives, Leeton Shire Council, potential suppliers, host landholders, and non-impacted landholders who live within approximately 10 kilometres of the project.

No major objections to the project were presented. Themes of inquiry range from project location and status to community and neighbour benefit programs. Stromlo's approach to both neighbour benefit and community programs was well received by all attendees. Issues of concern to the community include the projects **impact on housing affordability** and commitment to **support local jobs and businesses**. Community values shared across the submitted community feedback forms and direct conversations include the value and importance of local culturally significant sites, and the importance of the project to drive lasting regional benefits, such as local jobs and improved infrastructure.

This report is not intended to reflect on host landowner or project neighbour engagement due to the commercial nature of many of those relationships. Where such considerations are mentioned, this is to inform synergies between landowner, neighbour and community engagement approach.

Introduction

Devlins Bridge is a wind farm in development at Euroley, NSW. The project consists of multiple landowners, across a section of non-irrigated arable land located to the south of the Sturt Highway and to the west of Yanco Creek.

This document introduces community engagement conducted from December, 2023 until July 2024. Eleven community events were conducted in Narrandera, Leeton and Euroley, NSW across this period including:

- Project briefing presented to Narrandera Shire Council, Dec 13th, 11:45am – 12:45pm
- A community open day hosted at the Narrandera Ex servicemen's Club, 14 Dec, 10am-6pm.
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This report is not intended to reflect on host landowner or project neighbour engagement due to the commercial nature of many of those relationships. Where such considerations are mentioned, this is to inform synergies between landowner, neighbour and community engagement approach.

Narrandera Shire Council project briefing

A project briefing was presented to Narrandera Shire Council, Dec 13th, 11:45am – 12:45pm.

The briefing was attended/supported by the following councillors and staff:

- Matthew Parton, Niraj Sarda, James Hamilton (Stromlo Energy)
- Neville Kschenka (mayor), Cameron Lander, Jenny Clarke, Peter Dawson, Kevin Morris, Narelle Payne, Tracey Lewis, George Cowan, Trevor James, Martin Hiscox and Shane Wilson (Narrandera Shire Council)

FIGURE 1 JAMES HAMILTON PRESENTING DURING THE NSC BRIEFING, DEC 13TH

The council session was live streamed as a public event to facilitate community access. A presentation was made covering the company structure, project size, schedule and location. The council asked questions on the projects contribution to council (via a VPA), community benefits program, neighbour benefits program, primary access, use of public roads, number of landowners, lease provisions with hosts, existing land use and community engagement approach. The council are supportive of the project and offered a range of assistance in progressing the project, including online listing of the upcoming community drop-in session.

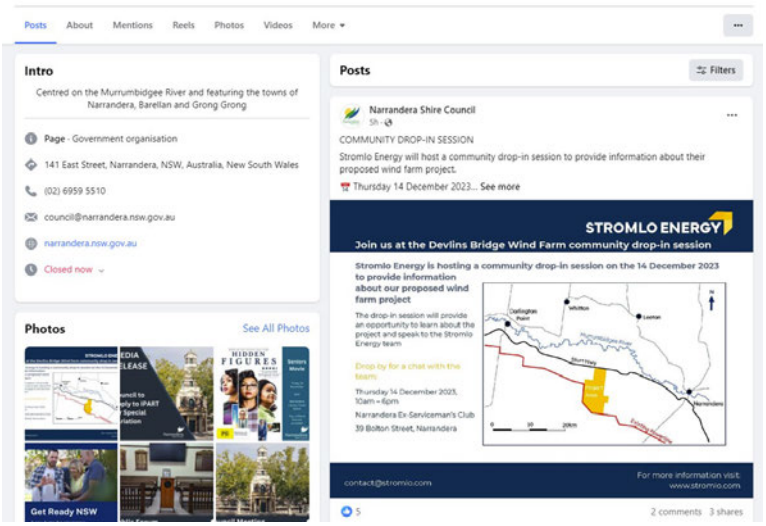

FIGURE 2 NARRANDERA SHIRE COUNCIL FACEBOOK PAGE

Community Open Day

A community open day hosted at the Narrandera Ex servicemen's Club, 14 Dec, 10am-6pm.

The event was advertised in the lead-up to the event across a range of formats, including:

- Invitation mail out to all residential addresses within 10km of project, 23/11/2023, Australia Post.
- the Argus newspaper (23/11 and 07/12 advertisements),
- Renew Economy, "New Australian developer unveils plan for what would be biggest wind farm in NSW", Giles Parkinson, Dec 5th, Available Online: https://reneweconomy.com.au/new-australian-developer-unveils-plan-for-what-would-be-biggest-wind-farm-in-nsw/,
- The Daily Advertiser, "Riverina plan to build state's biggest wind farm, power 370k homes", Dan Holmes, Dec 13 2023, Available Online: https://www.dailyadvertiser.com.au/story/8457922/stromlo-to-hold-public-consultation-on-devlins-bridge-wind-farm-in-riverina/,
- ABC Riverina Breakfast radio interview with Emily Doak, 7th Dec 9:30am,
- Narrandera Shire Council face book page,
- Stromlo Energy Linkedin page,

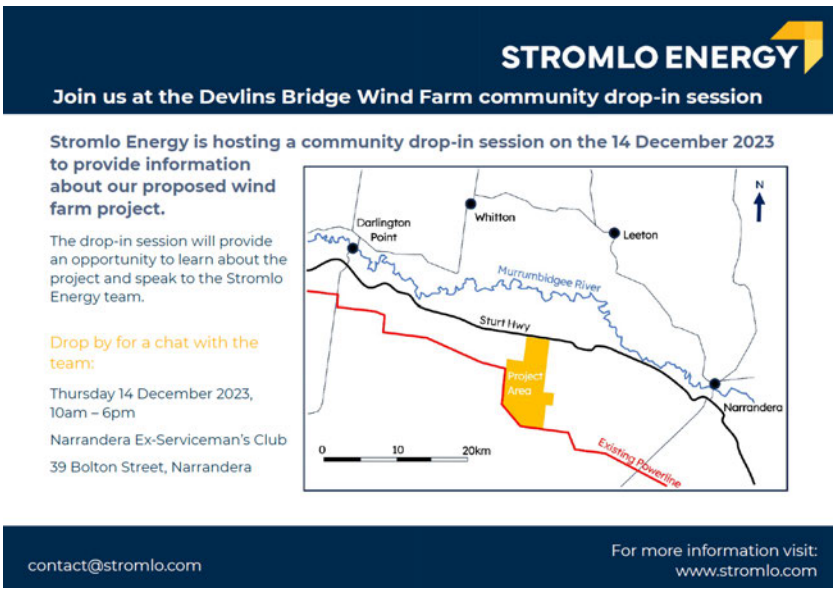

FIGURE 3 MAIL OUT INVITATION

The drop in session was attended/supported by the following staff:

- Amanda Vonarx, Matthew Parton, Niraj Sarda, James Hamilton (Stromlo Energy)
- Roland Short (SLR Consulting)
- Nikki Wallace (Jacobs)
- Christophe Delaire (Marshall Day Acoustics)

FIGURE 4 COMMUNITY OPEN DAY, LEFT JAMES HAMILTON DISCUSSES PROJECT WITH [redacted] RIGHT NIRAJ SARDAR AND [redacted] FOREGROUND, MATTHEW PARTON, [redacted].

Discussions undertaken during the open day include:

- Size and location of project
- Project schedule
- Approvals process
- Connection into existing transmission
- Neighbour benefits mechanism
- Community benefits fund
- Regional experience with wind development and the need to build local capability;
- Accommodation shortage and limited availability,
- Local indigenous engagement role/s to co-ordinate engagement with various aboriginal groups and associations.

All participants were offered a sign on sheet or electronic sign up to the project newsletter to stay informed. Community feedback forms were additionally available, and completed by approximately 25% of attendees.

Neighbour wind farm tour (Crockwell II wind farm) Dec 15th.

A day trip was offered for project neighbours within 3km of the project to attend Crockwell and Collector wind farms. [redacted] and [redacted] accepted the invitation and met with [redacted] a landowner and host at Crockwell II wind farm, to discuss a range of questions, including:

- The experience of living within a wind farm;
- The experience of farming and co-hosting wind turbines;
- Impact to property values [redacted]).
- Community response.
- Noise.
- Visual impacts.

FIGURE 5 DEVLINS BRIDGE NEIGHBOURS [redacted] AND [redacted] DISCUSSING THE WIND FARM WITH HOST FARMER [redacted].

The wind farm tour was a complement to a series of five prior tours conducted through August-Octobre, for all host landowners to tour operational wind farms. This host landowner program was so successful, while not captured in this community consultation summary, was the catalyst for similar tours for project neighbours.

FIGURE 6 LANDOWNER WIND FARM TOURS. WIND FARM PROJECTS TOURED INCLUDE GULLEN RANGE, CAPITAL, COLLECTOR II AND GOLDEN PLAINS (IN CONSTRUCTION). IMAGES REFERENCED FROM TOP LEFT CLOCKWISE.

Yanco Weir RFS depot information session, 17 Dec, 11am – 2pm

A community drop-in session was hosted at the Yanco Weir RFS depot, Euroley, 17 Dec, 11am – 2pm. The event was advertised across a combination of the project landowners and the Euroley RFS mail out list. The session was intended to provide a more focused session for residents along Yanco creek to engage with the project.

The information session was attended/supported by the following staff:

- Matthew Parton, and James Hamilton (Stromlo Energy)

FIGURE 7 YANCO WEIR RFS INFORMATION SESSION, DEC 17TH

The session was attended by a mixture of existing project landowner hosts and near neighbours. In attendance were [redacted] A light lunch was served, with thanks to Euroley RFS for catering.

Topics discussed include:

- Size and location of project
- Project schedule
- Approvals process
- Connection into existing transmission
- Neighbour benefits mechanism
- Community benefits fund
- Ecology survey program/schedule
- Impacts on dry lake and existing bird life

Narrandera Christmas Carols and Market

A project information stall was hosted at the Lions Club Dec market and Christmas Carols, as part of Stromlo Energy's sponsorship of the Christmas Carols.

The stall was supported by the Matthew Parton and James Hamilton (Stromlo Energy)

FIGURE 8 MATTHEW PARTON AND JAMES HAMILTON MANNING THE STALL @ THE LIONS DECEMBRE MARKET 2023

The Christmas market stall was not promoted outside of Stromlo Energy's sponsorship of the Christmas Carols. A broad range of community members attended the market and carols (approximately 400-500 in attendance), with a range of interest presented regarding the project, who we were and what we are planning. The hats and drink bottles were very popular given the high temperatures. Appropriately, we received a couple of queries regarding the risk of fire from wind turbines and had a wealth of information to share, specifically regarding the reduce risk of fire from lighting strikes.

Cultural Awareness Training

Eight members of the Stromlo Energy team, including all company directors attended cultural awareness training and site tour of local cultural sites in proximity to the project area. The training was hosted at the Yanco Agricultural College, and delivered by Wiradjuri elders Uncle [redacted] Uncle [redacted], [redacted] and [redacted]. The training was supported by the Gundyarri Narrandera Aboriginal Association who provided catering for the participants and facilitators. The group participated in a smoking ceremony, was permitted to participate in registration of a scar tree on AHIMS and visited [redacted] artefact museum in Narrandera.

FIGURE 9 ONSITE CULTURAL AWARENESS TRAINING

Rural fire service information night

As a follow up to the information session in December, James Hamilton visited the Yanco Weir RFS depot to present some detailed overview of the Devlins Bridge wind farm water management approach, access protocols, fire management policies and operations and maintenance practices. A detailed discuss on the recent Buangor bush fire response was provided demonstrating ability of aerial support to operate within wind farms.

BUANGOR BUSH FIRE RESPONSE, 22 FEB 2024

Leeton farmers market, 6th April, 2024

A project information stall was hosted at the monthly Leeton Farmers market in Mountford Park. The market was the first opportunity to demonstrate the True View AR visualisations of the windfarm from major view points around the project. A number of parties expressed support for the project and had some exposure to the community benefits initiatives delivered in early 2024, include sponsorship of the Narrandera Lizards, Spirit FM, RockinOnEast and Battle on the Bidgee II.

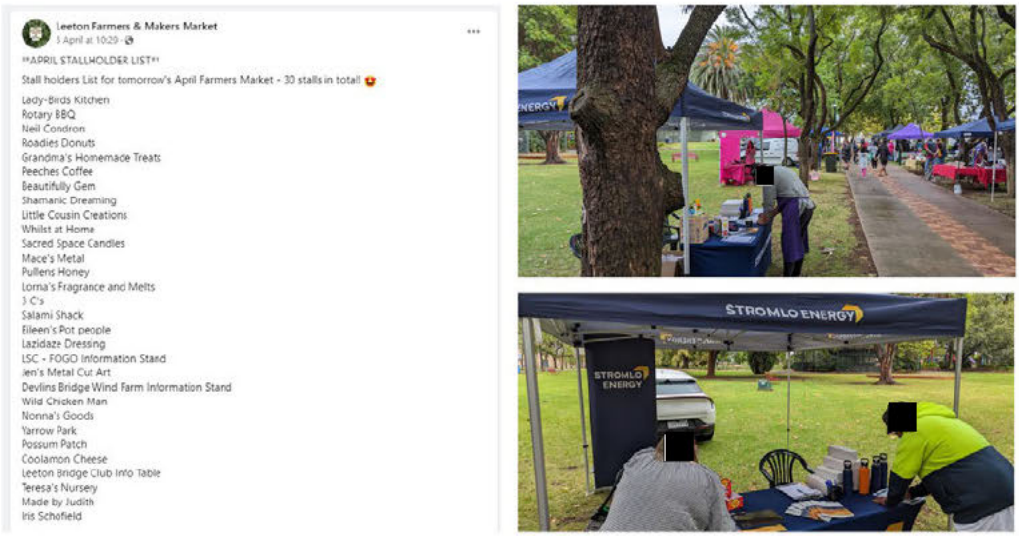

FIGURE 10 LEETON FARMERS MARKET INFORMATION STALL

CWA International Food Fair, Narrandera, 8th June 2024

Stromlo Energy were a major sponsor for the CWA International Food Fair. CWA President Beryl Brain was ecstatic with the results of the day. "We estimated the crowd to be over 1,200 people nearly 20 per cent more than last year. "There were over 30 food and market stalls on offer, again a further increase on last year's stall numbers," she said.

FIGURE 11 NARRANDERA INTERNATIONAL FOOD FAIR INFORMATION STALL

The food options available were Afghani, Fijian and Australian BBQ, Malaysian cuisine, Chinese savoury and sweets, American southern foods and hot dogs, Bush tucker, home cooking, delicious sweets, ice-cream, donuts, popcorn, and champurrado (champurrado cooked by James and Geoffrey from Stromlo Energy team using their electric vehicle to power the stall until they ran out of ingredients at 2pm). The fair was an enjoyable day and great to hear from so many members of the community that they had heard about the project and welcomed the project as part of the local economy.

The entertainment program included Sharon Benjamin, River Country, Iron Bark String Band, River of Life Church group, the Solomon Islander dancers and the Narrandera East School performing their Wiradjuri song.

Narrungdera NAIDOC celebrations

Narrungdera NAIDOC celebrations consisted of family photos by Miimi Girl Photography, a traditional cooked lunch (emu, cod, wallaby), Waqrengesda Family Tree activities, open mic night and installation of storyboards/mudmaps to show the wider community the history of the Local Aboriginal people who resided on the Narrandera Sandhills. Approximately 180 people were in attendance throughout the day, with Stromlo Energy the major sponsor for the days activities. Stromlo additionally commissioned local artist indigenous Amanda Hinkelmann to produce insulated stainless drink bottles featuring her artwork depicting Bunha-Bunhanga (abundance of food, representing the ways in which country provides for the people). Amanda Hinkelmann is a Wiradjuri woman born in Wagga Wagga. The drink bottles served to keep participants hydrated, and also allowed the ACHAR survey team to feel included in the dayas activities, despite spending most of the week out on site during survey hours.

FIGURE 12 NARRANDERA NAIDOC WEEK CELEBRATIONS JULY 12TH 2024

Yanco Powerhouse Museum Information Signage

A semi-permanent display of Devlins Bridge Wind Farm project information on A1 core-flute posters has been on display at the Yanco Powerhouse Museum since 13th June 2024. A community information session was held at the Yanco Powerhouse Museum on the 27th August, from 3pm to 6pm. The event was co-located with an electric vehicle display hosted by REVOLT (Riverina Electric Vehicle Owners, Likers and Testers), consisting of a number of electric cars, electric motorcycles and bicycles. The information session was attended by approximately 20 attendees.

Yanco Powerhouse was built in 1913 to supply power to the developing Murrumbidgee Irrigation Area and for the Leeton Butter Factory. It was chosen for its proximity to the rail line enabling easy access to coal and water. The station was decommissioned in the late 1950s once the Snowy Hydroelectric scheme was operational. The site is now a museum, showcasing a collection of farm machinery, photographs and a sixty seat theatrette.

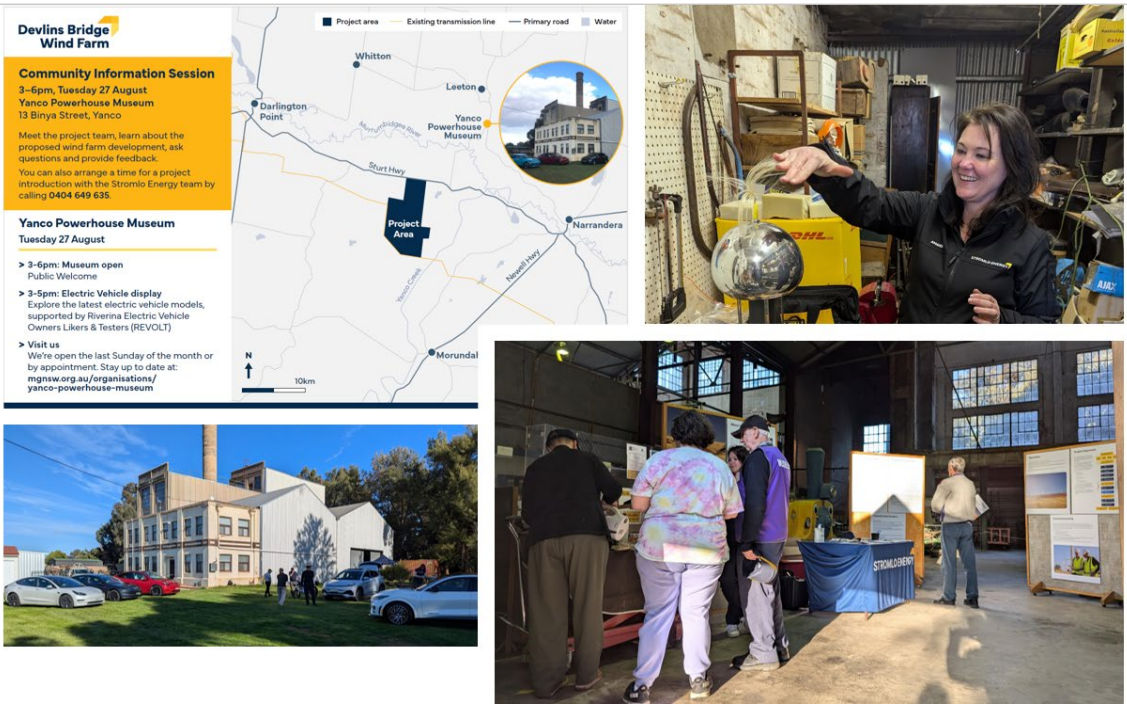

FIGURE 13 YANCO POWERHOUSE MUSEUM COMMUNITY INFORMATION SESSION, AUGUST 27TH 2024.

True View Wind Farm Visualisation Assessments

From Q1 2023 Stromlo Energy have integrated a real time visualisation software into our development approach to allow stakeholders to view a 3D augmented reality of the wind farm using a conventional iPad camera to navigate an environment in real time. This software has been well received by project stakeholders, near neighbours and community members. As part of the ongoing program to meet with all residences within 8km of the windfarm, wind farm visualisations are a key tool in assisting landowners to understand the visual impact of the project. To date more than a dozen visualisation sessions have been conducted. One-on-one neighbour engagements are not captured within the community consultation report, as they may involve commercial agreements. The tool is also useful in assessing the project impacts across a range of public viewpoints, as suitable to discuss at general information sessions with the public. This process does not replace the independent landscape visual impact assessment undertaken in conjunction with the EIS.

FIGURE 14 WIND FARM REAL TIME VISUALISATIONS

Conclusion

The range or community feedback and consultation received during 2023 and 2024 has been highly supportive of the project with a range of opportunities identified for the project to contribute meaningful back to the Narrandera and Riverina community. The initiative to engage early (pre scoping report) with community, specifically with the range of aboriginal stakeholders, has been encouraged. A range of follow up and supporting engagement planned for the remainder of 2024 and 2025, in support of keeping the community informed of progress.

Appendix D. Preliminary Visual Assessment

Appendix E. Preliminary Noise Assessment

Appendix F. Preliminary Biodiversity Assessment

Appendix G. Preliminary Social Assessment